SIXTIETH ANNUAL

COLORADO

BUSINESS ECONOMIC OUTLOOK

2025

Leeds School of Business
UNIVERSITY OF COLORADO BOULDER

Additional copies may be ordered from:

Business Research Division
University of Colorado Boulder
420 UCB
Boulder, CO 80309-0420
colorado.edu/business/brd

978-0-89478-047-9

Version 1.2

Printed on recycled paper.

2025 Colorado Business Economic Outlook Partner

WhippleWood places a high value on the information provided by the University of Colorado's *Business Economic Outlook.* We are a provider of accounting and advisory services to entrepreneurs, franchisees, franchisors, nonprofits, executives, real estate investors, family-owned businesses, and corporate chieftains. We find the insights provided by the *Colorado Business Economic Outlook* a great resource when navigating the ever-changing economic environment.

WhippleWood believes that access to insights into all sectors of the economy empowers the business community to make more informed business decisions. It is even more imperative during a time of elevated inflation, where the cost of capital is higher than it once was and the inputs for business, from materials to labor, have squeezed the profit margins of many businesses. Further, managing costs and revenues to comply with your business's existing loan covenants becomes a precarious challenge when entering a period of regulatory and policy uncertainty. This is something our client accounting group understands very well.

When it comes to important financial decisions, WhippleWood has been a supporter and partner to our clients and the business community for more than 40 years. Professionals at WhippleWood have contributed to the forecast since 2005, which is why we are excited to support the University of Colorado in bringing these insights to you.

Rick Whipple, CPA, MTAX
CEO

WHIPPLEWOOD CPAs / ADVISORS
WhippleWood Advisors is an SEC registered investment advisor

COLO TRUST®

Reception Partners

LAWS WHISKEY HOUSE


Colorado Business / Economic Outlook Forum
'69 Business-Economic Outlook Forum
'70 Business-Economic Outlook Forum
'71 Business-Economic Outlook Forum
'73 Business-Economic Outlook Forum
'73 Business-Economic Outlook Forum
'78 Business-Economic Outlook Forum
'79 Business-Economic Outlook Forum
'80 Business-Economic Outlook Forum
'81 Business-Economic Outlook Forum
'82 Business-Economic Outlook Forum
'83 Business-Economic Outlook Forum
'84 Business-Economic Outlook Forum
'85 Business/Economic Outlook Forum
'86 Business/Economic Outlook Forum
'87 Business/Economic Outlook Forum
'88 Business/Economic Outlook Forum
'89 BUSINESS/ECONOMIC OUTLOOK FORUM
'87 Business/Economic Outlook Forum
'88 Business/Economic Outlook Forum
'89 BUSINESS/ECONOMIC OUTLOOK FORUM
1990 BUSINESS/ECONOMIC OUTLOOK FORUM
1990 BUSINESS/ECONOMIC OUTLOOK FORUM
1991 BUSINESS/ECONOMIC OUTLOOK FORUM
1992 BUSINESS/ECONOMIC OUTLOOK FORUM
1993 BUSINESS/ECONOMIC OUTLOOK FORUM
COLORADO BUSINESS ECONOMIC OUTLOOK FORUM · 1994
COLORADO BUSINESS ECONOMIC OUTLOOK FORUM · 1995
COLORADO BUSINESS ECONOMIC OUTLOOK FORUM · 1996
COLORADO BUSINESS ECONOMIC OUTLOOK FORUM · 1997
COLORADO BUSINESS ECONOMIC OUTLOOK FORUM · 1998
COLORADO BUSINESS ECONOMIC OUTLOOK FORUM · 1999
COLORADO BUSINESS ECONOMIC OUTLOOK FORUM · 2000
COLORADO BUSINESS ECONOMIC OUTLOOK FORUM · 2001
COLORADO BUSINESS ECONOMIC OUTLOOK FORUM · 2002
COLORADO BUSINESS ECONOMIC OUTLOOK 2003
COLORADO BUSINESS ECONOMIC OUTLOOK 2004
COLORADO BUSINESS ECONOMIC OUTLOOK 2006
COLORADO BUSINESS ECONOMIC OUTLOOK 2007
COLORADO BUSINESS ECONOMIC OUTLOOK 2008
COLORADO BUSINESS ECONOMIC OUTLOOK 2009
COLORADO BUSINESS ECONOMIC OUTLOOK 2010
COLORADO BUSINESS ECONOMIC OUTLOOK 2012
COLORADO BUSINESS ECONOMIC OUTLOOK 2014
COLORADO BUSINESS ECONOMIC OUTLOOK 2016
COLORADO BUSINESS ECONOMIC OUTLOOK 2018
COLORADO BUSINESS ECONOMIC OUTLOOK 2019
COLORADO BUSINESS ECONOMIC OUTLOOK 2020
COLORADO BUSINESS ECONOMIC OUTLOOK 2011
COLORADO BUSINESS ECONOMIC OUTLOOK 2013
FIFTIETH ANNUAL COLORADO BUSINESS ECONOMIC OUTLOOK 2015
COLORADO BUSINESS ECONOMIC OUTLOOK 2017
COLORADO BUSINESS ECONOMIC OUTLOOK 2018
COLORADO BUSINESS ECONOMIC OUTLOOK 2021

Table of Contents

Through the Years: Contributors to the *Colorado Business Economic Outlook*

Ann Abernethy 1984-1985 • Adam Abrahamson 2025 • Bob Abrams 1981 • Tucker Hart Adams 1981-2010 • John Addison 2016-2025 • Gerry Agnes 2012 • Dennis Ahlman 1972 • Chris Akers 2007-2020 • Lynne Akiyama 1984 • Donna Alexander 1989 • Neil Allen 1965-1979 • Gerald Allen 1974-1992 • Clay Allen 1978-1979 • Charla Allen 1993-1994 • Michele Almendarez 2005-2017 • Laurel Alpert 1998-2007 • Lee Ambrose 1979-1984 • Cody Amen 2012 • Kenneth Anderson 1973-1998 • Cathy Anderson 1984-1985 • Brad Anderson 1988-2001 • Gerald Anderson 1997-1998 • William Anderson 2000-2002 • Steve Anderson 2005-2009 • Scott Anderson 2006-2015 • Harold Angelo 1965-1969 • Monicque Aragon 2019-2025 • J. D. Arehart 1973-1976 • T. A. Arnold 1972-1978 • Reid Aronstein 2019 • Daniel Arosteguy 2002-2005 • David Ashby 1982 • Carrie Atiyeh 2015-2022 • Katharine Auchter 2017 • Allan Auger 1979-1980 • Larry Austin 1974 • Amanda Averch 2017-2021 • James Babcock 1972 • Hollis Bach 1977 • Sam Bailey 2012 • Tatiana Bailey 2015-2025 • Bob Baker 1983-1985 • Karen Baker 1992 • Shannon Baker 2024-2025 • Sue Baldwin 1995-2000 • Harold Ballard 1965-1983 • Heather Balser 2020-2021 • Paul Banke 1979 • Cindy Baouchi 1990-2002 • VA Hayman Barber 2020-2022 • George Bardwell 1965 • Earl Barker 1965 • Sharon Barnes 1990-1991 • W. A. Barnes 1998 • Jane Barnes 2014-2019 • Deborah Barnett 1986-1989 • Gordon Barnewall 1978 • Ed Barnum 1971 • Robert Baroch 1972-1973 • Jeff Barratt 2025 • Clifford Barrett 1981 • Joseph Barrow 1974 • Bill Barrow 1990-1999 • John Bartholomew 2000-2007 • Thomas Basinger 1978-1979 • Kelly Baug 2021-2023 • Michael Baugher 1982 • William Baughn 1965-1984 • Robert Bayne 1983-1984 • Carroll Beach 1985 • Brittney Becerra 2024 • David Becher 2015-2025 • J. D. Bechtold 1977 • Douglas Beezley 1975 • Josh Behr 2017-2018 • Sarah Behunek 2010-2012 • Mikal Belicove 1998-1999 • Lee Bennet 1972-1982 • Floyd Bennett 1969-1981 • Rex Bennett 1981 • Robert Benton 1993-2003 • Paul Bergman 1987-2021 • Roupen Berian 1975 • Robert Berkowitz 2023 • Roberto Berkowitz 2024 • Karen Berry 2016-2022 • Lynn Beshany 2008-2010 • Don Best 1986 • Richard Bialkowski 1983-1985 • Carl Von E. Bickert 1969-1973 • Dennis Bicknell 1993 • Rachel Biederman 1996 • Alan Bilsborough 2021 • James Bimbi 1981 • Thomas Binet 2011-2013 • Tom Binnings 2011-2015 • Lynn Bishop 2012-2014 • Katy Black 2024-2025 • Chris Blackwood 1984-2000 • Norman Blake 1970-1981 • Robert Blanchard 1979 • Jason Blevins 2015-2018 • Josh Block 2018-2022 • Laura Blomquist 2013-2015 • Rachel Bloombaum 1991-1999 • Kieran Boes 2025 • Robert Bolibaugh 1968-1973 • Steve Bonnewell 1976 • Jeff Borden 2013-2014 • Paul Bortz 1977 • Alex Boyce 2018 • Michael Boyd 2013-2014 • Clyde Boyle 1974-1976 • Arielle Brachfeld 2024-2025 • Alexander Bracken 1986 • Jane Brazes 1985-1986 • Sean Breeze 2019-2024 • Ryan Brendle 2012-2019 • Bill Brennan 1979 • William Brennan 1980 • Zak Brewer 2010-2012 • Jay Bright 1989-1990 • Cathy Brightwell 1986 • Joan Bristol 1979-1981 • G. H. Brodie 1978-1982 • Shaun Brog 2025 • Charles Brokaw 1965-1969 • Cody BrokMeyer 2009 • Elena Brookover 2024-2025 • Robert Brooks 1977-1979 • John Brooks 1977 • Earl Brotten 1975-1981 • Irving Brown 1972 • Norm Brown 1972 • Norman Brown 1973 • Alex Brown 1981 • Reeves Brown 1990-1997 • Austin Brown 2024-2025 • T D Browne 1975-1976 • Rick Brubaker 2014 • Jayson Brubaker 2023-2024 • Richard Bruce 1967-1970 • Allan Brunner 2019-2021 • Allen Brunner 2020 • Duane Bruno 1986-1989 • Don Bruns 1993-2009 • Ed Buck 2003 • Tom Bugnitz 2015-2021 • James Bumpus 1965-1972 • Robert Burch 1969-1971 • Nancy Burke 2009-2010 • John Burkey 1965 • Tim Burleigh 2011-2012 • Jim Burnell 2008-2013 • Bob Burnham 1993-2021 • Chris Burton 2014-2018 • Stephen Bye 1997 • Ed Byrne 1991-1994 • Eileen Byrne 1997-2000 • Patrick Byrne 2006-2008 • Lauren Cahill 1967-1976 • Russell Caldwell 1978-1981 • Monte Calvin 1981 • John Campanella 1974 • Mariah Campbell 2013-2014 • Chuck Cannon 2001-2010 • James Cappa 1992-2007 • Lloyd Carda 1976 • Chris Cares 1996 • James Carleton 1973-1974 • Vernon Carlson 1965-1975 • Alex Carlson 2022-2023 • John Carlson 2024-2025 • Paris Carmichael 2015 • Rachel Carnes 2017 • Earl Carroll 1976-1978 • Chris Carroll 2000-2013 • Corline Carstens 1989 • Forest Carter 1965-1967 • Tom Carter 2008 • Philip Cateora 1965-1986 • Skip Cave 2004 • Ragon Cavness 1978 • Ashley Cawthorn 2021-2025 • Bea Celler 1985-1988 • Dipankar Chakravarti 1999 • Jack Chandler 1965-1978 • John Chandler 1979-1994 • N K Chang 1965 • Sandy Chapman 1982-1987 • William Cheney 1967-1968 • Don Childears 2013-2021 • James Chivers 2003-2005 • Evelyn Choury 1984-1991 • Julien Christensen 2025 • William Clark 1976-1993 • Robert Clark 1981 • John Claxton 1996 • Michelle Claymore 2011-2013 • Allan Clevenger 1968-1973 • Lewis Cobb 1965-1972 • David Cockrell 2008-2009 • Dean Coddington 1965-1967 • John Cody 2000-2003 • Maria Coe 2006-2007 • James Coil 1996-2011 • Steve Colby 1977-1990 • Harry Cole 1969-1973 • Jim Cole 1982-1987 • David Cole 1991-1994 • Tim Coleman 1976-1977 • Nicholas Colglazier 2023-2025 • Troy Comer 1980-1982 • Greg Conlee 1981 • Keegan Conley 2021 • James Conner 2012-2014 • Susan Conwell 1995-2009 • Mary Cook 1972-1973 • Bryce Cooke 2022-2025 • Lawrence Coolidge 1965-1974 • Kathy Cooper 1975-1980 • Shelley Cooper 2025 • Kristin Corash 1994 • Jill Corbin 2022-2024 • Jim Corboy 1989-1992 • William Cormack 1965-1968 • Richard Covey 1972 • Tyler Cozzens 2020-2025 • Heidi Craig 2010-2011 • William Craighead 2024-2025 • Lucy Black Creighton 1980-1995 • Dianne Criswell 2021-2024 • Bethany Cronk 2017-2023 • Donald Crossland 1968-1973 • Noral Crowder 1976-1982 • Adam Crowe 2024-2025 • John Crowley 1965 • Fred Crowley 2002-2014 • Martin Cuff 2006 • Morgan Cullen 2018-2021 • Shelly Curtiss 2010 • Michael Cusick 2002-2003 • Jan Daily 2001 • Stefanie Dalgar 2005-2007 • Jerome Darnell 1975-1998 • D. F. Davan 1975 • Mark Davidson 1965 • William Davis 1970 • Mark Davis 1988-1996 • Charles Davis 2000-2001 • John Day 1972-1973 • Karen de Bartolome 2009-2013 • Donald Decker 1971-1979 • Fred Deering 1982-1983 • Cindy DeGroen 2008-2025 • Aaron DeJong 2015-2019 • Joseph Deloy 1995-2000 • Greg Demko 2010 • Stan Dempsey 2017-2019 • Fernando DePaolis 2007 • Justin Derdowski 2012 • Jim Desmond 1994-2000 • Carl DeTemple 1965-1971 • Heath Dewey 2024-2025 • Chris Dias 2024-2025 • Jorge Diaz 2011-2015 • Arnold Dicke 2001-2003 • Lynn Dierker 2005-2007 • Eugene Dilbeck 1998-2008 • Rhonda Dinan 2022-2023 • Megan Sisk Aller 2025 • Cindy DiPersio 1987-2025 • Donald Dobler 1968-1969 • Kady Doelling 2020 • Sandra Dohm 1979-1986 • James Donahue 2020-2021 • Sarah Dotson 2000-2002 • Robert Downing 1965 • Amy Downs 2010-2012 • Peter Doyle 2020-2022 • Frances Draper 1988-2011 • Robert Drennan 1967-1969 • Ann Driggers 2008-2011 • James Driscol 1978-1979 • Jackie Driscoll 2007-2011 • Jacob Dubbert 2020-2021 • Pierre DuBois 1967-1982 • Dick Dugdale 1981-1984 • Kevin Duncan 2007 • Thomas Dunn 1977-2002 • Tim Dunn 1991 • Benita Duran 2006-2009 • Ron Dutton 1989-1991 • Stephanie Dybsky 2011-2015 • Stephanie Two Eagles 2002-2006 • Wynn Eakin 1999 • Scott Earl 2013-2022 • Harold Eason 1983-1992 • Jerry Eckert 1976 • R. T. Eckles 1965 • Adam Eckman 2025 • Bob Eichem 2012-2019 • Robert Eisenach 1996-2000 • Chris Eisinger 2011-2025 • Cyprian Ejiasa 1990-1993 • Robert Ekland 1974-1978 • Heather Ekre 2018 • Marilyn Eliasen 1998-2001 • Ruth Ellis 1983 • Kayley Ellis 2023 • Raymond Emery 1965-1971 • Richard Engel 1974-1976 • Richard Engle 1973 • Robert Entenberg 1967-1968 • David Eppich 1998-2004 • Jessica Erickson 2016-2021 • Lucas Ericson 2022-2024 • Brad Erker 2018-2025 • Alexandra Evans 2022-2025 • Alan Everson 1972-1973 • Willis Fassett 1965 • Justin Fazzari 2015-2025 • Tess Federer 2009 • Jackson Feld 2021-2023 • Jeff Ferguson 1998-2000 • John Ferguson 2003-2015 • Kirk Ferguson 2007 • Jessica Fern 2015-2016 • Dave Ferrill 1989-1997 • Charles Ferris 1998-2003 • Craig Fimple 2022 • Robert Fisher 1972-1973 • Steve Fisher 1989-2017 • Ellen Fisher 1996 • Jeff Fisher 2003 • Al Fjeldsted 1979-1981 • Kelly Flenniken 2012-2015 • Art Flewelling 1985 • Jacob Flint 1997-2002 • Richard Foco 1971 • Elizabeth Fogarty 2024-2025 • Joe Foley 1980 • Tom Foley 2015-2025 • Paul Foley 2019-2020 • Rachel Ford 2012 • Erin Fosdick 2024-2025 • Jerry Foster 1980-1994 • Steve Foster 2013 • Donald Fowler 1965 • Lewis Frank 2004-2008 • G. A. Franz 1965-1970 • Chad Fredrick 2020 • Margie Freedman 1988 • Carroll Frenzel 1991 • Lance Fretwell 2004 • Denise Froning 2020-2024 • Charles Frush 1965-1982 • Nelson Fugate 1984-1991 • Richard Fuller 1998-2003 • Jack Fulton 1982 • Gregory Fulton 2004-2025 • Jo Ann Miabella Galvan 2008-2011 • Jeanette Ganousis 2003-2005 • Elizabeth Garner 1975-2025 • Stephanie Garnica 2004-2014 • Richard Gebhart 1983-1988 • Ryan Gedney 2016-2024 • Katie Geiger 2024 • Floyd Gennett 1977 • Bill Germain 2025 • Karen Gerwitz 2011-2024 • Levi Geyer 2021 • Bryan Gibson 1988-1993 • Abby Leeper Gibson 2019-2021 • Michael Gifford 2016-2025 • April Giles 2015-2018 • John Gilmore 1965-1969 • Bruce Ginn 1976-1979 • Peter Goble 2018-2019 • Charles Goeldner 1968-2020 • Adriana Gomez 2019-2020 • Eileen Goode 2001-2002 • Jay Goodman 2002-2005 • Eileen Gordon 1989-1998 • Cindy Gorshaw 1981 • Chance Gorsuch 2025 • G. H. B. Gould 1965 • William Grant 1975-1977 • Richard Grant 1988-1993 • Anthony Graves 2013 • Donna Graves 2020-2025 • Chris Gray 1994-1998 • Frank Gray 2008-2019 • John Graziano 1982-1983 • John Greuling 1989 • Bob Grieder 1967 • Robert Grimes 1967-1972 • Stephanie Gripne 2011 • John Griswold 2017-2018 • Niles Grosvenor 1976-1982 • Matthew Groves 2024-2025 • Creighton Guellow 1967-1970 • Steve Gunn 2015-2021 • Tony Gurzick 2015-2025 • Andrew Guthrie 2011 • James Guzi 1980-1981 • Lauren Gwyn 2023 • William Hacker 1970-1982 • Kim Hacker 2004-2005 • Jennifer Hagan-Dier 2023-2025 • Noah Hahn 2010 • Pamela Haines 2009 • Trevor Hall 2022 • Hewitt Hallock 1982-1985 • R. W. Hambrick 1970-1971 • Randy Hammerstrom 2016-2017 • Mark Hamouz 2001-2025 • Darrell Hanavan 1984-2015 • Bruce Hanchett 1965 • Joe Hanel 2021-2022 • Hal Haney 1973-1984 • David Hansen 2012-2025 • Michael Hansen 2018 • Clif Harald 2015-2023 • Mara Hardy 2019-2021 • Jessica Harig 2017 • Shelby Harper 1965-1973 • James Harpster 1981 • Jennifer Harrell 1995-1996 • William Harrison 1975-1984 • Ben Hart 1985-1986 • Julie Hart 2000-2002 • Gregory Hartmann 2005-2011 • Donald Haske 1972 • Elizabeth Haskell 2025 • Merril Hastings 1967 • Laura Hatfield 2003 • Allyson Hathaway 2009-2010 • Richard Haughton 1974-1977 • Su Hawk 2005-2008 • Gin Hayden 1992-2001 • Tom Hayden 2023-2024 • Tricia Headon 2000 • William Heath 1971 • S. R. Heath 1989-1990 • Michael Hebert 1993 • Margaret Hedderman 2023 • Melia Heimbuck 2006-2008 • Herchal Helm 1972-1975 • Janel Helt 1991-2001 • Tom Hemborg 1997-2000 • Ernest Hempel 1976-1977 • Bill Hemphill 1989 • Doug Henderson 1976 • James Henderson 1983-1986 • Charles Henning 1967-1975 • Stephen Hennis 2012 • Audrey Herbison 2017-2021 • Charles Herner 1990 • David Herrick 1972 • Brendan Hickey 2005-2009 • James Hickman 1965-1968 • Howard Hicks 1967-1977 • Jack Hill 2023 • Charles Hinkle 1979-1980 • James Hinsdale 1998-1999 • Clarence Hockom 1965-1968 • Emily Hogan 2020 • Fred Holden 1986 • Steve Holdren 1984 • Holly Hollingsworth 1999 • Marc Holtzman 2000-2001 • Doug Hoover 2001-2002 • Bill Hopping 2004-2014 • John Horan-Kates 1978 • Sharon Horn 1974 • Gary Horvath 1989-2010 • Jay Hoselton 1983-1984 • Joe Hovancak 2025 • Chris Howes 2013-2019 • Manlio Huacuja 1989-1993 • Jon Hubbard 2009 • Joseph Hubbard 2010-2018 • Rol Hudler 2013-2018 • Charles Hudson 1987-1999 • Eddie Hunsinger 2010-2011 • Seth Hunt 1971 • John Hunt 1998 • Valerie Hunt 2003 • Derek Hutchinson 1976 • James Huyghebaert 1988 • Barbara Ihde 2008-2010 • Adam Illig 2023-2025 • Spencer Imel 2013-2015 • Jalyn Ingalls 2019 • Rani Isaac 1995-2002 • Mary Ann Ivey 1983-2004 • Olga Jackson 1965-1968 • Laura Jackson 2004-2025 • Tim Jackson 2015-2023 • Jim Jacobs 1989-1993 • Donald Jacobsen 1981-1982 • Leif Jacobsen 2025 • Donald Jansen 1979 • Luke Jaramillo 1997-2003 • Daniel Jarrett 2011 • Harry Jensen 1972 • Duane Jewell 1978-1981 • Gale Johnson 1982-1983 • Thys Johnson 1983-1984 • Jane Johnson 1985-1988 • Edward Johnson 1987-1989 • Tad Johnson 2020-2023 • Emily Johnson 2024 • J.J. Johnston 2003-2006 • Sheldon Jones 2007 • Katharine Jones 2018-2025 • Heather Jones 2019-2020 • Fred Joseph 2002-2006 • Steve Jozefczyk 2015-2025 • J. Kack 1974 • Ilene Kamsler 1989-1996 • Joseph Kaplan 2018 • Trudy Kareus 2010-2013 • Robert Kark 1976 • Larry Kaufman 1997 • John Keller 2002-2007 • Brian Kelley 2011-2013 • Millar Kelley 2025 • Tom Kelsey 2013-2014 • Iline Kemfler 1988 • Maren Kempton 2011-2013 • Bill Kendall 1978-2022 • Shannon Kerr 2013-2025 • Wendy Kerr 2016-2018 • Jennifer Keyser 2003 • David Keyser 2007-2009 • Holli Keyser 2018 • Susan Kieswetter 2001-2002 • Ken Kilborn 1975 • Michelle Kim 2024 • Timothy King 1988-1994 • Tim King 2003-2007 • David King 2013-2022 • Jeffrey King 2014-2015 • Richard Kingman 1967-1969 • Cassidy Kinnaird 2010 • Doug Kinney 2013-2014 • Glenn Kissinger 1975 • Leah Klass 2008-2009 • Steve Klodt 1996 • Paul Kludt 1982 • Charles Knapp 1972 • David Knapp 1983-1988 • H. Knott 1973

• Steve Knowlton 1965-1973 • Brandon Knudtson 2022-2025 • Allison Kohn 2023-2024 • Kristina Kolaczkowski 2018-2025 • Stephen Koontz 2001-2025 • Byron Koste 1997-2006 • Taylor Kramer 2025 • Stella Krawiec 1994-1997 • John Krebs 2007 • Mary Kreutzer 1980-1982 • Hannah Krieger 2025 • Selma Kristel 1987-1992 • Phil Kroeker 1990-2005 • Frank Kugeler 1988-1992 • Maxine Kurtz 1967-1968 • Lewis Ladwig 1988-1990 • Tim Larsen 1983-2015 • David Larson 1974-2002 • Duane Larson 1983-1984 • Dave Larson 1993 • Dale Lashnits 1981 • Justin Lau 2016 • Dennis LaVigne 1986 • Norman Lawson 1965-1979 • Kent Lebsack 1998-2001 • Dick Lee 1994-1997 • Richard Leech 1978-1985 • C. V. LeForce 1965-1975 • Thomas LeFree 1965-1970 • Ron Lemon 1965 • Ronald Lemon 1967-1971 • Damon Lenski 2023 • Mike Leonard 1978 • Jim Leonard 1995-2006 • Harry Leopold 1969-1977 • Greg Lestikow 2016-2017 • Steve Levine 2022-2024 • Brian Lewandowski 2007-2025 • Jannell Lewis 1986-1987 • Frank Lewis 2002 • Miles Light 2005 • Renee Liles 2001-2002 • Charles Lillis 1985 • Richard Lin 1980-2009 • James Lincoln 1965-1979 • David Lindberg 1979-1980 • Tom Lipetzky 2008-2025 • Carolyn Livingston 1994-2019 • Bette Lockett 1977 • Georgia Lodders 1979-1992 • Leslie Lohrenz 2014-2022 • Rachel Long 2020-2021 • Elmer Loose 1976-1978 • Dan Love 1976-1987 • I. A. Lowell 1965-1968 • Karen Luberski 1991 • Raymond Lucore 1970-1979 • Michele Lueck 2012-2013 • Richard Lusk 1970-1971 • Dick Lusk 1972 • John Lusk 1984-1985 • Toni Lyke 1993 • John Lymberopoulos 1965-1991 • Vern Lynch 2002-2004 • Maren Macauley 2009-2010 • James MacDonald 2025 • Meghan MacKillop 2022-2023 • A. G. Madsen 1971 • Leslie Madsen 1990-2000 • William Maguire 2017-2018 • Mary Ann Mahoney 2013 • John Makar 1997-2000 • Sam Mamet 1989-2011 • Clayton Mammel 1976-1978 • Jim Manis 1989-1993 • Laura Lewis Marchino 2020-2025 • Norman Maris 1975-1978 • H. N. Maris 1976 • Jannell Marks 1988-1992 • W. E. Marshall 1974 • Donna Marshall 2002-2014 • Ryan Martens 2010-2015 • Tod Martin 1974-1976 • Marilee Martin 1986-1990 • Kelly Martin 2010-2011 • John Mason 1970 • Cindy Matthews 1993-1994 • Vince Matthews 2008-2016 • Mike Mauer 1995-1999 • Ruth Maurer 1985-1987 • Jeff May 2004-2006 • Greg McBoat 2008-2009 • Robert McBride 1975 • Nancy McCallin 1983-1999 • William McCanne 1978 • Susan McCannon 1994 • Ed McCloskey 2003 • Len McCormick 1976-1986 • Katelyn McCullock 2011-2024 • Janie McCullough 2014 • Rick McElmurray 1976 • R. C. McGee 1975-1976 • Bud McGrath 2005-2008 • Gary McIntyre 1987 • Skylar McKelvey 2025 • William McKenney 1973-1975 • Don McMorris 1980 • Robert McNown 2019-2025 • Kenneth McNulty 1967-1972 • Len Mcormick 1981 • William McPherson 1973 • James McTigue 1970-1971 • Kenneth Meeker 1965 • Peter Meersman 1997-2011 • Gary Meggison 2009-2015 • Ben Mendenhall 2020-2025 • Jill Mendoza 2022-2025 • Conor Merrigan 2021 • Don Merrion 1989-1994 • Judy Merritt 1975-1976 • Evan Metcalf 1977-1988 • Dennis Mewshaw 1986-1987 • Bill Meyer 2010-2022 • Richard Miano 1988 • Denise Mickelsen 2024-2025 • Lori Midson 1998 • James Miles 1969-1970 • Billy Miller 1972 • Richard Miller 1973 • Betty Miller 1976-1977 • Bruce Miller 1981 • Luke Miller 2008-2011 • Scott Miller 2015-2017 • Tony Miller 2024-2025 • Melanie Mills 2015-2025 • Tony Milo 2022-2024 • Garrett Mitchell 1977-1978 • Erik Mitisek 2014-2015 • William Mixon 2024-2025 • Sandi Moilanen 2004-2016 • David Monarchi 1973-1974 • Kenneth Monroe 1972-1986 • Shana Montrose 2014 • Jim Moody 2012-2025 • Meredith Moon 2019-2025 • E. J. Moore 1965 • Donald Moore 1976 • Bill Moore 2010-2011 • Michelle Moorman 2010-2014 • Cameron Morford 2018 • Richard Morgan 2001-2025 • Marcia Morgan 2012-2014 • Paul Morgan 2016-2018 • Jensen Morgan 2019 • Matt Morgan 2020-2023 • Helen Moriarity 1979 • Inta Morris 2013-2025 • Lee Morrison 1980 • Gene Morton 2003-2004 • Harry Moser 2025 • Glenda Mostek 2015-2025 • Jan Mueller 1982-1983 • Bonnie Muller 1977-1978 • Natalie Mullis 2000-2018 • Macie Murcray 2024-2025 • Jane Murphy 1978 • Wendi Nafziger 2015-2020 • Patrick Nash 1981-1983 • Clarice Navarro 2021 • Ann Mary Nefcy 1998-1999 • Chris Neil 1980-1981 • Dwight Neill 1965-1977 • David Neitz 2013-2014 • Barbara Nelson 1986-1989 • Russell Nelson 1990-1992 • Joyce Neville 1980-1983 • Ron New 2006-2025 • Christopher Nielsen 2021 • Rick Ninneman 2011-2021 • David Nix 2014-2017 • Wendy Nkomo 2013-2015 • Harry Noren 1965-1969 • Hayes Norris-McDonald 2023-2025 • A. C. Northrop 1967 • J. W. Nugent 1991-1996 • Grant Nulle 2014-2015 • Kenneth Oakleaf 1965 • Kathleen O'Brien 1988-1996 • Pat O'Brien 2011 • Mike O'Donnel 2020 • Frank O'Donnell 1982 • Christine O'Donnell 2007 • Chelsy Offutt 2020 • Jane Ohl 1988-1993 • Todd Ohlheiser 2015-2025 • Peggi O'Keefe 2018-2025 • Mike O'Keeffe 2016-2025 • Jackie Oldham 1993-1995 • Lucas Oliveira 2017 • David Olson 1995 • Maxfield Olson 2021-2022 • George O'Malley 1965 • Makayla O'Malley 2024-2025 • Gary Oman 1989-1990 • Michael O'Neill 2009-2010 • Fritz Opel 1978-1979 • Adam Orens 2018-2021 • Emily Orr 2023-2025 • James Osbourn 1978 • Jessica Ostermick 2004-2025 • Rodger Ott 2010-2025 • Heather Otter 2023-2025 • Robert Overton 1965 • Frances Padilla 2021-2025 • Steve Page 1969 • Gay Page 2014 • Daniel Page 2021-2022 • Sherry Pahler 1981-1982 • John Palmer 2019 • Alexander Papp 2022-2025 • Gordon Parker 1965-1973 • Hayden Parrott 1972 • Kristopher Passey 1991-1997 • Louis Patille 1991-2000 • Manuel Patino 1982-1987 • Dean Patterson 1977-1979 • Bryson Patterson 2013-2020 • LeRoy Payne 1989-1997 • Candace Payne 2019-2025 • Marnan Peacock 1993-1998 • Cody Pearson 2025 • Brad Pelsue 1985-1988 • Ian Pelto 2018 • Dylan Peper 2025 • Richard Perdue 1991-2005 • Alex Peretiatko 2019 • Rob Perlman 2006-2012 • Nathan Perry 2021-2025 • Jana Persky 2019-2020 • Tammy Peters 2000-2001 • Eileen Peterson 1994-1995 • Scott Peterson 2004-2006 • Tom Peterson 2008-2012 • Bryce Petrillo 2025 • Duane Pettyjohn 1968-1969 • Jason Peuquet 2017-2022 • Penn Pfiffner 1990-2025 • Laurence Phelps 1965-1971 • Lawrence Phelps 1967 • Sue Piatt 2002-2017 • Renee Picanso 2003-2009 • Megan Pierce 2021-2022 • Diane Pierson 2011-2012 • Gini Pingenot 2021-2023 • Louis Pino 2013-2023 • Jennifer Pinsonneault 2008-2025 • Stephanie Pitts-Noggle 2022-2024 • Leslie Plomondon 2005 • Kristi Pollard 2016-2017 • Calvin Pond 1965 • Brian Pool 2013-2025 • Marcus Popoff 2024-2025 • Paul Post 2009 • Rudolph Postweiler 1965-1967 • R. A. Postweiler 1968-1971 • Courtney Potts 2017 • Dan Powers 2012-2015 • Robert Price 1982-1985 • Doug Price 2020-2025 • Kenneth Prince 1976-1979 • David Prince 1980 • Philip Prinzi 2008-2009 • Matthew Propst 2023-2024 • Ross Purchase 1991-1993 • Charles Rahe 1970-1975 • Donald Ralston 1986 • Elizabeth Ramey 2023-2025 • Harvey Ramsey 1973 • Kirk Rasmussen 2003 • Lee Ann Rasplicka 1984-1987 • Anastasia Ratcliff 2020 • Arne Ray 1987-2009 • Amy Redfern 2001 • Allyson Reedy 2008 • Amy Reichert 2007-2010 • Pam Reichert 2008-2025 • Robert Reierson 1970-1971 • Diane Reimer 1995-1999 • Jim Reis 1995-2010 • Roger Reisher 1972-1973 • Jayne Reiter 1998-2003 • Amanda Repella 2019-2021 • Thurlow Reseigh 1965-1967 • Phyllis Resnick 2007-2012 • Amanda Restad 2015 • Reid Reynolds 1981-2008 • Robert Rice 1981 • Lois Rice 2012-2019 • Christine Richards 2007-2012 • John Ricks 2015-2016 • James Ridenour 1972 • Kenton Riggs 1965 • Roger Ringler 1975 • Jack Rink 2016 • Michael Rinner 2001-2022 • Dave Riter 1991-1996 • Thomas Ritter 1986-1988 • Cathy Ritter 2022 • Jim Robb 1996-2016 • James Robb 2017-2020 • Gary Robben 1978-1979 • Karen Robertson 1977 • Mark Robey 2017-2022 • Alyssa Roche 2025 • Paul Rochette 2011-2021 • Elaine Rodeck 2018 • Luke Rodgers 2004-2006 • Mariel Rodriguez-McGill 2018-2020 • Janet Rogers 2000-2003 • Joe Rogers 2013-2014 • Rachel Rogers 2022 • Robert Rolander 1976 • Floyd Rolf 1971-1976 • Robert Rolston 1987-1989 • Scott Romano 2023 • Jeff Romine 1999-2006 • Ivo Roospold 1967-1993 • Erica Rosa-Sanko 2009-2013 • Rachel Rose 2024-2025 • James Rubingh 1985-2006 • Jackson Rueter 2016-2018 • William Russell 1973-1977 • Anthony Russo 2015-2024 • John Ryan 1968-1970 • Jessie Ryce 2022 • Daniel Ryley 2022-2024 • Mina Saadat 2019-2023 • Tom Sabel 2014 • Erik Sabina 2007 • Daniel Salvetti 2019-2025 • Paula Samis 1982-1996 • George Sampson 1973-1976 • Jessica Sampson 2015-2017 • E. W. Sandberg 1965-1970 • Stuart Sanderson 1995-2016 • Emily Santich 2024 • Liz Santillanez 1990-1993 • Gerald Scarboro 1972 • John Schafer 1996 • Gary Schanbacker 1986-1987 • Richard Scharf 2008-2025 • Donald Schilke 1983-1984 • Jane Schmidt 1978-1987 • Julie Schmidt 2015-2025 • Frank Schmieder 1971-1972 • Sara Schmitt 2021-2023 • Steven Schmitz 1983-1987 • Jean Scholz 2011 • Randy Schook 1980-1981 • Jason Schrock 2008-2025 • Dan Schubert 1984-1985 • Jeanne Schuler 1986-1990 • Richard Schulte 1973 • William Schultz 1983-1992 • Kurt Schumacher 2000 • Stanley Schwartz 1967-1988 • Eric Scorsone 1999-2001 • Phyllis Scott 2003 • Chelsea Scott 2024-2025 • Hanna Scovill 2024-2025 • Duane Searles 1980-1991 • Steig Seaward 2002 • Ernie Seidlitz 1976-1980 • Judith Selvidge 1975 • John Sem 1998-1999 • Anna Sernka 2020-2021 • Lisa Shade 2006-2019 • Kevin Shand 2007-2011 • Mark Shaw 2005-2021 • Jeff Shaw 2016-2025 • Jack Sheerin 1973-1974 • Tim Sheesley 1998-2025 • John Shepherd 1978-1979 • Leon Sherman 1983-1984 • DeDe Sherman 1985 • Martin Shields 2007-2015 • Taylor Shields 2025 • Chris Shove 2002 • Laura Shunk 2020-2023 • Steven Shwiff 1983-1985 • Troy Sibelius 2023-2025 • Ernie Siedlitz 1979 • Stanislaw Sieron 2023 • Fiona Sigalla 2011-2020 • Larson Silbaugh 2013-2020 • Lawrence Sills 1972 • Rebecca Silvernale 2017-2021 • Patty Silverstein 1990-2017 • Jesse Silverstein 1993-2003 • Lawrence Simmeral 1980 • E. Gene Simpson 1975 • Larry Singell 1994-1998 • Tasia Sinn 2013 • Kara Skinner 2020-2023 • Melvin Skold 1997 • Al Slattery 2004 • Amy Slaymaker 2005 • Douglas Slothower 1972-1975 • Hal Smedley 1989-1998 • David Smink 1991-1992 • Joe Smith 1972-1979 • William Smith 1975-1990 • Carl Smith 1981-1982 • Paul Smith 1982-1983 • Morgan Smith 1983-2020 • Nancy Smith 1984 • Renee Smith 1998 • Dan Smith 2013-2014 • Chris Snowberger 2001-2003 • John Snyder 2000-2010 • Gregory Sobetski 2018-2021 • Hasti Soltani 2022-2023 • Lloyd Sommerville 1988-1993 • David Sondag 1980-1981 • Robert Sonora 2008-2019 • Ralph Sorenson 1993 • Antonio Soto 2024 • Kara Southwell 2005-2007 • James Spadinger 1980 • Lisa Spangrud 1978-1979 • David Spector 2018 • William Spencer 1979 • Jennifer St. Peter 2006 • Robert Stamp 1970-1971 • Bob Stapp 1978-1980 • Karl Starch 1980-1993 • Kenneth Stark 1967-1969 • Patrice Fulton Stark 1982-1995 • Mariann Starkey 2001-2002 • Heather Stauffer 2024 • Eric Stenehjem 1980 • Scott Sternberg 2022-2023 • Donald Stevens 1982-1985 • Kevin Stilson 2011 • Stephen Stoffel 1985-1987 • Lisa Strawn 1998-2000 • Butch Street 2001 • Ethan Street 2025 • Ryan Streit 2012 • Lisa Strunk 2007-2015 • Cassidy Stubblefield 2022-2025 • John Sullivan 1970 • Gennifer Sussman 1987-1990 • John Sutter 1985 • Bill Sutter 2021-2025 • Sharon Svitzak 1986-1987 • Mark Swanson 1981-1982 • Larry Swisher 1982-1986 • Bart Taylor 2018-2022 • Brent Taylor 2019 • Luke Teater 2017 • Bernard Teets 1965 • Suzanne Tegen 2021-2025 • M. K. Tescher 1971 • Arthur Thompson 1965 • Jennifer Thompson 1998-2001 • Rachel Thompson 2008-2009 • Richard Thompson 2012-2025 • Stephanie Thompson 2025 • Gary Thornam 2008 • Elaine Thorndike 2004-2007 • Edward Thorson 1978 • Gary Tibbitts 1977 • Henry Tiedemann 1965-1969 • James Tippett 1982-1986 • John Toaspem 1998-2000 • John Tobin 1996-2025 • Greg Totten 2025 • Edmond Toy 2018 • Casey Toyne 2016-2022 • Clift Trainer 1978-1980 • Karen Tramm 1991 • Steve Travers 2011-2016 • Allan Trego 1967-1968 • Carol Tremain 1997-1998 • Warren Trock 1981-1995 • Harry Troxell 1976-1978 • Darcy Trueax 1978 • John Trull 2023-2025 • Ann Tull 1988 • George Tung 1965-1978 • Chris Underwood 2002-2007 • Geoffrey Urland 2018-2019 • Dale Vandergraw 1976-1977 • Raymond Vanous 1965 • Shivam Vats 2024 • Doris Veden 1989-1994 • Dawn Velasquez 2009-2010 • Alexea Veneracion 2021-2025 • Robert Venuti 1967-1968 • Tom Vesey 2013-2017 • Don Vest 2002-2013 • Scott Vos 2008 • Joel Wagner 2023-2024 • Corine Waldau 2016-2021 • Judy Walden 2000 • Harry Walker 1967 • Bob Walker 1989 • Deborah Walker 2005-2009 • Jenifer Waller 2022-2025 • Forrest Walters 1972-1975 • Robert Wandel 1979 • Katherine Wang 2017-2018 • Doug Ward 1996 • Ashley Warsh 2019-2022 • Kate Watkins 2010-2025 • Don Webb 1993-2000 • Cindy Weindling 2004-2005 • Patricia Wells 2024 • Matt Wendel 2019-2021 • Earl Wennergren 1969-1976 • Richard Werner 2014-2025 • Jim Westkott 1994-2007 • John Whattam 2013 • Robert Wherry 1965-1971 • Wendy White 2010-2011 • Al White 2012-2014 • Lee Whitney 1970-1975 • Sherry Whitney 1975 • Curt Wiedeman 1989 • Donald Wiederecht 1984 • Matt Wiggins 2024-2025 • William Wilcox 1977-1978 • Rebecca Wilder 2016-2025 • Bruce Wiley 1965 • Len Williams 2002 • Ashtin Williamson 2016 • Don Willis 1975-1976 • Jennifer Quinn Willliams 1988 • Luke Willoughby 2009 • David Wilson 1977-1980 • Delores Wilson 1986-1987 • Tyler Wilson 2024-2025 • Tom Winfield 1994-1995 • Hugh Winn 1967-1988 • Joseph Winter 2003-2025 • Gary Witt 2007-2010 • Erwyn Witte 1969-1985 • Richard Wobbekind 1989-2025 • Carol Wobbekind 1998 • Marvin Wojahn 1976-1999 • Matthew Wolfe 2010-2011 • Tim Wolfe 2023-2025 • Tim Wonhof 2024-2025 • Clarence Wood 1990 • Glenn Woods 1976-1977 • Lucas Workman 2022 • Mark Woulf 2023 • Laura Wray 2001-2002 • John Wren 1977-1978 • Ben Wright 1997-2003 • Russell Writer 1965 • Dave Writer 1987-1990 • Robert Wyckoff 1977-1979 • Michael Yeadon 2016-2024 • Aisha Yededji 2012-2013 • Genevieve Young 2004-2010 • Sam Young 2016 • Emily Zalasky 2015 • Aivars Ziedins 1989-1991 • Paul Zimmermann 1973 • William Zook 1976-1980 • Donald Zuckerman 2012-2025 • Tom Zwirlein 1998-2015

Leeds School of Business

Dear Colleagues and Friends,

It's my pleasure to welcome you to the 60th annual Colorado Business Economic Outlook Forum, proudly hosted by the Leeds School of Business and our Business Research Division.

As we celebrate 60 years of delivering vital economic forecasts that guide decision-makers across every sector in Colorado, we also honor the century-long commitment of the Business Research Division to community engagement. As dean, I'm deeply appreciative of our partnerships with over 130 leaders from Colorado's public and private sectors, whose insights have been instrumental in shaping our 2025 forecast.

Sharing this year's economic outlook is only part of our mission. At Leeds, guided by our 2035 Leeds strategic vision, we are focused on the future, identifying key business trends that will define the next decade and reinforce our position as a global leader in business education and innovation. Through ongoing discussions with advisory boards and leaders across business, academia and government, we've identified four pivotal trends: sustainability; social, political and economic shifts; the future of work; and digital transformation. These trends highlight opportunities such as AI advancements, renewable energy growth and hybrid work models, as well as challenges like cybersecurity threats, regulatory risks and the need for reskilling.

As Leeds prepares students with the business acumen to tackle complex economic challenges, along with the innovation, resilience and communication skills needed to drive meaningful impact, your involvement is key. Whether through guest lectures, mentoring, judging competitions or contributing to our programs, you can help shape the next generation of leaders who may soon become your colleagues.

We look forward to engaging with you as we continue advancing innovation and making an impact together.

Warm regards,

Vijay Khatri

Vijay Khatri
Tandean Rustandy Endowed Dean
Leeds School of Business

Pride Points

#1 Business School in Colorado: Ranked #18 Best Public Undergraduate Program, #25 Best Public Part-Time MBA and #32 Best Public Full-Time MBA by *U.S. News & World Report (2024)*

Listed in the **Top 50 Ignition Schools** by *Fast Company* for impacting business and society through innovation and entrepreneurship, including programming offered by Leeds' Deming Center for Entrepreneurship (2024)

Announcing a transformational **$13 million gift**, one of the largest given to a collegiate real estate center in the U.S., to support the Michael A. Klump Center for Real Estate

159 professors, 29 of whom were named a Leeds Faculty Scholar to recognize and cultivate outstanding contributions in both research and teaching, and six faculty who were recognized among the **world's top 2% of scientists** by Stanford University

11 graduate degree programs including MBAs in four different formats and seven Master of Science degrees in accounting, business analytics, finance, marketing analytics, real estate, supply chain analytics and taxation

Faculty research driving policy change: Professor Tony Tong's work influenced the FTC's decision to ban noncompete agreements, while Professor Asaf Bernstein's research shaped the SEC's new rule on carbon footprint disclosure

Over **$6M in scholarships** awarded to Leeds students over the 2023-24 academic year

13 PhD graduates in 2023 and 2024 that were placed at institutions such as Purdue University, University of Southern California, Georgetown University and Drexel University

Celebrating the **60th anniversary** of Leeds' Master of Business Administration program, founded in 1965

Introduction

The Business Research Division (BRD) in the Leeds School of Business is proud to present the 60th annual *Colorado Business Economic Outlook*. This 2025 consensus forecast is a product of partnerships with individuals spanning numerous universities, businesses, nonprofits, and government entities. These individuals generously gift their time, sharing their unique expertise and perspectives about people, industry, and policy relating to the state of Colorado. This forecast analyzes changes that have occurred in all economic sectors during the past year and looks at the opportunities and challenges that will shape population, employment, and the overall economy in the coming year. The information in this book is initially presented at the 60th annual Colorado Business Economic Outlook Forum in Denver, followed by approximately 50 forecast speeches that are held throughout the state during the year, ranging from presentations to industry associations and nonprofit organizations to the Federal Reserve Bank of Kansas City.

Methodology

We are fortunate to have more than 140 individuals from the business, education, and government communities who serve on 13-sector estimating groups. These groups convene at a kickoff meeting in September where members discuss trends and issues that are likely to affect economic growth during the upcoming year. During the second half of September and into October, the committees apply this information to their industry. The BRD simultaneously generates an econometric forecast by industry, which is given to each industry committee. From this series of meetings, the sector write-ups and forecasts are prepared and submitted to the BRD in early November, when they are edited and published in this book. The following July, the Steering Committee, which is made up of the sector chairs, meets to review their forecasts and identify factors that will positively or negatively drive change in their industry's economic performance during the second half of the year. These updates are published in the summer issue of our quarterly newsletter, the *Colorado Business Review.*

Related Economic Research

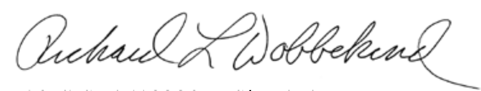
The BRD conducts customized business and economic research that expands the knowledge base of decision makers throughout the state and region. The annual *Colorado Business Economic Outlook* provides the foundation for much of the research the BRD conducts within the state. Among the other BRD research tools available to businesses and organizations is the Leeds Business Confidence Index, a forward-looking index that gauges Colorado business leaders' opinions about national and state economic trends and how their industry will perform in the coming quarter, and the *Colorado Business Review,* which explores current topics important to the state's economy. Visit www.colorado.edu/business/brd for more information about BRD offerings.

Acknowledgments

We are humbled and thankful to have dedicated partners in producing this forecast. A complete list of committee members appears at the back of this book. Their efforts are very much appreciated. We also thank the staff of the Colorado Department of Local Affairs and the Colorado Department of Labor and Employment who supply us with much of the employment and population data used in the forecast. Finally, I would like to thank the many Leeds School of Business and CU Boulder personnel who have worked hard at preparing, presenting, and promoting this project. My sincerest thanks go to Brian Lewandowski, executive director; Adam Illig, data scientist; Shannon Furniss, project editor; Cindy DiPersio, guest editor; Kristin Weber, graphic designer; Denise Munn, senior print production manager; and Adam Abrahamson, Julien Christensen, Ethan Street, Bryce Petrillo, and Marcus Popoff, student research assistants, for their help in assembling and presenting the *2025 Colorado Business Economic Outlook.* The assistance provided by Leeds School staff members Julie Noble, Leeds event manager; and Carolyn Gleason, assistant dean for advancement, is greatly appreciated. The Leeds Marketing and Communications team—executive director Joshua Casto and team members Erik Jeffries, Ollie Peterson, Jennifer Schuman, Honey Hargrave, Kelsey Cipolla, Anneli Gray, Jane Majkiewicz, Justin Forbis, and Cody Johnston—contributed marketing and promotion assistance. I also appreciate the help provided by Jennifer Soules with CU Boulder Strategic Media Relations.

Colorado Economic Forecast for 2025

The sections that follow provide a summary of 2024, a forecast for 2025, and industry-specific data analysis and insight into the key factors influencing each sector. We believe this information will prove useful in your business and policy decision-making process.



Associate Dean Business and Government Relations
Faculty Director, Business Research Division Leeds School of Business
www.colorado.edu/business/brd

Colorado Then and Now

The 2025 *Colorado Business Economic Outlook* marks the 60th anniversary of the inaugural 1965 report. Over these six decades, Colorado has built a rich legacy, transforming into the vibrant Centennial State we know today.

The Colorado population reached 1.9 million by 1965 and grew to 2.21 million by the end of the decade. By 1970, Boulder County's population increased to 131,889, making it the 6th-most populous county in the state. The most populous county at that time was Denver County (514,678), followed by El Paso County (235,972) and Jefferson County (235,368), according to data from the State Demography Office. By July 2023, El Paso County (744,153) surpassed Denver County (715,636), and Arapahoe County ranked third, with a population of 655,760.

In 1965, the state labor force reached 757,700 and the unemployment rate stood at 3.5%, exactly 1% below the national rate of 4.5% for that year. Today, Colorado's labor force has grown to 3,253,600, representing an impressive 329.4% increase over the past six decades. The state unemployment rate is currently 4.1%, matching the national rate. Additionally, three of the largest employment sectors in 1965 related to trade (retail and wholesale), government, and tourism. Today, Trade, Transportation, and Utilities; Professional and Business Services; and Government are the top three sectors.

According to the March 1966 Current Population Survey, about 101 million individuals nationwide were income recipients in 1965. The median family income was approximately $6,882, which is equivalent to $68,965 in today's dollars. By 2023, the national real median household income reached $80,610. In Colorado, total personal income in 1965 was $5.3 million, or $2,707 per capita, compared to today's figures of $492.8 million (2024) or $80,068 (2023), respectively, based on data from the Bureau of Economic Analysis. Additionally, amendments to the Fair Labor Standards Act (FLSA) raised the hourly minimum wage to $1.25 in September 1965. In January 2024, the Colorado minimum wage increased to $14.42 and is set to increase to $14.81 in 2025.

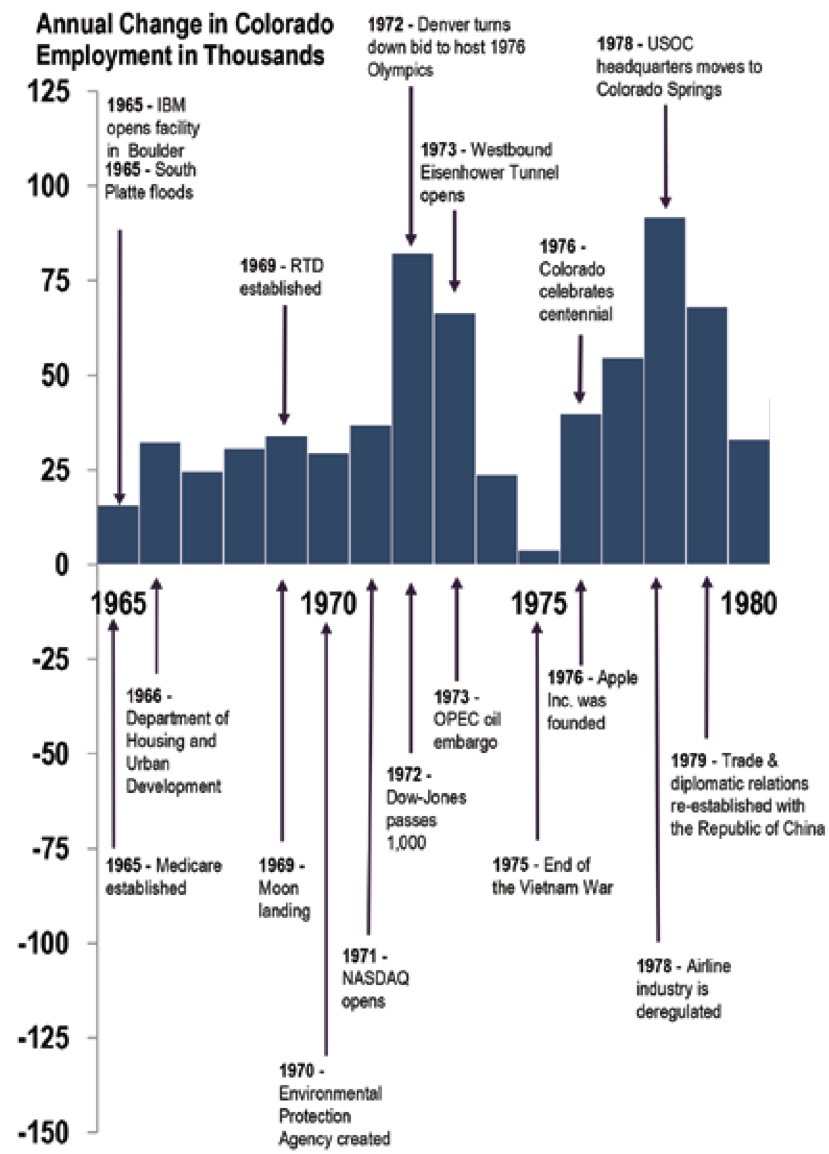
These earnings may seem modest by today's standards, especially given the rise in living costs over time. However, in 1965, Coloradans could fill up their gasoline tank for just $0.31 per gallon and shop at their local Safeway, Miller's, or Red & White for groceries at prices far lower than what they would pay today.

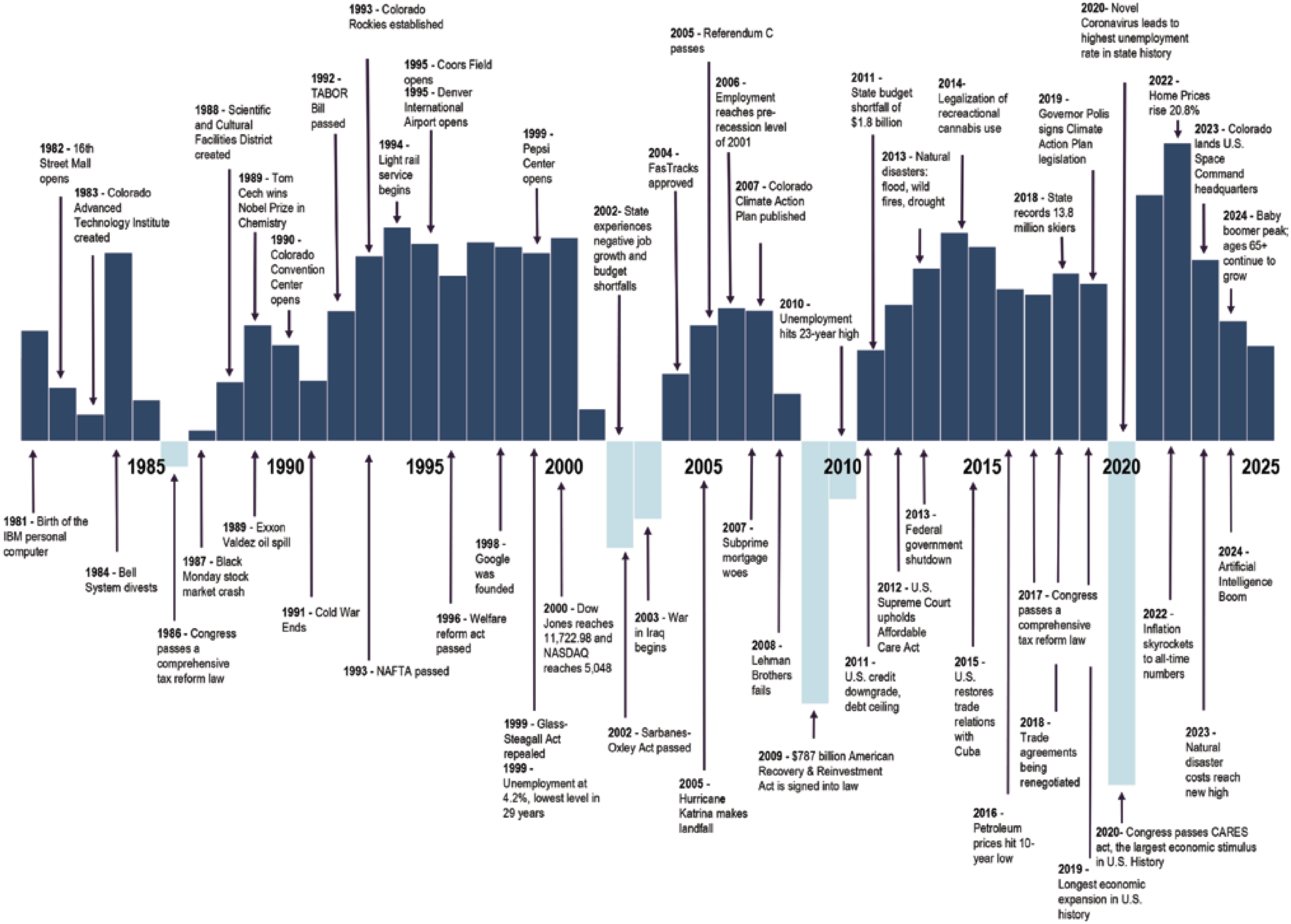
Student life under President Joseph Smiley at University of Colorado Boulder was just as dynamic and spirited in 1965 as it is today. During the fall semester, a total of 14,693 students were enrolled at the university, consisting of 8,924 male students (60%) and 5,769 female students (39.3%). Since then, enrollment has grown by 156.8%, reaching 38,428 students in fall 2024. Female enrollment has also increased significantly, now accounting for 46.8% of the student body (17,984 students).

Life in Colorado looked much different back then, yet Coloradans enjoyed many of the same amenities as they do today.

Though much of the I-70 corridor was still under construction in the 1960s, skiing and other winter sports were already booming. Originally a mode of transportation for miners and mail carriers, skiing evolved into a popular recreational sport. The 10th Mountain Division, a specialized U.S. Army unit trained in mountain and winter warfare, was established in Colorado during World War II. After the war, many veterans returned and played a pivotal role in developing Colorado's recreational ski industry (10th Mountain Division Resource Center). By the 1960s, popular resorts like Steamboat, Aspen, Breckenridge, Vail, and others had opened, marking the state as a premier destination for winter sports. Colorado has continued this legacy and is now home to 28 ski resorts (Colorado Tourism Office).

Musical entertainment was also a rapidly evolving form of entertainment in the 1960s, as opera, classical, and chamber music evolved into the rock and roll and psychedelic eras. In 1964, the Beatles performed at Red Rocks Amphitheatre for just $6.60 per ticket, followed by Johnny Cash in 1965 and Jimi Hendrix in 1968 (www.redrocksonline.com). Additionally, fans attended the 1965 Rolling Stones concert at the Denver Coliseum for only $4.50.




1981 - Birth of the IBM personal computer
1982 - 16th Street Mall opens
1983 - Colorado Advanced Technology Institute created
1984 - Bell System divests
1985
1986 - Congress passes a comprehensive tax reform law
1987 - Black Monday stock market crash
1988 - Scientific and Cultural Facilities District created
1989 - Tom Cech wins Nobel Prize in Chemistry
1989 - Exxon Valdez oil spill
1990
1990 - Colorado Convention Center opens
1991 - Cold War Ends
1992 - TABOR Bill passed
1993 - Colorado Rockies established
1993 - NAFTA passed
1994 - Light rail service begins
1995
1995 - Coors Field opens
1995 - Denver International Airport opens
1996 - Welfare reform act passed
1998 - Google was founded
1999 - Pepsi Center opens
1999 - Glass-Steagall Act repealed
1999 - Unemployment at 4.2%, lowest level in 29 years
2000
2000 - Dow Jones reaches 11,722.98 and NASDAQ reaches 5,048
2002- State experiences negative job growth and budget shortfalls
2002 - Sarbanes-Oxley Act passed
2003 - War in Iraq begins
2004 - FasTracks approved
2005
2005 - Referendum C passes
2005 - Hurricane Katrina makes landfall
2006 - Employment reaches pre-recession level of 2001
2007 - Colorado Climate Action Plan published
2007 - Subprime mortgage woes
2008 - Lehman Brothers fails
2009 - $787 billion American Recovery & Reinvestment Act is signed into law
2010
2010 - Unemployment hits 23-year high
2011 - State budget shortfall of $1.8 billion
2011 - U.S. credit downgrade, debt ceiling
2012 - U.S. Supreme Court upholds Affordable Care Act
2013 - Natural disasters: flood, wild fires, drought
2013 - Federal government shutdown
2014- Legalization of recreactional cannabis use
2015
2015 - U.S. restores trade relations with Cuba
2016 - Petroleum prices hit 10-year low
2017 - Congress passes a comprehensive tax reform law
2018 - State records 13.8 million skiers
2018 - Trade agreements being renegotiated
2019 - Governor Polis signs Climate Action Plan legislation
2019 - Longest economic expansion in U.S. history
2020
2020- Novel Coronavirus leads to highest unemployment rate in state history
2020- Congress passes CARES act, the largest economic stimulus in U.S. History
2022 - Home Prices rise 20.8%
2022 - Inflation skyrockets to all-time numbers
2023 - Colorado lands U.S. Space Command headquarters
2023 - Natural disaster costs reach new high
2024 - Baby boomer peak; ages 65+ continue to grow
2024 - Artificial Intelligence Boom
2025

U.S. Economic Outlook

Present Situation and Short-Term Outlook

Gross Domestic Product

National real GDP increased 2.9% in 2023, continuing strong growth for a 3rd-consecutive year following the pandemic recession. Real GDP growth continued in 2024 at an estimated rate of 2.7% as the economy remained resilient through falling interest rates and inflationary cooling. The economic outlook committee remains optimistic about total output in 2025, expecting 2.3% growth, as consumption, investment, and government spending all expand, but at slower rates.

Employment and Wages

The labor market continues to prove resilient. The U.S. added an average of 170,000 per month in 2024 (January through October) to total a record 159 million. Adding to the supply of workers, the labor force grew, increasing to levels in excess of 168 million, and the labor force participation rate averaged 62.6% for the first 10 months of 2024 (unchanged from 2023). At the same time, the demand for workers declined in 2024, falling to 7.4 million job openings in September (or 4.5% of total employment), which is the lowest number of job openings since January 2021. September's decline reflects a 20% decrease in job openings compared September 2023's measure of 9.3 million jobs. This supply-demand imbalance has been a contributing factor to higher wages, which grew an average of 4% year-over-year through October. Job growth will continue to slow in 2025, and real wage growth is expected as inflation eases.

Consumption

Consumer spending on goods and services generally accounts for nearly 70% of total GDP. Personal consumer expenditures are estimated to increase 2.7% in 2024. Following a year of resiliency from consumers in 2023, consumer spending has remained robust in 2024, which can be attributed to falling interest rates and real wage increases. Throughout 2024, the pace of wage growth has outpaced the Consumer Price Index (CPI), offering a favorable landscape for consumption. With lower inflation, it is plausible that real wages could continue to increase in 2025. While the personal savings rate is higher than a year ago, it has declined in recent months and remains below historic averages. In addition, household debt has increased, driven by increases in balances of mortgages, credit cards, and student loans. The Conference Board's Consumer Confidence Index has posted lower readings in 2024 compared to 2023, while the Michigan Consumer Sentiment Survey has posted higher readings over the same period. The resilience of consumers will outweigh the headwinds in 2025, and personal consumption expenditures are expected to grow 2.6%.

Investment

The pace of gross private domestic investment accelerated moderately in 2024 as the cost of debt decreased. Investment was stagnant in 2023, growing only 0.1%. Growth rebounded to an estimated 4.6% in 2024 and is projected to increase 3.1% in 2025. Both nonresidential

REAL GROSS DOMESTIC PRODUCT, 2015-2025
(In Billions of Chained 2017 Dollars)

Economic Indicator	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024[a]	2025[b]
Gross Domestic Product	$18,800	$19,142	$19,612	$20,194	$20,716	$20,268	$21,495	$22,035	$22,671	$23,283	$23,819
Percentage Change	2.9%	1.8%	2.5%	3.0%	2.6%	-2.2%	6.1%	2.5%	2.9%	2.7%	2.3%
Personal Consumption Expenditures	$12,639	$12,949	$13,291	$13,655	$13,948	$13,595	$14,787	$15,236	$15,622	$16,043	$16,461
Percentage Change	3.4%	2.5%	2.6%	2.7%	2.1%	-2.5%	8.8%	3.0%	2.5%	2.7%	2.6%
Gross Private Domestic Investment	$3,323	$3,320	$3,468	$3,668	$3,784	$3,612	$3,929	$4,164	$4,169	$4,361	$4,496
Percentage Change	6.2%	-0.1%	4.4%	5.8%	3.2%	-4.5%	8.8%	6.0%	0.1%	4.6%	3.1%
Government Expenditures	$3,314	$3,379	$3,397	$3,465	$3,600	$3,722	$3,711	$3,670	$3,812	$3,934	$3,993
Percentage Change	2.0%	2.0%	0.6%	2.0%	3.9%	3.4%	-0.3%	-1.1%	3.9%	3.2%	1.5%
Net Exports	-$476	-$506	-$543	-$594	-$616	-$663	-$937	-$1,042	-$933	-$1,049	-$1,118
Percent of GDP	-2.5%	-2.6%	-2.8%	-2.9%	-3.0%	-3.3%	-4.4%	-4.7%	-4.1%	-4.5%	-4.7%

[a]Estimate. [b]Forecast. Note: Excludes changes in inventories. Values are in chained dollars and do not sum to the total.

Sources: Bureau of Economic Analysis, Consensus Forecasts, and Colorado Business Economic Outlook Committee.

fixed investment and residential fixed investment are expected to post gains in 2024 and 2025. Venture capital activity has shown signs of recovery from its steep decline after 2021, as Fed policy has created a more favorable investing environment and AI and cyber-infrastructure firms continue to garner attention from prospective investors.

Government

Government consumption increased an estimated 3.2% in 2024, but growth is expected to moderate in 2025 (1.5%).

Net Exports

Net exports continued to be a drag on U.S. economic growth. The trade deficit decreased slightly in 2023 as real net exports contracted to -$933 billion, with growth in exports and a decline in imports. Despite moderation in 2023, real net exports are projected to increase in 2024 and 2025, with annual estimates of -$1.05 trillion and -$1.12 trillion, respectively.

Economic Risks

Multiple economic risks—with upsides and downsides—may impact the economy in 2025 and beyond.

Policy—Factoring in changes in macroeconomic policy under President-elect Donald Trump is difficult at this juncture. The committee is assuming that he will deliver on his campaign promises, but in what form and degree, and how quickly, are the questions. The most significant changes from a macroeconomic perspective relate to corporate and personal income tax policy, tariffs, and immigration. Tax cuts would provide demand-side stimulus to the economy in the near term from both the private sector and households. This, of course, will depend on the level of tax cuts and how they are financed. Tariffs have a supply-side impact and could add inflationary pressure. Again, we do not know the level of these tariffs and the speed of implementation. At least some of these tariffs could be used as a negotiating tool on a country-by-country basis. The effect of the new immigration/deportation policy is probably the most difficult to assess. While the new administration wants to act on this effort quickly, the number of people being deported is an unknown. With nationwide labor force tightness, there could be supply-side impacts depending on the levels of deportation and the level of legal immigrants allowed into the country.

Inflation—While inflation continued to trend downward in 2024, it continues to be at the forefront of consumers' minds in Colorado and the nation. The CPI, which measures a basket of products ranging from gasoline and health care to groceries and rents, declined to 2.6% in October 2024. Prices for all items in the Denver-Aurora-Lakewood region sat at 1.4% in September, and in context of these notably low national and statewide measures, consumers continue to cite prices and inflation as a leading topic affecting their view of the economy. The Federal Reserve continues to manage the dual mandate—full employment and stable inflation. Cooling price growth provided an opportunity for the Fed to enact a 50-basis-point rate cut in September 2024, and a subsequent 25-basis-point cut in November 2024.

Consumer Growth—Consumers continued to be resilient in 2024 despite elevated borrowing costs and high interest rates earlier in the year. Retail sales have posted notable increases in recent months, indicating more enticing conditions for consumer spending. Total household debt rose in Q3 2024, driven by mortgage, credit card, and student loan balances. Some debt delinquencies increased in 2024.

Worker Shortage—In October 2024, the civilian labor force participation rate remained below prepandemic levels. The October 2024 labor force participation rate was 62.6%, a slight decline over the month of October 2023 (62.7%) and still below January 2020 levels (63.3%). The U.S. Chamber of Commerce Worker Shortage Index ratio represents the number of available workers for every job opening in the state. A ratio above 1.0 indicates a surplus of available workers compared to job openings in the state. As of October 2024, Colorado had a Worker Shortage Index of 0.8, indicating that Colorado has eight available workers for every 10 open jobs, ranking the state 12th in the nation.

Work From Home—During the pandemic, most office workplaces transitioned from in-person to remote work environments. According to the Census Bureau Household Pulse Surveys, the work-from-home rate peaked at 37% in early 2021, and since then, has dropped to 27.5% of U.S. households having at least one member of the household working from home at least one day a week. Even with the decreasing number of people working from home, the demand for remote or hybrid jobs is higher than the number of positions available. According to LinkedIn data from July 2024, 13.4% of U.S. job postings were hybrid, while 8.5% were remote, despite the fact that most American employees are looking to shift away from mostly onsite work.

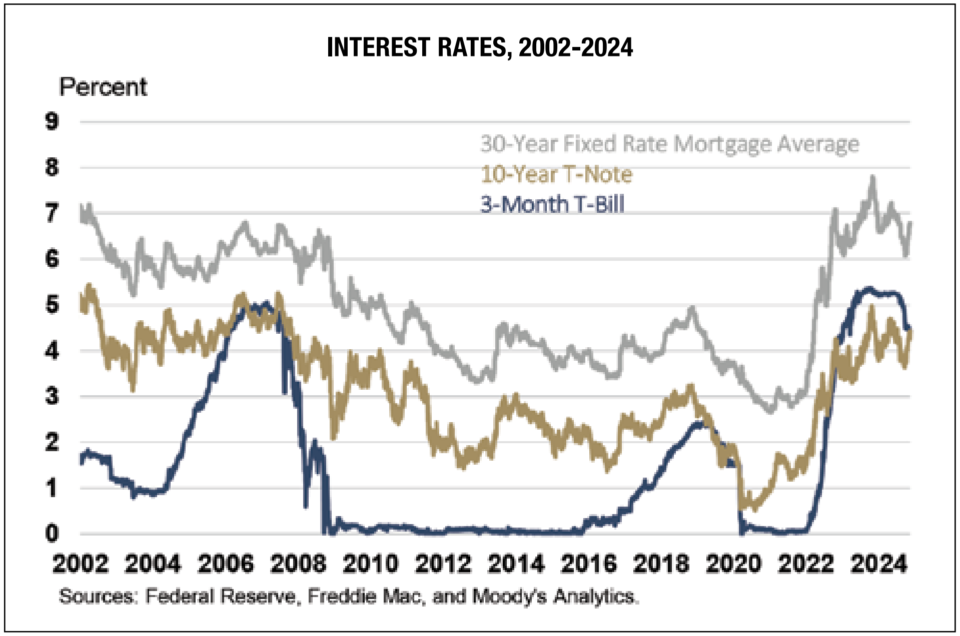
Commercial Real Estate—Lower interest rates have a substantial impact on the commercial real estate industry as they offer potential relief for borrowing costs while also inducing more favorable market conditions. However, the behavioral changes resulting from the shift to remote work continue to have disruptive impacts on central business districts, commercial real estate occupancy, and real estate valuations. Office vacancy rates were 20.1% in Q2 2024, which is the highest measure recorded by Moody's since they began recording in 1979. Nonetheless, as loans need to be refinanced over the coming few years, the risk remains about higher vacancy, lower net operating income, the slower pace of new construction deliveries, and where the capital infusion will come from to rescue assets.

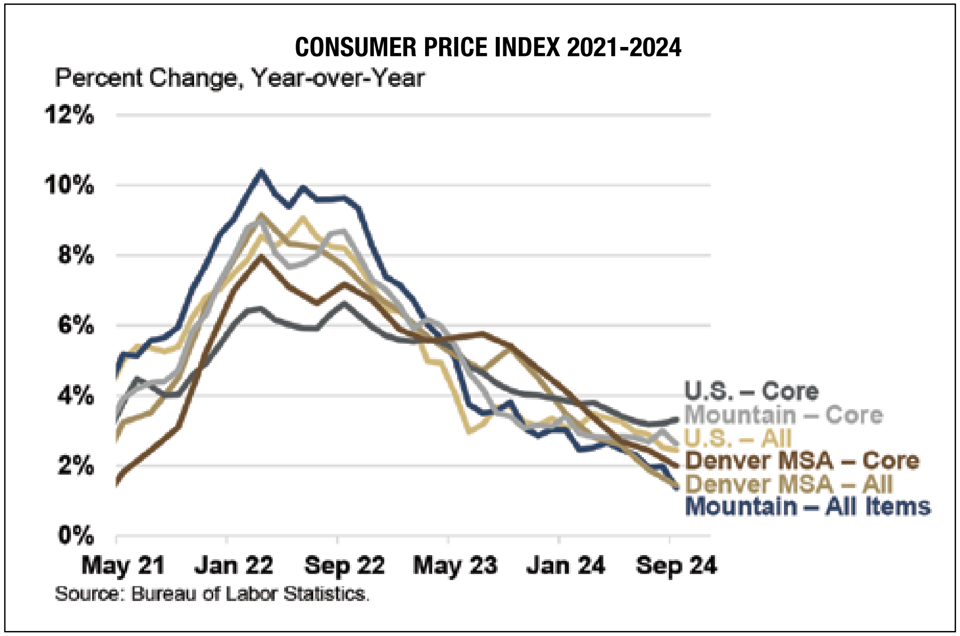
Student Loans—Due to the COVID pandemic, both the Trump and Biden administrations enacted and expanded a pause on student loan payments by freezing accounts and preventing interest accumulation. In October 2023, and for the first time since March 2020, monthly payments on student loans resumed, and U.S. student loan debt has continued upon its upward trajectory, outpacing

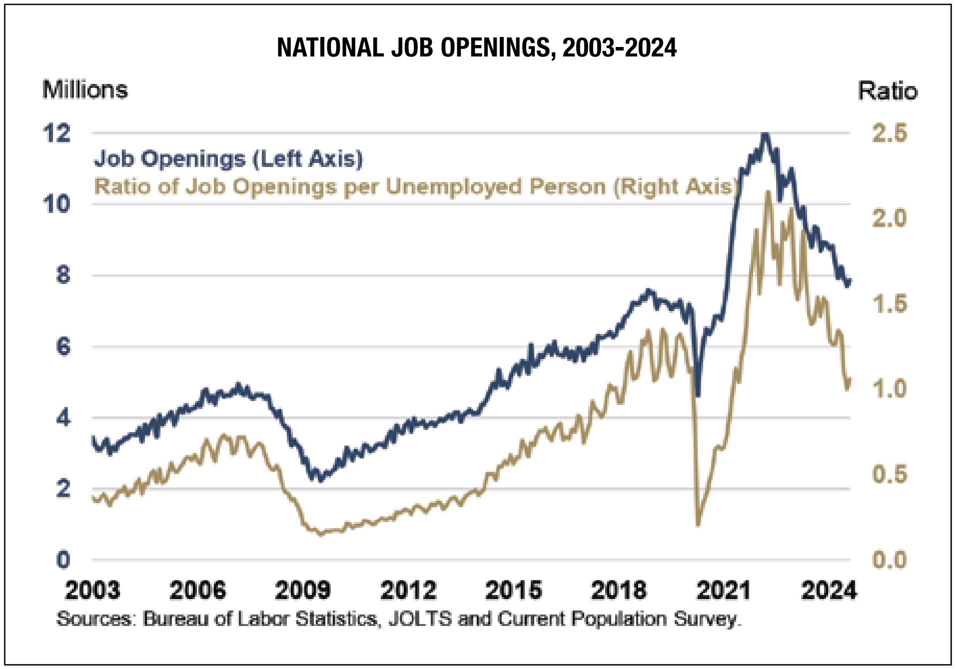
continued on page 10

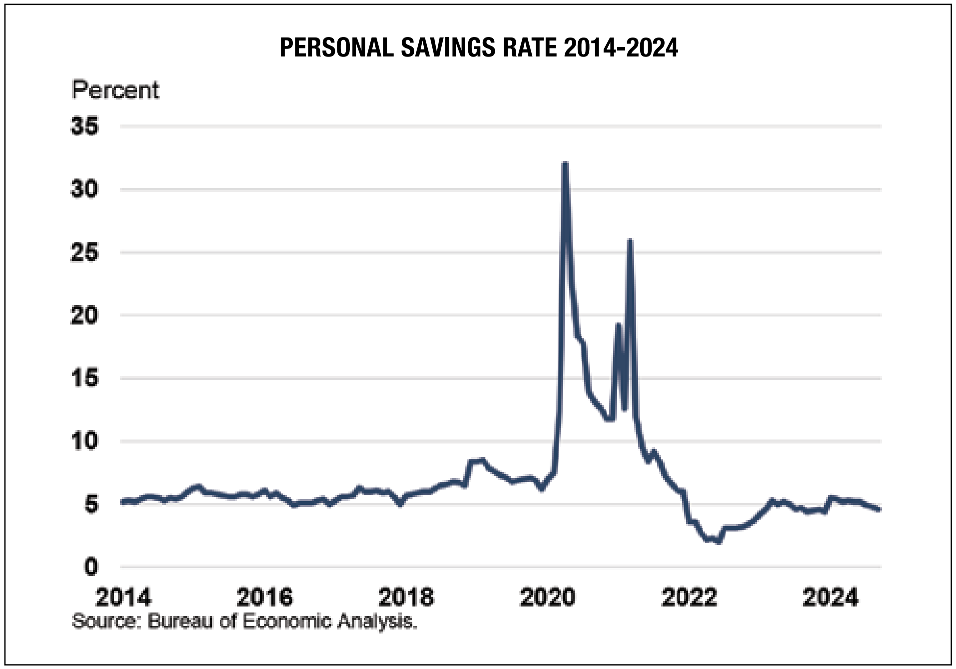
U.S. Economic Outlook

continued from page 9









most other forms of consumer borrowing. In August 2023, the Biden administration announced an income-driven repayment plan in an effort to mitigate the debt growth; however, there is uncertainty in how this loan forgiveness effort will be handled by the Trump administration. According to data from the U.S. Department of Education, Colorado ranks 16th highest among all states in average student loan debt, and 20th in total student loan debt with $28.9 billion among 772,900 borrowers.

Artificial Intelligence—The workforce in Colorado, like other states, could significantly be impacted by emergence of AI technologies such as ChatGPT. While the automation of jobs from the development of AI remains a notable risk factor, Colorado became the first state to enact a comprehensive law regarding the development and deployment of certain AI systems. The Colorado Artificial Intelligence Act, passed in May 2024 and effective in February 2026, will look to prevent algorithmic discrimination in "high-risk" AI systems deployed for the purpose of job screening. On a national level, workers with the most exposure to chatbots like ChatGPT tend to be high earners in white-collar jobs with a college degree. Even though AI poses a risk to white-collar jobs, according to Goldman Sachs economists, technological innovation will be a benefactor in increasing workforce productivity and employment growth over the long haul.

Housing—Heightened mortgage interest rates continue to impact national and statewide housing markets, forcing sellers to adapt to an environment that has been unwelcoming to prospective home buyers. While home prices have continued to surpass record highs, they are rising at a slower pace due to inventories being too low to match demand. The September 2024 Housing Affordability Index, developed by the National Association of Realtors, stood at 105.5, up from 93.1 in September 2023.

U.S. Fiscal Policy—In 2023, Congress passed legislation to lift the nation's debt ceiling in order to avoid what would be an "economically disastrous default." The act is referred to as the Fiscal Responsibility Act, and will raise the debt ceiling through January 1, 2025, while also raising limits on government spending and other policy changes. If the U.S. were to default on its debt, massive ripple effects would likely occur that could send the economy into a recession, such as a fallout in consumer confidence, increased borrowing costs for businesses and homeowners, job losses, and decreased valuations in financial markets. Additionally, federal government debt that was issued at very low interest rates is now coming due, necessitating new debt issuances at much higher rates, creating a fiscal drag. Furthermore, large projected U.S. budget deficits, and the resulting issuance of an increasing volume of U.S. Treasury securities, are putting upward pressure on long-term interest rates, which can be harmful to investment. Under the Trump administration, the proposal for increased tariffs has the potential to raise revenue for the government; however, the administration's suggested tax cuts are expected to widen the budget deficit to further heighten the government's borrowing costs.

Climate and Weather—According to the National Centers for Environmental Information, as of November 1, 2024, there have been 24 climate disaster events, with losses exceeding $1 billion each in 2024. These destructive extreme weather events have cost the U.S. an average of approximately $62 billion in inflation-adjusted dollars per year since 1980. These losses are connected to physical damage to buildings, time element losses such as business interruption or loss of living quarters, as well as public and agricultural assets among other things. Connected with adverse climate conditions is rising temperatures, and according to the Energy Policy Institute at the University of Chicago, every 1°F increase in temperature will cost around 0.7% of U.S. GDP on average. Beyond this, homeowners in at-risk areas are facing the concern of heightened insurance costs as insurance companies look to mitigate their risk. Not only do natural disasters have an impact on insurance costs, but they also create a widespread financial ripple effect that elevates the cost of living for people in the surrounding area.

Contributors:
Adam Illig, Leeds School of Business
Brian Lewandowski, Leeds School of Business
Marcus Popoff, Leeds School of Business
Richard Wobbekind, Leeds School of Business

Colorado Economic, Employment, and Population Outlook

Economy

Colorado has demonstrated one of the strongest economies over the medium-term horizon. Comparing growth from 2008-2023, Colorado has the 5th-fastest real GDP and employment growth rates, 6th-fastest population and labor force growth rates, 3rd-fastest personal income and per capital personal income growth rates, and the highest home-price appreciation in the country.

Over the short term, though, Colorado's performance has slipped in the rankings, demonstrating the difficulty in maintaining growth for a sustained period of time. In 2024, Colorado's growth rates appeared more average in the rankings. Second-quarter real GDP growth and home-price growth ranked Colorado among the bottom 10 states; personal income, per capita personal income, and the unemployment rate ranked Colorado among the bottom 20 states. The state remains in the top half for growth in jobs, population, and pay.

For many of these metrics, slower growth is not slow growth. For instance, 5.1% growth in personal income ranks 39th, and the FHFA home-price growth of 2.9% ranks 49th. Slower growth, though, may be the new reality for Colorado as population growth, especially through net migration, remains slow, creating headwinds for labor force and job growth.

COLORADO ECONOMIC RANKINGS, 2008-2023

Metric	15-Year
Real GDP Growth	5
Employment Growth	5
Population Growth	6
Personal Income Growth	3
PCPI Growth	3
Labor Force % Growth	6
FHFA Home Price Index Growth	1

Data Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, U.S. Census Bureau, Federal Housing Finance Agency All Transactions Index, BRD calculations.

For more than half a century, the *Colorado Business Economic Outlook* has been compiled by industry leaders in the state and presented by the Business Research Division (BRD) of the Leeds School of Business at the University of Colorado Boulder. For 60 years, this book has served as a chronicle of the changing issues and opportunities facing people and industry in Colorado. Presenting historical data and forward-looking estimates on employment for each sector of the economy, the book also offers discussion on other relevant economic metrics, ranging from sales and cash receipts to building permits and airport enplanements. This section lays the foundation for each of the North American Industry Classification System (NAICS) supersectors by providing an overview of labor force and wage and salary employment totals. The industry narrative is a collaboration with 140 individuals across industries, government, and nonprofits. What they share are insights and expertise from their vantage point, while many of the economic and employment estimates are model-driven results.

On August 21, 2024, the Bureau of Labor Statistics (BLS) published *2024 Preliminary Benchmark Revisions to Current Establishment Survey Data for States and Select Metropolitan Areas.* In this publication, the BLS indicated national employment estimates may be overstated by 818,000 and would be revised downward when benchmark revisions are applied in March 2025. Colorado was identified as a state that would undergo the greatest downward revision, totaling 72,700 jobs. This would suggest not only slower growth, but a significant decline in Colorado employment. On November 20, 2024, the Colorado Department of Labor and Employment provided information on the suspension of the Quarterly Census of Employment and Wages data, stating,

"The irregularities in data show inconsistencies in employer reporting, which the CO Unemployment Insurance (UI) division is currently investigating. Despite these irregularities, we are starting to see improvement in employer reporting. Historically the QCEW program has garnered a 90% response rate among Colorado employers on establishments. In Q3 2023, that rate dropped to 28%, which has subsequently recovered to 85.9% in Q1 2024."

Thus, the Business Research Division believes that if a sharp downward revision occurs, it will be driven by data collection issues, not real economic trends, as the state has continued to record growth in population, net migration, labor force, GDP, and income. The unrevised monthly employment estimates were used as the baseline for the 2025 estimates.

Employment

Colorado employment stood at a record of more than 3 million in October 2024. Annual jobs added in 2023 totaled 72,300, growth of 2.5%. Growth in 2024 is

COLORADO RANKINGS, 1-YEAR, 2024

Metric	Change	Rank
Real GDP Growth	1.6%	41
Employment Growth	2.0	9
Population Growth	0.6	17
Personal Income Growth	5.1	39
PCPI Growth	4.4	39
Average Hourly Wage % Growth	3.0	18
Average Annual Pay % Growth	7.4	18
Labor Force % Growth	0.5	29
FHFA Home Price Index Growth	2.9	49

Data Sources: Bureau of Economic Analysis (2024), Bureau of Labor Statistics (10/24), U.S. Census Bureau (2023), Bureau of Labor Statistics (2024), Federal Housing Finance Agency All Transactions Index (Q2 2024), BRD calculations.

COLORADO RESIDENT LABOR FORCE
2015-2025
(Not Seasonally Adjusted) (In Thousands)

Labor Force	2015	2016	2017	2018	2019	2020	2021	2022	2023[a]	2024[b]	2025[c]
Colorado Labor Force	2,825.8	2,894.2	2,963.8	3,054.3	3,104.7	3,082.2	3,149.7	3,186.9	3,230.5	3,243.4	3,259.0
Total Employment	2,720.0	2,803.5	2,886.0	2,961.4	3,022.1	2,873.8	2,977.5	3,089.1	3,128.1	3,115.6	3,118.7
Unemployed	105.8	90.7	77.8	92.9	82.6	208.5	172.2	97.9	102.4	127.8	140.3
Unemployment Rate	3.7%	3.1%	2.6%	3.0%	2.7%	6.8%	5.5%	3.1%	3.2%	3.9%	4.3%
Labor Force Participation Rate	66.7%	67.0%	67.7%	68.6%	68.7%	67.3%	68.1%	68.2%	68.4%	67.9%	67.4%

[a]Estimated. [b]Forecast. Note: There are methodological differences between the LAUS data series and the CES employment data series that is used throughout the rest of this book.

Sources: Colorado Department of Labor and Employment (LAUS data) and Colorado Business Economic Outlook Committee.

COLORADO NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
2015-2025
(In Thousands)

Sector	2015	2016	2017	2018	2019	2020	2021	2022	2023[a]	2024[b]	2025[c]
Natural Resources and Mining	30.7	23.7	25.8	28.6	28.8	21.8	19.8	20.8	21.7	22.6	23.6
Construction	148.8	155.3	163.7	173.2	179.1	174.9	177.5	183.1	183.8	182.9	188.9
Manufacturing	141.0	142.7	144.3	147.5	150.5	146.8	149.2	152.9	151.1	150.7	151.7
Trade, Transportation, and Utilities	445.7	453.9	461.3	470.4	477.9	469.3	486.5	502.3	506.5	507.5	509.2
Information	71.0	72.2	72.3	75.6	77.1	75.1	76.2	79.4	77.7	74.0	72.5
Financial Activities	159.0	163.9	168.1	171.6	174.6	172.8	178.2	182.1	180.5	184.0	186.6
Professional and Business Services	398.1	405.4	412.4	423.5	439.2	430.4	453.8	484.1	498.5	504.3	509.3
Education and Health Services	313.3	325.8	334.1	340.7	347.6	339.2	347.8	353.7	369.9	383.6	392.5
Leisure and Hospitality	312.8	323.6	333.2	339.7	345.4	272.0	305.6	338.4	351.8	356.9	360.2
Other Services	104.2	107.3	108.6	110.9	114.8	110.4	117.8	122.8	127.1	130.0	132.2
Government	416.5	428.1	436.7	445.6	455.1	440.2	438.5	450.1	473.3	492.2	498.7
Total[d]	2,541.1	2,601.9	2,660.5	2,727.3	2,790.1	2,652.9	2,750.9	2,869.7	2,941.9	2,988.7	3,025.4

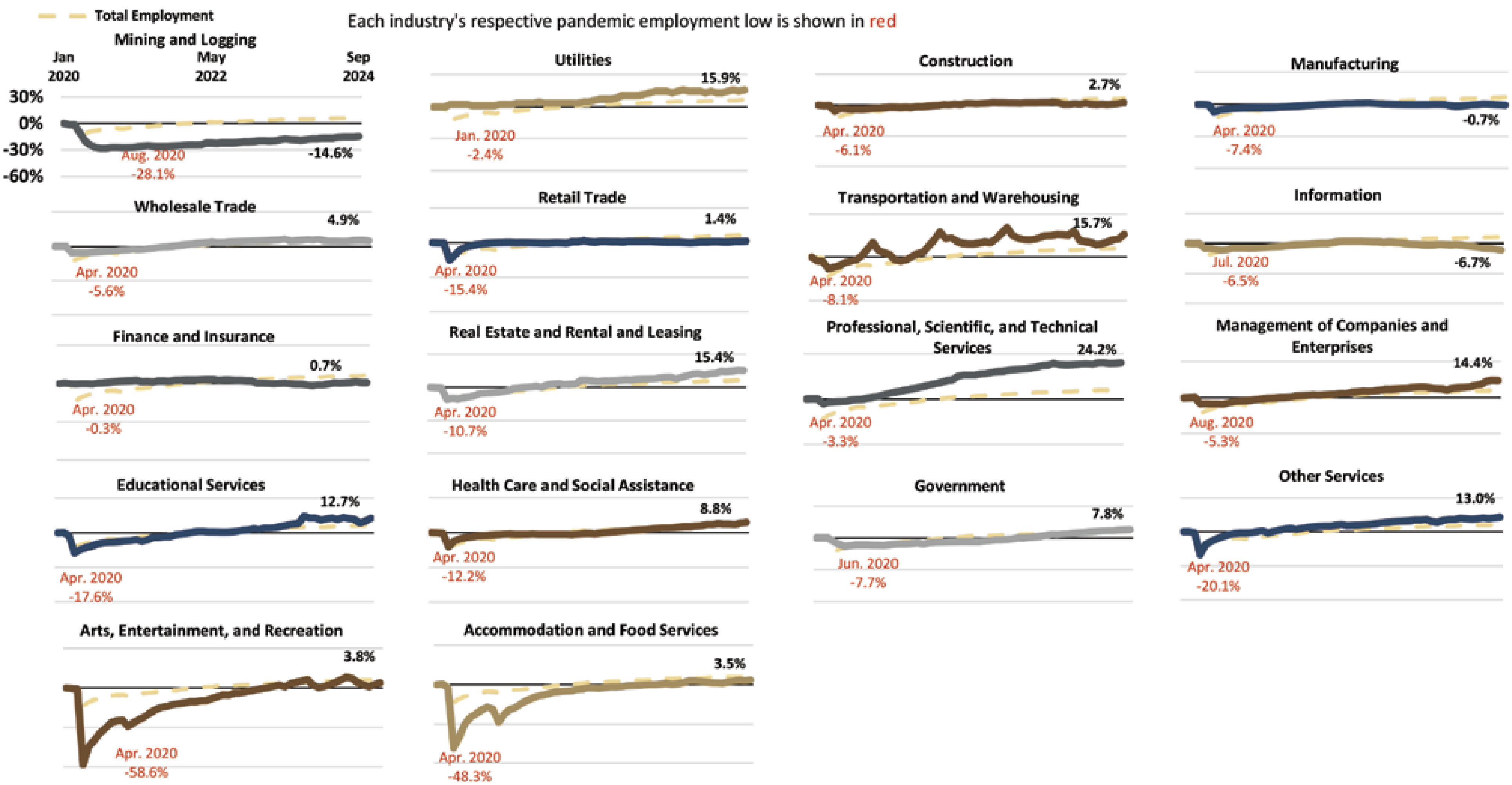
[a]Revised. [b]Estimated. [c]Forecast. [d]Due to rounding, the sum of the individual sectors may not equal the total.Note: Nonagricultural self-employed, unpaid family workers, and domestics are excluded from the total. Sources: Colorado Department of Labor and Employment (CES Data) and Colorado Business Economic Outlook Committee.

continued on page 14

Colorado Economic, Employment, and Population Outlook

continued from page 13

COLORADO EMPLOYMENT TRENDS BY SECTOR, PERCENT CHANGE FROM JANUARY 2020 - SEPTEMBER 2024



Notes: Employment differences taken from January 2020; the month and percent difference from January 2020 for each industry's pandemic bottom in employment is shown for each industry.
The CES employment data is succeptible to large revisions.
Source: Bureau of Labor Statistics, Current Employment Statistics (CES).

estimated at 46,800 (1.6%), and the forecast for 2025 is for an additional 36,700 jobs (1.2%). In 2024, eight of the 11 industries in the state are estimated to have posted job growth—with Government, Education and Health Services, and Professional and Business Services posting the most jobs—and Natural Resources and Mining, Government, and Education and Health Services recording the fastest job growth. Three industries posted job loss for the year—Information, Construction, and Manufacturing.

Looking ahead to 2025, all industries except Information are projected to add employment in 2025, led by Education and Health Services, Government, and Construction.

Preliminary year-over-year employment growth was recorded in all but one of Colorado's seven metropolitan areas in October 2024—Colorado Springs (1.9%), Boulder (1.4%), Greeley (1%), Denver-Aurora-Lakewood (0.8%), Fort Collins-Loveland (0.6%), and Grand Junction (0.4%). The Pueblo MSA was the only one to record a decline in the official statistics (-0.5%).

Most businesses in the economy are small businesses—97% of wage and salary establishments have fewer than 50 employees. These small businesses represent just under half (49%) of jobs in Colorado.

Labor Force and Unemployment

The monthly unemployment rate increased in 2024, growing from 3.3% in October 2023 to 4.1% in October 2024. The rising unemployment rate reflects the delicate balance between a moving number of unemployed (numerator) and labor force (denominator) that sometimes produces nonintuitive results (e.g., a rising unemployment rate during periods of job growth). October's unemployment rate increase reflects a rise in the labor force and a fall in the number of people employed. Colorado is projected to have both labor force growth and a higher number of people unemployed looking for work in 2025.

The labor force participation rate (LFPR) is important because it conveys the relative amount of labor resources available for the production of goods and services. The LFPR is the percentage of the civilian noninstitutional population 16 years and older either working or actively looking for work. This metric is calculated by dividing the labor force by the civilian noninstitutional population age 16 and older. The labor force is calculated as the sum of the number of employed and unemployed members of the civilian noninstitutional population age 16 and older, where "employed" is defined as someone who did any work for pay or profit during the week of the survey; did at least 15 hours of unpaid work in a business or farm operated by a family member they live with; or were temporarily absent from regular jobs because of illness, vacation, bad weather, labor disputes, or various personal reasons. Civilians within the noninstitutional population considered "unemployed" are those who did not have a job during the week of the survey, made at least one specific active effort to find a job during the past four weeks, and were available for work. Unemployed also includes those not working because they are waiting to be called back to a job they had been laid off from.

Structural demographic shifts are impacting labor force participation as the large baby boomer generation retires. The average national LPFR was 62.6% in October 2024. Colorado was fourth in the nation in terms of the highest LFPRs in October 2024, with a rate of 67.9%—a slight decrease from a year earlier. Another measure of the labor market is the employment-to-population ratio. This measure of labor market performance is helpful because it tends to be less volatile than the unemployment rate, which has a fluctuating numerator (unemployed) and denominator (labor force). Colorado's employment-to-population ratio was 65.1% in 2024, a decrease from October 2023.

Labor Data Sets Differ

The data for this forecast are derived from two U.S. Bureau of Labor Statistics (BLS) sources: Current Employment Statistics (CES) and Local Area Unemployment Statistics (LAUS). The CES data set is the most frequently cited labor series and is typically used to evaluate sector trends. Compiled from a survey of companies, it includes full- and part-time workers, temporary workers, employees on paid holiday or sick leave, and those who worked for only part of a pay period. It does not include sole proprietors. CES data for a particular year are revised twice—three months and 15 months after the end of the year—based on the Quarterly Census of Employment and Wages (QCEW) that all firms are required to submit. The LAUS labor series provides an estimate of the size of the total labor force and is used to calculate the unemployment rate. The LAUS data consider the labor force as everyone of working age who is actively employed or looking for a job. Students, retirees, stay-at-home parents, institutionalized individuals, and discouraged workers are not included in the workforce. This data series, which is more inclusive than the CES data set, is compiled from a survey of households. It includes farm workers, self-employed individuals, and full-time or part-time employees.

Population

Total Population Change

In July of 2023, the U.S. population reached 334,914,895, an increase of 1.6 million over the year, or a growth rate of 0.5%. Eight states declined in population. Colorado's resident population as of July 2023 was 5,876,300, ranking 21st in size in the United States. Colorado's population increased by 36,100, or 0.6%, from July 2022 to July 2023, ranking it 9th in total change and 18th in percentage change. This growth is slightly higher than in 2022 and significantly slower than the 76,000 annual average during the previous decade. Births in Colorado were 62,200, flat compared to the previous year and lower than the peak of 70,800 in 2007. Births are the largest component of population change in Colorado. There were 45,300 deaths between July 2022 and July 2023, a slowdown from the 49,700 in 2022. Deaths have been increasing due to aging in Colorado, but they also temporarily increased due to COVID. Natural change (births

continued on page 16

Colorado Economic, Employment, and Population Outlook

continued from page 15

COUNTY POPULATION GROWTH, 2022-2023

	Rank	County	2022-2023	County	Largest Population
Growth	1	Weld	9,355	El Paso	744,153
Growth	2	Douglas	7,953	Denver	715,636
Growth	3	Adams	6,272	Arapahoe	655,760
Growth	4	El Paso	3,614	Jefferson	576,381
Growth	5	Larimer	2,937	Adams	533,580
				Douglas	383,911
Percent Growth	1	Bent	4.6%	Larimer	370,639
Percent Growth	2	Custer	3.9%	Weld	359,530
Percent Growth	3	Elbert	3.5%	Boulder	326,663
Percent Growth	4	Dolores	2.9%	Pueblo	169,427
Percent Growth	5	Weld	2.7%	Mesa	159,637

Source: Colorado State Demography Office.

COMPONENTS OF COLORADO RESIDENT POPULATION CHANGE, 2015-2025 (In Thousands)

Year	Births (Resident)	Deaths (Resident)	Natural Increase	Net Migration	Population Change	Total Population
2015	66.3	36.2	30.1	68.8	98.9	5,446.6
2016	66.6	36.8	29.7	53.3	83.0	5,529.6
2017	65.3	37.7	27.6	42.4	70.0	5,599.6
2018	63.8	38.2	25.6	51.8	77.3	5,676.9
2019	62.5	38.6	23.8	34.2	58.0	5,734.9
2020	62.8	42.1	20.7	29.4	50.1	5,785.0
2021	62.0	46.6	15.4	10.7	26.2	5,811.1
2022	62.5	49.7	12.8	16.4	29.1	5,840.2
2023	62.2	45.3	16.9	19.2	36.1	5,876.3
2024[a]	62.5	45.0	17.5	25.3	42.8	5,919.1
2025[a]	62.0	43.3	18.7	32.7	51.4	5,970.5

[a]Forecast. Source: Colorado Department of Local Affairs, State Demography Office (November 2024 estimates).

minus deaths) was 16,900. Despite the lower levels of natural change, Colorado had the 7th-largest natural change in the country due to the state's younger average age. There are 19 states in a phase of natural decline with more deaths than births.

Net migration accounted for 19,200 of the growth in the state. This was slightly higher than 2022 but significantly lower than the 46,000 annual average during the 2010s. International migration was estimated at 12,000, returning to prepandemic levels. The late-2023 arrival of refugees and international migrants will not count in population estimates until 2024 since it occurred after July 1. Domestic migration was estimated at 7,100, up slightly from 2022 but significantly slower than the average of 38,000 last decade.

More U.S. counties experienced population gains than losses in 2023, as counties in the South saw faster growth, and more Northeast and Midwest counties had population losses turn to gains. Approximately 60% (1,876) of U.S. counties gained population from 2022 to 2023. Areas that experienced high levels of domestic out-migration during the pandemic, such as in the Midwest and Northeast, are now seeing more counties with population growth. Meanwhile, county population growth is slowing in the West.

In Colorado, population in 23 of the state's 64 counties, or 36%, declined. Twenty-four counties experienced net out-migration led by Arapahoe, Eagle, and Boulder. Thirty-five of the 64 counties are in a phase of natural decline—meaning there were more deaths than births. Most of the counties in a phase of natural decline were in the nonmetro parts of the state and ranged from -500 to -2. However, the metro counties of Pueblo and Mesa led the list of counties in natural decline. The three counties with the largest natural increase were El Paso, Adams, and Denver.

Births continued to be lower than historical trends in 2023 but were holding steady. The slowing in births will continue to have long-run impacts on K-12 and higher education, as well as the labor force. Every county is different. Most counties reached their peak births in 2007 but some counties, like Jefferson, reached their peak births in 2000. Weld is the only Front Range county that is continuing to see an increase in births. Births in the state are forecast to increase slightly in 2023 and 2024 as the number of women of childbearing age increases. Additionally, the largest group of millennials are entering

COLORADO POPULATION CHANGE BY AGE 2022-2023

Age	2022	2023	Change	Pct Ch.
0 to 17	1,253,611	1,246,217	-7,394	-0.6%
18 to 24	535,159	540,236	5,077	0.9
25 to 44	1,725,756	1,731,833	6,077	0.4
45 to 64	1,396,409	1,395,860	-549	0.0
65+	929,308	962,147	32,839	3.2
Total	5,840,243	5,876,293	36,050	0.6

Source: Colorado State Demography Office.

their 30s, an age group where Colorado has experienced increased birth rates.

Over time, the number of deaths in Colorado has increased, reflecting a larger number of older adults. COVID caused an additional increase in deaths in 2020, 2021, and 2022. In 2023, deaths reached 45,300, an estimated 4,000 fewer than in 2022. Forecasts for 2024 have deaths slowing to 44,000 but are still higher than the 39,000 in 2019.

Change by County

From 2022 to 2023, 90% of the population growth was along the Front Range but varied by county. Boulder and Arapahoe declined, but there were increases in the rest of the Front Range counties, ranging from 9,000 in Weld to 300 in Jefferson. The Front Range still increased by the most population but a few non-Front Range counties, like Bent County (due to growth in the prison population), Custer County, and Dolores County, experienced faster growth.

Age

Population growth by age group continues to be a defining factor for Colorado due to two primary reasons. First, births have been declining since 2007 in both the United States and Colorado. The second significant impact is the growth in the 65+ population, which increased by almost 33,000 between 2022 and 2023. The growth in this group is primarily due to more people aging into the cohort rather than net migration. It is estimated that 68,300 Coloradans turned 65 in 2023. The growth in the 65+ age group is impacting the labor force, with a growing number of retirements even as workers are staying in the labor force longer. It is estimated that 40,000 workers will retire annually this decade. Additionally, the 65+ population is driving the economy with demand for health services and leisure and hospitality, and is impacting housing due to lower rates of mobility and smaller household sizes.

Coloradans who are 65 and older are the fastest- and largest-growing cohort in the state. This age group is now over 960,000, increasing by almost 33,000 from 2022 to 2023 and growing at a rate of 3.5% per year compared to the total population at 0.6%. Growth in the 65+ population represented 91% of the growth in the state between 2022 and 2023. There was a total decline of 7,400 in the under 18 population due to slowing births since 2007. There was a decline of 550 in the 45-64 age cohort as Gen X ages into the age cohort that is being vacated by the boomers. The age cohort 25-44 increased by 6,000 from 2022 to 2023, compared to growth of 15,000 the previous year. This cohort is primarily made up of millennials, with the leading-edge age 42, peak age 31, and tail-end age 27 in 2023.

Race and Ethnicity

Colorado's population by race and ethnicity is primarily 67% White non-Hispanic, with a growing share people of color. Since 2020, Colorado's growth has been 78% from people of color and 22% from White non-Hispanic. The difference in growth is primarily driven by Colorado's share of the population by race and ethnicity by age. The population over age 65 is 82% White non-Hispanic, compared to the population under 25 who are 56% White non-Hispanic. Therefore, a larger share of the deaths and a smaller share of the births are White non-Hispanic. The difference and change by age by race and ethnicity will influence the growth in the labor force and consumer base.

COLORADO POPULATION BY RACE/ETHNICITY 2020-2030

	2020	2030	Change
American Indian or Alaska Native	36,274	41,073	4,799
Asian Non-Hispanic	195,737	244,772	49,035
Black Non-Hispanic	233,770	261,764	27,994
Hispanic origin	1,273,136	1,600,798	327,662
Multiracial	140,919	178,277	37,358
Native Hawaiian and Pacific Islander	8,531	13,053	4,522
White Non-Hispanic	3,896,217	4,014,287	118,070

Source: Department of Local Affairs, State Demography Office.

Between 2020 and 2030, Colorado's Hispanic population is forecast to increase the most, by 327,000, to reach 1.6 million and represent about 25% of Colorado's population. The fastest-growing population is forecast to be the Native Hawaiian Pacific Islanders, increasing by 53%, from 8,500 to 13,000, followed by the multiracial population increasing by 26%, from 141,000 to 178,000.

Housing

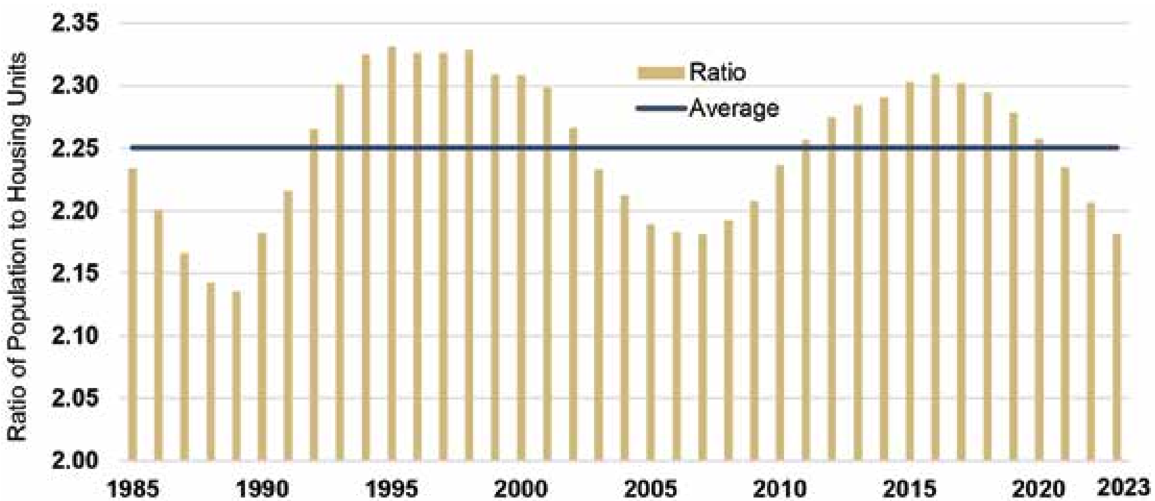
Housing-unit growth did not keep up with household formation during the last decade due to the Great Recession, creating a tight housing market and escalating home prices. Since 2018, Colorado has built more housing units than new household growth, making a dent in the housing undersupply. In 2023, housing growth increased by 45,500, and in 2024, housing is expected to increase by 40,000 units. Population growth was 36,000 in 2023, primarily driven by births. Deaths were 26,000

continued on page 18

Colorado Economic, Employment, and Population Outlook

continued from page 17

HOUSEHOLD POPULATION TO HOUSING UNIT RATIO



Source: Colorado Department of Local Affairs, State Demography Office.

more than net migration, meaning that there was a decline in the adult population. The increased supply in housing units and slowing demand by new population growth will help alleviate the supply/demand mismatch and allow those who have had to "double up" on housing the potential opportunity to find independent housing. New households were estimated to have increased by 27,000 in 2023 and are forecast to increase by 25,000 in 2024. The ratio of household population to housing units reached a low of 2.18 in 2023 after hitting a high of 2.31 in 2016. The 35-year average is 2.25, indicating that currently the housing supply is slightly looser than the historical average.

Household formation is forecast to grow annually by an estimated 32,000 over the next 10 years—as long as job employment and labor force growth holds as forecast. The largest cohort of the millennials are in their 30s, the primary age for first-time home buyers. The leading edge of the millennials are in their early 40s, entering the highest-earning and the prime second-home buying age cohort. The largest and fastest household growth will be in the 65+ population, but most of these households already have housing. The 65+ population has the lowest moving rate, and Colorado does not attract retirees. The growth is due to birthdays (people aging into the 65+ age group). Future job growth, as well as future expected retirements from the baby boomers, will support demand for workers and the need for housing. The aging of the baby boomers into their 70s and 80s may create more turnover in larger, single-family homes as they look to downsize or need more assistance. Of course, several factors, including location, availability, cost, and health needs, will also factor into these decisions.

HOUSEHOLDS BY AGE OF HOUSEHOLDER

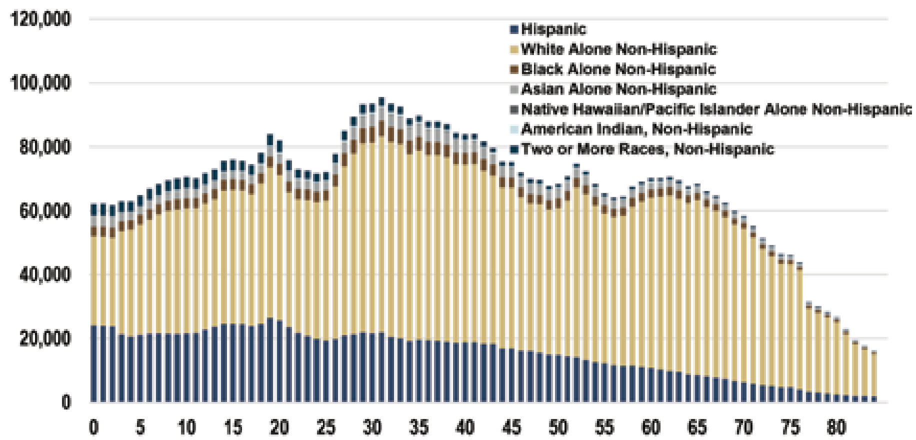
Age Group	2020	2030	Change	Percent Change
18 to 24	100,519	97,705	-2,814	-2.8%
25 to 44	806,311	878,187	71,876	8.9
45 to 64	802,808	836,541	33,733	4.2
65+	558,218	756,765	198,547	35.6
Total	2,267,857	2,569,198	301,341	13.3

Source: Department of Local Affairs, State Demography Office.

Forecasts

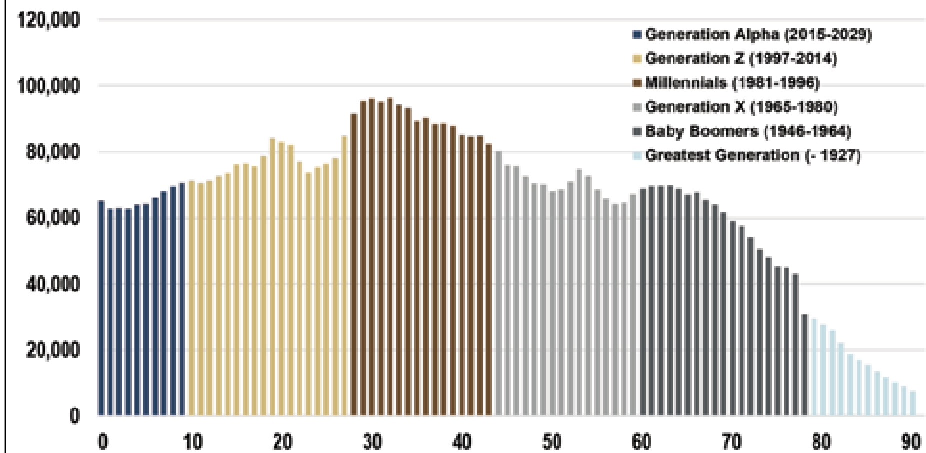
Colorado's population growth has slowed in the short run, with continued slowing births, increased deaths due to both aging and COVID, and slowing migration. Death levels and international migration are returning to pre-COVID levels. Colorado's domestic migration has significantly slowed in recent years to an average of 6,500 since 2020 compared to 38,000 during the 2010s. Since 2022, international migration returned to prepandemic levels and is expected to remain at levels around 10,000 through this decade. Universities and the demand for labor should draw more individuals from abroad depending on U.S. immigration policies and staffing in visa offices. Population growth in 2024 is projected to be 43,000, or a 0.7% growth rate, and 51,000 in 2025. Most of the growth continues to be driven by births, at around 62,000 per year. Deaths are forecast to return to prepandemic levels in the mid- to low-40,000s. Net migration is forecast to increase to 25,000 in 2024 and 33,000 in 2025. Net migration is forecast to increase due to both job growth, as well as retirements of baby boomers and the need for their replacements. Over 40,000 retirements are forecast annually this decade, and job growth is forecast at an average of 43,000 per year from 2023-2030, creating

COLORADO POPULATION BY RACE/ETHNICITY, 2023



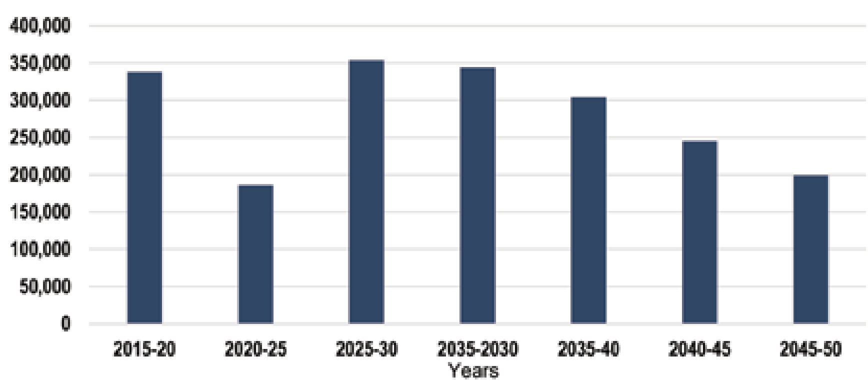
Source: Colorado Department of Local Affairs, State Demography Office.

COLORADO POPULATION BY AGE, 2024



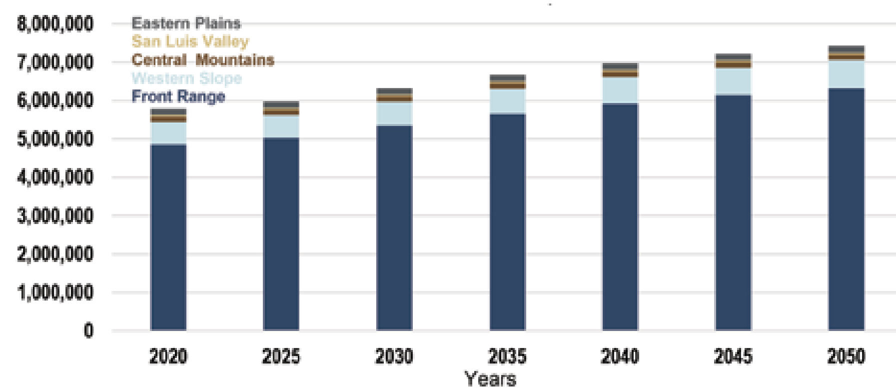
Source: Colorado Department of Local Affairs, State Demography Office.

COLORADO POPULATION CHANGE, 5-YEAR PROJECTIONS



Source: Colorado Department of Local Affairs, State Demography Office.

COLORADO POPULATION BY REGION, 5-YEAR PROJECTIONS



Source: Colorado Department of Local Affairs, State Demography Office.

continued on page 20

Colorado Economic, Employment, and Population Outlook

continued from page 19

a demand for approximately 83,000 new workers combined annually.

After 2030, population growth is expected to slow more significantly due to a slowing economy, continued slowing births nationally, an aging population, slowing labor force growth, and increased national competition for labor. Although Colorado's population growth is forecast to slow in the long run, it is projected to continue to outpace the nation, growing at roughly twice the national rate. Colorado is forecast to increase from 1.7% of the U.S. population in 2020 to 2% by 2050. Geographically, the largest population growth is forecast to be along the Front Range. Between 2020 and 2030, the state's population is projected to increase by 540,000, with 90% of this increase projected for the Front Range and of that, 260,000 for the Denver Metro area. The north Front Range is expected to observe the fastest growth, at an annual average growth rate of 1.8%, or 135,000 people. The 2050 forecast for the state is 7.4 million, with 6.3 million along the Front Range, or 85% of the total population.

Contributors:

Elizabeth Garner, Colorado Department of Local Affairs (Co-Chair)
Joseph Winter, Colorado Department of Labor and Employment (Co-Chair)
Monicque Aragon, Colorado Department of Labor and Employment
Cindy DeGroen, Colorado Department of Local Affairs
Adam Illig, University of Colorado Boulder
Shannon Kerr, Colorado Department of Labor and Employment
Brian Lewandowski, University of Colorado Boulder
Robert McNown, JTC Econometrics
Bryce Petrillo, Leeds School of Business
Marcus Popoff, Leeds School of Business
Ethan Street, Leeds School of Business
Richard Wobbekind, University of Colorado Boulder
Tim Wonhof, Colorado Department of Labor and Employment

AVERAGE ANNUAL PAY BY SECTOR COLORADO AND UNITED STATES (Q1 2024)

NAICS	Sector	Colorado	1-Year Growth	United States	1-Year Growth
11	Agriculture, Forestry, Fishing, Hunting	$48,256	2.5%	$45,599	2.9%
21	Mining	159,322	-4.5	124,906	2.1
22	Utilities	133,620	5.8	130,196	2.3
23	Construction	78,714	1.6	78,048	4.0
31-33	Manufacturing	87,290	4.1	83,647	3.3
42	Wholesale Trade	111,587	2.3	99,427	2.6
44-45	Retail Trade	43,449	0.9	41,256	0.5
48-49	Transportation and Warehousing	74,953	9.0	64,925	4.7
51	Information	144,006	5.2	161,075	10.2
52	Finance and Insurance	126,890	3.6	137,461	2.9
53	Real Estate and Rental and Leasing	79,532	-1.5	74,903	0.0
54	Professional and Technical Services	130,289	4.6	123,118	3.5
55	Mgmt of Companies and Enterprises	163,664	2.1	149,611	2.8
56	Administrative and Waste Services	60,218	0.4	56,569	1.9
61	Educational Services	54,288	0.5	62,275	2.5
62	Health Care and Social Assistance	65,205	1.8	63,277	1.6
71	Arts, Entertainment, and Recreation	50,530	5.3	49,667	0.7
72	Accommodation and Food Services	32,900	2.7	28,921	2.9
81	Other Services	55,898	3.9	51,233	3.2
	Government	71,405	3.2	71,584	3.4
	Federal	101,997	3.8	99,047	3.4
	State	80,357	3.7	77,235	3.9
	Local	61,601	2.9	64,086	3.2
	Total, All Industries	77,827	2.7	73,169	2.8

Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages.


Shorthorns near Needle Rock. Photo courtesy of Kris Stewart.

Summary

Employment in Colorado is estimated to have increased 1.6%, or 46,800 jobs, in 2024, pushing the economy to new peaks. Colorado will sustain job growth in 2025, albeit at a more modest pace, increasing by another 36,700 jobs (1.2%). Of the 11 industry groups in the state, 10 are projected to add jobs in 2025; the exception is Information, which continues to face long-standing industry challenges. In 2025, Education and Health Services is projected to add the most jobs, while the fastest pace of job growth (percentage terms) is projected in Natural Resources and Mining.

Agriculture—High production costs and lower crop prices will remain headwinds for the Agriculture sector in 2025. The outlook for crop farmers is grim, as market prices for many of Colorado's field crops were lower in 2024 than in 2023, and prices are expected to remain unfavorable in 2025. Conversely, beef, egg, and dairy growers experienced a good year, led by Colorado's strong cattle production. Colorado's 2024 net farm income is estimated to decrease 10.5%, but grow 12.2% in 2025.

Natural Resources and Mining—Colorado's Natural Resources and Mining sector valuation is estimated at $17.5 billion in 2024, a nearly 7% decrease from the 2023 sector valuation of $18.7 billion and a notable 37% below the valuation in 2022. Colorado's total value of oil and gas production is estimated to be $14.9 billion in 2024, down 6.5% from 2023 due to a modest decrease in physical output and muted prices. The value of Natural Resources and Mining is projected to increase modestly (1%) in 2025.

Construction—Total Construction activity is estimated at $19.3 billion in 2024, representing a decline of 15% from 2023, primarily driven by declines in multifamily and nonresidential sectors. While single-family permits increased and are expected to rise further in 2025 due to higher in-migration and declining interest rates, multifamily construction permits decreased significantly. While the multifamily slowdown was attributed to high interest rates, softening rental markets, and increased regulations in local governments, demand is expected to improve as in-migration increases and single-family homes remain relatively unaffordable. Nonresidential building construction is expected to decline slightly while nonbuilding construction activity is expected to increase, driven by large renewable energy utility projects.

Manufacturing—Much like the rest of the nation, Colorado's Manufacturing sector has struggled with the effect of high interest rates, high costs of raw materials and inputs, a slower housing market, and reduced demand for durable goods. Overarching market dynamics, including a persistent skills gap and an ongoing push to automation, have influenced several of the manufacturing subsectors. Given these challenges, manufacturing in Colorado is expected to slightly contract in 2024, driven by losses in nondurable goods and flat employment in durable goods. Despite the expected losses in the near term, easing interest rates, federal investment in renewable energy, and growth in food products and beverages are expected to generate modest employment gains in the state in 2025.

ANNUAL EMPLOYMENT CHANGE IN NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT SECTORS, 2015-2025 (In Thousands)

Sector	2015	2016	2017	2018	2019	2020	2021	2022	2023[a]	2024[b]	2025[c]
Natural Resources and Mining	-3.4	-7.0	2.1	2.8	0.2	-7.0	-2.0	1.0	0.9	0.9	1.0
Construction	6.6	6.5	8.4	9.5	5.9	-4.2	2.6	5.6	0.7	-0.9	6.0
Manufacturing	4.4	1.7	1.6	3.2	3.0	-3.7	2.4	3.7	-1.8	-0.4	1.0
Trade, Transportation, and Utilities	13.0	8.2	7.4	9.1	7.5	-8.6	17.2	15.8	4.2	1.0	1.7
Information	0.5	1.2	0.1	3.3	1.5	-2.0	1.1	3.2	-1.7	-3.7	-1.5
Financial Activities	5.1	4.9	4.2	3.5	3.0	-1.8	5.4	3.9	-1.6	3.5	2.6
Professional and Business Services	11.7	7.3	7.0	11.1	15.7	-8.8	23.4	30.3	14.4	5.8	5.0
Education and Health Services	15.3	12.5	8.3	6.6	6.9	-8.4	8.6	5.9	16.2	13.7	8.9
Leisure and Hospitality	12.4	10.8	9.6	6.5	5.7	-73.4	33.6	32.8	13.4	5.1	3.3
Other Services	3.3	3.1	1.3	2.3	3.9	-4.4	7.4	5.0	4.3	2.9	2.2
Government	8.6	11.6	8.6	8.9	9.5	-14.9	-1.7	11.6	23.2	18.9	6.5
Total[d]	77.5	60.8	58.6	66.8	62.8	-137.2	98.0	118.8	72.2	46.8	36.7

[a]Revised. [b]Estimated. [c]Forecast. [d]Due to rounding, the sum of the sectors may not equal the total. Sources: Colorado Dept. of Labor and Employment and Colorado Business Economic Outlook Committees.

Trade, Transportation, and Utilities—The uniqueness of this large sector covering a wide array of companies continues to bolster the industry as the largest in the state. While growth in retail trade sales slowed in the first half of 2024, it is projected to positively rebound over the second half of 2024. Warehouse employment in the state surged before and during the pandemic but has normalized in 2024. In addition, the market penetration of electric vehicles in the state continues to increase. As one of the largest employment sectors in Colorado, the industry remains an anchor of the Colorado economy; however, growth will remain very slow in 2025.

Information—After experiencing a rebound in 2021 and 2022, employment in the Information sector has softened, losing 1,700 jobs in 2023, with additional job losses expected in 2024 and 2025. Information's recent employment losses have been driven by declines in telecommunications and software publishing. Several industry headwinds include the rapid gains in AI and other technological advancements, oversaturated markets, and shifting consumer preferences. One potential bright spot in the Information sector is the Data Processing, Hosting, and Related Services subsector, which has experienced recent employment growth. Employment in the sector is expected to decline in 2024 and again in 2025 as long-term declines in traditional publishing and telecommunications industries persist.

Financial Activities—Financial Activities outperformed other industries in 2024 but is expected to continue to increase at a slower rate in 2025. Commercial banking has been strong in 2024, and commercial real estate markets are expected to improve more broadly in 2025. The health of this sector will continue to be directly linked to monetary and fiscal policy actions in the near term.

Professional and Business Services—The sector continues to be a strength within the Colorado economy—at the end of 2023, it was the 2nd-largest private sector industry with about 17% of total jobs in the state—and it recovered quickly from the pandemic-induced downturn. The highly skilled and highly educated workforce continues to increasingly be sourced and managed remotely, offering more flexibility to employees and reducing overhead cost for offices. Employment in the sector has moderated in recent years, and that trend is expected to continue in 2024 and 2025, but Colorado's position as one of the most innovative, educated, and entrepreneurial states bodes well for the sector.

Education and Health Services—While employment in the Health Care and Social Assistance subsector increased significantly in Q1 2024, driven by large growth in ambulatory care, a number of issues persist. The number of uninsured patients in the state is likely to increase as the full effect of Medicaid redeterminations are realized in the aftermath of the pandemic. In addition, Colorado's aging population will have widespread ramifications for the health care landscape within the state. Growth in private education services in the year ahead will continue to be influenced by the ability of schools to adjust to the changing demands of online learning and potentially declining enrollment. Employment in Education and Health Services is expected to grow 3.7% in 2024 and grow by an additional 2.3% in 2025.

Leisure and Hospitality—The Leisure and Hospitality industry fully recouped its pandemic-era job losses, growing 4% in 2023. Despite recent employment gains, the industry is expected to continue to be constrained by pandemic-era challenges, and Colorado restaurants continue to face high operational costs, labor challenges, and legislative changes that have led to reduced profitability and closures. Tourism in Colorado continues to be strong, and the Colorado skiing industry experienced its 2nd-busiest winter in the 2023-24 season. Industry employment is expected to post modest growth in 2025, as the industry faces persistent economic challenges.

Other Services—Businesses in this sector (e.g., hair and nail care, religious organizations) will continue to be intrinsically linked with the economy, demographics of the Colorado population, disposable income, and consumer confidence. This industry has experienced steady employment growth in recent years and is expected to continue growing as unionization increases and demand for vehicle maintenance persists.

Government—After a relatively slow rebound from the pandemic, Government employment increased 5.2% in 2023, reaching a new employment peak. As the sector continues its recovery in 2024, government entities at all levels continue to face lingering challenges, including higher costs, the end of pandemic-era federal funding, worker shortages, and flat tax revenues. Federal government employment may post modest growth in 2025 while state government employment remains flat. Local government is projected to increase 2.1%.

National and Colorado

- National real GDP grew an estimated 2.7% in 2024. U.S. real GDP is projected to grow 2.3% in 2025, with consumption, investment, and government spending all adding to overall growth.
- Consumers appear to have worked through headwinds that risked a disruption in consumption. Personal consumption grew an estimated 2.7% in 2024, and moderate growth is projected to continue in 2025, at 2.6%.
- Rising interest rate policies were deployed to manage high inflation. The higher interest rates had a cooling effect on investment. Fed policy reversed in the second half of 2024 with two initial rate cuts summing to 0.75%. The lower cost of borrowing could boost residential and nonresidential fixed investment if the longer end of the yield curve responds accordingly.
- Employment growth in Colorado is projected at 36,700 in 2025, with jobs added in 10 of the 11 major industries.
- In 2025, Colorado is projected to add 49,800 people, according to the State Demography Office. Growth will come from net migration (33,000) and from the natural increase (19,000).

Agriculture

A day in the life of a farmer: hard physical labor, running a business, critical thinking, strategic planning, uncertain circumstances, and ensuring their farming practices sustain our state's resources for generations to come. Agriculture faces a complicated environment. Laws and lawmakers, at the state and local levels, suddenly turn the world upside down. Ballot initiatives change the way agriculture does business, limiting production practices or adding predators back into the environment. There is no controlling the weather. Water may be available to irrigate the crop this year but not next year. Input costs, such as fuel and fertilizer, are higher. And this year, the prices farmers receive for many of Colorado's commodities are significantly lower. Is agriculture in a recession, or is it headed for one?

Farmers who don't have livestock are in a challenging position. As difficult as 2024 has been, 2025 looks like it may be even worse for crop farmers. Market prices for many of Colorado's field crops were significantly lower in 2024 than in 2023, and there is not much on the horizon to indicate improvement. Corn that sold for $6.04 a bushel in September 2023 sold for $4.60 a bushel in September 2024. Wheat dropped from $6.45 in September 2023 to $5.14 in September 2024. It literally costs some farmers more to plant and harvest their fields than they can make selling their crops.

However, those growers producing beef, eggs, and dairy had a comparatively good year. Livestock producers are estimated to only see a slight reduction in cash receipts for 2024 and an increase in 2025. Cattle producers are rebuilding their herds based on strong beef prices and lower feed costs. Conversely, those growing feed for cows—hay, corn, and wheat—are suffering because of those lower prices for their commodities.

Overall, U.S. farm income declined 19.5% from 2022 to 2023 and is forecast to decrease another 4.4% from 2023 to 2024, according to the USDA Economic Research Service. Colorado ag producers saw a 13.4% drop in net farm income from 2022 to 2023, with an estimated 10.5% drop for 2024 and a forecast improvement of 12.2% for 2025. Colorado agriculture generally outperforms national farm income because of the predominance of cattle in Colorado.


Bringing in the harvest. Photo courtesy of Carl Steitz.

INDUSTRY SNAPSHOT
AGRICULTURE

Nominal GDP, 2023 ($ Billions)	3.4
Real GDP, 2023 ($ Billions, 2017 Dollars)	2.4
2023 Real GDP Growth Rate	11.8%

Source: Bureau of Economic Analysis.

Weather and Other Disasters

According to the U.S. Drought Monitor, as of October 24, 2024, 56% of Colorado was experiencing some level of drought. La Niña conditions are expected to emerge in fall 2024 and are predicted to persist through January-March 2025. La Niña generally brings more moisture to the mountains, enriching prospects for irrigated agriculture, but doesn't always mean additional snow or rain for the major agricultural regions on the Eastern Plains.

Agricultural land continues to be taken out of production in the Republican and Arkansas River basins and in the San Luis Valley. Cities continue to grow, and they need water. One of the available sources in Colorado is agricultural water. When a city buys rights to that water, the land is re-seeded to native grasses, planted in a dryland crop rather than irrigated, or simply left unplanted. In Crowley County, city purchases of water have reduced irrigated acres from 50,000 in the 1970s to just a few thousand in 2024, according to a *Colorado Sun* article.

Crop farmers faced erratic weather in 2024, with good rains in the spring followed by one of the hottest summers on record. Extreme weather nationwide—such as derechos, blizzards, hurricanes, and floods—has increased insurance costs. Derechos in the Midwest in

2020 and 2022 damaged or destroyed many grain elevators, raising insurance costs nationwide for these businesses. Local grain elevators are key to farmers selling their products and getting them shipped to market. The increased insurance costs have led to additional consolidation within the grain elevator market, or elevators simply going out of business.

While many factors contribute to success or failure of a crop or farm, sometimes it simply takes a media headline. An October 2024 E. coli outbreak in Colorado and surrounding states was traced to McDonald's quarter pounders. Initial headlines blamed the problem on onions "from a Colorado farm." The onions had actually traveled through a warehouse located in Colorado Springs and likely originated on the West Coast. While media outlets corrected the headlines and stories, the impression that Colorado agriculture was at the root of this outbreak had already been made with consumers.

Political Implications

Colorado's new agriculture overtime requirements were fully phased in for the first time in 2024. Previously, seasonal agricultural labor was exempt from Department of Labor overtime standards. Some farmers have reported shifting some acres to crops requiring less hand labor. Larger operations have added additional housing for seasonal workers in order to contain costs by dividing labor across multiple shifts. Smaller operations that are unable to afford this option must change tactics or face consolidation or closure.

Producers also face uncertainty in agricultural policy as the 2018 Farm Bill expired last October. Congress extended provisions of the 2018 Farm Bill through 2024 to provide price support and risk management tools to producers, as well to fund important nutrition programs such as the Supplemental Nutrition Assistance Program (SNAP) and the Emergency Food Assistance Program (TEFAP). Congress did not pass a new Farm Bill before recessing for the fall 2024 elections.

The continuation of programs expires December 31, 2024. It is unlikely that a new Congress and new presidential administration will be able to coalesce around a new Farm Bill quickly.

Colorado Commodities

Regardless of whether Colorado commodity farmers (wheat, corn, sunflowers, sorghum) have a record crop

continued on page 26

VALUE ADDED BY COLORADO AGRICULTURAL SECTOR, 2015 - 2025
(In Millions of Dollars)

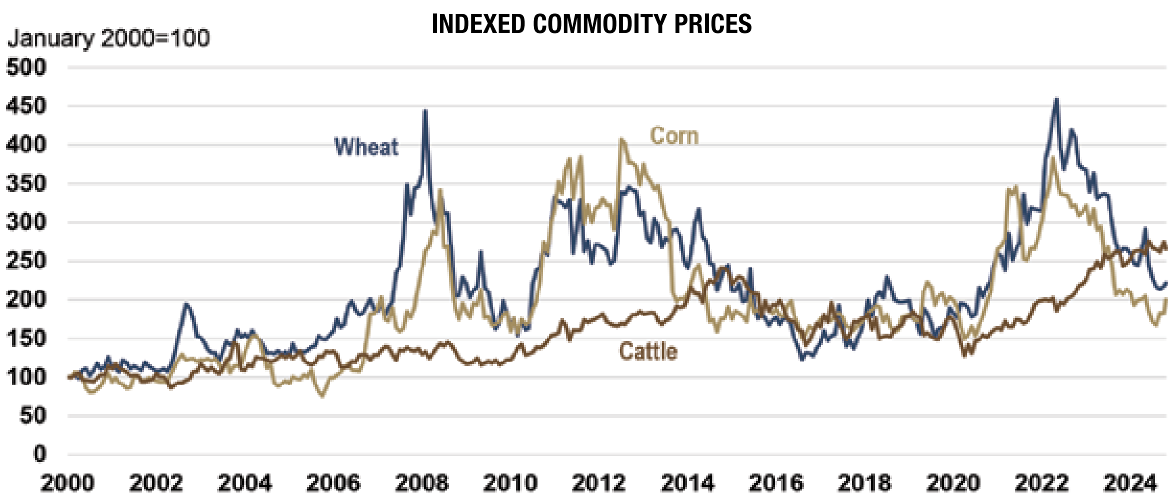
Year	Livestock	Crops	Total Value of Production	Value of Services and Forestry[a]	Government Payments[b]	Gross Value of Farm Revenue	Total Farm Production Expenses	Net Farm Income
2015	$5,551.8	$2,224.7	$7,776.5	$929.3	$218.6	$8,924.4	$7,309.2	$1,615.2
2016	4,431.3	2,050.1	6,481.4	907.2	233.9	7,622.5	6,358.2	1,264.3
2017	4,732.2	2,207.4	6,939.6	1,058.2	268.7	8,266.5	7,215.7	1,050.8
2018	4,705.1	2,286.8	6,991.9	1,179.0	229.9	8,400.8	7,023.9	1,376.9
2019	4,948.5	2,565.3	7,513.8	948.3	278.5	8,740.6	6,843.6	1,897.0
2020	5,003.4	2,043.5	7,046.9	1,475.7	738.5	9,261.1	7,936.6	1,324.5
2021	5,615.7	3,027.8	8,643.5	1,009.0	476.5	10,129.0	7,956.2	2,172.8
2022	6,291.6	2,512.2	8,803.8	1,817.0	454.4	11,075.2	8,433.5	2,641.7
2023	6,477.7	3,033.1	9,510.8	1,376.9	252.9	11,140.6	8,853.3	2,287.3
2024[c]	6,372.9	2,449.5	8,822.4	1,400.0	225.0	10,447.4	8,400.0	2,047.4
2025[d]	6,756.6	2,341.1	9,097.7	1,500.0	200.0	10,797.7	8,500.0	2,297.7

[a]Includes sales of forest products, custom feeding fees, custom harvest fees, and other farm income. [b]Includes farm program payments directly to producers.

[c]Estimated. [d]Forecast. Source: Colorado Business Economic Outlook Ag Committee.

Agriculture

continued from page 25



Sources: Bloomberg (USDA Toledo No.2 Yellow Corn Not on the River Spot Price; USDA No. 1 Hard Red Winter Wheat Spot Price/Kansas City Missouri; Generic 1st Live Cattle Future). As of 11/18/2024.

Irrigation. Photo courtesy of Christina Welch.

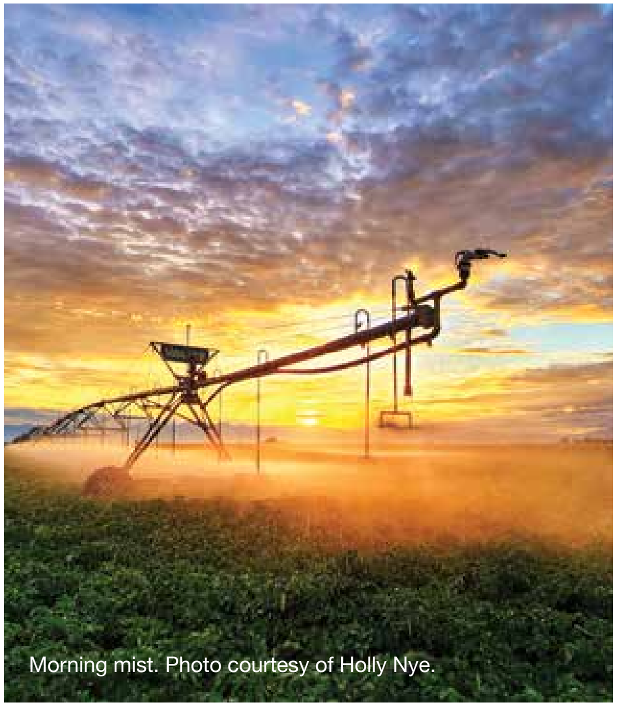
or a small crop, their prices are dictated by the world market for such commodities. Worldwide supply and demand, the strength of the dollar, and the status of the Russia-Ukraine war often have more to do with the prices Colorado farmers receive than anything they can control on the farm.

Variables that farmers can somewhat control are inputs such as new equipment, fertilizer, weed and insect control, fuel, and other input costs. A certain amount of inputs are required to make a crop. However, tweaking amounts, costs, and timing can sometimes save farmers enough to eke out a profit in an otherwise unprofitable year. Unfortunately, Colorado farmers have been doing this for several years—some would say "always."

For 2024, corn production in Colorado is forecast at 148 million bushels, up 20% from last year's 124 million bushels. Because of lower prices per bushel, cash receipts for corn are expected to drop significantly in 2024, to $647 million, from the 12-year high of $847 million in 2023, and are forecast to grow slightly in 2025, to $662 million. Based on the lower prices they are receiving, farmers should produce less corn, but instead the opposite is usually true—they must produce more to generate more income to help their bottom line.

Colorado wheat farmers saw a 9% reduction in the total crop, with 2024's crop measured at 64 million bushels, compared to 71 million bushels in 2023. World wheat prices hit a four-year low in August 2024, due to continued high world wheat production. When one major wheat-producing area is suffering from drought, other areas have sufficient moisture and increase production. Colorado wheat cash receipts are expected to drop from a nine-year high of $460 million in 2023 to an estimated $402 million in 2024 and further, to $318 million in 2025.

Hay prices are down, which is great for livestock producers, but not good for farmers growing hay. Alfalfa hay, which brought $260 per ton last year in August, sold for $190 this year. Farmers have torn out hay and re-seeded to grain crops because of prices this year.


Morning mist. Photo courtesy of Holly Nye.

Income from farm payments is expected to be significantly lower for Colorado farmers. The Agriculture Risk Coverage (ARC) & Price Loss Coverage (PLC) programs protect farmers from significant income losses due to fluctuations in crop prices or revenue shortfalls. The ARC program provides payments when the actual revenue for a farm is less than a guarantee set based on historical data and market conditions. The PLC program provides payments when the effective price for a covered commodity falls below its effective reference price, according to the USDA Farm Service Agency. Many Colorado farms should fall into these categories this year. However, these programs do not make payments until after the crop year is over, well after the time when farmers need them most, according to *farmdoc daily.* This is especially problematic when input costs are increasing, as they have been since 2020. Furthermore, these programs are only for commodity crops such as wheat and corn, not for livestock or specialty crops.

Livestock is Strong

Colorado's cow herd is strong. There is nothing in the cattle market to discourage Colorado ranchers from increasing their numbers. Cattle and calves on feed for large Colorado feedlots were estimated at 1 million head as of October 1, 2024. This latest inventory was 3% above last month and 1% above the October 1, 2023, inventory. Consumers continue to purchase beef at restaurants and retail despite higher prices, keeping demand high.

Dairies in Colorado have done relatively well compared to other states. Availability of water and feed—and improving milk prices and demand for cheese—have helped. California's regulatory requirements for dairies have made it more expensive to produce milk there. Colorado milk production for July-September 2024 was up slightly, contrasting with surrounding states such as Arizona, Montana, and New Mexico, which saw 4% to 9% drops in production.

Feed costs for both dairy and beef cattle have been lower because of high availability and lower cost of feed grains. Hay prices are lower, again reducing that input cost for livestock.

Egg production continues to be impacted by the avian flu epidemic, as entire flocks must be liquidated if the virus is present. Since 2022, Colorado has euthanized 7 million birds, a tremendous economic loss for poultry and egg producers. Avian influenza has now been found in dairy cattle, and affected cows aren't producing milk at the same levels. Highly Pathogenic Avian Influenza (HPAI) continues to affect consumer egg prices.

Specialty Crops

Specialty crops include fruits and vegetables, timber, and nursery and greenhouse crops. These crops generally entail more hand labor than field crops like field corn and wheat. Colorado's specialty crops range from potatoes in the San Luis Valley and Olathe sweet corn to Palisade peaches, Rocky Ford melons, and Pueblo chiles, plus the ornamental plants and trees grown in nurseries and greenhouses that are planted into landscapes around our state.


Steer stare down. Photo courtesy of Kenzie Matarozzo.

Last year's Colorado sweet corn crop was significantly damaged by corn earworm. In 2023, weather conditions were such that the worms emerged earlier and attacked much of the crop. Many acres were not harvested because of damage. In 2024, weather conditions were less favorable for the earworms. Corn farmers were allowed to treat their crops with novel new products for pest control, applying targeted treatment with drones. Farmers and extension specialists scouted the crop early to determine infestation levels. Colorado State University researchers

continued on page 28

Agriculture

continued from page 27

Eastern Colorado. Photo courtesy of Audrey Sayles.

are doing trials of new products to control the earworms. This pest is expected to continue to impact the sweet corn crop. Farmers generally planted fewer acres of sweet corn in 2024 to mitigate their risks, which created higher prices for consumers.

Colorado has seen an uptick in planting of dry beans, as new export markets have developed in Mexico and South America. Planted acres for dry beans were up 19,000 acres compared to last year. Farmers are planting traditional pinto and kidney beans as well as a newer crop for Colorado: black-eyed peas.

Wine grapes are being left in the vineyards this year in Colorado as there is a glut of grapes worldwide. Declining sales in various segments of alcohol are attributed to myriad reasons, including declining alcohol consumption related to generational differences, and consumers resisting higher alcohol prices, according to *CPR News*.

Without a doubt, this latest round of economic hardships will create consolidation in farms and agriculture business, but it may also spawn new opportunities.

Farmers are good at inventing ways to save money and make money. Agriculture in Colorado has discovered niche marketing and direct sales. Wineries that have tasting rooms and their own wine clubs have not reduced their grape orders to vineyards. Olathe sweet corn growers brought trucks to the Front Range and sold cases of sweet corn directly to consumers. Farmers who may have only grown one or two crops are expanding into new crops or new growing practices such as organic production. Colorado agriculture's strength is in its diversity—the many opportunities to provide local food to consumers who appreciate it.

Contributors:
Glenda Mostek, Colorado Nursery and Greenhouse Association (Chair)
Elena Brookover, AgRisk Advisors
Nicholas Colglazier, Colorado Corn Council
Tyler Cozzens, Livestock Marketing Information Center
Heath Dewey, USDA - Agricultural Marketing Service
Chris Dias, USDA - Agricultural Marketing Service
Brad Erker, Colorado Wheat Administrative Committee
Leif Jacobsen, Colorado Department of Agriculture
Stephen Koontz, Colorado State University
Tom Lipetzky, AGgressive Marketing Solutions
Tony Miller, First FarmBank
Rodger Ott, USDA NASS Mountain Regional Field Office – Colorado
Julie Schmidt, USDA NASS Mountain Regional Field Office – Colorado
Tyler Wilson, USDA NASS Mountain Regional Field Office – Colorado

Natural Resources and Mining

Colorado's abundant energy and mineral resources continue to be an important driver of the state's economy. The Natural Resources and Mining (NRM) sector, while comprising less than 1% of Colorado's workforce, generates some of the highest per worker income levels in the state. In the U.S. Energy Information Administration's (EIA) most recent assessment of 2022 proved reserves, Colorado ranked seventh in the U.S. for petroleum liquids and ninth for wet natural gas. For coal, the state was seventh in recoverable reserves at producing mines and 10th in production in 2023. That same year, Colorado ranked 15th in total value of produced nonfuel minerals, according to the annual U.S. Geological Survey Mineral Commodity Report. Colorado ranks ninth in total energy production, with per capita total energy consumption in the lowest third compared to other states.

The NRM sector experienced a 4.3% increase in employment in 2023 and is estimated to increase another 4.1% 2024. In 2025, job growth is expected to continue in this sector by 4%-5%, but as always, uncertainties—geopolitical, economic, and regulatory—have the potential to stagnate job growth. It is worth noting that while natural resource employment in the state is less than 1% of the state's total employment, this sector contributes around 4% to the state's GDP.

Colorado's NRM sector value for 2024 is an estimated $17.5 billion. This represents a nearly 7% decrease from the 2023 sector valuation of $18.7 billion and a notable 37% below the valuation in 2022. Assuming energy commodity pricing remains steady over the next calendar year, the NRM sector will likely have a similar value in 2025.

Looking farther into the future, there are many factors to consider when forecasting employment and value of Colorado's natural resource industry. These include the state of the national and global economies; increased federal infrastructure and/or renewable energy spending; increased federal, state, and/or local regulation; and volatile oil and gas supply-demand dynamics in the United States and globally. These factors, of course, exist in the macro context of changing social attitudes toward natural resources, the environment, and climate change.

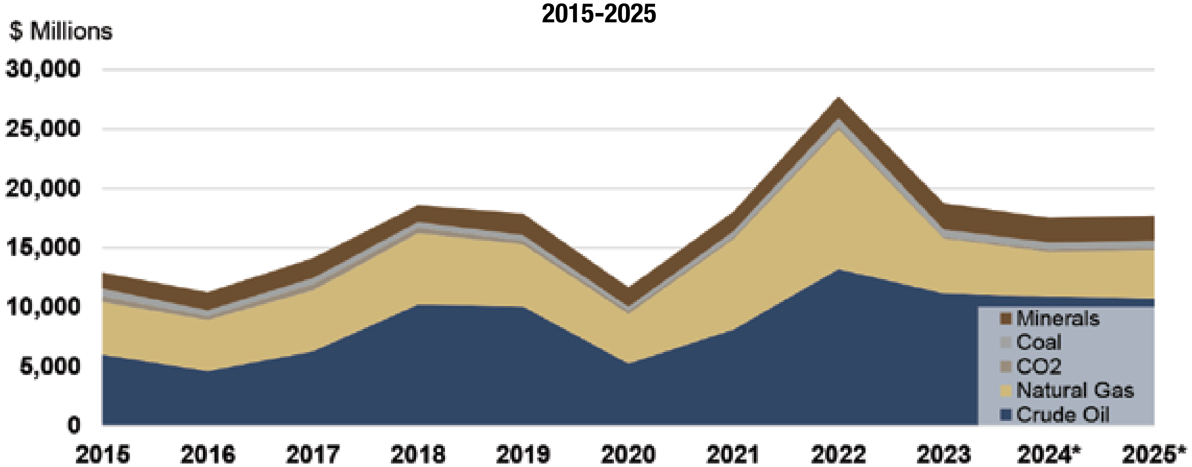
Employment in Colorado's Natural Resources and Mining industry declined to fewer than 20,000 jobs in 2021—a two-decade low. The trend has reversed in the three years since then, with 2,800 jobs added, roughly 4.7% annually. Current forecasts suggest further growth of around 1,000 jobs (4.4%) in 2025.

INDUSTRY SNAPSHOT
NATURAL RESOURCES AND MINING

Nominal GDP, 2023 ($ Billions)	18.6
Real GDP, 2023 ($ Billions, 2017 Dollars)	15.3
2023 Real GDP Growth Rate	35.9%
Total Employment, 2023 (Thousands)	21.7
2023 Employment Growth Rate	4.3%
Employment Growth National Rank	17
Share of Colorado Employment	0.7%
Share of National Employment	0.4%
Average Wage, 2023	111,997
Percent of Statewide Average Wage	143.0%
2023 Average Wage Growth Rate	6.7%

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics.
Note: 2023 employment includes revised estimates.

VALUE OF COLORADO NATURAL RESOURCES AND MINING, 2015-2025



*2024 estimated and 2025 forecast.
Sources: Colorado Geological Survey Mineral and Minerals Fuel Activity Reports, Colorado Oil and Gas Conservation Commission, Department of Minerals and Geology, and Colorado Business Economic Outlook Committee.

Oil and Gas

Valuation of Colorado's total oil and gas production for 2024 will be an estimated $14.9 billion—6.5% lower than in 2023—due to a modest decrease in physical output and muted prices. Current valuation of Colorado-produced oil is more than 2.5 times that of Colorado-produced natural gas. For 2025, it is expected that natural gas wellhead prices may increase nationally due to increasing demand for natural gas in power generation and growing demand for liquefied natural gas (LNG) exports. How this affects

continued on page 30

Natural Resources and Mining

continued from page 29

VALUE OF COLORADO NATURAL RESOURCES AND MINING, 2015–2025 (In Millions of Dollars)

	Oil and Gas Extraction					Mining				
Year	Crude Oil	Natural Gas	Carbon Dioxide	Subtotal	Percent Change	Coal	Minerals	Subtotal	Percent Change	Total
2015	$5,975.0	$4,437.0	$467.0	$10,879.0	-31.1%	$675	$1,340	$2,015	-37.4%	$12,894
2016	4,607.2	4,308.7	318.8	9,234.7	-15.1	481	1,510	1,991	-1.2	11,226
2017	6,259.0	5,137.3	517.2	11,913.5	29.0	536	1,680	2,216	11.3	14,130
2018	10,182.0	6,055.8	437.4	16,675.2	40.0	512	1,380	1,892	-14.7	18,567
2019	10,015.4	5,270.0	299.1	15,584.5	-6.5	490	1,790	2,280	20.5	17,865
2020	5,217.7	4,204.2	270.2	9,692.1	-37.8	332	1,620	1,952	-14.4	11,644
2021	8,106.7	7,646.7	181.8	15,935.2	64.4	493	1,610	2,103	7.7	18,038
2022	13,194.4	11,775.5	236.0	25,205.9	58.2	747	1,810	2,557	21.6	27,763
2023	11,121.1	4,666.0	117.8	15,904.9	-36.9	635	2,200	2,835	10.9	18,740
2024[a]	10,856.5	3,815.6	200.0	14,872.1	-6.5	583	2,060	2,643	-6.8	17,515
2025[b]	10,720.0	4,117.5	200.0	15,037.5	1.1	557	2,100	2,657	0.5	17,695

[a]Estimated. [b]Forecast. Sources: CO Geological Survey, United States Geological Survey (USGS), Colordo Energy & Carbon Management Commission (ECMC), and the Colorado Business Economic Outlook Committee.

Colorado production remains to be seen. The September 2024 economic outlook from the Colorado Office of State Planning and Budgeting (OSPB) reports that the combined severance tax collections for FY 2023–24 (July 1, 2023–June 30, 2024), including oil and gas, coal, and minerals, decreased by 42%, to $217 million. Most of this decline was due to the nearly 50% drop in oil and gas collections. OSPB is forecasting a 21% increase in the total severance tax revenue for FY 2024-2025 due to expectations of a more stable oil and gas market and lower ad valorem tax credit utilization. The ad valorem credit allows taxpayers to claim a credit of 87.5% of the real property taxes paid to a local government, school districts, and special districts on oil and gas produced to offset their severance tax liability. OSPB notes for FY 2024–25 that recent legislative adjustments (e.g., HB23-1272, Tax Policy that Advances Decarbonization) will reduce the available ad valorem tax credits, resulting in the state's oil and gas tax collections increasing by 30%, to $231.5 million.

Concerning energy and carbon management regulation in 2024, the Colorado General Assembly passed several impactful laws: SB 24-230 established a new fee on oil and gas production that will go to supporting transit service; SB 24-229 made changes to permitting and enforcement of air pollution rules and prioritized closing orphaned and low-producing wells in disproportionately impacted communities; and HB 24-1346 provided direction to the Colorado Energy and Carbon Management Commission (ECMC) for regulating geologic storage operations. Additionally, as part of a compromise between key stakeholders, an informal agreement was made to refrain from introducing additional laws or ballot measures until 2028. Rules were also passed by ECMC in late 2024 to better understand and limit the cumulative impacts of oil and gas operations.

Oil

Colorado crude production hit an all-time high in 2019 of 192 million barrels. Since 2022, the state's annual oil production has been averaging 163 million barrels. In 2024, Colorado is expected to see a similar level of production.

According to the EIA, Colorado accounts for almost 4% of the total crude produced in the United States and ranks fourth among states in production for 2024 (as of August). Development of the prime Niobrara shale assets in the Greater Wattenberg Area has been key to production growth in Colorado. Until recently, new drilling offset the rapid decline rates of lateral wells (estimated from 30% to greater than 50% in the first year). Estimates indicate that

COLORADO PHYSICAL OUTPUT OF FOSSIL FUELS, 2015–2025

Year	Coal Millions of Short Tons	Crude Oil Millions of Barrels	Natural Gas Billions of Cubic Feet	Carbon Dioxide Billions of Cubic Feet	Index (Base Year: 2015 = 100) Coal	Crude Oil	Natural Gas	Carbon Dioxide
2015	18.7	122.8	1,691	409	100.0	100.0	100.0	100.0
2016	12.8	119.9	1,708	444	68.4	97.6	101.0	108.6
2017	15.2	134.8	1,721	464	81.3	109.8	101.8	113.4
2018	14.3	169.2	1,904	427	76.5	137.8	112.6	104.4
2019	13.6	192.4	2,058	453	72.7	156.7	121.7	110.8
2020	10.0	171.6	2,070	301	53.5	139.7	122.4	73.6
2021	10.7	153.7	1,962	279	57.2	125.2	116.0	68.2
2022	11.5	160.3	1,833	308	61.5	130.5	108.4	75.3
2023	10.7	166.8	1,836	293	57.2	135.8	108.6	71.6
2024[a]	10.6	163.1	1,824	282	56.7	132.8	107.9	68.9
2025[b]	10.1	160.0	1,830	300	54.0	130.3	108.2	73.3

[a]Estimated. [b]Forecast. Sources: Colorado Geological Survey Mineral and Minerals Fuel Activity Reports, Colordo Energy & Carbon Management Commission (ECMC), and the Colorado Business Economic Outlook Committee.

the Niobrara shale play may contain as many as 2 billion barrels of oil, making the Denver-Julesburg Basin the 5th-largest liquid play in the nation based on proved reserves.

After spending much of 2020 below $40 per barrel, the U.S. petroleum benchmark, known as West Texas Intermediate (WTI), recovered into the $60–$80 per barrel range in 2021. In 2022, the war in Ukraine triggered a dramatic increase, with WTI prices averaging $95 per barrel for the year. The 2022 WTI mean daily price was up 144% over the 2020 average price of $39 per barrel. Since the beginning of 2023, the average WTI price has been stable—fluctuating between $70 and $90 per barrel. The Denver Basin regional pricing is typically at a 10%–25% discount relative to WTI prices due to market demand and supply chain network constraints. For 2024, the average Denver Basin sales price is $67 per barrel through September. Looking toward 2025, the forecast is that pricing will be similar or lower, potentially averaging around $60 per barrel for the coming year. As is typically the case, volatility persists due to political and economic uncertainty on both national and global levels. With a Trump presidency, one might expect bearish prices in concert with a more favorable federal regulatory environment and leasing. Trade tensions and instability in the Middle East, however, could offset any increased domestic production and prices could turn upward.

The International Energy Agency's (IEA) October Oil Market Report forecasts global oil demand of 103 million barrels per day (mb/d) for 2024, a modest 0.9 mb/d growth over 2023. Global oil demand growth continued to decelerate thanks to slowing growth in China. Like 2024, the IEA is forecasting growth of only 1 mb/d—a stark contrast to the 2 mb/d increases seen in 2022–23. Total global oil output as of September was 102.8 mb/d.

According to the EIA, the United States consumed 20 million barrels of oil per day in 2022 and 20.3 million barrels per day in 2023. The estimate for demand is again 20.3 mb/d in 2024, with an increase to 20.5 mb/d in 2025. Total U.S. domestic production has been rising steadily with the country producing 11.3 mb/d in 2020, 12 mb/d in 2022, and an estimated 13.2 mb/d in 2024. For 2025, the forecast is for the supply to increase again, to 13.5 mb/d. EIA is estimating that the WTI price for 2024 will end at an average $77 per barrel and be $73 per barrel in 2025.

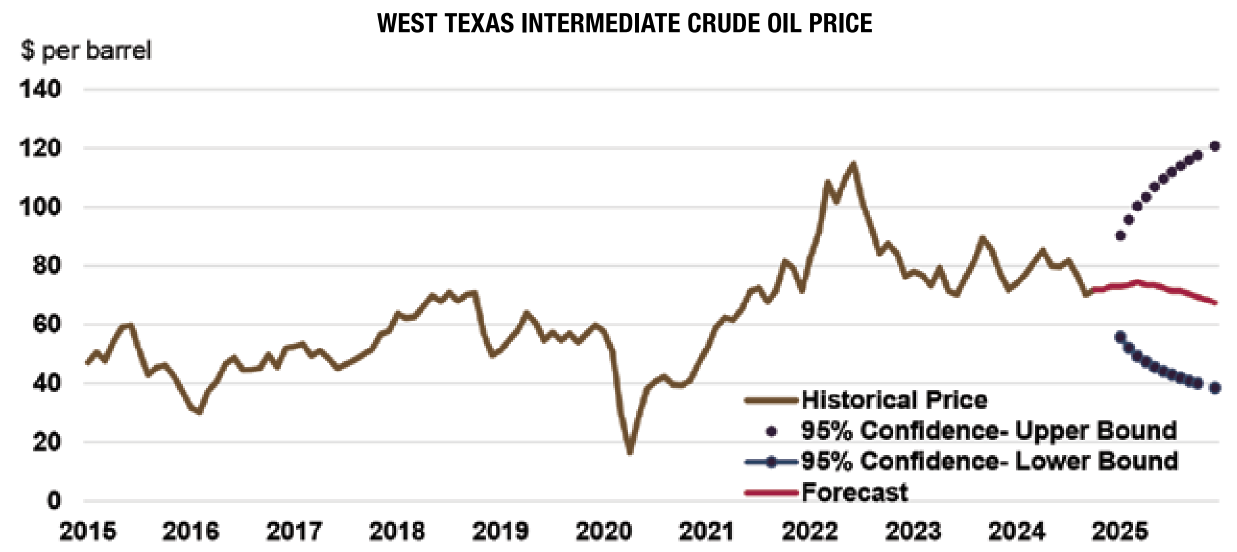
Retail Gasoline

The Colorado average retail price of automotive gasoline of all grades in 2024 (through early November) was $3.25 per gallon, an 11% decrease from the 2023 average price of $3.67. Nationally, the EIA estimates the average for all

continued on page 32

Natural Resources and Mining

continued from page 31



Source: U.S. Energy Information Administration, 11/2024 Short-Term Energy Outlook, West Texas Intermediate Crude Oil Price.

grades to end at $3.45 per gallon in 2024 and decrease to $3.35 in 2025. The retail price for diesel nationally averaged $4.99 in 2022, decreased 16% to $4.21 in 2023, and will decrease another 10% to an average of $3.81 by the end of 2024. Expectations are for Colorado gasoline to decrease modestly in 2025 (between $3 and $3.25 per gallon average for all grades).

Natural Gas

As of 2023, Colorado ranks eighth in the nation for both marketed natural gas production and the largest natural gas reserves. Colorado's natural gas output has more than doubled since 2000. EIA estimates that conventional and unconventional output from Colorado basins accounts for 4.5% of the total annual U.S. natural gas production. The state contains 11 of the largest natural gas fields in the country, leads the nation in gross withdrawals from coal-bed methane wells, and contains almost a quarter of the economically recoverable coalbed methane in the country. Power generation has been shifting away from coal for many years. As of 2023, natural gas provided 30% of Colorado's electric power versus 20% a decade ago. The total megawatt hours generated from natural gas grew by 11% in 2023. With prices remaining low, the state will likely see more natural gas used for electric generation in 2024 and 2025. Colorado uses only about 25% of the natural gas it produces. There are more than 40,000 wells producing natural gas in Colorado. The total output (in combination with the associated gas generated from the state's oil wells) will be an estimated 1.82 trillion cubic feet (Tcf) in 2024. For 2025, production is forecast to remain flat.

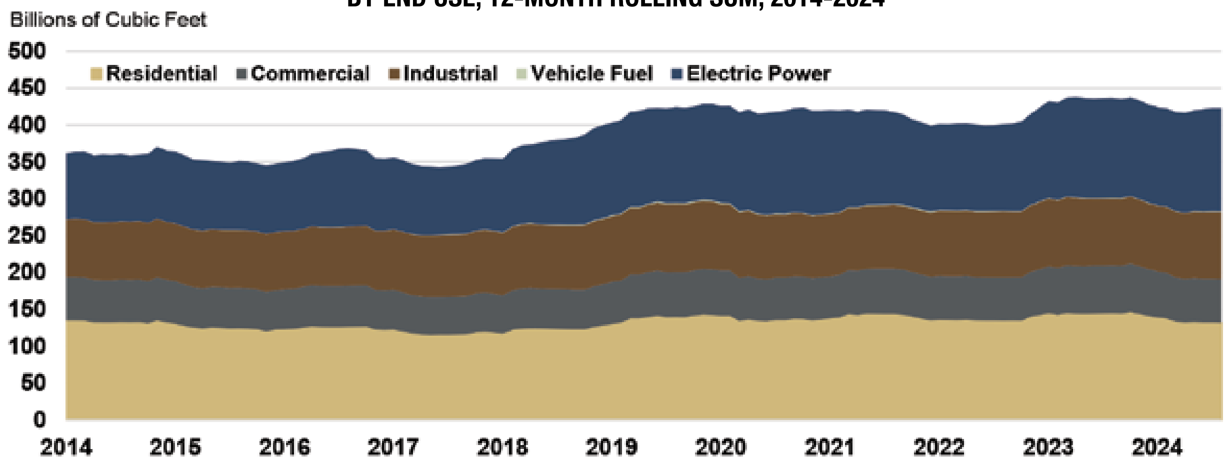
Of the 505,035 million cubic feet of natural gas consumed by Colorado in 2023, roughly a quarter (26.4%) went to electric power and 28% went toward residential consumption. Other significant end uses included industrial consumption (17%), lease and plant fuel (14%), and commercial consumers (12.6%). For 2024 (through August), the average monthly residential gas price in Colorado was $12.28 per thousand cubic feet—a 6.5% decrease compared to the same period in 2023. As of August 2024, Colorado had the 7th-lowest residential gas price in the country.

Colorado currently has 10 underground natural gas storage fields, with over 140 billion cubic feet of capacity—1.5% of the U.S. total capacity. Depleting gas fields have increased the state's overall underground storage capacity by a third since 2010, with this trend continuing.

For 2024, the expectation is that Colorado natural gas spot prices will range between $2.25 and $3.10 per thousand cubic feet. The EIA is currently estimating the Henry Hub spot price average for 2024 to end at $2.37 per thousand cubic feet, with the average price increase to $3.17 per thousand cubic feet in 2025. This increase is driven in large part by more LNG exports, which are made possible by increased capacity due to additional Gulf Coast export facilities coming online. The EIA notes that the U.S. total working natural gas inventories have been higher than the previous five-year average for most of the past two years. Inventories appear to be approaching more normal levels as natural gas consumption in the U.S. has increased over the past year, especially for electricity generation. This is being offset to some degree by dry gas production curtailments being made by several companies because of lower natural gas prices.

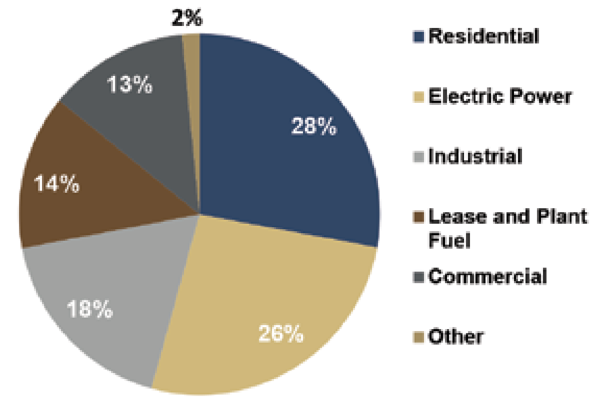
The EIA forecasts suggest the average U.S. household using natural gas for heating will see a total winter 2024–25 (October through March) household expenditure about the same or marginally less on average over winter 2023–24. Retail energy prices are forecast to be less, but temperatures are forecast to be colder for much of the country. Regionally, the Mountain Region is forecast to see average residential gas of $11.67 per thousand cubic feet for the coming winter—8% lower ($1.05 per thousand cubic feet) than last winter's regional residential retail price. The National Oceanic and Atmospheric Administration (NOAA) estimates that the total heating degree days (HDD) for winter 2023–24 in the West Region will be 2,822, very similar to the HDDs last winter. Just under half of all households in the United States depend on

COLORADO NATURAL GAS DELIVERED TO CONSUMERS BY END USE, 12-MONTH ROLLING SUM, 2014-2024



Source: U.S. Energy Information Administration.
Note: Vehicle fuel accounts for less than 1% of consumption of total natural gas delivered to consumers and is omitted from this chart.

COLORADO NATURAL GAS CONSUMPTION BY END USE, 2023



Source: U.S. Energy Information Administration.
Note: Other includes vehicle fuel and pipeline and distribution use.

natural gas as a primary heating fuel; for Colorado, this number is more than 70%.

Carbon Dioxide

Colorado's carbon dioxide production is marketed almost exclusively for enhanced oil recovery (EOR) operations. In 2024, an estimated 282 billion cubic feet of CO_2 will be produced in three counties (Montezuma, Dolores, and Huerfano), with the total production value estimated at $200 million.

In 2024, the Colorado Legislature passed HB 24-1346, expanding the authority of the ECMC to regulate the injection and underground sequestration of carbon dioxide, specifically addressing the issue of pore space ownership. The bill also extended the deadline for the Commission's rulemaking around geologic storage to December 2024. After rules have been adopted, the ECMC will continue to pursue primacy with EPA for regulating Class VI wells—a process that is expected to take a year or more.

Drilling Permits and Rig Activity

The ECMC has received 1,102 Applications for a Permit to Drill (APDs) new wells in 2024 (as of November 10, 2024)—a 4.1% increase in the number of APDs received during the same period in 2023, but still well below the more than 2,000 permits received in 2019. For 2024, the commission approved 903 permits as of November 12. In 2024, 61% of the approved well permits were in Weld County. The ECMC has recorded 538 well starts in 2024 through early November. This is a 20% decrease from 2023 for the same period and more than 60% lower than the number of well starts in 2019.

The 2024 average active rig count for Colorado stood at 14 through early November, with eight of those rigs drilling in Weld County. By comparison, the average active rig count for 2020 was nine; 2021 was 10; and 2022 and 2023 were 17. Assuming prices remain stable, the expectation is for rig activity to remain about the same in 2025 as in 2024.

Horizontal drilling and hydraulic stimulation continue to be integral to Colorado's oil and gas activity. In 2010, only 5.6% of all Colorado drilling permits issued were for horizontal wells. In 2020, that number had reached nearly 84% of all issued permits. For 2024 (through early November), noticed horizontal well starts totaled 442, or 83% of the state's total spud notices. Of these newly drilled horizontal wells, 86% are in Weld County, followed by 16% in Rio Blanco County, 7% in Adams County, and just under 5% each in Arapahoe and Garfield counties.

Coal

The state of Colorado holds exceptional coal reserves that can be utilized in electrical power generation, steel production, and other industrial applications. According to the EIA, Colorado contains a demonstrated coal reserve base of 15.5 billion tons, ranking it eighth in the United States. A total of seven coal mines operated in Colorado during 2023, and these mines have a combined

continued on page 34

Natural Resources and Mining

continued from page 33

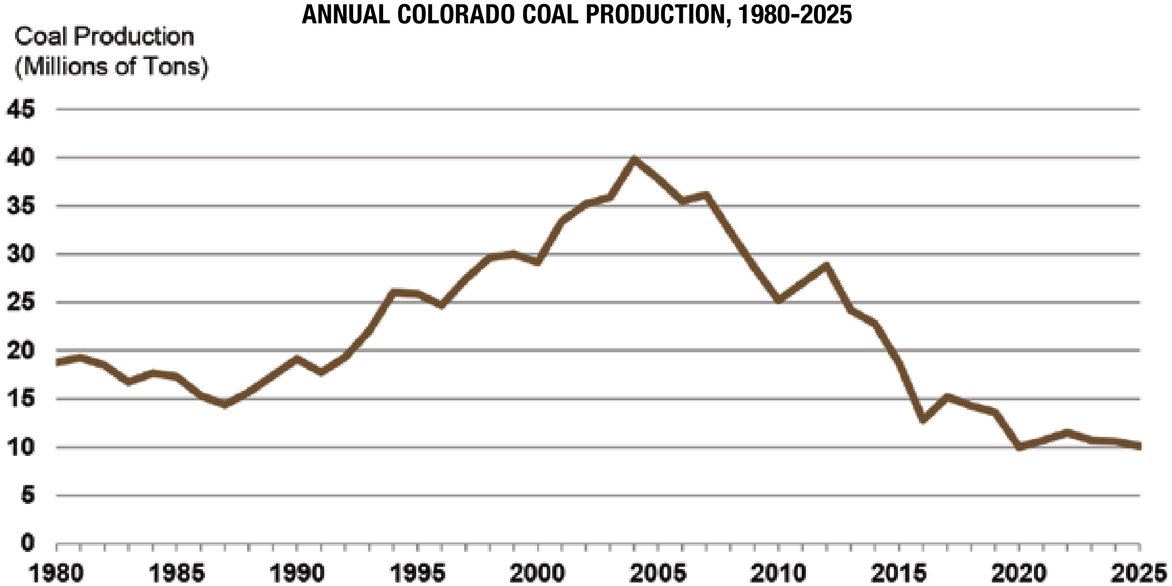
COLORADO NATURAL RESOURCES AND MINING EMPLOYMENT 2015–2025 (In Thousands)

Year	Employment	Percentage Change
2015	30.7	-10.0%
2016	23.7	-22.8
2017	25.8	8.9
2018	28.6	10.9
2019	28.8	0.7
2020	21.8	-24.3
2021	19.8	-9.2
2022	20.8	5.1
2023[a]	21.7	4.3
2024[b]	22.6	4.1
2025[c]	23.6	4.4

[a]Revised. [b]Estimated. [c]Forecast.

Sources: Colorado Department of Labor and Employment and Employment and the Colorado Business Economic Outlook Committee.

ANNUAL COLORADO COAL PRODUCTION, 1980-2025



Source: Mine Safety and Health Administration, adjusted for duplicative highwall mining.

recoverable reserve base of 205 million tons (EIA). Through the years, mining Colorado's low-sulfur and low-mercury coal reserves has helped utilities comply with the Clean Air Act. Coal production in the state peaked at almost 40 million tons in 2004. Production declined after 2004, reaching a low of 10 million tons with a value estimated at $332 million in 2020, before rebounding in 2021. The decline in production from 2004 to 2020 is the result of many factors, including the closures of aging U.S. power plants, lower-priced natural gas power plant conversions, more environmental regulations, and U.S. climate change CO2 reduction initiatives. In 2021, Colorado coal production increased by 8%, to 10.7 million tons, and then by 7.5%, to 11.5 million tons, in 2022. In 2023, production decreased slightly, to 10.7 million tons, according to data from the Mine Safety and Health Administration (MSHA) and Coalgeo, LLC (note: published production numbers have been adjusted down to reflect double counting of highwall mining activity). This minor decrease was likely due to operational issues at the mines and the idling of Colorado's only metallurgical-grade operation, New Elk Mine. Sales prices for coal soared in 2022, with an estimated value of $747 million. This is attributed, in part, to the economy returning to normal following the pandemic, increasing natural gas prices, higher utilization rates at existing power plants, and Russia's invasion of Ukraine. With less production and spot prices declining and then stabilizing, total sales dropped to $635 million in 2023. Coal production was at 8 million tons (MSHA) at the end of third quarter 2024, with the expectation that the year-end total could achieve 10.6 million tons, comparable to 2023. Colorado coal production in 2025 is forecast to be similar to 2024 as mines such as Foidel Creek and West Elk pursue market opportunities, but gains could be offset with the closure of the Colowyo Mine in early 2025.

The scheduled government-mandated closure or conversion to natural gas of coal-fired plants along the Front Range and Western Slope will eventually phase out the mining of coal for power generation use in Colorado. Captive mines will likely close within the next few years. Colowyo Mine is scheduled to shut down production in early 2025. Non-captive mines could continue to provide coal for industrial markets, ship out of state, and feed seaborne thermal coal demand.

The Department of Energy's CORE-CM (Carbon Ore, Rare Earths, and Critical Minerals) and other institutional projects continue the analysis of Colorado's coal-bearing strata. Sampling and analysis of critical minerals, including rare earth elements in Phase 1, have already been conducted at most mining operations. DOE's Phase 2 study will include some additional Colorado sites. Carbon technology is also advancing in the U.S., and research institutions have already identified carbon-based products that can be used for road and building construction, soil amendments, carbon fiber products, and carbon batteries.

Mines

Peabody and Arch Resources, two of the largest coal producing companies in the U.S., operate mines in Colorado. Arch Resources announced in 2024 the plans to merge with Consol Energy to form Core Natural Resources by the end of the first quarter 2025. International firms have also invested in Colorado as shown by Australian firm, Allegiance Coal Ltd., and Mexican firm, Grupo Cementos, that operate mines in Las Animas and La Plata counties, respectively. The Denver area is also the headquarters of several coal mining companies, including Tri-State Generation and Transmission, Kiewit Mining, and Westmoreland Coal Company.

Currently, six coal mines operate in Colorado, producing bituminous and sub-bituminous coal for electrical generation, and to a lesser extent, industrial use. Arch Resources operates the West Elk Mine, located in Gunnison County, which is the last remaining operation in a once prolific area referred to as the Somerset Coalfield. It is an underground longwall operation and Colorado's largest producer that mined 3.1 million tons in 2023. The mine can produce export-quality coal and will soon transition to another seam that comprises even higher quality coal. The King II Mine in La Plata County is owned by Grupo Cementos and is a small underground operation that extracts coal using continuous miners primarily for use in cement production. The mine extracted a total of 0.6 million tons in 2023 from its recently acquired federal lease. Deserado Mine, located near Rangely, is an underground longwall mine that supplies Deseret Power's Bonanza Power Plant located in Utah. The coal is transported to the power plant via a dedicated rail line. Deserado produces on average 1.8 million tons per year. Peabody's Foidel Creek Mine (Twentymile), located in Routt County, is an underground longwall mine that supplies coal to the nearby Hayden Power Station, as well as other domestic customers. The mine has also supplied coal for the export market previously and may do so again in the future. The mine has completed a longwall move to an adjacent panel and has conducted exploration to define additional reserves. The operation mined 1.2 million tons in 2023 but has the capacity to mine much higher volumes of coal for the next decade. Hayden Power Station Units 2 and 1 are planned for closure or possible conversion in 2027 and 2028, respectively.

COLORADO ELECTRIC POWER INDUSTRY GENERATION BY PRIMARY ENERGY SOURCE, 2014-2023
(In Millions of Megawatt Hours)

Year	Coal	Natural Gas	Hydroelectric[a]	Wind	Solar	Biomass	Petroleum	Other[b]	Total
2014	32.5	12.0	1.8	7.4	0.3	0.1	0.0	0.0	53.8
2015	31.6	11.8	1.5	7.4	0.3	0.1	0.0	0.1	52.4
2016	30.0	12.7	1.6	9.4	0.5	0.2	0.0	0.1	54.4
2017	29.2	12.5	1.6	9.3	1.0	0.2	0.0	0.1	53.8
2018	26.4	16.4	1.6	9.8	1.1	0.2	0.0	0.1	55.4
2019	25.3	17.1	1.6	10.9	1.2	0.2	0.0	0.1	56.3
2020	19.5	18.2	1.5	13.4	1.5	0.2	0.0	0.1	54.1
2021	23.6	14.6	1.6	15.1	1.7	0.2	0.0	0.1	56.8
2022	21.7	15.4	1.3	16.9	2.4	0.2	0.0	0.0	58.0
2023	18.8	17.2	1.3	16.0	3.6	0.1	0.0	0.0	57.1

[a]Includes pumped storage.

[b]Includes blast furnace gas, propane gas, other manufactured and waste gases derived from fossil fuels, non-biogenic municipal solid waste, batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, tire-derived fuels, and miscellaneous technologies.

Source: U.S. Energy Information Administration.

Colowyo and Trapper mines are the only operating surface coal mines in Colorado and are located primarily in Moffat County. Both mines supply coal to the Craig Power Station. Colowyo ships the coal by rail, whereas Trapper is captive to the plant and hauls the coal directly by truck. The mines use draglines and shovels to strip the overburden. Approximately half of the coal production from each of the two mines originates from contract highwall mining operations. Approximately 1.7 and 1.6 million tons were mined by Colowyo and Trapper in 2023, respectively.

In 2020, it was announced that Tri-State Generation and Transmission would close its Colowyo mine by 2030. However, the timetable has accelerated and now Colowyo Mine is scheduled to complete mining operations in 2025, with final coal shipments made in 2026. Colowyo recently opened its new pit at Collom, which is a federal lease acquired in 2016. Colowyo recently exhausted its South Taylor Pit and has moved one of its draglines to the Collom Pit. The Collom deposit contains extensive reserves of low sulfur coal that comprise the lowest mercury content in the United States. The Trapper and Colowyo mines supply coal to the three-unit Craig Power Station. Unit 1 at the Craig Power Station is expected to retire in December 2025. Unit 3 (Colowyo feed) and Unit 2 (Trapper feed) are scheduled for retirement in January and September 2028, respectively. Colowyo Mine plans to increase reclamation efforts after closure. Both Colowyo and Trapper mines have been nationally recognized for their ongoing reclamation.

continued on page 36

Natural Resources and Mining

continued from page 35

New Elk Mine began operations in spring 2021. The mine extracted coal underground by continuous miners, and in 2023, produced 0.06 million tons of high volatile coking coal (MSHA). This coal, which is specifically used in the making of steel, was hauled by truck then rail to a port facility in Mobile, Alabama. The mine is located in the Raton Basin, which was a major supplier of coking coal in the past for the CF&I steel mill in Pueblo. As a result of decreased demand for their metallurgical coal product and their financial position, mine owner Allegiance Coal filed for Chapter 11 bankruptcy protection on February 18, 2023. It is currently classified as an idled mine by MSHA, and the company is seeking investors to restart mining. The Raton Basin contains the only viable metallurgical grade coal west of the Mississippi River.

Value

Based on EIA data, the average sales price of coal in Colorado during 2023 was $59/ton. By comparison, the average price for Colorado coal in 2022 was $65/ton. Due to lower production and prices, the total value of coal sold by Colorado mines in 2023 is estimated at $635 million, down 15% from 2022. Prices are expected to be around $55/ton in 2024 and 2025.

Royalties

The State of Colorado benefits from royalties, lease bonuses, rentals, and severance taxes paid by mining companies extracting coal on state-owned mineral leases. The federal government also benefits from royalties derived from mining of federal leases. Mine operators paid $26.2 million in 2023 in federal bonuses, rentals, and royalties, according to the Department of Interior. Reportedly, about half of the royalties are returned to Colorado in support of public education and other community enhancements.

Employment

According to MSHA, coal mine average employee numbers dropped from 1,284 to 1,159 in 2022 and 2023, respectively, due mainly to the idling of New Elk Mine. Mining employment numbers are forecast to be slightly lower in 2024 and decrease further in 2025 as the Colowyo Mine closes. With the closures of coal mines and power stations, certain cities and counties will be significantly impacted on a socioeconomic standpoint. In 2019, the Colorado General Assembly and Governor Jared Polis signed legislation creating the Office of Just Transition (OJT) to assist in the transition of mining employees and communities affected by the retirement of the coal mining and associated power generation business in Colorado. The *Colorado Sun* reported in 2024 that Tri-State agreed to put $5.5 million annually into an economic development fund between 2026 and 2029 in Moffat County ($22 million total). The Association will also pay up to $48 million in funding to help offset taxes between 2028 and 2038.

Coal Distribution

According to EIA, Colorado shipped 9.6 million tons of coal domestically in 2023. During that year, Colorado shipped thermal and industrial coal to 17 other states, with Utah receiving 2.5 million tons. Colorado utilities purchased 7.8 million tons of coal from Wyoming in 2023 (EIA).

The International Energy Agency (IEA) stated that coal markets are stabilizing following recent years of uncertainty occurring as a result of the global energy crisis. Internationally, coal demand, supply, and trade volumes reached a record high in 2023 (IEA). IEA reported that demand in global coal grew to a record 9.6 billion tons (8.7 metric tons) of which 70% of global output originated from China, India, and Indonesia. Export shipments from Colorado mines in 2023 totaled only 0.11 million tons—down considerably from the 2.2 million tons exported from the state in 2022 (EIA).

Consumption and Generation

Coal accounted for 32% of total in-state generation in 2023 (EIA) exceeded only by renewables that accounted for 39%. A total of six coal-fired power generating stations currently remain in operation in Colorado, having a combined electrical generation capacity of 3,804 MW (EIA). The remaining power stations are Comanche, Craig, Pawnee, Hayden, Rawhide, and Ray D Nixon. All of these generating stations are planned for retirement or unit phase retirement between 2025 and 2031. Fuel supply for these six power plants originated exclusively from Colorado and Wyoming coal mines.

Annual electricity generated at Colorado's six coal-fired power plants fell from 21.7 million megawatt hours (MWhs) in 2022 to 18.8 MWhs in 2023, according to EIA. Electric power-delivered fuel prices rose slightly, from $1.91/MBtu in 2022 to $1.95/MBtu, in 2023.

As of July 2024, residential electricity rates in Colorado were 15.49 cents per kWh. This is below the national average of 16.62 cents per kWh and is the highest in the eight-state Mountain West Region, which averages 14.26 cents per kWh. As of July 2024, Colorado commercial rates were 13 cents per kWh, less than the national average of 13.58 cents per kWh. EIA data show Colorado's industrial rate averaged 9.32 cents for July 2024, which is slightly higher than the national average of 8.81 cents.

Minerals and Uranium

Nonfuel mineral resources include metals, industrial minerals, and construction materials (e.g., aggregate, cement, etc.). The U.S. Geological Survey estimates that the total U.S. nonfuel mineral production value was $105 billion in 2023, about 6.9% higher than the 2022 estimate. In 2023, Colorado produced primarily cement, gold, molybdenum, sand and gravel, and crushed stone, with an estimated production value of $2.22 billion, or approximately 2.1% of the estimated total U.S. production value.

Metals mined in Colorado include primarily gold and molybdenum, with some silver. The Colorado Geological Survey estimates that the 2023 production value of gold and molybdenum was about $1,066 million. This is a 12.8% increase compared to the 2022 estimated production value of $945 million. This increase in value was due to the increase in molybdenum prices, although the combined molybdenum production slightly decreased in 2023 at Freeport-McMoRan Inc.'s (Freeport) Climax and Henderson mines. Freeport is the world's largest producer of molybdenum, and in 2022, its Colorado operations accounted for approximately 39% of its worldwide molybdenum production. Molybdenum concentrate produced at the Colorado mines has high purity and is used in value-added chemical products.

The combined molybdenum production at the Henderson and Climax mines decreased from 33 million pounds in 2022 to 30 million pounds in 2023, a decrease of about 9%. According to the U.S. Geological Survey, estimated annual average prices for molybdenum increased about 34%, from $18.76 per pound in 2022 to $25.22 per pound in 2023. Colorado was one of the largest U.S. producers of molybdenum in 2023. At the end of 2023, a total of 19% of Freeport's estimated consolidated recoverable proven and probable molybdenum reserves, on a contained metal basis, were from the Henderson and Climax mines. Freeport estimated proven and probable reserves of 48 million metric tons, with 0.16% molybdenum at the Henderson Mine, and 149 million metric tons, with 0.15% molybdenum at the Climax Mine. At the end of June 2024, the total molybdenum production from both Colorado mines was about 15 million pounds, which is the same as last year at that time.

Founded in 1921, Newmont is the largest gold-mining company in the world, with operations in Africa, Australia, North America, South America, and Papua New Guinea. Its corporate headquarters are in Greenwood Village. Production of gold at Newmont's Cripple Creek and Victor (CC&V) mine located in Teller County decreased from 182,000 ounces in 2022 to 172,000 in 2023. The estimated average gold price was $1,900 per ounce in 2023. In September 2024, gold prices reached an all-time record high of just over $2,685 per ounce. Colorado was the 3rd-largest producer of gold in the United States in 2023, following Nevada and Alaska. Gold production at CC&V decreased by about 29% in the first six months of 2024 when compared to the same time period in 2023 due to lower recoveries and lower tonnage mined. At the end of June 2024, the total gold production from CC&V was about 63,000 ounces. In February 2024, Newmont approved a portfolio optimization program that includes divesting six of its assets, including CC&V.

In addition to Colorado's active production, the state's considerable mineral endowment has garnered increased interest in exploration activity in recent years. Metallic Minerals Corp., a Vancouver, B.C.-based exploration company, is currently mapping and surface sampling in advance of additional drill testing at the company's La Plata project near Durango, CO. The La Plata project has an established essential mineral resource of over 1.2 billion pounds of copper and 17.6 million ounces of silver with the potential to add critical minerals platinum and palladium with gold in future resources estimates.

Colorado produced and consumed approximately 55 million tons of aggregate (sand, gravel, and crushed stone) during calendar year 2023. The production of construction aggregate was slightly lower than the previous year's

VALUE OF COLORADO NONFUEL MINERALS AND URANIUM PRODUCTION, 2015–2025 (In Millions of Dollars)

Year	Nonfuel Minerals	Uranium	Total
2015	$2,320	$0.0	$2,320
2016	1,340	0.0	1,340
2017	1,510	0.0	1,510
2018	1,680	0.0	1,680
2019	1,790	0.0	1,790
2020	1,620	0.0	1,100
2021	1,610	0.0	1,610
2022	1,810	0.0	1,810
2023	2,200	0.0	2,200
2024[a]	2,060	0.0	2,060
2025[b]	2,100	0.0	2,100

[a]Estimated. [b]Forecast.

Sources: 2015-2023 data from U.S. Geological Survey, Mineral Survey Reports; U.S. Energy Information Administration.

continued on page 38

Natural Resources and Mining

continued from page 37

levels, driven by construction shifts that occurred in Colorado. Early months of 2024 were impacted by slowing in the residential sector due to high interest rates. Forecasts for 2025 suggest flat levels of production in Colorado as construction remains steady.

Local zoning regulations and land-development alternatives continue to have a negative impact on mining and permitting. These issues are expected to continue and to cause new crushed stone quarries and sand and gravel deposits to locate further from large population centers, where the material is needed.

Colorado has a long history in the uranium mining industry. Today, all uranium mined in the U.S. is used for as fuel for carbon-free nuclear energy. As reported for several years, there was no uranium production in Colorado in 2023 or 2024 (as of early October 2024). According to the EIA, the total 2022 U.S. production of uranium was almost 10 times higher than 2021 but remained near all-time lows. Lakewood, Colorado-based Energy Fuels has produced approximately two-thirds of all U.S. uranium since 2017. About 84% of the 2022 production was from Energy Fuels' White Mesa Mill, which processed uranium and vanadium ore produced at mines in the Four Corners' Region. The western part of the state was historically the largest uranium- and vanadium-producing mining area in Colorado, though uranium mines also operated historically on the Front Range. In 2023, domestic uranium production remained at historic lows and decreased about 74% compared to 2022, to 49,619 pounds of uranium concentrate produced from in-situ leach plants located in Wyoming and Nebraska. During the first two quarters of 2024, a total of 180,242 pounds of uranium concentrate was produced domestically from in-situ leach plants located in Wyoming and Texas.

Most of the uranium used by U.S. commercial nuclear power reactors over the last several decades was imported from foreign countries. In 2023, a total of 51.6 million pounds of triuranium octoxide—a 27% increase from 2022—was purchased by owners and operators of these nuclear power plants. According to the EIA, about 95% was purchased from foreign suppliers in both 2022 and 2023. In 2023, Canada (27%), Australia (22%), Kazakhstan (22%), Russia (12%), and Uzbekistan (10%) accounted for 93% of imported uranium. The weighted-average price reported by the EIA for uranium increased from $39.08 per pound in 2022 to $43.80 per pound in 2023.

Uranium prices increased dramatically during 2024, reaching a 17-year high of $100 per pound in the first quarter before leveling out around $80 per pound by the end of the year, driven in large part by market demand for emission-free energy, coupled with geopolitical factors, namely the Russia-Ukraine war (the U.S. currently imports roughly 20% - 25% of its enriched uranium from Russia). In May of 2024, President Biden signed H.R.1042 - Prohibiting Russian Uranium Imports Act, signaling a national policy to support the U.S. nuclear energy supply chain. In addition to Energy Fuels' active operations in other states, the Whirlwind Mine in Mesa County near the Colorado/Utah border is a fully permitted project with indicated mineral resources including over 1 million pounds of uranium and 3.3 million pounds of vanadium. Western Uranium and Vanadium is in the process of restarting the Sunday Complex of mines, and Anfield Energy owns the Slickrock Project, both of which are located in San Miguel County, Colorado. Additional uranium interests, including U.S. Department of Energy leases, in western Colorado are also held by Premier American Uranium, in addition to Global Uranium and Enrichment's Maybell project consisting of 468 federal unpatented mining claims near Craig, Colorado, and the five uranium deposits comprising the Tallahassee Uranium Project near Canon City, Colorado.

Renewables

Colorado's abundance of renewable energy resources includes wind, solar, hydroelectric, geothermal, and biomass. Data from the EIA show clean electricity resources accounted for 39% of Colorado's net generation in 2023. According to the Colorado Energy Office, 14 Colorado towns and counties have 100% renewable energy goals.

The 2024 U.S. Energy and Employment Jobs Report found that Colorado had an estimated 157,160 energy workers (5.4% of total state employment) in 2023, which includes 37,835 workers employed in energy efficiency. According to E2's Clean Jobs America 2024 report, in 2023, Colorado ranked 18th nationally for clean energy jobs, with approximately 67,060 Coloradans employed by the industry, and 12th for clean energy sector job growth. Additionally, in 2023, a total of 9,017 Coloradans were employed in the solar industry, 7,880 in the wind industry, 188 in geothermal, 1,340 in bioenergy/CHP, and 292 in low-impact hydroelectric power.

Per the American Clean Powers Colorado report, as of September 2023, Colorado's utility-scale clean energy capacity generates almost $50 million in tax and land lease revenue each year, nearly $14 billion of private investment has been made into clean energy in the state.

Energy Policy

Colorado was the first state to pass a voter-approved renewable portfolio standard (RPS) in 2004. The Legislature has increased requirements three times, with the present standard mandating that investor-owned electric utilities provide 30% of their generation from renewable energy resources by 2020, with 3% coming from distributed generation. This was one of the most ambitious renewable portfolio goals in the nation, and the Public Utilities Commission (PUC) states that the existing wind and solar installations achieved this electricity goal, mostly through purchases by Colorado's largest utility, Xcel Energy. Notably, in July 2015, the Tenth Circuit Court of Appeals upheld the constitutionality of Colorado's RPS, saying it would not harm interstate commerce as a 2011 federal lawsuit had alleged.

In 2019, House Bill 1261, Climate Action Plan to Reduce Pollution, was passed into law, which required the state to reduce 2025 greenhouse gas emissions by at least 26%, 2030 greenhouse gas emissions by at least 50%, and 2050 greenhouse gas emissions by at least 90% of the levels of statewide greenhouse gas (GHG) emissions that existed in 2005. In 2021, the legislation was strengthened by Senate

Bill 264, which set GHG emissions reductions for gas utilities from a 2015 baseline: 4% by 2025 and 22% by 2030. It also required investor-owned gas utilities to file a "clean heat plan" with the PUC to outline how they will meet these targets.

Furthermore, Senate Bill 236, passed in 2019, required the state's qualifying retail utilities to submit a "clean energy plan" to meet the following clean energy goals: (1) reduce their carbon dioxide emissions 80% from 2005 levels by 2030, and (2) seek to provide energy generated from 100% clean energy resources by 2050. Numerous Colorado utilities have their own clean energy and emissions reductions goals. For example, Xcel Energy's Clean Energy Plan seeks to produce an estimated 85% reduction in carbon dioxide emissions from 2005 levels by 2030 in addition to being completely carbon-free by 2050. In 2023, the state passed Senate Bill 198, which changed Colorado's Clean Energy Plan process, requiring large power providers to demonstrate how they will reduce their emissions by 80% by 2030.

In January 2021, Colorado released its first Greenhouse Gas Pollution Reduction Roadmap, outlining how the state will meet its GHG reduction goal laid out in House Bill 1261. In 2023, Senate Bill 16 updated the emissions reductions goals, adding interim targets for 2035, 2040, and 2045, and increasing the 2050 target to 100%.

In February 2024, the Governor's Office released an updated Roadmap—Roadmap 2.0—which includes an updated emissions inventory and outlines several new near-term actions for 2024 through 2026 to help to achieve the state's emissions goals (Colorado Energy Office). Per projections in Roadmap 2.0, Colorado is estimated to be over 80% of the way to meeting its 2030 emissions-reductions target.

Over the last several years, Colorado has passed numerous clean energy bills. More recent legislation includes House Bill 1234, passed in 2023, which establishes a grant program within the Colorado Energy Office to assist local governments to streamline solar energy systems inspection and permitting. Also in 2023, Colorado focused on labor in the clean energy industry. Senate Bill 292 expands workforce standards for clean energy projects, requiring the use of prevailing wages and employment of registered apprentices. Furthermore, House Bill 1074 requires the Office of the Future of Work to examine transitions for oil and gas workers, while Senate Bill 283 makes funds available from the federal Inflation Reduction Act and from the state for communities to use for planning or grant-matching assistance.

In 2024, Colorado continued to pass renewable energy legislation. Notably, the state passed Senate Bill 207, a bipartisan bill that modernizes Colorado's community solar program. The legislation will capitalize on $156 million in federal funding from the EPA's Solar for All program ("Colorado Solar for All," Colorado Energy Office, 2024). Furthermore, Senate Bill 212 provides resources to local governments for utility-scale renewable energy projects.

Wind Energy

In 2023, Colorado ranked sixth nationally for total installed wind capacity, according to the EIA, and third for wind industry employment. In 2023, wind power accounted for 70% of the state's renewable electric generation. Cumulative wind power generating capacity has increased by almost five times since 2010. As of July 2023, Colorado's total wind generating capacity was 5,194 megawatts (MW), according to the American Clean Power Association.

In 2022, Colorado added 145 MW of wind capacity with the construction of the Panorama Wind Farm in Weld County. During peak construction, the project supported 185 jobs and will continue to provide nonconstruction employment now that the wind farm is operational, according to the *Environment + Energy Leader.* In December 2023, the new Bronco Plains Wind Energy Center in Kit Carson County added an additional 72 turbines and 200 MW of wind capacity. Most of Colorado's wind plants operate in rural areas with otherwise limited economic

continued on page 40

Natural Resources and Mining

continued from page 39

development opportunities, providing well-paying direct and indirect jobs.

The wind industry adds to local economies through lease payments to landowners, local income from taxes, wages of wind farm employees, and sales and use taxes from spending by these workers. The ACP found that annual wind land lease payments to landowners totaled $16.6 million in 2020.

In addition to jobs at wind farms, Colorado is home to one of the nation's largest wind-turbine manufacturers, with Vestas blade, tower, and nacelle factories. Vestas has invested over $1 billion in Colorado ("Manufacturing Renaissance: Reviving American Pride through Wind Manufacturing," The *Power Line,* August 6, 2024). The state also hosts smaller component manufacturers that supply the wind industry, such as Aluwind. Both CS Wind and Vestas have announced plans to expand their Colorado manufacturing facilities, supporting over 1,500 new jobs ("Pueblo wind manufacturer breaks ground on expansion; plans to bring 850 new jobs by 2028," *The Pueblo Chieftan;* "Colorado wind turbine company Vestas hiring 400 new employees in expansion," *KOAA News5,* October 3, 2024).

Solar Energy

Colorado is a leader in solar energy potential, with more than 300 sunny days per year. As of mid-2024, Coloradans get 10.8% of their electricity from solar, according to the Solar Energy Industries Association (SEIA). In terms of cumulative installed solar electric capacity, Colorado ranks 12th nationally, with more than 4,208 MW of installed capacity. SEIA reported a total of 414 solar companies operating in Colorado in 2024. According to SEIA, the total investment in Colorado solar is roughly $8 billion, and installation prices have dropped 43% over the last 10 years. In Pueblo, Xcel Energy is preparing to close the Comanche Generating Station, a coal-fired power plant, and replace 300 MW of the power with solar for the local steel mill. The Bighorn Solar plant is located onsite at one of Colorado's largest energy users—EVRAZ Rocky Mountain Steel—and is the largest behind-the-meter solar project in the United States and largest solar-powered steel plant in the world ("Bighorn Solar: 300MW powering the world's first steel mill to run almost entirely on solar power," *Lightsource,* 2024).

As of 2024, Colorado had 149,600 individual photovoltaic (PV) installations. Like many states, the rooftop solar community in Colorado has been thriving. As of October 2024, Colorado had an average cost of $2.98 per watt install price for residential PV systems, according to EnergySage.

Hydroelectric Power

For the past decade, Colorado's hydroelectric plants have been providing between 2% and 4% of the state's total electricity. In 2024, hydropower comprised approximately 6% of Colorado's net renewable energy electricity generation, per EIA's state profile and energy estimate.

In 2024, EIA reports Colorado has 69 mostly small hydroelectric generating stations. These facilities have the combined capacity to produce 1,183 MW of power. Most of these stations are owned by the U.S. Bureau of Reclamation, but some are privately owned or operated by local mountain towns, such as Aspen, Nederland, Ouray, and Telluride. The Bureau of Reclamation owns 550 MW of hydropower in Colorado and estimates that there could be as many as 30 additional hydropower sites within the state, with the U.S. Department of Energy reporting 11 more potential sites. This renewable resource provides a predictable and seasonably variable source of electricity. The industry employs several hundred individuals for operations and maintenance. Pumped storage hydropower is the nation's 2nd-largest source of energy storage, behind batteries.

Geothermal Energy

Neither biomass nor geothermal energy provide even 1% of Colorado's electricity, but there is potential from both resources.

Direct-use geothermal resources in the state continue to contribute to local economies on a very small scale and are used for heating domestic and commercial structures, including greenhouses and aquaculture, spas, and other bathing. The use of geothermal (also known as ground-source, or geoexchange) heat pumps continue to slowly grow in Colorado. While these heat pumps are not strictly an alternative energy source, they consume electricity very efficiently (using one-half to one-quarter of the electricity consumed by conventional heating and cooling systems).

In 2022, Governos Polis, as chair of the National Governor's Association, launched the Heat Beneath Our Feet Initiative to advance geothermal energy. Also in 2022, Colorado passed House Bill 1381, creating the Geothermal Energy Grant Program. The program was then expanded in 2023 by House Bill 1252 and authorized grants for retrofitting existing buildings. In 2024, Governor Polis approved $7.7 million in grant funding to support the development of private geothermal projects.

Biomass Energy

Coming online in 2013, Colorado had one generator using woody biomass exclusively—Evergreen Clean Energy's 11.5 MW project in Gypsum, which generated electricity using beetle-kill trees. However, in April 2024, the plant closed and filed for bankruptcy, according to *Vail Daily.* The state provides tax breaks for biomass generation from anaerobic digestion, and given Colorado's forest resources, there are other opportunities for electricity from woody biomass (NC Clean Energy Technology Center).

Contributors:

Chris Eisinger, Colorado Energy and Carbon Management Commission (Chair)
Adam Eckman, Colorado Mining Association
Alexandra Evans, Colorado State University
Todd R. Ohlheiser, Colorado Stone, Sand & Gravel Association
Mike O'Keeffe, Colorado Geological Survey
Alexander Papp, Coalgeo, LLC
Suzanne Tegen, Colorado State University
John Tobin, Natural Resources Education Program

Construction

In 2024, Construction activity is forecast to total $19.3 billion. Total construction value fell 15% from last year's activity; increases in single-family construction were more than offset by declines in multifamily and nonresidential sectors and a statistical decline in the nonbuilding sector. The forecast for 2025 is for a 12% improvement, to $21.6 billion, in the volume of work. This increase is in spite of a further drop in nonresidential construction.

Construction employment is estimated to decline slightly in 2024, to 182,900 jobs. Experience and anecdotal observations confirm this, although the headcount understates the activity. Companies are not extensively laying off workers this year; rather, they are actively retaining the good workers as focus shifts toward quality. An uptick in employment of 6,000 jobs is projected in 2025 in the Construction industry as residential and infrastructure projects rebound from recent declines.

High interest rates for mortgages, commercial lending, and bonding will constrain a lot of work, mostly causing delays in permitting and starts but few cancellations. The highly complex nonresidential building sector will have some subsectors in decline, such as retail and office, while other subsectors, such as industrial and medical, will spend more. Additional headwinds for the industry include the continued cost increase in materials, the longer lead times for delivery, and the need for labor. Skilled craft trades have been disproportionally impacted by retirements, and to meet the need for more superintendents to run projects, a State Apprenticeship Agency was established in mid-2023 with a directive to increase new, qualified workers. Even 4,000 registered apprentices are not enough to replace the estimated worker exit, or the "silver tsunami," of older workers retiring.

Residential Construction

Single-Family Housing

The number of single-family permits issued in Colorado in 2023 was 19,641. Colorado is on track for 21,200 at the end of 2024, up nearly 8%. In 2025, expect an increase of 12%, to 23,700 single-family home permits statewide. Higher in-migration and a slight decline in interest rates will support the increased activity.

Permit values for the constructed portion of new housing will increase by 7% in 2024, to $406,400 per unit, and will see another 5% increase in 2025, to $426,700. The total value of single-family construction is expected to increase by 27% in 2024 because of the increase in permits, and by 36% in 2025 as construction increases further.

Colorado's single-family housing industry has slowly started to rebound in 2024, as builders continued to buy down rates, maintaining a steady flow of demand. Expect a higher pace by the end of 2025 as builders anticipate continued interest rate cuts. The interest rate during September 2024 averaged 6.3%, down from 7.2% in September 2023.

According to John Burns Research and Consulting, the inventory of existing homes for sale increased 48% from September 2023 to September 2024. The higher inventory in the resale market could suppress new home activity. The announcement of rate cuts by the Fed has not yet produced additional sales in the housing market, although the committee anticipates that lower mortgage rates will spur additional activity in 2025.

Rate buydowns vary by market within the state of Colorado but are the most impactful way to support home sales. The average incentive is usually between 5% and 7% of the home value. Builders could experience some relief on the size of incentive needed as rates decline. Researchers have observed that 5.5% is the interest rate level where buyers would still buy a home. The market is unlikely to realize these rates until 2026.

Another growing trend in single-family construction is building homes for rent instead of for sale. Renters in single-family homes tend to favor having a yard, a private garage, and living in a home without renters above or below them. Colorado still lags in this movement, with a limited number of build-to-rent communities compared to communities in Texas, Florida, and Arizona. In Colorado, those built or leasing up have strong occupancy rates and lease-up paces. There are a number of projects in the pipeline in the state, and for-rent communities are expected to expand in several markets.

The future of new housing construction looks brighter in the long term. Homebuilders have started buying land in Colorado or are starting to build on land they own. Colorado's population is still growing, albeit slower than in previous years. A national trend of wealth transfer from the baby boomers to those transitioning into the homebuying age (25-40), as well as increased migration from the early 2020s, is also supporting demand. Colorado remains an attractive destination for primary- and 2nd-home buyers. Research conducted by John Burns Research and Consulting on the 2nd-home market shows that 2nd-home markets (such as in the mountains) are not overly sensitive to interest rate fluctuations. However, interest rate increases changed the accessibility to easy leverage that back many cash transactions. The

INDUSTRY SNAPSHOT
CONSTRUCTION

Nominal GDP, 2023 ($ Billions)	31.5
Real GDP, 2023 ($ Billions, 2017 Dollars)	21.2
2023 Real GDP Growth Rate	-3.6%
Total Employment, 2023 (Thousands)	183.8
2023 Employment Growth Rate	0.4%
Employment Growth National Rank	44
Share of Colorado Employment	6.2%
Share of National Employment	5.1%
Average Wage, 2023	78,335
Percent of Statewide Average Wage	100.0%
2023 Average Wage Growth Rate	3.7%

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics.
Note: 2023 employment includes revised estimates.

continued on page 42

Construction

continued from page 41

RESIDENTIAL BUILDING PERMITS BY TYPE 2015–2025

Year	Single Family	Multifamily	Total Housing Units
2015	20,025	11,846	31,871
2016	21,577	17,397	38,974
2017	24,338	16,335	40,673
2018	26,134	16,493	42,627
2019	24,756	13,877	38,633
2020	26,636	13,833	40,469
2021	30,246	26,278	56,524
2022	23,691	24,650	48,341
2023[a]	19,641	19,763	39,404
2024[b]	21,200	10,500	31,700
2025[c]	23,700	11,500	35,200

[a]Revised. [b]Estimated. [c]Forecast.

Sources: U.S. Census Bureau and the Colorado Business Economic Outlook Committee.

transfer of wealth will continue to support the primary- and 2nd-home markets.

Multifamily Housing

Multifamily construction permits decreased dramatically in the past year as apartment builders responded to the high interest rates and softening rental markets and dealt with increased regulations in local governments. By year's end, 10,500 multifamily units are projected to be permitted, down 47% from a year earlier and the lowest level of permitting statewide since the Great Recession when 4,779 multifamily units were permitted in 2011. Declines occurred statewide, with decreases in Denver permits mirroring the statewide drop in development.

The share of multifamily permits relative to overall residential construction has also declined. Over the past three years, multifamily permits accounted for more than 50% of new residential units, which was a historical first for the state. In 2024, however, multifamily permits are expected to return to longer-term trends, accounting for approximately one-third of total residential construction.

In addition to limited starts, ongoing projects are wrapping up, which is contributing to the slowdown in sector jobs. The committee forecasts a modest increase in multifamily permits in 2025. Current projects under construction are being absorbed into the market. Approximately 22,450 multifamily units are under construction statewide as of the third quarter of 2024, according to CoStar Group, down from 46,050 a year earlier. Expect 11,500 multifamily units to be permitted in 2025, up nearly 10% from 2024.

The large supply of recently completed apartments has contributed to rising vacancy rates, but demand for multifamily housing is expected to be supported by the increase in migration and because some potential buyers of single-family homes simply cannot afford them and so continue to rent. During the third quarter of 2024, CoStar Group reported that vacancy rates in Colorado averaged 9.7%, up from 7.8% a year earlier, and the highest statewide vacancy rate since at least 2000. Rising vacancy rates have resulted in stagnant rent growth; the average statewide rent was unchanged year-over-year at $1,759 as of the third quarter of 2024. The vacancy rate increased in the past year because of the wave of new units entering the market; nevertheless, absorption is at near record levels, indicating demand for apartments remains strong despite the slower population growth in recent years. As of the third quarter of 2024, a total of 19,100 units were absorbed during the past year, up from 10,650 a year earlier. Continued high demand for new apartments is offset by increased regulatory constraints from local governments and neighborhood resistance in some communities. Furthermore, elevated interest rates; increasing land, labor, and construction costs; and lengthy approval processes will likely influence how many of the projects in planning are able to break ground next year.

CONSTRUCTION EMPLOYMENT, 2015–2025 (In Thousands)

Year	Employment	Percentage Change
2015	148.8	4.6%
2016	155.3	4.4
2017	163.7	5.4
2018	173.2	5.8
2019	179.1	3.4
2020	174.9	-2.3
2021	177.5	1.5
2022	183.1	3.2
2023[a]	183.8	0.4
2024[b]	182.9	-0.5
2025[c]	188.9	3.3

[a]Revised. [b]Estimated. [c]Forecast.

Sources: Colorado Department of Labor and Employment, Bureau of Labor Statistics, and Colorado Business Economic Outlook Committee.

Apartments make up about 95% of multifamily units built since 2010, with development of for-sale multifamily condominiums almost nonexistent. The imbalance is a result of developers' concerns about potential construction defects litigation and related insurance costs of for-sale condominiums. Despite recent state legislation intended to address the issue, condominium construction is slow to return, and builders report that financing for apartments is significantly easier to obtain than for condominiums.

The construction value per unit is expected to increase this year. For 2024, the average value per multifamily unit will increase approximately 10%, to $199,500. Though strong, this is slower than the 17% increase in value per unit in 2022. The value per unit is expected to rise another 5% in 2025, to approximately $209,500. Despite the increase in per unit valuation in 2024, total valuation for multifamily construction is expected to decrease nearly 42% from 2023, due to the drop in number of multifamily permits. In 2025, with the increase in valuation and permits, the total valuation for multifamily permits is expected to increase 15%.

Nonresidential Building

The nonresidential building sector tracks activity for new and renovated office space, mixed use space, medical facilities, K-12 and higher education building projects, retail outlets, and government buildings. Nonresidential building construction is expected to decline slightly in 2025 to $4.1 billion, down 7% from 2024's expected total of $4.4 billion.

A driver of growth in nonresidential construction is state and local energy policy. At the state level, HB21-1286 Energy Performance for Buildings and the subsequent Air Quality Control Commission Regulation 28 requires owners of buildings of 50,000 square feet or more to achieve certain greenhouse gas (GHG) emission reductions by 2027 and 2030. There are an estimated 8,000 such buildings in the state. At the local level, the Energize Denver ordinance requires the owners of buildings of 25,000 square feet or more to achieve certain GHG emission reductions by 2025 and 2030. Both requirements will drive significant mechanical, electrical and plumbing, and electrical distribution construction for existing building stock to meet the requirements.

School bond funding has decreased in the past three years for a number of reasons, including concerns with rising property taxes. In addition, the Building Excellent Schools Today (BEST) state matching grant program has reduced funding from $300 million to $100 million annually. In 2024, voters approved $5.65 billion in school bonds, although only about one-third of that work is expected to record a construction start in 2025. In addition, the Denver Health ballot issue, which passed in November 2024, could potentially free up funding for expansion via capital building projects in medical office buildings, although that work will not start until 2027 or later.

VALUE OF CONSTRUCTION BY TYPE, 2015–2025
(In Millions of Dollars)

Year	Residential	Nonresidential	Total Building	Nonbuilding	Total Construction
2015	$8,659.0	$4,990.8	$13,649.8	$3,036.3	$16,686.0
2016	10,161.0	5,987.8	16,148.8	2,705.6	18,854.4
2017	10,361.8	6,150.7	16,516.7	2,975.8	19,492.5
2018	11,772.6	8,132.0	19,927.6	4,520.9	24,450.5
2019	10,831.0	5,161.5	16,014.7	3,158.9	19,173.7
2020	12,184.0	5,607.5	17,760.5	2,944.5	20,705.0
2021	15,022.3	5,681.0	20,752.1	3,490.3	24,242.4
2022	12,978.5	6,662.4	20,681.6	4,783.3	25,464.9
2023[a]	10,413.0	6,639.7	17,684.4	4,932.0	22,616.4
2024[b]	10,710.6	4,400.0	15,110.6	4,200.0	19,310.6
2025[c]	12,522.4	4,100.0	16,622.4	5,000.0	21,622.4

[a]Revised. [b]Estimated. [c]Forecast.

Sources: McGraw-Hill Construction Research and Analytics and the Colorado Business Economic Outlook Committee.

Major projects include hospitals and medical office buildings, mixed-use developments, aerospace and battery manufacturing, data centers, warehouse and distribution, hotels, and target office space. Specific projects that should start in 2025 include Cherry Creek West, which over the course of a decade will build out 600,000 square feet of office space and 100,000 square feet of retail. The Gaylord Resort plans to add 450 rooms and a 47,000-square-foot indoor addition to its water park. Phillip Morris has announced plans for a $600 million nicotine pouch manufacturing facility in Aurora. Other projects in the commercial region of Denver's airport include several distribution, industrial, and manufacturing projects and the Consolidated Rent-A-Car Facility (CONRAC). The National Western Center is proceeding with construction of new public event venues and related assets to round out the center's project activity.

Nonbuilding

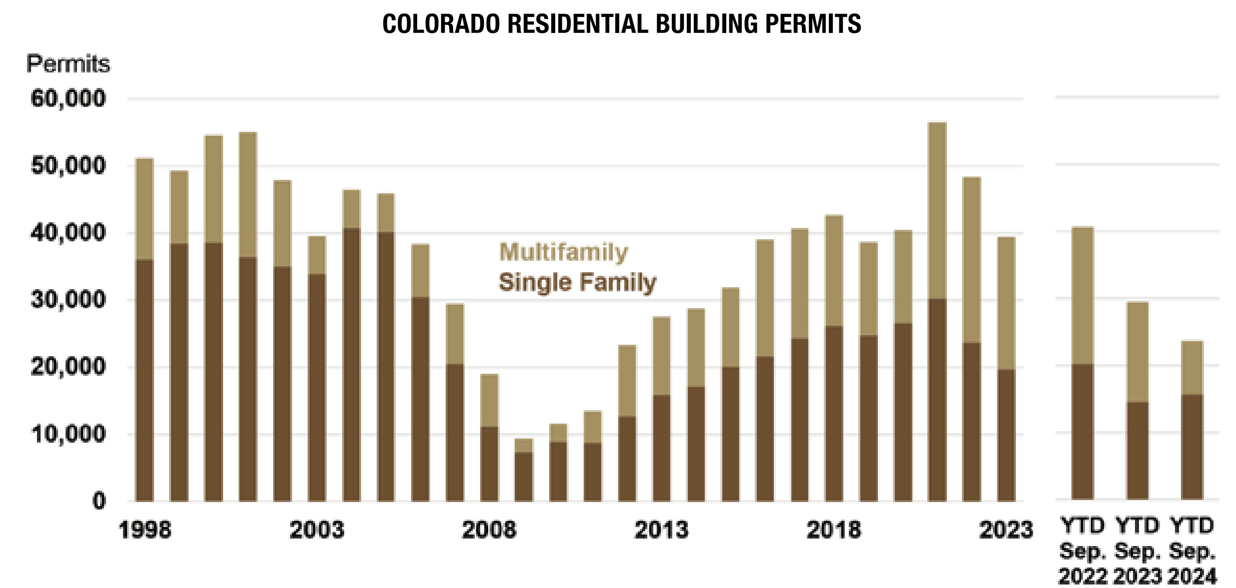
Nonbuilding measures new construction in infrastructure projects. Volume in this sector is driven by two main components: electric utility projects (generation, transmission, and distribution) and public works projects (roads and bridges, transit, drainage and flood control, water and wastewater facilities, reservoirs, and similar projects).

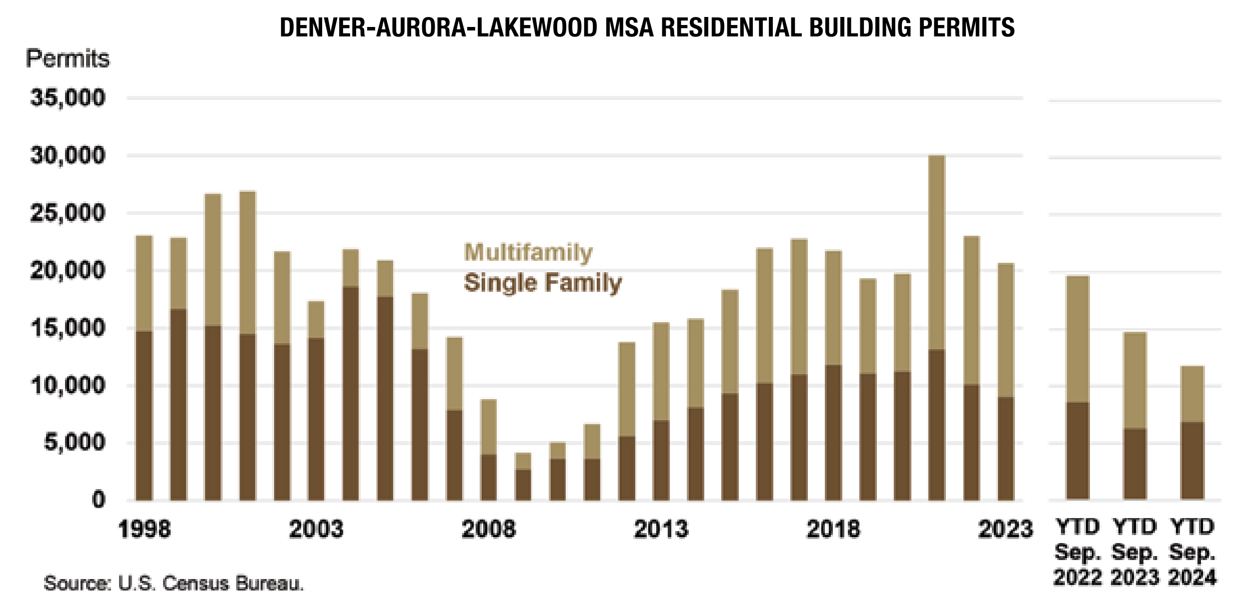
The committee forecasts that awards for 2024 should finish the year around $4.2 billion if the official data accurately captures awards of projects; if not, then the official figure could be as low as $3.2 billion. Keep in mind, though, that the bulk of the money spent in this

continued on page 44

Construction

continued from page 43





Source: U.S. Census Bureau.

subsector is on multiyear mega projects. As a result, the value of awards in a given year often swings more than the amount of construction activity, which remains high. With that caveat, awards are forecast to once again exceed $5 billion in 2025, with the potential to exceed $6 billion if several of the planned electric projects are awarded in 2025.

Electric Utility

Recent years have seen a significant investment in electric utility projects as Colorado utilities continue to build new cleaner energy generation projects, resulting in the construction of massive wind and solar farms along with new natural gas power generation. Significant energy storage and transmission projects are also being built.

This building boom will continue in 2025 and throughout the rest of this decade. Phase II of Xcel's Clean Energy Plan will add approximately 6,100 megawatts (MW) of new generation at a cost of $12 billion to $13 billion. This will include 1,840 MW from wind, 1,720 MW from solar, and 670 MW from natural gas. It will also include 1,850 MW for storage. Xcel is also investing $1.7 billion through its Colorado's Power Pathway to build 550 miles of new double-circuit transmission lines and four new or expanded substations by 2027. Xcel expects 2025 to be busy, with plans to spend $5.2 billion in capital expenditures in 2025, up from $3.3 billion in 2024.

Xcel is not alone. Tri-State has announced plans to add 1,250 MW of additional renewables and battery storage by 2031. Black Hills Energy's 2030 Ready Plan proposes the addition of approximately 400 MW of new, utility-scale, clean energy resources, including wind, solar, and battery storage. Colorado Springs Utilities is currently adding 1,500 MW of new electric generation, with a plan to spend $3 billion on capital infrastructure to support growth and system reliability through 2029. Many of the state's other electricity providers also have ambitious plans.

Surface Transportation and Transit

Spending on the transportation subsector will remain steady, although the number and nature of those projects could change. Higher prices, combined with flat budgets, could decrease the overall number of projects awarded. As for types of projects, the committee continues to see a general movement away from highway capacity projects toward transit-oriented projects, with a particular focus on Bus Rapid Transit (BRT) projects. BRT projects expected to break ground in late-2024 or 2025 include Denver's East Colfax Ave BRT ($197 million) and the CO 119 BRT and Bikeway project ($165 million). Other anticipated projects fall beyond the timeframe of this report. A multiyear, voter-approved sidewalk program valued at over $1 billion in Denver is also expected to get underway in either 2025 or 2026. As always, these larger projects will be accompanied by asset management projects such as bridge replacements and paving throughout the state and local roadway network.

Aviation and Rail

Denver International Airport (DEN) plans expansion projects to meet demand for 100 boardings. This includes both building and nonbuilding projects, including ConRAC with a possible Common Transportation System (CTS) that would move people between the terminal and the ConRAC. A budget has not been announced, but similar projects at other major airports have exceeded $1 billion. As for rail, BNSF Railway has long-range plans to construct an Intermodal Facility and Logistics Park near the towns of Hudson and Lochbuie. Many of these projects are unlikely to start in the next year, but the committee is keeping its eyes on these and other potential rail projects, including the Front Range Passenger Rail and Mountain Rail in northwest Colorado.

Water—Dams

A recent uptick in dam and reservoir projects continues. Projects valued at close to $1 billion for Northern Water's Glade Reservoir could be awarded within a year of resolution of pending litigation. Aurora Water's Wild Horse Reservoir is in design and will move to construction in the next couple of years.

Water—Treatment Plants

Expansion of plants to accommodate population growth and plant retrofits to reduce the discharge of nutrients and remove per- and polyfluoroalkyl substances (PFAS) chemicals drive much of these investments. As an indication of the order of magnitude of investments in these types of projects, Colorado Springs Utilities expects to award nearly $1 billion in projects over the next five years.

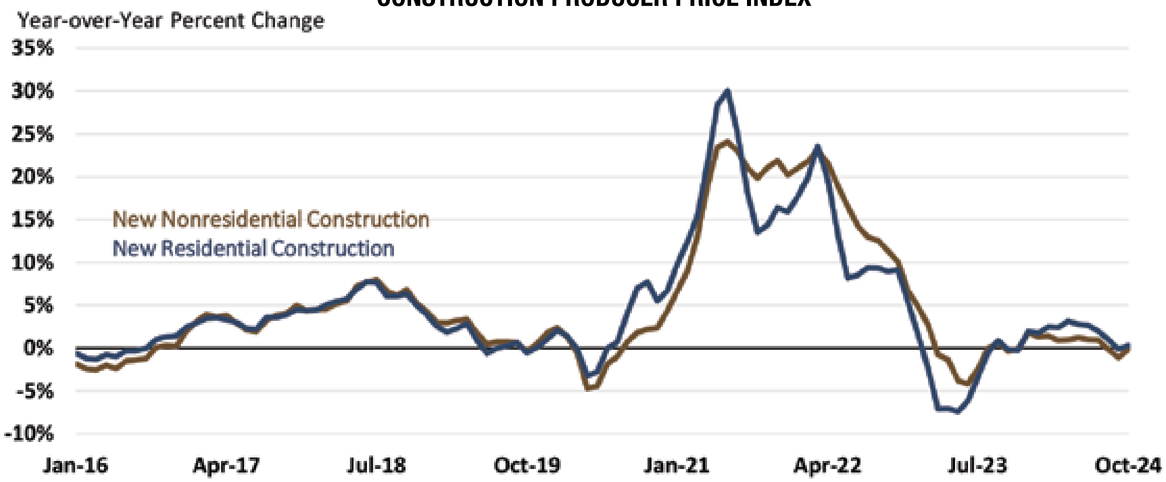
Drainage and Flood Control

A major effort on the South Platte River known as the Waterway Resiliency program will start, and with $350 million in federal funding, the project could exceed $1 billion.

Contributors:

Katharine Jones, U.S. Department of Housing & Urban Development (Co-Chair)
Penn Pfiffner, Construction Economics, LLC (Co-Chair)
Jeff Barratt, Associated General Contractors of Colorado
Michael Gifford, Associated General Contractors of Colorado
Jim Moody, Colorado Contractors Association
Chelsea Scott, John Burns Research and Consulting

CONSTRUCTION PRODUCER PRICE INDEX



Source: Bureau of Labor Statistics.

How the Reshoring and Foreign Direct Investment Trends Could Play Out in Colorado

Reshoring and foreign direct investment (FDI) trends have surged over the past few years, adding 850,000 manufacturing jobs to the U.S. from 2021 to 2024, including 9,678 jobs in Colorado. With an estimated 5 million jobs still offshored, Colorado could gain 50,000 additional jobs—or even more—if the state enhances its competitiveness and just maintains its share of the reshoring market. Broadly defined, reshoring involves replacing imports with domestically produced goods—a concept that is being more widely adopted after the pandemic exposed various risks in over-globalized supply chains. These trends will likely continue expanding due to growing geopolitical and climate risks and the supportive industrial policies aimed at mitigating those risks.

Colorado has 150,000 jobs in manufacturing, accounting for 5.2% of GDP. High labor costs are often cited as a limitation to the state's manufacturing potential. However, by following modern best business practices, this perceived barrier should not impede a robust manufacturing community.

How Colorado Can Capitalize on Reshoring and FDI Opportunities

1. **Invest in Automation to Offset Higher Labor Costs** To remain competitive, companies across all sectors should prioritize automation. Despite its lower labor costs, China invests two to three times more in CNC machine tools and robotics than the U.S., resulting in labor productivity growth of 6% annually compared to 0.5% in the U.S. To keep pace, Colorado must elevate its commitment to automation and productivity.

2. **Cultivate a Highly Productive, Skilled Workforce** Building a workforce that meets the demands of reshoring requires a fresh approach to education and training. Revamping higher education to integrate hybrid vocational training and apprenticeship programs would create a pipeline of skilled workers aligned with industry needs. Additionally, Colorado could explore innovative workforce resources that tap into underutilized communities and regions.

- **Rural Workforce:** Partner with rural communities to create targeted training programs, offering career pathways in manufacturing and tech. Collaborative efforts can bridge workforce gaps while fostering economic opportunities within these communities.
- **Prison Workforce Programs:** Colorado could implement or expand prison workforce programs that provide training in technical skills. Such programs can help prepare formerly incarcerated individuals for stable employment while addressing industry needs for skilled labor.
- **Utilizing Mountain and Ski Towns:** By strategically placing manufacturing or tech facilities in ski towns and other mountain areas, Colorado could draw from seasonal workers seeking year-round employment. This approach also supports economic diversification in tourism-reliant communities.
- **Hybrid Workforce Programs with Remote and In-Person Roles:** As manufacturing integrates more advanced technology and automation, there are increasing opportunities for remote monitoring and operations roles. Colorado could pioneer a workforce model that combines onsite technical roles with remote support positions, appealing to a broader talent pool.

By thinking outside the box and tapping into these diverse workforce resources, Colorado can build a resilient, highly skilled workforce that supports reshoring initiatives and fuels sustainable growth across multiple industries.

3. **Leverage Existing and Emerging Competitive Advantages** Colorado's unique assets—including access to natural gas, oil, abundant sunshine, and an established infrastructure—position the state well for reshoring. Colorado's strong rail and intermodal network, along with plans for an expansive intermodal port, will enable greater connectivity, opening new markets and fostering partnerships with nearby manufacturing hubs. Instead of focusing on interstate competition, Colorado businesses can benefit from cross-state collaboration, especially given the state's proximity to growing manufacturing centers in California, Texas, Arizona, and Utah. Colorado's extensive network of vocational and higher education institutions provides opportunities for workforce partnerships, and Boulder's entrepreneurial community adds a valuable resource for innovation and support. Successful reshoring depends on strategically selecting products that maximize these location-specific advantages, particularly those that benefit from access to local supply chains and networks. When specifically replacing imports, national advantages will also play heavily into the total cost of ownership (TCO) equation, such as Made in USA branding, strong IP protection, and proximity to the end market, to name a few.

4. **Enhance Local Networks and Connectivity to Other Hubs** Colorado's manufacturing sector is concentrated in three key areas: food and beverage, high-tech (including aerospace, defense, and clean energy), and bioscience (such as pharmaceuticals). While Governor Jared Polis has directed investments toward quantum computing R&D, which offers long-term potential, it's crucial to remember that research and development thrive alongside a vibrant manufacturing base. Manufacturing OEMs,

tech R&D, contract manufacturers, intermodal facilities, and supporting industries form a symbiotic ecosystem—improving one component strengthens the entire network.

5. **Utilize Total Cost of Ownership (TCO) Analysis** Conducting a total cost analysis allows businesses to quantify all costs and risks, including geopolitical risk, and identify the most viable products and components for domestic production. Studies indicate that 20% to 30% of imports can be more competitively made or sourced in the U.S., making TCO analysis a valuable tool for reshoring efforts.

6. **Take Advantage of Government Grants and Tax Incentives** Numerous local and federal incentives are available to support business expansion and relocation efforts. For instance, the Department of Defense offers up to $984 million in loans for acquiring and installing equipment, as well as for construction, expansion, and modernization across 31 tech categories. These grants and tax benefits can significantly offset initial costs and help Colorado companies scale.

Colorado's national ranking in reshoring and FDI-related job announcements rose from 39th in 2021 to 15th in 2024, showing that it is capturing a greater market share of reshoring jobs. This upward trajectory suggests Colorado is well positioned to capitalize on further momentum. The top 10 reshoring states have captured 60% of the reshoring and FDI job announcements, mostly because they had preexisting ecosystems from which they could more easily ramp up production.

By actively engaging in reshoring efforts and utilizing resources unique to the state and to the country, Colorado can unlock substantial economic benefits, from job creation and supply chain resilience to innovation and regional competitiveness. For businesses and states, the reshoring trend offers valuable incentives, infrastructure investments, and collaboration opportunities that support sustainable growth.

COLORADO RESHORING AND FDI BY INDUSTRY, 2021- 2024 YTD

Industry (by NAICS code)	Jobs Announced	Cases	% of Total Jobs in CO	% of Total Jobs Nationally
Computer & Electronic Products	7,211	21	70%	26%
Machinery	1,569	5	15%	5%
Electrical Equipment, Appliances & Components	759	22	7%	30%
Chemicals	360	13	4%	10%
Nonmetallic Mineral Products	230	2	2%	1%
Primary Metal Products	138	3	1%	3%
Transportation Equipment	0	12	0%	12%
Plastic & Rubber Products	0	0	0%	1%
Fabricated Metal Products	0	0	0%	1%
Wood & Paper Products	0	0	0%	1%
Apparel & Textiles	0	10	0%	2%
Medical Equipment & Supplies	0	2	0%	5%
Food & Beverage	0	2	0%	2%
Castings/Foundries - Subset of Primary Metal Products	0	0	0%	0%
Miscellaneous	0	0	0%	0%
Hobbies (subset of Miscellaneous)	0	2	0%	0%
Furniture and Related Products	0	0	0%	1%
Colorado Total	10,267	96	100%	-
National Total	1,066,506	6,276	-	100%

Source: Reshoring Initiative. Note: Due to rounding, the sum of the individual sectors may not equal the total.

The Reshoring Initiative, a nonprofit founded in early 2010, supports U.S. industry by helping manufacturers realize that local production, in some cases, reduces their total cost of ownership. For data, the free TCO Estimator, and support with your reshoring decisions, visit ReshoreNow.org or email info@reshorenow.org.

Contributors:
Millar Kelley, Reshoring Initiative
Harry Moser, Reshoring Initiative

Manufacturing

Following two years of growth after emerging from the pandemic, Manufacturing employment in Colorado is on pace to record its 2nd-consecutive annual decline in 2024. Like the rest of the nation, Colorado's manufacturing sector has struggled with challenges, including the effect of high interest rates, high costs of raw materials and inputs, a slower housing market, and reduced demand for durable goods. According to the most recent report from the Institute for Supply Management's Purchasing Managers Index, the U.S. manufacturing sector continues to contract, with lingering challenges in employment, new orders, and a general restraint among manufacturers' customers to invest in inventories. For Colorado's tech-centric manufacturing sector, challenges in the technology and information sectors have dampened employment further. In 2023, U.S. manufacturing increased by 1%, but declined 1.1% in Colorado, led by a contraction in the state's computer and electronic products subsector.

Over the past few years, labor markets continue to shape the manufacturing sector. Under the umbrella of a persistent skills gap, the sector has shifted from the weight of a tight labor market that held back employment growth to employers that have either become more hesitant to add workers or are adjusting their employment needs based on changing market dynamics and an ongoing push to automation. A need for efficiency and a persistent gap in hard-to-fill jobs has influenced several of the manufacturing subsectors. Some companies have invested heavily in the promise of artificial intelligence

INDUSTRY SNAPSHOT MANUFACTURING

Nominal GDP, 2023 ($ Billions)	28.1
Real GDP, 2023 ($ Billions, 2017 Dollars)	23.1
2023 Real GDP Growth Rate	-2.5%
Total Employment, 2023 (Thousands)	151.1
2023 Employment Growth Rate	-1.2%
Employment Growth National Rank	45
Share of Colorado Employment	5.1%
Share of National Employment	8.3%
Average Wage, 2023	85,781
Percent of Statewide Average Wage	109.5%
2023 Average Wage Growth Rate	3.9%

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics.
Note: 2023 employment includes revised estimates.

COLORADO MANUFACTURING EMPLOYMENT BY INDUSTRY 2015-2025 (In Thousands)

Industry	2015	2016	2017	2018	2019	2020	2021	2022	2023[a]	2024[b]	2025[c]
Food	21.6	22.2	22.8	23.3	23.9	23.7	24.5	25.7	25.5	25.9	26.1
Beverage and Tobacco	7.0	7.8	8.3	8.7	8.9	8.4	9.2	9.6	9.8	9.9	10.3
Chemicals Including Pharmaceuticals	6.1	6.4	6.9	7.6	8.3	8.8	9.0	8.9	8.7	8.5	8.3
Other Nondurables	16.1	16.2	16.1	15.6	15.3	14.2	14.3	14.8	14.2	13.4	13.3
Subtotal, Nondurable Goods	50.8	52.6	54.0	55.2	56.4	55.0	57.1	59.0	58.2	57.7	58.0
Nonmetallic Minerals	8.1	8.1	8.5	8.6	8.4	8.1	8.3	8.5	8.3	7.7	7.4
Fabricated Metals	15.4	14.8	14.7	15.2	15.2	14.7	14.4	14.6	14.9	15.1	15.2
Computers and Electronics	21.6	21.4	21.8	22.4	22.8	22.8	23.3	23.4	22.8	22.4	22.4
Transportation Equipment	9.4	9.6	9.8	10.1	10.8	11.2	11.5	11.5	11.6	11.7	11.8
Miscellaneous Including Medical Device	10.5	10.8	10.3	10.1	10.1	9.5	9.6	10.1	9.8	9.5	9.6
Other Durables	25.4	25.5	25.1	25.9	26.9	25.4	25.1	25.9	25.7	26.6	27.3
Subtotal, Durable Goods	90.3	90.1	90.3	92.3	94.2	91.8	92.2	94.0	93.0	93.0	93.7
Total, All Manufacturing	141.1	142.7	144.3	147.5	150.6	146.8	149.3	153.0	151.2	150.7	151.7

[a]Revised. [b]Estimated. [c]Forecast. Subsectors may not sum to the total due to rounding.

Sources: Bureau of Labor Statistics, Colorado Department of Labor and Employment, and the Colorado Business Economic Outlook Committee.

to conceptualize and plan for a potential future with fully automated factories. Looking ahead, employment may respond less to resurgent demand and renewed investment than in prior years, but the sector could benefit overall from productivity gains.

In 2024, Colorado's manufacturing employment is expected to contract slightly, with losses in nondurable goods categories and flat employment in durable goods overall. In 2025, job growth is expected to be slow but positive, with employment increasing by an estimated 0.7%, to 151,700 jobs. The sector is expected to be supported by federal investment, particularly for renewable energy, and will benefit from easing interest rates. Subsectors supported by aerospace and defense spending are also expected to contribute to gains, in addition to growth in food products and beverages.

Nondurable Goods

Nondurable goods include the production of goods that generally last for less than one year and comprise about 38% of manufacturing employment. By year-end 2024, employment in the nondurable goods subsectors is expected to fall, decreasing by a projected 0.7% on average over 2023 levels. Broad-based growth across many subsectors, including food products and beverages, is expected to only partially offset declines expected for chemical products, a subsector that includes pharmaceuticals and several other industries including plastics, textiles, apparel, and printing. The sector is expected to grow modestly in 2025, adding about 300 jobs and increasing 0.5%.

Food Manufacturing

The largest nondurable goods subsector in Colorado is food manufacturing. Colorado food brands and copackers manufacture candies, baked products, snacks, tortillas, burritos, coffee, and animal feeds. They also process meat, grains, sugar, milk, cheese, and other dairy products. Colorado has both large food manufacturers as well as many boutique manufacturers, often specializing in niche natural and organic products.

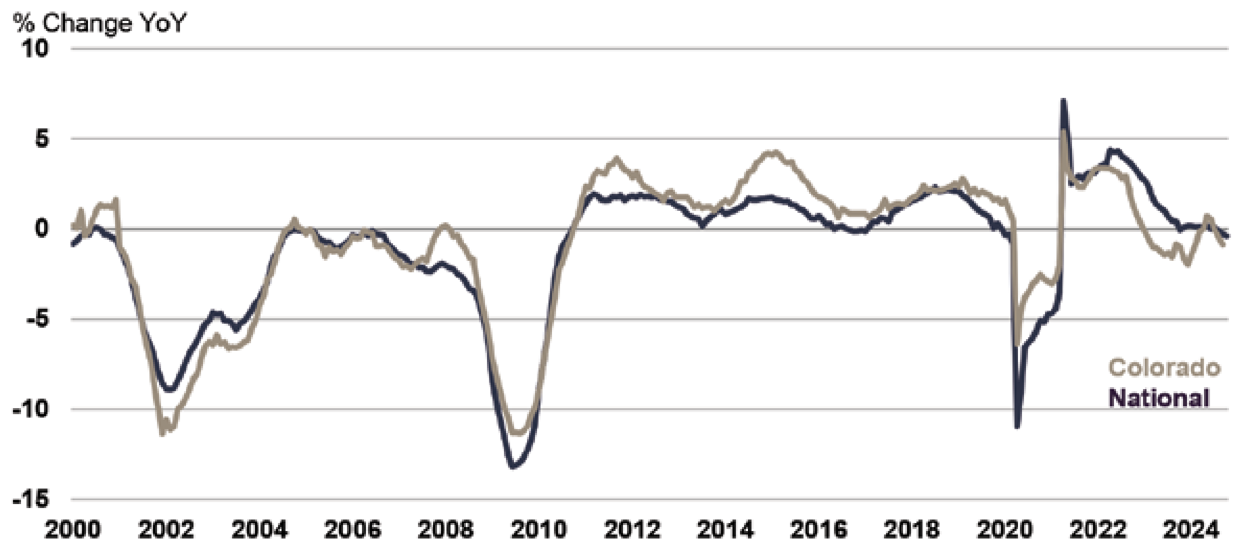
The food products subsector is being impacted by automation. At one major Colorado flour milling company there has been significant production growth, but it has mostly come from investment in equipment and not increased employment. According to the *Wall Street Journal,* meat processors need efficiency and similar investment in automation to help with turnover and harder-to-fill roles, meaning expanded production may not have much impact on employment. Negatively, automation in some cases may lead to some job losses. For instance, 2024 brought another cut to a big alternative protein maker's employee count despite experiencing growth in product distribution into nationwide stores.

In 2023, 97% of Colorado's food manufacturing exports were to Canada, Mexico, and Asia with the vast majority being meat products. Exports to Mexico and Canada increased by $229 million in 2023, while exports to many Asian countries, including South Korea, China, Japan, and Indonesia, declined by $346 million. With this drop in exports to Asia, Colorado food manufacturing exports declined overall, totaling just over $2.2 billion in 2023. Still, this sector comprised 21% of all Colorado exports and remained the largest export category for the state in 2023. One new bright spot in 2023 was the export of grain and oilseed milling products to Colombia, with an increase of $11 million in exports from 2022.

After some amazing growth in 2022, food manufacturing employment declined in 2023, losing 155 employees. Employment in this subsector is expected to expand in 2024 despite companies navigating varying challenges. Further, despite a positive outlook for the dairy industry in cheese and yogurt over the next several years, a bird flu

continued on page 50

MANUFACTURING EMPLOYMENT GROWTH 2000-2024

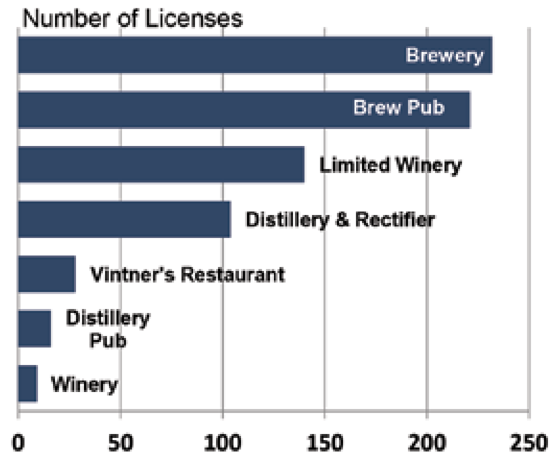


Source: Bureau of Labor Statistics, Current Employment Statistics (Seasonally Adjusted).

Manufacturing

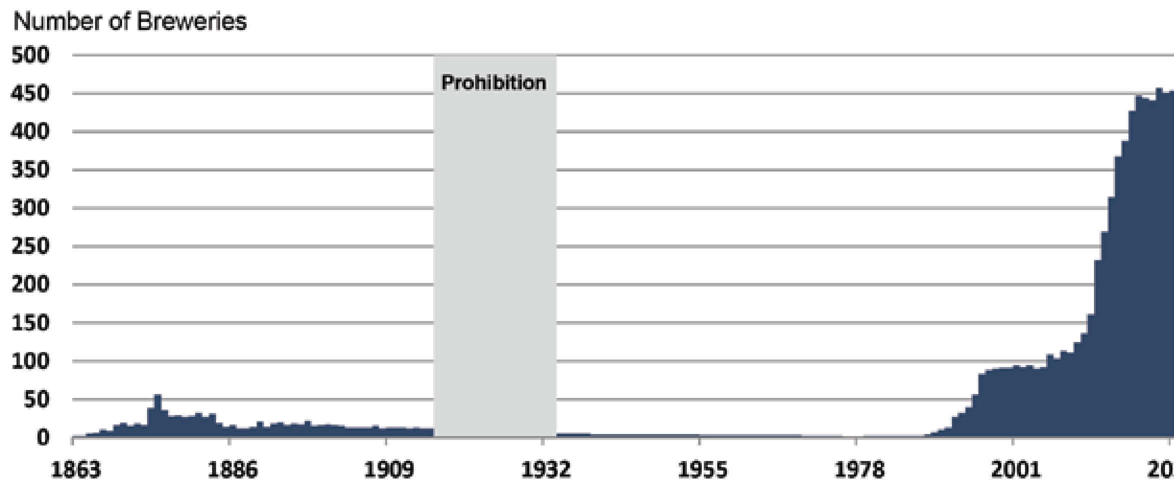
continued from page 49

COLORADO BEVERAGE MANUFACTURING LICENSES, 2024



Source: Colorado Liquor Enforcement Division, All State Liquor Licenses. Total as of November 2024.

COLORADO BREWERIES 1863-2024



Sources: Colorado Brewers Guild and the Colorado Liquor Enforcement Division. Total includes brew pub and manufacturing brewery licenses. Total as of November 2024.

outbreak over the past year could derail some expected growth. As with many areas of manufacturing, finding employees and keeping them continues to be a concern.

The outlook for 2025 is also positive as employment growth in the subsector continues, gaining about 200 jobs and reaching 26,100 employees.

Beverage Manufacturing

Firms in the beverage subsector produce soft drinks, ice, bottled water, beer, wine, liquor, and specialty drinks like kombucha, wine-seltzer, zero-alcohol beer, hopped tea, amaro, hard cider, and ready-to-drink cocktails. In addition to large manufacturers and bottling operations, Colorado's beverage subsector is made up of a thriving craft brewing and beverage community that continues to reach new customers and grow through novel and innovative products. Gluten-free grains grown locally with less water, and even grown in the winter, are starting to alter the brewery landscape, with one company notably expanding its distribution to Washington and Oregon. Novelties like going to a spa to drink local brews and soak in a tub with various brewed ingredients are also growing, and Denver now has two breweries connected to dog parks. Some breweries are combining businesses to include daytime specialty teas and coffees, and one is growing into a coworking space. Several Colorado wineries have also begun to offer overnight stays. Some companies are focusing more on women, expanding product offerings to include nonalcoholic beverages to cater to those who are pregnant as well as people who are focused on health or overcoming addictions. Nonalcoholic bars have opened in Pueblo and Colorado Springs over the last two years and are seeing growth. Nonalcoholic beer has become the fastest-growing sector of the beer market, with brewers thankful for a new source of growth according to the *Wall Street Journal.* One industry tracker, IWSR, forecasts that nonalcoholic drinks will eventually make up 4% of the alcohol market.

Craft brewers are located throughout the state, reaching even small towns. According to the Brewers Association, in 2023, Colorado rose one spot to 4th-highest in the country for the number of craft breweries (468) and produced just over 793,000 barrels of craft brew, rising one spot to the 9th-highest production in the country. Along with a law making to-go alcohol a permanent feature at restaurants, 2024 has brought continued change in the brewing industry, including closures, expansions, and a shuffling in market size and reach.

Colorado is home to distilleries, wineries, and cideries winning awards and accolades across the state, even in the nonalcoholic wine and beer categories. According to ColoradoWine.com and the Colorado Wine Industry Development Board, as of 2023 there were 140 wineries, 12 meaderies, 20 cideries, and one sake producer in Colorado. The potential for growth in all of these diverse

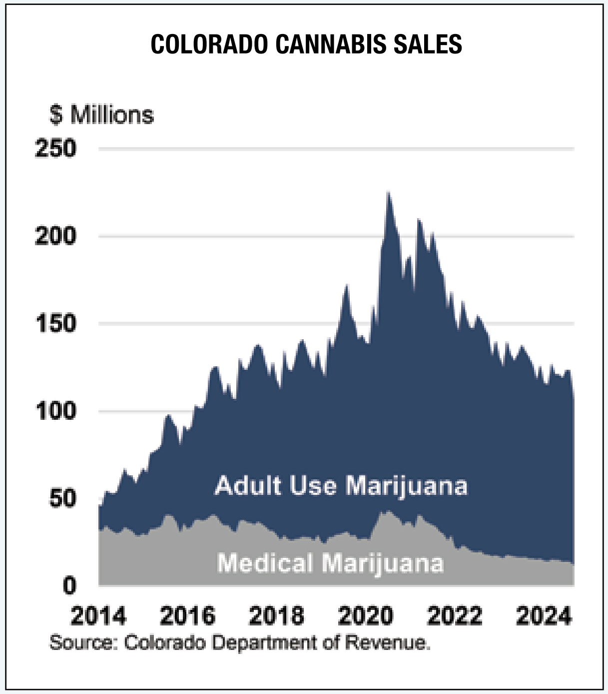
The Colorado Cannabis Market

Colorado was an early adopter when it came to cannabis legalization, and the state continues to be a trail blazer. Medical cannabis was legalized in the state in 2000, one of only eight states to do so at the time. In 2012, Colorado legalized cannabis for recreational use, with the law taking effect in 2014. Alongside Oregon, it became one of the first states to do so. Colorado is one of 24 states in the U.S. that allows recreational marijuana use.

Since Colorado opened its first licensed recreational marijuana stores in 2014, total sales have exceeded $16.6 billion. Total annual marijuana sales, including medical and recreational, began at $684 million in 2014 and peaked at $2.2 billion in 2021, achieving a compound annual growth rate of 18.5% during its seven-year growth phase. However, sales have declined in recent years, dropping from $2.2 billion in 2021 to $1.8 billion in 2022 and $1.6 billion in 2023.

In 2023, marijuana sales totaled $1.6 billion, falling 12.3% year-over-year; this downward trend is continuing, with September 2024 year-to-date sales down by 10% year-over-year.

Nearly three-fifths of marijuana sales in Colorado year-to-date September 2024 occurred in five counties: Denver (24.5%), Arapahoe County (11.2%), Adams (8.2%), Larimer (7.2%), and Boulder (7%), according to data from the Department of Revenue, Marijuana Enforcement Division. As of September 2024, there were a total of 889 active retail establishment licenses, down 2.5% year-over-year.



Marijuana prices have fallen since the introduction of recreational marijuana in 2014. The average price per gram of recreational marijuana flower was $4.83 in 2021, $3.84 in 2022, $3.48 in 2023, and $3.39 as of September 2024.

***Contributor:** Julien Christensen, Business Research Division, Leeds School of Business*

producers could be seen in October at the Great American Beer Festival, with the return of cider, kombucha, and mead that were added in 2023 and the 2024 addition of ready-to-drink canned cocktails, hard soda, tea, and other malt-base beverages to suit expanding consumer expectations for variety, according to the Brewer Association spokesperson Ann Obenchain in the *Denver Post*.

According to the Distilled Spirits Council, pre-mixed cocktails revenue growth from 2022 to 2023 reached nearly 27% in the U.S. A major factor in this growth is suspended tariffs with the U.K. on American whiskey, rum, brandy, and vodka, but part of this suspension will expire in March 2025 and another part in July 2026.

Two big manufacturing facilities in this subsector are scheduled to open in 2025. PepsiCo's new bottling facility should add a significant number of employees. For the tobacco product side of this subsector, which is not as big as beverages in Colorado, building has begun on a facility that will manufacture nicotine pouches, which could bring 500 jobs to Adams County.

Colorado exports of beverages and tobacco products increased 38.5%, from $9.9 million in 2022 to $13.7 million in 2023, as exports to Mexico jumped by $5.3 million, moving it ahead of these exports to Canada even while Canada increased by $1.3 million. Exports to Mexico are now 40% and exports to Canada are 33% of Colorado's beverage and tobacco product exports. The only significant decline in these exports was to South Korea, with a $2.3 million drop. Employment is expected to steadily increase moving forward, gaining about 100 jobs in 2024 and accelerating to 400 jobs in 2025 to reach about 10,300.

Chemicals, including Pharmaceuticals

Chemical products is the largest nondurable goods subsector, employing approximately 8,700 workers in 2023. Increased cannabis and pharmaceutical manufacturing enabled notable employment growth in recent years; however, a 1.7% decrease in 2022 marked the first decline since 2012. This trend continued in 2023 with subsector employment falling 2.2% over the year. In 2023, pharmaceutical and medicine manufacturing represented 61% of employment in the subsector and covered firms headquartered in Colorado, such as Tolmar and Boulder Scientific Company. Recent company announcements have adversely impacted the state's pharmaceuticals industry following the implementation

continued on page 52

Manufacturing

continued from page 51

of restructuring initiatives that involve closures and layoffs. For example, in September 2024, AGC Biologics, a Denmark-based biopharmaceutical company with facilities in Longmont and Boulder, announced layoffs of 85 Colorado employees, leaving its Longmont facilities idle. Employment growth in the chemical products manufacturing subsector is expected to continue to decline further in 2024 and 2025, falling by a projected 200 jobs each year.

Other Nondurable Goods

The other nondurable goods category includes textiles, textile products, leather and allied products, apparel, paper products, petroleum and coal products, chemicals, and plastics and rubber products.

In 2023, employment in the textiles, apparel, and leather and allied product subsectors averaged about 1,900 employees, falling 8.9% from 2022. As of Q1 2024, average employment in these subsectors was down 3.9% from Q1 2023, aligning with employment projections of a decline in 2024.

Paper products manufacturers employed about 1,200 employees in Colorado in 2023, with employment forecast to fall slightly through 2024 and 2025. Paper products employment has contracted steadily throughout the last decade, though continued demand for paper packaging, including labels, laminates, and other packaging-related solutions, remains a positive force to the subsector.

Colorado plastics and rubber products manufacturing firms make a diverse mix of goods ranging from transmission belts to cell phone cases to credit cards to dog toys. After posting consistent postpandemic growth, employment in the subsector fell 3.6% in 2023. Notably, in Q1 2024, employment fell 16.4% from Q1 2023, underlining projections of continued decline in 2024 and into 2025. A downside risk for the subsector is labor shortages as firms struggle with finding employees with the right skills. However, a positive anecdotal sign is emerging with additive technology classes that are becoming more common in schools, which may boost local recruitment in the years to come.

Combined with challenges in the printing industry, industries in the other nondurable goods subsector are expected contract for the 2nd-consecutive year and at an accelerating pace in 2024, losing about 800 jobs and falling about 5.6%. The subsector is expected to stem losses somewhat in 2025, falling by 100 jobs to 13,300 employees.

Durable Goods

Durable goods comprise about 62% of employment in the Manufacturing sector and represent the manufacture of goods that generally last longer than one year. Durable goods employment is expected to remain flat in 2024, with declines in nonmetallic minerals, computer and electronic products, and miscellaneous manufacturing offset by increases expected for fabricated metals, transportation equipment, and machinery. In 2025, employment in the durable goods categories is expected to increase by about 700 jobs, growing about 0.8%.

Nonmetallic Minerals

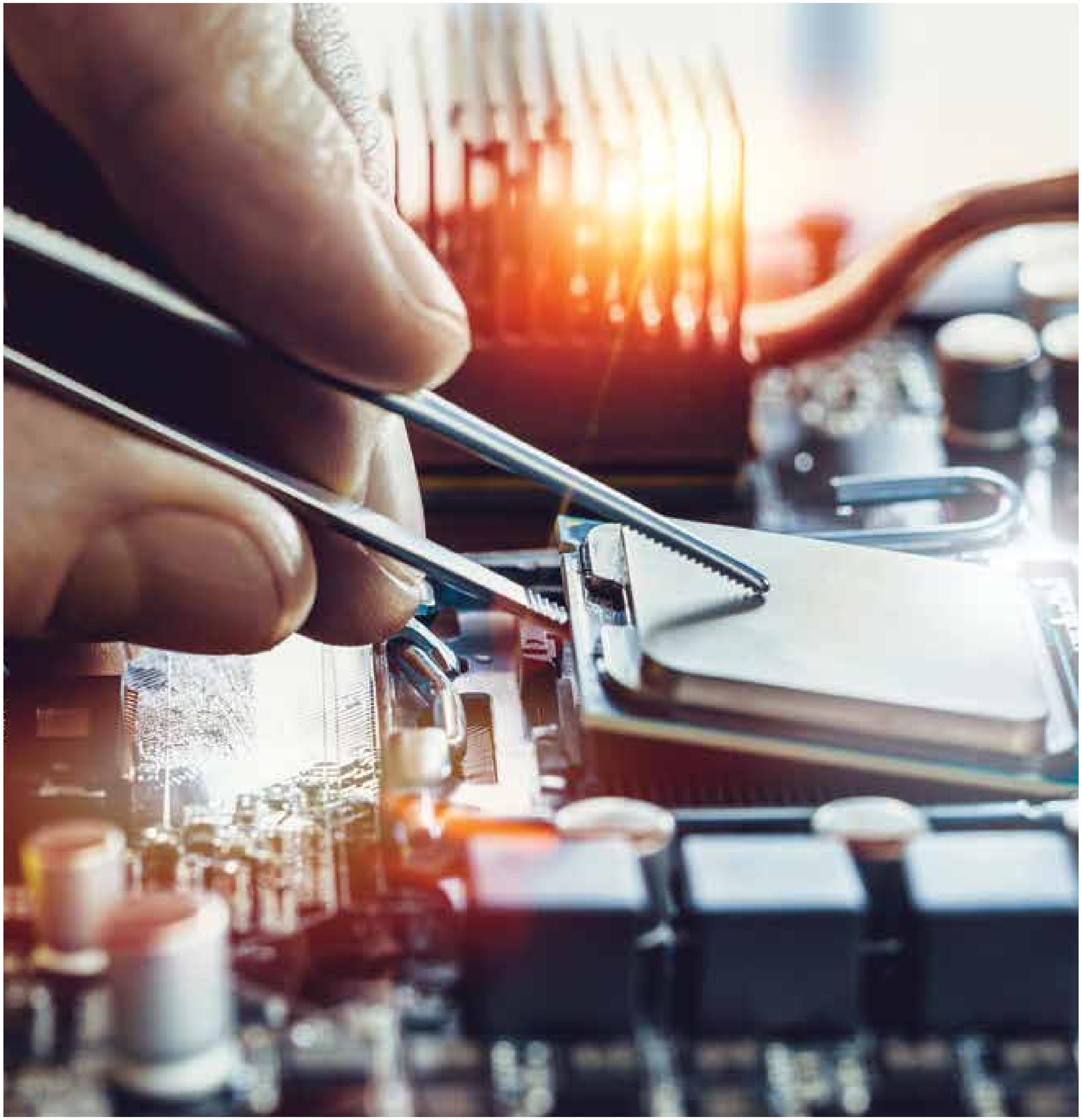
The nonmetallic minerals subsector includes industries like cement manufacturing, concrete products, lime and gypsum, and ceramics. Products like cement are largely consumed in state to take advantage of proximity to projects due to high transportation costs, and the subsector as a whole significantly supports building and construction. Some of the state's nonmetallic minerals manufacturing jobs support electronics, aerospace, defense, and medical applications, particularly for technical ceramics and glass. Data indicate employment in the subsector contracted by several hundred jobs from the first quarter of 2023 to the first quarter of 2024 based on the Quarterly Census of Employment and Wages. The subsector has likely been impacted by flagging residential, commercial, and public construction projects. In 2024, employment is expected to fall 6.7%, to 7,700 jobs. Over the next year, employment is expected to decline further, by a projected 300 jobs due to lingering fallout from the contraction in construction activity.

Fabricated Metals

Industries in the fabricated metals subsector transform metals into intermediate or end products, such as metal containers, tools and hardware, pipes and structural components, and other products used in construction and industry. Important fabricated metal processes are forging, stamping, bending, forming, and machining, and are used to shape individual pieces of metal. Other processes, such as welding and assembling, are used to join separate parts together. Manufacturers in this subsector may use one of these processes or a combination of both.

The fabricated metals subsector manufactures goods for several sectors critical to Colorado's economy, including the aviation and aerospace industries, food and beverage industry, medical devices, renewable energy, oil and gas, and construction. These industries rely on the capabilities of metal fabricators to provide customized, precise, durable metal products to meet industry-specific standards and regulations. Employment in the subsector fell to a nine-year low of about 14,400 employees in 2021 after the pandemic, but has since jumped close to pre-pandemic levels of around 15,000 employees. Concurrently, the number of fabricated metals product manufacturing establishments in Colorado increased from 906 in 2021 to 955 in 2024.

Firms in this subsector have continued to adopt advanced technologies and processes to address supply chain challenges, labor shortages, and increased demand. Advanced technologies and processes such as automation, robotics, 3D printing, digitization, and other smart manufacturing technologies result in more efficiency, precision, and cost-effectiveness. These trends, along with an increased demand in life sciences, aviation, aerospace, defense, clean energy technologies, and construction in Colorado, will continue to drive industry productivity and contribution of the subsector to the state's



GDP. Fabricated metal manufacturing firms contributed approximately $2.2 billion to Colorado's GDP in 2023.

In Colorado, employment in this subsector is expected to increase by 1.1% in 2024 and another 0.7% in 2025 as the aerospace, defense, and clean energy technology sectors expand and the state continues to attract and recruit manufacturers in these key industry sectors. Factors potentially slowing demand and growth of this sector include market uncertainties and elevated interest rates. These negative factors, however, are mitigated by automation and operational efficiency improvements as well as the state's investment in recruitment and retention of key advanced industries and targeted workforce programs and machining training programs in high schools and community colleges that will continue to increase the skilled manufacturing worker pipeline.

Federal and state investments in key advanced industries such as clean-energy technologies, quantum computing, and semiconductor manufacturing are likely to drive growth in this sector in Colorado and the region in future years as the need for suppliers and skilled workers increases.

Computer and Electronics

The computer and electronics subsector includes industries such as communications equipment, audio and visual equipment, semiconductors, navigational equipment, laboratory measuring instruments, and optical media products, among others. Three industry groups comprise over 90% of jobs in the subsector. Over half of the employment in the subsector comprises navigational, measuring, electromedical, and control instruments, an industry group largely connected to Colorado's aerospace and health care companies. About 22% of people in the subsector were employed in semiconductor and electrical component manufacturing in 2023 and about 14% in computer and peripheral equipment manufacturing. Colorado's computer and electronics workforce is also characterized by a large concentration of research and

continued on page 54

Manufacturing

continued from page 53

development focused establishments and many companies with a national presence.

Mirroring struggles in technology industries in general, the computer and electronic products manufacturing sector in Colorado has struggled since mid-2022 and is on pace to decline for the 2nd-consecutive year in 2024. The trajectory of the subsector also reflects in part the effects of the Federal Reserve credit tightening cycle over the past couple of years; however, large-scale federal investments in advanced technologies through the Infrastructure Investment and Jobs Act, the Inflation Reduction Act, and the CHIPS Act provide optimism and are expected to foster long-term growth in the subsector. These three acts together will invest over $2 trillion in U.S. infrastructure and production capacity over the next decade, especially for advanced industries. The CHIPS Act will provide billions of dollars in grants to semiconductor manufacturers and supply chain companies that will catalyze hundreds of billions more in private investment. However, companies have continued to consolidate and reallocate the workforce over the past year. In 2024, employment in the subsector is expected to fall about 1.5%, to 22,400 employees.

Over the next year, employment is expected to stabilize for the subsector. Nationally, companies have reported in the Institute of Supply Managements Purchasing Managers Index that the subsector is one of just a few that are seeing a tick up in new orders and production. Real GDP for categories of investment that benefit the sector, including investment in computers and peripherals and other information processing equipment, have recorded notable gains over the past few quarters. Long term, these factors are expected to contribute to a growing employment base in the state, but employment is projected to remain flat in 2025.

Transportation Equipment

Large aerospace companies dominate the transportation equipment manufacturing subsector, which includes the manufacture of spacecraft, satellites, and aircraft parts, as well as truck and auto parts, boat parts, travel trailers, and bicycles. The subsector is sensitive to international demand and federal spending on national defense and space exploration. The subsector was one of a few that consistently grew through the pandemic recession, with employment increasing by 6.3% in 2020 and 4.4% in 2021. Since the pandemic surge, employment continues to grow in the state, but at a slower pace. Data indicate steady, but slow employment growth in the subsector in 2024. Colorado remains an attractive location for aerospace companies, and growth is expected to remain strong as defense spending continues in response to widening geopolitical tensions. Employment in the subsector is expected to grow 1.1% in 2024. Looking ahead, the subsector is projected to grow another 0.9% and reach about 11,800 jobs.

Miscellaneous Manufacturing, including Medical Devices

Miscellaneous manufacturing consists of firms that produce highly unique products that are not easily classified into other manufacturing subsectors. Among the wide array of products manufactured in the subsector are medical equipment and supplies, electronic cigarettes, umbrellas, and candles. After growing 5.2% in 2022, miscellaneous employment fell 3.3% in 2023. In Q1 2024, employment dropped 6.2% from the previous year's levels, upholding forecasts of an employment decline in 2024. Employment in the subsector is expected to stabilize in 2025 and grow modestly, reaching about 9,600 jobs.

Other Durable Goods

Five subsectors comprise the remainder of Colorado's durable goods employment, including machinery, furniture, wood products, electrical equipment, and primary metals. Many of the employment drivers for the other durable goods category emerging from the pandemic have subsided over the past year, including the surge in spending on household goods and drawdown of excess household savings. In many cases, spending on goods has been replaced by resurging demand for services. Combined with the rapid increase in interest rates that has increased the cost of financing, employment in interest rate-sensitive industries and subsectors like wood products, furniture, and electrical equipment and appliances, continue to be impacted. However, federal investment and a surge in renewable energy have boosted the sector, adding hundreds of jobs and offsetting declines in other industry groups. Over the past year, Vestas and CS Wind have announced large expansions in their facilities in Pueblo, Brighton, and Windsor, retrofitting factories for building new larger turbines to meet demand from large contracts. Other positive announcements include the opening of a solar panel factory and a lithium-ion battery manufacturer near Brighton that will add hundreds of jobs to the subsector. In 2024, the other durable goods subsectors are expected to grow 3.4% in total and add a projected 900 jobs.

Looking ahead, employment for interest rate-sensitive goods categories is expected to stabilize as consumer spending patterns normalize and consumers adjust to the higher interest rate environment. More stable investment in housing may also help stem losses in the state's wood products, furniture, and electronics and appliances manufacturing subsectors. Federal investments are expected to continue to boost renewable energy manufacturing in Colorado, supporting employment in machinery manufacturing and electrical equipment, among other subsectors. In 2025, employment for other durable goods is expected to grow another 2.6% and reach a projected 27,300 employees.

Contributors:
David Hansen, Colorado Legislative Council (Chair)
Jennifer Hagan-Dier, Manufacturer's Edge
Adam Illig, University of Colorado Boulder
Marcus Popoff, University of Colorado Boulder
Elizabeth Ramey, Colorado Legislative Council Staff
Daniel Salvetti, Office of Economic Development and International Trade
Rebecca Wilder, Data-Driven Economic Strategies

The Colorado Craft Beer Industry: Have We Reached Peak Beer?

Introduction

Colorado is synonymous with craft beer. For decades, the state has been a hub for innovative brewers and a destination for beer enthusiasts. With over 450 breweries (221 brewpubs and 232 manufacturing breweries as of November 2024), Colorado ranks among the top states in the country for craft beer production. The state is home to iconic breweries such as Great Divide Brewing Company (Denver) and Dry Dock Brewing Company (Aurora), alongside a flourishing scene of smaller, local brewers. However, the rapid growth and saturation of the market in recent years have led to speculation that Colorado may have reached "peak beer." This article will explore the current state of the Colorado craft beer industry, examine the challenges it faces, and consider the future of this beloved sector.

The Rise of Colorado Craft Beer

The craft beer boom in Colorado can be traced back to the 1980s when pioneers like Boulder Beer Company (Boulder) and Wynkoop Brewing Company (Denver) began brewing in the state. These early innovators were part of a national movement that sought to challenge the dominance of large, mass-produced beers by offering unique, flavorful alternatives. Over the years, this movement gained momentum, and by the 1990s and early 2000s, craft breweries were springing up across the state.

Colorado's beer-friendly culture, coupled with a growing consumer preference for quality and variety, helped to fuel the expansion of the craft beer industry. The state's breweries became known for their creativity, experimenting with new styles, ingredients, and brewing techniques. Festivals like the Great American Beer Festival (GABF) in Denver further cemented Colorado's reputation as a craft beer mecca, attracting brewers and beer lovers from around the world.

The Explosion of Breweries

The number of breweries in Colorado exploded in the 2010s. According to the Brewers Association, the state saw a nearly 150% increase in the number of breweries from 2010 to 2019. Towns and cities across Colorado, from Denver to Durango, Cortez to Centennial, Louisville to Lafayette, Golden to Georgetown, became home to numerous breweries, each with its own distinct offerings. This rapid growth was driven by several factors, including the relatively low barriers to entry for new brewers, the growing popularity of craft beer among consumers, and the strong sense of community among Colorado's brewers.

However, the rapid expansion of the industry also led to increased competition. With so many breweries vying for attention, it became increasingly difficult for new entrants to stand out in a crowded market. At the same time, established breweries faced pressure to innovate continually and differentiate themselves from the competition. This environment fostered a culture of experimentation and creativity, but it also created challenges for breweries that struggled to keep up.

For example, Cannonball Creek Brewing Company in Golden, has managed to thrive in this competitive environment by focusing on high-quality, award-winning beers. Since its inception in 2013, Cannonball Creek has earned a reputation for excellence, with numerous medals at the Great American Beer Festival. Their success is a testament to the importance of consistency and quality in an increasingly crowded marketplace.

Similarly, Comrade Brewing Company, located in Denver, has distinguished itself with a strong commitment to brewing standards and a no-compromise approach to quality. Since opening in 2014, Comrade has consistently won awards for its beers, including its flagship IPA, Superpower. Comrade's ability to maintain high standards in a competitive market has solidified its reputation as one of Colorado's top craft breweries.

Signs of Saturation: Brewery Closures and Market Realities

Despite the overall growth of the craft beer industry, there are signs that the Colorado market may be reaching saturation. In recent years, several high-profile brewery closures have highlighted the challenges facing the industry. For example, Boulder Beer Company, Colorado's oldest craft brewery, announced in 2019 that it would cease distributing its beer and significantly downsize its operations. The brewery, which had been a staple of the Colorado beer scene for over 40 years, cited increased competition and changing market dynamics as factors in its decision.

Another notable closure was AC Golden Brewing Company, a subsidiary of Molson Coors, known for its Colorado Native series. Despite having the backing of a major parent company, AC Golden Brewing Company faced challenges in maintaining its place in the competitive craft beer market. The closure of AC Golden in 2024 serves as a stark reminder that even breweries with significant resources are not immune to the pressures of a saturated market.

One of the key challenges facing Colorado's craft breweries is the changing behavior of consumers. While the overall demand for craft beer remains strong, there has been a shift in how consumers approach their beer choices. Many consumers are increasingly seeking out hyper-local options, preferring to support neighborhood breweries over larger, more established brands. This trend has led to the success of small taproom-focused breweries but has made it more difficult for mid-size breweries to compete.

Cannonball Creek and Comrade Brewing have adapted to these changes by focusing on their local communities and building strong relationships with their customer base. By creating welcoming taproom experiences and producing consistently high-quality beers, they have managed to thrive even as the market becomes more saturated. Their success stories illustrate how localism and quality can help breweries navigate a crowded marketplace.

Another factor contributing to the market saturation is the increasing availability of craft beer in non-traditional settings. Grocery stores, convenience stores, and even big-box retailers now offer a wide selection of craft beers, making it easier for consumers to access their favorite brews without visiting a brewery. While this has expanded the reach of craft beer, it has also intensified competition among breweries and put pressure on margins.

The Impact of the COVID Pandemic

The COVID pandemic had a profound impact on the Colorado craft beer industry, exacerbating many of the challenges that breweries were already facing. The closure of bars, restaurants, and taprooms in 2020 led to a significant decline in on-premise sales, forcing breweries to pivot to packaged beer and direct-to-consumer sales. While some breweries were able to adapt to this new reality, others struggled to make up for the lost revenue.

The pandemic also accelerated trends that were already underway, such as the shift toward localism and the increasing importance of online sales. Breweries that were able to quickly adapt to these changes, such as by offering online ordering and curbside pickup, were better positioned to weather the storm. Cannonball Creek and Comrade Brewing both exemplified this adaptability, with both breweries quickly implementing new sales strategies to keep their businesses afloat during the height of the pandemic.

However, the pandemic also exposed the vulnerabilities of the craft beer industry, particularly for breweries that were heavily reliant on taproom sales. While some breweries successfully transitioned to packaged beer and online sales, others found it difficult to replicate the experience and community of the taproom in a virtual or to-go format. This dichotomy has led to a reevaluation of business models within the industry.

Has Colorado Reached Peak Beer?

Given the challenges facing the Colorado craft beer industry, the question of whether the state has reached "peak beer" is a valid one. There are several factors to consider when evaluating this question.

First, while the number of breweries in Colorado continues to grow, the rate of new brewery openings has slowed in recent years. The state saw a net increase of just 11 breweries in 2020, compared to 44 in 2016. This suggests that the market may be reaching a point of equilibrium, where the number of breweries opening is balanced by the number of closures.

Second, the competitive pressures facing Colorado's craft breweries are likely to continue. As the market becomes more saturated, breweries will need to find new ways to differentiate themselves and attract customers. This could lead to increased consolidation in the industry, with larger breweries acquiring smaller ones or struggling breweries being forced to close.

Third, consumer preferences are evolving. While there is still strong demand for craft beer, consumers are increasingly seeking out unique and innovative products. This has led to the rise of niche categories such as sour beers, barrel-aged beers, and low-alcohol options. Breweries that can successfully tap into these trends may be able to thrive, while those that rely on more traditional offerings may struggle.

The Future of Colorado Craft Beer

Despite the challenges facing the industry, there are reasons to be optimistic about the future of Colorado craft beer. The state's breweries continue to produce world-class beers that are recognized for their quality and creativity. Colorado's strong beer culture, combined with the state's natural beauty and outdoor recreation opportunities, ensures that the state will remain a popular destination for beer lovers.

Moreover, the resilience and adaptability of Colorado's craft brewers should not be underestimated. The pandemic demonstrated the industry's ability to pivot quickly in response to changing circumstances, and this flexibility will be crucial as the market continues to evolve.

Looking ahead, several trends are likely to shape the future of the Colorado craft beer industry:

Innovation and Experimentation: As competition intensifies, breweries will need to continue pushing the boundaries of what is possible in brewing. This could involve experimenting with new ingredients, such as local grains and hops, or exploring new styles and techniques. Both Cannonball Creek and Comrade Brewing have already demonstrated their commitment to innovation, regularly producing new and exciting beers that capture the attention of consumers.

Localism and Community Focus: The trend toward hyper-localism is likely to continue, with consumers seeking out breweries that are deeply embedded in their communities. Breweries that can foster a strong sense of place and community will be well-positioned for success. Cannonball Creek's strong local following in Golden and Comrade Brewing's dedicated customer base in Denver are prime examples of how localism can be a key driver of success.

Sustainability and Environmental Responsibility: As consumers become more environmentally conscious, there will be increased pressure on breweries to adopt sustainable practices. This could include reducing water usage, sourcing local ingredients, and minimizing waste. Sustainability efforts can also become a differentiator for breweries looking to appeal to eco-conscious consumers.

Diversification of Offerings: In response to changing consumer preferences, breweries may need to diversify their product offerings beyond traditional beer. This could include non-alcoholic options, hard seltzers, and other beverages that appeal to a broader audience. Breweries that can expand their portfolios to meet diverse consumer demands will be better equipped to navigate the future market.

Collaboration and Partnerships: Collaboration has long been a hallmark of the craft beer industry, and this trend is likely to continue. Breweries may seek out partnerships with

Photo courtesy of John Carlson.

other local businesses, such as restaurants and distilleries, to create unique products and experiences. Collaborative projects can help breweries reach new audiences and offer something truly special to their customers.

Conclusion

The Colorado craft beer industry is at a crossroads. While the market has grown rapidly over the past decade, there are signs that the industry may be reaching saturation. Brewery closures, changing consumer preferences, and the impact of the COVID-19 pandemic have created significant challenges for brewers in the state.

However, the future of Colorado craft beer is far from bleak. The state's breweries have demonstrated remarkable resilience and adaptability, and there is still strong demand for high-quality, innovative beer. By embracing trends such as localism, sustainability, and experimentation, Colorado's craft brewers can continue to thrive in an increasingly competitive market.

In the end, whether Colorado has reached "peak beer" may be less important than how the industry responds to the challenges and opportunities that lie ahead. For those who love craft beer, there is much to look forward to in the future of Colorado brewing. With breweries like Cannonball Creek and Comrade Brewing leading the charge, the state's craft beer scene remains vibrant and full of potential.

The 2024 Great Central City Beer Festival: A Celebration of Craft and Community

On August 24, 2024, the historic mining town of Central City came alive with the vibrant energy of the Great Central City Beer Festival. This much-anticipated event drew craft beer enthusiasts from across Colorado and beyond, eager to experience a day of exceptional craft beer, live entertainment, and the unique charm of Central City. The festival, nestled in the scenic mountains, offered a perfect blend of history, culture, and craft beer, making it one of the standout events in Colorado's beer calendar.

A Showcase of Colorado's Best Breweries

The 2024 festival featured 21 breweries from across Colorado, presenting a diverse selection of beers that ranged from traditional styles to cutting-edge experimental brews. Notable participants (Bierstadt, the Colorado Farm Brewery, Howlin Wind, and OMF) included a mix of well-established breweries and rising stars in the craft beer scene, all eager to showcase their unique offerings.

Cannonball Creek Brewing Company and Comrade Brewing Company were among the standout participants, drawing significant attention from festival-goers. Cannonball Creek, known for its consistently high-quality beers, brought a variety of its celebrated IPAs, which have earned the brewery numerous accolades over the years. Comrade Brewing, with its strong reputation for meticulously crafted beers, introduced a new rice lager that quickly became a crowd favorite. These breweries exemplified the innovation and dedication to quality that define Colorado's craft beer industry.

Entertainment and Community Spirit

The Great Central City Beer Festival was more than just a celebration of beer; it was a vibrant community event that brought together people from all walks of life. The festival featured live music from local bands, creating a lively atmosphere that resonated throughout Central City's historic streets. Attendees enjoyed an eclectic mix of bluegrass, folk, and rock performances, which provided the perfect backdrop for a day of beer tasting and socializing.

Food trucks offering a wide range of culinary options were also a highlight of the festival, serving everything from gourmet street food to vegetarian dishes. The focus on local vendors reinforced the festival's commitment to supporting Colorado businesses and creating a strong sense of community.

The Impact on Central City

The 2024 Great Central City Beer Festival was not only a success for the breweries but also for the town of Central City. The influx of visitors provided a substantial boost to the local economy, benefiting hotels, restaurants, and shops throughout the town. Many attendees took the opportunity to explore Central City's rich history, including its well-preserved Victorian architecture and historic casinos, adding an educational and cultural dimension to their visit.

For Central City, the festival was a testament to the town's potential as a hub for cultural and community events. The collaboration between the festival organizers and the town underscored the importance of partnerships in creating successful events that resonate with both locals and visitors. ✜

***Contributor:** John Carlson, University of Colorado Boulder*

Trade, Transportation, and Utilities

The Trade, Transportation, and Utilities sector is the largest provider of jobs in Colorado. This industry includes wholesale trade, retail trade, utilities, warehousing, and multiple facets of transportation (air, truck, transit, rail, pipeline, etc.). More than one-sixth of Colorado workers are included in this industry. The industry added an estimated 4,200 jobs in 2023, but grew more slowly in 2024, adding an estimated 1,000 jobs. The sector is projected to grow 0.3% in 2025 to total 509,200.

Trade

Wholesale

Wholesale businesses employed an estimated 117,700 Coloradans in 2023, with more than 97% working for merchant wholesalers—firms that sell to retail outlets. The remaining 3% of employees are employed by electronic markets and agents and brokers. In 2023, 73,200 were employed by firms selling durable goods, including computers, peripherals, and electronic equipment. Businesses selling groceries and related products account for the largest share of the 40,400 nondurable wholesale jobs. Several large Amazon warehouses are included among wholesale employers in Colorado.

Wholesale employment rebounded strongly from the pandemic, reaching new record levels in 2023 and 2024. Industry pay in Colorado averaged $111,000 in 2023—44% above the average pay for all industries. The sector is expected to add 400 jobs in 2025.

Retail Trade

The retail trade sector in Colorado consists of a variety of establishments that sell merchandise, including grocery stores, health stores, furniture stores, clothing stores, sporting goods stores, automobile dealers, gas stations, and various other merchandising establishments. In 2023, this sector accounted for nearly 273,300 jobs in the state—nearly one-tenth of total statewide jobs. Retail job growth has lagged statewide annual job growth for the past several years. In 2021, job growth in retail trade was in line with statewide job growth, but over 2022 and 2023, growth moderated below statewide rates, yet remained positive. Slowing retail trade job growth in 2023 was likely related to a consumer spending pullback on goods indicated by weaker retail trade spending reports at both the national and state level. Broader incorporation of automation into retail trade businesses is another likely factor, as well. With retail spending continuing to lag in 2024, annual job growth in the sector is expected to be relatively weak again with slower jobs growth projected to continue in 2025.

Turning to sales, after above-average growth in 2021 and 2022, Colorado retail trade sales—excluding food services—slowed considerably in 2023, and growth remained sluggish through the first half of 2024. Over 2021 and 2022, the economic recovery after the pandemic recession ignited significant retail sales growth of 15.4% and 8.8%, respectively, as overall spending grew and consumers purchased a larger share of goods compared to prepandemic trends. However, as consumers fully reengaged with the services sector, and persistent inflation and rising interest rates led to suppressed demand, it weighed on retail trade spending. This resulted in weak statewide retail sales growth of 0.8% in 2023, totaling $137.5 billion, as growth began normalizing back to long-term trends following elevated growth in 2021 and 2022. This slowing trend has not only continued in 2024 but turned negative, as retail sales declined 1% over the first half of 2024. The slowing in retail trade sales is indicative of a broader spending slowdown from elevated levels; however, the slowdown is largely concentrated in goods spending, which weighs on retail trade sales, as services spending (which is generally separate from retail trade) remains healthy. Growth in retail trade sales is projected to positively rebound over the second half of 2024, leading to overall annual growth of 1.8%, although forecast risks are weighted to the downside due to significant potential for slower retail sales to continue through the end of 2024. Growth expectations are generally the same for 2025 at 1.9%, as a slow shift back to retail trade spending is expected to take place after weak to negative growth over 2023 and the first half of 2024.

INDUSTRY SNAPSHOT TRADE, TRANSPORTATION, AND UTILITIES	
Nominal GDP, 2023 ($ Billions)	85.8
Real GDP, 2023 ($ Billions, 2017 Dollars)	63.2
2023 Real GDP Growth Rate	5.3%
Total Employment, 2023 (Thousands)	506.5
2023 Employment Growth Rate	0.8%
Employment Growth National Rank	23
Share of Colorado Employment	17.2%
Share of National Employment	18.5%
Average Wage, 2023	66,697
Percent of Statewide Average Wage	85.2%
2023 Average Wage Growth Rate	4.6%

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics.
Note: 2023 employment includes revised estimates.

While overall Colorado retail trade sales growth turned negative over the first half of 2024, certain subsector industries are performing at varying levels with the majority experiencing negative year-over-year sales growth. Thus far in 2024, the subsector that has experienced the greatest contraction in sales is clothing, clothing accessories, shoe, and jewelry retailers, which has declined 12.7% over the first half of 2024, contracting from $3 billion to $2.6 billion. Gasoline sales also saw an 8.6% contraction from $3 billion to $2.7 billion over the first half of 2024, largely due to lower gasoline prices compared to the first half of 2023. Other subsectors that have recorded negative growth either in 2023 or the first half of 2024 are those most exposed to the restrictive

RETAIL SALES, 2015-2025
(In Billions of Dollars)

Year	Total Retail Trade Sales[a]	Percentage Change
2015	$83.3	5.1%
2016	87.9	5.5
2017	91.1	3.7
2018	95.4	4.7
2019	99.8	4.6
2020	108.6	8.9
2021	125.4	15.4
2022	136.4	8.8
2023	137.5	0.8
2024[b]	140.0	1.8
2025[c]	142.6	1.9

[a]Excludes food services. [b]Estimated. [c]Forecast.

Sources: Colorado Department of Revenue, Colorado Department of Labor and Employment, and the Colorado Business Economic Outlook Committee.

monetary environment, including those related to housing and automobiles. Furniture, home furnishings, electronics, and appliance retailers recorded a decline of 4.4% over the first half of 2024 following an 8.2% decline in 2023. Similarly, building material and garden equipment and supplies dealers saw a 1% contraction over the first half of 2024 after a 9.4% decline in 2023. After recording slight growth of 1.9% in 2023, motor vehicle and parts dealers also saw a decline in sales of 2.2% over the first half of 2024. With the Federal Reserve expected to continue to cut interest rates in 2025, this will likely bolster sales in these subsectors to some degree over the course of the year as monetary policy loosens.

Of the nine industries that comprise retail sales in the state, excluding food services, there are three industries that recorded positive retail sales growth over both 2023 and 2024: general merchandise stores; food and beverage stores; and sporting goods, hobby, musical instrument, book, and miscellaneous retailers. Over the first half of 2024, general merchandise, which includes establishments such as department stores, recorded growth of 2.4% to $16.7 billion following growth of 3.5% in 2023. The sector consisting of sporting goods, hobby, musical instrument, book, and miscellaneous retailers recorded retail sales growth of 1.3% in the first half of 2024 after an equal growth rate in 2023. Finally, food and beverage stores registered slow growth of 0.4% in the first half of 2024 after 2.1% growth in 2023. Slowing sales growth in food and beverage stores can partially be attributed to food price disinflation, as this industry saw significant growth of 10.5% during the peak of inflation.

National retail trade sales growth, excluding food services, has experienced stronger growth than Colorado over 2024, growing 2.3% over the first half of the year, buoyed by strength in online retailers and general merchandise stores. This follows 2023 where U.S. retail sales growth of 2.3% also outpaced Colorado at 0.8%. There are likely various contributors to Colorado retail sales slowing relative to the nation. One component is that Colorado's economy recovered faster and stronger following the pandemic recession, leading to Colorado outpacing the U.S. in retail sales in 2022. Over the past 18 months, Colorado's economy has normalized ahead of the overall U.S. economy. Another component that is likely leading to slower statewide retail sales growth in 2024 is lower inflation compared to the U.S., especially in the energy sector as Colorado is seeing gasoline prices decline more than the nation, which leads to lower retail sales in that industry. Finally, the spending shift concentrated toward services is likely more pronounced in Colorado relative to the nation, which weighs on retail sales.

Overall real goods spending within personal consumption expenditures at the national level slowed, averaging 0.9% annualized growth on a quarterly basis over the first half of 2024, compared to an average of 3.5% in 2023. In contrast, real services spending averaged 3.1% annualized growth over the first half of 2024, outpacing 2023 growth rates. This is another indicator that while overall spending trends maintain strength, the spending shift to services and retreat from goods is weighing on retail industries. However, in the third quarter of 2024, strong real goods spending materialized once again at the national level, according to the advance GDP report. This could represent a positive harbinger for the retail trade industry moving into 2025.

Following resilient goods and retail trade spending during the economic recovery after the pandemic recession, the retail trade sector has experienced a slowdown in sales and jobs growth in 2023 and 2024 as restrictive monetary policy, which decelerated income growth, lessened demand, and a spending shift to services has

TRADE, TRANSPORTATION, AND UTILITIES EMPLOYMENT, 2015-2025
(In Thousands)

Year	Wholesale Trade	Retail Trade	Transportation and Utilities	Total TTU
2015	103.2	262.1	80.4	445.7
2016	104.7	268.1	81.2	454.0
2017	106.3	270.8	84.2	461.3
2018	108.2	273.2	89.0	470.4
2019	110.4	272.3	95.2	477.9
2020	107.6	262.0	99.7	469.3
2021	110.2	271.4	104.9	486.5
2022	115.6	273.9	112.8	502.3
2023[a]	117.7	273.3	115.5	506.5
2024[b]	118.1	273.8	115.6	507.5
2025[c]	118.5	275.0	115.7	509.2

[a]Revised. [b]Estimated. [c]Forecast.

Note: Components may not sum to total due to rounding.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

continued on page 60

Trade, Transportation, and Utilities

continued from page 59

weighed on the sector. Looking forward into 2025, slow jobs and sales growth are projected once again due to these factors, although loosening monetary policy throughout the year could buoy the sector.

Colorado Auto Sales

The first three quarters of 2024 hastened a transformation in motor vehicle sales that has not been seen in several decades. While the electric vehicle movement is fledgling on the national level, Colorado's market seems to be defying gravity. Even as the overall vehicle sales market inches closer toward pre-COVID levels, a metric that would generally suppress the percentage of EVs sold, the market penetration of alternatively powered vehicles has increased more than 30%. This places Colorado firmly as second place in the nation for EVs, trailing only California.

Colorado's overall light vehicle market has outperformed the national average this year, increasing vehicle registrations by 4.4%, double the national average. While that increase is expected to taper in the final months of the year leading into 2025, Colorado is expected to continue to front run its surrounding states. Franchised dealers continue to increase market share of the overall market, with Nissan, Volkswagen, Hyundai, Toyota, GMC, Honda, and Chevrolet all increasing by 5 percentage points or more. Meanwhile Tesla's registrations dropped by 2.3%, even amid the introduction of the long-awaited Cybertruck. This largely underscores the significance of affordability in characteristics that are moving the market.

However, the strength of the market also minimizes the impact of the well-publicized outage of dealer management software provider CDK earlier this summer. The disconnection of dealers from CDK's service caused many retailers to scramble to find alternative digital, or analog methods, by which to sell cars. Some dealerships closed their doors completely during the outage. The anticipated slowdown in vehicle registrations never materialized in the way that was expected. About two months after the outage, CDK announced that no consumer data was compromised during the cyberattack.

Notably, there was an additional expectation that vehicle sales would slow during a time of the highest interest rates of the 21st century. When interest rates approached 8% in 2023-2024, so many Americans saw monthly payments on purchased vehicles rising that some developed the term "the comma club," to include those who were paying more than $1,000 per month on their car payment. However, to remain competitive in the market, manufacturers and financial institutions increasingly utilized lower interest rates as a marketing tool to bring well-qualified buyers back into the market. This largely stymied the anticipated flow in purchasing until rates recently stalled and began reversing their climb.

In 2024, there has been a continued shift from combustion to alternatively powered vehicles. The state and federal governments continued their vehicle purchase incentives in the form of tax credits, which are now also assignable to the dealer or finance institution. The net impact of the assignment is the deduction of the credit from the purchase price, a more immediate benefit than asking the consumer to wait until the following tax year to claim. Colorado's "stackability," or the ability to claim multiple credits on the same purchase, has also created synergy that has allowed qualified buyers to become eligible for tax credits exceeding $20,000 per transaction. This benefit, not permitted in many other states, has helped keep purchase prices more reasonable. It is also responsible for the state's meteoric rise in market penetration for battery electric and plug-in hybrid electric vehicles.

The presence of these tax credits has enabled Colorado uniquity in the vehicle leasing market that has surely augmented the state's numbers. Multiple brands are leasing their entry-level EVs at under $100 per month, with many under $50 per month. The assignment of these tax credits covers enough of the residual (decline in value over the lease term minus lease payments) that dealers can make these offers attractive to consumers who may not be able to finance a purchase. One popular beneficiary of these leases, the Nissan Leaf, rode the pricing adjustments to a 542% increase in registrations from 2023 to year-to-date 2024. As a result, Nissan has comprised 20% of the EV market this year.

In 2023, Colorado boasted 17% market penetration. Year-to-date in 2024, Colorado stood at 23.2%, while reaching an all-time high of 27.8% in quarter 3. Having adopted California's Clean Car II standard, Colorado will be required to reach 43% in model year 2027 through a combination of vehicle sales and "CARB credits." As the market evolves, manufacturers now spend more of their time and research and development dollars to bring the plug-in hybrid electric vehicles to market as an intermediate step to full battery electric. While those vehicles initially counted for a partial credit, by 2027, it will be a 1:1 ratio. But, on this trajectory and with the presence of credits, some manufacturers—not all—may be poised to meet the early goal.

If we were to step back from zero-emission vehicles and consider pure hybrids to create the alternatively powered vehicle category, Colorado's year-to-date penetration stands at 33.4%, with Q3 reaching 37.4%. The result of pure hybrid vehicles standing at 9.6% this year is that there is zero tax incentive available, meaning consumers are paying full price for the vehicle. Still, they constitute almost one in every 10 vehicles sold.

Despite positive economic news from the industry, there is potential for slowdown in late 2024 and 2025. Federal regulations proposed by the Federal Trade Commission seek to fundamentally overhaul the car-buying process. Those rules, currently delayed while litigation pends in the Fifth Circuit Court, carry enormous compliance costs, which would likely be passed on to consumers via increases in the Manufacturers' Suggested Retail Price (MSRP). The administrative requirements additionally add time and stress to the purchasing process, already a pain point for most consumers. Whether the financial and mental toll of compliance persuades consumers to delay a purchase has yet to be seen.

A strong light-duty vehicle market is always a positive sign for the state of Colorado. The industry collects almost $890 million in sales and use tax dollars each year, and provides 40,000 direct and indirect jobs. Strong overall vehicle sales ensure that there will be jobs available for the technical career force and that a portion of each purchase will continue to fund the Highway Trust Fund, keeping Colorado's roads paved and providing safe avenues for travel.

Transportation and Warehousing

The Transportation and Warehousing sector includes air, railroad, and water transportation; trucking; taxi services; urban transit; couriers; warehousing; and pipeline companies.

Warehousing

Over the last decade, Colorado has seen an acceleration in the demand for warehouse space and an increase in the jobs needed to run those facilities as consumers have incorporated online shopping into their daily routines. While many people associate the rise in online shopping with the pandemic, the trend started significantly earlier due to changes in consumer preferences (i.e., an increased willingness to take service-related risks in exchange for price-related benefits, some of which were facilitated through reduced overheads and inconclusive state-level taxing policies).

Colorado's employment in the warehouse industry grew modestly from 6,325 workers in Q1 of 2014 to 6,903 workers in Q1 of 2016 (3.6% annually), but arguably more quickly after the U.S. 10th Circuit Court affirmed Colorado's ability to collect sales tax on goods purchased online from out-of-state retailers. Growth of online shopping in the wake of higher costs imposed upon online consumers seems contrary to reason, but the elimination of online retailers' out-of-state price-related tax advantage may have forced some online retailers to challenge the "get-it-now" competitive advantage that local brick-and-mortar stores have enjoyed, and they did so through local hiring and building.

In Q1 of 2017, warehousing employment jumped by 23.4% (1,617) to 8,520 jobs. This strong growth in warehouse employment continued for the next five years (2018, 20.9%; 2019, 27.4%; 2020, 20.9%; 2021, 16.9%; 2022, 33.9%), resulting in a net three-fold increase in warehousing employment to 24,841. Growth in warehousing employment was accelerated by the pandemic due to increased demand for items shipped directly to households. The subsequent rise in competition between differing "last-mile" delivery services (Amazon, DoorDash, Maplebear, Shipt, Walmart, etc.) demonstrates how a supply-side service innovation can spur demand.

In the first quarter of 2023, however, warehousing employment declined by 3.9% (-963) to 23,878. This pullback in 2023 is a natural response to excessive hiring witnessed during the pandemic. The latest data from the Quarterly Census of Employment and Wages (QCEW) suggest a return to former employment levels (Q1 2024: 424,877). The 10-year growth rate for employment in the warehousing industry is expected to subside (1.3% per year).

The number of establishments in the warehouse industry in Colorado grew modestly from the first quarter of 2014 to 2020 (224 to 239). It takes more time to build a new warehouse than to staff a current warehouse; hence, reclassifications of buildings may have contributed to the increased number of establishments reflected in Colorado data. That stated, Colorado did not experience an increase in warehouse establishments that could rival the increase in employment until after the COVID pandemic was underway. Between Q1 of 2020 and Q1 of 2024 Colorado warehousing facilities increased by 28% (from 239 to 306).

Demand for warehousing space has somewhat softened over the past two years. Recent reports by Hoff & Leigh and Cushman & Wakefield show that Denver's industrial vacancy rates continue to increase, and as of the Q4 2023 were at 7.4%. The demand for smaller industrial space (under 50,000 square feet) is reasonably strong, but more well-known projects currently under construction consist of properties larger than 100,000 square feet. For example, Amazon asserts that it remains committed to building a 3.5-million-square-foot robotic fulfillment center in Loveland that is scheduled to open in 2025. It is also building a 38,000-square-foot delivery station located close to the airport in Grand Junction. It is likely that other new building projects have been stifled since 2022 due to higher interest rates. While the Federal Reserve has recently shifted to a more accommodating monetary stance, time will tell whether continued monetary easing ushers in increased construction of warehouse space in Colorado.

Air Transportation

According to the Bureau of Transportation Statistics (BTS), airlines carried more than 644 million passengers for year-to-date (YTD) July 2024, 6% above the same period in 2023 and 5% above 2019 levels. Colorado is experiencing even stronger growth and outpaces the U.S. overall; for YTD July 2024, passenger traffic volume across all Colorado's commercial service airports increased by 9% compared to the same period in 2023, and 21% over 2019.

Colorado is home to a total of 14 commercial service airports. Thirteen of the 14 airports supported scheduled commercial passenger service in 2023; only Northern Colorado Regional Airport (FNL) did not have scheduled commercial flights. Three of Colorado's airports, Alamosa (ALS), Cortez (CEZ), and Pueblo (PUB), remain under the federally subsidized Essential Air Service (EAS) program.

For YTD September 2024, passenger traffic at Denver International Airport (DEN) increased by nearly 8% compared to the same period in 2023. The state's 2nd-busiest airport, Colorado Springs (COS), experienced a nearly 10% increase in passenger traffic for YTD September 2024 compared to the same period in 2023. COS passenger traffic is 3% of DEN volume.

continued on page 62

Trade, Transportation, and Utilities

continued from page 61

COLORADO AIRPORT STATISTICS, 2014-2023
(In Thousands)

Passengers and Cargo	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Passengers (in thousands)[a]										
Denver International Airport (DEN)	53,473	54,015	58,267	61,379	64,495	69,016	33,742	58,829	69,286	77,838
Colorado Springs Municipal Airport (COS)	1,250	1,179	1,298	1,675	1,725	1,672	728	1,864	2,135	2,358
Aspen-Pitkin County Airport (ASE)	435	467	509	490	571	608	368	498	600	614
Montrose Regional Airport (MTJ)	175	205	230	245	268	316	202	377	466	489
Grand Junction Regional (GJT)	428	429	465	481	488	549	278	505	444	488
Eagle County Regional Airport (EGE)	330	314	328	309	348	380	286	404	430	454
Durango-La Plata County Airport (DRO)	388	374	376	374	379	391	199	400	366	435
Yampa Valley Airport (HDN)	184	188	215	193	200	212	176	300	394	412
Gunnison-Crested Butte Regional Airport (GUC)	63	69	70	65	73	72	58	78	104	99
San Luis Valley Regional/Bergman Field (ALS)	8	6	8	13	14	20	9	24	20	23
Telluride Regional Airport (TEX)	7	0	0	5	4	11	7	13	24	22
Cortez Municipal Airport (CEZ)	8	5	9	16	16	17	11	12	14	18
Pueblo Memorial Airport (PUB)	14	7	5	8	21	24	11	19	16	7
Fort Collins-Loveland Municipal Airport (FNL)	4	7	9	6	5	6	N/A	N/A	N/A	N/A
Total Passengers	56,767	57,264	61,788	65,262	68,607	73,293	36,075	63,323	74,299	83,256
Cargo, Freight, and Air Mail (in millions of lbs.)										
DEN Freight and Express	487	491	504	525	559	628	614	673	674	658
DEN Air Mail	33	55	47	60	54	44	47	58	50	24
DEN Total	519	546	552	585	614	672	661	732	724	682

Note: Excludes airports with few passengers.
[a]Passengers include enplanements and deplanements. For airports that do not report passenger traffic, enplanements from the Federal Aviation Administration are doubled to
Sources: Denver International Airport, Colorado Springs Municipal Airport, Grand Junction Regional Airport, Eagle County Regional Airport, Aspen-Pitkin County Airport, Durango-La Plata County Airport, and the Federal Aviation Administration.

Across the state, most airports have recorded year-over-year increases in passenger traffic volume, and several airports have or will welcome new airlines and destinations in 2024. Notably, Eagle County Regional Airport (EGE) gained new summer service by United and will see new flights by both Alaska Airlines and Frontier Airlines beginning in December 2024; Breeze Airways initiated service to Grand Junction Regional Airport (GJT) and Montrose Regional Airport (MTJ) during the year, and Delta Air Lines will return to GJT in December 2024.

Denver International Airport

DEN is owned and operated by the City and County of Denver. The city's Department of Aviation employs approximately 1,400 people at the facility. YTD September 2024, DEN's three largest carriers by total passenger traffic were United (47%), Southwest (32%), and Frontier (10%). In 2024, 27 carriers operated nonstop service to 221 destinations worldwide from DEN; 190 domestic airports in 46 states and one U.S. territory; and 31 international airports in 17 countries—the most in history.

In 2023, DEN served 77.8 million passengers, more than 12% higher than in 2022, marking the first year DEN served more than 70 million annual passengers. The increase propelled DEN to rank as the 3rd-busiest airport in North America and the 6th-busiest airport in the world. In 2024, DEN set all-time monthly passenger traffic records for every month through September. DEN's three busiest months in history are now July 2024 (nearly 7.9 million passengers), June 2024 (more than

7.6 million passengers) and August 2024 (more than 7.4 million passengers), respectively.

For YTD September 2024, DEN's domestic passenger traffic increased by 7% as compared to YTD September 2023, while international passenger traffic has surged, growing by 17% and setting all-time records in every month of the year. In 2024, DEN welcomed four new airlines, including three new international carriers, with service to previously unserved destinations: Viva Aerobus (Monterrey, Mexico), Aer Lingus (Dublin, Ireland) and Turkish Airlines (Istanbul, Turkey). Notably, the service by Turkish Airlines to Istanbul represents the longest nonstop flight from DEN; at over 6,100 miles, the flight is nearly 400 miles longer than the distance to Tokyo/Narita.

A significant trend that has developed since the pandemic is a higher percentage of passengers using DEN for connecting flights. In 2019, 64% of DEN passengers were origination/destination (O&D) passengers—beginning or ending a trip at DEN—while 36% were using the airport to connect/transfer to another flight. For YTD September 2024, nearly 56% of DEN passengers were O&D while 44% were connecting. The mix of O&D and connecting passengers is expected to plateau around 54% and 55% O&D and between 45% and 46% connect/transfer, and remain at that level through at least 2028.

In 2024, for the 3rd-consecutive year, DEN ranked as the largest operation in terms of seat capacity for three airlines—United, Southwest, and Frontier. DEN has accommodated the growth of these carriers through the addition of new gates. DEN's Concourse Expansion Program (CEP) was completed in Q4 2024 when the 14-gate Concourse A ground-load facility (GLF) opened. In 2024, DEN also opened the new West Security Checkpoint in February, and the East Security Checkpoint is expected to open in fall 2025. Construction in the Great Hall of Jeppesen Terminal to update airline ticket counters and provide enhancements to the overall customer experience is estimated to continue through 2028.

Truck Transportation

The trucking industry has experienced a freight recession over the past two years, which has created stagflation for trucking fleets as operating costs have risen while freight rates have remained low due to reduced demand for service and products. The contraction in freight is due significantly to the aftereffects of COVID, which altered and, in some cases, adversely impacted the supply chain and business and consumer buying patterns. Along with this, the federal government's tighter monetary policy and higher interest rates have led to a drop in residential and commercial construction, reduced capital investment in equipment, and slowed consumer and business spending, all of which results in a reduced level of freight movement. In addition, many businesses still have excess inventory from COVID on hand, which has lessened the need for additional products or materials.

In 2025, it is anticipated that the trucking sector will continue to face challenges regarding a slow marketplace as the demand levels rise and overcapacity is reduced as fleets continue to "right size" to match the marketplace. Based on these trends, it is envisioned that a moderate improvement will occur in the freight market in 2025.

In regard to specific freight factors for the industry, the committee anticipates the following developments:

continued on page 64

Trade, Transportation, and Utilities

continued from page 63

Overcapacity Will Continue. The softening of demand has resulted in overcapacity in the marketplace as the volume of available trucks and fleets exceeds the overall amount of freight to be transported. This overcapacity has led many trucking operators to reduce the size of their fleets. The committee anticipates that the overcapacity will continue into the beginning half of 2025.

Continued Lower Freight Rates. The soft level of demand and overcapacity in the marketplace has led to lower freight rates, which, while beneficial to shippers, have translated into lower revenues and smaller profit margins for carriers. The rates have led to some fleets cutting trucks and staff, while others have closed their doors. The low freight rates have proved especially challenging for owner-operators (one-truck operators), many of whom have shut down their operations and sought employment as company drivers. The committee anticipates low freight rates to continue for the first half of 2025 until product demand improves and the impacts of the restructuring of fleets to match demand for services occurs.

Slow Growth. While freight growth is expected to improve in 2025, it will remain slow based on lower consumer demand and ongoing adjustments within supply chains. This should improve as retailers and manufacturers continue to rebalance their inventory levels after the disruptions from COVID and the normalization of the freight environment.

Truck and Trailer Sales. The softer freight market along with higher interest rates has led to reduced sales for new trucks and trailers. Furthermore, as fleets downsize, increased volumes of newer, used trucks are available in the marketplace, which many companies are choosing in lieu of new trucks. The impact on the used truck market has led to more of a buyer's market as the greater volume of trucks creates downward pressure on prices. The reduced level of freight shipment has significantly impacted trailer sales, which decreased in 2024 and are anticipated to be slow until freight volumes pick up.

COLORADO ELECTRIC POWER CONSUMPTION 2015-2025 (In Millions of Kilowatt Hours)					NATURAL GAS (In Billions of Cubic Feet)	
Year	Nonresidential	Residential	Total	Percentage Change	Total Gas Consumption	Percentage Change
2015	35,731	18,385	54,116	1.3%	466.9	-2.5%
2016	35,968	18,834	54,802	1.3	441.0	-5.5
2017	36,215	18,615	54,830	0.1	438.1	-0.7
2018	37,163	19,287	56,450	3.0	485.7	10.9
2019	37,116	19,405	56,521	0.1	514.0	5.8
2020	35,567	20,483	56,050	-0.8	517.4	0.7
2021	35,726	20,625	56,351	0.5	483.2	-6.6
2022	34,972	20,594	55,566	-1.4	503.4	4.2
2023	36,764	19,999	56,763	2.2	505.0	0.3
2024[a]	36,910	20,888	57,798	1.8	489.9	-3.0
2025[b]	38,302	21,133	59,435	2.8	499.3	1.9

[a]Estimated. [b]Forecast.

Sources: Energy Information Administration, Xcel Energy, and Colorado Business Economic Outlook Committee.

Zero-Emission Trucks in the Marketplace. Federal and state grant funds, along with corporate commitments to greater sustainability, have led to an uptick in demand and sales of zero-emission trucks, which primarily are electric. The limited availability of these trucks for certain applications, as well as the greater weight, higher cost, limited range, and lack of charging infrastructure, have been impediments to the growth of this sector. It is anticipated that this sector will grow as this technology further evolves and state and national regulations come into play.

Specifics Related to Colorado's Trucking Industry

Colorado logistics companies are facing the same challenges as those on a national basis, with low freight rates, overcapacity, and higher operating costs. Similarly, it is anticipated that Colorado trucking operators will see some recovery in the marketplace but only moderate growth. Colorado trucking operators, though, face some greater challenges than their competitors in surrounding states, which has affected growth of the industry in the state.

The high cost and shortage of affordable and available housing in Colorado has and will continue to pose a major challenge for trucking companies in Colorado in obtaining and retaining skilled employees. This has placed substantial pressure on Colorado motor carriers as employees are finding it increasingly difficult to afford a home or pay high rents. As a result, this has led to pressure to increase wages and salaries to offset the higher housing costs. This situation poses a substantial problem for many Colorado trucking companies that operate on a regional and national basis and must compete with carriers in adjacent states where housing is much more affordable. Some Colorado trucking operators find themselves in the difficult dilemma of raising wages and increasing their overall operating costs at a time when freight rates are low and anticipated to continue so in the near future. In turn, this makes them less competitive and may jeopardize their business. On the other hand, they face the prospect of losing truck drivers, mechanics, and other skilled positions to companies based in surrounding states and other areas of the country where housing is more affordable. In the last few years, a number of trucking employees have moved to other states where they may receive the same pay while paying much less in housing costs.

A second major concern for Colorado trucking companies is the increasing regulatory burden within the state. The additional costs associated with this greater regulation have made it more difficult for carriers to compete with operators in surrounding states, which has led some companies to move to an adjacent state from which they can still serve their customers within Colorado. The increasingly difficult regulatory environment has also dissuaded some trucking operators from establishing terminals or operations in the state. Some existing operators have foregone growth in the state in lieu of adjacent states while others have reduced the size of their fleets and number of employees. With additional regulations and fees being considered on business in the state, it is anticipated that Colorado may see a net reduction in trucking companies and jobs.

Colorado's highway network is the lifeblood for freight movement in and through the state. The current condition of those highways poses an additional headwind for freight within the state. Despite substantial population growth along with increased traffic on an intrastate and interstate basis over the past 20 years, there have been very limited additions to the state's lane miles, which has led to growing congestion. This congestion translates into millions of dollars in additional time, fuel, and other costs. This situation has led to increased freight costs, which has been a negative consideration when national companies consider locations for distribution and warehouse facilities. Along with congestion are concerns about the condition of highways and bridges in the state. Colorado's highway system ranks 43rd in the nation in overall cost-effectiveness and condition, according to the Annual Highway Report by Reason Foundation. This is a six-spot decrease from the previous report as to the condition of Colorado's highways. Finally, the lack of resiliency in the highway network has proven costly for freight movement and efficiency. A lack of reasonable detours for closures on key points on I-70 and other key corridors may translate into significant additional travel time and costs. For trucking, poor pavement translates into higher repair and maintenance costs, which further adds to the expense of operating in Colorado. Those costs are passed on to shippers, which increases their bottom line and makes them less competitive on a national basis. In the case of deficient bridges, which preclude truck traffic, a detour may result in upward to an additional 50 miles, translating into more time and money.

Utilities

While electricity conservation efforts have slowed growth in electricity consumption for several years, demand is forecast to accelerate in 2025 and beyond with the push for electrification and the increased build out of energy-hungry data centers. As a result, Xcel Energy, the state's largest utility, is expecting electricity sales to grow over 5% per year through 2029. To meet this demand, the company plans to spend $5.8 billion on capital projects in 2025 and $22.3 billion over the next five years. These capital expenditures are a considerable jump from $3.3 billion spent in 2024.

Statewide retail electricity prices were up around 5.6%, with consumption up 1.8% in 2024 to 56,798 million kWh. Residential electricity usage led the growth, up 4.4%. Continued growth in data centers, increased adoption of electric vehicles, and the electrification of heating are expected to push up electricity consumption by 2.8% in 2025.

Utilities across the state have been filing wildfire mitigation plans in response increased risks and Colorado Public Utility Commission directives. Plans to guard against wildfire threats include adding hundreds of weather stations near power lines, updating pole and equipment inspection schedules in high-risk areas, increasing drone inspections, and expanding vegetation management programs. The largest effort is the Xcel Energy $1.9 billion plan that would increase typical residential bills by around 9.6% or $9 per month by 2028 if approved.

Warmer weather and the continued push for electrification helped drop Colorado natural gas consumption by 3% in 2024 to an estimated 489.9 BCF despite prices falling by 33%. The trend is expected to reverse in 2025 with more normal weather. Natural gas consumption is forecast to grow by 1.9%. Utilities employment ticked up to 9,400 in 2024, with hiring for new initiatives more than offsetting retirements.

Contributors:
Tim Sheesley, Xcel Energy (Chair)
Gregory Fulton, Colorado Motor Carriers Association
Chance Gorsuch, Colorado Department of Labor and Employment
Matthew Groves, Colorado Automobile Dealers Association
Laura Jackson, Denver International Airport
Brian Lewandowski, University of Colorado Boulder
Will Mixon, Colorado Office of State Planning and Budgeting
Pam Reichert, Denver International Airport
Tim Wonhof, Colorado Department of Labor and Employment

Information

Companies in the Information industry are responsible for creating, distributing, and transmitting information. After a brief rebound in 2021 and 2022 from pandemic-related job losses, employment activity in the Information industry softened, shedding 1,700 jobs in 2023, with further weakening in 2024. Telecom and software publishers have led the number of jobs lost, while other subsectors remain subdued on long-run declines in traditional publishing employment and minimal job growth in film, television, and media sectors.

Based on year-to-date losses, the industry is expected to shed 3,700 jobs in 2024, and an additional 1,500 job losses are projected in 2025 as industries adjust to varying challenges, including technological change, oversaturated markets, and shifting consumer preferences.

Publishing Sector

The Publishing sector includes any firm that issues print or electronic copies of original works for which they own a copyright, excluding internet firms. Products include software, newspapers, periodicals, books, directories, databases, calendars, and greeting cards. Over the past two decades, publishing industry products and services diversified to include an increasing number of electronic and internet-based products, such as audio, downloadable files, digital books, podcasts, and mobile device applications. Along with increased consolidation and automation, the digital transformation of the publications industry continues to impact employment in significant ways.

Software publishing had been a shining source of growth for the publishing industry, offsetting declines across most other subsectors between 2015 and 2022. Yet, software publishing employment weakened in 2023 with tech industry layoffs prompted by a reevaluation of the business climate and a race to find cost-cutting measures to boost profits. Colorado publishing industry employment is expected to decline 6.8% (1,700 jobs) in 2024 and 2.2% (500 jobs) in 2025 as the long-run decline in traditional publishing continues and as the software publishing sector seeks a healthier balance between supply and demand for jobs.

AI and technological change will continue to shape industry employment, as digital products and services gain greater market share. Overall, AI is expected to contribute to additional consolidation and automation in the industry, dampening jobs growth in the near term.

Newspaper Publishing

The Publishing sector includes any firm that issues print or electronic copies of original works for which they own a copyright, excluding internet firms. Products include software, newspapers, periodicals, books, directories, databases, calendars, and greeting cards. Over the past two decades, publishing industry products and services diversified to include an increasing number of electronic and internet-based products, such as audio, downloadable files, digital books, podcasts, and mobile device applications. Along with increased consolidation and automation, the digital transformation of the publications industry continues to impact employment in significant ways.

Colorado continues to experience a long-run decline in the newspaper publishing industry, consistent with national trends. Newspaper readership has dropped significantly since the 1990s, as new and free digital information options have emerged, and news sources have shifted from traditional print to web searches and social media feeds with audio and video content. For example, according to a 2024 survey of U.S. adults conducted by the Pew Research Center, 54% of respondents reported that they "sometimes" or "often" got their news from social media (Pew Research Center, 2024).

Lagging advertising sales and difficulties monetizing digital content have pushed many local newspaper publishers into extinction, with remaining publishers undergoing dramatic restructuring and consolidation since the early 2000s. The local news industry has become increasingly reliant on donations from foundations and other philanthropic organizations and the public. Federal and state government funding is also on the rise to keep local journalism afloat. In 2024, nine Colorado newsrooms were awarded a total of $900,000 in grant funding from Press Forward, allowing $50,000 per year in annual awards for each newsroom for two years (Colorado Media Project, 2024). Additionally, the *Colorado Sun* was awarded a $1.4 million grant from the American Journalism Project. The *Sun* announced its intentions to hire additional staff using the funds and to establish infrastructure for four regional hubs in northeastern Colorado, southern Colorado, the Western Slope, and the Eastern Plains to expand local news reporting.

INDUSTRY SNAPSHOT INFORMATION	
Nominal GDP, 2023 ($ Billions)	31.1
Real GDP, 2023 ($ Billions, 2017 Dollars)	33.9
2023 Real GDP Growth Rate	7.1%
Total Employment, 2023 (Thousands)	77.7
2023 Employment Growth Rate	-2.1%
Employment Growth National Rank	35
Share of Colorado Employment	2.6%
Share of National Employment	1.9%
Average Wage, 2023	140,844
Percent of Statewide Average Wage	179.8%
2023 Average Wage Growth Rate	2.9%

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics.
Note: 2023 employment includes revised estimates.

According to data from the Quarterly Census of Employment and Wages, there were 1,654 newspaper publisher jobs in Colorado in 2023, down 160 jobs from the prior year.

Book Publishing

Book publishing industry activity increased at the end of 2020 and into 2021 as consumers turned to reading as an indoor leisure option amid pandemic-related health concerns. As the pandemic has eased, industry activity has slowed. According to the Association of American Publishers, nationwide revenues to book publishers were down 2.6% in 2022 and 0.8% in 2023. The outlook for 2024 is brighter, with revenue year-to-date through August 2024 up 7.8% over the same period last year. Digital formats, including audio and eBooks, continue to account for a larger share of sales.

The largest Colorado book publishing employers are concentrated along the Front Range, with the biggest establishments in Denver, Boulder, and Colorado Springs. Many local book publishers serve niche markets with a stable and even growing consumer base, including self-publishing and religious and spiritual publishing markets. Colorado book publishers are adapting with technological change and evolving consumer preferences for audio books and digital content. As of 2023, private book publishing establishments employed 915 workers, up from 902 workers in 2022. Industry employment is expected to remain relatively stable at current levels in 2024 and 2025.

Software Publishing

The software publishing industry includes a wide range of products, including business analytics and enterprise software; database, storage, and backup software; design, editing, and rendering software; operating systems and productivity software; smartphone apps; and video games. (Note: The closely related custom computer programming services sector is included in Professional and Business Services.) Software publishers in Colorado range in size from small startups to major corporations with offices in the state, such as Cisco Systems, Google, Hitachi, IBM, and Oracle. Colorado has a high concentration of employment in the software industry (nearly twice the national average).

Fueled by organic, homegrown growth, as well as through acquisitions and company relocations, the sector saw rapid growth between 2015 and 2022. In 2022, employment levels exceeded the peak level experienced during the early 2000s' dot.com boom and peaked at about 20,600 jobs based on Current Employment Statistics estimates published by the Bureau of Labor Statistics. Yet, employment growth weakened in 2023 along with other information technology jobs in other sectors, and job losses continued into 2024. While nationwide software publishing jobs have remain just below peak levels (down 0.8% year-to-date as of September), Colorado's losses have been more severe. Data show that Colorado software publishing jobs are down for a 2nd-consecutive year, decreasing 5.6% year-to-date in September.

In early 2023, U.S. tech companies, including some prominent software publishers, announced layoffs in pursuit of cost-saving measures on recessionary fears, over-hiring during the pandemic and mounting investor pressures to maintain and increase profits. Many companies are also leveraging AI to improve productivity in software development, putting downward pressure on the demand for developers. Colorado software publishing employment is expected to continue to decline in 2024 and to stabilize in 2025 as industry growth renews upward pressure on labor demand.

Other Publishing

The publishing industry also includes companies producing periodicals, directories, mailing lists, and greeting cards. Like book and newspaper publishers, these firms experienced a long-run decline in employment that began in the early 2000s. Digital technologies replaced print media, and the industry has restructured and consolidated considerably. Some of the largest employers in these subsectors in Colorado provide marketing services through the collection of consumer data and consumer credit and loyalty programs. Ongoing consolidation in the industry is expected to continue in 2024 and 2025 as publishing further evolves into the digital realm.

Telecommunications

Employment in the Telecom sector declined by 2.8% (700 jobs) in 2023 after losing just 0.4% (100 jobs) in 2022. Approximately 21,900 people worked in the Telecom sector in September 2024 across 795 establishments (Q1 2024) throughout Colorado. Nearly 52% of these establishments are located in the Denver Metropolitan Statistical Area (MSA); however, with many larger companies based in the metro area, approximately 69% of all telecom jobs are in the Denver MSA. The sector includes large Colorado-based companies, such as DISH Network and Zayo.

The Telecom sector decreased 11% from 2018-2023, an equivalent of 600 jobs per year. The sector was significantly affected by the pandemic-induced recession, much like other sectors, and employment is still trending downward in 2024. Employment in the Telecom sector

INFORMATION EMPLOYMENT 2015–2025 (In Thousands)

Year	Publishing	Telecom	Other	Total
2015	21.2	27.0	22.8	71.0
2016	21.3	27.4	23.5	72.2
2017	21.8	26.1	24.4	72.3
2018	22.3	27.1	26.2	75.6
2019	22.8	26.7	27.6	77.1
2020	22.7	26.2	26.2	75.1
2021	23.9	24.9	27.4	76.2
2022	25.8	24.8	28.8	79.4
2023[a]	24.9	24.1	28.7	77.7
2024[b]	23.1	22.3	28.6	74.0
2025[c]	22.6	21.1	28.8	72.5

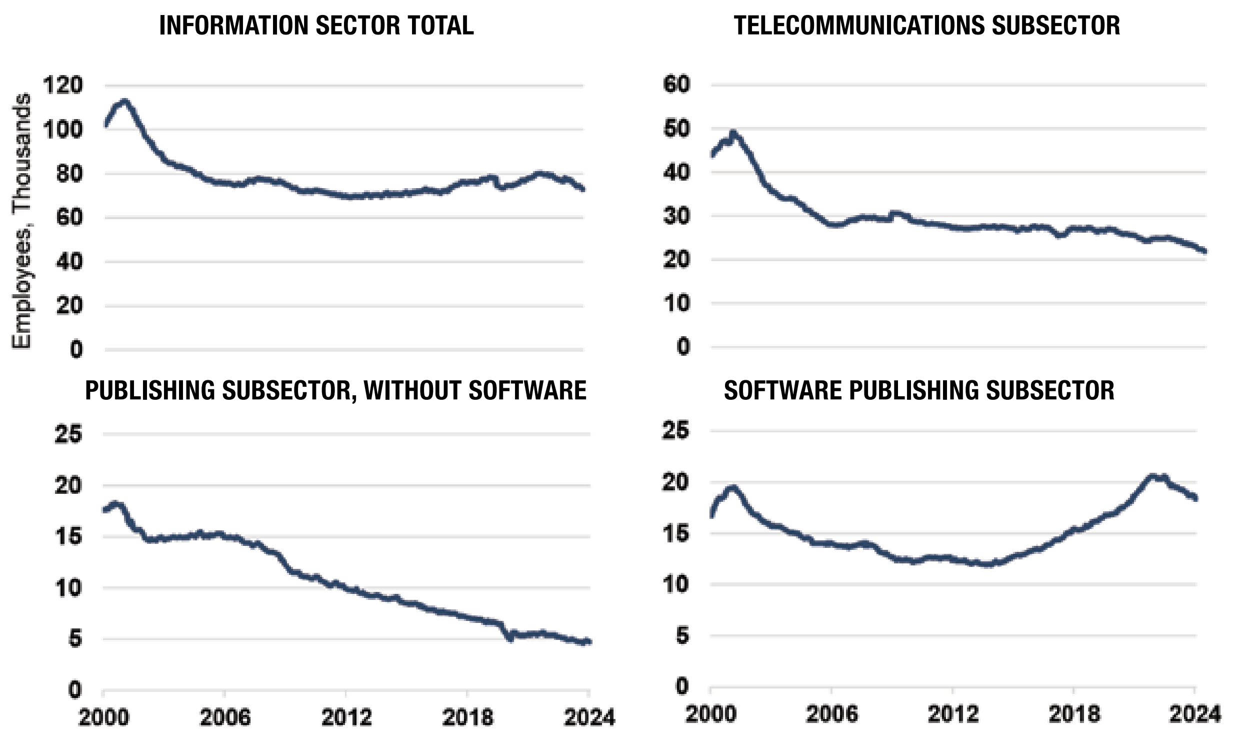
[a]Revised. [b]Estimated. [c]Forecast.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

continued on page 68

Information

continued from page 67



Source: U.S. Bureau of Labor Statistics, Current Establishment Survey.

is projected to decrease through the end of 2024 and continue declining in 2025.

Broadcasting and telecommunications are combined for real GDP reporting; this combined sector decreased 2.8% in 2021, but increased 3.2% in 2022 and 0.6% in 2023. In 2023, GDP in the telecom and broadcasting sector accounted for 2.9% of the state total, up from 2.3% of the 2018 statewide GDP.

Employment in the Telecom sector has been on the decline since a high of 46,800 in 2001. From 2001 to 2006, the sector's employment experienced a 39.7% decline as the industry shed 18,600 jobs. This trend was reversed for three years, from 2006 to 2009, as 2,000 jobs were added over this period. Job losses were again the norm from 2009 to 2012, with payrolls falling a combined 3,100, or 11.3% (a considerable portion of this loss due to the cuts at CenturyLink after its merger with Qwest). Since 2013, Telecom employment has fluctuated, with four years of job growth and seven of decline.

Broadband

Broadband has emerged as a critical component of economic development and is even more important with increased remote work and online education and health care. Economic research shows that the introduction and improvement of broadband services boosts employment growth, reduces unemployment rates, and helps attract and retain high value-added firms and workers. These impacts are particularly large in rural areas.

Approximately 91% of Coloradans have access to broadband at speeds of 100 Mbps or faster, ranking the state 28th in broadband access, according to BroadbandNow. However, only 37% of Coloradans have access to fiberoptic services. Additionally, unequal access to broadband across the state has created a digital divide. Broadband provisions in Colorado communities located outside the Front Range present unique challenges, and over 84% of the state's population lives in urban areas along the Front Range. Approximately 93% of rural Colorado had broadband access in 2022, up from 70% in 2017; the Funding for Broadband Deployment bill (HB 21-1289), which was signed by Governor Polis in 2021, is expected to get the state to 99% broadband coverage. Still, an estimated 3.9% of the state population, approximately 227,760 people, do not have access to a wired connection capable of 25 Mbps.

Smaller communities have been slower to engineer and deploy broadband utilities infrastructure, but they are catching up in part due to the federal Broadband Equity, Access and Deployment (BEAD) Program, which will provide $826.5 million to build out high-speed broadband in even the most remote locations in Colorado. This is part of Governor Polis's goal of reaching 99% coverage by 2027. Successful deployment in small towns, such as Red Cliff, Meeker, and Wray, provide innovative and inspiring examples for other communities to follow.

In June 2021, Mountain View Electric Association, in partnership with Conexon Connect, announced a $190 million expansion of broadband services by bringing fiber broadband to rural portions of Arapahoe, Crowley, Douglas, Elbert, El Paso, Lincoln, Pueblo, and Washington counties. In July 2022, the Colorado Broadband Office (CBO) launched a new $170 million grant program to support broadband expansion and modernization throughout the state. The grant program was created as part of the American Rescue Plan Act (ARPA) for broadband expansion across the country.

Expanding broadband provision is a key focus of Colorado economic development, information technology, and local government capacity-building efforts. Colorado has developed a program through the Colorado Department of Local Affairs (DOLA) that has awarded over $20 million in matching grants since 2016 for a statewide investment of $34 million to numerous rural communities throughout the state, including Estes Park, Red Cliff, Park County, and Rio Blanco County, to help with strategic broadband planning and deployment of middle-mile broadband projects. There are two broadband grant programs currently available in Colorado through the DOLA Broadband Program: the Broadband Interconnectivity (HB 21-1289) Grant Program with $5 million available to provide public institutions, private businesses, and citizens access to reliable broadband service; and the Broadband Planning and Infrastructure Set-Aside with $3.6 million available to support local governments in improving broadband services.

Broadband access allows many rural communities the potential to attract remote workers and location-neutral businesses that can help diversify the economic base, but there are many other benefits, including public safety and health care. Many rural areas of the state would benefit greatly from telemedicine and remote health care monitoring, which have the promise to reduce health care costs, while improving health outcomes. In October 2020, the United States Department of Agriculture (USDA) announced the investment of $6.3 million in high-speed broadband in rural Colorado, and another $10.5 million in August 2021. This funding is part of the effort to provide broadband services to unserved and underserved rural areas and is part of the $550 million Congress allocated to the second round of the ReConnect Program. In January 2023, the USDA awarded an additional $48.4 million to Fort Morgan and Buena Vista to expand rural electric infrastructure.

In November 2021, the Infrastructure Investment and Jobs Act (IIJA) allocated $65 billion to expand broadband in communities across the U.S, create more low-cost broadband service options, and subsidize the cost of service for low-income households. Under the funding, each state is designated to receive a minimum of $100 million, with a focus on broadband expansion and affordability. In September 2022, the USDA announced $502 million in loans and grants to provide high-speed internet access for rural residents and businesses in 20 states. In Colorado, approximately $13.8 million will be allocated to the Delta-Montrose Electric Association to deploy fiber and connect 3,577 residents, 148 businesses, one educational facility, and 765 farms to high-speed internet in the counties of Delta, Montrose, and Gunnison.

In addition, under the IIJA, Congress appropriated $42.5 billion to the National Telecommunications and Information Administration (NTIA) to administer the BEAD Program. In June 2023, it was announced that $826 million would be allocated to Colorado over the next five years to help provide equal access to affordable, fast, and reliable broadband service across the state.

Telephone

Telephone, the legacy business for telecom providers, has been experiencing a protracted decline since the turn of the century. The Centers for Disease Control and Prevention, which tracks landline use to assure representative samples in its health studies, reported that 76% of U.S. households had only cellphone service in 2023, up from 72.6% in 2022, and from 68.7% in 2021. Improvements in VoIP services have allowed internet and cable TV providers to compete with traditional wireline telephone services. Additionally, many of these legacy providers have lost landline subscribers to wireless and other competitors that offer free or lower cost long-distance calling. The most viable telecom companies focus on higher margin business-to-business sales and have diversified into separate wireless, wireline, internet, cable TV, and providers of emerging cloud-based and data center technologies.

Television

Like the decline in land telephone subscriptions, pay-TV companies have been losing subscribers at a continued steep rate due to the uptick in video-on-demand services. A report from Leitchman Research revealed that major pay-TV providers in the U.S. lost about 5 million subscribers in 2023, compared to a loss of 4.6 million in 2022, continuing the declining trend observed in prior years. As internet speeds have become faster and more affordable in many markets, customers have been "cord-cutting" and leaving traditional cable and satellite services. Leitchman reported that 88% of U.S. households have at least one streaming video service from 15 top direct-to-consumer and subscription video services in 2023, compared to 52% in 2015.

Telecom companies are trying to stem this decline by using new technologies like high-definition, on-demand, online, mobile, multicasting, and bundling services like Disney+ with Verizon subscriptions or including Apple TV+ with hardware purchases from Apple. These technologies help develop alternative revenue streams for traditional cable companies; telecoms that provide both cable and internet might lose a cable subscriber through cord-cutting but can continue to sell internet services to the same household. Coincidentally, the top cable and telephone providers in the U.S. (which represent 96% of the market) added 3.5 million net additional broadband internet subscribers in 2023, relatively unchanged from 2022. There are now nearly 114.7 million broadband subscribers in the U.S., an increase of 1.5% year-over-year; cable companies provided broadband service to 76.1 million while telephone companies provided service to 38.6 million.

Wireless

The pandemic, coupled with ongoing advances in wireless communications, caused consumers to continue to move away from landlines and pay-TV providers. As more content is delivered wirelessly, and with 5G (fifth-generation) mobile networks now being rolled out, telecoms are fighting to expand their spectrum to meet the demands of bandwidth-intensive consumers.

continued on page 70

Information

continued from page 69

Wireless providers invested $39 billion in 2022 to power these wireless networks, an all-time high. More than 330 million Americans are now covered by 5G, up from 325 million last year, and Americans use nearly twice the amount of data used two years ago, according to CTIA. By 2030, 5G networks are estimated to contribute between $1.4 trillion to $1.7 trillion to the U.S. economy and create between 3.8 million and 4.6 million jobs.

According to the CTIA, the number of connected devices is 558 million, or 1.6 devices for every resident in the U.S. While a survey by Deloitte found that 38% of Americans added internet-connected devices to their homes during the pandemic, the average number of devices per U.S. household decreased to 21 devices, from its peak during the pandemic of 25 devices. According to Pew Research Center, 97% of Americans own a cell phone and 95% own smartphones (up from just 35% reported in the first smartphone ownership study in 2011). The uptick in ownership of these data-hungry devices and the increasing prevalence of smart-home Wi-Fi connected devices like thermostats, doorbells, and appliances has resulted in increased demand for spectrum, especially high-band.

The rollout of 5G networks will take some time to cover all of Colorado's population, but Denver, Colorado Springs, and Grand Junction residents now have 5G coverage. These 5G networks have the promise to be 100 times faster than the current 4G networks and about 10 times faster than 4G LTE networks. The deployment of 5G networks will likely take a number of years to build out; these networks are designed to work on an extremely high bandwidth, above 20 GHz, but this high-spectrum band cannot travel more than a mile versus the current 4G LTE that can reach devices within a 20-mile radius. The build out of 5G networks will require numerous small cells/antennas installed 30 feet above the ground, likely on existing utility poles or streetlights. A number of these towers went up in 2019 throughout Denver in public right-of-ways that run between sidewalks and roads. The deployment of these small cells has been occurring a few blocks at a time; it will take a few years before most big population centers in Colorado are covered.

Data Processing

The Data Processing, Hosting, and Related Services industry is made up of companies that provide infrastructure for hosting or data processing services, which may include web hosting, streaming services, or application hosting. With the booming Internet of Things (IoT) taking over every aspect of life, the increasing popularity of AI, big data, and data analytics, skyrocketing data usage, and the accelerated need of businesses to digitize business models, data centers and cloud services are in high demand. According to an analysis by JLL, the market for data centers has doubled in size since 2020, which can be largely attributed to AI demand. According to *Forbes,* AI-related capital expenditures are over $300 billion, and the technology accounts for approximately 20% of all new data center demand. Some examples of Colorado companies include Pax8 and Ibotta.

The industry is quite large in Colorado, with 1,593 firms employing over 15,000 people in Q1 2024, and wages are above average, at $162,286. Although its growth has decelerated considerably in recent years with the ongoing increase in data usage and cloud services, industry employment in the state increased 5.9% in March 2024 year-over-year, one of the few bright spots in the Information sector. The industry has observed a five-year employment compound annual growth rate (CAGR) of 2.4% in March 2024, and employment in March

2024 was 12.7% above 2019 levels. However, firms have declined 10.1% in Q1 2024 year-over-year and have a five-year CAGR of -2.1%. Pax8, headquartered in Greenwood Village, saw three-year revenue growth of 1,010%, ranking it No. 442 on the 2024 Inc. 5000. The outlook for the Data Processing industry is strong, as spending on public cloud services is projected to grow by 20.4% in 2024 worldwide, according to Gartner. JLL notes that Denver is expected to see continued growth in data center usage and space acquisition by technology and finance institutions. The majority of data center demand in the Denver market is driven by technology, health care, banking and financial services, telecom, retail, and e-commerce companies.

Film, Television, and Media

Impact of Colorado Film Incentive

In May 2012, the Colorado Legislature passed a law providing an incentive that allows for a performance-based rebate of up to 20% of qualified Colorado expenditures for films, television series, commercials, and video games produced in Colorado. In June 2023, the governor signed a bill that replaced the rebate award with a fully refundable state income-tax credit. In 2024, legislation was passed extending the tax credit for four additional years. Since the incentive's inception, the increase in inquiries and applications has been palpable; as of October 2024, $34 million in incentives has been paid or conditionally approved to productions. The Colorado Office of Film, Television and Media (COFTM) reports $200 million in actual and predicted production spending and more than 6,000 cast and crew hires from the start of the program through 2024.

Using a multiplier effect, it is estimated that approved productions have (and will) generate over $360 million in economic impact to 55 counties in Colorado. The multiplier effect was extrapolated from the University of Colorado's Leeds School of Business 2011 study *Economic and Fiscal Impact Analysis of Actual Film Budget Scenario on Colorado* and the 2015 study *Colorado Film Incentives and Industry Activity,* which were more recently updated in 2024 to include more contemporary data.

Film Incentive Process

Funding for the Colorado Film Incentive is allocated by the Colorado General Assembly. COFTM receives funding for the film incentive program at the beginning of the fiscal year, which starts on July 1, and funding is allocated to projects on a first-come, first-served basis. To receive a film incentive, projects must meet statutory requirements during the application process, including meeting minimum spending requirements and hiring at least 50% Colorado resident cast and crew members. After completing an internal review process by COFTM, each project is presented to the Economic Development Commission (EDC). The EDC was created by the Colorado General Assembly to promote economic development in Colorado. It consists of 11 Colorado business leaders, with three members appointed by the Senate, three appointed by the House, and five appointed by the governor. This group must vote to approve each project before a purchase order or contract is initiated and principal photography may commence. After completion of the film, television show, commercial, or video game, a Colorado licensed certified public accountant, who has completed training with COFTM, must review and sign-off on the project's qualified expenditures. After an additional review by the COFTM analyst, a check up to the approved incentive amount will be issued to the production company.

Over the last decade, Colorado's content creation scene has benefited from high-profile productions from major film studios and reputable independent production companies, such as Universal Studios and Netflix. A few notable films include the Netflix original films "Our Souls at Night" (Robert Redford, Jane Fonda); "Amateur" (Josh Charles, Michael Rainey Jr.); "The Hateful Eight" (Quentin Tarantino); "Furious 7" (Vin Diesel, Paul Walker); "Cop Car" (Kevin Bacon, Cameron Manheim); "Dear Eleanor" (Jessica Alba, Luke Wilson); and "Heaven Sent," a family-friendly Christmas film directed by Michael Landon Jr. "Elevation," a post-apocalyptic action thriller film starring Anthony Mackie, wrapped up filming in March 2023 in Boulder and will be the largest feature to come out of Colorado in nearly eight years.

In television, Colorado received notable screen time with the incentivized Bravo TV series, "Top Chef," which showcased the state's agricultural landscape in addition to scenery in Denver, Boulder, Aspen, and Telluride. Colorado also incentivized an episode of "Hometown Takeover" featuring Fort Morgan. Recently, the University of Colorado Boulder football team and the city of Boulder received extensive media coverage due to the addition of new head coach, Deion Sanders. This was showcased in the hit television documentary series, "Coach Prime," which was coproduced by Prime Video and incentivized by COFTM. "Welcome to the Fishbowl" was incentivized in early 2024, showcasing the matriculation of Colorado developed and produced projects receiving incentives. Since 2018, there has been a trend in unscripted television productions, with COFTM incentivizing many projects produced locally to air on the Food Network, PBS, Facebook Live, HGTV, and Velocity Channel.

Activating the Commercial Film and Media Industry

Colorado has a strong commercial film and media industry. A majority of production companies create commercial content or focus exclusively on creating commercial content. This can include logo and website design, social media assets, and full-scale commercials. For businesses to grow and thrive in Colorado, much like the rest of the country, they must invest in creating these commercial assets.

To better support Colorado's commercial content industry, COFTM is piloting the Small Business Development Center (SBDC) Creative Connections initiative. This initiative aims to bridge content creators with local businesses to facilitate stronger regional economies.

continued on page 72

Information

continued from page 71

By connecting creative professionals with small business owners who have completed educational programs offered by the SBDC this initiative will allow small business owners to source logos, advertising, improved branding, online presences, and more. Ultimately, this will facilitate the continued engagement and growth of small businesses in the digital landscape while providing new and expanded job opportunities for graphic designers, social media managers, videographers, and other creative professionals across the state.

Due to the still limited incentive, commercial production tends to be the most viable career track in Colorado, offsetting the lack of feature films and larger incentivized projects. These commercial productions serve the local economy, uplift regional economic impact, and provide business-to-business impact for the state. However, Colorado still has limited infrastructure such as rental houses, sound stages, and crew that have hands-on experience working on high budget projects. By supporting commercial industry initiatives coupled with the new sustainable incentive, it is likely that Colorado will see further growth of infrastructure offerings.

Production of commercials has become a large part of the state's film market due to Colorado's beautiful natural landscapes and reputable commercial crew base. Thanks to partnerships across the state with eight COFTM-activated Regional Film Commissions and local film liaisons, the office now has a better scope of commercial activity. Since 2019, Colorado has remained a key location for the commercial industry including content for Skullcandy (Denver) and Harley-Davison (Leadville and Pueblo), Subaru (Telluride), Shane Co (Westminster), as well as local campaigns for Colorado Great Outdoors (Durango) and the Colorado Lottery (Jefferson County). However, as Colorado's crew base continues to shrink due to the inconsistent nature of the state's incentive program, it is likely that the state will begin to lose this, typically nonincentivized, business.

Colorado Film and Television Industry Shifting from Decline to Stability

After the impact of the pandemic on film and media nationally, as well as the Writers Guild of America (WAG) and Screen Actors Guild (SAG) strikes of 2023, the film industry in Colorado is stabilizing. However, it will still take time to recover. The state is seeing an uptick in production activity, largely due to the increased incentive program in which Colorado gained a $5 million allowance for the next four years, creating a sustainable incentive structure for the industry statewide. In the past year, many of Colorado's educational and workforce programs have made significant progress. The Film Exposure Program—which partners with schools to teach students filmmaking skills—is developing an internship program that will generate job opportunities and career pathways for young professionals. The Denver Film Society has similarly launched an internship initiative. The Colorado Office of Film, Television and Media's Regional Film Liaisons—a network of professionals from across the state—recently gathered for a summit to collaborate on best practices for supporting in-state productions and guiding them through location scouting, permitting, and more across Colorado's municipalities. This is the first summit of Regional Film Liaisons since before the COVID pandemic, signaling a return to stability after several years of recovery.

Looking forward, several factors will accelerate this revitalization of the film industry across Colorado. Continuing approval of the Tax Incentive Program will facilitate the ongoing support and encouragement of film, television, and video-game production within the state. The allocation of additional incentive funds in the future will allow Colorado's film industry—and its impact on the economy—to flourish further. Additionally, the construction and operation of film-related infrastructure, including equipment rental houses, studio spaces, post-production facilities, and more will advance Colorado from a process of stabilization to one of growth. As the film industry continues to move from decline to stability, the focused expansion and reinforcement of workforce initiatives remains one of the primary focuses of the Colorado Office of Film, Television and Media.

Changes to the Colorado Film Incentive and Its Future

The film industry is incentive driven. Production companies regularly make filming location decisions based on the production budget's bottom line and any financial support they may receive from local governments. Colorado is constantly in competition with nearby states such as New Mexico, Montana, Arizona, and Utah for film production opportunities, and other western states receive much higher levels of incentive funding. As a way to make Colorado more competitive, HB 22-1408 was passed in May 2022. The bill did three things: it provided $2 million in additional incentive funding, it allowed the executive director of the Office of Economic Development (of which OEDIT is part) to authorize the approval of an incentive in an amount that exceeds 20% of local expenditures, and it created a Film Incentive Task Force. The task force included state legislators, representatives from local SAG-AFTRA and IATSE unions, a representative from the Motion Picture Association, a representative from a Colorado business school, and the state's film commissioner.

The purpose of the task force was to determine how to make Colorado's film incentive more effective. The task force presented findings and recommendations, including a recommendation of $15 million per year for five years in the form of a refundable tax credit. Consequently, the Legislature during the 2023 session passed HB 23-1309, which created a $5 million one-year refundable tax credit for film, television, and media projects to utilize. Recently, the governor signed HB 24-1358, which extended the funding and guaranteed $5 million in annual film incentives to COFTM through at least 2029. At the time of this report, the results of the new incentive have been widespread. Almost all of the entire 2024 allocation of $5 million has been exhausted, and the office has seen a large increase in the number of applications and incentivized productions across the state. The bill also increased the incentive percentage from 20% to 22% for companies that film in certain underrepresented areas. Although this is a promising step forward in terms of an increased incentive and the five-year timeline is a strong improvement from one-year, the amount of funding still pales in comparison to other states' well established-film incentive programs.

Limited and inconsistent funding for Colorado's incentive program has put the local industry at risk and can take away opportunities from Coloradans. Inquiring production companies with budgets too large to be fully supported by Colorado's limited funds move their films to neighboring states that offer similar scenery and larger funding opportunities. Western states have significantly more funding available than Colorado. Many other states also have various additional incentives for productions that meet certain requirements, including filming in rural or economically disadvantaged areas, filming in certain cities or municipalities that have their own additional incentives, and relocating a television show to the state, among others. Some states have, at this point, well-established film incentive programs, while others are still catching up. Arizona is one of the latest states to create a film incentive program, funding its program at $75 million for 2023, $100 million for 2024, and $125 million per year from 2025 through at least 2043, when the bill is set to sunset. Colorado's content creation activity will continue to reflect the incentive program's annual allocation.

Workforce Development, Regional Access to Resources, and Public Access Stations

Film, television, and media content creation depend on technological resources, such as gear and software. Creators can join the industry with or without a four-year degree. Aspiring creators can enter the industry regardless of whether they hold a four-year degree. Yet, when it comes to film, television, and commercial production, having access to equipment, software, and occasionally studio facilities is imperative. Although the entry point costs for professional production equipment has dropped significantly over the past 10 years, many new professionals do not have the capital to invest in a full gear and software package, and rental house options have dwindled significantly.

There are only eight public access stations left in the state, leaving many regions in Colorado with little to no access to professional gear or training opportunities that are vital for community industry development. Without these localized resources, communities are unable to support a necessary element that modern businesses need. Rural communities have businesses and organizations that need content creation, from social media spots to branded content, to traditional commercials. Without access to gear, workforce development programs and Career Technical Education, regional communities are forgoing or outsourcing these content elements. COFTM has initiated several workforce development programs aimed at rural communities to help develop local talent and connections to local resources to fulfill this community need of local content creation. The Film Exposure Program was created to bring gear and hands-on training to rural high school students. Over the course of eight weeks, students and school district teachers work with a local media professional to create scripted scenes at each school site. The scenes are then edited together to make a collaborative short film.

In addition, each school site receives a basic gear package for continued use beyond the program. Similarly, COFTM is spearheading the Tribal Media Center Pre-Apprenticeship Program, which aims to connect young creatives from Native and Indigenous communities with opportunities for mentorship and career pathways while leveraging the power of interactive media and storytelling for marketing, audience engagement, and innovation for companies across sectors. COFTM also launched a Production Assistant Workshop program, which introduces students to career pathways in the film, television, and commercial industries. Finally, COFTM has partnered with SeriesFest with their Mobile Cinema Labs, which provide marginalized urban communities with educational programming on filmmaking and media and provide hands-on experience with professional-grade film equipment.

Fulfilling the Need for Media Literacy

Film, television, and media programs are uniquely poised to address the pressing need for media literacy in modern society. With the rise of the internet and social media, widespread distribution of content and messaging is now more accessible than ever, and as a result of this proliferation of content, the general public has grown less savvy in evaluating and discerning how content is being created, by whom, for what audiences, and to what purpose. Additionally, the advent of AI and deep fake technology, combined with dissemination of misinformation online and elsewhere, has increased the urgent need for widespread media literacy initiatives. Visual storytelling is highly effective in creating both an emotional and intellectual response to the information being presented, and a lack of critical evaluation of the content being consumed on a widespread scale poses a genuine threat to mental health, social cohesion, education, political processes and more. COFTM and its constituents fund, organize, and manage a range of educational programs, workshops, and initiatives to instill media literacy skills and inform community members about how content is made, and its effectiveness in evoking emotional responses, conveying information in an impactful manner, and swaying the intended audience toward the desired conclusion. Such programs are instrumental in providing the objective analytical skills needed to effectively navigate the growing digital landscape of modern society.

Sundance Film Festival

As of September 2024, Colorado is one of just three locations nationwide under consideration to be the new host of the prestigious Sundance Film Festival starting

continued on page 74

Information

continued from page 73

in 2027. The power of film and media in today's cultural landscape is indisputable. Film and media has an immense impact, wields significant responsibility, and has a profound influence on various aspects of our lives. Film and media can influence perceptions and beliefs. It can impact public opinion on cultural, political, environmental, and social issues. The Sundance Institute is a globally recognized cultural institution. Sundance is a leader in bringing new voices and cultural touchstone projects to the forefront of the industry, as well as to the forefront of society. This is more than a festival relocation—it is a transformative opportunity to elevate Colorado's creative industries, create hundreds of millions of dollars in economic activity, and inject new life into Colorado's local hospitality and tourism economy.

If selected as the next host state for Sundance, Colorado would receive an estimated $130 million in annual economic boost from the festival based on audited reports from the festival in Utah, its current home. Additionally, the relocation of Sundance to Colorado would create approximately 1,800 sustainable jobs for creative arts professionals, resulting in $70 million in wages generated for Coloradans. Furthermore, additional industries within the state would also benefit, as Sundance would bring more than 30,000 out-of-state visitors during peak festival periods, significantly boosting winter tourism across Colorado during the typically slower weeks at the end of January and providing a tremendous boon to hospitality industries, restaurants, retails businesses, and more.

Whether Colorado is selected as the next home of the Sundance film festival or not, the state's inclusion as one of three finalists indicates the tremendous amount of forward momentum that Colorado has achieved in recent years.

Contributors:
Kate Watkins, Colorado Department of Local Affairs (Chair)
Arielle Brachfeld, Colorado Office of Film Television & Media
Julien Christensen, University of Colorado Boulder
Adam Illig, University of Colorado Boulder
Skylar McKelvey, Colorado Office of Film Television & Media
Makayla O'Malley, Colorado Office of Film Television & Media
Cody Pearson, Colorado Office of Film Television & Media
Donald Zuckerman, Colorado Office of Film Television & Media

Financial Activities

The Financial Activities industry consists of two sectors that comprised 6.2% of statewide employment in 2023: (1) Finance and Insurance, and (2) Real Estate and Rental and Leasing. Financial Activities outperformed many other industries in 2024, adding 3,500 jobs or 1.9%. The industry is expected to continue to increase in 2025, but at a slower rate, adding 2,600 jobs (1.4%). Approximately 65% of the employees in the Financial Activities industry work in the Finance and Insurance sector (i.e., banks, credit unions, securities and investment firms, insurance carriers, etc.). About 35% of the workers are employed in the Real Estate and Rental and Leasing sector, which includes real estate-related payroll jobs and companies that lease anything from real estate to equipment to formal wear.

FINANCIAL ACTIVITIES EMPLOYMENT 2015-2025 (In Thousands)

Year	Finance and Insurance	Real Estate and Rental and Leasing	Total
2015	110.6	48.4	159.0
2016	113.6	50.2	163.9
2017	116.0	52.2	168.1
2018	117.6	54.0	171.6
2019	118.0	56.6	174.6
2020	118.6	54.2	172.8
2021	120.6	57.6	178.2
2022	121.5	60.7	182.1
2023[a]	117.9	62.6	180.5
2024[b]	119.5	64.5	184.0
2025[c]	120.6	66.0	186.6

[a]Revised. [b]Estimated. [c]Forecast.

Note: Sum of the sectors may not equal the total due to rounding.
Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Finance and Insurance

Capital Markets

The capital markets are a discounting mechanism because they are forward looking and take into account all data and consider future events. However, they can be prone to distortion and may improperly prioritize factors that are driving change. Now that the world is awash in a tsunami of accessible data, often tainted by opinion, it should be no wonder that there are widely conflicting views as to the direction and trajectory of virtually everything.

The yield curve has been inverted since July 2022, breaking the previous longest inversion record set in 1978-79. An inverted yield curve has foreshadowed every recession since 1955, with one exception ("Inverted Yield Curve: Is it Still a Recession Indicator," Scott Ward, *US News & World Report,* February 26, 2024). Many still say a recession is just around the corner. Accurately predicting the timing of an event is one of the most difficult things to accomplish. You may see a slow motion trainwreck in progress, but accurately predicting when it will go off the tracks, or even *if* it will go off the tracks is illusive. Say something long enough and you may *eventually* be right. GDP in Q1 2024 was 1.6%, Q2 was 3%, and the early read on Q3 came in at 2.8%. Hardly recession territory. Furthermore, the Federal Reserve eased monetary policy at its September 2024 meeting, and the yield curve has slowly begun to steepen. The Fed eased another 25 basis points at its November meeting and another 25 basis points reduction is expected at its December meeting, taking the fed funds target to 4.5%, down from a terminal target rate of 5.5%, leading many to think we may avoid a recession all together.

Now, how cluttered is the information space? It is estimated that 90% of the world's data was generated in the last two years and that in the space of the last 13 years, this figure has increased an estimated 74 times from "just" 2 zettabytes in 2010. In 2023, a total of 120 zettabytes of data was generated, and that figure is expected to increase 50% in 2025 to 181 zettabytes ("Amount of Data Created Daily [2024]," Fabio Duarte, Exploding Topics, June 13, 2024). This will present an ongoing challenge for market practitioners to not get lost in the troves of data that can appear like chaos and lead many to confuse correlation with causation. The mission is to identify the proverbial signal through all the noise. Confusion in market and economic expectations leads to volatility as witnessed by the extreme shifts in expectations regarding monetary policy over the last couple of years.

Enter artificial intelligence (AI) and large language models (LLM). At some point in the not-too-distant future, AI will be better able filter out the static and identify the relevant factors driving the economy. However, like the early days of the internet, there has been a lot of hype and a lot of promises for AI that have yet to be realized.

The world wide web opened to the public in 1991, and websites for everyday use started to become available in 1993–94. In mid-1994, a study by the Massachusetts Institute of Technology estimated that there were 2,738 websites. At that time, one really could surf to the end of the internet. Thirty years later, in 2024, there are an

continued on page 76

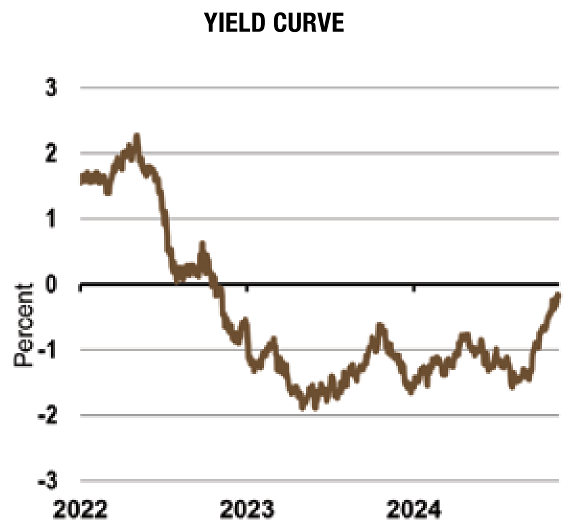
INDUSTRY SNAPSHOT FINANCIAL ACTIVITIES

Nominal GDP, 2023 ($ Billions)	110.5
Real GDP, 2023 ($ Billions, 2017 Dollars)	89.3
2023 Real GDP Growth Rate	1.7%
Total Employment, 2023 (Thousands)	180.5
2023 Employment Growth Rate	-0.9%
Employment Growth National Rank	45
Share of Colorado Employment	6.1%
Share of National Employment	5.9%
Average Wage, 2023	109,366
Percent of Statewide Average Wage	139.6%
2023 Average Wage Growth Rate	1.3%

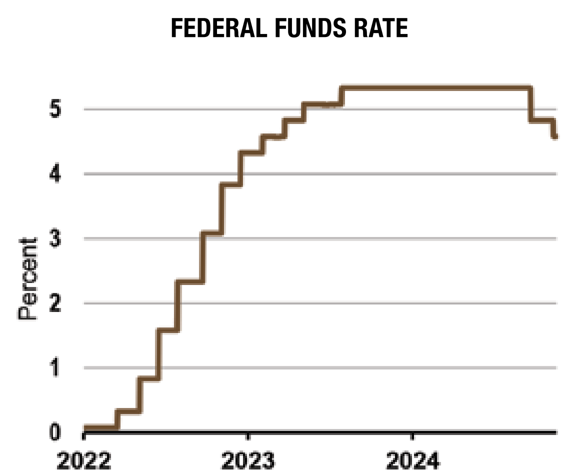
Sources: Bureau of Economic Analysis, Bureau of Labor Statistics.
Note: 2023 employment includes revised estimates.

Financial Activities

continued from page 75



Source: Federal Reserve Bank of St. Louis. 10-Year Treasury Constant Maturity Minus 3-Month Treasury Constant Maturity.



Source: Board of Governors of the Federal Reserve System, Federal Funds Effective Rate.

estimated 1.13 billion websites globally with approximately 30% of them registered in the U.S. (Website Statistics Report 2024, Reboot Online Marketing). It may not take 30 years for AI to make a similarly dramatic impact on the economy and society at large. It may be more like the impact of the iPhone. Our day-to-day life has been forever changed by the computer we call a smartphone that most of us have on our person all day. Lest we forget, the iPhone has only been around since 2007. It took 3.6 years for Apple to sell 100 million iPhones ("How long did it take to sell 1 million iPhones? 100 million? 500 million?" Dave Mark, The Loop, June 28, 2016). AI application ChatGPT was launched to the public on November 30, 2022, and by January 2023, ChatGPT racked up over 100 million users in just two months, making it the fastest-growing software application in history. The popular embrace of AI should accelerate its impact, but it may still take another five to 10 years before we truly experience the disruption that AI will bring to the labor market, industry, and the world.

The internet has made the world smaller by enabling near-instant communication. It has disrupted industries and created new ones. From 2016 to 2020, the internet economy grew seven times faster than the total U.S. economy over that same period and accounted for 12% of the U.S. GDP, according to *Forbes*. AI in 2024 is dominated by personal assistants like Apple's Siri, Amazon's Alexa, and Microsoft's Copilot (powered by applications like ChatGPT, which is itself powered by AI computer chips manufactured by NVIDIA). AI has the ability to make us more efficient and productive, but just as web browsers evolved from Netscape, Internet Explorer, and now Google Chrome, the version of AI that will be most prevalent has likely not been created yet. The innovation of AI will undoubtedly have a significant economic impact.

Is it any wonder then, that AI chipmaker NVIDIA has become ubiquitous with the AI dream? Or that NVIDIA stock over the last two years is up nearly 1,000% in fall 2024? As of November 8, 2024, NIVIDA replaced Intel in the Dow Jones Industrial Average. The picks and shovels of AI infrastructure and AI applications have attracted inflows of capital not unlike the early days of the internet when simply putting a "www" before your company name or a ".com" after was a common way to get noticed. Be cognizant of history as Cisco was a darling of the dotcom boom in the early days of the 21st century. Cisco stock peaked in March of 2000, rising above $80/share and became the most valuable public company in the world. Over the next two years it declined some 80%, representing a total market capitalization loss of more than $400 billion. Decades later, Cisco has yet to eclipse that level and currently trades at less than $60/share.

Through the end of Q3 2024, the S&P 500 had a total return of 22.1% for its best year-to-date (YTD) gain through three quarters since 1997. The Russell 2000 was up 11.2%, the Dow was up 13.9%, and the Nasdaq Composite was up 21.8%. Looking at interest rates, the 10-year U.S. Treasury yielded 3.81%, and the federal funds target rate had been cut to 5%. It should be noted that in the early part of Q4 2024 long-term yields have moved higher, with 10-year yields moving back above 4.25% on the heels of strong economic data and underlying inflation concerns.

Will returns like these continue into 2025 and the foreseeable future? Many on Wall Street do not think so. One of the more extreme views comes from Goldman Sachs. Goldman's prediction is that the S&P 500 will deliver 3% annualized returns over the next decade. In comparison, J.P. Morgan Asset Management's outlook appears rosy. They predict that large-cap U.S. stocks will return a 6.7% annualized rate over the next 10-15 years ("Experts push back on Goldman Sachs' forecast for low returns," Sam Ro, Yahoo Finance, October 27, 2024). A more optimistic view comes from Ed Yardeni, a former NY Fed economist and 40-year Wall Street veteran. He posits that the U.S. economy is in a productivity growth boom that may continue into the 2030s. With GDP rising 3% year-over-year and inflation moderating to 2%, he suggests S&P 500 returns should be more like 11%, including reinvested dividends ("Lost Decade Ahead For Stocks

FINANCIAL MARKETS: STOCKS
2014-2024 YTD (Year-End Close)

	Index				Annual Percent Change			
Year	S&P 500	Dow Jones	NASDAQ	Russell 2000	S&P 500	Dow Jones	NASDAQ	Russell 2000
2014	1,848	16,577	4,177	1,164	29.6%	26.5%	38.3%	37.0%
2015	2,059	17,823	4,736	1,205	11.4	7.5	13.4	3.5
2016	2,044	17,425	5,007	1,136	-0.7	-2.2	5.7	-5.7
2017	2,239	19,763	5,383	1,357	9.5	13.4	7.5	19.5
2018	2,674	24,719	6,903	1,536	19.4	25.1	28.2	13.1
2019	3,231	28,538	8,973	1,668	20.8	15.5	30.0	8.7
2020	3,756	30,606	12,888	1,975	16.3	7.2	43.6	18.4
2021	4,766	36,338	15,645	2,245	26.9	18.7	21.4	13.7
2022	3,840	37,147	10,466	1,761	-19.4	2.2	-33.1	-21.6
2023	4,770	37,690	15,011	2,027	24.2	1.5	43.4	15.1
YTD Nov. 15, 2023	4,503	34,991	14,104	1,801	12.8	4.2	24.2	-4.7
YTD Nov. 15, 2024	5,871	43,445	18,680	2,304	30.4	24.2	32.4	27.9

Source: Yahoo! Finance. Note: YTD represents the growth year-to-date from the prior end-of-year close.

With Only 3% Annual Returns?" Yardeni Quick Takes, October 22, 2024).

While the relationship between equity returns and GDP growth is complex, it is a reasonable starting point. As the economy grows, corporate earnings should grow, and a company's stock price would reflect this. For a company to perform materially better than the underlying economy, it would presumably necessitate things like increasing market share. This may occur by capturing market share from a competitor, or through mergers and acquisitions (M&A) by acquiring a competitor. Cost cutting, balance sheet efficiency, and labor productivity that outpaces your peer group is another path to outperformance. Another approach is to develop a new market ala Apple, with the introduction of the iPhone. In such an instance, you become the market. At present, one could argue that this is similar to the position that NVIDIA finds itself. Its computer chips are, for now, the standard upon which AI applications are built. However, like the iPhone, where profits are fat, competitors and innovation follow. As of early 2024, iPhones have a 60.8% market share in the U.S., but Android phones have a worldwide market share of 70.7%. Ultimately, it is this multifaceted, evolutionary process that continues to drive our economy forward. From horse-drawn buggies to the Model T. From prop driven planes to jets. From brick-phones to flip-phones to smartphones, innovation is one of the most potent economic fuels.

While innovation fuels the economy, it takes capital to bring innovative ideas to life. The most recent Senior Loan Officers Survey was published in July 2024, prior to the Federal Reserve's pivot to easing monetary policy. That report indicated generally tighter lending standards and static demand for commercial and industrial loans. Banks also reported tighter lending standards and weaker demand for all commercial real estate loan categories.

Following the pandemic, loan demand had declined and banks accumulated securities (Federal Reserve Bank of Kansas City). Recall that the Federal Reserve had taken monetary policy back to a zero lower bound rate in March of 2020. As such, the securities banks purchased in lieu of making loans were reflective of the prevailing low-interest rate market at the time.

When inflation forced the Federal Reserve to begin tightening monetary policy, ending with a terminal overnight rate of 5.5%, the prevailing market interest rate also increased. This resulted in the decline in the market value of the securities banks had purchased. After all, who wants to own a bond with a coupon of 2% when the prevailing market is 4%? Bank balance sheets with below-market rate securities and loan books containing the same have resulted in unrecognized losses on bank balance sheets. This has inhibited bank loan-making ability. Easing monetary policy that began in September 2024 will help. However, shadow banks have capitalized upon bank weakness and "private credit" has been all the buzz.

A private credit fund is an actively managed pool of capital that can be invested in direct loans to companies or buying loans on the secondary market. Private credit funds do not have the same regulatory obligations as banks.

It seems that everyone is launching a private credit fund. In 2011, there were around 100 such funds, and by Q3 2023 there were more than 10 times that figure ("The Inexorable Rise of Private Credit," Peter Madigan, BNY, June 27, 2024). In 2023, when interest rates were rising and recession fears were high, the private credit space was able to raise over $200 billion in funding. Growth of the asset class is expected to persist, with a recent study finding that nearly 90% of investors plan to invest the same or more capital in this space over the next 12 months ("Seven Things to Know about Private Credit

continued on page 78

Financial Activities

continued from page 77

Funds," Cleary Gottleib). At the start of 2024, the private credit market was approximately $1.5 trillion in size, up approximately 50% from 2020. By 2028, this market is estimated to grow to $2.8 trillion ("Understanding Private Credit," Morgan Stanley, June 20, 2024).

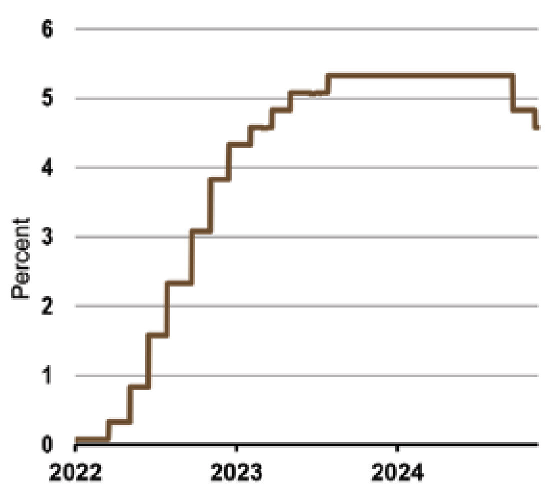
The capital provided by private credit is fulfilling a vital need and funding innovation. Private credit does not come cheaply. Private credit is generally floating rate and issued at a spread over Secured Overnight Financing Rate (SOFR) (Federal Reserve Bank of New York). The typical first lien direct loan comes at a rate of 5% to 6% over SOFR ("A Comprehensive Guide to Private Credit," Ares), which as of October 31, 2024, is 4.9% for an all-in rate of 9.9% to 10.9%.

This higher cost of capital equates to a higher hurdle rate to justify capital expenditures, leading many companies to rethink their growth strategies. Higher customer acquisition costs can be more easily justified when money was borrowed when SOFR was near zero. Now some growth strategies or low-margin market segments make less sense, or worse, are upside-down economically. With SOFR closer to 5%, many companies with existing floating debt have seen their balance sheets stretched to cover their increased debt service cost. Considering that 40% of small-cap, 14% of mid-cap, and 6% of large-cap publicly traded companies have negative earnings ("The Share of Companies with Negative Earnings," September 30, 2024), deleveraging of balance sheets could be an economic drag since we are unlikely to return to a near zero SOFR rate. In fact, should inflation hold closer to 3% or higher, rather than the Federal Reserve's stated 2% target, the Fed will be limited in its ability to ease monetary policy, which impacts SOFR. This is undoubtedly a consideration in future stock market performance.

The Federal Reserve's dual mandate of maximum employment and stable prices is the tightrope that has capital markets participants on the edge of their seats. To provide the necessary latitude for the Fed to ease monetary policy toward the neutral rate means that the labor market and inflation must cooperate. October's nonfarm payrolls report showed an anemic 12,000 jobs created with the caveat that hurricanes had a material impact. This offsets the 223,000 jobs created in the month of September. Labor force participation rate and the unemployment rate are all components that determine the tone and trend of the labor market. In October, the participation rate slipped, and the unemployment rate edged higher. This weakness provides the Federal Reserve justification to ease at its November 2024 meeting.

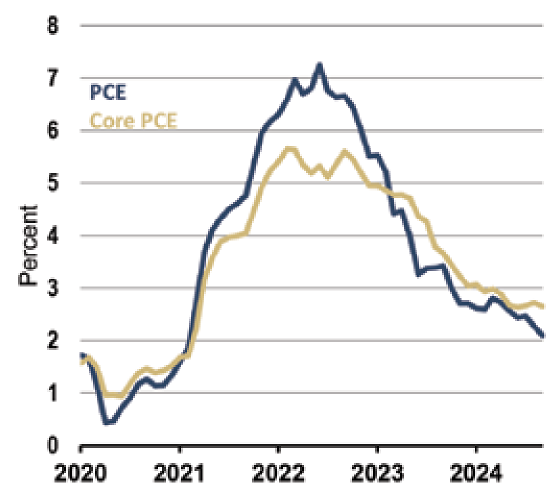
Next, look at the level and behavior of inflation. The interplay between inflation and the labor market will dictate how much latitude the Federal Reserve has to ease. Thankfully, the Fed's preferred measure of inflation, Core PCE, has remained below 3% since April 2024, and the October release came in at 2.7% (unrounded at 2.651%). It is important to note that if U.S. policy shifts

SECURED OVERNIGHT FINANCING RATE



Source: Federal Reserve Bank of New York.

PERSONAL CONSUMPTION EXPENDITURES



Source: Bureau of Economic Analysis.

UNEMPLOYMENT RATE

Source: Bureau of Labor Statistics.

to emphasize tariffs, they are inherently inflationary—a lesson demonstrated by the Smoot-Hawley Tariff Act of 1930. Turmoil in the Middle East that disrupts the oil markets could also lead to an inflationary shock, and the war in Ukraine could again lead to inflationary pressure in the agricultural markets, not to mention the potential for climate-driven agricultural shocks.

Unless there is material economic weakness, the Federal Reserve will not have justification for reducing monetary policy below the neutral rate. The neutral rate is generally defined as the rate of SOFR three to five years forward. At present, that rate is just over 3.5% (*Term SOFR and Treasury Forward Curves,* Chatham Financial). Should inflation spike or begin trending higher, the Fed will be inhibited from further policy easing and will be inclined to keep policy restrictive. This implies that the fed funds rate may remain at 4% or higher in 2025. Should inflation behave itself and remain below 3%, the Fed may feel comfortable easing to 3.5%, the current neutral rate.

In summary, the federal funds rate in 2025 is expected to be between 3.5% and 4.5% dependent upon inflationary pressures and job creation in the labor market. The increase in the amount of debt that companies placed on their balance sheets during the period of zero-bound Fed policy is expected to be unwound in this higher interest rate period as companies deleverage their balance sheets. This will dampen equity returns going forward. Bonds as an investment are no longer an afterthought and have the potential to reduce the risk in investor portfolios while contributing a meaningful return. The yield on the 10-year U.S. Treasury is expected to remain elevated in 2025, at or above 4% and a revisit of 5% is feasible. Mortgage rates are expected to look like those in the early 2000s, where the median rate between 2000 and 2009 was 6.18% ("Historical Mortgage Rates: See Averages and Trends by Decade," Erica Giovanetti, *US News & World Report,* September 20, 2024). AI has the potential to unleash a productivity boom and the continued trend of onshoring/nearshoring should be supportive of the labor market. The greatest uncertainty in 2025 is likely to be the direction of U.S. policy and geopolitical risk in general.

Commercial Banking

While there was some concern at the beginning of 2024 due to the unpredictability of interest rates, the year has been strong for banking. Banks are succeeding under a new normal. Banks are more transparent and adaptable to market trends. The year ends with the highest consumer confidence in banking and bank products, according to a poll conducted by Morning Consult on behalf of American Bankers Association.

Colorado enjoys a robust banking industry. Of the 125 banks in Colorado, 69 are state-chartered and headquartered in state. Commercial banks have total assets of $105.7 billion, with the four largest banks holding nearly 54% of the market share in Colorado. Total bank deposits in Colorado are almost $183 billion.

Capital Earnings Deposits and Loans—U.S. Data

The banking system remains resilient. For the most part, banks continue to report capital and liquidity levels above applicable regulatory requirements. Deposits have increased and asset quality remains sound. However, commercial real estate (CRE) and consumer loan delinquencies have been increasing.

Second quarter net income for the 4,539 FDIC-insured commercial banks and savings institutions increased $7.3 billion (11.4%) from the prior quarter to $71.5 billion. A decline in noninterest expenses (down $3.6 billion, or 2.4%), along with higher noninterest income (up $1.2 billion, or 1.5%) and gains on the sale of securities (up $937 million), drove the increase in net income. The banking industry reported an aggregate return-on-assets ratio of 1.2% in second quarter 2024, up 12 basis points from first quarter 2024 but down 1 basis point from second quarter 2023.

The banking industry reported total assets of $23.9 trillion in the second quarter 2024, a decrease of $70.5 billion (0.3%) from first quarter 2024. The quarterly decrease was mainly due to reductions in cash and balances due from depository institutions (down $194.9 billion, or 6.7%) and securities (down $16.8 billion, or 0.3%). An increase in total loans and leases (up $125.8 billion, or 1%) partially offset the reduction in cash and securities. Equity capital rose $40.6 billion (1.8%) from the first quarter 2024. The quarterly growth was primarily due to positive retained earnings of $31 billion. The leverage capital ratio increased 12 basis points from the first quarter 2024, to 9.31%.

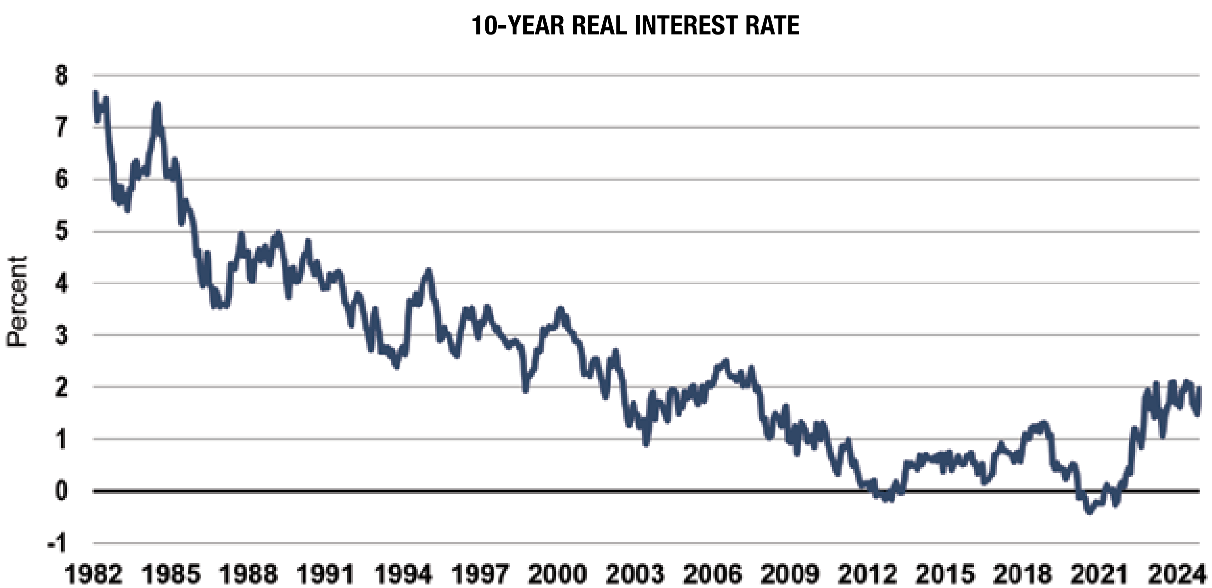
Domestic deposits decreased $197.7 billion (1.1%) from the first quarter 2024, well below prepandemic average second quarter growth of 0.2%. Both savings and transaction deposits declined from the prior quarter, with growth in small-time deposits partially offsetting the declines. Brokered deposits decreased for the second straight quarter, down $10.1 billion (0.8%) from the prior quarter. Banks with more than $250 billion in assets drove the quarterly decline in deposits. Estimated insured deposits decreased $96 billion (0.9%) quarter-over-quarter, while estimated uninsured deposits decreased $50.4 billion (0.7%). Banks with assets greater than $250 billion, in aggregate, reported lower uninsured deposits in the second quarter, while banks with assets less than $250 billion, in aggregate, reported higher uninsured deposits.

Noncurrent loans, or loans 90 days or more past due or in nonaccrual status, remained unchanged from the prior quarter at 0.91% of total loans, well below the prepandemic average of 1.28%. Despite the stability in overall noncurrent loans, the noncurrent rate for nonowner occupied commercial real estate loans of 1.77% was at its highest level since third quarter 2013, driven by office portfolios at the largest banks. However, these banks tend to have lower concentrations of such loans in relation to total assets and capital than smaller institutions, mitigating the overall risk. The industry's net charge-off rate increased 3 basis points to 0.68% from the prior quarter

continued on page 80

Financial Activities

continued from page 79



Source: Federal Reserve Bank of Cleveland.

and was 20 basis points higher than the year-ago quarter and the prepandemic average. The industry's net charge-off ratio was the highest quarterly rate reported since the second quarter of 2013. The credit card net charge-off rate was 4.82% in the second quarter, up 13 basis points quarter-over-quarter and the highest rate reported since third quarter 2011.

Community Banks

Community bankers were optimistic through 2024 and likely will remain so into 2025. Through experience and sound management, community bankers have navigated higher interest rates throughout 2024. Community banks work to court their customers and to aggressively compete for deposits. Nearly nine in 10 community bankers say the cost of funds is a very or extremely important external risk to their bank—up 41 percentage points from 2022 (Conference of State Bank Supervisors' 2024 community bank survey).

Community banks have not faced the same level of deposit outflows as their larger counterparts but have felt the same pressure to defend their deposit bases with significantly higher rates. Community banks have increased what they paid for deposits and narrowed the gap with higher-yielding alternatives in the treasury and markets. That spread is evident when looking at the difference between the average fed funds rate and the industry's cost of deposits.

Interest Rates

For the first time in four years, the Federal Open Market Committee (FOMC, the Fed) lowered interest rates in September 2024 by 50 basis points, a range of 4.75% to 5%. The Fed had maintained higher interest rates to slow inflation and the economy. This move to lower interest rates is expected to trend into 2025.

Interest rate changes may have large impacts on consumer behavior and the level of consumer consumption that an economy can anticipate. Higher rates translate to larger borrowing and financing costs for purchases made on credit. Borrowing becomes less expensive with interest rate reductions.

Consumer Debts

As of May 2024, total consumer debt was $17.4 trillion, up 2.9% from the previous year. As of the second quarter of 2024, consumer debt continued to increase, to $17.8 trillion.

Mortgage debt, including home equity loans, accounted for $12.7 trillion, comprising 72.9% of total U.S. consumer debt. First mortgages were 95.7% of mortgage debt outstanding. Home equity lines of credit (HELOCs) were 2.8% of mortgage debt outstanding.

Nonmortgage debt totaled $4.73 trillion in May 2024. This debt includes 34.7% for auto loans and leases, 31.7% for student loans, and 22.8% for credit card balances. Nonmortgage consumer debt write-offs totaled $11.2 billion, an increase of 18.7% from the previous year.

The total outstanding balances on auto loans and leases increased 2.9% year-over-year, to $1.6 trillion. The number of outstanding accounts was $86.8 million, which is comparable to the previous year's levels. However, the severe balance delinquency (60+ days past due) rate in May 2024 was 1.3%, which is 13 basis points higher than the previous year.

Outstanding balances on bankcards increased 8.8%, to $1.01 trillion year-over-year. The number of outstanding accounts was 550 million, a 3% increase from the previous year. The severe balance delinquency rate (60+ days past due), as of May 2024 was 2.9%. This is a 20% increase over the previous year.

HOUSEHOLD DEBT AND CREDIT, Q3 2024

Category	1-Quarter Change ($ Billions)	1-Year Change ($ Billions)	Total ($ Trillions)
Mortgage	$75	$454	$12.594
HELOC	7	38	0.387
Auto Loan	18	49	1.644
Credit Card	24	87	1.166
Student Loan	21	7	1.606
Other	2	17	0.546
Total	$147	$652	$17.943

Source: Federal Reserve Bank of NY, Quarterly Report on Household Debt and Credit, October 2024. HELOC is a home equity line of credit.

NEW SERIOUSLY DELINQUENT LOANS

Category	Q3 2023	Q3 2024
Auto Loan	2.53%	2.90%
Credit Card	5.78	7.10
Mortgage	0.72	1.08
Home Equity Line of Credit	0.41	0.43
Student Loan	0.77	0.77
Other	4.96	5.50

Source: Federal Reserve Bank of NY, Quarterly Report on Household Debt and Credit, October 2024. Note: represents loans 90 or more days delinquent.

Merger and Acquisitions

Merger, acquisition, and investment activity involving banks and their holding companies continues to attract significant attention from federal banking regulators and the Department of Justice (DOJ). While the review started at the beginning of 2024, the agencies with oversight of banks and bank mergers, the Federal Deposit Insurance Corporation (FDIC), the Office of the Comptroller of the Currency (OCC), and the DOJ, announced changes to their respective bank merger review policies in mid-September 2024. The implications for larger institutions and institutions facing regulatory challenges are more complex and could make the regulatory approval process for merger transactions longer and the outcome less certain.

A total of 28 U.S. bank deals worth a combined $1.59 billion were announced in 2024 through April 15. The first quarter had 26 bank deals with an aggregate deal value of $1.08 billion. By comparison, there were 20 bank deals worth a total $432.8 million announced over the same period in 2023 (S&P Global).

Compounding the apprehension in the acquisition landscape is the increased activity of credit unions purchasing banks. In 2024, credit unions have been acquiring banks at a record pace, with 16 credit union-bank acquisitions announced as of late September. This is more than 20% of bank acquisitions in 2024. The FDIC in bank merger guidelines noted that it may, for the first time, require credit unions to provide more information on proposed bank deals so the agency can assess whether they serve community needs. Credit unions began purchasing banks approximately 14 years ago. There were 14 credit union-bank deals worth around $8.24 billion in total target assets from January 1 through August 19 of 2024. That compares with 11 transactions totaling $1.88 billion in assets last year and 14 deals in 2022 worth $5.15 billion in assets (S&P Global). Colorado allows the sale of a state-chartered bank to another state-chartered bank.

Regulations

The 2024 state legislative cycle was focused on banking legislation. The Division of Banking and Banking Sunset Reauthorization was under consideration by the Colorado Legislature. The Division of Banking is the state regulatory authority for state-chartered banks. The Department of Regulatory Agency, in its sunset report, included a recommendation to authorize credit unions to purchase the assets and liabilities of a bank. Of the nine recommendations in the report, this one recommendation was opposed by many bankers. The sunset bill was introduced with the recommendation in place. Advocacy groups on behalf of bankers worked throughout the legislative session to amend the bill to remove language authorizing a credit union to purchase a bank. Advocates were successful in amending the legislation, and the sunset reauthorization was passed and signed by the governor.

There are numerous unknowns heading into the 2025 calendar year for banking regulation and legislation both at the state and federal level. Elections and appointments will dictate the tone and direction of banking regulation and legislation.

SBA and the Small Business Ecosystem

Fiscal year (FY) 2024 was an active year for America's small businesses. According to U.S. Census, the country experienced a continuation of new business starts. The postpandemic surge in entrepreneurship—led by businesses owned by women, people of color, and high-tech startups—was also evident in the rising number of new business establishments and continued hiring by small firms across the nation.

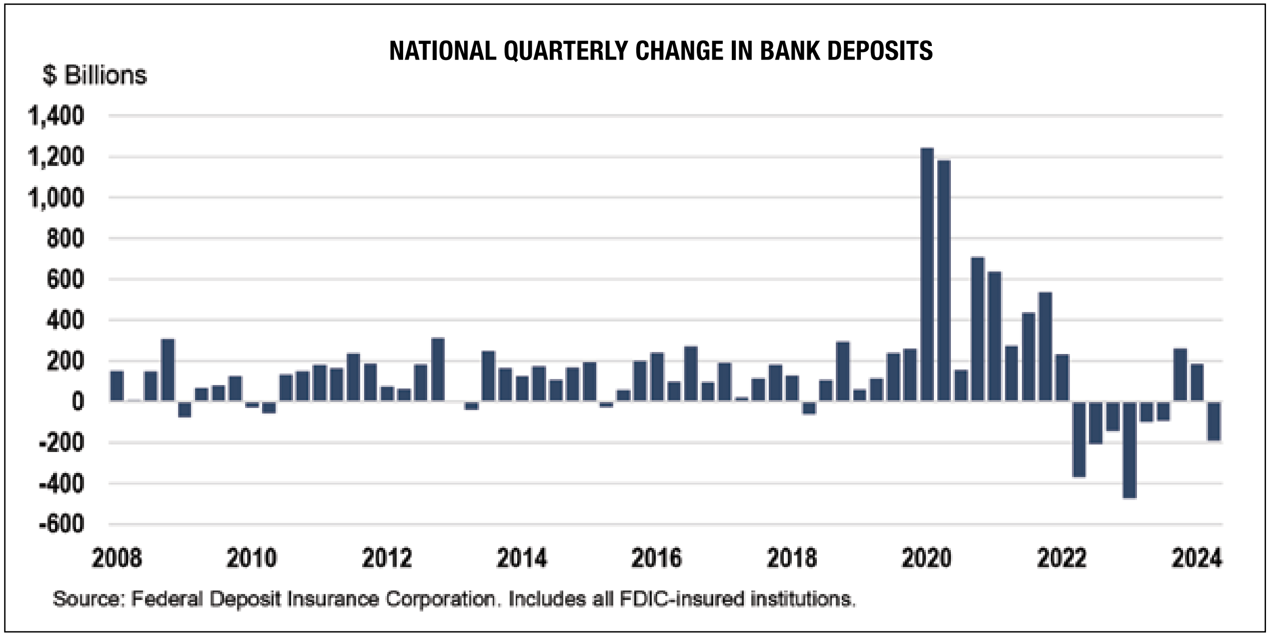
Small businesses are generally defined by the U.S. Small Business Administration (SBA) as independent businesses with fewer than 500 employees. Small businesses comprise 99.7% of firms with paid employees, about 59 million private-sector workers. The number of small-employer firms has increased each year since 2011. In fact, they account for over 61% of net new job creation since 1995. They are considered a vital part of the American economy and workforce as determined by most measures.

In 2024, the SBA continued its work to provide critical resources to the almost 34.8 million small businesses, representing 99.9% of all U.S. private businesses. In Colorado, small businesses represent 99.5% of all private businesses and employ 1.2 million people.

continued on page 82

Financial Activities

continued from page 81



Over the year, small businesses continued to experience some economic pressure, such as higher costs of conducting business, global uncertainty, and the need for additional capital while still debt-laden from pandemic years. In 2023, roughly 70% of small-employer firms had an outstanding debt. About 61% of small businesses held $100,000 or less in debt, and 8% had a balance exceeding $1 million. These debts were mostly in credit cards and loans.

Small-business lending in general was tepid in the first half of FY 2024 as the Federal Reserve held interest rates high. During that period, financial institutions held to tightened standards. Credit remained available to businesses, but at higher cost, which diminished overall small-business lending. The constriction in conventional banking underscored the SBA's success in filling credit gaps. Since SBA-supported financing serves to reduce risk, while banks were pulling back, SBA loans were on the rise. According to Kansas City Federal Reserve survey data, in four of the last five quarters, banks reduced their small-business lending. During that same period, SBA-backed lending rose in four of those quarters.

Core (Traditional) Programs

In 2024, the SBA provided much-needed access to capital via its main core financing vehicles: 7(a), 504, Microlending, Small Business Investment Capital, Disaster Assistance, and the Surety Bond Guarantee (SBG) program.

Per the 2024 SBA Capital Impact Report for 2024, by the end of the fiscal year, the SBA supported 103,000 financings to small businesses. This is the highest level across the agency's core programs since 2008. In addition, 18,000 loans were approved to households for disaster recovery. The SBA also increased its annual capital impact to $56 billion, a 7% increase over FY 2023. The increase was driven by growth in the 7(a) loan program's smallest loans, under $150,000, as well as by loans to female, Black, and Latino/a entrepreneurs.

Colorado's SBA loan activity is riding a multiyear upward trend. The final FY 2024 production was again in closer alignment with prepandemic levels. Across three SBA core finance programs—7a, 504, and Microloans—a total of 2,154 loans were approved in the state for over $1.1 billion. This was an increase of nearly 24% in volume and 11% in dollars compared to FY 2023.

The utilization of SBA programs in Colorado was dispersed geographically, although the bulk were made within the I-70 and I-25 corridors. SBA 7(a) loans were originated in 49 of Colorado's 64 counties. The top five counties in terms of 7(a) approvals were Denver, Arapahoe, El Paso, Jefferson, and Adams. SBA 504 loans were originated in 26 Colorado counties. The top five counties in terms of 504 approvals were Adams, Jefferson, Denver, Larimer, and Arapahoe.

7(a) Lending Activity

The 7(a) loan program provides government guarantees to authorized private-sector and community lenders to help mitigate risk and encourage more of those lenders to make loans to small businesses that otherwise may not qualify for conventional commercial financing at reasonable rates and terms.

In FY 2024, 7(a) loans totaling 70,242 provided over $31 billion to small businesses throughout the nation. Compared to 2023, this was a 22% increase in volume and a 13% increase in dollars. This is the highest level of 7(a) loans made in 15 years and the 5th-highest in history.

Colorado's SBA production experienced a 9.6% year-over-year increase in 7(a) loan approvals, from $856 million in FY 2023 to over $938 million in FY 2024. The number of loan originations also increased by over 25%, from 1,438 to 1,801. The average 7(a) loan size in Colorado increased from $595,247 to $652,515.

Not only has 7(a) loan volume increased, but so has the number of lenders offering the product to Coloradans. A total of 145 different lenders made 7(a) loans in FY 2024 in the state. Huntington Bank was the No. 1 SBA 7(a) loan volume lender for the third year in a row, with

277 approvals. Live Oak Banking Company Bank led the state's lender rankings in loan dollars, with nearly $91.5 million approved.

International Trade

The global economy is highly impacted by geopolitics and trade barriers that arise from such. According to the SBA Office of International Trade, export financing is slowly starting to inch back after the lows of the prior two years. Exporters and financial institutions continue to take advantage of growing overseas markets. With the surge of newly established businesses across the nation and intermittent challenges to the supply chain, small businesses utilized financing in collaboration with other resources within their markets, including State Trade Export Program (STEP) grants and U.S. Commercial Service resources and programs.

There were 278,362 identified firms that exported goods worth $1.6 trillion from the United States in 2021. Approximately 97.4% were deemed small businesses. Exports by small firms reached $541.6 billion, making up almost 35% of exports.

In Colorado, 5,729 identified firms exported goods worth $8.5 billion in 2021. Of those exporters, 87.8% were small. Exports by small firms reached $2.5 billion, making up 28.9% of exports by identified firms.

The 7(a) loan guarantee product offers financing programs specifically focused on supporting international trade and primarily export activities. In FY 2024, a total of 273 loans valued at over $517 million were approved for U.S. small exporters, supporting nearly $1.8 billion in export sales and 5,233 jobs across the United States. This represented increases in loan quantity, dollars, and sales compared to FY 2023.

In Colorado, there were two loans made totaling over $4.1 million in FY 2024, supporting 15 jobs. This is a decrease by half from the previous year's approvals. Exporters in the state may have opted for alternative methods of addressing international trade-related needs by reducing expenses, improving cash management, using nondilutive capital such as grant funds, seeking smaller loans or microlending, or even owner injection. On the distribution side, lenders structuring international finance seemed to prefer larger transactions with more seasoned exporters. Additionally, some participating lenders in the export finance programs experienced staffing changes that may have impacted international trade teams.

Aiming to boost accessibility to financing for small businesses engaged in export activities, the SBA has committed to recruiting and training new lenders, equipping them with the tools to leverage international trade finance programs effectively. In line with this mission, the SBA recently introduced a streamlined working capital program that recognizes export activities as eligible under its lending criteria. This initiative provides small businesses with greater flexibility and easier access to the working capital necessary for international growth. By expanding access to resources and training, the SBA hopes to create a more robust support network for businesses venturing into global markets.

New Working Capital Pilot Program

In FY 2024, the SBA introduced the agency's first new pilot loan product in over 10 years: the Working Capital Pilot (WCP). This new product provides flexibility to meet the market needs using either Transition-Based WCP or Asset-Based WCP and provides an innovative fee structure to support growth-oriented businesses that previous SBA loan products could not always support. The WCP is unique in that it can reduce the number of SBA loan vehicles a business needs if they have both exporting and domestic need as uses of proceeds. In the first two months of the program, SBA lenders approved over $6 million in WCP loans. FY 2025 will be a baseline year for data.

504 Loan Activity

The 504 loan program is a low fixed interest rate, public-sector/private-sector partnership financing tool that assists small businesses owners in financing long-lived assets, such as real estate and capital equipment essential to business operations.

As a program designed to appeal to small businesses looking to own rather than lease assets, such as commercial real estate and/or equipment, the SBA's 504 loan volume is highly dependent on demand and availability of financing for long-lived assets. Long-term interest rates also tend to greatly impact program utilization.

With higher costs and interest rates over the last few years, there was a notable decline in demand for owner-occupied commercial real estate. Therefore, the 504 loan program lagged in production across the country and in the state in contrast to the growth in 7(a) lending. However, in the latter part of 2024, the Federal Reserve started signaling rate cuts, and in September, cut its benchmark rate for the first time since March 2020. Since this loan product is highly impacted by interest rates, the 504 loan program started seeing a rebound from the previous years' decline in approvals. Working through authorized Certified Development Companies (CDCs), the program delivered 5,993 loans worth $6.7 billion to small businesses throughout the country. This was an increase of 1% in volume and 4% in dollars overall.

In Colorado, the 504 loan program comeback fared better than the national one. A total of 156 loans were made though the 504 loans program in FY 2024 compared to the 144 made in FY 2023, an increase of over 8.3%. The total dollars in 504 loan approvals also increased by 19%, from $137.5 million to $163.7 million. The average size of an SBA 504 loan in Colorado increased from $955,160 to almost $1.1 million, likely attributable to the higher costs of both real estate and construction.

Nine different CDCs, paired with 64 first mortgage lenders, participated in 504 loans in the state in FY 2024. B:Side Capital was No. 1 SBA 504 CDC lender, with 89 approvals totaling approximately $86.5 million. The first mortgage participation loans required as part of the 504 total financing packages added nearly $220 million in

continued on page 84

Financial Activities

continued from page 83

additional capital for Colorado-based small businesses. The most active first mortgage bank partner was FirstBank, participating in 28 deals, totaling almost $26 million in companion loans to the 504 projects.

Mission-based Lending

The SBA facilitates microloans in smaller increments up to $50,000 through designated intermediary mission-based nonprofit lenders to assist emerging small businesses that may be unable to secure financing from conventional sources to start and grow.

In FY 2024, approximately $94 million in microloan funding went to 5,800 small businesses. This was an almost 3.9% increase in volume and a 7.7% increase in dollars over the previous year.

In Colorado, there was lingering competition for this particular target market via various community-based lending, state-level, and local revolving loan programs. However, Colorado still experienced an increase in approvals in SBA microlending. At year end, 197 microloans totaling $2.7 million were accessed by the state's small businesses, representing an increase in volume by almost 25.5% and an increase in dollars by over 6% year-over-year. The number of jobs created and retained increased from 885 to 1,267, while the average microloan size decreased from $16,222 to $13,728.

Colorado has four approved SBA-designated intermediary lenders. Three of these lenders originated SBA microloans in FY 2024. The largest volume delivered in numbers and dollars was through Colorado Enterprise Fund, with 139 loans totaling over $1.2 million.

Surety Bond Guarantee

Many public and private contracts require surety bonds, offered by surety companies. Surety bonds help small businesses win contracts by providing the end user with a guarantee that the work will be completed. SBA guarantees bid performance and payment surety bonds issued by licensed surety companies.

Complementing the SBA's traditional lending program performance was a strong year for the agency's Surety Bond Guarantee Program. The program continued its three-year positive trend, due to increased public and private awards that created more opportunities for small businesses to compete for bonded contracts. Nationally, SBA provided 11,092 bond guarantees totaling over $9.2 billion in contract value to small businesses. It represented a 19.7% increase in bond guarantee volume and 25.4% increase in total dollars compared to FY 2023. Nationwide, 2,036 small businesses were assisted by 33 active surety companies. The average contract size in FY 2024 was $701,385.

The total number of surety bond guarantees in Colorado for FY 2024 was 226, an increase of 35.3% over FY 2023 values. The total contract value in Colorado at fiscal year-end 2024 was almost $130.2 million in bond guarantees, also a year-over-year increase by nearly 27.5%.

Generally, a healthy construction industry fuels demand for this type of access to capital. The increase in activity from FY 2022 through FY 2024 suggests that construction industries are stabilizing after the challenges associated with postpandemic years. In addition, more infrastructure projects funded under the Bipartisan Infrastructure Law (Infrastructure Investment and Jobs Act) became shovel-ready during the last year. The SBA expects need and demand for its bond guarantees to continue to increase in FY 2025 as the construction and surety industries find more opportunities to do business in Colorado.

Looking Ahead

Small businesses are still the backbone of the nation's economy. They account for 43.5% of U.S. GDP, create two-thirds of net new jobs, and employ nearly half of America's private workforce. They account for 39% of private-sector receipts and 35% of known export value. They also reinvest 68% of revenues to build and sustain communities.

The main macroeconomic concerns likely to impact small business growth in the coming year are elevated costs of doing business all along the chain, including labor costs, global turbulence, the perception of political uncertainty in a national election year, and access to capital.

Demand for small business working capital loans is on the rise, and according to the 2024 Federal Reserve Small Business Survey, more than one in three businesses that seek financing are requesting a line of credit or similar product. A rate-cutting cycle by the Federal Reserve will likely reverse the contraction in bank credit standards and improve access for small businesses. Furthermore, the lower benchmark rate, and potential further rate cuts, present opportunities. The cuts could impact the ability to refinance any higher interest existing debt acquired in the last two to three years. Likewise, the recent Federal Reserve rate cut may provide some welcome relief in seeing monthly payments on variable rate drop by at least 0.5%.

Businesses of all varieties also seeking patient capital in the form of equity financing, and in particular, startups in advanced industries are more likely to access the investment capital they require through a supported program. The SBA's programs will continue to deliver a market solution by offering government-backed loans and investments with favorable terms to fill market gaps and get needed funding into small businesses.

Additional opportunities for Colorado small business growth are via governmental contracting, given the vast local, state, and federal procuring power concentrated in the state, additional support for Colorado small manufacturing employers, and market expansion through global business development.

While there are some challenges, the U.S. is experiencing a small-business boom. Postpandemic, the number of new small businesses in the U.S. spiked, and that trend appears to be continuing. Having already achieved the first-, second-, and 3rd-strongest years of new business applications on record, 2024 remains on track for the 4th-consecutive year of historic business filings. Since 2020, there have been 19 million new business applications, with an average of 443,000 filed each month. This is a rate 92% faster than the prepandemic average. This historic small business boom has been driven by women and people of color.

Small business has large impact on Colorado—with approximately 684,726 small businesses in the state—and has historically been a major source of new jobs. In Colorado, small businesses employ 47.3% of Colorado workers. The top three industries represented by small businesses are: Professional, Scientific, and Technical Services; Construction; and Real Estate, Rental and Leasing. In terms of demographics, women owned 44.8% of businesses and made up 45.9% of workers. Veterans owned 7.1% of businesses and made up 6% of workers. Racial minorities made up 15.1% of workers and owned 8.3% of businesses. The largest demographic of minority-owned small businesses is found in the Hispanic community, with 12.2% of business ownership and 19.4% of the workers.

Colorado is recognized as a great place to start and grow a small business. Every level of government, nongovernmental entities, trades, and private industry are supportive of small business development efforts. Data show that Colorado experienced a 15% growth in business applications filed year-over-year, with almost 143,000 new applications. Colorado ranks fifth in business applications per capita, and 5.5% of new businesses are projected to become employer businesses. These numbers are slightly down from last year, especially in forecasting the number of employees needed. The conversion from application to business formation is a measure to watch. On average, almost 10% of applications led to actual formation. As new small businesses begin to grow, they employ additional people.

There is a wide and vast network of resource providers at all levels of government, nonprofits, foundations, mission-based institutions, and trade associations all willing and ready to support small business development in the state. By expanding access to resources and training, the SBA and its partners hope to create a more robust support network for founders, innovators, and tomorrow's entrepreneurs. The impediment is that it takes capital to keep the programs operational and impactful.

Ongoing support for new and growing small businesses and reinforcement of Colorado entrepreneurship support network will be critical to empowering resiliency, growth, and innovation—all crucial to the state's future economic condition.

Colorado Credit Unions

Colorado credit unions saw stability and strong economic performance in 2024. Continued growth is projected for 2025, with moderation inflation as well as a moderate rise in unemployment.

Colorado credit unions continued to grow in 2024, and GoWest forecasts modest deposit growth of 2%, membership growth of 4%, and loan growth of 7.5%. Colorado credit unions also continued to open new branches and add employees in 2024. While delinquency rose, it remained below historical norms, and although operational expenses rose relative to income, Colorado credit unions continued to have strong earnings.

2025 Key Metrics Forecast

Loan Growth—In 2025, loan demand is expected to increase and 11% loan growth is anticipated for the year.

continued on page 86

Financial Activities

continued from page 85

Continued rate cuts by the Federal Reserve in 2025 will be particularly good for credit unions as the short end of the yield curve is expected to respond and move lower more quickly than the longer end of the yield curve that should result in strong auto lending throughout 2025. The auto market will be buoyed as auto prices continue to decrease, particularly for used autos. Strong mortgage and commercial loan growth will continue.

Membership Growth—Colorado credit unions are expected to have strong membership growth in 2025, at 6%. Colorado's 73 credit unions report membership growth. Overall, memberships increased by 40,000 between the end of 2022 and the second quarter of 2023, and credit union employment has also increased but employment growth has slowed.

Deposit Growth—The forecast is for 5% overall deposit growth for Colorado credit unions in 2025. Expect core deposits to grow in 2025 as term deposit accounts become less attractive with lower interest rates.

Sensitivity Risk—Colorado credit unions for the most part have low exposure to rate sensitivity. Both credit union professionals and supervisory authorities are tracking these trends closely, measuring, monitoring, and controlling this risk. In short, the industry reflects manageable exposures to interest rate risk and few significant concerns on the horizon.

Liquidity—While deposit growth has continued, loan demand has far exceeded deposit growth in 2024, which has resulted in a loan-to-deposit ratio over 90%, a key indicator of liquidity. However, Colorado credit unions' borrowings have declined from 9% of deposits to about 6% of deposits. Borrowings are expected to increase in 2025 to cover the mismatch in loan demand relative to deposit growth.

There continues to be very few excess deposits across all lending institutions, which will create significant competition for deposits. This will also result in interest rates remaining elevated relative to wholesale borrowing costs, which will increase spreads. In addition, credit unions are expected to put more focus on loan quality in 2025.

Earnings—Return on assets are expected to be higher in 2025 and are forecasting 0.7% growth for the year. Net interest margin will rise in 2025. The cost of funds will come down in 2025, and investment portfolios will improve as low yielding investments continue to roll off and recent longer-term investments made over the past 18 months create income opportunities that will help improve liquidity. However, rising operational expenses will continue to put pressure on earnings.

Capital—Colorado credit union aggregate capital as a percent of assets started 2024 at 9.9% and is forecast to end the year at 10.9%. The committee expects capital relative to assets to continue to rise throughout 2025 and are forecasting that capital to asset will be at 11.5% by the end of 2025. The sector's aggregate capital ratio is expected to be over 4% percentage points higher than the level deemed to be "well capitalized" by regulatory authorities.

Insurance

Insurance Industry

Rising Premiums and Market Shifts: The Future of Colorado Insurance

The insurance market in Colorado reflects many evolving global trends, particularly increasing property insurance premiums. The continued fallout from the COVID pandemic, including supply chain issues, evolving cyber threats, rising inflation, and worsening natural disasters due to climate change, has fundamentally reshaped the insurance landscape. These factors have led to hardened market conditions for the past eight years. According to Lloyd's of London CEO John Neal, this hard market is now being referred to as a "super-cycle" and is likely to be prolonged, prompting limited capacity, a continued focus on disciplined underwriting standards, and marginal premium increases across many commercial and personal insurance lines of coverage.

The insurance market is cyclical, with hard and soft markets typically cycling every five to seven years. According to data from the Council of Insurance Agents and Brokers, the overall market has been gently coming down from the hard market that started in 2018 and peaked at the end of 2020. These cycles affect the availability, terms, and prices of commercial and personal lines insurance products. However, this 5- to 8-year cycle trend now seems to be extending into an 8- to 10-year super-cycle, meaning it could be 2026 before insurance carriers start securing enough profit in their combined loss ratios and investment strategies to start cutting rates.

According to a recent article in the *Carrier Management Magazine* (July 23, 2024), S&P Global Market Intelligence is forecasting a U.S. insurance industry combined loss ratio of 99.2 overall. This is a decrease from a 103% combined loss ratio in 2023.

While Colorado has been relatively immune from catastrophic losses since the December 2021 Marshall Fire, recent events like the Lahaina Fire in Hawaii remind us that climate change continues to make underwriting risk excessively challenging, driving up insurance costs for Colorado homeowners. Recent Hurricanes Helene and Milton will also significantly impact the insurance industry loss ratios and could surpass $50 billion in claims just for those two storms. The U.S. homeowners' market has experienced severe losses since 2020, and this trend, unfortunately, has continued into 2024. The insurance industry will have to continue to pass these costs onto consumers to keep up with loss trends.

As we all know, 2024 was an election year, and this always creates uncertainty for the stock market and returns on investments. Insurers generate their revenue through underwriting profits and investment profits from reinvesting the collected premiums. Higher interest rates over the past few years have allowed insurance carriers to gain additional revenue, which has helped offset and start to balance out underwriting losses against investment gains.

While rising interest rates may offer more secure investment instruments for insurers, global instability, including ongoing conflicts in Gaza and Ukraine, climate change issues, unknown impacts of AI, inflation, and transitioning employment models, may minimize investment opportunities. This lower investment yield could result in continued premium increases overall, but it appears that investment yields are starting to return. Therefore, insurance rates in certain classes may stop rising so quickly and start leveling off.

The increased investment float from rising premiums may be countered by the tenuous real estate market. Insurance carriers and brokers have significant investments in real estate, both directly through their office space utilization and indirectly through insuring companies that own significant property. As the real estate market continues to struggle with post-COVID office vacancies, widely accepted work-from-home policies, and higher mortgage rates, 2025 will not likely provide strong investment returns for insurance carriers in this realm. The Colorado insurance market consists primarily of numerous regional providers and branch offices of global participants. Companies are already reevaluating their office space needs, and the trend toward more spacious and accessible office space may lead to moves from urban centers to suburban branches where parking and safety concerns can be better managed. Recent trends show many insurance carriers in the Denver area moving to much smaller office spaces with employees working remotely.

Property and Casualty Markets

General Liability—The year 2025 is expected to see continued increases for liability insurance carriers. Many reinsurance carriers are experiencing ongoing challenges. According to an October 2024 article in the *Insurance Journal,* Lloyd's CFO Burkhard Keese highlighted the increased risk of litigation and social inflation as persistent issues, with underwriters expected to adjust pricing accordingly. He stated, "Without any doubt, the claims trends we have seen in the last five years are concerning, and we have no indication that this trend will not continue."

Although higher premiums and interest rates are improving overall industry results, long litigation tails, social inflation issues, and significant increases in nuclear jury verdict cases remain critical concerns. Premiums are based on multiple factors, including an insured's revenue, risk exposure, and loss history. Nuclear jury verdicts are impacting insurance premiums across all lines of 3rd-party liability coverage, with insurers factoring in accelerating legal and indemnification costs and passing these costs onto policyholders through rate increases.

Auto Liability—Auto insurance continues to be unprofitable for insurers despite year-over-year rate increases since 2011. For the first time in many years, the overall combined loss ratio for personal auto is below 100%, at 98.4% for 2024. Unfortunately, commercial auto rates continue to struggle, with a 109% loss ratio in 2023 and only a slight improvement expected in 2024.

Colorado is adversely impacted by several trends, including a growing population resulting in increased driving density. Supply chain concerns and labor shortages are affecting the repair and replacement of insured vehicles and the cost of rental vehicles, aligning with vehicle replacement issues. Additionally, the severity of auto-related accidents continues to rise, leading to ever-increasing medical costs for injured parties, ultimately driving up insurance premiums.

Drivers on Colorado roads have reached prepandemic levels, and it seems that driving behavior has worsened, resulting in more severe claims. Top trends causing claims continue to be driving under the influence and distracted driving, with approximately 32% of all auto accident fatalities involving impaired driving.

The committee projects that auto liability insurance rates will increase by 7% to 15% in 2025 and may continue to rise into 2026 due to these persistent challenges. However, it is likely that we will start to see somewhat of a downward shift in the increases.

Property—Colorado is considered a high-exposure area for risks of loss directly correlated with global warming trends, including wildfires and resulting flooding from the loss of natural landscape mitigation. Severe convective storms (wind) and hailstorm damage continue to impact the Colorado property market, with homeowners expected to see premium increases in 2024 as insurers recover from past events like the May 2017 storms that resulted in $2.4 billion in damage over a 45-minute period. According to the Rocky Mountain Insurance Information Association, Colorado has the highest frequency of large hailstorms annually in the United States. In the last 10 years, hailstorms in Colorado have caused more than $5 billion in insured damages.

Supply chain issues and inflation are detrimentally impacting the cost of goods and the ability to retain vendors and appropriate labor for repair and replacement regarding these insurable losses. Insurance carriers are increasingly requiring policyholders to self-insure against wind/hail-related claims by applying 3% to 10% wind/hail deductibles on property policies. The industry is starting to offer alternative options for wind/hail buyback coverages and certain parametric insurance coverages designed for various storm attributes, such as hailstone size, depth of snowfall, and flood depths.

The committee projects that property insurance rates will continue to increase by 15% to 30% in 2025 and will continue to rise in 2026 due to ongoing challenges but hopefully not as drastic.

Colorado's mountain properties continue to face significant challenges, with insurance carriers pulling out of the market and others charging astronomical rates for properties in high wildfire areas, which include most of Colorado's resort locations. Some homeowner associations are experiencing property rate increases as high as 500%. Older properties without fire sprinkler systems,

continued on page 88

Financial Activities

continued from page 87

frame construction, electrical and plumbing updates, and those located farther from staffed fire stations are seeing the biggest impacts. This is likely to lead to increased rental costs for seasonal and vacation properties, higher HOA dues for owners, and increased costs for real estate sales for those looking to purchase vacation properties in the mountains.

On May 12, 2023, Governor Polis signed into law the Fair Access to Insurance Requirements Plan (FAIR) (HB23-1288), designed to provide property insurance coverage for homeowners and businesses when coverage is unavailable through traditional insurance markets due to elevated risk factors. This new legislation is expected to go into effect on January 1, 2025, once the selected Fair Plan Association Board of Directors establishes the plan of operation. The Fair Plan Program will help provide property insurance coverage for personal residences valued up to $750,000 and commercial properties valued up to $5 million.

Workers' Compensation—Workers' compensation insurance premiums, under the recent National Council on Compensation Insurance, will decrease again in 2025. Estimates indicate that the combined loss ratio went down another 1% compared to 2023. It is expected that the Colorado Division of Insurance will once again approve additional reductions for 2025 in the state of Colorado. It is likely that this trend will continue into 2026, providing some relief for businesses in managing their insurance costs.

Umbrella/Excess Liability—The last few years have been extremely challenging for the umbrella/excess liability market. Nuclear verdicts (jury awards exceeding $10 million) and social inflation continue to strain jury claims, resulting in payouts that penetrate multiple layers of capacity for the umbrella market. According to Risk Placement Services, in 2022, awards from nuclear verdicts surpassed $18 billion compared to $9.1 billion in 2021 and $4.9 billion in 2020. *Risk & Insurance* magazine reported in May 2024 that nuclear verdicts reached record payouts totaling more than $14.5 billion in 2023. The most common types of lawsuits resulting in these payouts are auto claims, predominantly in the trucking industry, product liability claims, and claims in the construction industry.

Recent National Legislative Changes—particularly in Florida due to the 2021 Surfside condo collapse—may impact the national reinsurance market and could cause significant increases in lawsuits around the country. Time will tell whether such changes could impact other exposures, such as wildfires, that are prevalent in Colorado.

According to the Council of Insurance Agents and Brokers, umbrella rates have stabilized after several years of premium increases exceeding 20%. While rates have been reduced in part due to increased competition, companies appear reticent to offer higher layers of coverage. This trend toward risk aversion may be amplified if looming recession talks come to fruition and nuclear verdicts continue to infiltrate the court system. The committee projects that umbrella insurance rates will increase nominally by 5% to 12% in 2025 and may continue to rise in 2026 due to ongoing economic uncertainties and legislative impacts.

One area of difficulty for the current umbrella market is obtaining increased limit capacity. Although umbrella premiums may not be increasing significantly, it may be harder to secure higher limits. For example, if a manufacturer has typically carried a $10 million umbrella limit in the past, it may now only be able to affordably obtain a $5 million umbrella limit.

Cyber Insurance—Evolving technology, increased threat vectors, and growing attacker sophistication have driven up, and will continue to drive up, both the frequency and severity of cyber incidents, resulting in an ongoing rise in cyber insurance claims and subsequent underwriting losses. Amid these market conditions, the cyber market has seen significant policy purchasing, allowing the market to have adequate reserves to help pay for potential cyber threats.

According to industry data, it appears that we are getting smarter and now using more security tools such as multifactor authentication (MFA) to protect our networks, email systems, and databases, which has resulted in a decrease in significant cyber claims. MFA, endpoint encryption, and ransomware protections have become ubiquitous system controls and are required by insurers merely to be considered for coverage. Policyholders who fail to adopt proper cybersecurity protocols or experience a rise in cyber losses may continue to face rate increases and coverage limitations for the foreseeable future.

The committee projects that cyber liability insurance rates will increase by 5% to 10% in 2025 and may continue to rise in 2026 due to the persistent and evolving nature of cyber threats.

Health Insurance and Employee Benefits

Health Care—The Colorado health insurance market continues to be increasingly competitive, partly due to attrition as the state loses insurers interested in conducting business here. Under the Colorado Option instituted in 2023, insurers are mandated to lower premiums while enhancing an array of services to comply with the Affordable Care Act. The Dobbs decision by the Supreme Court regarding reproductive rights will affect all 50 states, and Colorado has been recognized as a haven for those seeking services restricted in their home states. This situation has clearly impacted state social service costs.

According to an October 2024 announcement by the Colorado Division of Insurance, Coloradans enrolling in individual health plans in 2025 will see an average increase of 5.6%. Small-group employers (99 employees or fewer) will have an average increase of 7%.

Primary forces driving increased health insurance premiums include rising provider costs, soaring drug prices, and continued fallout or backlog from the pandemic and delayed care. Our aging population, the rise in chronic health conditions, and escalating mental health issues also continue to be ongoing concerns.

The committee projects that employers' insurance rates will see continued increases in the 5% to 9% range in 2025 and will likely continue to rise in 2026 as new medical treatments and competitive pressures shape the market.

Summary

General Liability—Premiums are expected to continue rising in 2025 due to increased litigation risks and social inflation. Underwriters are adjusting pricing to account for these higher risks, with nuclear jury verdicts significantly impacting costs.

Auto Liability—Personal auto insurance has seen a slight improvement, with a combined loss ratio below 100% for 2024. However, commercial auto remains unprofitable, with high loss ratios driven by increased driving density, supply chain issues, and worsening driving behavior. Rates are projected to increase in 2025.

Property—Colorado faces high exposure to wildfires and hailstorms, leading to rising property insurance premiums. Homeowners are experiencing significant rate increases, and insurers are requiring higher deductibles for wind/hail claims. Rates are expected to continue rising in 2025.

Mountain Properties—Insurance carriers are withdrawing from high wildfire risk areas, resulting in steep premium increases. This will affect rental costs, HOA dues, and real estate sales in Colorado's mountain regions. The Colorado FAIR Plan could provide some coverage relief for high-risk properties starting in 2025.

Umbrella/Excess Liability—The market is strained by nuclear verdicts and social inflation, with significant payouts impacting multiple layers of coverage. While rates have stabilized, obtaining higher coverage limits is challenging. Rates are projected to increase in 2025.

Cyber Insurance—Increasing cyber threats and sophisticated attacks are driving up claims and underwriting losses. The adoption of security measures like MFA is reducing significant claims, but rates are still expected to rise in 2025.

Health Care—The Colorado health insurance market is impacted by competitive pressures and regulatory changes. Rising provider costs, drug prices, and an aging population are driving up premiums. Individual plan rates are expected to increase by 5.6% and small-group plans by 7% in 2025.

Real Estate and Rental and Leasing

Commercial Real Estate Markets

Commercial real estate markets in Colorado saw improving conditions in 2024, albeit bifurcated and modest, and are expected to improve more broadly in 2025. Colorado's competitive advantages of continued population and job growth support expansion across all sectors while housing affordability and regulatory challenges are notable limiting factors. Investment sales activity picked up in the second half of the year spurred by the Federal Reserve's 50-basis-point rate cut, which also improved occupier sentiment in support of leasing decisions and signaled the "bottom" for many investors. While the high cost of capital, construction cost inflation, and regulatory challenges have cumulatively resulted in a significant pullback of new inventory in the construction pipeline across all major property sectors, look for rental rates to strengthen and vacancy rates to decrease amid ongoing demand for quality space in Colorado's commercial real estate markets.

Metro Denver

Metro Denver's commercial real estate markets on the whole have seen greater stability in 2024 despite a prolonged period of high interest rates that was expected to lead to greater economic headwinds, which have only gradually materialized. The office sector continues to struggle with high vacancy stemming from employees working remotely on a more hybrid or permanent basis, although there is some submarket bifurcation as Cherry Creek outperforms other Metro Denver submarkets and recent announcements by Amazon and Starbucks are helping to solidify support for return-to-office policies.

Both the industrial and multifamily sectors were facing supply challenges that were largely induced by pandemic-related factors. However, concerns about oversupply, coupled with high development costs, have curtailed construction, and strong tenant demand has absorbed much of the new supply. Once considered the least favorable of the major property types, the retail sector has experienced a strong postpandemic recovery highlighted by its lowest rates of available space in more than a decade.

The unemployment rate for the combined Metro Denver region, including Boulder, stood at 4.1% in September 2024, an increase of 90 basis points from the 3.2% rate seen at the same time a year earlier. According to the Colorado State Demography office, the population for the combined Denver-Boulder MSA increased by 26,800, or 0.8%, from 2020 to 2023. Net migration for the same area and time period was slightly positive, with a total of 7,200 residents gained. Much of this was pandemic-driven as some residents moved back to their home states or to other areas across Colorado due to the prevalence of remote work. More positive net migration is projected for 2024, 2025, and beyond.

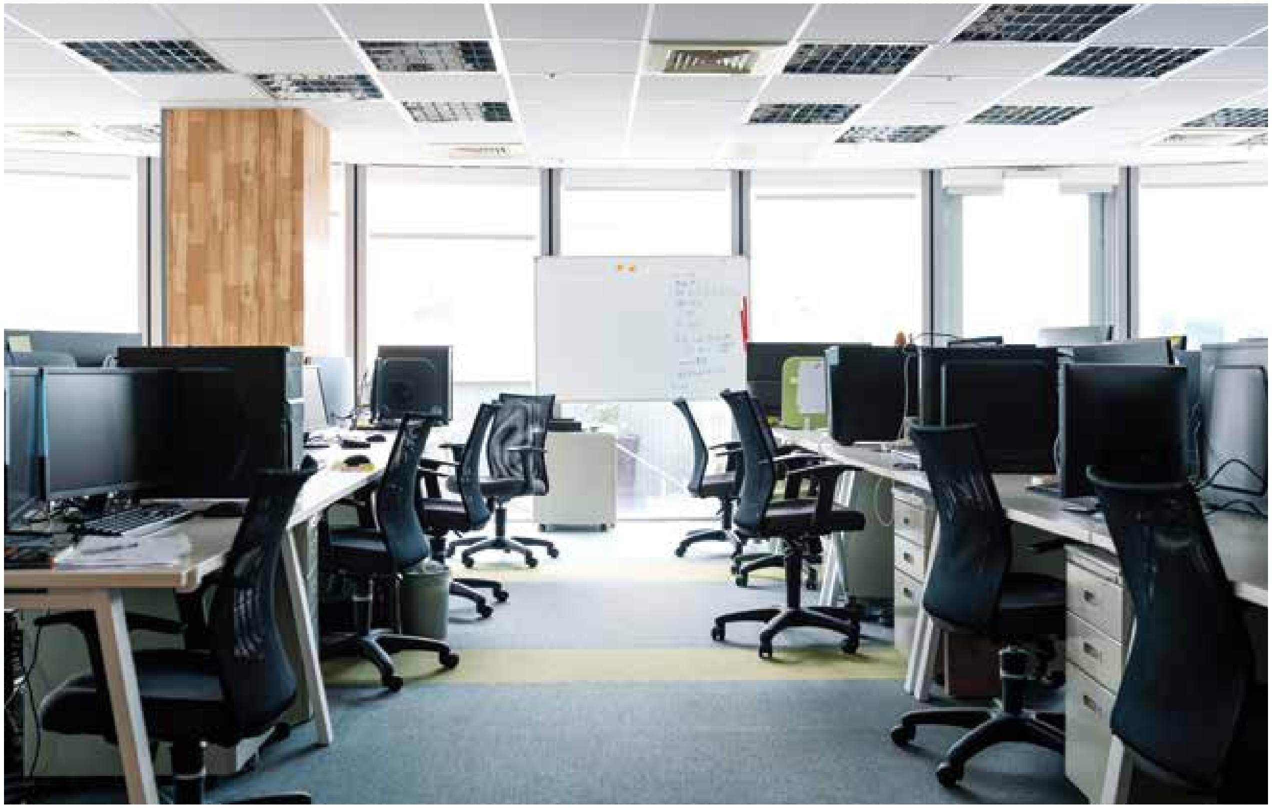
Metro Denver's diverse and innovative economy, talented labor pool, and high quality of life continue to garner accolades and rankings. The Denver Metro area is home to nine Fortune 500 companies representing a broad range of industries. Notable companies on the list include Arrow Electronics, EchoStar (formerly Dish Network), Ball, Liberty Media, and DaVita. Data from the 2023 Census American Community Survey show that more than half, or 51.4%, of residents in the Denver-Boulder combined MSA have a bachelor's degree or higher.

Metro Denver's office market has continued to experience postpandemic challenges and economic pressures. As office occupiers are making leasing decisions, they are opting for smaller and more flexible spaces rather than larger footprints, reflecting the more permanent shift toward hybrid work models. According to the Downtown Denver Partnership, employees' return-to-office

continued on page 90

Financial Activities

continued from page 89



ratio in downtown Denver in September 2024 was 56.8% of the September 2019 prepandemic level. This marks a decrease from the 60% seen in August. Looking ahead, the 2024 Americas Office Occupier Sentiment Survey found that while 80% of organizations have return-to-office policies, only 17% of the organizations enforce them, leading to a significant gap between employer expectations and employee behavior. By investing in advanced technology, companies are enhancing the hybrid work experience and encouraging employees to adhere to office attendance policies, aiming to create a more efficient and connected workplace.

In 2024, according to a Q3 2024 CBRE report, occupiers are still adjusting their portfolios, with negative 1.2 million square feet of total net absorption year-to-date through Q3. This marks a 16.6% decrease compared to the negative 1.4 million square feet year-to-date total in Q3 2023. Total office vacancy increased 190 basis points year-over-year, to 24.8%. Moving forward, the office market is expected to gradually recover, but elevated vacancy rates may persist due to the shift toward remote and hybrid work models, which have reduced the demand for traditional office space and relatively obsolete product. Sublease availability declined to 5.6 million square feet in Q3 2024, falling from the previous peak of 6.6 million square feet recorded in Q1 2023. The market average asking lease rate has continued to see a modest rise, increasing 3.7% year-over-year, to $33.82 per square foot full-service gross. The development pipeline totaled 734,000 square feet across six properties as of Q3 2024. The market's most recent sizable completion was 1900 Lawrence, which spans 704,000 square feet of highly amenitized space in the Downtown submarket. In total, seven projects delivered during the first three quarters of 2024, adding a total of 1.4 million square feet of office space to the market.

Leasing activity has experienced a slight setback, with 1.2 million square feet of leases transacted in Q3 2024, a decrease of 20.6% quarter-over-quarter. Compared to Q3 2023, leasing activity fell 10.1%. The rolling four-quarter total was 4.9 million square feet, slightly lower than the prior quarter's mark, but 8.3% higher than the total from a year ago, indicating that activity remains suppressed and volatile. Class B properties held a dominant market share in Q3 2024, with 751,000 square feet of transactions, or 63.7%, of total activity. Renewals accounted for a growing share of leasing activity in 2024 as expansion growth continued to stall while companies navigated the remote-work dynamic and continued to right-size their office space. Notwithstanding these real estate challenges, Metro Denver continues to have a growing presence of technology, aerospace and defense, business services, and government companies. Colorado ranks the No. 2 best state for tech careers, and Denver ranks the No. 3 best city for young professionals to live in, according to 2024 rankings published by CBRE. In 2024, Cherry Creek outperformed the Downtown and Southeast submarkets, solidifying its reputation as arguably one of the most desirable office submarkets in the country. This is attributed to its abundant amenities, walkability, high-quality office spaces, and strong perception of safety.

Denver's industrial market continued to experience strong demand, keeping fundamentals stable despite a steady stream of speculative deliveries in 2024. According to a Q3 2024 CBRE report, Metro Denver posted over 1.4 million square feet of positive net absorption in Q3 2024, pushing the year-to-date total to 2.3 million square feet and marking only a 7.9% decline compared to this time last year. The I-76 Corridor submarket has seen the greatest amount of move-ins so far in 2024, achieving positive 1.1 million square feet of total net absorption. This was the result of third-party logistics (3PL) provider BroadRange Logistics occupying 1.1 million square feet in two recently completed buildings. Tenants across a wide variety of industries continue to fill newly delivered projects, highlighting the sustained demand for new industrial product in the Denver market. Total leasing activity increased in Q3 2024, with 8.7 million square feet transacted year-to-date, a 25.5% increase year-over-year. Historically, 3rd-quarter activity over the past five years averaged just over 3.2 million square feet leased.

Construction activity in Metro Denver continued to decline after the boom it experienced post-2019. This resulted in the industrial development pipeline falling 13.9% quarter-over-quarter and 32.1% year-to-date, ending with 24 buildings under construction spanning just over 3.9 million square feet. Major completions included Sun Empire Buildings 1A and 1B totaling 830,000 square feet in the Airport submarket. The amount of speculative development continued its downward trend, with 47.8% of the total square feet currently under construction already preleased. With the completion of Sun Empire Buildings 1A and 1B, the Airport submarket has no remaining speculative projects underway and its lowest amount under construction since Q1 2018. For the overall metro, the total square feet under construction has not been this low since Q1 2019.

The direct vacancy rate in Metro Denver experienced a slight dip, falling 10 basis points quarter-over-quarter to 7.7%, but still increased 70 basis points year-over-year. While the typical driver of increased vacancy in the Metro Denver region was still present, as speculative construction deliveries brought 983,000 square feet of vacant space to the market, positive absorption in big-box properties was enough to give the region its first quarter of decreasing direct vacancy since Q4 2022. With minimal speculative developments breaking ground and current projects reaching completion, new deliveries should have a lesser impact on vacancy going forward. The sublease availability rate for the Denver Metro region remained the same at 0.8% and has decreased 10 basis points year-over-year. The overall average direct asking rent reached $9.60 per square foot in Q3 2024, recording a 1.5% increase quarter-over-quarter and 6.8% year-over-year. The increase reflects the ongoing demand for functional space, despite challenges posed by economic uncertainty and higher capital costs. The average achieved rent in the region came in at $7.77 per square foot NNN. (NNN refers to triple net leases, net of property taxes, insurance, and operating expenses.) Looking ahead, while leasing demand is expected to remain strong, market conditions may moderate as inflation and cost of capital pressures influence both occupiers and developers. However, high demand for built-to-suit (BTS) projects will continue to drive leasing activity in the short term, even as speculative development slows.

From the retail perspective, many of the complications and uncertainties brought on by the pandemic are in the rearview mirror. Denver's retail sector continued to see improving market fundamentals well into 2024 as it ended the third quarter of 2024 with an availability rate of 4.7%. This represented a 10-basis-point decrease from Q2 2024 and a 40-basis-point drop year-over-year. The total retail square feet absorbed in Q3 2024 was 207,000 square feet, compared to 528,000 square feet in Q2 2024 and 368,000 square feet in Q3 2023. Demand from tenants has remained strong as consumer spending has stayed resilient despite concerns of weakened sentiment tied to a slightly softened labor market and persistently high borrowing costs.

Despite the sector's strong performance, retail development has slowed considerably in the face of elevated development and capital costs. New retail deliveries amounted to 103,000 square feet in Q3 2024, which was down from 308,000 square feet in Q2 2024 but more in line with the 156,000 square feet that delivered in Q3 2023. The average asking rent for Metro Denver retail space has declined slightly from its peak of $21.15 per square foot in Q4 2023, ending the current quarter at $20.01 per square foot. This represents a $0.47 decrease from the average in Q2 2024. Given the market's limited overall availability, the recent drop in the market average rent is tied to more availability in the periphery submarkets. As the Federal Reserve has begun to cut rates, the outlook for capital markets has improved, particularly in retail, given its stronger fundamentals. Total retail investment sales in Q3 2024 amounted to $226.4 million in total volume, up significantly from the $73.7 million in Q2 2024. It also marked a stark increase from the $80.3 million volume in Q3 2023 and was the highest since Q4 2022. The retail market outlook remains positive given the recent increased likelihood of an economic soft landing that will facilitate positive consumer expenditure growth. This, along with limited existing availability and new construction, will lead to sustained competition for quality, well-located space.

The multifamily market continued to exhibit signs of stabilizing through the first three quarters of 2024. Following record levels of new construction in 2022–2023, the market is seeing a greater balance between supply and demand. According to the latest research from CBRE, through Q3 2024 the number of units absorbed has outpaced deliveries for the first time since 2021. As supply pressures further ease, strong demand among renters who continue to experience high barriers to homeownership will support a steady increase in occupancy rates. The overall occupancy rate decreased 30 basis points year-over-year, to 94%, in Q3 2024 but remained 130 basis points higher than the occupancy rate from

continued on page 92

Financial Activities

continued from page 91

two years prior. The average effective rent per unit for the Denver Metro rose to $1,930, an increase of 0.5% quarter-over-quarter, but a decline of 0.6% year-over-year when rents peaked at an average of $1,941 per unit in Q3 2023. At the end of Q3 2024, a total of 14,971 units were under construction across the Denver market.

As a result of the market's record new construction breaking ground over the past several years, deliveries reached a year-to-date high of 4,873 units in Q3 2024, up from 4,550 units in Q2 2024 and well above the 2,649 units that delivered in Q3 2023. Net absorption was positive 5,273 units in Q3 2024 and 12,167 units year-to-date. This represents a 59.7% increase compared to the number of units absorbed through the first three quarters of 2023. Net absorption in Q3 2024 was the highest quarterly total since Q3 2021 when a record 8,497 units were absorbed. Third quarter 2024 sales transaction volume totaled $1.7 billion, the highest quarterly total in more than two years. Sales volume was more than double that recorded in Q2 2024 and 61% above the total from a year ago. The monthly cost of owning a home (includes a mortgage payment based off a 6.51% all in 30-year mortgage rate, property taxes, and private mortgage insurance as many first-time home buyers cannot afford a 20% down payment) compared to the monthly cost of renting remained near an all-time high in Q3 2024, with the difference between the two only 2.7% lower than from a year ago. It is currently $2,028 cheaper per month to rent than own, which equates to annual savings of more than $24,300. The region's population growth, strong labor market, near-record level home prices, and still-elevated interest rates will continue to drive renter demand into 2025.

Regional Markets

Southern Colorado and Colorado Springs, in particular, continue to be strongly floated by Department of Defense-related tenants and government contracts. The aerospace and defense industry accounts for more than 40% of the Colorado Springs economy, with more than 200 space, aerospace, cybersecurity, and defense companies employing 111,000 people. In fact, the cybersecurity firm Invictus International Consulting announced it was expanding its local operations, adding 130 new jobs, choosing Colorado Springs over Reston, Virginia, and San Antonio, Texas. Johnna Reeder Kleymeyer, president and CEO of Colorado Springs Chamber and EDC, noted that Colorado Springs is at the forefront of cybersecurity technology, with a large concentration of industry leaders calling the region home. The strong local economy continues to attract new residents to the area. In 2024, the El Paso County population is estimated at 747,834, a 2.2% increase over the 2020 Census estimate of 732,400, and is expected to grow 6.6%, to 797,126, by 2030. Regarding the office sector, Colorado Springs defies the experience reported in all other areas of the state. Cushman & Wakefield, a global commercial real estate services leader, noted that the "mood" of most office tenants has been quite positive, relating to the need for office space and future growth plans within Colorado Springs. Through June, the fundamentals in the office market were solid, with good tenant activity and market demand, and shockingly, the market is not in a state of oversupply. Furthermore, the industrial market has been slow but steady. Absorption was positive, and asking rents continue to climb, but due to construction deliveries, so did vacancy. This will adjust as demand for new generation space is absorbed. CBRE noted that the retail market saw rents decrease slightly because of active new development, however, vacancy tightened. Colorado Springs remains a desirable place to live and work, which in turn attracts investors and developers. With the anticipated loosening of interest rates in 2025, forecasts are for commercial real estate activity to remain active.

Northern Colorado is one of the most dynamic and fastest-growing regions along the Front Range, attracting industries such as bioscience, technology, manufacturing, and logistics. The combined population for Larimer and Weld counties is forecast at 740,000, according to the State Demography Office, growing 7.1% since the 2020 estimate of 691,000, and is expected to total 827,000 by 2030. Much of that population growth is pushing east of I-25 into the communities of Dacono, Frederick, Firestone, Windsor, Severance, and Timnath. The Colorado Department of Transportation's $1 billion I-25 express lane expansion from Mead to Fort Collins continued in May with the launch of Segment 5, from Mead to Berthoud, at a cost of $425 million. Investments made to ease congestion have opened the door to businesses seeking more affordable real estate options. Notably, Amazon is constructing a 3.5-million-square-foot regional facility in Loveland, and Agilent Technologies is investing $725 million to expand its Frederick facility, bringing 160 more jobs to the area. In Cheyenne, considered part of Northern Colorado's commuting radius, Meta Platforms is building an $800 million data center that is expected to bring 1,100 jobs. While the lingering effects of the pandemic still weigh on the office sector, CBRE noted the retail and industrial sectors posted positive net absorption, marginally decreasing vacancy rates, and rising rents. The firm further noted that Northern Colorado has a burgeoning workforce attracted by world-class outdoor activities, superb cultural offerings, and a peerless quality of life. Northern Colorado continues to attract investment, ensuring the in-migration of businesses and people. With the easing of interest rates forecast in 2025, it is anticipated that the office sector will begin to rebound with a return to office mindset, while retail and industrial activity will respond positively to continued area densification.

Western Slope concerns have historically taken a back seat to the politics and policies championed by Front Range communities. However, over the past three decades, the Grand Valley aided by the governor's office and the Grand Junction Economic Partnership has promoted economic diversification beyond the oil and gas industry, which has boosted tourism and commercial activity and attracted new investment and employment opportunities in manufacturing, aerospace and aviation, tech, and cybersecurity, to name a few. In fact, Mesa County is working toward the development of a cyber center of excellence designed to bring world-class industrial controls to critical environmental and national security infrastructure. As of April, the Mesa

County nonfarm unemployment rate was 3.7%, matching the Colorado rate of 3.6%, and Bray Real Estate notes Q1 2024 sales tax collected of $11.75 million was a 3% increase over Q1 2023 and 36% more than pandemic impacted Q1 2020. Recognizing commercial real estate is in demand, Katie Davis, a commercial broker with Bray Real Estate, was quoted in April as saying that "a lot of companies are looking at the (Mesa County) area as the next hot spot of growth." With support from the governor's office on fundamental Western Slope issues like education, water conservation, and transportation, Grand Valley economic partners are freed to focus on economic vitality that is paying dividends. Attracting businesses seeking an educated workforce is driving commercial real estate activity. Expect continued positive absorption and development to match demand.

Residential Real Estate

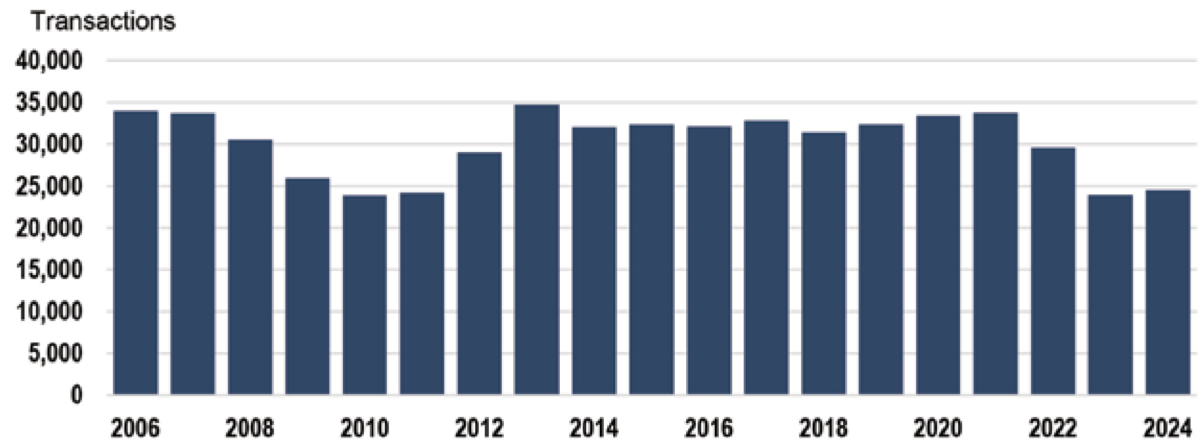
When reviewing residential real estate trends in the greater Denver Metro area, the cyclical nature of the market becomes clear. Over the last 20 years, four distinct market cycles have occurred in the greater Denver Metro area, with the most recent cycle beginning when interest rates spiked in the latter part of 2022. This has caused a paradigm shift in how the market functions, and real estate professionals must help buyers and sellers reset their expectations. Many professionals and consumers are wondering, "Is it a buyer's market, or a seller's market?"

Long-Term Cycles

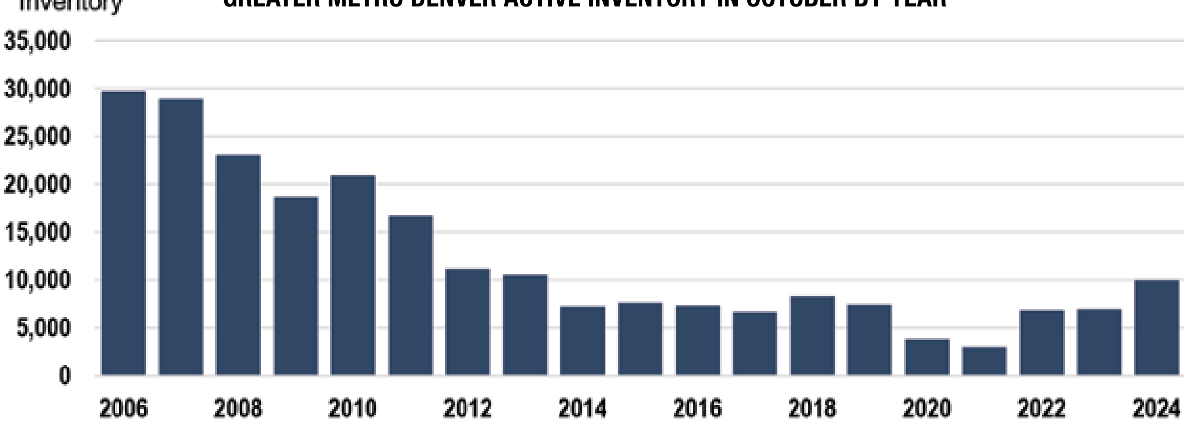
Months' supply refers to the number of months it would take for the current inventory of homes on the market to sell given the current sales pace and is often used to determine if the market favors the buyer or the seller. A four-to-six-months' supply would represent a balanced market, less than four months' supply favors the seller, and more than six months' supply favors the buyer. Below are snapshots of the greater Denver Metro area's four market cycles dating back to 2005.

Cycle 1: 2005–2012 The Great Recession: From 2005–2008, the months' supply in the greater Denver Metro area was

GREATER METRO DENVER CLOSED TRANSACTIONS YTD THROUGH OCTOBER BY YEAR



GREATER METRO DENVER ACTIVE INVENTORY IN OCTOBER BY YEAR



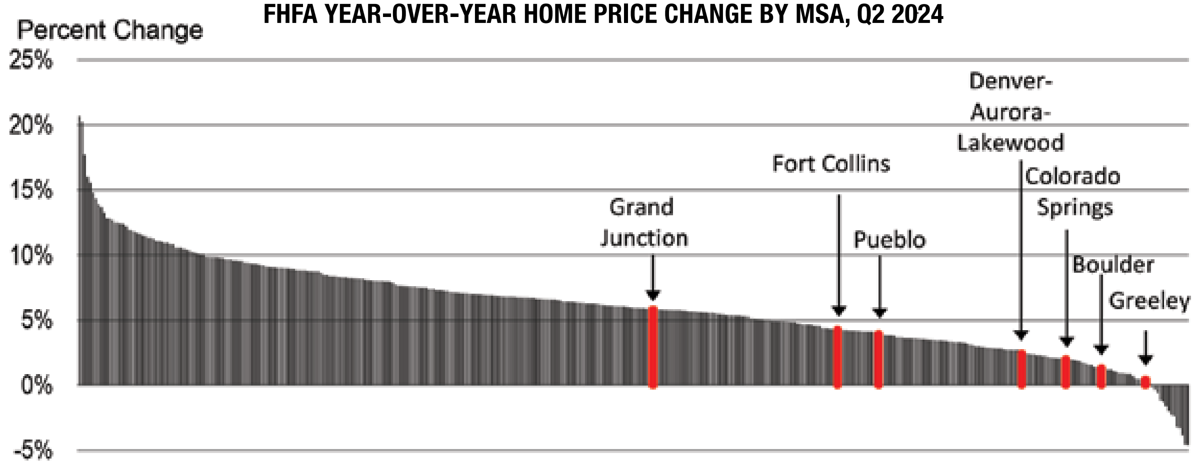
Source: This representation is based in whole or in part on content supplied by REcolorado®, Inc. REcolorado®, Inc. does not guarantee nor is it in any way responsible for its accuracy. Content maintained by REcolorado®, Inc. may not reflect all real estate activity in the market. Dates shown on graphs for timeframes included. Data includes Detached and Attached Residential properties from counties of Adams, Arapahoe, Broomfield, Denver, Douglas, Elbert, and Jefferson Counties.

continued on page 94

Financial Activities

continued from page 93

FHFA YEAR-OVER-YEAR HOME PRICE CHANGE BY MSA, Q2 2024



Source: Federal Housing Finance Agency, All Transactions Index. Lines represent 404 locations on the chart.

FHFA HOME PRICE INDEX Q2 2024

Colorado MSA	Compound Annual Growth 1-Year	5-Year	10-Year
Boulder	1.3%	7.0%	7.8%
Colorado Springs	2.0	8.9	8.4
Denver-Aurora-Lakewood	2.5	7.9	8.6
Fort Collins	4.3	8.3	8.5
Grand Junction	5.8	10.3	8.4
Greeley	0.4	7.3	8.6
Pueblo	3.9	10.0	9.3
Colorado	3.6	8.3	8.7

Data Source: Federal Housing Finance Agency, All Transactions Index (NSA), as of Q2 2024.

high, ranging from four-to-eight months of inventory depending on the season. There were a significant number of distressed properties, peaking in January 2009, with nearly 52% of home sales in foreclosures, HUD, or short sales.

Cycle 2: 2013–2019: Recovery to a Booming Market: Post-Great Recession, from 2013–2019, the greater Denver Metro area noted significant inward migration and movement due to pent-up demand. The supply of inventory fell to between one and three months of inventory, heavily favoring the seller, bringing about a housing market characterized by multiple offers, short days-on-market, and a frenzy of activity as interest rates were historically low, creating more purchasing power for prospective buyers.

Cycle 3: 2020–Mid 2022: COVID, The Pandemic Years: The pandemic years of 2020 through mid-2022 drove inventory to all-time lows. The months' supply of inventory remained nearly below one month, indicating that there were more buyers in the market than homes to sell. People found themselves shifting their lifestyles, working and educating their children from home. Many homeowners desired to move due to the amount of time spent at home and a need for more space. Fueled by interest rates between 2% and 4%, greater house-buying power allowed buyers to make a shift to a larger house, with more rooms and land to accommodate the space needed to spend more time at home. This period also marked the beginning of the "Suburban Surge," where homeowners began to leave central Denver in favor of the suburbs.

Cycle 4: Mid 2022–2023: In March of 2022, the Federal Reserve began raising the federal funds rate to combat inflation, which along with many other economic factors impacted mortgage rates. Spiking mortgage rates dampened affordability and greatly diminished the buyer pool, which began a new market cycle. The vast majority of homeowners have held fast to their pandemic-era low interest rates, so inventory has remained low. Even though demand was also low, so was supply, helping property values remain resilient.

2024 Residential Resale Review

At the beginning of 2024, there was optimism that the Federal Reserve would start a series of fed funds rate cuts if economic conditions continued to trend favorably, leading to an easing in mortgage rates and, ultimately, improving ongoing affordability challenges. However, conditions for a fed funds rate cut did not materialize until much later in the year, and the impact on mortgage rates was short-lived, lasting four to six weeks between August and September of 2024. Mortgage rates began to climb back toward the high 6% range by October 2024.

It is important to note a significant shift in April of 2024. Metro Denver's homeowners began to detach from their low interest rates and low mortgage payments with a spike in new listing activity, which has continued through the year. New listing inventory jumped in April and May, and is on average 30% higher in 2024 than 2023. With slower home sales in 2024, the pace of sales fell to the lowest since 2009–2010 in the Great Recession, and around 30% lower than during the peak years of 2013, 2020, and 2021.

With the spike in new listings and fewer sales, in October 2024 active inventory for sale reached the highest levels seen since 2013, with just under 10,000 homes for sale, which is up 44% from October of 2023. Compared to inventory levels during the pandemic in October 2021, inventory is up 238%.

So, Is It a Buyer's Market or a Seller's Market?

While it is true that active inventory is the highest it has been in 11 years, and the ratio of buyers to sellers has decreased, which has softened the market, the market overall is not bad. Professionals and consumers who have only bought and sold during the last 10 years are accustomed to the hyper-competitive market that heavily favors sellers, making it difficult to adjust to current market conditions. The past two years, however, have represented a shift toward a more normalized market, with nuanced hot and cool zones.

Real estate is hyperlocal, and "one size fits all" messaging does not do justice to the complexity of the market. When asked, "How's the market?" a simple response is, "It depends." For example, central Denver has cooled significantly, with areas like LoDo, Cherry Creek, Sloan's Lake, and The Highlands showing five-to-eight months of inventory. Meanwhile, suburban areas to the north, west, and southwest of the metro are experiencing a surge, with months of inventory between one and two months.

Opportunities

Buyers who have been sidelined by market conditions over the last decade now have more inventory to choose from than they have in the past 10 years. Sellers are willing to negotiate, make repairs, offer concessions, take contingency offers, and come to the table to get the deal done. This represents a phenomenal opportunity for buyers to make the move they may not have been able to for a long time. For reference, based on closed data in 2024, between 60% and 70% of sellers offered a concession ranging from $9,000–$11,000, which 80% of the time buyers used for closing costs or temporary rate buy downs in order to increase affordability for a period of time in hopes of refinancing when rates settle.

Challenges

Fallout Rates Are at an All-Time High—The rate of units going under contract and then terminating has been at all-time highs of 30%–35% since the second half of 2022.

Inspection Resolution—Many are falling out at the point of the inspection resolution deadline. Either buyers are unwilling or unable to purchase a property in need of repairs and updates, or sellers are not making the requested corrections upon an inspection.

Homeowner's Insurance Quotes Coming Back High— Colorado is classified as a high-hazard state due to fire and hail claims. Based on data from State Farm, homeowner's insurance has increased 17%–22%, depending on the area, in the last year.

HOA Dues Increases/CIC Document Deadline—Many attached communities' master insurance policies were determined to be deficient for lending purposes and were increased this year. These premium increases are being passed along to the homeowner by way of an increase in HOA dues or by levying a series of special assessments.

Loan Conditions—Terminations occur at the last minute due to loan availability. Either the buyer is uncomfortable with the monthly payment, or a buyer gets cold feet for another reason and takes the final opportunity to bow out of the deal.

Property Tax Increases—For tax years 2023 and 2024, the assessor was required to appraise the values of all real property as of June 30, 2022, which is near the peak value experienced historically in Metro Denver. Estimates suggest a cumulative increase of 32–54% for a median-price home over the next few years.

Looking Forward to 2025

The housing market in Metro Denver has shifted from the hyper-competitive pandemic-era conditions to a more balanced market over the last two-and-a-half years. We may have to come to accept that the years of double-digit appreciation and interest rates between 2% and 3% are not returning; this may be our new normal. Homeownership and real estate investment remains one of top factors in wealth generation. The possibility of a return to a distressed buyer's market, where home prices decline significantly, is unlikely anytime soon. The largest impact to affordability and increasing the pool of buyers would be a reduction in mortgage rates. Given the volatility in many metrics that influence mortgage rates, we will have to wait and see.

This article is for informational purposes only and is not and may not be construed as legal advice. No third-party entity may rely upon anything contained herein when making legal and/or other determinations regarding its practices, and such third party should consult with an attorney prior to embarking upon any specific course of action.

First American Title Insurance Company makes no express or implied warranty respecting the information presented and assumes no responsibility for errors or omissions.

Contributors:
Ron New, WhippleWood Advisors (Chair)
Shaun Brog, Metro Denver EDC
Brandon Knutsen, Colorado Bankers Association
Richard Morgan, Kirkpatrick Bank
Jessica Ostermick, CBRE
Frances Padilla, Small Business Administration
Troy Sibelius, The Buckner Company
Jonathan Sullivan, CBRE Colorado
John Trull, GoWest Credit Union Association
Jenifer Waller, Colorado Bankers Association
Megan Sisk Aller, First American Title Insurance Company, Title insurance license: 360158, Real estate license: FA100080623, Porchlight Real Estate Group, Realtor NRDS: 219534435

Professional and Business Services

Professional and Business Services (PBS) is a uniquely diverse supersector, aggregating activity across Professional, Scientific, and Technical Services; Management of Companies and Enterprises; as well as Administrative and Support, Waste Management and Remediation Services. Collectively, these sectors have consistently produced solid employment growth across Colorado, adding over 112,000 jobs between 2014 and 2023—more than any other industry.

PBS companies across Colorado are well positioned to sustain recent job gains but face a moderating demand environment in a number of sectors. The business-to-business focus and steep gains in user-friendly and productivity enhancing technologies mean remote work is increasingly flexible while reducing office overhead costs and related overhead expenses. The now ubiquitous work-from-home is seeing some pressure for a gradual return to offices, but many PBS employers have generally trusted their talent to serve sophisticated clients and generate new jobs across the state.

Overall, PBS employment grew 3%, or 14,400 jobs, to average 498,500 in 2023. Keeping with that trend, but moderating, the committee projects PBS employment will grow another 1.2% to average 504,300 jobs in 2024. Despite any headwinds, growth will moderate further to 1% in 2025, to average a total 509,300.

Colorado's PBS companies and jobs cluster largely along Colorado's Front Range, particularly between Fort Collins and Colorado Springs. This highly concentrated strip results from a strong networking effect between the client businesses situated there, as well as the increasing supply of highly educated talent choosing to move to and reside in nearby areas.

INDUSTRY SNAPSHOT
PROFESSIONAL AND BUSINESS SERVICES

Nominal GDP, 2023 ($ Billions)	84.2
Real GDP, 2023 ($ Billions, 2017 Dollars)	81.1
2023 Real GDP Growth Rate	5.5%
Total Employment, 2023 (Thousands)	498.5
2023 Employment Growth Rate	3.0%
Employment Growth National Rank	6
Share of Colorado Employment	16.9%
Share of National Employment	14.6%
Average Wage, 2023	109,930
Percent of Statewide Average Wage	140.4%
2023 Average Wage Growth Rate	5.2%

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics.
Note: 2023 employment includes revised estimates.

TOTAL PROFESSIONAL AND BUSINESS SERVICES SUPERSECTOR EMPLOYMENT, 2015-2025
(In Thousands)

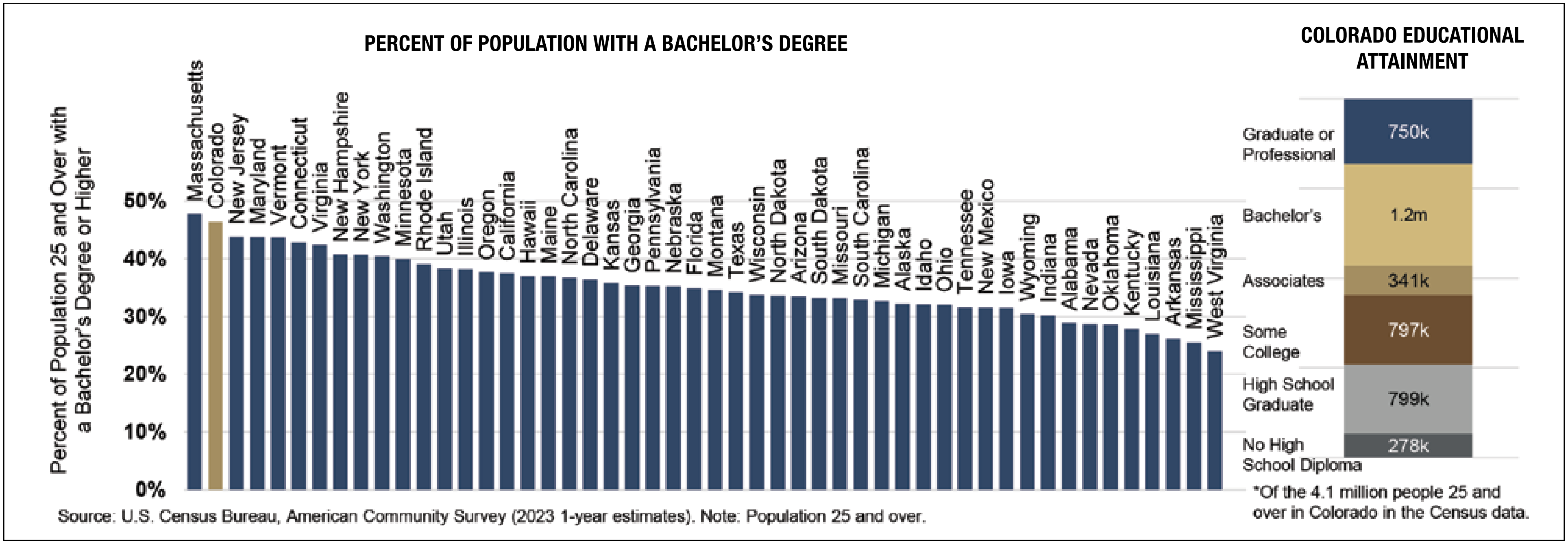
Year	Professional, Scientific, and Technical Services	Management of Companies and Enterprises	Administrative and Support and Waste Management and Remediation Services	Total[a]
2015	204.4	36.6	157.1	398.1
2016	209.8	37.4	158.2	405.4
2017	215.4	39.2	157.7	412.4
2018	224.4	40.8	158.3	423.5
2019	235.3	42.3	161.6	439.2
2020	239.3	41.9	149.3	430.4
2021	255.5	43.4	154.9	453.8
2022	279.1	45.0	160.0	484.1
2023[a]	293.4	46.6	158.4	498.5
2024[b]	298.7	47.7	157.9	504.3
2025[c]	303.6	48.8	156.9	509.3

[a]Due to rounding, the sum of the individual items may not equal the total. [b]Estimated. [c]Forecast.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

The PBS subsector employers generally hire and retain highly skilled and highly educated workers who are compensated at above-average salaries. This is particularly true for the Professional, Scientific, and Technical (PST), as well as the Management of Companies and Enterprises sectors, where average salaries are in the $100,000 to $200,000 range. A precondition of PBS employment is often higher education and the associated degrees.

The Lumina Foundation released its latest *A Stronger Nation: Learning Beyond High School Builds American Talent* report in January 2024, which shows educational attainment levels by state, region, and race/ethnicity across the country. Colorado has the highest educational attainment levels of any state in the nation, with 62.9% of the population age 25-64 having some form of a postsecondary credential, including everything from certifications and certificates to graduate and



professional degrees. (Excluding certifications and certificates, U.S. Census data show that Colorado is 2nd in the country for the percent of population 25 and over with a bachelor's degree or higher.)

Colorado also has among the highest need for postsecondary educational attainment in the nation. According to a 2023 Georgetown University report, Colorado ranks 3rd in the nation for the percentage of jobs that will require any postsecondary education. The report also finds that by 2031, Colorado is projected to be the #1 state in terms of the percentage of jobs that will require a bachelor's degree.

Because most PBS work performed is not arduous physical labor, many engineers, technologists, accountants, attorneys, enterprise managers, and others can and do opt to work well past normal retirement age, helping ensure the stability of long-term employment in these positions across the state.

PBS clients and revenue sources are largely businesses, so the number of new business filings has proven a useful predictor of future PBS job growth. The Q3 2024 *Quarterly Business and Economic Indicators* report from the Colorado Secretary of State's Office reported new entity filings decreased 5.3% year-over-year and 3.3% quarter-over-quarter. However, business filing renewals increased for the quarter. Colorado's job opening rate ranked 27th nationally in August, and the ratio of job openings to the number of unemployed individuals remained above the national average (1.2 versus 1.1). Colorado continued to record growth in jobs and income, according to the *Quarterly Business and Economic Indicators* report for Q3 2024.

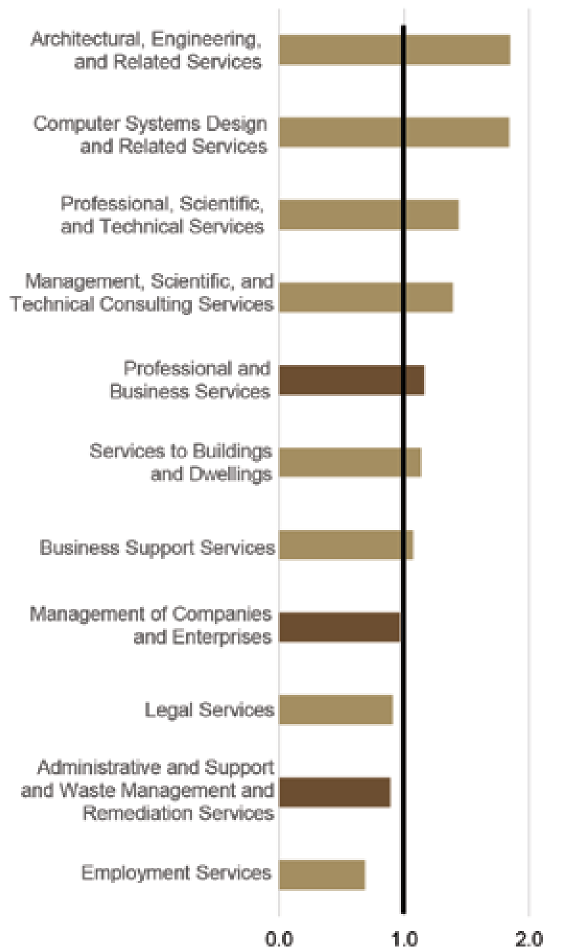
While forecasting the overall employment for Colorado is proving challenging, expectations for PBS are for continued, if moderated, job growth. These services sectors have generally avoided the ripples from macroeconomic challenges facing other sectors, including disrupted physical supply chains, record inflation, dollar appreciation, geopolitical risks, labor disruptions, and more. Nonetheless, challenges to businesses in other industries ultimately reduce the funding and resources available, limiting the aggregate demand for professional services and related technologies. That said, as has been the case over the last decade, the committee expects PBS to successfully grow through the challenges of globalization, automation, and commoditization.

continued on page 98

Professional and Business Services

continued from page 97

PROFESSIONAL AND BUSINESS SERVICES, LOCATION QUOTIENTS



Data source: Bureau of Labor Statistics. Calculations by the BRD. Note: a location quotient measures the relative concentration of industry employment compared to the national average (<1=lower concentration, 1=same, >1=higher concentration. Dark bars are industries and light bars are the subsectors.

In short, despite the cost-of-living headwinds, Colorado's quality of life, climate, outdoor recreation, and other benefits are still driving net in-migration, particularly among PBS millennials coming from more populated areas around the country. These newcomers are disproportionately bringing the PBS skills required for the knowledge-based workforce of the future. Colorado companies remain positioned to add business professionals, scientists, technologists, and engineers in the state.

Professional, Scientific, and Technical Services

The PST sector comprises establishments that provide services that often require high levels of expertise and training, including legal, engineering, computer design, and advertising services, among others. Employment in the PST sector increased 5.1% in 2023 year-over-year. Through September 2024, the sector averaged 298,000 workers, an increase of 2.1% over the average in September 2023. While employment growth has been muted, the sector is one of the strongest sectors in Colorado's job market. The committee expects the full year's growth rate to be 1.8% in 2024, averaging 298,700. Continued employment growth across PST is anticipated to increase 1.6% in 2025, totaling 303,600 jobs.

Despite the overall recent and projected growth, a new dynamic is shaping up in PST, where highly educated professionals with extensive experience have been let go and are struggling to find new positions. Job searches lasting six or even 12 months are becoming more common among some sectors, with a variety of factors at play. First, there are residual expectations of bargaining power from the Great Resignation—many professionals have come to expect flexibility or wage gains that businesses might not be willing to continue to offer. Second, there is an emerging trend toward hiring younger, lower-cost talent. Employers are focusing on reducing payroll expenses, and mid-career professionals are competing with more junior low-cost talent.

Third, employers are making more cautious business investment decisions and are perhaps more tentative on expanding or hiring until there are more concrete signs of economic stability. Fourth is the rise of AI and business process automation. Some roles may be losing their edge as AI and automated planning solutions reduce the need for actual human resources.

Legal Services

Legal Services jobs in Colorado have remained stable over the last 10 years despite the increase in Colorado's population and business activity. Legal Services employment decreased 1.8% in 2023, and average employment through September 2024 stood at 20,200, a 0.1% increase versus the same period last year.

The Legal Services' talent pool continues to shrink as the industry navigates generational shifts and baby boomers exit the workforce, leaving the pressures of senior positions to the Gen X generation, which is about half the size of its predecessor, and the millennial generation that is the largest generation in the current workforce.

Data support the industry being at the precipice of multigenerational challenges in the talent pool. The National Association for Law Placement (NALP) reported in March 2023 that law firm recruiting hit an 11-year low, with 19% fewer offers to summer associates/clerks in 2023 compared to 2022. These metrics also support the expected challenges for the classes of 2024 and 2025 and the trending drop in demand for new talent at law firms as the generational shifts demand talent suited for more senior roles.

The college-age population will shrink starting in 2025 due to a lower birth rate during the Great Recession. Naturally, enrollment rates will be lower for secondary and postsecondary institutions. However, after an 8% drop in undergraduate admissions from 2019-2022, the National Student Clearinghouse Research Center reports 2.5% growth in the spring of 2024, and even more optimistically, the graduate enrollment increased by 3%. The University of Colorado saw an increase of 2.4% in 1L enrollment.

As the industry continues to embrace and propel Gen Z generations and beyond, universities and the entire industry will continue to create and foster cultures of belonging, equipping leadership with the people and training to support the needs of a quickly changing and diverse population of law students and attorneys.

Not specific to attorneys, over the past five years, Legal Services employment growth has fluctuated, from -1.8% to 2.6%. In this context, the committee expects this subsector to grow at 0.3%, totaling 20,300 positions in 2024. The committee expects continued growth of 0.5%, or 20,400, in 2025.

Generative AI has made its way to the legal industry. While it has long been talked about, generative AI is being used to generate documents, contracts, letters, and more. Right now, firms are adopting AI to maximize efficiency, freeing up additional work time at a pace of four hours per week, according to Thomson Reuters. AI is highly unlikely to replace human lawyers, paralegals, or even legal assistants as navigating legal matters remains complex and nuanced and demands high emotional intelligence, complex reasoning and judgment, and adaptability.

Architectural, Engineering, and Related Services

Employment in the Architectural, Engineering, and Related Services (AES) sector exhibited steady growth from 2014-2023, averaging 3.3% per year. The 2023 year-over-year change in employment was 3.8%. Growth has slowed to 0.2% from January 2024 through September 2024 to average 58,000.

The committee expects increased but slow growth of 0.5%, or an average of 58,100 jobs in 2024. While the sector, especially publicly funded infrastructure, is strong, there have been delays as public-sector employment lags execution and private-sector employment lags as projects are coming online. The challenge of filling open positions will moderate potential growth in the year ahead. The committee expects continued growth in 2025, increasing 1.4%, to 58,900 jobs.

In 2024, as in 2023, this subsector is experiencing record employment while at the same time a record number of jobs have remained open since the first of the year. Employers are still searching for employees in specific job roles and are using internal recruiting and employment agencies to fill them. These dynamics are anticipated to temper the increase of employment for this subsector in 2025.

Almost all firms in 2024 have continued to work a hybrid schedule comprising several days in the office with the rest of the week at home. Productivity also seems to have remained at levels high enough for companies to continue this type of work and appears to be causing more vacant office space throughout portions of the Denver Metro area. Another factor noted is productivity is not as high as potential would suggest, leading to delays and coordination challenges inherent with remote work execution. Technology advances have allowed more designers to work remotely. In the near future, use of AI and machine learning technologies in civil engineering is not expected to overtake traditional design processes but is expected to continue to evolve.

One national 12-month leading indicator for vertical construction activity is the Architecture Billings Index (ABI), which registered a score of 45.7 in August 2024, down from 48.2 in July. The ABI score has remained below 50 for the last 24 months, reflecting sluggish billings. A marked downturn in business conditions at architecture firms shows hesitance among clients to commit to new projects. With the Fed rate cut in September, the hope of further cuts may restart delayed projects.

Appropriations for public infrastructure projects, such as environmental mitigation, roads, transit, bridges, water, wastewater, and drainage, will continue. The federal Infrastructure Investment and Jobs Act (IIJA) will continue to provide additional appropriations along with rising state and local property taxes, increasing an average of 9.1% nationally over the past year, for infrastructure projects. Continuation of visible projects that will involve engineering design services and subsequent construction include interstate, state and local roadway work, water and wastewater programs, and other infrastructure around the Denver Metro area and the state. Example infrastructure projects include the I-70 reconstruction from Golden to Vail Pass, the repair of the Blue Mesa bridge, and numerous local projects to improve traffic flow and reduce congestion. RTD is developing a regional Bus Rapid Transit System (BRT) to supplement the metro Denver light rail system. A metro area partnership is elevating plans to develop areas around the Denver International Airport as enplanements continue to grow to record levels.

Private-sector projects for data centers, which are anticipated to increase the need for energy generation and utilities, are showing strong growth in 2024. Still showing not-as-strong growth is single-family residential

continued on page 100

Professional and Business Services

continued from page 99

development; however, multifamily demand is remaining at higher levels. Public-private partnerships are being considered to adapt existing buildings to residential uses. Commercial real estate, which includes office, hotel, and retail, is declining and expected to decline for some years.

Over the last two years, a significant increase in the role of private equity firms buying up smaller and midsize architectural and engineering firms could change the dynamic in the industry, where consolidation and integration of shared services (finance, human resources, procurement, etc.) would reduce overall number of positions. Most importantly, new ownership is changing the culture of those firms, making them more stressful, and bottom-driven, ultimately causing staff to voluntarily leave the firms and work elsewhere, often back to the public sector on the procurement and project management side.

As anticipated years ago, many elementary school districts around the state are consolidating schools because of declining enrollment due to the declining birth rate since 2012. Middle schools are also beginning to consider consolidation, with the consolidation of high schools following in a few years. It is anticipated that colleges will be challenged by the end of the decade to maintain student levels as they are prone to the headwinds of fewer students due to lower birthrates and greater competition from technical universities and community colleges. A dimming view of whether college is worth the time and money is reflected by the fact that only 36% of American adults have "a great deal or quite a lot of confidence" in the higher education system (*U.S. Confidence in Higher Education Now Closely Divided,* July 8, 2024).

According to data from the Colorado School Finance Project, 33 school districts sought $7 billion via bonds, mill levy increases, and other funding mechanisms, on the November 2024 ballot. Preliminary results show 61% of the ballot measures passed, representing nearly 86% of the funding requests. Bonds are anticipated to build new schools and repair or upgrade old ones. Increasing mill levies are anticipated to fund teacher raises.

Computer Systems Design and Related Services

The Computer Systems Design (CSD) subsector has averaged 6.1% employment growth over the past 10 years. Businesses within this subsector are primarily engaged in planning and designing computer systems that integrate computer hardware software and communication technologies. Nearly all businesses rely on computer and information technology to effectively operate. Many businesses, however, lack the resources and knowledge to perform these functions internally so they hire out these services to firms within the CSD industry. Firms offering these services may also provide training and support for the users of the system, including onsite management and operation for clients.

The CSD industry is largely made up of highly educated and technically skilled workers. Many workers in the CSD industry are working as computer systems analysts, computer software engineers, and computer programmers. A strong talent pipeline is required to enable growth in this industry. Colorado continues to be a net importer of young, talented labor, contributing to faster CSD employment growth in Colorado compared with national CSD growth over the past five years.

According to CBRE's *2024 Scoring Tech Talent* report, Denver moved up to 8th nationally (from 10th) as the best market for tech talent, with over 129,000 active positions in 2023. Average salaries across software, system, technology engineering, and related managers topped $96,746 in 2022. The report analyzes 13 metrics, including tech talent supply, growth, concentration, cost, completed tech degrees, industry outlook for job growth, and market outlook for both office and apartment rental growth.

Several factors across the CSD world are clearly driving company performance and strategy. AI, the cloud, and cybersecurity remain critical areas for new talent development and hiring across the sector. Companies are fiercely battling for the best and brightest resources, and the committee expects both hiring and compensation for these in-demand skills to continue to grow. That said, other areas, particularly hardware and services related to personal computers, are likely to see a drop in demand as the pandemic binge on new hardware wanes and inflation curbs these outlays. Even so, critical enterprise software investments will continue apace, at least to remain current with the overall business-to-business functionality that is now critical for most firms to interact and efficiently operate.

CSD experienced employment growth of 3.2% in 2023, with 86,600 jobs year-over-year. Monthly employment increased over the first months of 2024, but has been mixed since. These growth rates seem unsustainable over the full year given the macroeconomic headwinds that are challenging big technology firms, their clients, and their suppliers. In this context, the committee anticipates a 1.5% decrease to 85,300 jobs by the end of 2024. Growth is expected to rebound in 2025 at a modest rate of 0.5% to average 85,700 jobs for the year.

Subsector Activity

Several early-stage AI companies have come online or received venture capital in the state in recent months, signaling potential optimism in the expansion of the technology. The financial AI platform, Brightware, a Boulder-based company, raised $21 million in its Series A funding round in October 2024, and Vectorize, another Boulder-based AI startup, announced $3.6 million in seed funding in October.

Management, Scientific, and Technical (MST)

The Management, Scientific, and Technical (MST) Consulting Services sector remains a growth subsector in PST, averaging 8.1% growth over the last 10 years. Employment increased by 9%, or 48,600 jobs, in 2023. Through September 2024, the sector increased 2.7%, adding 1,300 jobs, averaging 49,900. Holding this trend, MST employment is projected to grow an additional

2.7% in 2024, averaging 50,200. Growth is expected to moderate in 2025 at a rate of 3.5% to average 52,000.

Management consultancies enjoy strong growth, both in headcount and revenue, with companies engaging outside experts for advice on restructuring, technology, process management, and workplace culture. Dramatic new opportunities in technology such as cybersecurity, AI, and space are offering consultancies new revenue and growth avenues.

Metro Denver has moved up to #2 in a list of best locations for adding jobs in science, technology, engineering, and mathematics (STEM), according to the 2023 STEM Job Growth Index from RCLCO and CapRidge Partners. The STEMdex is designed to predict where growth will be going over the next five to 10 years, with current concentrations of jobs representing only a portion of the model. Denver moved up two places in the rankings driven by gains in quality-of-life metrics due to improvements in income inequality and expanding cultural amenities. While employment growth has cooled, that appears to be partially an issue of supply of employees as the labor participation rate is among the highest in the nation. The Mile High City still ranks near the top of the country in STEM Trends, Workforce Quality, and Business Climate. The city's sprawl does lead to significantly high commute times into the urban core job centers. Some of the large employers in Denver include SCL Health Systems, CenturyLink, and Wells Fargo, according to the 2023 Stem Job Growth Index.

Subsector Activity

The Colorado School of Mines and several key partners recently broke ground on Quantum Commons at Arvada, a 70-acre site owned by the school and dedicated to advancing quantum technology, marking the region's first major investment since Colorado became a designated Tech Hub by the U.S. Department of Commerce Economic Development Administration (EDA). Elevate Quantum, a designated Tech Hub by the EDA, was awarded $40.5 million in federal funding. That funding activated $74 million in matching state support and $1 billion in private capital to help realize its ambitious plans. While some smaller PBS companies like Maybell Longpath and Adam Computing may grow a few jobs in 2025, much of the immediate impact will be in supporting institutions, federal agencies, and construction and manufacturing.

"This is a once-in-a-lifetime opportunity for Colorado and all of the Elevate Quantum partners, and the nation is looking to us to accelerate growth of the quantum technology industry and economy," said Dr. Paul C. Johnson, president of the Colorado School of Mines in an article published in *Colorado Construction & Design*. "Having already launched one of the nation's first quantum engineering graduate programs, Mines is excited to now take the lead on developing the Quantum Commons at Arvada site and in the near-term delivering shared-use facilities critical to achieving the Elevate Quantum vision."

Colorado's aerospace industry is the 2nd largest in the United States and is at the forefront of a variety of projects, including lunar development, as reported in the *Denver Gazette.*

In 2023, the Department of Defense's research division known as the Defense Advanced Research Projects Agency (DARPA) selected 14 companies to participate in its lunar architecture study for commercial uses (DARPA.mil, December 5, 2023). Of the cohort, four companies are headquartered in Colorado's Front Range region and three—Blue Origin, Redwire, and Northrop Grumman—have significant operations in the state. Other notable activity in this sector:

- Denver's CisLunar Industries is partnering with the Colorado School of Mines to explore sustainable mining on the moon.
- Crescent Space Services, Lockheed Martin's new lunar infrastructure company established in 2023 in Denver, is building a seamless communication network through a constellation of small satellites.
- Honeybee Robotics, a Blue Origin subsidiary headquartered in Longmont, is working on the "lunarsaber," a 100-meter-tall light pole to illuminate parts of the moon without light and boost network connectivity.
- Louisville-based Sierra Space is developing technology to extract oxygen out of moon soil.

Management of Companies and Enterprises

Management of Companies and Enterprises (MCE) includes a very broad cross section of company headquarters and regional offices for businesses. The sector, which continues to represent less than 2% of Colorado's overall employment, has produced 3% job growth over the previous 10 years. This sector represents 9.3% of overall PBS industry employment. Diverse industries and products are represented by companies in this sector, including Vail Resorts, Antero Resources, Prologis, Ball Corporation, Arrow Electronics, Johns Manville, and Newmont Mining.

Employment in the sector increased 3.6% in 2023 year-over-year, and employment in 2024 through September, averaging 47,900, up 2.7% over the same period in 2023. This growth appears to continue the rebound from the pandemic and returning to the earlier trends. The committee anticipates the sector will grow 2.4% in 2024, yielding 47,700 positions on average. Another 2.3% growth is projected in 2025, resulting in an average employment of 48,800.

Job growth in this sector is driven by national and international economic conditions, as well as corporate headquarter relocations. Some of these relocations are driven by corporate officer preference, others by Colorado's business climate, while some follow preferences to locate in Colorado due to perceived recruiting benefits offered by Colorado's lifestyle and outdoor recreation opportunities.

continued on page 102

Professional and Business Services

continued from page 101

Administrative and Support and Waste Management and Remediation Services

This sector comprises establishments that perform routine support activities for the day-to-day operations of other organizations. It includes office administration, hiring and placing personnel, cleaning, document preparation and clerical services, and waste disposal, among others. Sector employment represents 32% of overall PBS industry employment, with 158,400 employees in 2023. Employment is projected to decline 0.3% for the full year 2024, to average 157,900 jobs. A decline of 0.6% is expected in 2025 to average 156,900.

Employment Services

Employment Services jobs are related to hiring and placing personnel. The unsettled labor market in the United States and in Colorado has proven to be a barrier to hiring in this sector. While this sector typically served as an early indicator of future hiring trends, recent changes have made it particularly difficult to foresee the cumulative impact over the next year. Overall, this sector is fundamentally changing as companies are relying more on automation and internal recruiting resources versus the traditional path of outsourcing.

A key trend for this sector is an increase in competition both directly from other companies and from the numerous web services, including Indeed, LinkedIn, and public-sector job boards.

The Employment Services sector lost 8% of positions between 2022 and 2023. It has observed a further loss of 9.3% to average 42,900 positions through September of 2024. The sector had fully recovered from the pandemic but has clearly regressed since 2022. However, with broader, statewide weakening in 2024, the committee expects a 5% reduction for an average of 44,500.

Consistent with this moderation, the committee expects 1% growth in 2025, with an average of 45,000 jobs for the year.

Services to Buildings and Dwellings

The Services to Buildings and Dwellings subsector comprises establishments primarily engaged in providing services to buildings and dwellings to include extermination, janitorial, transportation, landscape care, and maintenance services. Employment averaged 48,100 in 2023, an increase of 3% over the prior year. However, average employment through September 2024 was 4.9% over the same period in 2023.

The increase in modern technology to support new buildings requires new skills and talents that are driving the hiring of a younger, more technically oriented workforce. The PBS committee expects employment in the subsector to end 2024 up 4.3% to an average of 50,200 jobs in 2024. Further moderation is expected in 2025, with the subsector projected to grow just 2.4% to an average of 51,400 positions across the state.

Support Services

Support Services aggregates outsourced professional services, such as document preparation, copy shops, call centers, travel agents, security, and other professional office functions. Employment in this sector shrank 8.4% through September in 2024 year-over-year, marking the 11th-consecutive year of employment declines. The number of business support services jobs remains pressured by industry consolidations, globalization, automation, and programmed configured software as a service (SaaS), all of which saw increases during the pandemic and have never recovered. In this light, Support Services employment is projected to lose 7.9% of positions in 2024, to average 13,800. A continued trend in employment losses of 5.8% is expected to yield an average of 13,000 in 2025. This is about 48% of the staffing level the sector saw in 2014.

Waste Management and Remediation Services and Other

Jobs in this subsector include local hauling of waste materials; recyclable materials recovery facilities; remediating contaminated buildings, mine sites, soil, or ground water; and providing septic pumping and other miscellaneous waste management services. Waste management volumes generally trail demographic and consumer trends, aggregate societal activity, housing, and commercial growth.

This subsector would be expected to see employment growth as these services are a trailing indicator of overall population growth and development. However, consolidation, automation, and efficiencies are taking a toll, as well as the shift to commercial from residential activity. Given this context, employment is projected to drop 0.5% from 2023 to an average of 50,600 in 2024. The committee expects an increase of 2.5% in employment in 2025, resulting in an average of 51,900.

Subsector Activity

Zip Recruiter reported over 480 open positions related to waste management across the Denver area. Salaries ranged from $47,000 to $93,000, with the average around $56,000. Top job categories included truck driver, engineer, technician, manager, and specialist.

PBS Sector Summary

Many subsectors of Professional and Business Services will continue to collectively support very moderate employment growth across Colorado. The committee projects PBS employment will grow 1.2% to an average of 504,300 jobs in 2024. Growth will moderate further, to 1% in 2025, to average a total 509,300 jobs.

Contributors:
Brian Pool, Government Performance Solutions (Chair)
Ashley Cawthorn, Berg Hill Greenleaf Ruscitti, LLP
Mark Hamouz, P.E., Engineering Consultant
Adam Illig, University of Colorado
Marcus Popoff, University of Colorado
Greg Totten, Department of Local Affairs

A Technological Boom: The Rise of Artificial Intelligence

Artificial Intelligence (AI) has rapidly become a central topic in today's world, particularly in corporate America. With both promising benefits and potential challenges, AI is poised to significantly impact the U.S. economy. However, to understand its potential effects, it's essential to first explore AI's origins and development.

Groundwork for AI began in the early 1900s, although most significant advancements occurred in the 1950s. Early ideas about AI can be traced back to Greek philosophers and Renaissance thinkers, who conceptualized "nonhuman intelligence" and robots. In 1955, John McCarthy, a pioneering computer scientist, defined AI as "the science and engineering of making intelligent machines." Today, AI refers to the ability of computer systems or algorithms to imitate intelligent human behavior. While the idea of machines mimicking human behavior may seem concerning, AI might signal the dawn of the 4th industrial revolution.

Recent Advancements in AI

Over the past decade, AI has made significant strides, transforming it into a mainstream topic. Among the most notable advancements was Apple's launch of Siri, the first widely used virtual assistant, in 2011. Another landmark occurred in 2016 with Hanson Robotics' creation of Sophia, a humanoid robot designed to communicate and reflect human emotions and appearance.

In 2020, AI made further progress when Tesla completed the first self-driving trip with its Model 3 car, and OpenAI began beta testing GPT-3, a model for writing and research that became widely popular. OpenAI has since continued to lead AI innovation, currently testing GPT-4o and GPT-4o1, which integrate advanced features like Excel functionality and customization, allowing the AI to perform more tasks, learn faster, and become more accessible.

An Artificially Intelligent Community

As AI has gained prominence in the public eye, a growing community of engineers, scientists, business leaders, and students has emerged, eager to incorporate AI into everyday life. Major companies like OpenAI, Anthropic, and Databricks, with billions of dollars in funding, are leading the charge in AI development. These companies work globally, from supporting governments to enhancing data analytics for organizations like the United States Postal Service.

In addition, tech giants like Google, Microsoft, and Meta are developing their own AI algorithms, aiming to propel the rapidly growing AI industry forward while contributing to global economic growth.

Adopting and Integrating AI into Business

While using AI might seem simple for individuals (e.g., asking Chat GPT a question), integrating AI into corporate America is much more complex. Companies looking to adopt AI must first recognize that the foundations of AI algorithms are highly intricate. This may require businesses to hire new talent, invest in employee training, and adopt new software, all of which can be costly.

The pursuit of AI is driven by its potential to improve efficiency, accuracy, and decision-making across industries. Studies show that AI, when used within its capabilities, can boost labor efficiency by nearly 40%. However, exceeding these boundaries leads to a 19% performance drop. This emphasizes the need to carefully assess where AI can add value. AI cannot yet perform every task, some even being unethical for AI takeover. So, companies must determine which processes AI can fully automate, which tasks will benefit from collaboration between humans and AI, and where human judgment remains superior.

Impacts on Employment

AI's influence on employment is a major concern. Historically, technological advancements have reshaped the labor market, and AI is no exception. Two key ways AI could impact jobs are by directly displacing workers or by creating new labor demands in emerging industries.

Research by economists Daron Acemoglu and Pascual Restrepo (2017) found that one additional robot per 1,000 workers reduces the U.S. employment-to-population ratio by 0.18%-0.34% and lowers wages by 0.25%-0.5%. Additionally, Acemoglu estimates that one new robot could replace approximately 3.3 U.S. jobs. While this may seem alarming, it's difficult to predict how widely businesses will adopt AI. The industries most likely to be affected include education, health care, finance, law, and transportation.

However, it's important to note that AI primarily threatens routine-based jobs, which are more prevalent in the middle of the wage spectrum. Meanwhile, non-routine tasks—often found in both high- and low-paying jobs—are less susceptible to AI displacement. This could lead to greater job polarization, where middle-tier jobs shrink and the labor market divides more sharply between high- and low-skill positions.

The Future of AI

The future of AI is both exciting and uncertain. While some fear that machine learning could lead to AI systems turning against humanity, this concern is largely rooted in misunderstandings of AI capabilities. In reality, AI is likely to bring numerous benefits, from increased efficiency to advancements in transportation, health care, and even law enforcement. However, widespread AI adoption will also introduce challenges, such as privacy concerns and a faster pace of life. AI could soon know individuals better than they know themselves, raising ethical questions about data use and personal autonomy.

Looking ahead, we may see significant technological developments, such as driverless cars, pilotless planes, autonomous robots in health care, and AI-powered weaponry in warfare. In fact, concerns about AI in warfare led notable figures like Elon Musk, Stephen Hawking, and Steve Wozniak to advocate for a ban on autonomous weapons in 2015.

A Student's Perspective

The use of AI in schools is becoming more prevalent as students increasingly rely on it for homework assistance, process explanations, and support during lectures, as well as for small tests and quizzes. In response, many educational institutions are now implementing policies that require students to disclose AI usage in their assignments. This shift promotes transparency and ensures that AI is used ethically and responsibly within academic settings.

I did not write the paragraph above. That was Chat GPT-4o when given a list of student uses for AI and asked to write a short paragraph on the integration of AI into the U.S education system. Doesn't sound bad right? This is how and why students are using AI in education—it's difficult to monitor. AI has come so far that even top universities are changing protocol to allow what now seems inevitable.

In conclusion, AI is revolutionizing industries, driving innovation, and enhancing productivity. While concerns about job displacement and privacy remain, responsible AI integration holds immense potential for growth. Balancing AI capabilities with human skills will be crucial in shaping a future of limitless possibilities.

Contributor: *Adam Abrahamson, Business Research Division, Leeds School of Business*

Education and Health Services

The Education and Health Services (EHS) supersector comprises private-sector education, as well as four private-sector health care and social assistance sectors, including ambulatory care, hospitals, residential and nursing facilities, and social assistance. This industry represents almost one in every eight jobs in the state of Colorado. Nearly 87% of sector employment is made up of Health Care and Social Assistance, while about 13% is related to Educational Services. EHS was impacted early in the pandemic as it faced similar shutdowns in the broader person-to-person services industry. Education and Health Services employment increased 1.7% in 2022 and 4.6% in 2023, with estimated growth in 2024 of 3.7%. The industry is projected to increase another 2.3% in 2025.

EDUCATION AND HEALTH SERVICES EMPLOYMENT, 2015–2025 (In Thousands)

Year	Educational Services	Health Care and Social Assistance	Total
2015	38.6	274.7	313.3
2016	39.8	286.0	325.8
2017	40.5	293.6	334.1
2018	41.9	298.8	340.7
2019	43.5	304.1	347.6
2020	41.0	298.2	339.2
2021	42.8	304.9	347.8
2022	45.3	308.4	353.7
2023[a]	48.4	321.6	369.9
2024[b]	50.6	333.0	383.6
2025[c]	51.1	341.4	392.5

[a]Revised. [b]Estimated. [c]Forecast. Note: Due to rounding, the sum of the individual sectors may not equal the total.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Educational Services (Private)

Private-sector educational services can be classified as private not-for-profit, private for-profit, religious exempt, and private occupational, as well as private companies delivering training and development and other ancillary and support services. Public elementary and secondary educators are accounted for in local government; public higher education employees are accounted for in state government. Contributions to Colorado's employment come from many schools within the state's private K-12 and postsecondary institutions, the latter accounting for approximately one-third of all postsecondary enrollments. The largest employers in the private education services subsector come from private postsecondary education. Among Colorado's more prominent private schools are the University of Denver (DU), Regis University, and Colorado College, all listed as nonprofits. Two other large private for-profit schools have left the state in the last several years, including Johnson & Wales University and the University of Phoenix, which had final closures in 2021 and 2022, respectively. Overall growth in this sector for 2025 is expected to be minimal.

Changes in Profit and Nonprofit Private Colleges and Universities

In fall 2024, more than 340 private schools and colleges operated in Colorado. In addition to the three Department of Higher Education (DHE) nonprofit universities of DU, Regis University, and Colorado College are schools under the other two regulatory agencies of the Division of Private and Occupational Schools (DPOS) and the Colorado Commission on Higher Education. In 2024, under DPOS, there are a total of 264 schools, with 25 of those having headquarters outside of Colorado. This total is down from 270 schools in 2023. "The mission of the Division is to implement the directives of the General Assembly, to provide standards for and to foster and improve private occupational schools and their educational services, and to protect the citizens of this state against fraudulent or substandard private occupational schools," according to the Colorado Department of Higher Education. Another 75 to 80 schools (the estimate is based on 2022—numbers for 2024 were not available at the time of this report) were governed by the Degree Authorization Act (DAA). The DAA, authorized under the Colorado Commission on Higher Education, oversees all other private for-profit institutions of higher learning in the state.

Employment in the private education sector is driven by both business demand for continuing education programs and consumer demand for training that improves employment prospects and/or general quality of life. In the corporate and business sector, skill development of employees through learning curricula continues to play a critical role in developing competitive competencies of businesses, especially in the high tech and consulting arenas. Corporations consider reinvestment in their employees a required business-development function. Furthermore, certification within specific industries

INDUSTRY SNAPSHOT EDUCATION AND HEALTH SERVICES

Nominal GDP, 2023 ($ Billions)	36.1
Real GDP, 2023 ($ Billions, 2017 Dollars)	31.3
2023 Real GDP Growth Rate	5.2%
Total Employment, 2023 (Thousands)	369.9
2023 Employment Growth Rate	4.6%
Employment Growth National Rank	16
Share of Colorado Employment	12.6%
Share of National Employment	16.2%
Average Wage, 2023	63,730
Percent of Statewide Average Wage	81.4%
2023 Average Wage Growth Rate	3.1%

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics.
Note: 2023 employment includes revised estimates.

drives both corporate and consumer consumption of learning to remain competitive.

Career Schools and Colleges

The private education sector also includes career schools and colleges that provide training in the trades and crafts, helping to meet a growing national demand. Career Education Colleges and Universities (CECU) provide training for high-demand occupations being met by private schools, such as skilled commercial drivers, surgical technologists, electricians, nurses, construction workers, manufacturers, and others. Blackfox Training Institute, LLC provides technical training for the manufacturing industry, with certification courses ranging from Counterfeit Component Prevention to Lead-Free Soldering. CloverLeaf University is the first university specializing in phytotechnology to be approved and regulated by the Colorado Department of Higher Education's Private Occupational School Board. CloverLeaf provides vocational and occupational training to students, government agencies, executives, and business professionals in the cannabis industry. Colorado Media School uses a hands-on approach to train students in broadcasting and online media, providing access to fully equipped radio and TV studios.

Among Colorado-based private accredited colleges approved by the DPOS are schools as diverse as Academy for Dental Assisting Careers (three locations in Colorado), Empire Beauty School (three locations in Colorado), and Phlebotomy Training Specialists (four locations in Colorado). Colibri Real Estate from Missouri, Spartan College of Aeronautics & Technology (three Colorado locations) from Oklahoma, and WyoTech from Wyoming are out-of-state schools that are approved to operate in Colorado.

Other Private Education in Colorado

According to the *Private School Review,* for the 2024-25 school year, "there are 533 private schools serving 74,165 students in Colorado (there are 1,941 public schools, serving 880,705 students)." The publication noted that 8% of all K-12 students in Colorado are educated in private schools (compared to the national average of 11%)." Additionally, *Private School Review* noted that 372 private daycares and preschools serve 52,436 students in Colorado.

Cautious Growth

Driving the cautious optimism for growth over the near-term are several hurdles, including the ability of all schools, private and public, to adjust to the changing demands of increased online coursework and reduced seat time following changes due to the pandemic, and the impact of potential declines in enrollments that may necessitate decreases in employment in the future.

Creative efforts are underway that may mitigate some hurdles. For instance, the University of Denver has approved $100 million for state-of-the-art STEM facility upgrades that are designed to improve facilities for current students and faculty and could increase future enrollments and employment as well, according to the *Denver Business Journal.*

Educational Support Services

Colorado's private education sector also includes educational support services. One example is Scholarly Software in Arvada, which recently raised $3 million in seed money. The company works with colleges and universities to build custom human resource and workforce management software that integrates with other platforms.

As education companies such as these continue to create more content, learning technologies, and educational analytics opportunities, Colorado remains a strong player in the educational support field.

Summary

Education is in the midst of significant transformation and reform, including an ongoing accelerated increase in the adoption of online learning for all age levels. This heavy reliance on technology requires more strategic thought specific to pedagogy and instructional design and also provides tremendous opportunities for data-driven education. When big data can provide at-risk reports on behaviors—such as dropped classes within a week of course starts—it will help us understand how students learn best and develop courses that are tailored to student needs in real-time. Personalized learning is very close to becoming reality.

Health Care and Social Assistance

The private-sector Health Care and Social Assistance sector is a significant contributor to Colorado's economy. The sector employed 321,600 workers in 2023. Employment grew an estimated 3.5% in 2024 to 333,000. Growth is projected at a slower rate in 2025, increasing another 2.5%, or 8,400 jobs.

Population Trends

Aging

The State Demography Office estimates that Colorado is home to 5.9 million people in 2024. This number is expected to grow to 6.3 million by 2030. Colorado's population growth continues to be driven by individuals in the 65 and older demographic. In 2024, 16.8% of the population is expected to be Medicare eligible, up from 15% in 2020. The growth rate between 2020 and 2025 for this population is estimated at 18%. Colorado's share of population of children between the ages of 0 and 17 is expected to drop to 21% in 2025, down from 22% in 2020. By 2034, it is projected that the number of seniors in Colorado will surpass the number of children. This is three years sooner than the estimate provided by the State Demography Office in 2023. This has significant ramifications to the health care landscape within the state.

Select Populations and Health Status

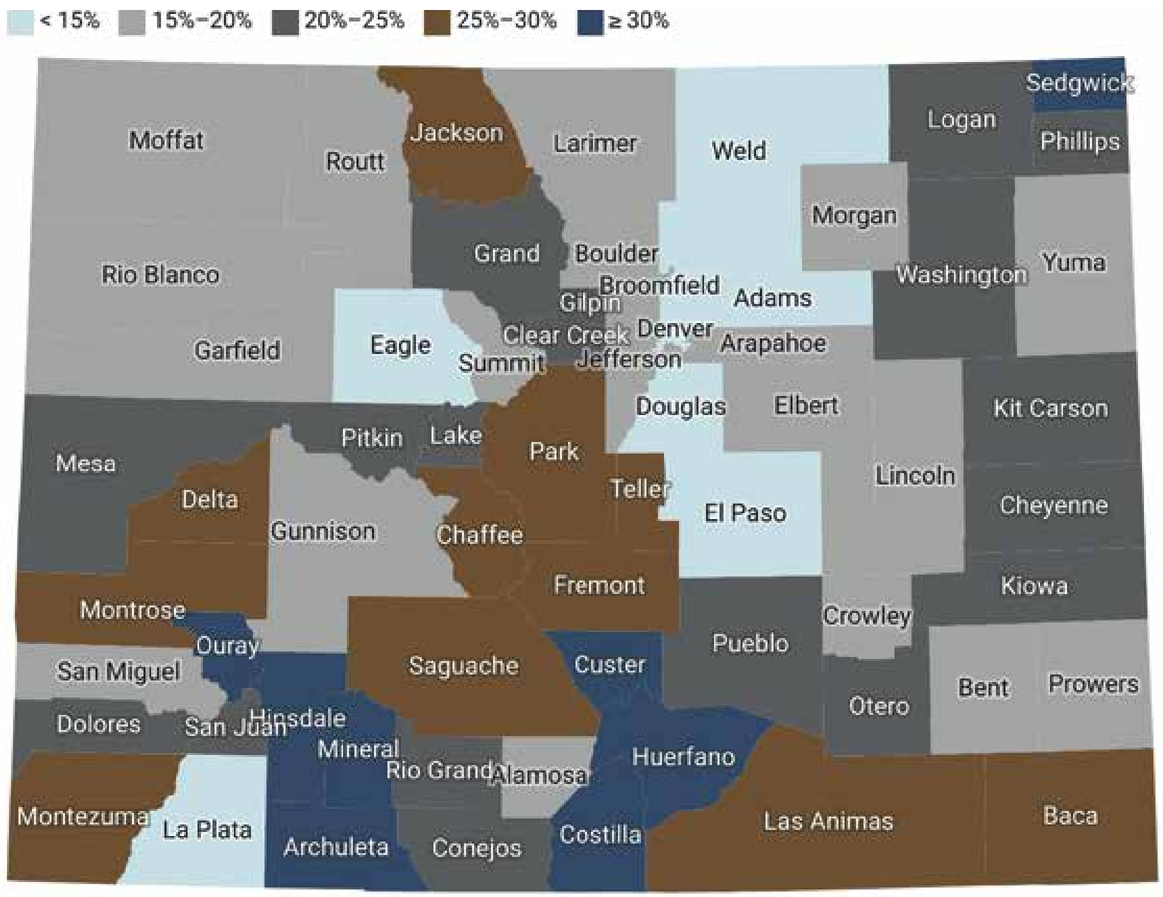
America's Health Rankings model identifies several factors that influence overall health outcomes, including clinical care, behaviors, physical environment, social

continued on page 106

Education and Health Services

continued from page 105

PERCENT OF POPULATION 65 AND OVER, 2023



Sources: Colorado Department of Local Affairs, State Demography Office. Created with Datawrapper.

factors, and economic factors. In the 2023 *America's Health Rankings* report, Colorado dropped from the 10th- to 12th-healthiest state. Cardiovascular disease increased by 23% between 2021 and 2022. Firearm deaths increased 16% between 2020 and 2021. Colorado ranks No. 21 for clinical care based on metrics related to access to care, preventive clinical services, and quality of care. Colorado's low-ranking characteristics include drinking water violations (43), excessive drinking (45), nonmedical drug use (49), and low-birth weight (42). In the *2024 Senior Report,* Colorado ranked as the 2nd-healthiest state overall, up from 3rd in 2023. The physical environment is the biggest detractor for Colorado seniors, including air pollution (17), drinking water violations (43), and housing cost burden (38) for an overall ranking of 41. Internet crimes ranked 49th.

Health Insurance Coverage

Health insurance coverage is categorized into several product buckets, collectively referred to as the addressable market. Coverage options include commercial group (employer-sponsored), commercial individual, Medicare, Medicaid, and uninsured. The Colorado Health Institute estimates that 95.4% of Coloradans have health insurance, based on the 2023 Colorado Health Access Survey.

Commercial Group and Individual

Commercial group or employer-sponsored insurance provided health insurance for 49.4% of Coloradans in 2023 in small and large group plans. This number has dropped 0.4 percentage points from 2021, as reported in the 2023 Colorado Health Access Survey. However, commercial group remains the primary avenue through which Coloradans receive coverage. Major insurers in Colorado include Aetna, Anthem, Cigna, Humana, Kaiser, and UnitedHealthcare.

The commercial individual market includes health plans for individuals who are not able to participate in state Medicaid or Children's Health Insurance Program due to income, are not Medicare eligible, and do not receive group insurance through their employer. This makes this health market responsive to factors influencing the other health insurance coverage options. In 2023, the public health emergency declaration extending Medicaid coverage during COVID ended, which could shift more Coloradans into the individual market. However, the full impact of this will not be available until new addressable market data are released. Between 2019 and 2023, the individual market decreased 1.8 percentage points from 7% to 5.2%.

Beginning in 2024, insurers in this market are required to offer a Colorado Option as mandated by HB21-1232. According to the Colorado Department of Insurance, this option accounted for 34% of enrollments as of January 18, 2024, or 80,655 people. In addition, most of the remaining Coloradans enrolling through Colorado Connect (12,485) were from the OmniSalud program, which provides undocumented immigrants residing in Colorado with a subsidized health insurance option.

Medicare

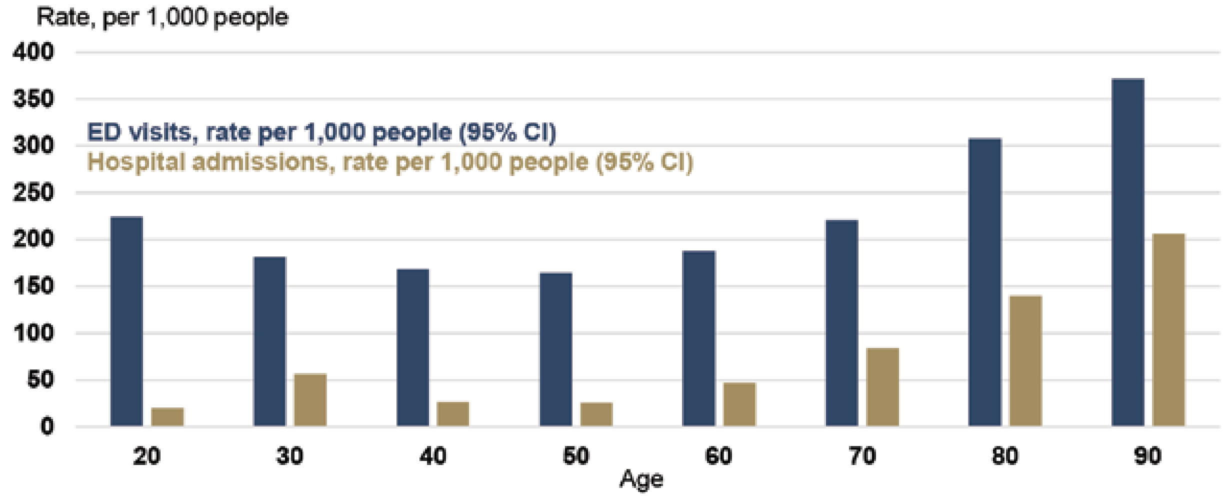
Medicare is a federally governed health insurance and covers individuals 65 and older and younger individuals who have specific medical needs. Traditional Medicare includes Part A and Part B. Individuals also have the option to purchase supplemental benefits (Medicare Advantage or Part C) through health insurance carriers. Part D coverage is Medicare drug coverage. Based on enrollment data provided by Centers for Medicare and Medicaid Services (CMS), 53% of Medicare enrollees have purchased supplemental Medicare Advantage benefits in July 2024. This is up from 37% in 2015—a 16-percentage-point increase.

The Medicare-eligible population has increased significantly in Colorado with the Medicare age-in of baby boomers. An estimated 16.8% of Coloradans are eligible for Medicare in 2024 based on standard age-in criteria. Medicare age individuals use health services at significantly higher rates than younger cohorts (*Acute healthcare resource utilization by age: A cohort study,* 2021). An aging population in Colorado and significantly higher demands for health care services will continue to drive an increase in demand for health care services into 2025 as the state's oldest baby boomers will turn 79. In 2026, the oldest baby boomers will turn 80 and will enter their highest years of health-care utilization.

Medicaid

Colorado's Medicaid program, known as Health First Colorado, covers approximately 1.2 million people, which represents slightly less than one of every four people in the state. Among the enrollees, approximately 428,000 are children, 579,000 are adults without disabilities, and 125,000 are seniors and people with disabilities (this population often has dual coverage with both Medicaid and Medicare). Colorado also covers another 90,000 higher-income children and pregnant women through a stand-alone Children's Health Insurance Program (CHIP), known in Colorado as the Child Health Plan Plus (CHP+).

EMERGENCY DEPARTMENT AND HOSPITAL ADMISSIONS



Source: Acute healthcare resource utilization by age: A cohort study (2021).

The Department of Health Care Policy and Financing, which administers the Medicaid and CHP+ programs, is the largest state department by appropriation in Colorado, with expenditures of approximately $15.1 billion in state during fiscal year 2023-24, including $4.5 billion from the State's General Fund. Since the beginning of the COVID pandemic, the Medicaid caseload has experienced a mixture of upward and downward pressures. Between March 2020 and May 2023, the caseload increased by over 570,000 people, an increase of more than 25%. Between May 2023 and May 2024, approximately 598,000 members were disenrolled. Notably this number is net of new enrollments and reenrollments that occurred in the same period. A more robust analysis of the disenrollment and reenrollment trends is available as part of Governor Polis' Fiscal Year 2025-26 budget proposal. As Medicaid caseload has decreased, the caseload in the Children's Health Insurance Program continues to increase. This is expected as the phenomenon of "churn" between Medicaid and CHP is a common and well documented occurrence.

Uninsured

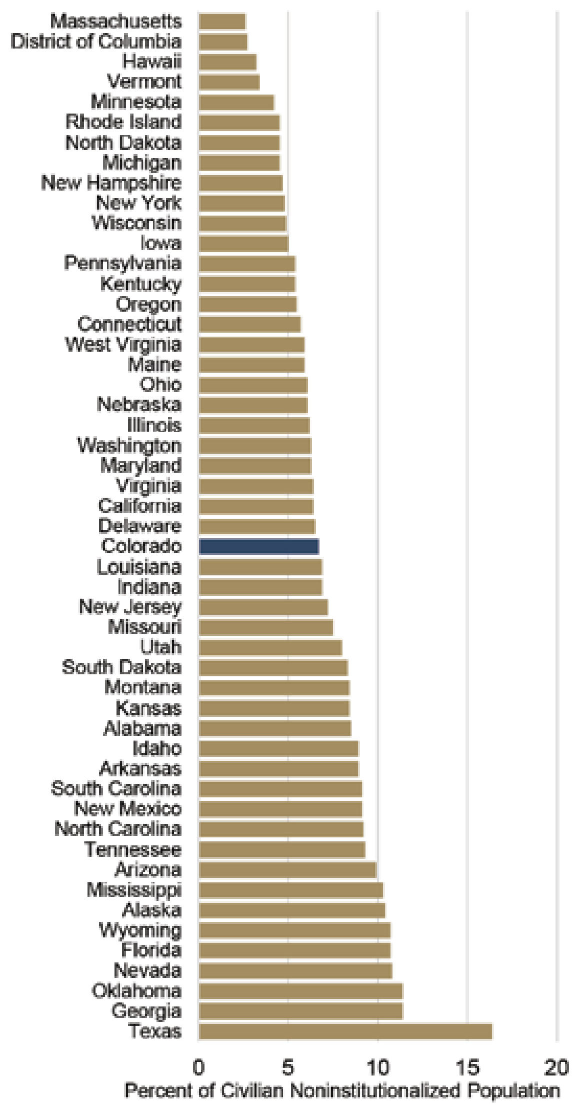
In 2023, Colorado's uninsured rate was 4.6%, according to the Colorado Health Access Survey. This is a 2-percentage-point decrease from the 2021 rate. However, this trend is expected to reverse as Medicaid eligibility redeterminations began May 2023 with the end of the public health emergency.

continued on page 108

Education and Health Services

continued from page 107

UNINSURED RATE, 2023



Source: U.S. Census Bureau, ACS 1-year Estimates, 2023.
Note: Estimates from Colorado Health Institute differ slightly from Census estimates due to methodology.

The Health Care Workforce

Health care jobs are not restricted to doctors and nurses. The health care system is tremendously complex and involves many support roles in IT and insurance. For every doctor in the United States, there are eight clinical professionals and eight nonclinical workers, according national estimates. Health care, therefore, drives employment across a wide range of occupations and skill levels. The primary employment segments in health care include ambulatory, hospitals, nursing and residential care facilities, and social assistance. In Q1 2024, the private health care workforce was 322,000.

Key occupations across these groups include:

- Physicians
- Registered Nurses, Licensed Practical, and Licensed Vocational Nurses
- Home Health Aides
- Reception/Information/Office Services
- Dentists and Dental Assistants
- Substance Abuse, Behavioral Disorder, and Mental
- Health Counselors
- Physical Therapists

Employment by Sector

Employment in the Ambulatory Health Services subsector was approximately 152,000 employees in Q1 2024. This subsector was one of the hardest hit employment subsectors early in the pandemic. However, it quickly rebounded and grew 8% between Q1 2020 and Q1 2024. Mental Health, a subset of Ambulatory Health Services, had 3,300 employees in Q1 2020. This subset has increased to 8,200 in Q1 2024. This is a 148% increase. According to the 2023 Colorado Health Access Survey, mental health continued to worsen postpandemic, and 17%, or 880,000 Coloradans, did not receive needed mental health care. Access to care continues to be a significant issue, despite significant gains in employment in this space.

Employment in the Hospital subsector was approximately 62,000 in Q1 of 2024. This workforce decreased 3.4% between Q1 and Q2 2020 due to the pandemic, then increased 2% between Q1 2020 and Q1 2024. This is the first time that employment in hospitals has exceeded the Q1 2018 total of 61,000. In addition to the impact of the pandemic on hospital services, value-based care initiatives focused on shifting care out of the hospital setting have put downward pressure on this subsector, shifting both services and employment into the Ambulatory Health Services subsector.

Employment in the Nursing and Residential Care subsector was approximately 43,000 in Q1 2024. This subsector experienced a 1% decrease between Q1 2020 and Q1 2024. Employment in this subset hit its lowest point in Q1 2022 at approximately 39,000 employees. This subsector consists of many low-paying, low-skill, and high-stress jobs that have had to compete for employees with other sectors that are seeking entry-level skillsets. Relatively low availability of employees in Nursing and Residential Care is one of the challenges for the state in supporting its growing 65+ population.

Social Assistance is the last subsector that makes up Health Services. There were approximately 65,000 employees in this subsector in Q1 2024, a 6% increase in employment from Q1 2020. Like the other sectors in Health Services, Social Assistance saw a significant drop in employment in Q2 2020 because of COVID. Employment has been slowly picking up since that initial drop, but employment finally exceeded the Q1 2020 numbers in Q1 2023.

Other Trends in the Health Care Workforce

The COVID pandemic had significant and lasting impacts on the health care workforce, with significant burnout experienced by clinicians. The Physicians Foundation conducted a survey of clinicians between June and July of 2024 with more than 1,700 responses.

Approximately 40% of respondents were primary care employees. Overall, 60% of the respondents reported burnout, a 20-percentage-point increase over prepandemic responses. Only 28% of respondents felt that the current state of the medical profession is positive. This is 4 percentage points lower than responses to this question in 2022. Outside of impacts due to the pandemic, health care consolidation was identified as a key issue. For physicians who were part of a merger or acquisition over the prior five years, 50% indicated that their job satisfaction was somewhat or significantly worse.

Health Care Delivery

Hospitals

Colorado hospitals are significant contributors to the state's economy, employing thousands of people in communities throughout the state each year. According to the Colorado Hospital Association, the state's hospitals contribute more than $18 billion to Colorado's economy each year.

According to the Colorado Hospital Industry Update in Q2 2024, operating margins are still significantly below prepandemic levels. Margins in Q2 2024 were 44% below Q2 2019 margins. Expense trends are outpacing revenue year-over-year. In Q2 2024, expenses were 40% higher than Q2 2019, whereas revenue is only 32% higher. The unreimbursed Medicaid costs were estimated at $490 million. In addition, emergency department utilization began increasing in Q3 2023. This coincides with Medicaid redeterminations that began May 2023.

As reported in the *Denver Post* in April 2024, Denver Health, a major safety-net hospital in downtown Denver, is having significant financial troubles. Denver Health is a disproportionate share hospital (DSH), with a high percentage of Medicaid and uninsured patients who pay less than the cost of care. The hospital does not have enough higher paying commercial patients to offset the losses it incurs. Pressures facing the hospital include lower reimbursement rates than nearby hospitals from insurers like Aetna and UnitedHealthcare, labor cost increases, supply cost increases, and an increasing homeless population (up 39% since 2018). The state has made some appropriations to shore up the hospital in 2023, and Kaiser Permanente Colorado donated another $10 million. Denver Health currently employs 5,000 employees, according to Zippia.

Pharmacy

According to an article titled "National trends in prescription drug expenditures and projections for 2024," in the *American Journal of Health-System Pharmacy,* expenditures on pharmaceuticals in 2023 totaled $722.5 billion and grew 13.6% over the prior year. This increase was driven by a 6.5% increase in utilization, 4.2% for new drugs in the market, and 2.9% for price increases. Semaglutide (weight loss), Adalimumab (arthritis), and Apixaban (anticoagulant, prevents blood clots) were the top drugs for 2023. Expenditures for 2024 are expected to increase by 10%.

Public Policy

Colorado Legislative Session

Colorado's 2024 legislative session included a diverse range of health care-related bills. A significant number of bills passed by the General Assembly focused on health care, health insurance, behavioral health, and public health.

Successfully passed bills include:

- S.B. 24-110, which prohibits the ability of Healthcare Policy and Financing (HCPF) to prior authorize antipsychotic prescription drugs;
- S.B. 24-168, which requires HCPF to reimburse for certain telehealth remote monitoring services;
- HB 25-1045, which among other provisions requires HCPF to seek federal authorization to provide reimbursement for certain services to members upon release from jail or a juvenile institutional facility;
- H.B. 24-1146, which updates and addresses HCPF's ability to manage the risk of fraudulent billings for covered services;
- HB 24-1229, which authorizes HCPF to begin the process of presumptive eligibility for persons in need of long-term services and supports;
- HB 24-1384, which requires HCPF and the BHA to submit an application to the federal substance abuse and mental health services administration (SAMHSA) for a certified community behavioral health clinic demonstration planning grant; and
- HB 24-1400, which extends flexibility pertaining to certain Medicaid eligibility determination procedures that were suspended during the pandemic until January 1, 2025, to align state statute with federal guidance.

Colorado Request for CMS Waiver Extension

Healthcare Policy and Financing (HCPF), the state Medicaid office, has an existing waiver granted by the Centers for Medicare and Medicaid Services (CMS) and effective from January 1, 2021 through December 31, 2025 (1115 SUD waiver). This waiver gives the state the authority to provide treatment to participants with substance use disorders. HCPF is requesting an extension of this demonstration under the new name, "Comprehensive Care for Colorado."

The extension would allow the state to continue to provide high-quality, clinically appropriate SUD treatment services for short-term residents in residential and inpatient treatment settings that qualify as an Institution for Mental Disease (IMD). It also allows for presumptive eligibility (PE) for the long-term services and supports (LTSS) population that will allow eligible individuals in identified crisis situations to self-declare eligibility. HCPF is also requesting amendments to the demonstration including:

- Reentry services for adults and youth transitioning from correctional facilities — Submitted April 1, 2024

continued on page 110

Education and Health Services

continued from page 109

- Reimbursement for acute inpatient and residential stays in IMD for individuals diagnosed with a serious mental illness (SMI) or serious emotional disturbance (SED) — Submitted April 1, 2024
- Continuous eligibility for children 0-3 years and 12 months of continuous coverage for individuals leaving incarceration — Submitted April 1, 2024
- Health Related Social Needs (HRSN), housing and nutrition supports — Submitted August 12, 2024

Medicare Reimbursement Policy

At the federal level, the 2024 final notice for Medicare Advantage and Part D rates set a three-year phase-in period to adjust the growth rate factor used to calculate reimbursement to health plans, according to the Centers for Medicare and Medicaid Services. This is anticipated to put significant downward pressure on Medicare revenues due to decreased rates for star ratings (-1.2%) and risk model revision and normalization (-2.2%). Further, President Biden released a health care agenda including expanded access to care, decreasing drug prices, and moving toward value-based care. The Value in Health Care Act of 2023 was introduced in July 2023 to revise alternative payment models and Medicare value-based care programs. Value-based care programs are intended to incentivize insurers and providers to improve the health outcomes for members while keeping medical expenses down.

Presidential Election

There are a number of health care-related policies that could change as the result of the incoming Trump administration as identified by NPR ("Here's where Harris and Trump stand on three big health care issues," October 28, 2024) and *Advisory Board* ("What a Trump presidency could mean for healthcare," November 6, 2024). Key topics to watch include:

1. Medicare Drug Pricing Negotiations
   a. New policies under the Biden administration allow Medicare the ability to negotiate the price of drugs directly. Some Republicans are concerned that drug companies will have less incentive to develop new drugs. President-elect Trump has previously voiced concerns over the cost of drugs within the country. However, the incoming administration hasn't yet indicated specific policies to address this issue.
   b. The first Trump administration expanded access to telehealth services and expanded supplemental benefits to recipients experiencing chronic illness. President-elect Trump has indicated an intent to bolster Medicare and bring down expenses.
2. Affordable Care Act (ACA)
   a. In 2021, the cap on income to 400% of the federal poverty level for government subsidies was removed for purchasers in the individual market. This decreased consumer premiums by almost half. These enhanced subsidies are set to sunset at year-end 2025. If not extended, enrollment in the individual market is expected to decrease. However, Republicans, including President-elect Trump, have previously argued that this enhancement should expire. However, Trump has not taken a formal position at this time.
   b. In his first term, President-elect Trump endeavored to repeal and replace the ACA. In his upcoming term the Trump administration could see renewed efforts to modify the individual market including dividing risk pools and offering different plans based on risk (as suggested by Vice-President Elect JD Vance), expand short-term health plan options, or restrict the scope and/or access to the individual market.
3. Reproductive Health
   a. Currently, there are two drugs, mifepristone and misoprostol, that can be taken to cause an abortion. These drugs currently account for two-thirds of U.S. abortions. In addition, the Biden administration has allowed these drugs to be prescribed via telehealth. President-elect Trump has indicated that he is willing to consider restrictions but hasn't taken a formal position at this time.
   b. President-elect Trump stated that he will protect in-vitro fertilization and that insurance companies would be mandated to cover these services.
4. Other Policies
   a. President-elect Trump has pledged to establish a presidential commission to evaluate a myriad of health-related issues including the rise in chronic illnesses, food policies, environmental factors influencing health, and an evaluation of the scope and efficacy of federal agencies related to health services.

Health care is a key public policy issue, and President-elect Trump has identified a number of areas of concern for his incoming administration. Major issues include costs (Medicare and prescription drugs), access, reproductive health, chronic illness, and the oversight and reach of existing federal agencies.

Other Notable Trends In Health Care

AI in Health Care Delivery

Artificial intelligence (AI) became a major policy debate across many industries in 2023, with the introduction of ChatGPT in late 2022. In the health care industry, AI can help with diagnose and predict disease, make clinical decisions, monitor patients, and improve communication with patients. The University of Colorado Anschutz Medical Campus is home to the Center for Health AI and the CU Department of Biomedical Informatics, entities committed to harnessing the power of medical data to drive innovation for improving patient care.

AI in health care has continued to gain traction. According to an *Advisory Board* article, Harvard Medical School developed a new AI model to help identify treatments for rare diseases called TxGNN. It uses clinical notes, genetic information, and cell signaling (the communication between cells within the body). The model is performing 50% better at identifying individuals for approved and experimental drugs than other AI models and 35% better at predicting drugs that should not be used.

Climate Change

The 2023 Colorado Health Access Survey began tracking health effects that Coloradans attribute to climate change. The two highest concerns identified include respiratory-related issues (66%) and mental health or substance abuse (33%). Between 30% and 60% of respondents did not believe that their community was prepared to address disasters related to the climate. Counties on the Western Slope were the most confident, with 60%-75% feeling confident with community preparedness and the Eastern Plains feeling the least confident, with only 39%-50% feeling confident.

Disrespect of Patients in Health Care

According to the 2023 Colorado Health Access Survey, 7.1% of patients reported feeling disrespected in a health care setting over the prior year. This was 3.3 percentage points higher than the 3.8% reported in 2021. Reasons that Coloradans cited included age (38%); socioeconomic status (35%); race (31%); a disability, physical, or mental condition (29%); weight (25%); gender (24%); and cultural (22%). Young adults ages 18-25 were significantly more likely to report disrespect, at 16%. This is 10 percentage points higher than the next largest group, adults ages 26-34.

Cyberattacks in Health Care

Health care systems have become a primary target for cyberattacks. In early 2024, the Change Healthcare (a subsidiary of UnitedHealth Group) breach and the Ascension health system breach put personal health information and personal identifying information at risk for patients, provider claims processing, and payments. Utilization management and other cost control measures were paused during the disruption, which may have impacted how and what services members received. Both of these breaches impacted systems and providers in Colorado. Change Healthcare is a health payment processing company, and the breach caused huge disruptions to claims and payments. This had a substantial financial impact as Change Healthcare accounts for one-third of health care claims, according to a *JAMA Health Forum* article. Ascension owns the five Adventist Health hospitals, in addition to affiliated clinics in Colorado.

Conclusion

The Health Care and Social Assistance sector had significant gains in employment through Q1 2024, with a 5% increase over Q1 2020. Ambulatory care is the largest employment subsector and saw the highest growth, 8%. Mental health employment is a subset of ambulatory care and grew 148% over the same period. However, despite this growth, Coloradans still struggle to receive the mental health services that they need. The Hospital subsector saw a 2% increase over Q1 2020. It exceeded Q1 2018 employment for the first time in Q1 2024.

The number of Coloradans with health insurance increased to 95.4%, according to the 2023 Colorado Health Access Survey. This is a 2-percentage-point increase from 2021 and is the first significant shift since impacts of the Affordable Care Act were observed in the 2015 survey. However, Medicaid started redetermining eligibility with the sunset of the public health emergency for the COVID pandemic in May 2023. The Colorado Hospital Industry Update in Q2 2024 saw an increase in uninsured patients that they attributed to the redeterminations.

With 2024 being a presidential election year, the outcome of the election is expected to have significant impacts to the health care sector. Key issues within the health care policy include Medicare drug pricing negotiating power, ACA enhanced subsidies, and abortion drugs.

Contributors:
Kristina Kolaczkowski, Optum (Co-Chair)
Richard Thompson, National University (Co-Chair)
Emily Orr, Department of Health Care Policy and Financing
Stephanie Thompson, American InterContinental University

Leisure and Hospitality

Employment Overview

In 2024, job growth in the Leisure and Hospitality sector fell short of earlier projections, indicating that the industry's recovery continues to face significant headwinds. The industry grew 4% in 2023, finally recouping pandemic-era job losses. Sector employment grew more modestly in 2024, reaching an average of 356,900, a 1.4% increase. The slower growth underscores ongoing challenges, including labor shortages, inflationary pressures, and changes in consumer behavior.

One of the primary obstacles to meeting job growth expectations has been persistent inflation. Rising costs have affected both businesses and consumers, placing new pressures on the Leisure and Hospitality industry. For businesses, inflation has increased operating costs for essential supplies, utilities, and services. These higher expenses constrain budgets, making it more difficult for employers to hire or offer competitive wages that could attract the necessary workforce. Additionally, inflation has impacted consumer spending patterns, reducing discretionary income and limiting demand for Leisure and Hospitality services. As a result, businesses may be hesitant to expand hiring when consumer demand remains uncertain.

Labor shortages continue to compound these challenges. Despite increased demand for Leisure and Hospitality services, the industry has struggled to attract and retain workers. Many potential employees have shifted to other industries that offer more stable schedules, higher wages, or benefits that are more resilient to economic fluctuations. The competition for labor, especially in a high-inflation environment, makes it difficult for the Leisure and Hospitality sector to fill openings, slowing down employment growth even as consumer demand stabilizes.

Looking forward, the baseline forecast anticipates only slight growth in 2025, with an estimated increase of 3,300 jobs (0.9%) as the industry grapples with these persistent economic challenges. Inflation, labor shortages, and competition from other sectors are likely to continue influencing job growth, highlighting the need for strategic approaches to attract and retain workers in an evolving labor market.

LEISURE AND HOSPITALITY EMPLOYMENT 2015-2025 (In Thousands)

Year	Arts, Entertainment, and Recreation	Total Accommodation and Food Services	Total Leisure and Hospitality[a]
2015	50.8	262.0	312.8
2016	52.9	270.8	323.6
2017	55.4	277.8	333.2
2018	56.9	282.8	339.7
2019	59.1	286.3	345.4
2020	44.4	227.6	272.0
2021	50.3	255.4	305.6
2022	57.1	281.2	338.4
2023[a]	61.5	290.3	351.8
2024[b]	62.6	294.3	356.9
2025[c]	63.2	297.0	360.2

[a]Revised. [b]Estimated. [c]Forecast. Note: Due to rounding, the sum of the individual sectors may not equal the total.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

INDUSTRY SNAPSHOT LEISURE AND HOSPITALITY

Nominal GDP, 2023 ($ Billions)	29.1
Real GDP, 2023 ($ Billions, 2017 Dollars)	21.3
2023 Real GDP Growth Rate	1.8%
Total Employment, 2023 (Thousands)	351.8
2023 Employment Growth Rate	4.0%
Employment Growth National Rank	32
Share of Colorado Employment	12.0%
Share of National Employment	10.6%
Average Wage, 2023	35,665
Percent of Statewide Average Wage	45.5%
2023 Average Wage Growth Rate	5.3%

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics.
Note: 2023 employment includes revised estimates.

Tourism In Colorado

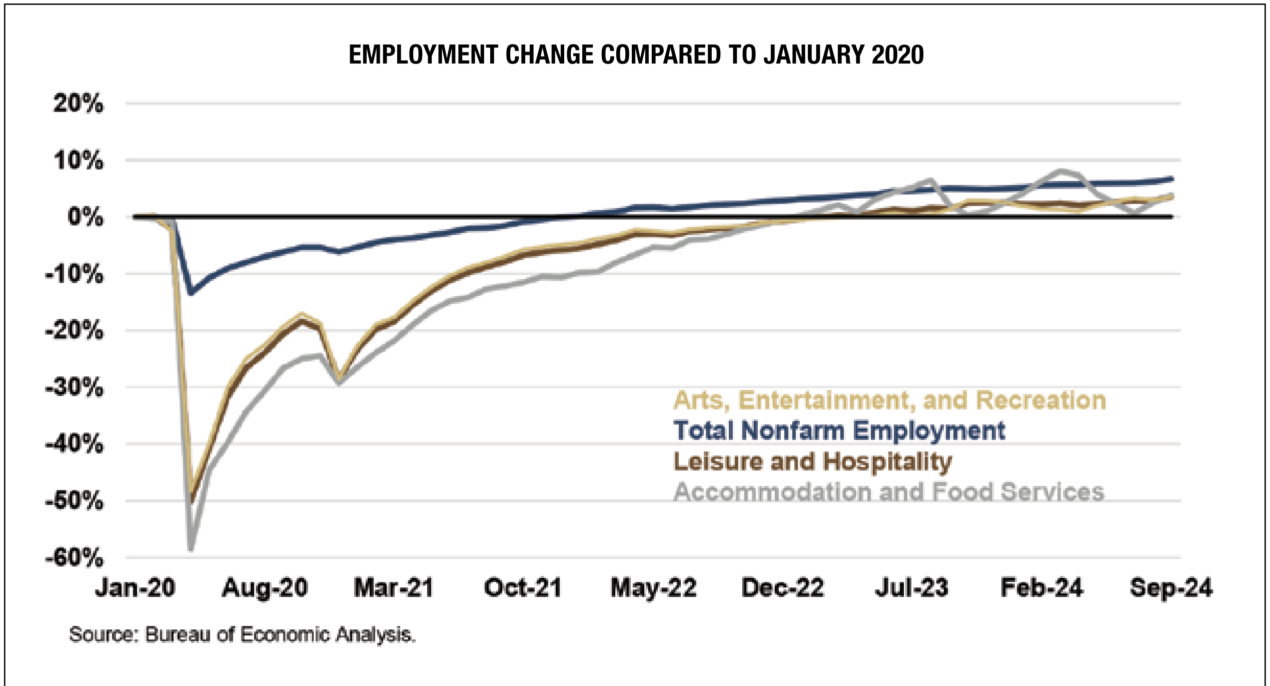
The Colorado Tourism Office

The Colorado Tourism Office (CTO) is a division of the Colorado Office of Economic Development and International Trade, with a mission to inspire responsible and respectful exploration of Colorado. CTO achieves this mission by advancing collaborative partnerships with destination marketing organizations, local communities, and private businesses, focusing on inclusivity, innovation, and leadership to strengthen the tourism industry. Recognizing tourism as a vital economic driver, the CTO aims to promote responsible travel experiences while balancing resident quality of life and safeguarding cultural and natural resources.

2023 Annual Tourism Research

The Colorado tourism industry continued its steady growth in 2023, generating a record high of $28.2 billion in travel spending and welcoming 93.3 million visitors. According to an annual economic impact report developed by Dean Runyan Associates, travel spending in Colorado increased by $1 billion from $27.2 billion in 2022 to $28.2 billion in 2023, a 3.9% increase. Half of this growth is attributed to the Denver Metro area and Front Range counties.

Additionally, the Longwoods International Travel USA Report identified that visitation to Colorado increased by 3.3 million visitors, from 90 million in 2022 to 93.3 million in 2023, a 3.6% increase. Notably, 85% of overnight travelers were repeat visitors, and 62% had visited within the past 12 months. The average length of stay for overnight visitors was 3.5 nights.



State and local tax revenue also grew to a combined $1.8 billion in 2023, a 5.7% increase from the prior year. As a result, the tourism industry in Colorado contributed $800 in tax benefits for every Colorado household in 2023.

Direct travel-generated employment saw an increase of approximately 9,450 jobs, totaling 187,710 jobs in 2023, a 5.3% rise compared to 2022. The Accommodation and Food Services sector accounted for 3,320 new jobs, a 3.3% increase, while the Arts, Entertainment, and Recreation sector grew by 8.7%, adding 3,760 jobs. In 2023, every $1 million in travel-related spending continued to support approximately six jobs in the industry. Overnight business trips also rose by 7% from 2022.

Other significant impacts from the 2023 studies include direct travel-generated earnings growing from $8.7 billion in 2022 to $9.9 billion in 2023, an increase of 13.3%. Earnings from Accommodation and Food Services grew from $4.1 billion to $4.4 billion, a 7.9% increase. Travelers spent approximately $13.9 billion in the Denver region alone in 2023, making up 49.3% of the statewide total.

Insights into 2024 Colorado Tourism Industry Performance

Smith Travel Research (STR) reports that statewide hotel performance is in a period of decline in 2024. According to STR data, statewide hotel metrics comparing January to September 2024 data to 2023 data show a decline across the following categories:

- Occupancy: 72% vs. 76% (-5.8%)
- Average Daily Rate (ADR): $164 vs. $167 (-1.6%)
- Revenue per Available Room: $117 vs. $127 (-7.3%)
- Revenue: $2.76 billion vs. $2.95 billion (-17.4%)

This is attributed to postpandemic demand starting to normalize after the high year-over-year growth during the years of 2021 and 2022. Additionally, this softening is causing mixed regional performance across Colorado.

Insights into 2024 Colorado Airport Trends

Colorado airports have been posting record numbers of passengers in 2024, and continued growth is expected in 2025. Denver International Airport, in particular, continues to be a leading world airport, coming in at the 3rd-busiest airport in the United States as of August 2024 and 5th-busiest in the world. Below are the growth percentages year to date (YTD) August 2024 vs. 2023:

- Denver – YTD passenger traffic up 8.4% vs. 2023 and up 22.9% vs. 2022
- Aspen – YTD passenger traffic July up 14.2% vs. 2023 and up 14.9% vs. 2022
- Colorado Springs – YTD passenger traffic up 12.3% vs. 2023 and up 18.5% vs. 2022
- Eagle County – YTD passenger traffic up 24.2% vs. 2023 and up 34.9% vs 2022
- Grand Junction - YTD passenger traffic up 11.2% vs. 2023 and up 25.1% vs. 2022

International Travel

International visitors remain Colorado's highest-value travelers, spending an average of $1,300 per person per trip while visiting the state. In 2023, markets with visitation at or above 2019 levels included North America, Germany, and India. Travelers from India increased their visitation to the U.S. by 40% and to Colorado by 141% over 2019. Overseas visitors (excluding Canada and Mexico) are the highest-value visitors to the state, staying longer and spending an average of $2,165 per person per trip. Overseas visitation and spending in Colorado are down 30% in comparison to 2019, largely due to the slow recovery of travelers from the Asia Pacific region; however, this region is up 34% in visitation and 42% in spending over

continued on page 114

Leisure and Hospitality

continued from page 113

Biking along the Colorado River. Photo courtesy of Visit Grand Junction.

2022 and forecast to recover in 2025. European travelers are forecast to return to 2019 levels in 2024.

Looking beyond 2024, the CTO will continue to target the international markets of Australia, Canada, France, Germany, Mexico, and the United Kingdom.

Key CTO Stewardship Initiatives

Destination Stewardship Education and Promotion

The CTO has reinforced its commitment to responsible tourism with the release of the groundbreaking Colorado Destination Stewardship Strategic Plan, the first of its kind from a state tourism office. This comprehensive plan includes a statewide strategy and eight regional plans developed with input from over 1,000 stakeholders to balance the quality of life for residents with the visitor experience while safeguarding Colorado's natural environment, cultural heritage, and vibrant communities. The plan sets a new standard for sustainable tourism management by integrating industry-leading key performance indicators (KPIs) and offering a model adaptable for other states.

The strategic plan underscores Colorado's leadership in destination stewardship within the tourism industry, highlighting a collaborative approach that involved industry leaders, government agencies, and local communities. This initiative builds on existing local efforts and aligns strategies across all destinations in Colorado, ensuring that tourism growth complements community and environmental preservation. By fostering partnerships and shared responsibility, the plan positions tourism as a force for good, balancing economic benefits with the protection of cultural and natural resources.

A key destination stewardship initiative for Colorado is the "Do Colorado Right" campaign to educate both residents and visitors on traveling safely and responsibly, enhancing the visitor experience while preserving the natural beauty of Colorado. By partnering with companies like 9NEWS and Ball Corporation, as well as influential figures like Nelson Holland and Phil Henderson, the campaign promotes a holistic approach to harmonizing residents' quality of life, a strong visitor economy, and the protection of cultural and natural resources. As tourism pressure grows, the CTO and its partners work together to mitigate the negative impacts of tourism and strengthen the tourism economy, emphasizing the importance of responsible travel and destination stewardship.

Grants and Funding Programs

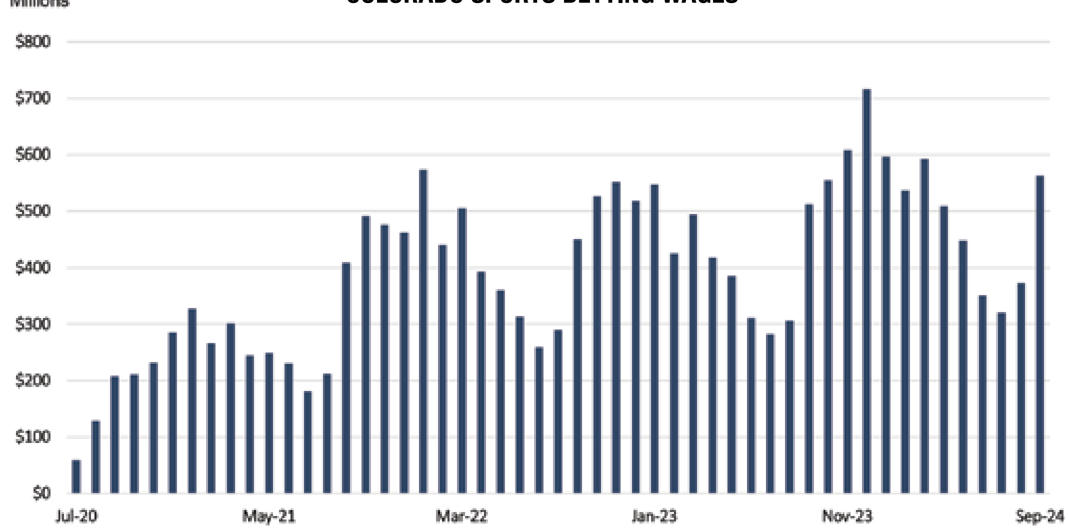
The CTO offers an array of grants and funding programs that play a vital role in supporting Colorado's tourism industry. The Tourism Marketing Grant supports destination and industry association marketing efforts, while the Tourism Management Grant aids projects that enhance visitor experiences. These initiatives not only boost the economic impact of tourism but also foster collaboration among partners, strengthening Colorado's tourism brand and promoting sustainable growth in the sector. By providing financial support, the CTO's Grants and Funding team aims to enhance the visitor experience, sustain the visitor economy, and support local quality of life. In FY 2024, the CTO gave $812,048 in grants and funding to 29 partners impacting over 20 counties.

Destination Development Initiatives

Destination development is a cornerstone of Colorado's tourism industry, focusing on enhancing visitor experiences, preserving unique destinations, and advancing off-peak tourism opportunities. Programs like the "Colorado Electric Byways," "Accessible Travel Program," and "Colorado Dark Sky Mentor Certification" encourage sustainability, provide exceptional stargazing opportunities, and support local businesses. Additionally, initiatives like "Destination Blueprint" and the "Destination Development Mentor Program" foster collaboration, alignment with local strengths, and industry growth.

continued on page 116

COLORADO SPORTS BETTING WAGES



Source: Colorado Department of Revenue, Sports Betting Monthly Reports.

Leisure and Hospitality

continued from page 115

COLORADO CASINOS
2014–2024

			Adjusted Gross Proceeds (In Millions)			
Year	Casinos Open	Devices	Black Hawk	Central City	Cripple Creek	Total
2014	37	14,168	$561	$62	$123	$746
2015	36	13,823	596	66	128	790
2016	35	13,509	610	70	131	811
2017	34	12,958	621	72	135	828
2018	33	12,969	623	79	140	842
2019	33	12,848	613	80	141	834
2020	35	10,878	400	56	104	560
2021	33	10,568	728	83	165	976
2022	33	10,982	813	82	165	1,060
2023	33	10,787	841	82	165	1,088
YTD Sept. 2023	33	10,807	635	63	126	824
YTD Sept. 2024	33	10,946	642	60	139	841

Source: Colorado Division of Gaming. Note: AGP calculated on an annual basis, hence different from the state fiscal year.

These initiatives bolster Colorado's economic vitality, enhance the visitor experience, and promote responsible and inclusive tourism.

Industry Partnerships

The CTO thrives on strategic partnerships with industry entities, promoting responsible and sustainable tourism in the state. Notable collaborations include the "Care for Colorado Coalition" with Leave No Trace, which educates on preserving natural and cultural resources, the "Colorado Tourism Leadership Journey" for professional development, and the "CTO Learning Labs" for workforce training. The "Do Colorado Right" campaign is created in conjunction with subject-matter experts such as Colorado Search and Rescue, the Colorado Department of Agriculture, the Colorado Department of Transportation, and more. The "Michelin Guide Colorado Partnership" showcases culinary excellence of destinations throughout the state, contributing to economic growth, while the "Inclusivity in Travel Coalition" focuses on diverse audience experiences. These partnerships exemplify CTO's commitment to responsible tourism, industry leadership, and economic prosperity.

Casinos

For the fiscal year ending in June 2024, Colorado casino adjusted gross proceeds (AGP), which is defined as the amount wagered by players less payout from the casinos to all players, were over $1.1 billion. Gaming taxes paid to the state were over $175 million, up 1.4% from 2023.

Black Hawk continues to dominate the Colorado casino sector with over a dozen casinos, 5,988 devices, and a majority of the AGP. Cripple Creek has nine casinos and 2,989 devices, and Central City has six casinos and 1,678 devices.

The inception of sports betting has proven to be an asset to the many Coloradans who avail themselves to sports and gaming as well as the many beneficiaries who enjoy the taxes paid by the casinos. Colorado voters approved a ballot referendum creating a 10% tax on net sports betting proceeds in 2019. These tax revenues finance the sports betting's ongoing regulation, a hold harmless fund for limited gaming recipients, gambling addiction services, and fund water projects and water-related obligations. In 2024, Colorado voters approved removing the cap on taxable revenue earned through sports betting, which will allow excess tax collections to be directed to water conservation projects.

Sports Betting

Colorado sports betting wages totaled $562.9 million in September 2024, up 9.8% year-over-year. Through September 2024, betting wages were up 16.6% from the prior year.

Colorado Restaurant Industry

Restaurants play a crucial role in Colorado's economy, generating hundreds of thousands of jobs, fostering career development, and acting as community hubs throughout the state. The National Restaurant Association reports that each dollar spent in Colorado's restaurants boosts the state economy by $2.21, and every $1 million spent creates 16.8 local jobs.

The restaurant industry has recovered in some ways from the COVID pandemic that began in 2020, but in other ways, economic and regulatory challenges continue to rock local businesses, leading to reduced profitability and many closures.

Colorado restaurants are facing what feels like never-ending increases to operational costs, labor challenges in terms of both rising wages and a dearth of skilled talent, and concerns about the viability of the traditional restaurant model, particularly for full-service dining. Consumer challenges include tipping fatigue and push back against service charges and menu-price increases. Legislative over-regulation regarding pay practices is also an ongoing struggle.

Restaurant Sales Are Softening

Colorado restaurant industry retail sales totaled $15.5 billion in 2019, based on data from the Colorado Department of Revenue. Sales fell more than 22% due to the pandemic, but rebounded 33% in 2021 to reach new record levels. Industry growth was sustained, albeit at slower rates, in 2022 (14.7%) and 2023 (6.2%). Year-to-date in July 2024, growth slowed further to 2.9% year-over-year.

Given that inflation and wage growth have led to increases in menu prices over the past several years, the above rates of growth in restaurant retail sales show a softening; profitability is more endangered than ever.

Nationally, when adjusting for menu-price inflation, eating and drinking place sales have been flat since the end of 2023. According to National Restaurant Association data, 38% of operators report their business is not currently profitable; 43% of operators still carry pandemic-related debt; and 89% report increased operational costs. A busy restaurant is not always a thriving business.

Labor Complications

When the pandemic hit, Colorado's Accommodation and Food Services workers experienced some of the most extreme job losses of any industry; the workforce dropped by 48.5% between February 2020 and April 2020. The industry quickly began the path to recovery, but it took until 2023 for sector employment to recoup the jobs lost from the recession. As of September 2024, sector employment stood at 298,200, or 3.1% above the pre-recession peak.

By 2032, the National Restaurant Association estimates that Colorado restaurant and foodservice jobs will grow by 17.3%.

Nationally, food services and drinking places—which account for 87% of the jobs in the combined Accommodation and Food Services sector, according to the Bureau of Labor Statistics (BLS)—employed 12.4 million workers in October 2024 and recorded growth of 1.4% year-to-date. Current employment levels in the industry now surpass prepandemic figures.

These gains must be considered against the number of open positions in the foodservice sector, which show that the labor shortage continues for the growing industry. As of September 2024, there were approximately 948,000 job openings in the Leisure and Hospitality sector, reflecting a slight decrease from the previous month, according to Job Openings and Labor Turnover Survey (JOLTS) data from the BLS. For comparison purposes, in 2019, there were an average of 996,000 leisure and hospitality job openings in the United States each month.

According to a National Restaurant Association tracking survey conducted in September 2024, recruiting employees remains a top challenge facing the industry, outranked only by sales volume and the economy.

Wage Woes

Colorado restaurant wages continue to grow at rates that outpace both national and statewide wage growth for all industries. According to the BLS, average annual pay rose 12.5% in 2021, 8.4% in 2022, and 4.8% in 2023. According to a fall 2023 survey of Colorado Restaurant Association member restaurants, labor costs across the state increased for more than 95% of restaurant operators since September 2022, and hourly wages increased by an average of 20%; one-third of local restaurants increased wages by more than 20%, with some operators paying increases as high as 40% and 50%.

The state's continually rising minimum wage rate is having a severe impact on local restaurants and workers in the restaurant industry, forcing unintended consequences that are impacting businesses and consumers alike.

Using the state's capitol as an example, Denver's tipped minimum wage has increased 89% since 2019, and the non-tipped minimum wage is up 64.8% in that same time period. Exacerbating the toll on businesses, the tip credit—the $3.02 per hour discount to the full minimum wage that operators can pay tipped employees, as long as the employees earn the rest in tips—is codified in the state's constitution. In contrast, consider New York City, where the non-tipped minimum wage for foodservice workers is $10.65 per hour, with a tip credit of $5.35.

The annual increases to Colorado's minimum wage rates costs businesses millions of dollars each year, and forces menu price increases, reduced staffing, and even restaurant closures.

In an August 2024 survey of Denver restaurant operators, respondents reported that the city's anticipated 2025 minimum wage increase to $18.81 per hour (up from $18.29) will cost local operators an average of $51,375 annually. As a result, 80% of restaurant respondents will increase their menu prices; 65% will decrease staffing levels; 35% will implement a service charge; 30% will reduce hours of operations; and 10% will close a location or locations.

Inflationary Impacts and Operating Costs

In 2022, the Denver-Aurora-Lakewood MSA recorded the highest inflation in nearly four decades, increasing 8% year-over-year. The Consumer Price Index (CPI) for food items increased 10.3%. As of September 2024, the All Items index increased 1.4% year-over-year, and the Food index was up 2.1%.

The cost of food, liquor, and labor is higher than ever for local restaurants, but inflation has also pushed up the price of construction, insurance, utilities, and property taxes. Denver's inflation between September 2019 and September 2024 grew nearly 22%. High interest rates are also causing financial strain for restaurant operators. The rising cost of food, labor, energy, real estate, taxes, and more are shrinking the profit margin for Colorado restaurants.

continued on page 118

Leisure and Hospitality

continued from page 117

Dallas Divide. Photo courtesy of Tony Gurzick.

Enhanced Technology

Technology is an ever-increasing element of restaurant operations, and operators often turn to tech to offset increased costs elsewhere. In August 2024, digital orders for fast food were up 11% compared to February 2020; up 11% for quick service restaurants; and up 7% for full service. Tech is helping operators market their brands through digital and location-based marketing and loyalty programs; streamline delivery operations, counter-service ordering, reservations systems, and inventory management; and enhance the customer experience through smartphone apps, contactless order and payment, and more. Artificial intelligence is also becoming a normalized part of the industry, through integration, augmented reality, robotics, and drones and autonomous delivery.

Workforce Development Efforts

The Colorado Restaurant Association (CRA) and Colorado Restaurant Foundation (CRF) continued to support local restaurants across several programs and initiatives in 2024, including workforce development through the CRF.

Colorado's Registered Apprenticeship program is an award-winning example of workforce development at the highest level. Launched through a CRF partnership with the National Restaurant Association Educational Foundation (NRAEF), the CRF has enrolled more than 130 apprentices at 124 apprentice-employer restaurants and hotels across the state. The program has an 85% overall retention rate and an 85% completion rate; by the end of the year, 23 apprentices will have graduated from the program.

The CRF also manages the Colorado ProStart® high school hospitality education program with the CRA and the NRAEF, which trains juniors and seniors in restaurant/hospitality management, culinary arts, and business economics. It provides high school and college academic credit, scholarships, and work opportunities. In 2024, there were approximately 2,000 Colorado ProStart® students at 48 schools across the state. The CRF expects the number of ProStart® schools to grow to at least 50 in 2025, with three additional schools on their waitlist due to pending funding and capacity.

In summer 2024, the CRF launched its pilot Bridge Internship Program, which was a huge success. This four-, six-, or 12-week program provided a stepping stone to employment for participants in the CRF's entry-level programs, including Colorado ProStart®. Over the course of the summer, 17 interns were immersed in industry roles in Longmont, Loveland, Colorado Springs, Durango, and Denver.

The CRF has also distributed more than $4 million in Angel Relief Fund emergency assistance grants to local restaurant workers since the pandemic began, and this year launched a partnership with Khesed Wellness to provide a therapy-session subscription model to Colorado restaurants to help their teams maintain positive mental health outcomes.

Legislation and Policy Environment

The 2024 legislative session was challenging, but ultimately successful for the restaurant industry. The CRA effectively ran legislation to allow restaurants and other on-premise retailers to offer alcohol for takeout and delivery on a permanent basis, an allowance that would have otherwise expired in 2025.

The CRA also mobilized restaurant operators and advocates to push back on proposed legislation that would have allowed local governments to eliminate the tip credit. Thanks to the grassroots efforts of CRA members and quick mobilization, the legislation was never introduced by its sponsors.

The CRA also worked with policymakers to secure significant amendments to legislation touching a variety of issues, from fee transparency to the ability to utilize cookware and equipment that includes PFAS and other nonstick products common to the industry.

At the local level, there were six separate municipal efforts to increase minimum-wage rates. Due to advocacy by CRA staff and its membership, five of the six municipalities considering an increased wage appear to have decided against it; one other municipality adopted a far more modest increase than originally proposed.

There has also been an increase in city-level ordinances targeting the inclusion of sodas and other sugar-added drinks in kids' meals at restaurants, with two municipalities enacting bans in 2024. The CRA worked with both municipalities to ensure the bans were established in such a way to avoid fines and added licensure requirements, and to offset reprint costs for impacted businesses.

In 2025, the committee anticipates a slightly more modest approach to labor bills from the legislature thanks to both proactive education efforts by the CRA toward legislators and the outcomes of several primary elections in which moderate Democratic candidates prevailed. The committee anticipates several bills related to alcohol sales, fee transparency, and possibly food waste to be introduced in the 2025 session.

Colorado Resort Destination Markets

Resort destinations throughout Colorado experienced a stellar couple of years of growth in 2021 and 2022, which was fueled by high inflation; increased demand from seeking more exclusive, outdoor-oriented vacations in drive-to destinations; the limited ability to travel internationally; an influx of demand for more spacious accommodations; and the increase in transient demand, which is less price sensitive. As domestic travel started to normalize, occupancy growth stalled in 2023. However, growth generally continued as hoteliers maintained rate integrity despite swings in demand.

The 2024 trends vary depending on the market and asset type. In general, there has been little movement in occupancy, while rates have either increased or decreased slightly. The higher-end, smaller hotels, which are less reliant on group demand, have generally experienced rate growth, while the larger hotels that rely more on groups have seen a modest decline in rates on average as the mix of business has started to normalize.

In general, the resort markets have experienced RevPAR growth late into 2024. Inflationary increases are expected going forward as these markets are back to the new normal with little impact from new supply expected.

While the Colorado resort destination markets will not be affected significantly by new lodging supply in 2025, it is important to note that there are a few high-end, luxury projects in the pipeline that will likely be some of the highest-rated hotels in the state once they open. A Four Seasons and a Six Senses are proposed for development in Telluride, and a few projects are rumored in Aspen. Additionally, Steamboat Springs is slated to have several new branded hotels over the next couple of years. The future investment in these strong, high-end luxury brands and the interest in developing through the Colorado resort markets are positive factors contributing to long-term stability. Challenges that hotel operators in the Colorado resort markets will continue to face in 2025 include access to affordable housing, the cost and quality of labor, and rising property taxes and insurance rates.

Notable Resort Markets New Hotel Openings in 2024

- SpringHill Suites/TownePlace Suites Avon Vail – 243 rooms, opened June 2024
- The Hoffmann Hotel Basalt Aspen, Tapestry Collection – 122 rooms opened, February 2024
- MOLLIE Aspen – 68 rooms, opened January 2024

Notable Resort Markets Hotels Under Construction

- Kindred at Keystone – 107 rooms, summer 2025 opening
- White Elephant Aspen – 54 rooms, 2025 opening
- Holiday Inn Express Steamboat Springs – 80 rooms, June 2025 opening

Tourism and Conventions in Denver

Denver's travel industry has made great strides in the last several years. International arrivals are fast-approaching 2019 levels. Domestic travel volume is at record levels, as is spending. The Denver product continues to improve, and the industry is valued as a key contributor to the local economy. Travel to Denver in 2023, the most recent full year of data, saw a normalization of patterns that called back the prepandemic era, which saw slow but steady growth. This differs from the volatility of 2021 and 2022, both of which saw double-digit growth, as expected in the slow climb out of the pandemic. And while this report had previously indicated that "there is no new normal," the fact remains that all the markets that VISIT DENVER oversees have seen stabilization and a measure of predictability, even if some of them continue to lag earlier high-water marks. Based on available data, this pattern of normalization and stabilization continues into 2024.

At the same time, as always, there are headwinds. The national economy, while strong, continues to struggle with high prices. The uncertainty surrounding the Trump administration is creating anxiety and wariness. Business travel is still significantly down from 2019, and softness remains in some parts of the group market. Downtown Denver continues to experience the challenges of remote work and the short-term impacts of construction.

continued on page 120

Leisure and Hospitality

continued from page 119

In Denver, the travel product itself continues to evolve. There has been significant progress in crime and safety issues, particularly downtown and citywide, though much work remains. Certain sectors of the industry, such as restaurants, have had both high points (e.g., the introduction of the Michelin program and a national Jame Beard Foundation award) yet continue to struggle with high food and labor prices and workforce issues, causing many closures and limited hours. Hotels, which enjoyed high rates during the peak of the inflationary period, have not seen their occupancy return to 2019 levels, primarily due to softness in the transient business market, bringing concerns about a rate falloff.

A few 2024 highlights in Denver tourism include:

- The first groups met in the newly expanded Colorado Convention Center. To date, VISIT DENVER has booked 24 groups, representing 131,000 attendees and $314 million in economic impact that could not have met in Denver without the expansion.
- Michelin Guide announced the second year of its Colorado Guide. Denver expanded to 28 restaurants, including the state's only new one-star restaurant.
- Denver hosted 381 million meeting delegates at the Colorado Convention Center and Denver hotels, with an economic impact of $853 million.
- Large sporting events like the U.S. Women's National Soccer Team vs. Korea and the Mexico Men's National Team in a match vs. Uruguay as part of the MexTour were played in Denver. Denver also hosted a pair of mixed martial arts events at Ball Arena, and the BMW Golf Championship, part of the FedEx Cup, was hosted at Castle Pines.
- Denver PrideFest received 550,000 visitors, with another record-breaking attendance. The Cherry Creek Arts Festival received 150,000 visitors and showcased more than 225 artists.
- The Denver Center for the Performing Arts hosted a full calendar of events in 2024.
- Red Rocks Amphitheatre maintained its full schedule of more than 200 events, including Yoga on the Rocks and Film on the Rocks.
- The Denver Art Museum hosted multiple exhibitions, including "Wild Things: The Art of Maurice Sendak." Denver Museum of Nature and Science hosted exhibits such as "Discovering Teen Rex and The Power of Poison."
- The 16th Street Mall Project is the first major renovation of this vital downtown corridor since its opening in 1982. The renovation is a component of Denver's overall financial plan for an equitable and sustainable economic recovery, and according to denvergov.org, is anticipated to support more than 1,800 jobs, generate more than $155 million in income for workers and nearly $380 million in sales for businesses, and have a regional economic impact of as much as $4 billion throughout the duration of the project. Expected completion of the project is fall 2025.

2023 Longwoods Visitor Study

VISIT DENVER has many ways to measure the impact of the travel industry on the city, but none are so eagerly anticipated as the Annual Visitor Profile from Longwoods International. Longwoods surveys domestic visitors 12 months a year and produces for its clients an annual report on visitation, spending, visitor demographics, and more. Their methodology is the industry standard for this kind of study, with a high degree of confidence and low margin of error. Longwoods has been researching the Denver visitor market since 1994.

The 2023 study shows that travel trends, both in terms of visitor numbers and spending, are returning to levels more in line with 2019. When compared to other destinations, Denver enjoyed comparably higher growth, suggesting that it benefits from its unique position offering visitors both sought-after urban experiences and easy access to outdoor activities.

In 2023, the latest figures available, Denver welcomed a record 37.4 million visitors, marking a 3% increase over the previous record set in 2022. This record number of visitors also spent more money in Denver than ever before, generating $10.3 billion in tourism revenue, outpacing last year's record amount of $9.4 billion by almost 10%.

Overnight visitors totaled 20.5 million, a 3% rise from 2022, generating $8.8 billion in spending, a 10% increase over the prior year. Overnight leisure visitors led growth, rising by 5% over the prior year to a new high of $17.5 million. Growth was particularly strong in the domestic overnight leisure market, rising by 6% over the prior year to a new high of $17.5 million.

Among all traveler types, marketable leisure visitors spent the most at $243 per day followed by business travelers at $149 per day.

Longwoods International also conducted return on investment (ROI) research for VISIT DENVER's largest advertising campaign of the year, the 2023 summer advertising campaign. The study revealed the strongest ROI numbers VISIT DENVER has seen, showing that the campaign generated 2.7 million incremental trips, generating $1 billion in incremental visitor spending and $114 million in state and local taxes. Measured against spending, the campaign generated an ROI of $226 in visitor spending and $25 in taxes for every $1 in advertising investment.

Key numbers for 2023 include:

- Denver welcomed 37.4 million total visitors in 2023, including 20.5 million overnight visitors and 16.9 million day visitors.
- Overnight leisure visitors totaled 17.5 million in 2023, a 5% increase over 2022.
- Denver visitors spent $10.3 billion in 2023, including $8.8 billion from overnight visitors and an additional $1.6 billion in spending from day visitors. Total spending increased by almost 10% over 2022.
- Expenditures by overnight visitors averaged $427 per person per trip with year-over-year increases in each tracked category:

- Transportation spending within the destination reached nearly $3 billion, a 10.7% increase from 2022.
- Lodging spending hit $2.5 billion, up 9.1%.
- Restaurant food and beverage spend reached nearly $1.5 billion, a 9.7% increase.
- Retail purchases totaled just over $1 billion, achieving a 7.8% increase.
- Recreation, sightseeing, and entertainment totaled $749 million, a 9.3% increase.

- The top states sending vacationers to Denver in 2023, apart from Colorado itself, were:
  - California
  - Texas
  - Kansas
  - Florida
- The top five cities from outside of Colorado sending leisure visitors to Denver in 2023 were:
  - Los Angeles
  - Albuquerque/Santa Fe
  - New York City
  - Dallas-Fort Worth
  - Houston

Colorado Convention Center Expansion

The rooftop expansion of the Colorado Convention Center was completed in December 2023, with the first event held in the new space in March 2024. Since then, the expansion has made it possible for Denver to book future citywide meetings that would not have booked Denver without the new space. Adding a total of 135,000 square feet of flexible meeting space, the expansion makes the Colorado Convention Center the best and most user-friendly meeting space in the nation.

In partnership with the Colorado Convention Center team of ASM Global and Sodexo Live, VISIT DENVER continues to drive bookings for 2025 and beyond.

Key features of the expansion include:

- **Multifunction Bluebird Ballroom**
  - The signature feature of the expansion is the 80,000-square-foot, column-free multifunction space that includes 19 subdivisions of varying sizes. This is the largest ballroom in the state.
- **Prefunction Concourse**
  - The new 35,000-square-foot wrap-around, prefunction concourse features dramatic views of the Rocky Mountains and is conveniently accessible via the center's existing street-level lobbies.
- **Rooftop Terrace**
  - The 20,000-square-foot rooftop terrace features spectacular views of the Rocky Mountains to the north and west and stunning views of Denver's skyline to the east. The space is designed to enable seamless indoor/outdoor events.

Hotels

Supply continued to grow in Denver even during the pandemic but is leveling off as of July 2024. According to CoStar Group, pipeline properties are concentrated in the Central Business District (CBD) and East/DEN areas of the Denver Metro area.

According to CoStar, as of July 2024 there were 1,220 rooms under construction and an additional 2,791 rooms in final planning across all Denver submarkets.

In 2024, many downtown Denver hotels celebrated openings, as well as multimillion-dollar renovations. Here is a shortlist:

- Courtyard by Marriott Denver Stadium added 118 rooms near Empower Field at Mile High in March 2024.
- In June 2024, the Cambria hotel opened in Denver's River North (RiNo) Arts District with 153 hotel rooms and 2,000 square feet of flexible meeting space that provides Rocky Mountain views. The Zeppelin light rail station is an easy walk from the hotel.
- In the spring of 2024, the Kimpton Claret Hotel opened in the heart of the fast-developing Belleview Station along the growing South Denver Corridor. The 19-story, new-build hotel features 190 guest rooms and 10,000 square feet of meeting and event spaces.
- Populus, the 250-room hotel adjacent to Civic Center Park, features a rooftop terrace. The property is the first carbon positive hotel in the country and opened in October 2024.
- The Sonder Jefferson Park, a 93-room hotel, will open in December 2024.

While Denver continually gained momentum in rate, occupancy, and RevPAR coming out of the pandemic, 2024 was the first year VISIT DENVER began to see demand for several segments shift and normalize. In some cases, Denver saw year-over-year declines as pent-up leisure demand waned, and group trepidation took hold amidst talks of a recession and the uncertainty that develops in an election year. According to CoStar, as of September 2024, overall occupancy in Metro Denver was down 1.7% year-over-year and down 7.6% versus 2019. Hotels have been achieving their RevPAR gains in rate as Denver's ADR growth year-to-date through September was up 1.3% year-over-year and up 12% to 2019. That rate growth was enough to offset the occupancy declines, and Denver experienced 1.2% RevPAR gains year-over-year and 3.6% growth over 2019.

Convention and group business had a slow recovery in Metro Denver with 0.8% year-over-year occupancy growth and is still down 21% over 2019. Through September 2024, the group rate was strong and increased

continued on page 122

Leisure and Hospitality

continued from page 121

4.5% year-over-year. Compared to 2019, the Denver group rate is up by 19.9%.

Recovery in International Tourism

International visits to Denver are expected to grow 12% (to 546,500) in 2024 and 15% (to 631,100) in 2025, as forecast by Tourism Economics. This equates to an additional 178,730 visitor arrivals compared to 2023 and 84,590 visitor arrivals compared to 2024, respectively. International travel spending in Denver is forecast to grow 16% in 2024 and 19% in 2025, to $480 million in 2024 and $573 million in 2025, an increase of $64 million in 2024, compared to 2023 and $93 million in 2025 compared to 2024.

Tourism Economics is forecasting Denver to recover its international visitors to 2019 levels by 2024 and is projecting growth of 113% from 2022 to 2027 in international visits if all things remain the same (that there are no changes to COVID such as a stronger variant, or economic or geopolitical forces that make traveling not viable for key markets in Europe, for example).

In addition, Tourism Economics is forecasting international nights in paid accommodations in Denver will grow 103% from 2022 to 2026 to over 2 million room nights.

Denver's largest source markets for 2024 are Canada (with 196,000 arrivals or 35% of total international arrivals), followed by the U.K., Mexico, and Germany. According to Oxford Economics, Denver is outpacing comparable North American cities in 2023 and 2025.

Tourism in Colorado Springs

In mid-2024, Visit Colorado Springs (VCOS) received data from the 2023 Longwoods International Travel USA Visitor Profile Study. This most recent study showed visitation and spending continued to steadily increase over 2022. Visitation was 24.8 million people (compared to 24 million in 2022) and spending was $2.9 billion (compared to $2.8 billion in 2022).

Other findings from the 2023 Longwoods study include:

- Of the overnight travelers, 75% were repeat visitors, with 53% having visited before within the last 12 months.
- Of the overnight travelers, 36% noted the main purpose of their trip was visiting friends and family—the next highest purposes were touring (16%) and outdoors (12%).
- The percentages of visitation broken out by season are January-March (21%), April-June (26%), July-September (30%), and October-December (23%).
- Of the travel parties, 31% had a member that required accessibility services (compared to the U.S. norm of 17%), and 74% were very satisfied or somewhat satisfied with the ease of accessibility.

Colorado Springs Lodgers and Automobile Rental Tax (LART) collections remained slightly higher year-over-year for the latest completed report, which references activity in August. From January through August 2024, collections were up 2.5% year-to-date. The month of August itself was up 2.3% compared to August 2023, and July was down 1.2% compared to July 2023. Overall, collections are on par with 2023, and it is expected they will remain around the same by the end of the year.

According to the most recent STR report, Colorado Springs' hotel occupancy is down 0.7% year-to-date compared to the same period in 2023. These hotel occupancy findings are comparable to markets like Omaha (down 1.7%), Denver (down 1.7%), Aurora (down 2.3%), and Salt Lake City (down 0.7%). While there is not one factor driving hotel occupancy lower than last year, some elements that have come into play in 2024 include more competition with international travel back open, higher prices on travel, and an election year. The inbound international market continued to pick up steam with more familiarization trips (FAM) trips organized from target markets of the U.K., Canada, France, and Germany.

Ford Amphitheater opened on the north side of Colorado Springs in August, expanding music and entertainment options for residents and visitors alike. With a shorter event season this year, the venue is looking forward to a full calendar of shows in 2025. Hotel Polaris at the U.S. Air Force Academy is opening in November with 375 guestrooms, diverse dining options, Ascend Spa & Wellness, 40,000 square feet of indoor and outdoor meeting space, and an indoor flight simulator. Toward the end of 2025, the Hosmer Visitor Center is expected to open. It will be an official Colorado Welcome Center and adjacent to Hotel Polaris, just off I-25.

The COS Airport received an $8 million grant at the end of 2024 for its concourse modernization project, which will enhance traveler experience through a complete remodel of the terminal concourse. Major initiatives for Visit Colorado Springs and the destination in 2025 include execution of the Colorado Tourism Office's Destination Stewardship Plan alongside regional partners, continued work on accessibility and inclusion, and enhanced use of data attribution and artificial intelligence in marketing strategies.

Tourism in Grand Junction

Grand Junction, located in Mesa County, is almost equal distance between Denver and Salt Lake City. It is approximately 264 miles to either major city from Grand Junction. The Grand Junction Regional Airport is the 3rd-largest airport in Colorado, served by United, American, Delta Airlines, and Breeze Airways. Amtrak operates daily stops in Grand Junction on the California Zephyr, traveling between Chicago and the San Francisco Bay area. Although the Grand Junction area is a destination in and of itself, tourism continues to grow due to its convenient location, providing access to other popular areas in Western Colorado and beyond.

Grand Junction's travel and tourism industry significantly contributes to the area's economic diversity. Visitor spending is 30% of the City of Grand Junction's sales tax revenue, according to three separate economic impact studies: Tourism Economics, an Oxford Economics Company; BBC Research & Consulting; and The

Adams Group, Inc. Sales tax generated from the tourism industry provides funding for public safety, infrastructure, housing, and other city services, while lowering the tax burden for residents and local businesses.

Visit Grand Junction, the City of Grand Junction's destination marketing organization (DMO) plays a pivotal role in driving sustainable economic growth and enhancing the quality of life for residents by attracting tourism from outside Mesa County. Through responsible marketing strategies and collaboration with public land managers and area businesses, Visit Grand Junction ensures that its destination management efforts benefit both the environment and the community. In 2024, Visit Grand Junction was globally recognized for its commitment to sustainable tourism. Director Elizabeth Fogarty was one of only 24 speakers from around the world invited to present on the United Nations World Tourism Day, organized by Destination Think. The organization's innovative approach underlines the commitment to sustainable economic development and tourism.

Grand Junction's Leisure and Hospitality industry is experiencing solid growth in 2024 and is expected to maintain a healthy pace in 2025. Performance metrics across key areas indicate notable improvement relative to other regional destinations. This is largely driven by the development of Grand Junction's destination brand, which has enhanced awareness of the Grand Junction area. The brand was developed through extensive research and input from the community. Resident feedback revitalized the destination brand, emphasizing a commitment to honoring the past while driving innovative growth and development. By capturing the unique spirit of the community, residents are championing the brand, resulting in renewed confidence in the area. Strengthening the Grand Junction area's (Mesa County) brand elevates its prominence to attract Colorado Mesa University students and diversified industries to the area.

Despite concerns over inflation, a potential economic downturn, world conflicts, socioeconomic issues, and air travel challenges, Grand Junction's steady hotel occupancy rate, coupled with year-over-year increases in the ADR, continues to boost the hospitality industry and increase lodging tax revenue. Grand Junction's lodging tax rate is 6%, of which 4.25% is allocated to Visit Grand Junction for destination marketing and management programs. A 1% allocation funds the Grand Junction Regional Air Service Alliance specifically to market, promote, purchase, and contract additional direct airline service for existing or new carriers to and from Grand Junction. The Grand Junction Sports Commission receives the remaining 0.75% to market, promote, solicit, and sponsor sporting activities, events, tournaments, and competitions.


Hiking the canyons near Grand Junction. Photo courtesy of Ellianne Bowen and Visit Grand Junction.

In a comprehensive 2023 ROI analysis, for every dollar spent by Visit Grand Junction, approximately $8 in visitor spending was generated, stimulating the local economy through increased activity in hotels, restaurants, retail stores, and attractions. These results demonstrate how public investment in destination promotion creates a ripple effect that drives economic growth, sustains jobs, and strengthens the community's lodging tax and overall tax base.

Grand Junction continues to break visitation records, outpacing the U.S., Colorado counties with ski resorts, and Colorado counties without ski resorts for the last rolling 12 months and year-to-date. Ski resorts include Steamboat Springs, Vail, Beaver Creek, Winter Park, Silverthorne, Frisco, Breckenridge, Telluride, Crested Butte, Snowmass, and Aspen.

Grand Junction hotel performance saw record-high ADR in 2024.

continued on page 124

Leisure and Hospitality

continued from page 123

- In 2024, record-high hotel ADR was attained in January, April, May, June, July, August, and September, while February and March had already set record ADR in 2022 (data current through September 2024). The average ADR for 2023 was $103.42, a 1.4% increase over 2022.
- Grand Junction's September 2024 year-to-date ADR is pacing at 5.1% ahead of the same time for the previous year. In contrast, the U.S. is pacing ahead by 2.1%, Colorado (including ski towns) is pacing ahead by 2.4%, and Colorado (excluding ski towns) pacing ahead by 0.2%.
- Based on the September 2024 12-month rolling average (October 2023 through September 2024), Grand Junction's ADR is pacing ahead by 5.4%, while the U.S. is pacing ahead at 2.5%. Colorado (including ski towns) is pacing ahead by 2.3%, and Colorado (excluding ski towns) is pacing behind by -0.2%.

Grand Junction hotel performance also saw record-high RevPAR in 2024.

- As of September 2024, record-high hotel RevPAR was attained in January, April, May, August, and September, while February, March, June, and July had already set record RevPAR in 2021 and 2022. The average RevPAR for 2023 was $70.90, a 4.7% increase over 2022.
- Grand Junction's September 2024 year-to-date RevPAR is pacing at 2.1% ahead of the same time for the previous year. In contrast, the U.S. is pacing ahead by 1.5%, Colorado (including ski towns) is pacing ahead by 0.3%, and Colorado (excluding ski towns) pacing behind by -1.1%.
- Based on the September 2024 12-month rolling average, Grand Junction's RevPAR is pacing ahead by 1.6%, while the U.S. is pacing ahead at 1.6%, Colorado (including ski towns) is pacing ahead by 0.1%, and Colorado (excluding ski towns) is pacing behind by -1.7%.

Grand Junction's 2024 hotel occupancy is projected to reach 64.7%, reflecting continued stability following the record-breaking 66.6% occupancy rate in 2023, the highest annual average in Grand Junction's history.

New hotels are planned for Los Colonias and Dos Rios along the Colorado River, which include additional boutique properties, RV lodging, luxury camping, and camping. Restaurants, spas, and retail stores are also planned for the riverfront. As evident from high occupancy rates, additional hotel inventory is needed to accommodate continued growth in tourism. As of September 2024, Grand Junction room inventory consists of the following: 32 hotels, 3,025 hotel rooms, 316 short-term rentals, and 419 RV spots.

According to the BLS, for 2023, Leisure and Hospitality employment in Grand Junction increased by 2.2% above 2022 and 3% above 2019, demonstrating continuous job growth. While Leisure and Hospitality employment in Grand Junction quickly recovered from the effects of COVID in 2021, employment in the U.S. recovered to prepandemic levels in 2023. In 2023, U.S. employment increased 4.8% above 2022 and was nearly flat compared to 2019. For Grand Junction, Leisure and Hospitality employment for August 2024 YTD was pacing even with August 2023 YTD. For the U.S., employment was 2.2% above August 2023 YTD.

Visit Grand Junction partnered with the CTO on its Destination Blueprint Program to support and develop the Leisure and Hospitality workforce in the Grand Junction area. This initiative aims to attract talent, provide professional development opportunities, and foster a sense of community through collaboration with local industry experts. As part of the program, two video campaigns are currently in development:

Photo courtesy of Tony Gurzick.

- Workforce Campaign: This campaign will focus on jobs in Grand Junction's hospitality industry, reshaping perceptions of tourism careers and highlighting opportunities for professional growth. Inspired by local tourism staff, it will position Grand Junction's tourism industry as a viable and rewarding career choice, with the goal of attracting new talent and retaining existing employees.
- Tourism Campaign: This campaign is designed to instill local pride, while also serving to attract new visitors by showcasing the unique attractions and lifestyle that Grand Junction has to offer.

Both campaigns are distinct in their focus and will emphasize authenticity, emotion, and community connection, all core aspects of Grand Junction's destination brand.

Business confidence in Grand Junction has significantly increased in recent years, as evident by major retailers moving to the area, including Costco, slated to open in 2026. The presence of this retail giant not only offers convenience and choice to local and regional consumers but also signals strong confidence in Grand Junction's economic health. The ripple effect of such a significant addition often extends to other sectors of the local economy, creating jobs and driving ancillary business growth. This, in turn, fosters a more favorable climate for investors and strengthens optimism among business owners.

During 2024, Grand Junction welcomed 13 new food and drink establishments, with 19 additional new openings projected through the end of 2024 and into early 2025, resulting in a total of 264 establishments.

The U.S. travel outlook for 2025 is positive, per Tourism Economics, anticipating that domestic leisure travel will maintain its strength in late 2024 and 2025. The projected growth rate is estimated to be 2% in 2024 and 3% in 2025 for leisure travel volume, and 2.6% in 2024 and 1.8% in 2025 for leisure travel spending. Similarly, the group projects continued strength in domestic business travel, with a projected growth rate of 8% in 2024 and 4.2% in 2025 for business travel volume, and 6.2% in 2024 and 4.2% in 2025 for business travel spending. In Grand Junction as of October 2024, advanced booking data reflect an even stronger outlook. Business room night bookings for 2025 are already up over 80% compared to this point last year, significantly outperforming the national growth projections for business travel. Leisure room night bookings for 2025 are also up by almost 20% compared to last year's numbers, surpassing the national outlook for leisure travel growth. These increases are driven primarily by negotiated and transient bookings being significantly up for 2025.

Recent insights from Future Partners (previously Destination Analysts), widely known for customized travel and tourism research, reveal that as of October 2024 Americans remain excited about travel, despite economic uncertainty and the recent presidential election. American travelers have reached record levels in excitement for travel (89.7% are excited), a willingness to spend ($5,700 per year), and the number of trips they are going to take (3.7 in the next 12 months). According to the most recent October 2024 data from the U.S. Travel Association, business travel is expected to continue growing through 2024 but has pushed back its forecast for a full recovery in domestic business spending from 2025 to 2026.

Arts and Culture

Colorado is home to some of the nation's top arts communities including Denver, Boulder, Glenwood Springs, and Steamboat Springs. These four communities are listed among the top 40 Arts-Vibrant Communities nationally in SMU DataArts' 2023 Arts Vibrancy Index. SMU DataArts also identified five rural Colorado communities among the top 30 most Arts-Vibrant Rural counties in the nation, led by San Miguel County (#2), Gunnison County (#19), and Hinsdale County (#20). Lake County, San Juan County, and Mineral County also made the top 30 list.

The state's creative economy contributes to a desirable lifestyle for Colorado's residents and workforce, according to the Bureau of Economic Analysis (BEA). Arts and culture industries contributed 3.7% to the state's nominal GDP in 2022, represented nearly $18.1 billion of value added, and supported over 104,000 jobs.

Across the state, communities of all sizes contribute to the state's creative economy. Colorado has 30 Certified Creative Districts spanning urban and rural communities from Fort Collins to Trinidad and Grand Junction to Sterling. The Creative Districts program, run by the Colorado Department of Economic Development and International Trade, provides support and funding to creative communities and seeks to increase jobs, incomes, and investments in creative places across the state. The 13-year-old program provides communities with benefits including a cash award of up to $10,000 for newly certified districts, technical and professional support, and access to additional resources and funding opportunities.

Many of the state's largest cultural organizations are concentrated in Metro Denver, which is home to the nation's 2nd-largest cultural funding mechanism. The Scientific and Cultural Facilities District (SCFD) is a seven-county tax district defined in state statute by the Colorado Legislature and approved by voters. It provides events and programming for nearly 13 million people, including both Colorado residents and visitors to the state. According to SCFD's most recent annual report, in 2023 SCFD distributed $84 million in grants to nearly 300 organizations across Metro Denver, representing the largest amount awarded in the district's 35-year history.

The Denver Performing Arts Complex, located in Downtown Denver, is the 2nd-largest arts campus of its kind in the nation, and is home to the Colorado Ballet, the Colorado Symphony Orchestra, the Denver Center Theater Company, and Opera Colorado. In the 2022-2023 season, the complex generated nearly $206 million in economic impact across more than 4,000 performances and 866,000 guest experiences.

Spectator Sports and Other Entertainment

Denver is the smallest city in the country with five major professional sports teams, with an estimated 6 million fans attending sporting events each year. The four sports venues located in downtown Denver and the surrounding area bring visitors and economic activity into the region and play a continued role in revitalizing downtown Denver.

Empower Field at Mile High in downtown Denver is home to the Denver Broncos football team and had an average attendance of more than 76,000 fans per game in 2023, according to ESPN. The stadium also hosts concerts, conventions, festivals, and more.

Located less than a mile away from Empower Field, Ball Arena, home to three professional sports franchises (Denver Nuggets basketball, Colorado Avalanche hockey, and Colorado Mammoth lacrosse), hosts more than 250 events per year, including sporting events, concerts, and family events. In 2024, Kroenke Sports and Entertainment (KSE) announced that the Colorado Avalanche and the Denver Nuggets are officially staying at Ball Arena for 25 more seasons. KSE Vice-Chairman Josh Kroenke and Denver Mayor Mike Johnston signed the deal for the teams to remain in Denver following the City Council's approval of a redevelopment project around Ball Arena.

continued on page 126

Leisure and Hospitality

continued from page 125

Coors Field, home to the Colorado Rockies baseball team, is also located in downtown Denver, with seating that holds more than 50,000 fans. On April 5, the day of the Colorado Rockies' 2024 home opener, downtown Denver saw its highest volume of foot traffic of the year, with pedestrian traffic reaching more than 327,000.

According to data from Downtown Denver Partnership, Denver's overall pedestrian traffic in September 2024 reached 85% of the level measured in September 2019. The return of pedestrian traffic was driven by visitors and residents, both of which were at or above pre-pandemic levels, while weekday employees remained at only 57% of prepandemic levels. While the region is still working to recover to pre-2020 activity levels, Denver's sports teams, and the downtown venues that provide space for other entertainment offerings, are a key part of the region's recovery.

Economic activity for spectator sports in Colorado is not limited to the Metro Denver region. Colorado has hosted the Winter X Games in Aspen since 2002, featuring some of the world's best athletes competing in skiing, snowboarding, snowmobiling, and more. This event, broadcast worldwide, draws a massive audience and includes musical performances and cultural events, making it an attractive event for fans of sports, music, and entertainment. According to X games representatives, nearly 10,000 tickets were sold across the three-day event in January 2024, with an estimated 55,000 attendees in total, including those in the free section. The X Games will return for its 24th year in 2025.

Outdoor Recreation

Colorado has long been a sanctuary for outdoor enthusiasts, drawing people with its breathtaking landscapes and extensive range of recreational activities. More than just a playground for adventure, Colorado's outdoor offerings are a vital pillar of the state and local economies, supporting a vast network of businesses and generating significant revenue year after year.

The outdoor recreation industry is a dynamic and diverse sector, comprising activities and businesses related to outdoor leisure. According to the BEA, this industry contributed 2.2% of the nation's GDP in 2022, totaling $563.7 billion—an increase from $454 billion in 2021. The sector spans a wide variety of pursuits, from camping and hiking to skiing and snowboarding, as well as businesses involved in outdoor gear manufacturing, retail, tour operations, and guiding services. Notably, 25.6% of this national economic impact stems directly from the Leisure and Hospitality sector.

The BEA also reports that Colorado benefits substantially from outdoor recreation, with the industry contributing $13.9 billion to the state's GDP and supporting 130,000 direct jobs in 2022. This accounts for 2.8% of Colorado's total GDP. While outdoor recreation is a cornerstone of Colorado's economy, some neighboring Rocky Mountain states have an even higher percentage of their GDP tied to this industry—3.2% in Utah and 4.1% in Wyoming.

It is essential to recognize that the economic influence of outdoor recreation extends beyond Leisure and Hospitality alone, reaching into numerous other sectors and driving broader economic growth across the region.

In 2022, the Colorado State Legislature introduced the "Keep Colorado Wild Pass." Priced at $29 (less than half the cost of an annual park pass) as an opt-out option with vehicle registration, the pass grants residents access to all 43 state parks. During its first year, over 1.5 million Coloradans purchased the pass, generating $39.7 million in revenue for Colorado Parks and Wildlife (CPW)—exceeding CPW's goal of $36 million. While revenue saw a boost, actual visits to state parks declined by over half a million.

State park visitation, which surged during the pandemic's peak in 2020, has since moderated but remains more than 20% above prepandemic levels. During COVID lockdowns, state parks provided a vital outlet for outdoor activity, bolstered by statewide efforts from the governor and CPW to encourage safe, local recreation. Those efforts to get people outdoors during the pandemic continue to benefit the state's outdoor recreation economy.

Colorado's national parks and National Park Service sites maintained relatively steady visitation, even with temporary closures for maintenance and upgrades. For example, the Moraine Park Campground in Rocky Mountain National Park remained closed in 2023 and 2024 for essential construction, while the Wetherill Mesa area at Mesa Verde National Park saw road upgrades and waterline maintenance. Despite these closures, overall visitation stayed largely consistent.

Additionally, the recent designation of the Amache National Historic Site in Granada, Colorado, offers new opportunities for regional travel. Though not expected to attract large crowds, Amache's inclusion in the national park system could have positive economic impacts for this small community.

Skiing Industry

The U.S. and Colorado ski industries both enjoyed a strong winter 2023-24 ski season. Despite mixed snow conditions, both achieved above-average visitation.

On a national level, the country's 486 open and operating downhill ski areas recorded 60.5 million downhill skier and snowboarder visits in winter 2023-24, down 7.5% from the previous winter's record of 65.4 million visits, but still the 5th-most visits ever. Visits were strong in the western half of the country but weak in the eastern half, where snowfall was below average.

Colorado had its second-busiest winter, with 14.3 million downhill skier/snowboarder visits, down 3.7% from the record 14.8 million visits in winter 2022-23. The state's 34 downhill ski areas exceeded 14 million visits for just the second time. Snowfall recorded at the state's ski resorts was below average, particularly early in the season, and conditions were also significantly less favorable than in 2022-23. Nonetheless, Colorado maintained its long-term growth trajectory, with the three-busiest seasons occurring in the past three years.

COLORADO PUBLIC LAND VISITS
2015–2025
(In Thousands)[a]

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024[a]	2025[a]
Colorado State Parks[b]	13,200.0	14,296.0	15,398.0	14,924.0	14,891.4	19,474.4	19,938.0	18,121.7	18,270.7	17,695.8	20,248.3
National Parks and Sites											
Bent's Old Fort NHS	26.2	31.9	26.4	23.6	21.7	12.4	21.6	26.1	19.7	17.2	17.3
Black Canyon of the Gunnison NP	209.2	238.0	307.1	309.0	432.8	341.6	308.9	297.3	357.1	353.5	393.9
Colorado NM	588.0	391.1	375.0	375.5	397.0	435.6	499.8	480.4	486.2	527.6	491.0
Curecanti NRA	944.7	982.5	1,041.4	931.5	836.0	921.6	1,043.7	992.7	995.0	1,009.6	1,000.1
Dinosaur NM[c]	215.9	225.2	233.8	225.0	221.2	195.5	266.1	259.8	241.2	190.3	238.0
Florissant Fossil Beds NM	69.1	73.6	71.8	79.6	77.3	61.1	75.1	67.2	63.7	70.8	69.4
Great Sand Dunes NP	299.5	388.3	486.9	442.9	527.5	461.5	602.6	493.4	512.2	474.0	583.4
Hovenweep NM[c]	15.4	18.9	17.6	17.9	15.6	8.7	11.8	12.5	15.5	14.7	13.2
Mesa Verde NP	547.3	583.5	613.8	563.4	556.2	287.5	548.5	499.8	505.2	491.8	470.3
Rocky Mountain NP	4,155.9	4,517.6	4,437.2	4,590.0	4,670.1	3,305.2	4,434.8	4,300.4	4,115.8	4,169.3	4,279.4
Sand Creek Massacre NHS	5.9	6.8	6.5	6.0	5.7	4.2	6.2	4.8	5.6	6.4	5.2
Total Visitors to Parks and Sites	7,077.2	7,457.4	7,617.5	7,564.4	7,761.1	6,034.9	7,819.1	7,434.4	7,317.2	7,325.2	7,561.2
Bureau of Land Management	7,694.0	7,739.0	8,310.0	8,708.0	9,553.0	12,507.0	10,602.0	10,373.0	10,818.0	11,898.1	12,379.6
National Forest[d]	27,000.0	27,000.0	26,100.0	31,000.0	31,490.0	31,490.0	31,490.0	31,490.0	31,490.0	31,490.0	31,490.0
Total Public Land Visitation[e]	54,971.2	56,492.4	57,425.5	62,196.4	63,695.5	69,506.3	69,849.1	67,419.1	67,895.9	68,409.1	71,679.1

[a]2024 is forecasted with limited data and 2025 is estimated based on trends. 2020 data was not included in the trend analysis for 2021.

[b]State parks managed by Colorado Parks and Wildlife.

[c]Dinosaur NM and Hovenweep NM cross into Utah, but the number of visitors reported in this table is only for the Colorado portion of the parks.

[d]Yearly visitor numbers were not available; reported numbers based on limited data.

[e]Due to rounding, the sum of the individual items may not equal the total.

Note: Yucca House National Monument does not report visitations, therefore it is not included.

Definition: NHS = national historic site, NP = national park, NM = national monument, and NRA = national recreation area.

Sources: Colorado Parks and Wildlife, National Park Service Visitor Use Statistics, Bureau of Land Management, National Forest Service and Colorado Business Economic Outlook Committee.

continued on page 128

Leisure and Hospitality

continued from page 127

Photo courtesy of Colorado Tourism Office/Andrew Maguire.

The growth enjoyed by both the U.S. and Colorado ski industries in recent seasons has been spurred by strong interest in outdoor recreational activities, generally favorable economic conditions, continued innovations in lift ticket and season pass offerings, substantial resort investments that have enhanced resorts' capacity and the quality of the experience, increased retention of older participants in snow sports, and more flexible work arrangements, which have helped disperse visitation to nonweekend and nonholiday periods.

Colorado resorts have also benefited from strong air service to mountain airports and DIA, improvements to the I-70 corridor, improved staffing levels following the pandemic, gradual (albeit still partial) recovery in international markets following the pandemic, and a visitor profile that is diverse in age, geographic origin, ability level, and frequency of participation in snow sports.

The strong growth trend enjoyed by Colorado has been mirrored by most other states in the Rocky Mountains. Utah, Idaho, Montana, and Wyoming each set all-time skier visit records in 2022-23, and had their 2nd-, 3rd-, or 4th-busiest seasons in 2023-24. Indeed, the Rockies have been the primary driver of the nation's growth in skier visits over the past four decades.

Although Colorado resort skier visits dipped 3.7% year-over-year, taxable sales in many resort communities rose. Across a mix of eight resort communities (Aspen, Breckenridge, Frisco, Snowmass Village, Steamboat Springs, Telluride, Vail, and Winter Park), state taxable sales rose 2.1% in winter 2023-24 (Nov-Apr) from 2022-23, slightly outpacing the 0.9% gain in the state as a whole. Additionally, state taxable sales in these communities have leaped by a cumulative 61% from the pre-COVID 2018-19 winter season, far outpacing the 42% gain statewide over the same period, indicating the vitality of mountain economies and the spending power of higher-income ski consumers.

The summer period is also important to ski resort communities, accounting for a lower, secondary peak in economic activity. Spending in the same eight communities rose 2.1% in May through July from 2023 to 2024, slightly ahead of the 1.4% gain statewide. Cumulatively, spending in these communities jumped 54% in May through July from 2019 to 2024, again outpacing the state's 37.2% gain over the same period. The industry has invested significantly in new summer outdoor recreational offerings since the passage of the 2011 Ski Area Recreational Opportunity Enhancement Act, which allows for more recreational uses on public land. In addition to helping resort economies, these offerings have likely helped redirect and relieve some of the recreational and visitation pressure that is impacting many areas of Colorado's mountains.

Looking ahead to the winter 2024-25 season, resorts have several reasons for optimism. Season pass sales have been strong, and scheduled seats on flights to most Colorado mountain resort airports and to DIA are currently up from last winter. Lodging bookings for the upcoming winter were a bit soft as of October 2024, although that is typical of presidential election years, and bookings usually recover quickly post-election. Additionally, despite consumer concern about high price levels, U.S. economic fundamentals are strong, with a generally strong labor market, robust consumer spending, a buoyant stock market, and moderating inflation. Additionally, as the aftershocks of COVID continue to dissipate, international visitation is likely to continue to recover.

As always, weather and snow conditions can also provide positive or negative momentum to the season. In its

Photo courtesy of Colorado Tourism Office/Brett Schreckengost.

October 17, 2024, U.S. winter forecast, the National Oceanic and Atmospheric Administration expected La Niña conditions to develop later this fall, which typically leads to a more northerly storm track during the winter months, and warmer and drier conditions in the southern part of the country. Located between these northern and southern regions, Colorado and its snow and weather advantage relative to other western ski regions is unknown for this upcoming winter.

The long-term prospects for the industry remain positive. Colorado maintains a preeminent position within the skiing industry, accounting for by far the largest number of visits, as well as being home to many of the largest and most renowned resorts. Colorado has benefited from a strong reputation for an outstanding combination of ski terrain, lift infrastructure, consistent and reliable snow conditions, guest service, scenery, community character and amenities, and travel accessibility, among other attributes.

Ski resorts also continue to improve and expand their infrastructure, enhancing the guest experience and increasing their operating capacity. Improvements are also being made to I-70, particularly between Floyd Hill and eastern Idaho Springs, with completion of these improvements anticipated by late 2028. While this will be helpful in the long term, some traffic hassles are likely in the interim, most immediately periodic midweek traffic holds through December 2024 for rock scaling and blasting, potentially impacting early season skier travel and visitation this season. Other potential long-term transportation improvements under evaluation around the state include new passenger train service from Denver to Craig (through Steamboat), expanded rail service from Denver to Winter Park, and a new gondola connecting the town and ski mountain at Winter Park, among others.

Colorado is also home to the headquarters of the continent's two largest resort operators—Vail Resorts and Alterra Mountain Company—further cementing the state's standing as the epicenter of the U.S. ski industry.

Even as it continues to cultivate its strengths, vigorous competition from ski resorts in other states and from other vacation and leisure options, climate change, concerns about congestion and travel delays along the I-70 corridor, and staffing challenges in tight housing markets remain key challenges for Colorado resorts.

Contributors:
Tony Gurzick, Grizzly Peak Consulting (Chair)
David Becher, RRC Associates
Katy Black, HVS
Shelley Cooper, Colorado Tourism Office
Elizabeth Fogarty, Visit Grand Junction
Tom Foley, Inntopia
Denise Mickelsen, Colorado Restaurant Association
Melanie Mills, Colorado Ski Country USA
Hayes Norris-McDonald, Colorado Tourism Office
Peggi O'Keefe, Colorado Gaming Association
Doug Price, Visit Colorado Springs
Alyssa Roche, Metro Denver EDC
Richard W. Scharf, VISIT DENVER
Hanna Scovill, Metro Denver EDC
Taylor Shields, VISIT DENVER
Alexea Veneracion, Visit Colorado Springs
Tim Wolfe, Colorado Tourism Office

Other Services

The Other Services supersector comprises establishments that provide services not specifically categorized elsewhere in the employment classification system. As a result, the businesses under this category are highly fragmented and diverse. Car washes, beauty salons, religious organizations, funeral homes, grantmaking foundations, and labor unions are some of the industries included in Other Services. In addition, the supersector includes businesses that provide maintenance and repair for agriculture, construction, mining, and forestry machinery and equipment. Industry growth is influenced by the economy, demographics of the Colorado population, disposable income, and consumer confidence.

OTHER SERVICES EMPLOYMENT, 2015-2025 (In Thousands)

Year	Repair and Maintenance Services	Personal and Laundry Services	Religious, Grantmaking, Civic, Professional, and Similar Organizations	Total
2015	24.7	26.3	53.2	104.2
2016	25.0	27.8	54.5	107.3
2017	25.5	28.7	54.4	108.6
2018	26.0	29.4	55.6	110.9
2019	26.7	30.3	57.7	114.8
2020	25.4	25.9	59.0	110.4
2021	26.5	28.5	62.8	117.8
2022	27.5	30.9	64.4	122.8
2023[a]	28.7	32.5	66.0	127.1
2024[b]	30.2	33.1	66.7	130.0
2025[c]	31.3	33.5	67.4	132.2

[a]Revised. [b]Estimated. [c]Forecast. Note: Due to rounding, the sum of the individual sectors may not equal the total.
Sources: Colorado Department of Labor and Employment, and Colorado Business Economic Outlook Committee.

Employment in this sector generally increased in 2024, reaching 131,200 in September, up 4.2% year-over-year.

Employment growth is expected to continue into 2025, albeit at a slower pace, due to a couple of major factors: a wave of unionization, and higher demand for vehicle maintenance as used vehicles age. Employment in the Other Services sector is projected to increase 2.3% in 2024 year-over-year to reach 130,000 jobs, then increase 1.7% in 2025 for a total of 132,200 jobs.

Religious, Grantmaking, Civic, Professional, and Similar Organizations

Industries in the Religious, Grantmaking, Civic, Professional, and Similar Organizations subsector group are establishments that organize, support, and/or promote various professional, social, and political causes. These organizations account for the largest portion of the Other Services supersector, employing 52% of the Other Services employees in 2023. Establishments in this subsector include various labor unions, nonprofits such as the Denver Dumb Friends League, the Boy and Girl Scouts organizations, and the United States Olympic Committee, as well as social advocacy and political organizations. The outlook for donations is strained in 2024 as donor counts have decreased, perhaps as a result of continuous inflationary pressures on households. According to the Fundraising Effectiveness Project, while the number of donors decreased by 3.9% in Q2 2024, dollars raised increased by 3.7% compared to Q2 2023, largely driven by a consolidation of large donors and a decrease of small donors.

While membership has been declining for decades, labor unions have maintained a strong presence heading into 2025, helping the sector. The pandemic brought workers' rights, needs, and desires into the limelight, perhaps shifting the balance between the employer-employee relationship. Consequently, several high-profile labor strikes have been in the national spotlight in recent years, including the Screen Actors Guild-American Federation of Television and Radio Artists (SAG-AFTRA) and the Writers Guild of America strike, the United Auto Workers strike, and the Kaiser Permanente strike. In September 2024, over 30,000 Boeing machinists went on strike in Seattle, Portland, and Southern California, which ended in early November 2024. According to data from the Bureau of Labor Statistics, 6.9% of employees in Colorado were union members in 2023, ranking 34th in the nation, and up from 6.7% in 2022.

After adding 1,600 jobs in 2022, employment growth remained steady in 2023, with the subsector adding an additional 1,600 jobs, up 2.5% year-over-year. Employment trended upward in 2024, with periods of downward fluctuation in the second quarter. Through the end of 2024, the sector is expected to continue steady growth, ending the year with an average of 66,700 employees and year-over-year growth of 1.1%. Looking to 2025, the sector is projected to end the year with an average of 67,400 employees, an increase of 1%.

INDUSTRY SNAPSHOT OTHER SERVICES

Nominal GDP, 2023 ($ Billions)	12.2
Real GDP, 2023 ($ Billions, 2017 Dollars)	8.6
2023 Real GDP Growth Rate	-4.4%
Total Employment, 2023 (Thousands)	127.1
2023 Employment Growth Rate	3.5%
Employment Growth National Rank	17
Share of Colorado Employment	4.3%
Share of National Employment	3.7%
Average Wage, 2023	55,251
Percent of Statewide Average Wage	70.5%
2023 Average Wage Growth Rate	5.4%

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics.
Note: 2023 employment includes revised estimates.

Repair and Maintenance

The Repair and Maintenance sector encompasses businesses that provide repair and maintenance services for automotive, commercial machinery, electronic equipment, and household goods. This subsector has typically been buoyed by the increasing average age of vehicles, pushing up demand for vehicle repair and maintenance.

While the repair and auto industry has recovered from the pandemic, a number of factors that drove the pandemic boom for the industry still exist today. While used car prices have declined in recent months (down 7.5% year-over-year in September, they still remain elevated from prepandemic levels (up 25% from September 2019), both contributing to car owners keeping their old cars for longer and going in for more tune ups. In addition, the average age of cars and lights trucks in the U.S. has risen to a record of 12.6 years in 2024, up by two months from 2023, according to S&P Global Mobility.

National retail sales for motor vehicles and parts dealers grew 2.9% in 2022, and were up 4.1% in 2023, according to data from the Census Bureau. Sales moderated in 2024 and were up just 0.9% in September year-to-date. While the future outlook for this sector is positive, industry players report new technology and training will be needed for the repair and maintenance of electric and zero-emission vehicles, which could be increasingly mandated for new cars in the coming years.

The sector grew steadily in 2022, increasing by 3.8%, and accelerated 4.4% in 2023. The sector continued strong growth through 2024. Employment in this subsector is expected to average 30,200 in 2024, a gain of 5.2% year-over-year, and 31,300 in 2025, an increase of 3.6%.

Personal and Laundry Services

Industries in the Personal and Laundry Services sector are vastly diverse. They include firms that provide services such as hair, nail, and skin care; death care (i.e., funeral homes and cemeteries); dry cleaning and laundry (including coin-operated); pet care (except veterinary); photofinishing; and parking lots. While this sector was the hardest hit within the Other Services supersector during the pandemic, employment fully rebounded in 2022. The subsector experienced steady growth in 2023, growing by 5.2%. The sector is projected to grow 1.8% in 2024 to average 33,100 jobs, followed by a 1.2% gain in 2025 to average 33,500 jobs. ✣

***Contributor:** Adam Illig, University of Colorado (Chair)*

Government

Representing 16%, or nearly one in six jobs in the state, the Government supersector includes federal, state, and local workers. Government activities include a variety of services, ranging from space research and technology to public safety, program administration, and education. Government employment increased 5.2% in 2023, reaching a new employment peak after lagging in the rebound from the pandemic. While the sector continued its recovery in 2024, government entities at all levels were impacted by many of the same lingering challenges faced by other sectors, including inflation, increased interest rates, worker shortages, flat tax revenues, and demographic shifts, as well as the end of pandemic-related federal funding. In 2024, government employment in Colorado increased 4% (18,900 jobs) and is projected to increase 1.3% in 2025, to 498,700 jobs.

Federal Government

In 2023, total federal government employment in Colorado was 55,200, which was a 3.4% increase from 2022. In 2024, federal government employment increased by an estimated 2.9%, to 56,800, and is expected to add another 500 jobs (0.9%) in 2025, mostly due to moderate hiring in relation to administration and management of federal programs created and funded during the COVID pandemic.

The Coronavirus Response and Consolidated Appropriations Act (2021) provided $900 billion in direct economic assistance for American workers, families, small businesses, and industries, as well as $2 trillion in spending from the 2020 Coronavirus Aid, Relief, and Economic Security (CARES) Act. While much of this funding sat idle as federal agencies developed or enhanced programs to distribute these funds, by 2024, this funding has either been distributed to recipients or is in a federal pipeline for near-term distribution. One example is the $42.45 billion allocated to the National Telecommunications and Information Administration (NTIA) for the Broadband Equity, Access and Deployment (BEAD) program that will be used by each state to issue broadband infrastructure funding to commercial ISPs, government-owned network operators, and nonprofits to deploy broadband to unserved and underserved areas. This will not necessarily result in many new federal jobs but will result in hundreds, if not thousands, of private-sector jobs in the state over the next three to five years. According to the Colorado Broadband Office, Colorado was allocated $827 million through the BEAD program, and the state's goal is to connect 99% of Colorado households to high-speed broadband by the end of 2027.

Significant funding is still being spent from the American Rescue Plan Act (ARPA) of 2021 (the COVID Stimulus Package), which provided $2 trillion in economic stimulus to speed up the country's recovery from the economic and health effects of the COVID pandemic. The economic and employment recovery from the pandemic is all but complete. The significant inflation experienced postpandemic has mostly subsided with price stabilization predicted moving forward. The Federal Reserve has acknowledged this through its most recent reductions in the federal funds interest rate, the rate that banks can borrow from the Federal Reserve. At this point, lowering these rates has not resulted in significantly lower interest rates for businesses and consumers. If historical trends hold, these lower rates should ripple through the economy over the next six to nine months.

Fiscal Outlook

The results of the presidential and congressional election could have significant impacts on federal government spending policy in 2025. In a report on the U.S. fiscal health, the Government Accountability Office (GAO) expects debt to continue to grow faster than the economy and reach 200% of GDP by 2050 if federal policy remains unchanged. Large deficits will continue to grow the national debt, and Medicare and Social Security costs will increasingly outpace revenue coming into the federal government. Government interest as a percentage of GDP will reach an all-time high in 2030, in part, due to increased interest rates. These factors all contribute to the conclusion from the GAO that the U.S. fiscal situation is on an unsustainable fiscal path.

INDUSTRY SNAPSHOT GOVERNMENT	
Nominal GDP, 2023 ($ Billions)	59.1
Real GDP, 2023 ($ Billions, 2017 Dollars)	49.1
2023 Real GDP Growth Rate	4.7%
Total Employment, 2023 (Thousands)	473.3
2023 Employment Growth Rate	5.2%
Employment Growth National Rank	2
Share of Colorado Employment	16.1%
Share of National Employment	14.6%
Average Wage, 2023	70,589
Percent of Statewide Average Wage	90.1%
2023 Average Wage Growth Rate	3.8%

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics.
Note: 2023 employment includes revised estimates.

Social Security

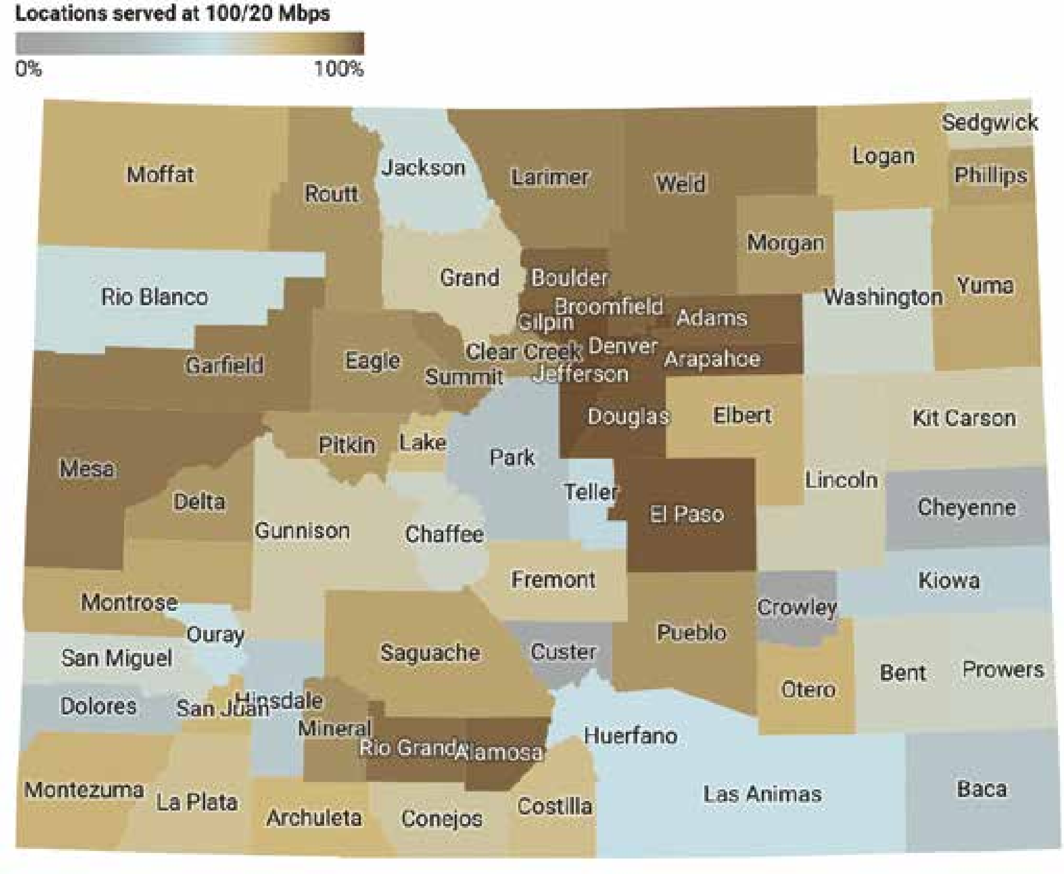
Barring any significant policy changes, the major problem with Social Security is that it was set up as a pay-as-you-go program, meaning that money paid into the system today is not actually saved but paid out to current Social Security recipients. This was not an issue when the program was developed because life expectancy was much shorter. As life expectancy has increased, this system has additional pressure because the number of older adults collecting Social Security has become much larger compared to people paying into the system. Policy fixes are not complicated but are highly political. An often-overlooked fact is that people only pay into Social Security on the first $168,600 of their income. This means that someone earning $1 million a year would be subject to Social Security tax on 16% of their income. This can be compared to someone earning $80,000 per year and paying Social Security tax on 100% of their income. The compounding issue is that when the payroll tax cap was implemented in 1983 only 10% of earnings exceeded the cap, but by 2021, the amount of earnings

GOVERNMENT EMPLOYMENT IN COLORADO, 2015–2025 (In Thousands)

Year	Federal	State	Local	Government
2015	52.8	112.8	250.9	416.5
2016	53.5	116.5	258.2	428.1
2017	53.5	121.2	261.9	436.7
2018	52.9	125.9	266.8	445.6
2019	53.1	130.2	271.8	455.1
2020	54.7	126.4	259.1	440.2
2021	54.2	124.2	260.2	438.5
2022	53.4	129.5	267.2	450.1
2023[a]	55.2	138.4	279.8	473.3
2024[b]	56.8	145.4	290.0	492.2
2025[c]	57.3	145.4	296.0	498.7

[a]Revised. [b]Estimated. [c]Forecast. Note: Due to rounding, the sum of the individual sectors may not equal the total.
Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

BROADBAND MAPPING



Source: Colorado Broadband Office • Created with Datawrapper

above the cap was almost 20%, creating a significant portion of earned income that is not taxed and contributing to Social Security. Compounding this issue, as baby boomers retire and move from earned income to passive income, this also affects how much is collected as they stop paying into and start drawing money from the Social Security system. The situation is not forecast to improve as larger increases in Medicare and Social Security costs will put pressure on lower projected increases in tax revenue.

The situation becomes increasingly concerning as higher interest rates will contribute to increased federal government spending to pay interest on the national debt. According to the GAO (*The Nation's Fiscal Health: Road Map Needed to Address Projected Unsustainable Debt Levels*), in 2023, net federal interest spending increased from $475 billion to $659 billion, or 39% from 2022.

Even more alarming is that interest on the national debt will surpass $1 trillion by 2029. Finally, this is all confounded by chatter in the international community about moving away from using the U.S. dollar as the common international currency. A move away from using dollars in major international trade and transactions could put additional significant pressure on the U.S. dollar.

Budget Deficit

The Congressional Budget Office's (CBO) 2024-2034 Budget and Economic Outlook Report shows an expected budget deficit of $1.6 trillion in 2024, growing to $1.8 trillion in 2025, and returning to $1.6 trillion in 2027. This deficit is equivalent to about 5.6% of U.S.

continued on page 134

Government

continued from page 133

GDP in 2024 and is expected to continue higher, to 6.1% of GDP in 2025 and decrease to 5.2% by 2027 and 2028. In the out years, this is expected to return to 6.1% by 2034. Deficits have only exceeded this threshold after World War II, the 2007-2009 financial crisis, and the coronavirus pandemic.

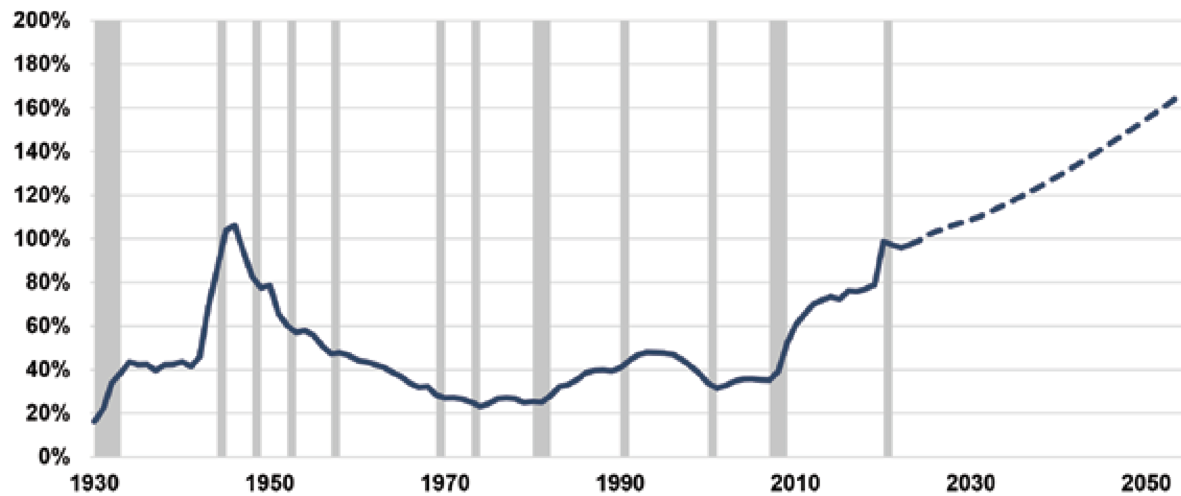
Macroeconomic Factors

The ratio of debt to GDP continues to be a concern for economists. Conditions are less concerning when the overall economy continues to grow to offset increases in spending. Issues such as population growth and the retirement of the baby boomer generation introduce areas of concern as slower population growth is highly correlated to slower economic growth, and the decrease of labor force participation by the baby boomer generation will reduce the supply of workers, impacting the growth potential of the overall U.S. economy.

Economic growth slowed in 2024 as unemployment increased slightly from the effects of tight monetary policy. The CBO predicts that GDP will increase in 2025, resulting, in part, from the Federal Reserve's decreasing interest rates in 2024. Economic growth is expected to continue to slow in 2025, down from the rapid growth in 2023. With the continued Federal Reserve interest rate cuts, it is forecast that economic growth will accelerate moderately in 2025.

Inflation continued to decrease significantly in 2024, moving closer to the Federal Reserve's historical target of 2%. GDP is expected to be weak through 2027 and rebound in subsequent years. Interest rates should remain higher, reflecting the unexpected economic growth in 2023. Interest rates will be driven more by capital income than private savings moving forward. The labor force is expected to continue to increase with steady levels of immigration continuing through 2026. Increased immigration will also affect real wages as jobs in relatively low-wage sectors are filled. The increase in workers will also reduce the amount of capital (factories and machinery) per worker, putting downward pressure on the average real wage. The effects of these factors will lessen over time as workers gain more complex and technical skills and additional capital is generated. The final factor is that productivity is expected to continue to increase and push up pressure on wages. Taken all together, the aggregate effects of these factors is expected to result in a slightly lower average real wages by 2034.

U.S. FEDERAL DEBT AS A PERCENTAGE OF GDP



Source: Congressional Budget Office, June 2024 report The 2024 Long-Term Budget Outlook. Note: Shaded areas represent recessions.

Demographic trends continue to be a key determinant for the long-term economic outlook. The CBO's *Demographic Outlook: 2024-2054* shows that the U.S. population will increase from 342 million people in 2024 to 383 million people in 2054. The key driver for population growth remains net immigration. It is predicted that this factor will account for all population growth starting in 2040. The percentage of the U.S. population over the age of 65 continues to grow and puts pressure on Social Security and Medicare. As the growth of this population segment continues relative to the working-age population, concerns will continue about the viability of these social safety net federal programs.

Federal Employment

According to the Bureau of Labor Statistics, federal government employment growth is projected to increase the fastest in IT and mathematical-related fields from 2020 to 2030. These highly skilled fields mostly project double-digit growth over this period, ranging from 23% for statisticians to 13% for operations research analysts, with median annual wages averaging over $100,000 per year. Two of the occupations in the provided table on the next page require a master's degree but all of the others require only a bachelor's degree with some work experience. The federal government employs workers in about 350 occupations, according to the BLS, but increases in these high-growth professions in Colorado offer the best local and regional economic impact as these workers have more disposable income to spend in the local

FASTEST-GROWING OCCUPATIONS IN THE FEDERAL GOVERNMENT PROJECTED 2020-2030

Occupation	Projected Growth	Education Typically Needed for Entry	Median Annual Wage, 2021
Statisticians	23%	Master's Degree	$114,050
Medical and Health Service Managers[a]	18	Bachelor's Degree	127,590
Management Analysts[a]	18	Bachelor's Degree	100,730
Computer Occupations, All Other[b]	18	Bachelor's Degree	105,600
Data Scientists[b]	17	Bachelor's Degree	80,180
Information Security Analysts[a]	14	Bachelor's Degree	106,520
Computer and Information Research Scientists	13	Master's Degree	112,310
Operations Research Analysts	13	Bachelor's Degree	120,950
Logisticians	9	Bachelor's Degree	88,710
Aerospace Engineers	8	Bachelor's Degree	123,800

Note: None of the occupations typically requires on-the-job training to attain competency.

[a]To enter this occupation, applicants also typically need less than 5 years of work experience in a related occupation.

[b]Projected growth is for data scientists and mathematical science occupations, all other. "All other" includes occupations such as business intelligence analysts, clinical data managers, and bioinformatics technicians.

Source: U.S. Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections.

economy, creating a spillover effect that drives broader economic growth in the state.

These types of jobs are robust in Colorado's 33 federally funded science and research centers across the state as they continue to generate significant employment and economic impacts. These Colorado laboratories receive significant federal funding and represent one of the highest concentrations of federally funded science and research centers in the nation. In FY 2015, these laboratories employed an estimated 7,800 direct workers and 9,820 indirect workers who earned a total of $783 million in wages and benefits and generated approximately $2.6 billion in annual economic impact to Colorado.

The National Renewable Energy Laboratory (NREL), for example, reported that in FY 2023 it had an economic impact of $1.9 billion. These labs also contribute to the state's high-tech industries, stimulating significant tech-transfer opportunities for higher education and area companies in critical areas, such as renewable energy, space science, natural resource management, AI, machine learning, and automation.

State Government

The state government consists of a variety of public sector activities, such as higher education, law enforcement and security, road and other public infrastructure construction, and a range of government administrative services. In many communities across Colorado, state government is the largest employer, with competitive wages and benefits. After bottoming out in 2021 from pandemic-related impacts, state government employment has fully recovered and now exceeds prepandemic employment levels. In 2023, a total of 8,900 jobs were added in state government, which represents a 6.9% increase over 2022. A rebound in public higher education employment drove two-thirds of that growth.

Noneducation state employment, which represents most state executive, legislative, and judicial branch employment, grew at a healthy pace in 2023, adding 3,100 jobs. Calendar year 2023 represents two state budget years: FY 2022-23, which ended June 30, 2023, and FY 2023-24, which began July 1, 2023. Between the two fiscal years, the Colorado General Assembly increased full-time equivalent (FTE) positions by 2.3%; however, total appropriated FTE is much higher than actual employment levels. State government suffered from worker shortages across the state during 2022, particularly for in-person roles in high pressure environments. The state began offering signing bonuses for some of those roles, particularly in the Department of Corrections and the Department of Human Services. This helped to boost employment in 2023.

When the labor market weakens, state government jobs typically become more attractive. State government employment, excluding higher education, grew every year between 2005 and 2023, bucking the typical declines in employment during economic downturns. Average wages still lag private-sector average wages, with the private sector paying an average of $1,506 per week and the state paying $1,468 in 2023. The average difference is not significant; however, if you compare the skills and education required by position, the state typically pays less than the private sector and less than other levels of government.

continued on page 136

Government

continued from page 135

In 2024, the state government added about 7,000 jobs as employment continued to catch up to appropriation levels. Employment in state government is expected to remain flat in 2025 assuming a strained state budget.

Higher Education

Employment in Colorado's public higher education system accounts for nearly 60% of total state government employment. The system's workers include both part- and full-time faculty and nonfaculty staff. Employment in Colorado's public higher education sector has rebounded from the 10% decline it experienced as a result of the COVID pandemic, with jobs exceeding prepandemic levels in 2023. Employment continued to grow in 2024, increasing 7.6% through September.

Student enrollment for Colorado's higher education institutions is a primary driver of employment. Overall enrollment across the state's public institutions has also rebounded after struggling as a result of the pandemic. For fall 2024, most of Colorado's public colleges and universities continued to show growth in student enrollment, with some institutions experiencing notable increases. This growth occurred despite challenges with the new free application for the Federal Student Aid (FASFA) process. For example, the University of Colorado Boulder saw a 3.4% increase in undergraduate enrollment, Metropolitan State University of Denver increased enrollment by 2%, the Colorado School of Mines increased enrollment 6%, while Colorado Mesa University reported a significant 35% rise in its freshman class, attributed to innovative financial aid strategies. Meanwhile, community colleges in Colorado, while still recovering from pandemic-related declines, are seeing moderate improvements. Most of this increase is being driven by growth in concurrent enrollment for students in high school.

The other important driver for employment in public higher education institutions is state funding levels. The state's institutions have seen their budgets increase above prepandemic levels due to strong growth in state funding in recent years, along with the rebound in enrollment. However, the fiscal year beginning in July 2025 will be more challenging for institutions' budgets due to tighter state budget conditions. While overall solid enrollment will help support institutions' budgets in 2025, higher education employment is expected to be flat next year due to state funding constraints. The sector may shed jobs depending on the severity of funding limitations for higher education in the fiscal year 2025-26 state budget.

Local Government

County Government

Looking ahead to 2025, county governments must not only certify their assessment rates and budgets but contend with an election year and an influx of new commissioners. County budgets are used to fund first responders, infrastructure, transportation, public health, and other essential services. Yet, the last significant influx of revenue to county budgets came in 2021, when President Biden signed the American Rescue Plan Act (ARPA) into law, providing counties, cities, and towns with a one-time cash injection. Those sources have since run dry, and counties are forced to face the question of how to continue programs that were expanded or simply kept alive under ARPA.

Typically, counties rely on property taxes for their revenue. In fact, county budgets and Colorado's property tax system are so closely intertwined that any significant changes present a serious threat to county government operations. Counties also exist as arms of the state government, trying to carry out its mandates and administer its programs with whatever funding is available. Counties may raise or lower mill levies depending on the amount of relief their constituents need and their budgets can support. Market values for residential and commercial properties have been on the rise for years, yet county governments have struggled to capitalize on those gains. This is due to several factors, including TABOR limits constraining state and local budgets; fierce opposition to increasing property taxes; and a flawed perception that county governments are both inefficient at providing services and flush with cash.

The current frustration among home and business owners with Colorado's property tax system can be traced back four years to the spring of 2020. When the Gallagher Amendment was repealed, the fixed ratio between residential and commercial property tax contributions was eliminated. Without the mandated adjustment, the residential assessment rate was frozen at 7.15%, meaning it no longer automatically decreased as property values increased. This change occurred while Colorado's real estate market rapidly increased in residential property values. Now, the tax rate no longer decreases in response to rising home values, so as property values go up, so do property taxes for homeowners. With the residential assessment rate no longer adjusting downward, and with property values increasing significantly, homeowners are now paying higher property taxes compared to when the Gallagher Amendment was in effect. Enter Senate Bill 233 (SB-233), which passed the Legislature and was approved by the governor on May 14, 2024.

This is why SB-233 was so important. For context, since 2022 the state has tried three different efforts (both legislatively and through the ballot) to bring down ever-increasing property taxes. None of those efforts were effective as values continued to outpace any reductions. This also led to an incredible amount of uncertainty in county budgets because the Legislature often waited until the final days of the legislative session to make changes to the property tax rates for the coming year, making it incredibly difficult for counties to set a budget. In addition, some of the initial tax rates that were passed in 2022 were expiring so both homeowners and business owners were going to see a significant increase to the rates they paid if the Legislature did not act. Finally, counties faced a significant threat in 2023 from two ballot measures—Initiatives 50 and 108. Had they passed, they would have created a hard cap on property taxes and reduced revenues by $3 billion statewide. This would have crippled both state and local governments as well as K-12 education in our state. This threat ultimately led to the passage of SB-233 in the Legislature.

SB-233 is a landmark piece of legislation that addresses multiple critical interests in Colorado's property tax system. It not only delivers responsible rate reductions for property owners, but also provides long-term stability and predictability for homeowners and businesses. Crucially, it ensures that K-12 education funding remains protected, while simultaneously preventing the deep cuts that could cripple local governments responsible for essential community services. SB-233 represents a thoughtful and far-reaching solution that strengthens Colorado's financial foundation, ensuring economic resilience and community well-being for years to come. Even for all the positive aspects of SB-233, it was not enough to get the proponents of Initiatives 50 and 108 to remove their ballot measures from consideration. This left a great amount of risk and uncertainty for counties. After all the concessions of SB-233, if Initiatives 50 and 108 were to also pass that would have meant an additional $2.3 billion in reductions, nothing short of catastrophic to county budgets.

So, more concessions had to be made to get those citizen-led initiatives off the ballot for good. Following the 2023 legislative session, a bipartisan group of legislators, the governor, and proponents of Initiatives 50 and 108 negotiated a compromise. This led the Legislature to return for a special session in the summer of 2024 for the purpose of passing a bill that would supplant both SB 233 and Initiatives 50 and 108. Eventually, two bills made it through the legislative process and on to the governor's desk: HB24B-1001, which is the compromise bill and provides deeper property tax relief than SB 233 but not as much relief as the ballot measures, and HB24B-1003, which provides additional and permanent property tax relief to those owning controlled environment agriculture and greenhouse equipment. HB-1001 has the same "cut and cap" components contained in SB-233 and Initiatives 50 and 108; however, it was done in a much more thoughtful way that would not have hurt the local bond market in Colorado or impede local government's ability to provide critical services. These cuts were significant and will be felt by every county across the state, but these bills will give local governments the certainty they need to do long-term planning and budgeting for their communities.

Overall, the status of county budgets is more robust and optimistic now than its low point in 2020. With the passage of the final special session deal in 2024 and the agreement not to run ballot measures for several years, certainty has been restored to our property tax system. This relief came not a moment too soon, as record levels of inflation have significantly increased the cost of providing essential services, from infrastructure maintenance to public safety, leaving counties struggling to stretch their limited resources. On top of these inflationary pressures, recent property tax reductions, though beneficial to homeowners, will further strain county budgets by reducing the revenue available to fund critical local services. As a result, many counties are grappling with difficult budget decisions, trying to balance the need to provide core services while coping with shrinking revenues and rising costs. The cumulative impact of these challenges has made it increasingly difficult for counties to meet the needs of their communities.

Counties in Colorado urgently need additional revenue tools in their financial toolbox to reduce their reliance on property taxes and ensure greater budget stability. With property tax revenues becoming more unpredictable due to recent reductions, and inflation driving up the costs of essential services, counties need flexible, diversified funding options. Unfortunately, any effort to address these budgetary needs is likely to run into opposition due to the nature of Colorado's political landscape. Expanding revenue sources would allow counties to better manage fiscal pressures and adapt to changing economic conditions. By providing counties with more financial tools, they could maintain essential services, invest in long-term infrastructure, and respond more effectively to the needs of their communities without being overly dependent on a single revenue stream.

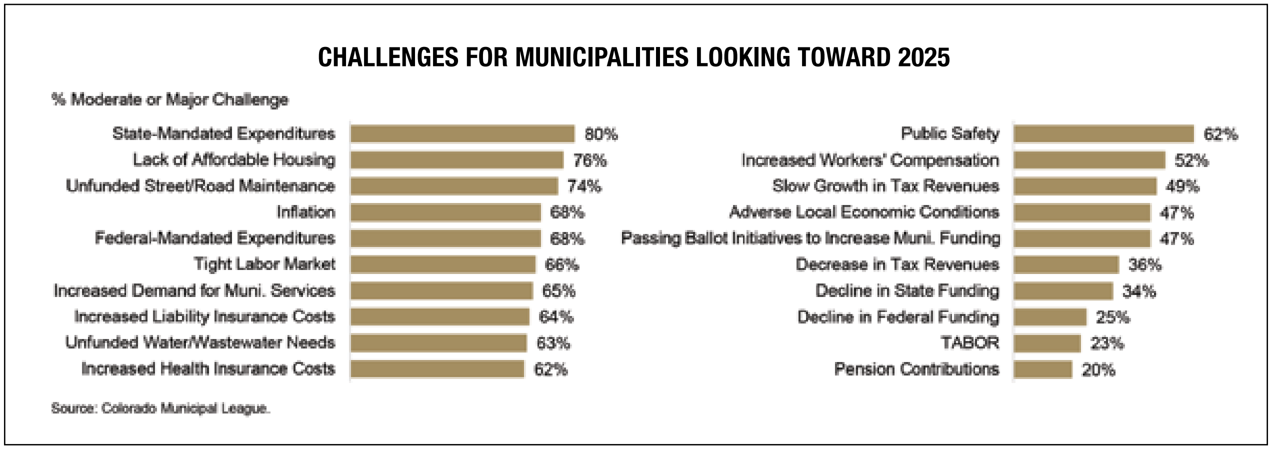
In recent years, Colorado and its counties have faced several significant and, in some cases, existential issues, these challenges include:

- **Housing Affordability and Homelessness.** Colorado has experienced skyrocketing housing costs, leading to widespread affordability issues and increasing homelessness rates, particularly in urban areas. Counties have struggled to provide affordable housing solutions while also managing the rise in unhoused populations and the strain this puts on local resources.
- **Record Inflation.** Inflation has driven up the cost of providing essential public services, from infrastructure projects to health care, creating severe budgetary constraints. Local governments have grappled with how to continue offering critical services while their purchasing power has eroded.
- **Property Tax Reductions and Gallagher Repeal.** The repeal of the Gallagher Amendment, followed by efforts to reduce property taxes, has led to fiscal uncertainty for local governments. While intended to provide relief to homeowners, these changes have constrained revenues for counties and municipalities, making it harder to fund education, public safety, and other essential services.
- **Wildfires and Climate Change**. Colorado has experienced increasingly severe wildfires, fueled by prolonged drought and climate change. These disasters have placed immense strain on local and state governments, requiring substantial emergency response efforts and long-term recovery strategies. The economic and environmental impacts have created existential challenges for many rural counties that are dependent on natural resources and tourism.

continued on page 138

Government

continued from page 137



- **Water Scarcity.** Water rights and scarcity have become critical issues, particularly for agricultural counties and rapidly growing metropolitan areas. With ongoing drought conditions and rising water demand, the state and local governments are grappling with how to ensure water security for communities and industries without jeopardizing long-term sustainability.
- **Public Health and COVID.** The pandemic placed unprecedented pressure on public health systems, local economies, and social services across the state. Counties were at the front lines of responding to public health crises, managing vaccine distribution, and navigating the economic fallout. The long-term recovery from the pandemic continues to pose challenges for both state and local governments.
- **Mental Health and Substance Abuse Crises.** Colorado has faced rising rates of mental health issues and substance abuse, including opioid addiction. Counties have had to address this public health emergency with limited resources, which has intensified the strain on local health care systems, law enforcement, and social services.

While many steps have been taken to address these challenges, they do still persist and will likely take years to remedy. Through strong collaboration between state and local governments, Colorado can develop comprehensive, innovative solutions to tackle these pressing challenges and ensure that resources are distributed equitably across communities. By working together, they can leverage shared expertise and funding to implement sustainable policies that strengthen the state's infrastructure and services, ultimately improving the quality of life for all Coloradans.

Municipal Government

Colorado Municipal League conducts an annual statewide survey to measure the economic outlook of Colorado communities compared to the previous year. Results from the 2024 survey show that a majority of responding municipalities feel that their economy and revenue is about the same or somewhat better than a year ago. Of those municipalities that reported an improved economy, a greater share of Western Slope municipalities indicated that their economy has improved when compared to Eastern Plains municipalities. Additionally, home rule municipalities were more likely than statutory municipalities to report an improved economy, and municipalities with populations between 2,000 and 24,999 were more likely to indicate an improved economy than smaller or larger municipalities. The survey also inquired about budgetary challenges cities and towns expect to encounter in 2025. These challenges include state and federally mandated expenditures, lack of affordable housing, unfunded street and road maintenance, inflation, and a tight labor market. The chart on this page lists the identified budgetary challenges and the percent of respondents rating the challenge as a moderate or a major challenge.

Unlike counties and special districts, most Colorado municipalities rely on sales and use tax as a primary source of revenue. Although a majority of survey responses show revenue is about the same or better in 2024 than the year before, many municipalities indicated that slow growth in tax revenue is a challenge, while others have concerns around reduced tax revenues. Coupled with the end of federal stimulus funds, revenues may be limited to address high project costs. Municipalities anticipate continued inflationary pressures will keep costs higher for capital projects and many operating activities. Slow revenue growth may mean less money available for projects and operations, potentially forcing municipalities with shrinking revenue to cut services or rely on reserves to continue providing such municipal services. Additionally, regardless of region, population, or governance type, municipalities generally see state-mandated expenditures as the greatest challenge facing them next year. These mandates reduce funding available for priorities established by local voters and taxpayers to further state policy by requiring local governments to appropriate local revenue for new or increased levels of services.

Housing affordability remains a top challenge for municipalities across Colorado. Despite anticipated slow growth in revenue, many municipalities plan to continue investment in housing projects to address affordability concerns in their communities. Cities and towns continue to combat rising housing costs by asking voters to support increases in lodging taxes to fund affordable housing projects. Concerns about homeless and unhoused populations are also present among municipalities, especially in the Denver Metro region. Many municipalities have ongoing investment in affordable housing solutions and support for unhoused individuals and expect to allocate resources for these populations in the future.

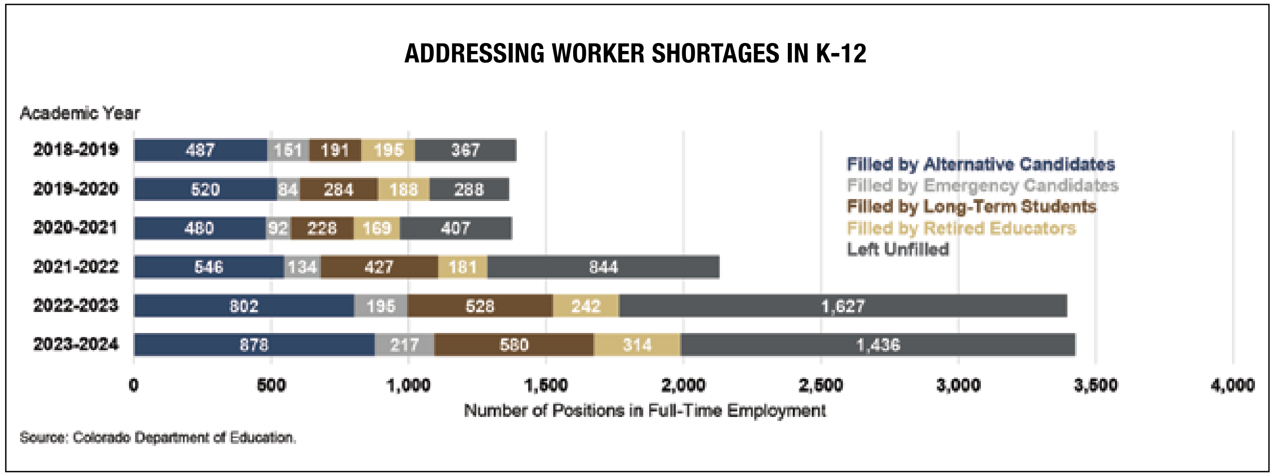
A tight labor market continues to be of concern to municipalities. While the labor market has somewhat improved, many of the same challenges persist from prior years, namely, the high cost of housing and childcare and the difficulty municipalities have in offering wages that are competitive with other employers.

The coming years will bring challenges for Colorado's local governments as municipal governments will continue to see strains from state-mandated expenditures, the need for affordable housing, aging infrastructure, and inflation. However, Colorado's resilient nature will help as these communities seek creative solutions to address these pressures of growth and increased demand for services.

PK-12 Education

Colorado public school districts educate nearly 881,500 students in kindergarten through 12th grade. Funding for public schools comes from three main sources of revenue: local property tax, state funding, and federal dollars. The state share is primarily from income and sales tax revenues flowing through the state and then to districts. While federal education law is well established and sets strong requirements for public education, federal dollars are typically a relatively small overall component of the annual funding of public schools. Since March 2020, K-12 public education, like many sectors of the economy, has experienced dramatic changes in the delivery of services, labor force availability, and revenue fluctuations.

Many school districts have turned to increasing local property taxes to support education, but due to the wildly disparate property values within Colorado school districts, the ability to generate revenue is a function of property values, as well as the local voters' willingness to support public education. These disparities are a result of residential development, nonresidential development, oil and gas resources, property valuations, and the number of students in a district.



2024 Impacts

School district operations continue to be impacted by labor shortages in nearly all areas, and this imbalance creates upward wage pressures and strains the system when community expectations for services remain at an all-time high.

Specifically, the Colorado Department of Education reports on the teacher shortage. The influx of pandemic-related funding and the need to hire additional staff for learning recovery efforts likely contributed to the supply and demand issues related to certain positions. However, research shows that teachers leave the field at much higher rates than similarly educated and licensed fields, and recent data from the U.S. Department of Education's Title II data series show from 2010-11 to 2020-21, enrollment in teacher-preparation programs declined by 45%, with the decline stabilizing in recent years. This high turnover and shrinking pool of qualified candidates will likely continue.

Inflation continues to prove challenging for Colorado school districts. Funding increases for 2024-25 were based on calendar year 2023 Denver-Aurora-Lakewood MSA inflation of 5.2%. Continued inflation is impacting current fiscal year spending as prices for goods and services climb after funding increases were allocated and budgets were developed. Planned spending patterns are being modified to address any near-term shortfalls by redirecting resources or reducing budgeted activities.

High prices of owner-occupied and rental housing units continue to drive both student enrollment declines and labor shortages for school districts. Although the local conditions vary across the state, this housing shortage is particularly acute along the Front Range and in resort areas. Municipalities with available affordable housing or lower-priced single-family homes have seen less impact.

The 2024-25 school year saw the September 2024 deadline to spend American Rescue Plan ESSER III dollars. This short-term funding has allowed districts to respond

continued on page 140

Government

continued from page 139

to student learning loss, the growing pediatric mental health crisis, as well as address some demands of aging capital infrastructure. The funding cliff will be noticeable if those ESSER III resources were allocated for ongoing expenditures or high-impact interventions that created expectations for ongoing services.

2025 Outlook

The outlook for 2025-26 is becoming unstable, with lingering fiscal and operational headwinds. Statewide enrollment in 2025-26 is projected to have a net decrease by over 3,800 students, or 0.5%, from 2024-25. This decrease continues a downward trend after the significant 3.3% enrollment drop recorded in October 2020. The student enrollment trend across the state has dropped from growth of 2% in 2008 to 0.1% and 0.2% in 2018 and 2019. This trend of declining enrollment is a result of declining birth rates and rising housing costs. This decline is projected to continue within Colorado in the coming years and is consistent with national trends that indicate a 1% annual decline in the K-12 student population. Within Colorado, enrollment projections vary by specific school district and region, with varying degrees of growth and decline. Among the 10 largest districts, the projected maximum decline is 2% and growth of 0.4%, representing 55% of the state's enrollment.

While enrollment is projected to decrease, funding will be partially supported by the inflationary increase in the School Finance Act. The new School Finance Act passed in the 2024 legislative session is unable to be implemented due to limited funding availability. The six-year implementation plan is proposed to be modified by extending the rollout an additional year and reducing the new funds in any one year. The new dollars are distributed to districts with higher concentrations of disadvantaged students. Since the new finance act cannot be implemented, concerns exist that a slight or moderate economic downturn could cause the return of the Budget Stabilization Factor, a mechanism used to reduce the state's obligation to PK-12 public education funding when other budget choices are made by the state legislature. Additional concerns exist for annual changes, increasing the uncertainty and variability in funding, a significant challenge for operating public schools.

Governor Polis's 2025-26 budget proposal, released on November 1, 2024, contains a base per pupil funding inflationary increase of 2.5% based on the Office of State Planning and Budgeting (OSPB) September 2024 Economic Forecast, or $115 million for Total Program funding. This totals an average of $299 per pupil more than 2024-25 funding, with those new dollars heavily weighted in districts with higher concentrations of disadvantaged students. This budget also proposes a shift in the methodology for calculating public school funding, moving from the four-year average enrollment to current-year enrollment. This could result in funding cuts for districts experiencing declining enrollment, eliminating the financial buffer that allows them to make strategic adjustments. This may put additional pressure on districts to close schools or change enrollment boundaries, causing major disruptions to local school communities.

The required inflation adjustment to the School Finance Act will soften but not eliminate the impact of rising costs and enrollment declines; however, proposed changes negatively impact funding in the near term. The upcoming FY 2025 state revenue forecasts in December 2024 and March 2025 will indicate where the Legislature is able to set the budget for K-12 education in 2025-26 and signal the ability of the state to continue providing the expected funding levels into the future. The uncertainty regarding funding will continue to be a challenge for school districts in the near term. The modified new finance act and the political pressure to implement the new formula will add to that unpredictability. Within the confines of the resources allocated by the Legislature, districts across the state will be contending with labor shortages, wage pressures, and inflationary costs outstripping the funding increases. However, within these fiscal constraints, an environment of high expectations remains for educators to prepare students for the 21st century economy. With an uncertain near-term future, districts will bolster reserves and fund balance to the extent possible as state funding for K-12 tends to lag an economic downturn.

Fixed Income Markets – Local Government

Throughout 2024, local governments in Colorado enjoyed the benefits of stable Federal Open Market Committee (FOMC) policy through the second and most of the third quarter. Allowable investments under C.R.S. 24-75-601 yielded significant interest earnings to the general funds of local governments. Most liquidity funds, including money market instruments, local government investment pools, and interest-bearing bank accounts, offered returns well above 5% through August 2024.

Much like in 2023, the short end of the yield curve remained inverted through October 2024. While an inverted yield curve historically indicates an upcoming recession, the economy remains strong. The FOMC adjusted its interest rate strategy for the first time in over 12 months at the end of September. The 50-basis-point adjustment sparked extensive debate within the financial services industry. Fixed income markets began to correct in August, anticipating a move on the fed funds rate.

The 2025 interest rate forecast signals further easing and rate cuts by the FOMC. Local governments in Colorado should prepare for significantly lower interest income in their 2025 budgets. They can conservatively expect an average aggregate return of 3% within their investment programs, given the current interest rate forecast.

Local governments must remain cautious about extending their investment programs into longer-duration securities until the yield curve normalizes. Planning anticipated projects and closely matching cash flows to fixed income maturity schedules will be critical tasks in 2025. Daily liquid investments, such as money market funds and local government investment pools, can provide flexibility for public entities with uncertain capital project planning, fluctuating cash flows, and sensitivity to fixed income market fluctuations.

Public Finance Landscape

The recent move by the FOMC to lower the fed funds rate by 50-basis points has provided relief for local governments looking to issue debt in 2025. With more rate cuts expected through the first quarter of 2025, borrowing costs will continue to decrease for local governments.

Public entities that postponed debt issuance and capital projects since 2023 will now have greater motivation to proceed with their projects. A substantial log jam in the public finance sector is expected to ease with the clear indication of lower rates.

However, local governments may face challenges in passing bond measures that require voter approval for issuances. The tolerance for taxpayers paying higher taxes is currently very low due to the substantial increase in property taxes over the last two assessment cycles. Of the $6.6 billion on bond initiatives at the Colorado school districts, over $5.7 billion passed, contradicting initial estimates of voter fatigue related to increased taxes.

The public finance sector is poised for a busy year in 2025, with local governments anticipated to make up for lost time due to the high cost of borrowing over the past two years. Favorable interest rate forecasts could result in a record-breaking year for this sector. ✜

Contributors:
Jennifer Pinsonneault, City of Boulder (Chair)
Kieran Boes, Colorado Counties Inc.
Justin Fazzari, Sanborn Geospatial
Elizabeth Haskell, Colorado Municipal League
James MacDonald, City of Boulder
Ben Mendenhall, Centennial Government Advisors
Meredith Moon, Institute of Evidence-based Policymaking
Dylan Peper, Colorado Counties Inc.
Jason Schrock, University of Colorado Boulder
Bill Sutter, Boulder Valley School District

International Trade

United States

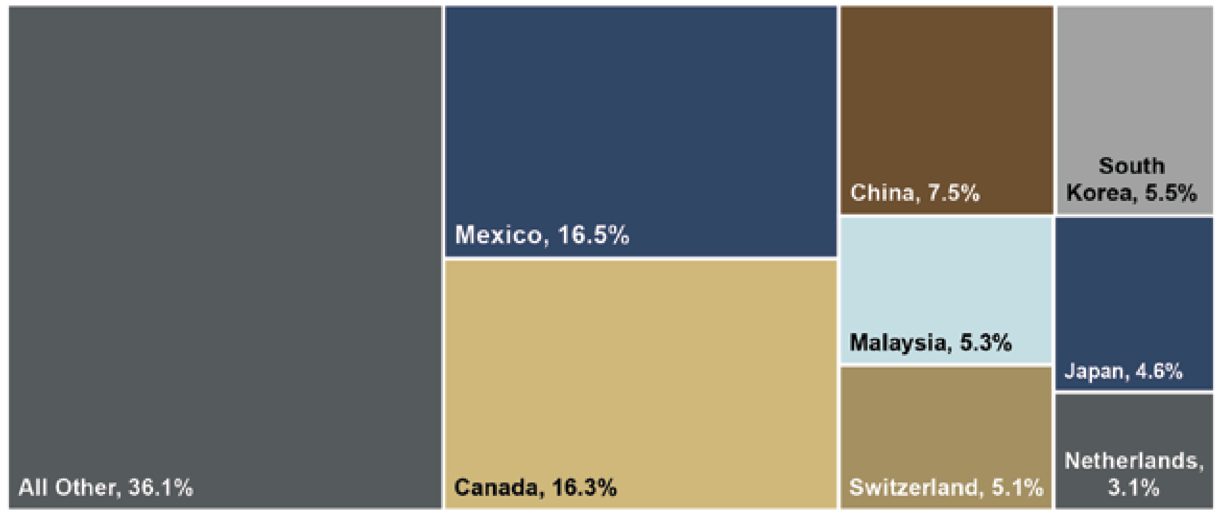
The U.S. economy is gradually bouncing back from a difficult phase characterized by soaring inflation that drove up interest rates and borrowing expenses in addition to slowing overall economic growth. However, the economy has persisted in its expansion during the first half of this year. As inflation has normalized, nominal rates of growth have decreased. According to the U.S. Census Bureau and U.S. Bureau of Economic Analysis (BEA), international trade has recovered over the past nine months, with exports and imports increasing nominally year-to-date (YTD) in September by 2.6% and 4.9%, respectively. Similarly, real goods exports and imports increased by 3% and 4.2%, respectively. Moreover, services exports and imports increased by 6.6% and 7.1%, respectively, in YTD comparisons.

The increase in nominal and real export growth can be better understood when looking at the U.S. export and import price index that is published by the Bureau of Labor Statistics (BLS). U.S. export prices decreased 1.1% in the third quarter of 2024, the largest 3-month drop since December 2023. Compared to September 2023, export and import prices have declined by -1.9% and -0.1%, respectively. The U.S. import price index follows a similar pattern to exports; however, due to less volatile changes in price, there is not much fluctuation from last year.

Based on this growth, the total value of national goods exports should reach $2 trillion, and good imports $3 trillion by the end of 2024. Last year (2023) marked the second year this series exceeded $2 trillion in goods exports and $3 trillion in goods imports, and this trend is expected to continue in 2024. Overall, the YTD goods and services deficit increased from the same period in 2023.

By principal end-use categories, industrial supplies made up the largest share of national goods exports September YTD in 2024, accounting for 35.4%, according to the BEA. This includes crude oil and other petroleum products, which alone accounted for 9.7%. Capital goods was the next largest category, at 31.2%, followed by consumer goods at 12.7%. Of the six BEA principal end-use categories, only one declined in real terms from YTD September 2023 to YTD September 2024—automotive vehicles declined by 7.8%. The other five categories experienced real growth in exports ranging from 1% (consumer goods) to 9.9% (foods, feeds, and beverages).

COLORADO EXPORT MARKETS SEPTEMBER 2024 YTD



Source: U.S. Census Bureau, USA Trade Online.

For goods imports, capital goods made up the largest share of nominal value, at 29.5%, taking the top spot from industrial supplies of the prior year. The consumer goods category was not far behind, at 24.4%. From September 2023 to September 2024 year-to-date, all categories increased except for industrial supplies, which decreased by 2.4%.

For the nation's goods export destinations YTD, the European Union took the top spot for the second year in a row, accounting for 18% of nominal value, seasonally adjusted (with the Netherlands, Germany, and France representing the largest country destinations within the bloc at 4.3%, 3.7%, and 2.1%, respectively). Canada held the top country spot, accounting for 17% of nominal value, followed by Mexico at 16.4%. China was the 3rd-largest country destination at 6.8%, followed by the Netherlands and Japan. Out of the top five export destinations, three experienced YTD growth with exports to Mexico, the Netherlands, and Japan growing by 4.2%, 11.5%, and 5.6%, respectively.

For top import sources, the European Union was also the top spot, accounting for 18.7% of nominal trade, led by Germany (5%), Ireland (3.1%), and Italy (2.4%). Mexico was the largest country import partner, with 15.7% of the volume, followed by China at 13.3%, and Canada at 12.8%. Of the top five import sources, Canada is the only country that experienced a decline in imports, with YTD growth decreasing by 1.1%. All other sources experienced an increase in YTD import growth ranging from 0.9% (Japan) to 6.5% (Mexico).

By major service categories, other business services accounted for the largest share of service export value September YTD 2024, at 24.6%. Travel and financial services were the next largest at 19.6% and 17.2%, respectively. Construction was the fastest-growing category in nominal terms, increasing by 38.9% from the same period in 2023, followed by maintenance and repair services at 36.3%. Two categories fell compared to their YTD values in 2023: personal, cultural, and recreational services (11%) and government goods and services (28.7%).

For services imports, travel was the largest category, accounting for 22%, followed by other business services (19.4%) and transport (19.3%). Like services exports, construction followed a similar trend, with imports growing by 40.5% YTD September 2024. Four categories saw a decline from 2023, with financial services; telecommunications computer, and information services; personal, cultural, and recreational services; and government goods and services falling by 3.6%, 3.5%, 1%, and 0.5%, respectively.

Data on services trade with partners are published only through September of 2024. The European Union was both the top destination for services exports and the top source for services imports, accounting for 18% and 18.8%, respectively, of total value through August of this year. For exports, Canada was the top country destination at 17%, followed by Mexico (16.4%), China (6.8%), the Netherlands (4.3%), and the United Kingdom (3.7%). For country import sources, the top five included Mexico (15.7%), China (13.1%), Canada (12.9%), Germany (5.1%), and Japan (4.6%).

Colorado

Official state trade estimates currently do not include services trade values. Some unofficial 3rd-party estimates suggest that services exports in Colorado are about twice the size of goods exports. Given the importance of outdoor recreation and tourism to the state's economy, it is likely that a strong share—likely stronger than that of the U.S. as a whole—is travel. The most recent passenger traffic reports for Denver International Airport (DEN) from September 2024 show that the number of international passengers has increased considerably (16.8% year-over-year increase) since September 2023 (year-to-date). DEN saw record-breaking total passenger traffic in the first half of the year (January to June), with a 9.2% increase from the same period in 2023. Colorado service exports and imports have likely remained at their prepandemic levels since 2023.

Total export values nominally increased in September YTD by 1.4%, while total import values nominally decreased by 3.8%. If YTD trends hold, 2024 annual export values will reach $10.5 billion and import values

continued on page 144

MAJOR DESTINATIONS FOR COLORADO EXPORTS OF MANUFACTURED GOODS, MINERALS, AND AGRICULTURAL PRODUCTS, 2019-2024 YTD
(In Millions of Dollars)

Country	2019	2020	2021	2022	2023	Sep 2023 YTD	Sep 2024 YTD	2024 YTD Percent Change	Country Share of Total
Canada	$1,446	$1,284	$1,606	$1,717	$1,866	$1,437	$1,293	-10.0%	16.3%
Mexico	1,059	1,048	1,419	1,442	1,606	1,182	1,306	10.5	16.5
China	524	504	921	915	895	640	594	-7.1	7.5
Switzerland	201	183	296	726	738	642	406	-36.9	5.1
Korea, South	542	521	606	768	732	549	437	-20.4	5.5
Malaysia	468	525	520	497	508	366	417	13.9	5.3
Japan	399	400	448	494	448	341	369	8.1	4.6
Netherlands	331	300	246	311	365	296	247	-16.5	3.1
Taiwan	232	222	268	249	265	196	229	16.8	2.9
Germany	280	305	289	289	233	172	202	17.9	2.6
United Kingdom	243	202	226	260	214	160	168	4.7	2.1
Philippines	152	102	138	162	189	135	122	-9.5	1.5
Brazil	109	113	146	134	177	121	114	-5.8	1.4
France	170	106	181	191	167	122	121	-1.0	1.5
Australia	123	152	144	158	162	121	132	9.0	1.7
Total Top 15 Countries	6,280	5,967	7,453	8,314	8,565	6,481	6,157	-5.0	77.6
All Other Countries	1,817	2,208	1,642	1,980	1,836	1,348	1,780	32.0	22.4
Total All Countries	$8,097	$8,174	$9,095	$10,293	$10,401	$7,829	$7,937	1.0%	100.0%

Source: U.S. Census Bureau, USA Trade Online.

International Trade

continued from page 143

TOP 15 COLORADO EXPORTS, 2019-2024 YTD
(In Millions of Dollars)

Description	2019	2020	2021	2022	2023	Sep 2023 YTD	Sep 2024 YTD	Percent of Total
Meat	$1,257	$1,357	$1,839	$1,938	$1,790	$1,344	$1,397	17.6%
Electrical Equipment	1,145	1,205	1,315	1,295	1,477	1,087	1,039	13.1
Precision Instruments	1,313	1,168	1,258	1,406	1,434	1,113	895	11.3
Industrial Machinery	1,188	1,123	1,164	1,361	1,434	1,088	1,196	15.1
Aircraft/Spacecraft	336	866	347	529	507	381	356	4.5
Iron Or Steel	272	191	295	355	369	263	292	3.7
Prec. Stones and Metals	18	22	25	284	343	283	252	3.2
Organic Chemical	98	103	256	392	275	253	211	2.7
Plastics And Articles Thereof	200	213	253	277	241	185	195	2.5
Pharmaceutical Products	120	189	122	137	186	140	149	1.9
Vehicles	130	117	144	179	180	137	172	2.2
Aluminum And Articles Thereof	147	200	262	279	178	141	149	1.9
Misc Chemical Products	103	105	132	138	155	113	141	1.8
Cereals	45	44	39	60	135	72	201	2.5
Photographic Or Cinematographic	191	122	173	114	114	87	49	0.6
Total Top 15	6,388	6,922	7,470	8,658	8,755	6,688	6,693	84.3
All Others	1,709	1,253	1,625	1,636	1,646	1,141	1,243	15.7
Total All Commodities	$8,097	$8,174	$9,095	$10,293	$10,401	$7,829	$7,937	100.0%

Source: U.S. Census Bureau, USA Trade Online.

$18 billion. While in previous years imports have surpassed $20 billion, 2023 imports trended lower than estimated, which is expected to continue into 2024 as well.

Like national estimates, inflation overstates these values. This report applies the BEA commodity price indexes that conform to sections of the harmonized tariff schedule (HTS) to nominal Colorado estimates from Census and BEA, accessed through WISERTrade, a data platform that aggregates trade data from U.S. and foreign statistical government agencies to estimate changes in goods export and import volume. To note, the BLS releases export and import price indices on a monthly basis for a selected category of goods. Where those categories could be cross walked with Colorado's HTS commodity groupings, the price index relative to the specific grouping was used. Otherwise, the "all commodities" price index was applied.

The top five product groupings by HTS sections account for about 61.5% of Colorado's total export value for September 2024 YTD and include meat (17.6%), industrial machinery (15.1%), electrical equipment (13.1%), precision instruments (11.3%), and aircraft and spacecraft (4.5%). Most of these groupings contain a diverse array of products, but some of the specific commodities that stand out for volume include beef; pork; automatic data process machines, electronic integrated circuits, semiconductor devices; medical, surgical, and dental instruments; and civilian aircraft, engines, and parts. Of these top five section groupings, meat products and industrial machinery saw a YTD increase through September of 3.9% and 9.9%, respectively. The others experienced a decline in nominal growth ranging from -19.6% to -4.4%. The cereals category, which was eighth in nominal value, saw rapid growth at 177%. (This is likely attributed to a one-time, single contract or delivery rather than the emergence of another strong commodity for the state.)

The top five export destinations accounted for about 51% of Colorado's nominal exports September 2024 YTD, with the top two, Mexico and Canada, accounting for nearly one-third alone. However, when taken as a bloc, the E.U. was Colorado's 3rd-largest export destination, with 13.3%. China, South Korea, and Malaysia completed the top five, with 7.5%, 5.5%, and 5.3% of volume, respectively. Of the top five, Malaysia saw the fastest nominal growth, 13.9%, with Mexico not close behind, experiencing 10.5%. On the other hand, exports to Canada, China, and South Korea nominally decreased by 10%, 7.1%, and 20.4%, respectively.

The top five product groupings by HTS sections accounted for 58.7% of Colorado's total nominal import volume September 2024 YTD. The top two commodity groupings of mineral fuel and electric machinery accounted for 20.5% and 13.8%, respectively, of Colorado's nominal import values YTD. The other categories that completed the top five were industrial machinery (10.6%), precision instruments (7.9%), and aircraft and spacecraft (6%). The only two product groups that saw an increase in nominal growth were aircraft and spacecraft and mineral fuel, 55.4% and 7.2%, respectively. All other product groups saw a decline in nominal growth at 28% (electric machinery), 14.1% (industrial machinery), and 14.6% (precision instruments).

The top five import sources accounted for 59.8% of Colorado volume YTD, with the top, Canada, accounting for 32% alone. Canada was followed by China (10.6%), Mexico (6.6%), Germany (5.3%), and Switzerland (4.9%). However, when taken as a bloc, the E.U. took the second spot at 15.1%. Most notably, only Canada and Germany saw nominal growth September 2024 YTD at 4.2% and 3.1%, respectively. All other top import sources saw a nominal decline ranging from -12.1% to -8.2%.

Exporting Education: International Students in Colorado

As higher education recovered from the pandemic, student mobility increased to prepandemic levels by academic year 2023-24, with the United States hosting an all-time high of more than 1.1 million international students, and Colorado showing an increase of almost 5% from the previous year to more than 10,000 international students. The students, from approximately 150 countries, paid tuition, room and board, and other living expenses, contributing an estimated $404 million to Colorado's economy. The significant impact that international students have on the economy prompted the U.S. Commercial Service in 2023 to include education in its national export strategy. For Colorado, a $404 million economic impact ranks education as the 5th-largest export.

The leading countries of origin of international students in 2023-24 for Colorado were India, China, Kuwait, Saudi Arabia, and Canada. India continued its strong growth in sending students abroad, while China fell to a distant second after having been the top sending country for most of the past decade—for Colorado and for the United States overall. Canada moved into the top five sending countries for the first time in years.

As in previous years, the five Colorado institutions with the most international students are the University of Colorado Boulder, Colorado State University, the University of Colorado Denver, the University of Denver, and Colorado School of Mines.

Outlook 2025

Trade Conditions Landscape: Slowing Globalization Expected Ahead

From the end of World War II up until the Global Financial Crisis, there was a period of globalization and increasing openness of trade. First, exchange rates began to float, followed by a period of removing trade barriers and international cooperation that gained a strong footing in the 1980s. This was later followed by the creation of the World Trade Organization (WTO) in 1995 to oversee multinational trade agreements as well as settle trade disputes. As a result, until 2008, the world trade economy was defined by increasing appetite for global supply chains, lower tariffs, and free trade agreements (FTAs). Since 2008, that trend has begun to stall out as the share of exports and imports as a percent of GDP has stabilized, a result of slower trade expansion, a slower pace of new FTAs, and examples of a return to increased industry-specific protectionism in certain countries, including in the U.S. and China.

The U.S. is currently the largest importer of goods and services in the world, and therefore has significant negotiating power in international trade policy, which in turn could benefit U.S. industries that export to the world. During the era of increased globalization until 2008, the U.S. leveraged that negotiating power to enter into a range of FTAs, including 12 bilateral agreements and one multilateral agreement between 2000 and 2008. However, since that time, the U.S. has only entered into one agreement—the United States-Mexico-Canada Agreement (USMCA), which largely was a renegotiation of the previous North American Free Trade Agreement (NAFTA) that was implemented in 1994. USMCA includes a required joint review by July 1, 2026—the agreement terminates in 2036 unless the parties confirm a desire to continue it, and any party may leave the agreement with six-month notice. In addition to the lack

continued on page 146

INTERNATIONAL STUDENT ENROLLMENT AT SELECT COLORADO INSTITUTIONS

University	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
University of Colorado Boulder	1,910	2,163	2,614	2,951	3,424	3,654	3,789	3,886	3,174	3,263	3,469	3,512
Colorado State University	1,598	1,793	2,148	2,305	2,495	2,501	2,416	2,446	2,021	1,906	1,863	1,884
University of Colorado Denver	1,348	1,617	1,463	1,446	1,051	1,068	1,398	1,288	1,067	1,088	1,353	1,368
University of Denver	1,590	1,457	1,690	1,688	1,494	1,404	1,278	1,122	902	771	906	1,092
Colorado School of Mines	660	767	823	875	800	818	856	866	720	682	711	813

Sources: Institute of International Education, annual Open Doors report.

International Trade

continued from page 145

of new FTAs, there were also multilateral negotiations that were underway in the 2010s that stalled out, including the Trans-Pacific Partnership Agreement, which the U.S. signed in 2016 alongside 11 Pacific nations, but the U.S. withdrew in 2017 during the Trump administration. At the same time, future negotiating rounds for a Transatlantic Trade and Investment Partnership with the European Union were put on pause. Furthermore, in recent years, the U.S. has blocked the appointment of new judges to the WTO's Appellate Body, which has now resulted in a lack of quorum necessary to hear appeals to enforce multilateral trade rules.

Despite the lack of continued momentum to implement and enforce FTAs, the World Bank estimates that the applied weighted tariff rates worldwide remain low and generally unchanged in recent years. Used in policy, tariffs can play a legitimate role in offsetting unfair trade practices in other countries, meeting strategic objectives, and shielding and boosting key industries of national importance. Congress has delegated considerable authority to the executive branch to impose tariffs, and both the Biden and Trump administrations have actively exercised these powers. The Trump administration imposed tariffs on imports from China under section 301 of the Trade Act of 1974, which is intended to provide relief from unfair trade practices—these tariffs have largely been left in place by the Biden administration, and increased in some areas such as semiconductors and electric vehicles. The Trump administration also imposed tariffs on steel and aluminum using a national security justification under Section 232 of the Trade Expansion Act of 1962—some limits on these measures have since been negotiated with a number of trading partners including the E.U. Section 201 of the Trade Act of 1974 that provides relief from surges of imports and was used in 2018 to impose tariffs on washing machines and solar cells—the washing machine tariffs have expired, but the solar cell tariffs have been extended by the Biden administration.

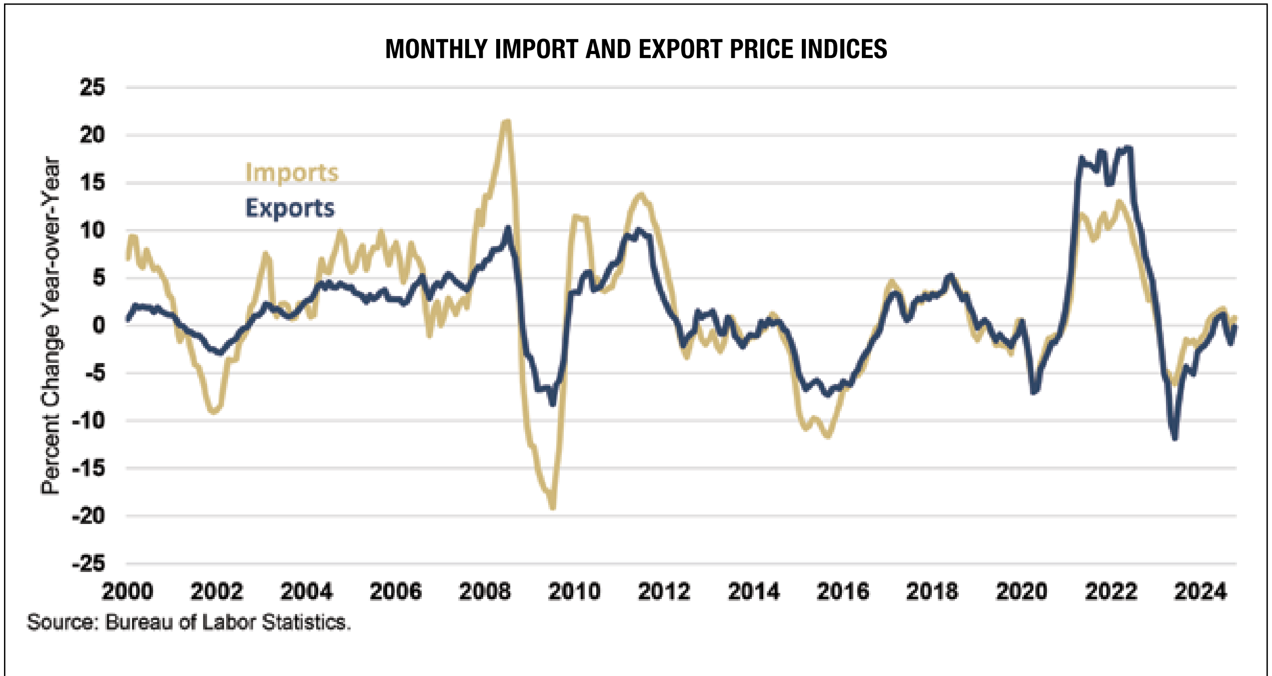
Research from the Federal Reserve shows that bilateral trade between the U.S. and China decreased late last decade as a result of the trade war started during the Trump administration. However, it also found that the net effect was smaller as other countries in Asia and in North America increased their imports from China, and in turn increased exports to the U.S.

NOMINAL BROAD DOLLAR INDEX

Source: Board of Governors of the Federal Reserve System.

While impacts to the overall trade balance may be limited, additional research on the macroeconomic effects suggests that higher tariffs may lead to declines in domestic output and productivity, higher unemployment, and a loss of international competitiveness. Furthermore, increased tariffs would likely increase the cost of production for industries such as manufacturing that tend to rely more heavily on intermediate inputs from abroad, as well as potentially disrupt existing supply chains that could require reorganization to mute the impacts. The implementation timeframe of policy changes would have likely similar timing impacts on inflation, with increased tariffs or nontariff measures (e.g., quotas, sanitary and phyto-sanitary requirements) alike, putting upward pressure on domestic consumer goods and services.

Over the next few years, there is little evidence to support increased appetite to reduce such obstacles at the national level, with upside risk that such obstacles may increase. Both parties appear motivated to protect specific industries and individuals and instead focus on policies to strengthen the economy from within. Depending on the extent of newly imposed barriers to trade, there could be increased inflationary pressures that the Federal Reserve would have to take into consideration when making monetary policy decisions.



Monetary Policy and the Strength of the U.S. Dollar

The exchange rate—the value of the U.S. dollar in terms of other currencies—can affect international trade by making imported goods more or less expensive and making U.S.-produced goods more or less costly for foreign buyers. A strong dollar is beneficial to U.S. consumers but reduces the competitiveness of U.S. exporters and domestic industries that compete with imports. Exchange rate movements tend to not be fully passed through to consumer prices, and the effects occur gradually over time.

Interest-rate differentials are a key short-run determinant of exchange rates. Currencies with higher interest rates attract financial flows, and traders reallocate funds in anticipation of expected interest rate shifts.

The real exchange rate adjusts for changes in national price levels to measure changes in purchasing power across currencies. The real effective exchange rate is a trade-weighted average of real exchange rates with a country's trading partners. In the short run, real exchange rates tend to follow nominal (currency) exchange rates. This data illustrate that, recently, the dollar appreciated from mid-2021 through fall 2022 as financial markets anticipated higher U.S. interest rates and then reversed some of its gains in late 2022 as potential Fed easing came into view.

Inflation has fallen worldwide, allowing many of the world's central banks to begin reducing interest rates. The European Central Bank (ECB) began its rate-cutting cycle in September 2023, and other major central banks, including those of Switzerland, Sweden, Canada, and the United Kingdom, began cutting rates prior to the Fed's first rate cut in September 2024.

Although the U.S. economy is forecast by the International Monetary Fund (IMF) to slow in 2025, it has surprised to the upside, while many other economies have been relatively weak. A comparatively stronger U.S. economy would tend to keep U.S. interest rates relatively high and contribute to continued dollar strength.

The dollar is supported by its status as the world's primary reserve currency. Concerns about the sustainability of U.S. government debt generates considerable discussion about whether the central role of the dollar will continue, and the dollar's share in global reserves has declined modestly over the past couple of decades. However, a credible alternative to the dollar has yet to emerge—the euro lacks a reserve asset with the depth and liquidity of the U.S. Treasury market and China's restrictions on cross-border financial flows make the yuan unattractive for reserve holdings.

Exchange rate movements can be volatile and unpredictable but the most likely scenario for 2025 is a continued strong dollar.

Impact of Federal Policies and Funding on International Trade

Since their enactment in 2021 and 2022, the Infrastructure Investment and Jobs Act (IIJA), CHIPS and Science Act (CHIPS), and Inflation Reduction Act (IRA) have sought to reestablish the United States' global leadership in semiconductor manufacturing, spur investment, and create thousands of new jobs to bolster competitiveness, supply-chain resilience, and national security in critical and emerging technologies across a broad range of applications (Office of the President, 2024). Collectively, these are currently on track to direct over $1 trillion of public and private funding into transportation, health care, clean energy, infrastructure, and more to boost American competitiveness with China and reenergize the U.S. economy with a focus on the ongoing digital and energy transitions.

continued on page 148

International Trade

continued from page 147

As we near the close of 2024, it would still be premature to judge the outcomes of these wide-reaching policies, let alone venture a definitive assessment of their long-term effects on international trade for the U.S. and for Colorado. Nevertheless, it is clear that the implementation of what Treasury Secretary Janet Yellen refers to as a "modern supply-side economics policy framework" is proceeding rapidly and that the Biden administration has made considerable progress toward its ambitious goals with historic supply-side investments in the U.S. workforce and worker productivity (U.S. Department of the Treasury).

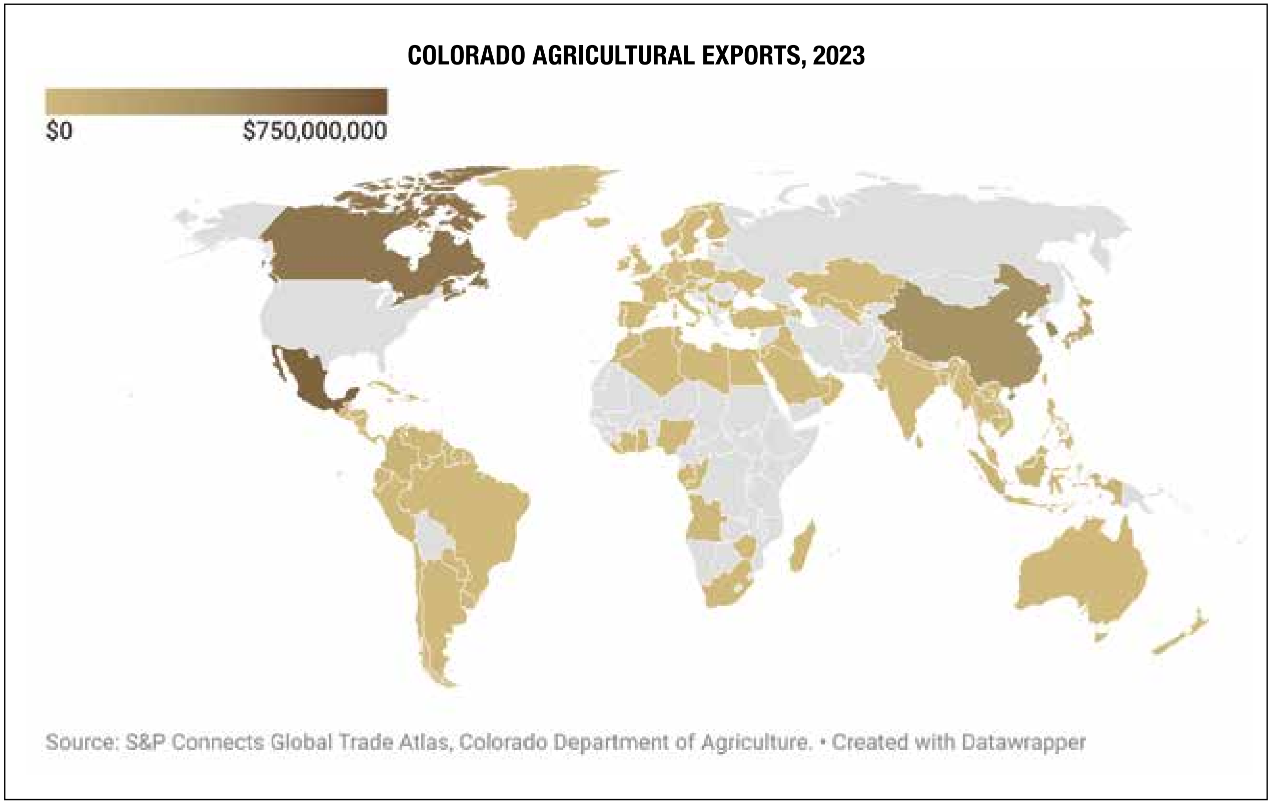
In August 2024, the Peterson Institute for International Economics reported a "renaissance" in U.S. chip manufacturing driven by investment resulting from the CHIPS Act, and that the U.S. was on track to add more capacity for computer and electronics manufacturing than it had during the previous two decades combined. Internationally, Taiwan, South Korea, and other major players have continued to support semiconductor manufacturing through industrial policies and subsidies, but construction starts for chip factories in South Korea have declined since 2022 to below the average for the last decade despite an expansion of incentives provided by the South Korean government. South Korea's reaction to the CHIPS Act—the K-Chips Act—is offered as evidence of policymakers' concern. While both the U.S. and South Korea are projected to gain market share, the United States' comparatively larger subsidies are attracting significantly larger investment.

The U.S.' ongoing trade war with China intensified under the Trump administration and has since affected bilateral trade to the tune of $450 billion. Combined with strategic support for reshoring, nearshoring, and friendshoring to mitigate risk, U.S. policies have triggered a "geographical reconfiguration of global supply chains expected to continue well into the future" (Baker Institute).

Having recently secured the top trading position with the U.S., Mexico stands to benefit from the rise of nearshoring in U.S. economic policy. With its focus on expediting the energy transition and enhancing resilience in global supply chains, the Inflation Reduction Act could lead to increased investment related to nearshoring in Mexico. An added consideration for Mexico, and a potential threat to it capitalizing on the U.S. nearshoring effort, is the growing presence of China's car brands in Mexico and their alleged plans to establish EV manufacturing facilities in the nation. The 25% tariff on EVs made in China prevented Chinese firms like BYD, which surpassed Tesla as the world's leading EV manufacturer early this year, from entering the U.S. market, but the United States-Mexico-Canada Agreement (USMCA) may provide an opening for Chinese EV brands to establish a presence in North America.

Taking Out The Harvest. Photo courtesy of Carl Steitz.

Tensions between the U.S. and its trading partners have arisen over provisions in the IRA, mainly over domestic content mandates (e.g., section 30D: EV tax credit) and sourcing of critical minerals in EV batteries. Combined with the aforementioned subsidies race in semiconductor manufacturing and green technologies, the modern supply-side economic policies of the Biden administration are likely to have lasting effects on global supply



chains and international trade in industries driving the digital and energy transitions.

Colorado Agriculture

From January to August 2024, Colorado's agricultural exports totaled $1.8 billion, maintaining the same level as in 2023. By the end of the year, it is expected that the total will exceed $2 billion. The state's top export markets for agricultural products were Mexico, Canada, South Korea, China, and Japan. The leading export commodity was meat and edible meat offal, making up about 70% of Colorado's total agricultural exports. Other notable exports included grains, animal feed, raw hides/skin, and prepared foods and ingredients. In particular, grains were significant, with approximately $320 million of wheat and $10 million in millet exported by August. Potatoes, primarily destined for Mexico, are another key export, with figures reaching $5 million. These numbers reflect the strong performance of Colorado's agricultural sector, with positive trends expected to continue through the end of 2024.

In 2024, Colorado's export sector is showing stable growth, with projections indicating that total exports will match or slightly exceed last year's numbers by the end of the year. As of August, beef exports were up by 6%, reaching $608 million, marking a positive trend for this key sector. Additionally, exports of dry beans have more than doubled in volume, driven by a strong 2023 harvest, though this growth is balanced by a significant drop in price, which decreased by over 20% per hundredweight compared to last year. In contrast, Colorado's distilleries and breweries are facing a slowdown in the domestic market, pushing these industries to prioritize international market expansion. Furthermore, with the full implementation of the Central American Free Trade Agreement (CAFTA) next year, Colorado is already experiencing a rise in demand and sales in Central America, positioning the region as a key growth market in the coming year.

Contributors:
Rachel Rose, Colorado Office of Economic Development and International Trade (Chair)
John Addison, Colorado Department of Agriculture
Bryce Cooke, Office of State Planning and Budget
William Craighead, University of Colorado Colorado Springs, College of Business
Bill Germain, Colorado Office of Economic Development and International Trade
Denise Froning, World Trade Center Denver
Inta Morris, Confluence Strategies, LLC
Macie Murcray, Colorado Governor's Office

Around the Region

The western region of the United States is made up of Colorado and its neighboring states of Arizona, Kansas, Montana, Nebraska, New Mexico, Utah, and Wyoming. This section compares currently reported economic activity in these states and their top metropolitan statistical areas (MSAs) as measured by total employment, employment growth, unemployment rate, average annual pay, and GDP.

Nearly every state in the region showed positive 10-year employment growth, with the exception of Wyoming. Utah and Arizona recorded the highest average 10-year employment growth rates of 2.8% and 2.4%, respectively. In September 2024, all of the regional states posted year-over-year job gains with Montana, Nebraska, and Arizona posting the largest increases of 3.4%, 2.2%, and 2.1%, respectively. Wyoming saw the lowest employment growth of just 1%. Colorado was the leading state in the region in average annual pay, personal income, and GDP.

Regarding MSAs, the Lincoln MSA, Salt Lake City MSA, and Albuquerque MSA posted the largest year-over-year employment increases of 2.9%, 2.3%, and 2.3%, respectively, in September 2024.

In terms of real GDP growth, Utah, Montana, and Arizona saw the fastest year-over-year increases of 4.8%, 2.7%, and

REGIONAL STATES								
September 2024 Total Employees (In Thousands)	**3,271.5** Arizona	**3,009.7** Colorado	**1,765.4** Utah	**1,465.1** Kansas	**1,076.3** Nebraska	**888.7** New Mexico	**539.6** Montana	**294.8** Wyoming
Employment CAGR September 2014 - September 2024	**2.8%** Utah	**2.4%** Arizona	**1.9%** Colorado	**1.7%** Montana	**0.8%** New Mexico	**0.8%** Nebraska	**0.5%** Kansas	**-0.2%** Wyoming
Employment % Change September 2023 - September 2024	**3.4%** Montana	**2.2%** Nebraska	**2.1%** Arizona	**1.8%** New Mexico	**1.8%** Utah	**1.6%** Colorado	**1.3%** Kansas	**1.0%** Wyoming
Unemployment Rate September 2024 (Not Seasonally Adjusted)	**4.2%** New Mexico	**4%** Colorado	**3.5%** Utah	**3.5%** Arizona	**3.3%** Montana	**3.3%** Kansas	**3.1%** Wyoming	**2.7%** Nebraska
Average Annual Pay 2023	**$77,114** Colorado	**$67,172** Arizona	**$63,854** Utah	**$59,175** Nebraska	**$59,080** Wyoming	**$58,400** Kansas	**$58,110** New Mexico	**$57,236** Montana
Personal Income Q2 2024 (Millions of Dollars)	**$492,793** Colorado	**$489,385** Arizona	**$233,866** Utah	**$202,122** Kansas	**$144,890** Nebraska	**$122,695** New Mexico	**$76,919** Montana	**$50,240** Wyoming
Personal Income Q2 2024 (Per Capita)	**$85,683** Wyoming	**$83,379** Colorado	**$72,892** Nebraska	**$68,638** Kansas	**$67,788** Utah	**$67,360** Montana	**$65,330** Arizona	**$57,991** New Mexico
GDP Q2 2024 (Millions of Current Dollars)	**$550,173** Colorado	**$548,806** Arizona	**$298,815** Utah	**$234,119** Kansas	**$185,238** Nebraska	**$140,092** New Mexico	**$75,855** Montana	**$52,980** Wyoming
Real GDP Percentage Change Q2 2023 - Q2 2024	**4.8%** Utah	**2.7%** Montana	**2.6%** Arizona	**1.8%** Kansas	**1.7%** New Mexico	**1.6%** Colorado	**1.4%** Nebraska	**0.8%** Wyoming

Sources: Bureau of Economic Analysis, Colorado Department of Labor and Employment, and Bureau of Labor Statistics (CES, QCEW, and LAUS data). [a]Not seasonally adjusted. Unless noted, all data is seasonally adjusted. Based on preliminary data.

2.6%, respectively, in Q2 2024. In 2022 (most recent available data), the Denver MSA led the MSAs in the region with the biggest increase, with 4.3% in 2022, followed by the Phoenix-Mesa-Chandler MSA (4%), and the Lincoln MSA (3.7%). All regional MSAs recorded year-over-year gains in 2022.

In 2022, Colorado's $77,114 average annual earnings exceeded all states in the region, followed by Arizona, with $67,172. Boulder ($91,696) and Denver-Aurora-Lakewood ($85,048) led Colorado with above-average annual pay levels. This far surpasses other MSAs in the region.

REGIONAL METROPOLITAN STATISTICAL AREAS

September 2024 Total Employees (In Thousands)	**2,463.4** Phoenix-Mesa-Scottsdale	**1,636.6** Denver-Aurora-Lakewood	**1,151.2** Kansas City	**843** Salt Lake City	**423.8** Albuquerque	**316.4** Wichita	**200.2** Lincoln	**49.2** Cheyenne
Employment CAGR September 2014 - September 2024	**2.8%** Phoenix-Mesa-Scottsdale	**2.5%** Salt Lake City	**1.9%** Denver-Aurora-Lakewood	**1.2%** Albuquerque	**1.2%** Kansas City	**0.8%** Lincoln	**0.8%** Wichita	**0.4%** Cheyenne
Employment % Change September 2023 - September 2024	**2.9%** Lincoln	**2.3%** Salt Lake City	**2.3%** Albuquerque	**1.8%** Phoenix-Mesa-Scottsdale	**1.7%** Cheyenne	**1.3%** Kansas City	**1.0%** Wichita	**-0.1%** Denver-Aurora-Lakewood
Unemployment Rate September 2024 (Not Seasonally Adjusted)	**4.1%** Denver-Aurora-Lakewood	**4%** Albuquerque	**3.6%** Salt Lake City	**3.5%** Wichita	**3.4%** Phoenix-Mesa-Glendale	**3.1%** Kansas City	**2.8%** Cheyenne	**2.3%** Lincoln
Average Annual Pay 2023	**$85,048** Denver-Aurora-Lakewood	**$73,187** Salt Lake City	**$69,854** Phoenix-Mesa-Scottsdale	**$66,732** Kansas City	**$59,441** Albuquerque	**$58,726** Cheyenne	**$57,248** Wichita	**$56,901** Lincoln
Personal Income 2023 (Millions of Dollars)	**$336,480** Phoenix-Mesa-Chandler	**$268,349** Denver-Aurora-Lakewood	**$155,194** Kansas City	**$89,251** Salt Lake City	**$52,828** Albuquerque	**$39,422** Wichita	**$22,858** Lincoln	**$6,579** Cheyenne
Personal Income 2023 (Per Capita)	**$89,297** Denver-Aurora-Lakewood	**$70,395** Salt Lake City	**$69,865** Kansas City	**$66,373** Lincoln	**$66,365** Phoenix-Mesa-Chandler	**$65,150** Cheyenne	**$60,375** Wichita	**$57,278** Albuquerque
GDP 2022 (Millions of Current Dollars)	**$362,087** Phoenix-Mesa-Chandler	**$288,800** Denver-Aurora-Lakewood	**$169,501** Kansas City	**$135,409** Salt Lake City	**$53,862** Albuquerque	**$43,935** Wichita	**$25,459** Lincoln	**$7,545** Cheyenne
Real GDP Percentage Change 2021 - 2022	**4.3%** Denver-Aurora-Lakewood	**4.0%** Phoenix-Mesa-Chandler	**3.7%** Lincoln	**3.1%** Wichita	**3.0%** Kansas City	**2.1%** Albuquerque	**1.4%** Salt Lake City	**-2.3%** Cheyenne

Sources: Bureau of Economic Analysis, Colorado Department of Labor and Employment, and Bureau of Labor Statistics (CES, QCEW, and LAUS data). [a]Not seasonally adjusted. Unless noted, all data is seasonally adjusted. Based on preliminary data.

Around the State

COLORADO METROPOLITAN STATISTICAL AREAS						
September 2024 Total Employees (In Thousands)						
1,636.6	336.1	213.3	189.7	117	66.9	64.6
Denver-Aurora-Lakewood	Colorado Springs	Boulder	Fort Collins	Greeley	Grand Junction	Pueblo
Employment CAGR September 2014 - September 2024						
2.5%	2.3%	1.9%	1.9%	1.5%	0.8%	0.8%
Colorado Springs	Fort Collins	Denver-Aurora-Lakewood	Boulder	Greeley	Grand Junction	Pueblo
Employment % Change September 2023 - September 2024						
2.1%	1.7%	1.3%	0.7%	0.6%	-0.1%	-0.1%
Colorado Springs	Boulder	Greeley	Fort Collins	Pueblo	Denver-Aurora-Lakewood	Grand Junction
Unemployment Rate September 2024 (Not Seasonally Adjusted)						
5.5%	4.2%	4.2%	4.2%	4.1%	3.8%	3.7%
Pueblo	Greeley	Grand Junction	Colorado Springs	Denver-Aurora-Lakewood	Boulder	Fort Collins-Loveland
Average Annual Pay 2023						
$91,696	$85,048	$65,717	$64,353	$55,898	$54,297	$52,443
Boulder	Denver-Aurora-Lakewood	Grand Junction	Colorado Springs	Fort Collins	Greeley	Pueblo
Personal Income 2023 (Millions of Dollars)						
$268,349	$50,570	$32,762	$26,458	$22,477	$9,206	$8,283
Denver-Aurora-Lakewood	Colorado Springs	Boulder	Fort Collins	Greeley	Grand Junction	Pueblo
Personal Income 2023 (Per Capita)						
$100,242	$89,297	$71,359	$65,775	$62,532	$57,653	$48,891
Boulder	Denver-Aurora-Lakewood	Fort Collins	Colorado Springs	Greeley	Grand Junction	Pueblo
GDP 2022 (Millions of Current Dollars)						
$288,800	$47,905	$35,608	$27,344	$25,923	$8,218	$7,836
Denver-Aurora-Lakewood	Colorado Springs	Boulder	Greeley	Fort Collins	Grand Junction	Pueblo
Real GDP Percentage Change 2021 - 2022						
4.3%	3.9%	1.6%	1.0%	0.1%	-1.6%	-8.8%
Denver-Aurora-Lakewood	Boulder	Fort Collins	Colorado Springs	Grand Junction	Pueblo	Greeley

Sources: Bureau of Economic Analysis, Colorado Department of Labor and Employment, and Bureau of Labor Statistics (CES, QCEW, and LAUS data). [a]Not seasonally adjusted. Unless noted, all data is seasonally adjusted. Based on preliminary data.

Boulder County

As of 2024, Boulder County's economy has experienced a blend of growth and challenges. Key sectors, such as life sciences, technology, and outdoor recreation, are driving economic activity, while remote work and office vacancies reduce much-needed foot traffic in areas of commerce.

The presence of major research institutions, the University of Colorado Boulder, and a strong startup culture continues to draw companies seeking to headquarter their burgeoning businesses near top-tier talent and resources.

Boulder County's economy is thriving with robust growth in key sectors. This dynamic blend of industries not only fuels current success but also sets the stage for sustained innovation and long-term prosperity, ensuring Boulder County remains a vibrant and forward-thinking economic hub.

Employment and Wages

Since reaching a high of 10.1% in June 2020 during the COVID pandemic, the unemployment rate in Boulder County decreased to 2.1% in September 2022. In 2023, unemployment began the year at 2.5% and fluctuated throughout the year before beginning to climb in April 2024; the August number read 4.1%. This compares to the August state unemployment rate of 4% and the September national rate of 4.1% (both not seasonally adjusted).

Employment in the Boulder Metropolitan Statistical Area (MSA) increased 3.2% in August 2022 year-over-year. Continuing that trend, employment in August 2023 was up 1.3% year-over-year, representing a gain of 2,700 jobs, according to the Bureau of Labor Statistics CES data. Census Bureau data show the 2023 median household income for Boulder County residents was $95,363, compared to $92,911 for Colorado residents and $80,610 for U.S. residents.

Boulder County's low unemployment rate and steady employment growth reflect a resilient economy, with median household incomes well above state and national averages, reinforcing its position as a strong and desirable place to live and work.

Financial Services and Venture Capital Investment

Venture capital activity has seen an uptick, particularly in sectors such as clean tech, biotech, and software. Local accelerators and incubators are actively supporting early-stage companies, attracting both national and regional investors. Venture capital investment in Colorado declined by 5% from Q4 2023 to Q1 2024. However, the city of Boulder saw a 28% increase. While investment declined in 2022 and 2023, it appears it could be returning to the pre-COVID trend.

Boulder is seeing a resurgence in venture capital investment, especially in cutting-edge industries like clean tech, biotech, and software, signaling a promising return to growth as investors turn their attention back to the region.

Leading Industries and Sectors

The Boulder County economy continues to benefit from a diverse mix of businesses, with high concentrations of employment in the Professional and Technical Services and Information industries, and in growing sectors, including quantum computing. The top three industries of 2023 were education and hospitals, restaurants and other eating places, and computer systems design and related services. Collaborations between academia, government, and private-sector companies has led to increased emphasis on attracting small- to mid-size quantum companies from across the nation and the globe.

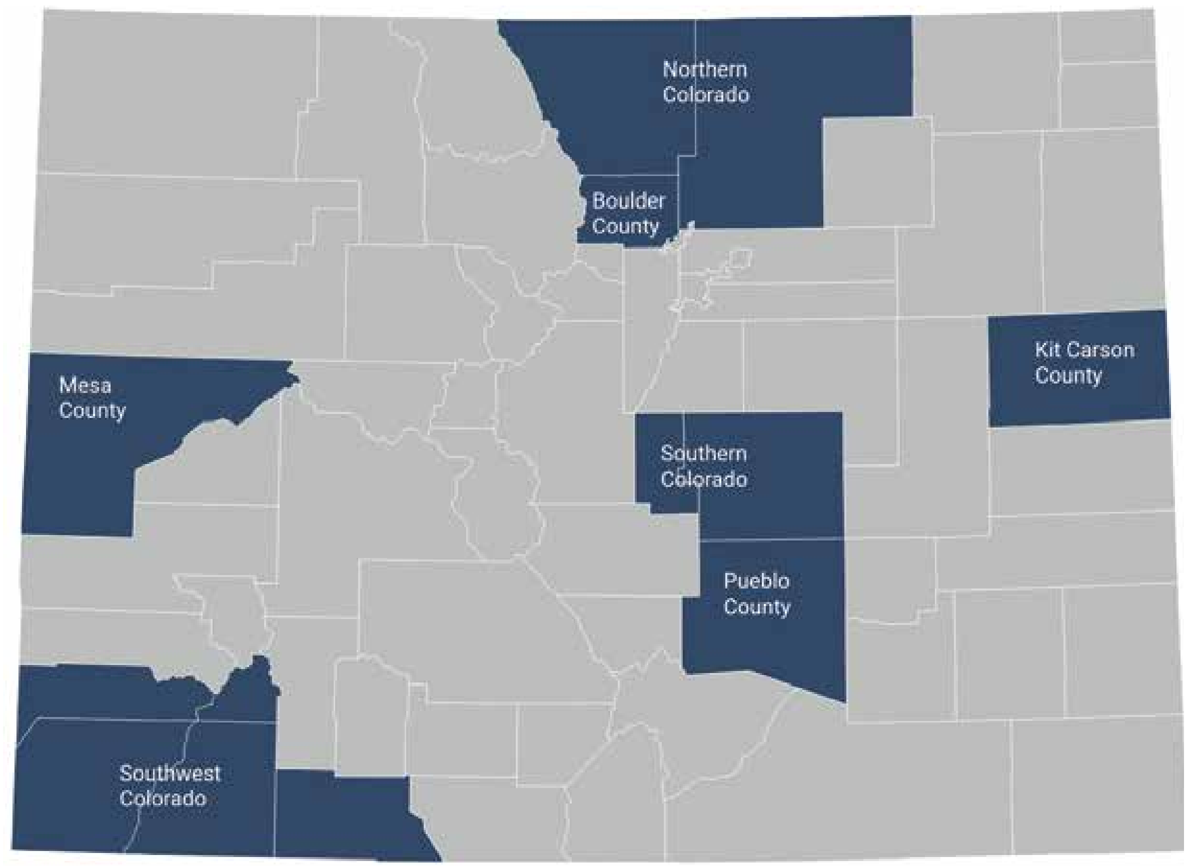
Boulder County continues to flourish with a diverse economy, fueled by strong collaboration across academia, government, and the private sector, all driving the growth of emerging sectors like quantum technology.

Professional and Technical Services—The Professional and Technical Services (PTS) industry represents the largest employment base in Boulder County and a concentration of employment that is 2.5 times the national average. PTS represents 39,185 employees in the MSA, or 17.8% of all jobs. There are approximately 5,800 firms in the industry representing nearly 31% of Boulder area employers. The county's PTS industry experienced a 4.5% compound annual growth rate (CAGR) in employment and 8.1% CAGR in firms from 2019-2023.

The PTS industry stands as the cornerstone of Boulder County's workforce, offering high-paying jobs and outpacing national employment trends with strong growth and an increasing number of firms.

Information—The Information industry is an eclectic mix of businesses that includes motion picture and music producers and distributors, radio and television network programming and broadcasting, telecommunications, and data processing. The Information sector in Boulder County has a much stronger employment concentration than the nation, with employment 2.2 times the national average, and a concentration of businesses that is well above the national average. The sector's concentration of both employment and firms showcases Boulder as a vibrant hub for innovation and creativity.

ECONOMIC SUMMARIES FROM AROUND THE STATE



Created with Datawrapper.

Aerospace—Colorado enjoys the highest concentration of private aerospace workers in the nation, and Boulder County represents 25% of the state's aerospace employment. The University of Colorado Boulder offers internationally recognized aerospace research and education programs and is the top public university for NASA research funding. Several federally funded labs in the area, including the Laboratory for Atmospheric and Space Physics (LASP), the National Oceanic and Atmospheric Administration (NOAA), and the National Center for Atmospheric Research (NCAR), conduct research in space.

continued on page 154

Around the State

continued from page 153

The Metro Denver Economic Development Corporation estimates that aerospace in Boulder County represents an employment concentration over 16 times the national average. Notable aerospace companies in Boulder County include BAE Systems, Blue Canyon Technologies (a subsidiary of Raytheon Technologies), Custom Microwave, EnerSys, Lockheed Martin, Northrop Grumman, Redstone Aerospace, Sierra Space Corporation, Think Orbital, and Special Aerospace Services. Aerospace companies in the Boulder area are adding employees and several recently added or plan to add lab, manufacturing, and office space.

Boulder County plays a leading role in Colorado's aerospace industry, home to a significant concentration of aerospace jobs, world-class research institutions, and innovative companies that continue to grow and expand.

Bioscience—Boulder County holds a substantial share of Colorado's bioscience jobs, accounting for approximately 20% to 25% of the state's bioscience workforce. This concentration is due to the presence of leading research institutions and biotech companies, and a strong focus on innovation in life sciences. The region's collaborative environment and access to talent make it a key player in Colorado's bioscience sector. The University of Colorado Boulder is home to the BioFrontiers Institute, an organization designed to facilitate interdisciplinary research and expand Colorado's leadership in biotechnology, and the university attracts major research funding and generates numerous startups.

Boulder County ranks among the top regions in the nation for the life sciences market, often positioned within the top 10 to 15 areas. Nearly 3 million square feet of laboratory space is planned, in development, or recently completed. In addition to significant developments by BioMed Realty and Conscience Bay Company in Boulder, and Sterling Bay in Lafayette, notable companies like Medtronic in Lafayette, Umoja Biopharma, and Biodesix in Louisville are making strong strides. Furthermore, Boulder's Enveda BioScience, a newly established leader in biotechnology and natural product research, is positioning itself for significant growth, contributing to the city's expanding role as a hub for cutting-edge advancements in the sector.

With a focus on innovation, Boulder County is a national leader in bioscience, offering a supportive environment for groundbreaking research and biotech companies that attract top talent and contribute to the region's economic success.

Clean Tech—Boulder County has a significant presence in the clean-tech industry, which includes renewable energy, energy efficiency, energy research, engineering, and consulting services, supported by the Renewable and Sustainable Energy Institute (RASEI)—a joint institute between the University of Colorado Boulder and the National Renewable Energy Laboratory (NREL)—and other national labs that are leaders in climate research. In addition to clean-tech businesses such as Also Energy, Envision Energy, Gravity Renewables, Electra, Namaste Solar, Siemens Gamesa, Solid Power, and Uplight, the area continues to be a center for renewable energy innovation and startup activity.

Boulder County is at the forefront of the clean-tech revolution, with a thriving industry backed by world-class research institutions and innovative startups that are making significant strides in renewable energy and climate solutions.

Information Technology—The tech industry in Boulder County dates back to the 1960s when IBM established a facility in Boulder. Today, the area has a wide range of technology companies in cybersecurity, data storage, digital marketing, quantum computing, software, and more. Boulder County continues to provide an environment and resources that attract tech startups, workers, and capital investment and is home to many technology accelerators and mentorship programs. The employment concentration in the IT software industry in Boulder County is more than three times the national average. Tech companies with a significant presence include Accenture, Apple, AMD, Google, Micron, Microsoft, Qualcomm, Seagate Technology, and S&P Global.

Boulder County's tech industry is flourishing, with a high concentration of IT and software companies, attracting talent and investment, and offering a vibrant ecosystem for tech startups and established firms alike.

Natural and Organic Products—According to the 2020 *Naturally Boulder Economic Impact Study* conducted by CU Boulder's Business Research Division, the natural and organic food industry in Colorado contributes $3.1 billion to the state's economy and supports approximately 22,150 jobs. Many natural and organic products businesses started in Boulder, and the area remains an important center for the industry. Boulder County is home to Aurora Organic Dairy, Boulder Organic Foods, Celestial Seasonings, Chocolove, Fresca Foods, Hope Foods, Justin's, Made in Nature, Meati Foods, Organic India, and many more natural and organic products businesses.

Boulder County is a powerhouse for the natural and organic products industry, with a rich history of innovation and a thriving market that continues to grow and support some of the most well-known brands in the sector.

Outdoor Products and Recreation—Boulder County has a high concentration of manufacturers, distributors, retailers, marketing and media, and other businesses focused on the outdoor products and recreation industry. Widely recognized as an industry hub, the area is home to the Outdoor Industry Association, and many outdoor industry businesses are headquartered or have a facility in Boulder County, including Active Interest Media, Backcountry Access, Dynafit, Fjällräven, Gaiam, HEAD, La Sportiva, Newton Running, Pearl Izumi, Scarpa, Scratch Labs, Sea to Summit, and Spyder Active Sports.

Boulder County remains a premier destination for outdoor products and recreation, home to a concentration of leading companies and startups in the industry, further solidifying its reputation as a hub for outdoor enthusiasts and businesses alike.

Tourism—A popular destination that receives national media attention, the Boulder area is known for its recreational and cultural amenities, special events, and impressive choices of entertainment, shopping, and dining options. While the sector continues to recover from impacts of the COVID pandemic, employment in Leisure and Hospitality increased by 42.7% between August 2020 and August 2024.

Boulder's tourism sector is on the rise, with significant growth in the Leisure and Hospitality industry. The area's natural beauty and cultural offerings make it a top destination, ensuring continued success and growth for years to come. ✣

Contributors:
Jennifer Pinsonneault, City of Boulder
Austin Brown, City of Louisville
Erin Fosdick, Longmont Economic Development Partnership
Joe Hovancak, Boulder Economic Council
Jill Mendoza, Town of Superior

Kit Carson County

It's dry and breezy on the Eastern Plains, where renewable energy continues to thrive. Solar farms are now the popular energy project in discussion as wind turbines continue to spin. Agriculture remains a large employer of the region while retail sales are slightly improving in some industries. School enrollment fluctuates as students from the metro areas are moving east for a better quality of life for their families. The population is aging, and population decline is seen in this county and everywhere across rural Colorado.

Real Estate—According to Zillow, real estate prices show the average home price in this county as $240,284 in 2024, which is up over last year by 1.9%. Accordingly, Zillow shows 38 homes available for sale but depending on the sale price and income of the purchasers, the home may not be affordable to the household. A housing needs assessment to determine the needs of the county and the municipalities within it is being conducted. The assessment already demonstrates that home prices are not affordable to many teachers, emergency services workers, and the general worker paid a minimum wage. Identifying the types and size of housing stock needed is expected from the assessment.

Employment—After peaking at 4.3% in June 2020, the unemployment rate of 2.7% (not seasonally adjusted) in August 2024 remains much lower than the state unemployment rate of 4% and the national rate of 4.1%. According to the Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS), there were 4,356 employees in the county in August 2024, an increase of 2.1% year-over-year. With a low unemployment rate, it is difficult to fill vacancies in this rural economy. Leveraging skills sets can be a challenge for proprietors who are the main providers of the vacant positions.

From 2022 to 2023, average annual wages increased 4.8% in Kit Carson County, spanning every major sector, according to the BLS, Quarterly Census of Employment and Wages. Average annual wages in Kit Carson County were $46,414 in 2022, 66.1% below the state average of $77,114. Often people are poached from one employer to another just for a small wage increase. Business owners are always looking for qualified help and in training mode.

Kit Carson County experienced a 38% increase in taxable retail sales in 2023. The increase may be attributed to local purchases of equipment, vehicles, and other retail items related to agriculture. Tourism has also been increasing in the county due to special efforts of local attractions and Colorado's outdoor recreation.

The population continues to age, and demand for health care services remains high as elderly people like to age in their homes and not move into assisted living facilities or in with families. A survey of residents over age 65 in 2024 shows they would like to stay in the familiar community where they currently live. Costs of groceries, utilities, and health care may dictate otherwise in the future but for now, the aging adults are managing in current conditions. The aging population, those over age 65, makes up approximately 18% of the total population, and it continues to grow. Younger age groups are declining in the county, but as those young people start families and finish college/trade school, they are coming back to rural life.

Overall, Kit Carson County is attractive to home buyers and families who can afford a home in this rural, safe setting. People tend to stay for several years as long as jobs are stable and expenses are not beyond the budget. Young families are coming back to their roots if they can find good jobs, so they have family support in raising their young ones. Staying alert to the needs of young people and business owners will help the area offer opportunities to young people, allow aging loved ones to stay close, and make Kit Carson County an attractive business location for economic growth. ✣

***Contributor:** Candace Payne, East Central Council of Governments*

Mesa County

Mesa County lies between the snow-capped Rocky Mountains and the arid Moab Desert on Colorado's Western Slope. Many Mesa County residents work in Grand Junction but live in surrounding communities, each with its own unique charm. To the west is the City of Fruita, perched at the valley's edge, while Palisade sits to the east at the base of the Grand Mesa. Together with smaller towns like DeBeque, Collbran, Mesa, Mack, and Loma, these communities form the diverse fabric of Mesa County.

This scenic county is home to 158,534 residents, with Grand Junction as its largest metropolitan hub and the most prominent city between Denver and Salt Lake City, Utah. Located at the confluence of the Colorado and Gunnison Rivers and conveniently along I-70, Grand Junction serves as the region's economic and cultural center.

Gross Domestic Product—Mesa County's real GDP increased 0.1% year-over-year in 2022, slower than the 2.3% increase in 2021.

Wage Trends—Average annual wages in Mesa County increased 5.7% year-over-year, to $59,280, in 2024, according to the Q3 2024 Mesa County Economic Update from the Colorado Mesa University Davis School

continued on page 156

Around the State

continued from page 155

of Business. The median household income in Mesa County increased year-over-year by 9.5% from 2021 to 2022, with a $69,578 median household income level reported in 2022.

Employment and Labor Force—According to the Q3 2024 Mesa County Economic Update from the Colorado Mesa University Davis School of Business, the Mesa County labor market slowed drastically in 2024, with employment estimates falling from 74,145 in June of 2023 to 72,993 in June of 2024, which reflects the slowing labor market nationally.

Sales Taxes—Mesa County sales taxes have increased through July, rising 2.4%, while Grand Junction sales taxes have increased 9.3%. The city sales and use tax comparing August 2024 to August 2023, shows an increase of 7.6% in Grand Junction.

Rural Jump-Start Mesa County—In 2024, one business was accepted into the Rural Jump-Start program in Mesa County—Grand Valley Ice. This innovative new business aims to fill a significant gap in Mesa County by providing clear, premium-quality cocktail ice to local bars, restaurants, and liquor stores. Grand Valley Ice will operate through the Business Incubator Center, a local nonprofit whose mission is to accelerate the growth of innovative businesses through customized support and collaborative partnerships. This makes a total of 29 businesses that have been approved since the program's inception in 2015, making Mesa County a state leader.

Health Care—Health care is Mesa County's largest industry, making up over 15% of the county's total employment as of Q1 2024. In 2023, health care and social assistance produced $1 billion in GDP for Mesa County and accounted for 10.6% of the total GDP in the county, according to the Health Care and Social Assistance Industry Spotlight from the Mesa County Workforce Center. Q1 2024 Quarterly Census of Employment and Wage data show job and wage gains compared to Q1 2023. The biggest gains in jobs were in health care, which had a huge increase from the previous year after falling in 2022 and some of 2023.

Grand Junction, Colorado.

Education—Mesa County has strong higher education and technical training institutions. Mesa County Valley School District 51 is the largest school district on Colorado's Western Slope and the 14th-largest school district in the state. The district is also the largest employer in Mesa County. Each day, over 2,500 employees serve more than 22,000 students across 43 schools. According to the Colorado Department of Education, District 51 had an 81.2% graduation rate and an 82.4% completion rate for the class of 2023. This is a 0.9% and 0.8% increase over 2022.

In the 2023-24 school year, the county saw the highest graduation rate in 17 years, with more than 1,400 high school graduates, the highest number of students earning the Superintendent's Scholars Award (which recognizes GPAs of 4.0 and above), and the highest percentage of elementary students reading at or above grade level. Over that same time, over 1,000 students earned almost 11,000 free college credits, and over 80% of the county's schools earned the highest academic ratings in Colorado. There was an increase in options for students through AP, IB, STEAM, Dual Language, and more.

Colorado Mesa University (CMU) is the 3rd-largest employer in Mesa County, with 1,461 employees reported in 2023. Accredited by the Higher Learning Commission, CMU is not only the 5th-fastest growing university in the country but is also the home of more than 10,000 students pursuing over 225 academic programs. Located in downtown Grand Junction on 141 acres, CMU is a comprehensive regional public higher education institution offering liberal arts, professional, and technical programs at the master's, bachelor's, associate, and certificate levels. Of the 10,000 students, 15.4% come from outside Colorado, and 29% are from traditionally underrepresented groups.

CMU is committing to a sustainable future by utilizing one of the largest geothermal heat pump systems in North America. It connects 16 buildings and provides 90% of the energy required to operate the campus. The campus has experienced $15.9 million in cost savings since 2008, and the university is passing along to students the cost savings resulting from the geothermal heat pump system by offering lower tuition rates and more student scholarships.

In 2024, CMU also expanded a financial support program dubbed as the CMU Promise to cover the tuition of students coming from any county in Colorado. If a family earns $70,000 or less, the cost of tuition is covered by CMU, so the student will be eligible for zero tuition.

CMU Tech is the two-year division of CMU and serves the technical education needs of college and area high school students. The college offers over 29 certificate and associate degree programs, plus 330 noncredit personal and professional development courses.

Tourism—Travel is one of the top three industries in the state of Colorado and is a driving force of economic growth in Grand Junction and the surrounding communities. According to Visit Grand Junction, comparing 2023 to 2022, lodging tax business month collections increased by 11.8%.

STR, a leading hotel data intelligence provider, recently updated Grand Junction's hotel metrics for 2023. For the year 2023, Grand Junction's occupancy was 66.6%, the average daily rate (ADR) was $106.40, and the revenue per available room (RevPAR) was $70.86. The year 2023 marks the highest annual occupancy, ADR, and RevPAR in Grand Junction's lodging history.

For 2023, compared to 2022, Grand Junction's occupancy was 3.1% higher, ADR was 1.6% higher, and RevPAR was 4.8% higher. Consequently, overall hotel revenue saw a notable 4.6% increase in 2023 compared to 2022. These metrics highlight a crucial insight: increasing room rates do not necessarily lead to lower occupancy rates. Instead, increasing room rates acts as a stimulus for boosting hotel revenue. The 4.6% increase in hotel revenue in 2023 compared to the prior year vividly demonstrates the tangible financial advantages and benefits of strategic rate adjustments.

Grand Junction Regional Airport (GJT)—Grand Junction Regional Airport (GJT) is a commercial service airport in Western Colorado, located approximately three miles north of Grand Junction's central business district. The airport is served by five airlines that offer direct flights to eight destinations around the country—Salt Lake City, Denver, Dallas, Phoenix, Las Vegas, San Francisco, Los Angeles, and Orange County.

Additionally, GJT is home to a FedEx Shipping Center and conducts frequent air cargo operations. The U.S. Department of Transportation released 2023 passenger statistics by airport in March 2023. Grand Junction served 482,773 passengers in 2023, reestablishing its long-held position as the busiest airport on the Western Slope. Grand Junction Regional Airport passenger traffic grew more than 10% compared to 2022.

Agriculture, Forestry, Fishing, and Hunting—In Q1 2024, agriculture, forestry, fishing, and hunting industries made up 0.6% of Mesa County's total employment compared to 0.7% in 2023, according to the Mesa County Workforce Center Q1 2024 report.

Advanced Manufacturing—The manufacturing industry, with 3,213 employees, represented 4.3% of Mesa County's total employment as of Q1 2024. The number of manufacturing employees in Mesa County is expected to decrease 1% in 2025 year-over-year according to the Mesa County Workforce Center Q1 2024 report

Outdoor Industry—The outdoor industry continues to thrive in Mesa County as it does in the rest of the state. The U.S. Bureau of Economic Analysis is now providing economic updates for the outdoor recreation industry through a satellite account, further legitimizing the impact of this industry on the U.S. GDP and total employment.

In 2022, the Grand Valley Outdoor Recreation Coalition commissioned an economic impact report for the outdoor industry in Mesa County, completed by economics professors from Colorado Mesa University. This study estimated the economic impact of outdoor recreation in Mesa County by measuring the impact of outdoor recreation businesses and the impact of outdoor recreation tourism. The combined results of outdoor recreation business and tourism impacts produce a total employment contribution of 9,897 jobs and over $875 million, including direct, indirect, and induced effects. The total impact of outdoor recreation in Mesa County is 7.5% of GDP and 11% of jobs. Accounting for more than one out of 10 jobs in Mesa County (considering direct, indirect, and induced effects), outdoor recreation is a significant part of the county's economic profile.

Aviation, Aerospace, and Parts Manufacturing—The aviation, aerospace, and parts manufacturing industries make up 0.9% of Mesa County's total employment. Employment in these industries is projected to increase by 1% in 2025.

Real Estate—According to the September 2024 Bray Commercial Real Estate Report, year-to-date volume has surpassed 2023, increasing by 3%, from $912.2 million in 2023 to $939.8 million in 2024. The total number of sales continues to lag, with 2,071 transactions recorded so far in 2024, a decrease of 2.4% to the 2,122 sold through September of 2023.

Inventory continues to rise, with the market showing 3.2 months of inventory overall, ranging from 2.3 months of inventory for homes priced at $200,000 to $300,000 and five months for homes between $750,000 and $1 million. There are currently 645 residential listings on the market, an increase of 23% to September of 2023. This is the

continued on page 158

Around the State

continued from page 157

highest number of active listings the Mesa County real estate market has seen since November 2019.

Summary—As Mesa County continues a controlled growth trajectory, the industry base continues to diversify, which is essential for ensuring economic resilience and sustainability. Unemployment was 3.9% as of September 2024, and Mesa County's new business filings were up 0.9% comparing year-to-date July 2023 to year-to-date July 2024. The Leeds Business Confidence Index for the state economy increased to 50.6 in Q2 2024, up from 44.1 in Q2 2023. These strong economic indicators position Mesa County well for continued growth in 2025.

Contributors:
Steve Jozefczyk, Grand Junction Economic Partnership
Nathan Perry, Colorado Mesa University
Bray Commercial Real Estate
Grand Junction Regional Airport
Mesa County Workforce Center
Visit Grand Junction

Northern Colorado

Summary—Northern Colorado stands out for its talent, innovation, and opportunity. It is nestled between the western Rocky Mountains and eastern Great Plains, directly north of the Denver Metro area and south of Wyoming. This region includes Larimer and Weld counties, known for their thriving educational institutions, including prominent universities and community colleges that attract companies in search of skilled professionals.

The region's history of patent assignments and its strong presence of research institutions reflect a collective commitment to fostering new ideas and innovation. Northern Colorado's stable and resilient economy is driven by dynamic industry clusters, with key sectors including bioscience and medical devices, food processing and manufacturing, information technology and computer services, manufacturing (production technology and heavy machinery), plastics, and business services. These clusters have strong ties to the region's agricultural production, energy extraction, and strengths in animal science and translational medicine, enhancing Northern Colorado's reputation as a regional distribution hub for agricultural and industrial products.

Culturally, Northern Colorado is equally dynamic, featuring three state-designated creative districts—Fort Collins, Greeley, and Loveland—celebrating the arts and creative industries. Moreover, the region offers a wealth of recreational opportunities, from hiking and biking trails in the foothills of the Rockies to lakes and parks. This vibrant mix of innovation, culture, and outdoor recreation makes Northern Colorado an ideal place to live, work, and explore.

Population—Northern Colorado's population continues to grow, with a 2023 population of over 730,213 (1.9% year-over-year growth) for Weld and Larimer counties combined, according to the U.S. Census Bureau (ACS 1-Year Estimates). Larimer County grew by 1.1% between 2022 and 2023, while Weld grew by 2.6%. Fort Collins and Greeley are the area's two largest cities, with a 2022 estimated combined population of 282,985. The median age in the region is approximately 36.4, which is younger than Colorado's median age of 37.9 (2023, ACS 1-year Estimates), driven by the in-migration of talented college students and professionals seeking work opportunities in the region.

Industry and Employment—From August 2017 to August 2024, job growth in two Northern Colorado metropolitan statistical areas (MSAs) (Greeley and Fort Collins) posted gains of 12.7%, significantly outpacing the national growth rate of 8.1% during the same period.

Employment in the Greeley MSA increased 1% in August 2024 year-to-date and is up 2.2% to 2019 levels. Employment in the Fort Collins MSA grew 2.1% in August 2024 year-to-date and is 8.6% above 2019 levels.

The leading industries by employment in Northern Colorado remain retail, health care, manufacturing, accommodation and food services, and construction. While the private sector is an economic driver, there is significant public investment through public health care providers, public universities, and local school districts. Key manufacturers in the region include Advanced Energy, Agilent Technologies, Anheuser-Busch, Boulder Scientific, Burris Optics, In-Situ, JBS, J.M. Smucker Company, Leprino Foods, Noosa, Otter Products, Tolmar Inc., URSA Major, Vestas, Walker Manufacturing, Water Pik, and Woodward.

As of August 2024, the combined unemployment rate in Larimer and Weld counties was 4.2% (not seasonally adjusted). The labor force increased in August 2024 year-over-year by approximately 1% (not seasonally adjusted).

Over the last several years, Northern Colorado has observed a tight labor market, leading to the formation of strong public-private partnerships aimed at addressing local workforce challenges. These collaborations have driven economic development and improved workforce readiness, with educational institutions implementing industry-relevant training and experience-based learning programs to ensure a skilled and prepared workforce.

Initiatives like NoCo Works and NoCo Inspire exemplify this regional collaboration, addressing both workforce challenges and opportunities. The NoCo Works talent initiative brings together six subcommittees and over 200 participants from various community partners to advance workforce development in Northern Colorado. Meanwhile, the NoCo Inspire Work-Based Learning Alliance connects education and workforce development to create a qualified talent pipeline that benefits both employers and job seekers.

Partnership, collaboration, and alignment are foundational to Northern Colorado's success, reflected in its five sector partnerships: the NoCo Manufacturing Partnership; NoCo Health Sector Partnership; NoCo Construction Sector Partnership; NoCo Non-Profit Sector Partnership; and the NoCo Hospitality Sector Partnership. These organizations bring together industry stakeholders to foster local alignment and collaboratively address challenges within their respective sectors.

Education—Northern Colorado is home to significant educational institutions, including Colorado State University and the University of Northern Colorado, along with Aims Community College and Front Range Community College. Enrollment exceeds 79,000 students across these public colleges and universities, producing over 17,700 postsecondary credentials per year. A variety of traditional and certificate programs help prepare the region's labor force for current and future employment.

Across Larimer and Weld counties, over 9,400 high school students from 40 public high schools participated in dual enrollment programs, reflecting a strong connection between K-12 education and higher education, helping develop the region's talent into a highly productive and innovative workforce. Additionally, Weld County supports education and workforce readiness through programs like Bright Futures, which provides stipends to every graduating high school senior.

Contributor: *Adam Crowe, Larimer County Economic and Workforce Development*
Taylor Kramer, Upstate Colorado Economic Development
Richard Werner, Upstate Colorado Economic Development

Pueblo County

Pueblo's economy is anchored by its strong manufacturing base and is the hub of Southern Colorado. Pueblo offers a strong transportation infrastructure, relatively low cost of land/real estate, abundant water capacity, ideal climate, successful and innovative workforce training programs, and the largest voter-funded cash incentives in the state.

In 2023, Pueblo saw the successful completion of the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP), which destroyed 2,613 tons of chemical agents that had been stored at the Pueblo Chemical Depot. This project is releasing over 1,000 workers in a tiered manner through 2025 and has given a unique opportunity that has attracted strong interest from companies in a variety of industries. In August 2024, the countywide unemployment rate was 6%, up from 4.8% in August 2023. In comparison, Pueblo's unemployment rate is higher (6.4% in August 2024), up from 5.2% in August 2023.

In Q4 2023, the three largest sources of jobs in the local economy were Health Care and Social Assistance (19.3%), Government (federal, state, and local) (18.7%), and Retail Trade (13.1%). Transportation and Warehousing and Professional and Technical Services industries are the fastest growing. In addition, Pueblo's heritage of manufacturing and metal fabrication provides many of the primary jobs that support other employment in the community.

New and Existing Industry Clusters—Pueblo is actively recruiting companies in aerospace and defense, chemicals manufacturing, construction-related manufacturing, food and beverage manufacturing, outdoor recreation, and professional and scientific sectors. Additionally, Pueblo continues to position itself as a leader in the renewable energy sector. Utility companies are making progress in moving toward their aggressive carbon-emission reduction goals by transforming generation infrastructure. The city and county of Pueblo have each passed resolutions to become 100% renewable by 2035. This makes the county attractive to companies that have their own environmental, social, and governance (ESG) goals.

EVRAZ Steel Mill is finishing the construction of an estimated $750 million expansion of its long-rail mill.

Pueblo continues to attract a variety of companies. Examples of those that have located in Pueblo and continue to enjoy tremendous success are United

continued on page 160

Around the State

continued from page 159

Launch Alliance, Collins Aerospace, CAE Doss Aviation, EVRAZ, CS Wind, Trane Technologies, GulfCo Manufacturing, Target Distribution, Fuji Film, and many others. In 2023, FomCore announced it chose Pueblo as the home for their soft-seating production facility, which added 87 new primary jobs.

Pueblo enjoys a tremendous transportation advantage with highways and rail. Pueblo County sits on I-25, a north-south interstate, and Highway 50 running east-west. A large portion of Pueblo is served by rail, ranging from a mix of heavy, light, and short-line rail depending on the area of town. The two rail lines servicing the region are Union Pacific and BNSF. This transportation allows easy access to over 20 million customers within a 500 miles radius in cities such as Denver, Wichita, Cheyenne, and Albuquerque. Pueblo continuously improves development on its rail-served industrial parks.

Pueblo is focused on talent and workforce development, with special efforts centered on talent retention, development, recruitment initiatives, and by aligning programs and partners. Pueblo enjoys a reputation as having the best customized training programs in the region. Pueblo continues to support skilled workforce education programs such as Pueblo County High School's Manufacturing, Agriculture, and Construction (MAC) Academy, which has over 300 students enrolled. Pueblo Community College and Colorado State University—Pueblo also offer incredible education opportunities.

HARP Project—A driving force for much of the development in the downtown area is the expansion of the Historic Arkansas Riverwalk Project, also known as HARP. The city recently completed many ambitious improvements in recent years, including a new state-of-the-art boat house. Future phases will result in expansion of the Riverwalk, an amateur athletic swimming complex, and potential indoor/outdoor water park. In addition to the tourist and convention visitors, the HARP project is expected to attract professional offices to locate in the city center area. ✤

Contributors:
Jeffrey C. Shaw, Pueblo Economic Development Corporation
Shannon Baker, Pueblo Economic Development Corporation

Southern Colorado

Employment—The labor market in El Paso County has remained strong over the past year, mimicking the state and nation. The unemployment rate in El Paso County was 4.2% on a nonseasonally adjusted basis at the end of September 2024 compared with 3.3% in September 2023 and 2.9% in September 2022. The labor force increased from 368,122 to 373,619 from September 2023 to September 2024, a 1.5% increase. Over the same period, employment increased 0.5% from 356,019 to 357,766 for a gain of 1,747 employed. As of September 2024, the number of people unemployed (15,853) is just under half of what it was during the pandemic peak. From 2022 to 2023, there were 10,705 net new jobs in El Paso County, which is almost double the number of new jobs needed to match population growth (5,600) as calculated by Data-Driven Economic Strategies and the State Demographer's Office. The supersectors that have contributed most to the region's employment growth in percentage terms since 2018 include Transportation and Warehousing (104.5%), Professional and Technical services (33%), Health and Social Assistance (22.2%), Public Administration (17.2%), and Accommodation and Food Services (8.6%). In absolute terms, the sector with the most employees was Health and Social Assistance, with approximately 52,000 employees, while the sector with the least employees was Transportation and Warehousing. Although a small employer in absolute terms, the high growth (5,741 jobs) emanates primarily from new Amazon distribution centers near the Colorado Springs Airport, which is thriving and recently announced it will offer its first international flight in 2025.

Specific Sectors—Eighteen of the 21 industry sectors in El Paso County saw job gains in 2023, further exemplifying the strength of the region's labor market. The most significant gains were in Health Care and Social Assistance; Professional, Scientific, and Technical Services; Finance and Insurance; and Accommodation and Food Services. These four industries represented 64% of the 10,705 new jobs in the county in 2023. The industry sectors that experienced a combined loss of 1,122 jobs in 2023 were led by Administrative and Waste Services as well as Construction.

Average annual pay increased in just 10 industry sectors in El Paso County, with an increase in the average annual wage from $61,990 in 2022 to $64,688 in 2023. This 4.4% wage increase was higher than both the national average (3.4%) and the Colorado average (3.6%). While wage gains are always welcome, the region still significantly lags both the U.S. and the state. In 2023, the average wage in El Paso County was 16.1% below the 2023 state average of $77,114 and 10.6% below the U.S. average of $72,360.

Like many parts of the nation where there is population and economic growth, the high cost of living in El Paso County has become problematic. In the previous decade, lower wages were somewhat justified by a lower cost of living primarily related to housing. In 2006, the local median home price was 8% below the U.S., whereas in 2023, the local home price was 17% above ($458,279) the U.S. ($392,767). There is warranted concern that the region will follow the path of Denver/Boulder, where it is difficult for young workers to settle. Sector and employment growth is hard to sustain if new talent chooses to settle in more affordable regions of the country or state that do not have subpar wages. Having a younger (working-age) population has been an asset for both the region and the state, and there is question now among state leaders and economists regarding the sustainability of this advantage. In 2023, El Paso County's median age was 35.4, while the state's was 37.9, and the nation's was 39.1. The State Demography Office has highlighted that Colorado is now rapidly aging partially due to less in-migration, but also due to the previous cohorts that moved to the region pre-2010 who are now aging into retirement.

Another metric, the Cost-of-Living Index (COLI) stood at 107.9%, which translates to the region being 7.9% more expensive than the U.S. metro average. Since 2024, the COLI metric has retreated somewhat, but that metric does not account for the differential in wages.

Per Capita Personal Income—Per capita personal income for El Paso County was $61,076 in 2022 (most current data available), 81% of the state average ($75,722). El Paso County's per capita personal income rank stayed at 27th in the state in 2021 and 2022. This metric counts all individuals in a specific region including children, so it is not the best indicator of standard of living, although it does align with the differential in wages.

Residential Real Estate—From October 2023 through September 2024, a total of 2,679 single-family permits were issued in El Paso County. This is an increase of 2,438 permits issued (up 10%) compared to the same period the year before. Through September 2024, permits for 133 multifamily projects and 783 units were pulled in 2024. In Q2 2024, average monthly rents for apartments were $1,490 in the Colorado Springs Metro area. For Q2 2024, Denver Metro area's average monthly rent for apartments was $1,883. Thus, Colorado Springs has an average monthly rent roughly $400 per month less than the Metro Denver region. It is worth noting that the average monthly rent in the U.S. is roughly $1,800 per month, according to Moody's Analytics.

There were permits for 5,031 dwelling units (both single-family homes and multifamily units) pulled in 2023 in the Pikes Peak region. The Pikes Peak region needs 8,500 dwelling units, either single-family or multifamily, per year between 2023 and 2028 when incorporating both population growth and the existing shortage of housing. These calculations by Data-Driven Economic Strategies incorporate research by Common Sense Institute and input from the Colorado State Demography Office. Through September 2024, the region issued 2,959 single- and multifamily permits combined. Although the region did not meet the "ideal" number of permits of roughly 8,500 dwelling units, it is notable that residential building continued in 2023 despite the marked increase in interest rates and home prices. Average home prices in the region in 2023 were 47% higher than they were in 2019, while median home prices were up 43%.

More recently in Q2 2024, the median price for an existing single-family home in Colorado Springs was $479,600, a 2.7% increase from Q2 2023. By way of comparison, the U.S. median home price was $422,100, with a 4.9% increase over the same period. Colorado Springs' median home prices are 14% higher than the U.S.

The Cost of Housing Index for Colorado Springs, compiled by Wells Fargo and the National Association of Home Builders, showed that it would take 40% of the local median pre-tax income for mortgage payments, based on standard mortgage underwriting criteria when buying an existing home in Q2 2024. This was up from the 37% required in Q1 2024.

Foreclosures decreased 5% in 2023, to 734, in El Paso County. For context, the average number of foreclosures in El Paso County in 2023 was 61 per month, and through September 2024, the average was 49 per month. For comparison, from 2005 to 2007, the average number of foreclosures per month was about four times higher, at 233, although this represents the "housing crisis" epoch. Foreclosures in the region are not alarming at this point, but they have steadily increased over the past two and a half years. With credit card and auto debt at 2006 levels and increasing delinquencies in those loan categories across the nation, it is important to watch other delinquency levels that are tracked regionally.

Commercial Real Estate—Average commercial office vacancy rates in Colorado Springs rose to 10.7% in 2023 from 9.6% in 2022. Through September 2024, the vacancy rate stayed fairly steady, at 10.6%. This stands in sharp contrast to national office vacancy rates, which rose to 20.1% in Q3 2024, according to Moody's Analytics. At the same time, average office rents in Colorado Springs increased from $24.27 per square foot in 2022 to $25.48 per square foot in 2023. They continued to rise to $26.01 per square foot through Q3 2024. The office subsector in Colorado Springs has not experienced the dramatic increase in vacancies and concomitant decrease in lease rates because it does not have the inventory of office space seen in other, larger metropolitan areas. The region has also experienced solid job growth since 2012 and that, too, has mitigated the work-from-home phenomenon. Data-Driven Economic Strategies uses the CoStar Group and Olive Real Estate Group to compile local commercial real estate information.

The average industrial vacancy rate in Colorado Springs declined to 4.1% in 2023 from 4.6% in 2022. Through September 2024, the rate stood at 3.8%. Average rents rose slightly from $10.25 per square foot in 2022 to $10.39 per square foot in 2023. They continued to rise slightly to $10.44 per square foot through Q3 2024.

Average retail vacancy rates in Colorado Springs rose slightly from 4.6% in 2022 to 4.7% in 2023. Rates stood at 4.8% through September 2024. Average rents increased from $16.70 per square foot in 2022 to $17.72 in 2023. They continued to increase to $18.25 per square foot through Q3 2024. Much of the adjustment in brick-and-mortar retail space has already occurred over the past 15 to 20 years as online (e-commerce) sales have exploded.

Average medical office vacancy rates in Colorado Springs decreased from 8.7% in 2022 to 8.5% in 2023. Through September 2024, vacancies stood at 8.8%. Average rents decreased in this property type, from $26.35 per square foot in 2022 to $22.22 in 2023. Through Q3 2024, they rose to $22.79 per square foot. In Q3 2024, the cost of retail space was 27.9% lower in Colorado Springs than in Denver, and office space was 25.6% lower. Medical office space was a similar price at just 0.6% higher, and industrial spaces were 5.7% more expensive in Colorado Springs.

Sales and Use Tax—Colorado Springs sales and use tax collections decreased 0.1% to $247.7 million in 2023. Sales and use tax collections were up 1.8% in September

continued on page 162

Around the State

continued from page 161

2024 compared to September 2023. City and state budgets are still adjusting from the pandemic-induced highs when both household and business expenditures were propped by federal government stimulus and lower interest rates.

Education—In 2023, 10 of the 17 school districts in the Colorado Springs MSA exceeded the state of Colorado's average high school graduation rate of 83.1%.

In 2023, a total of 32.7% of the Colorado Springs MSA's population age 25 and older had some college or an associate degree, which is higher than the state overall (27.5%) and the United States (27.7%). The significantly higher (local) proportion in this educational attainment level is likely explained by the high military presence. It may also be indicative that the region is somewhat ahead of the increasing trend in postsecondary education away from traditional four-year degrees and toward shorter-term certifications. Indeed, from 2010 to 2020, U.S. college enrollment declined by 10% while the U.S. population increased by 6.5%. The Colorado Springs MSA had 44.2% of residents who obtained a bachelor's degree or higher, which is slightly lower than the state (46.4%) but significantly higher than the nation (36.2%) according to U.S. Census Bureau one-year data on educational attainment. Colorado is the 2nd-most educated state in the nation in terms of university-level degree attainment (behind Massachusetts). This is primarily due to previous decades of high in-migration, which has helped fuel Colorado's economic engines of business, job, and innovation growth. State and local officials and economists know this well, and this is much of the reason that cost-of-living concerns are top of mind with a strong emphasis on affordability initiatives, including affordable residential building efforts.

Contributors:
Tatiana Bailey, Data-Driven Economic Strategies (DDES)
Rebecca Wilder, Data-Driven Economic Strategies (DDES)

Photo courtesy of Kyle Hanson.

Southwest Colorado

The southwest corner of Colorado includes Archuleta, Dolores, La Plata, Montezuma, and San Juan counties, as well as the Southern Ute and Ute Mountain Ute Tribes. The region encompasses 6,584 square miles, or 6.3%, of the total land area in Colorado. Publicly managed lands make up 45% of the district; 38% is in private ownership and 17% are tribal lands. The area is rural, with small communities that depend upon each other to provide goods and services within the larger regional economy.

Remote work opportunities continue to provide flexibility for those who seek natural assets, access to open space, and small-town hospitality for their quality of life. As of 2023 the region's population increased by 1.8% since 2018. Population is expected to increase modestly between 2023 and 2028. However, southwest Colorado trends older as births decline, fewer young people stay, and more retirees age in place or move to the region.

In 2020, the regional unemployment rate stood at 6.6%. In July 2023, it was 3.1%, slightly lower than the state rate of 3.2% and increased to 3.9% by July 2024. In 2024, employment across the five counties averaged 53,003, up 1.6% year-over-year from 2023, according to the Bureau of Labor Statistics.

Regionally, the tourism industry provides the largest share of employment. Top employment sectors vary by county, but in addition to tourism, local government and agriculture comprise the largest sectors. Economic drivers include cultural attractions such as Mesa Verde National Park, national monuments (Canyon of the Ancients, Chimney Rock, Yucca House), the Durango & Silverton Narrow Gauge Railroad, as well as recreational opportunities on public lands.

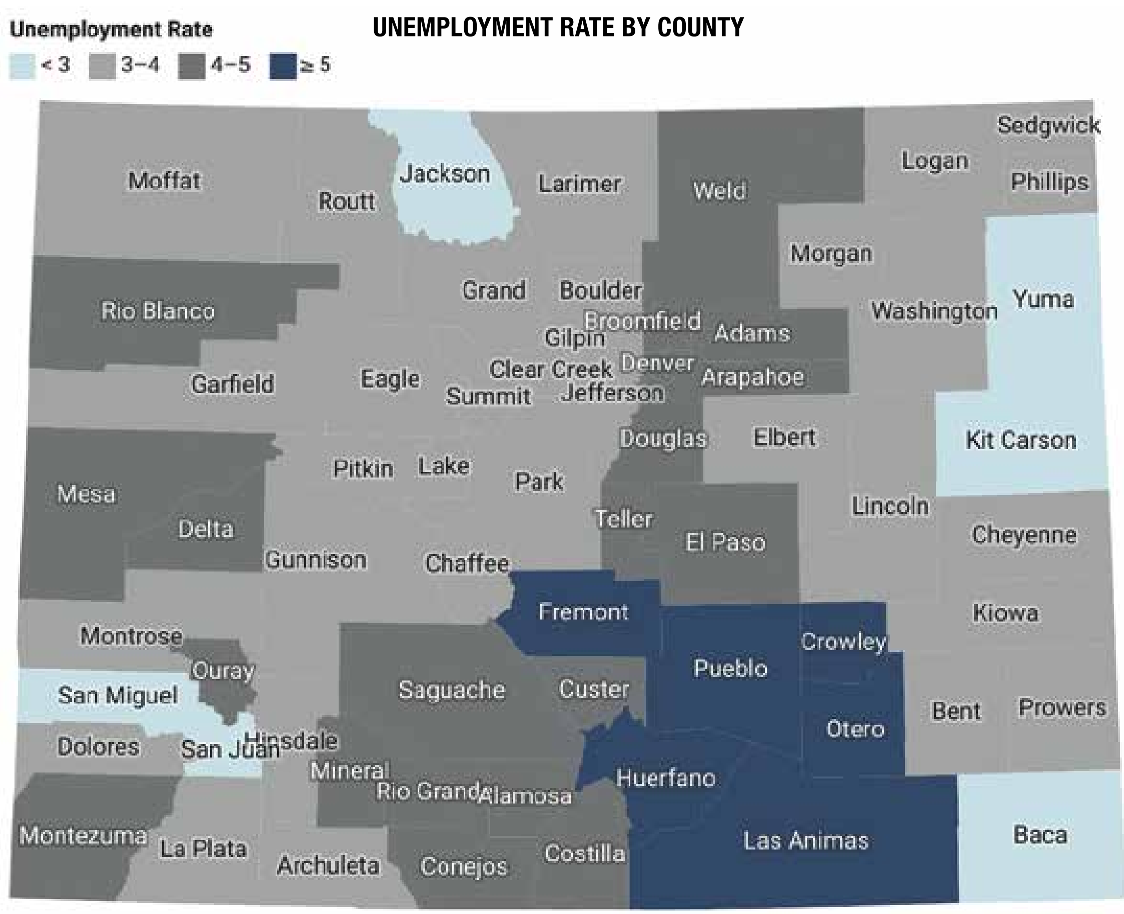
However, the impacts of tourism are not all positive, and the lodgers' tax collection seeks to mitigate impacts to communities. The use of these funds is somewhat discretionary and varies by jurisdiction. In La Plata County, commissioners are proposing to allocate 70% of the lodgers' tax collected annually to support tourism-related workforce housing and childcare, something that is permitted by state statute with voter approval.

Housing affordability/attainability is a long-term, ongoing priority across the region. Housing experts agree that ideally a family should not spend more than one-third of their income on housing costs. The lack of workforce housing continues to impact economic growth and diversity when businesses cannot recruit employees because there is no place for workers and their families to live. Attracting and retaining a viable workforce is key to economic health. Rising rents, simultaneous increases in short-term vacation rentals and decreases in long-term rentals, a lack of low-price housing stock, and low wages have been identified as factors contributing to a housing crisis. Policy considerations and long-term funding are needed to address this critical issue.

The provision of quality, affordable childcare is also an issue of primary economic importance. There is a broad-based coalition of educators, policy makers, and citizens working on childcare initiatives. These initiatives seek to lower costs for parents, raise salaries for teachers, and provide more capacity.

Housing accessibility is more than just about having a roof over our head; it plays a key role in creating a stable foundation for individuals and communities to thrive. Lack of attainable housing can lead to financial instability, economic hardship, and social fragmentation, undermining the overall sense of belonging for individuals and security for communities.

UNEMPLOYMENT RATE BY COUNTY



Source: Colorado Department of Labor and Employment. LAUS (Not Seasonally Adjusted). • Created with Datawrapper

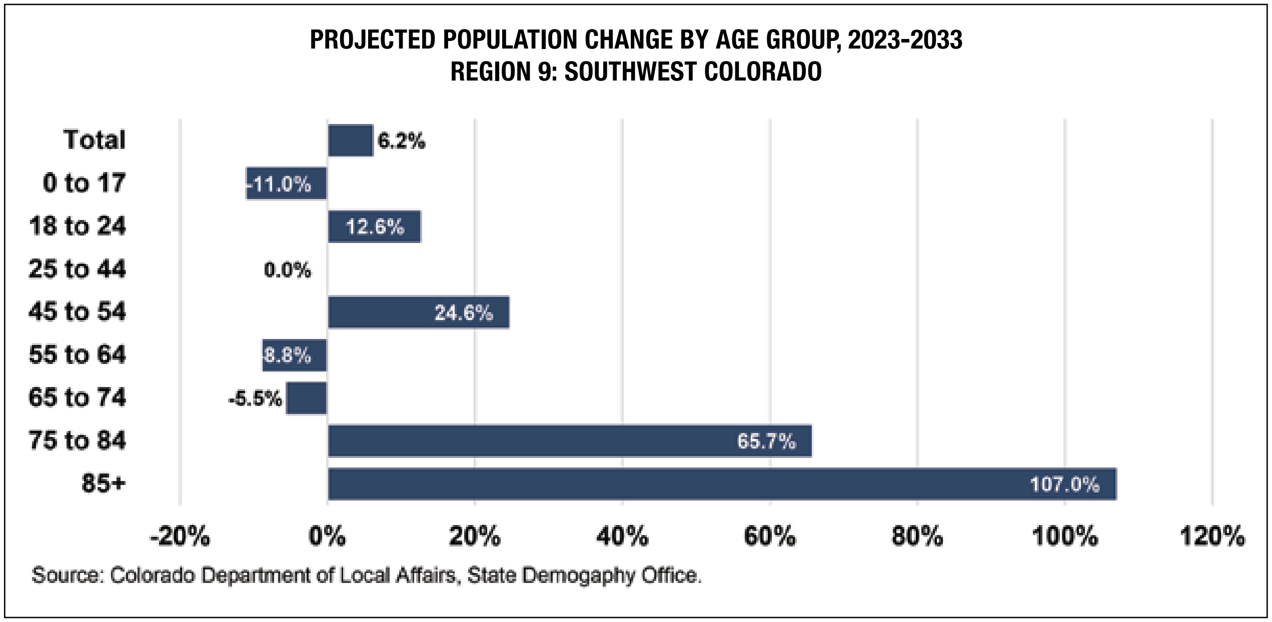
Fair Market Rent, or FMR, is a statistic used by the U.S. Department of Housing and Urban Development (HUD) and local affordable housing organizations to determine rent rates and housing assistance payment amounts for the different assistance programs, like the Housing Choice Voucher Program (Section 8). Simply put, FMR is a measure of what a fair rate (slightly below the median) would be for a rental property in a particular area.

HUD uses renter surveys to develop FMRs. However, most of those surveys are conducted in metropolitan areas and often do not reflect the reality of rental costs in small, rural areas. In most communities in southwest

continued on page 164

Around the State

continued from page 163



Colorado, actual rental costs are substantially higher than FMR estimates.

The lack of affordable homes is also impacting employers' ability to attract or retain workers across the region in the top sectors of Tourism, Health Care, and Accommodation and Food Services. These sectors tend to pay lower wages. This creates a situation where employees leave an employer for a slightly higher wage in a similar industry, or they leave the area in search of higher wages and more affordable housing. When people must live away from where they work, it can negatively impact social economies. According to a 2021 regional assessment, Region 9's five counties, plus the Ute Mountain Ute and Southern Ute tribes, need roughly 907 homes annually for the next 20 years to meet current and expected demand.

To help address this issue, local jurisdictions prepared for the implementation of Proposition 123, which will make several hundred million dollars available for affordable housing. Affordable housing, as defined by Proposition 123, includes rental housing at or below 60% of the area median income (AMI) and for-sale housing at 100% of AMI, ensuring that households spend less than 30% of their monthly income on housing costs. To be eligible for this funding, jurisdictions determine their baseline of affordable housing units and commit to increasing it by 3% each year for three years. All but one jurisdiction in Region 9 filed commitments. The Southern Ute Indian Tribe and Ute Mountain Ute Tribe's housing projects take place within sovereign land. Tribal governments serve as their own applicant and developer for housing projects within tribal lands, so the expedited review requirements of Prop 123 generally do not apply for tribal governments.

The region has several exciting workforce housing projects underway.

The Animas City Park Overlook Townhomes in Durango is a pioneering and replicable example of how an Urban Renewal Authority and other community institutions can partner with private-sector entities to accomplish community objectives, specifically the creation of vital workforce housing.

The Residences at Durango boasts a 120-unit vibrant affordable housing apartment community. TWG Development, LLC, in collaboration with the City of Durango, has acquired the former Best Western Motel, located on US 160. TWG is moving forward with plans to rehabilitate the existing 72-room motel and construct 48 new units. The development will serve households earning 30% to 60% of AMI. This will be the first hotel-to-residential conversion in the state to utilize tax credit financing and is the largest tax credit project in Southwest Colorado. The City of Durango actively facilitated the purchase by initiating a real estate offer to accomplish housing goals.

The Mancos Commons is an innovative workforce housing project comprising thoughtful planning, high-quality design, environmental sustainability, and social equity. The multiuse building sits in the heart of downtown Mancos, at 129 W. Grand Avenue, offering two-story mixed-use space, including three single-bedroom affordable housing units, a large workshop/classroom/studio, and retail and office space.

Archuleta County's Chris Mountain II and Trails Subdivisions are getting 10 workforce housing units. This project represents the inaugural step in the Pagosa Springs Community Development Corporation's (PSCDC) broader endeavor to create workforce housing within the

Photo courtesy of Region 9 Economic Development District.

community by focusing on the "missing middle" home buyers who earn between 80% to 120% AMI. PSCDC's goal is to pass only vertical construction costs to home buyers and utilize gap funding and down payment assistance to help manage costs and affordability.

Manufactured housing may be an untapped economic opportunity for the region. Manufactured housing is less costly than traditional, onsite building because it requires less skilled labor, and the houses are quicker to assemble.

Prior to final assembly for this Durango customer, Timber Age was given the opportunity to feature the structure in Washington, D.C., for the Housing and Urban Development Innovative Housing Showcase. This Washington, D.C., project allowed the company to test the durability of our system in transit, as well as demonstrate the ability to both assemble and disassemble structures.

Timber Age Systems uses technology that includes logging unhealthy trees from the local forests, a panelized technology, and short supply chains and shipping to reduce build times.

This single-family unit is being built in Cortez by Jiffy Block. The 1,400-square-foot home is being built with expanded polystyrene foam blocks.

According to the Ute Mountain Ute Comprehensive Development Plan for 2023-2026, there has been a family housing shortage on the Ute Mountain Ute Tribe Reservation of approximately 200 homes for over 20 years. Many of the existing homes are in major disrepair. Multiple generations are living in one household in unsafe and unhealthy living conditions. The Tribe needs an estimated $25 million to build 100 new homes and repair 100 existing homes for its members. In the disaster recovery and resiliency plan, the Tribe prioritized housing and began aggressively seeking funding to repair existing homes and construct new homes, as well as build a housing factory on the reservation.

These projects are expected to strengthen local economies by providing housing options to the workers that support southwest Colorado communities.

Contributors:

Donna Graves, Information Services, Inc.
Laura Lewis Marchino, Region 9 Economic Development District
Heather Otter, Region 9 Economic Development District

Steering Committee

Chris Eisinger
Senior Research Scientist
Colorado Energy and Carbon Management Commission
303-894-2100 x 5111
chris.eisinger@state.co.us

Elizabeth Garner
State Demographer
Colorado Department of Local Affairs
303-864-7720
elizabeth.garner@state.co.us

Tony Gurzick
Grizzly Peak Consulting
970-799-0052
tony.gurzick@hotmail.com

David Hansen
Economist
Colorado Legislative Council
303-991-0072
david.hansen@coleg.gov

Adam Illig
Data Scientist
Business Research Division
University of Colorado Boulder
303-492-3182
adam.illig@colorado.edu

Katharine Jones
Economist
Denver Regional Office
U.S. Dept. of Housing and Urban Development
303-672-5060
Katharine.Jones@hud.gov

Kristina Kolaczkowski
Associate Director of Healthcare Economics
Optum
763-361-1565
kristina.kolaczkowski@optum.com

Brian Lewandowski
Executive Director
Business Research Division
University of Colorado Boulder
303-492-3307
brian.lewandowski@colorado.edu

Glenda Mostek
Executive Director
Colorado Nursery and Greenhouse Association
gmostek@yahoo.com

Ron New
Director of Operations
WhippleWood Advisors
303-551-8030
rnew@whipplewoodadvisors.com

Jennifer Pinsonneault
Sr. Program Manager, Economic Vitality
Community Vitality Department
City of Boulder
303-441-3017
pinsonneaultj@bouldercolorado.gov

Penn Pfiffner
Consulting Economist
Construction Economics, LLC
303-233-7731
penn@constecon.com

Brian Pool
Partner
Government Performance Solutions, Inc.
303-884-8646
brian@governmentperformance.us

Rachel Rose
Manager - Strategy and Analytics
Colorado Office of Economic Development and International Trade
303-892-3830
rachel.rose@state.co.us

Tim Sheesley
Chief Economist
Xcel Energy
303-294-2662
tim.sheesley@xcelenergy.com

Richard Thompson
Professor
School of Business and Economics
National University
720-839-3890
richardthompson@ncu.edu

Kate Watkins
State Demographer
Colorado Department of Local Affairs
State Demography Office
kate.m.watkins@state.co.us

Joseph Winter
Program Manager CES
Colorado Department of Labor and Employment
303-318-8857
joseph.winter@state.co.us

Richard Wobbekind
Faculty Director
Leeds School of Business
Business Research Division
303-492-1147
richard.wobbekind@colorado.edu

Estimating Groups

Agriculture

Glenda Mostek (Chair)
Executive Director
Colorado Nursery and Greenhouse Association
gmostek@coloradonga.org

Elena Brookover
Risk Advisor
AgRisk Advisors
Elena.Brookover@cropins.net

Nicholas Colglazier
Executive Director
Colorado Corn Council
ncolglazier@coloradocorn.com

Tyler Cozzens
Director
Livestock Marketing Information Center
tyler.cozzens@lmic.info

Heath Dewey
Agriculture Market Reporter
Livestock, Poultry, and Grain Market News Division, USDA - Agricultural Marketing Service
Heath.dewey@usda.gov

Chris Dias
Agriculture Market Reporter
Livestock, Poultry, and Grain Market News Division, USDA - Agricultural Marketing Service
chris.dias@usda.gov

Brad Erker
Executive Director
Colorado Wheat Administrative Committee
brad.erker@coloradowheat.org

Leif Jacobsen
Program Administrator
Colorado Department of Agriculture
Leif.Jacobsen@state.co.us

Stephen Koontz
Professor
Colorado State University
Department of Agricultural & Resource Economics
stephen.koontz@colostate.edu

Tom Lipetzky
Food & Agriculture Strategist
AGgressive Marketing Solutions
tlipetzky@comcast.net

Tony Miller
President
First FarmBank
TMiller@firstfarmbank.com

Rodger Ott
Regional Director
USDA NASS Mountain Regional Field Office – Colorado
rodger.ott@usda.gov

Julie Schmidt
Deputy Regional Director
USDA NASS Mountain Regional Field Office – Colorado
National Agricultural Statistics Service
julie.schmidt@usda.gov

Tyler Wilson
Deputy Director
USDA NASS Mountain Regional Field Office – Colorado
tyler.wilson@usda.gov

Around the State

Tatiana Bailey
Director
Data-Driven Economic Strategies
tbailey@ddestrategies.org

Shannon Baker
Prospect and Marketing Coordinator
Pueblo Economic Development Corporation
sbaker@pedco.org

Austin Brown
Economic Vitality Specialist
City of Louisville
Economic Vitality
ABrown@louisvilleco.gov

Adam Crowe
Economic Development Manager
Larimer County Economic and Workforce Development
acrowe@larimer.org

Erin Fosdick
President and CEO
Longmont Economic Development Partnership
erin@longmont.org

Donna Graves
Information Services, Inc.
dkgraves1956@gmail.com

Joe Hovancak
Vice President of Economic Vitality
Boulder Economic Council
joseph.hovancak@boulderchamber.com

Steve Jozefczyk
Deputy Director
Grand Junction Economic Partnership
steve@gjep.org

Taylor Kramer
Upstate Colorado Economic Development
tkramer@upstatecolorado.org

Laura Lewis Marchino
Executive Director
Region 9 Economic Development District of SW Colorado
Laura@region9edd.org

Jill Mendoza
Economic Development Manager
Town of Superior
jillm@superiorcolorado.gov

Heather Otter
Economic Development Project Manager
Region 9 Economic Development District of SW Colorado
Heather@region9edd.org

Candace Payne
Executive Director
East Central Council of Local Governments
cpayne@prairiedevelopment.com

Nathan Perry
Associate Professor of Economics
Colorado Mesa University
naperry@coloradomesa.edu

Jennifer Pinsonneault
Sr. Program Manager, Economic Vitality
City of Boulder
City Manager's Office
pinsonneaultj@bouldercolorado.gov

Jeff Shaw
President and CEO
Pueblo Economic Development Corporation
jshaw@pedco.org

Richard Werner
President and CEO
Upstate Colorado Economic Development
rwerner@upstatecolorado.org

Rebecca Wilder
Associate Director of Data Analytics
Data-Driven Economic Strategies
rwilder@ddestrategies.org

continued on page 168

Estimating Groups

continued from page 167

Construction

Katharine Jones (Co-Chair)
Economist
U.S. Dept. of Housing and Urban Development
Denver Regional Office
Katharine.Jones@hud.gov

Penn Pfiffner (Co-Chair)
Consulting Economist
Construction Economics, LLC
penn@constecon.com

Jeff Barratt
President & CEO
Associated General Contractors of Colorado
jbarratt@agccolorado.org

Michael Gifford
Advocacy Director
Associated General Contractors of Colorado
mgifford@agccolorado.org

Jim Moody
Director of Industrial Relations
Colorado Contractors Association
jmoody@ccainfo.org

Chelsea Scott
Senior Manager, Consulting
John Burns Real Estate Consulting
cscott@jbrec.com

Education and Health Services

Kristina Kolaczkowski (Co-Chair)
Associate Director of Healthcare Economics
Optum
kristina.kolaczkowski@optum.com

Richard Thompson (Co-Chair)
Professor
National University
School of Business and Economics
rthompson@nu.edu

Emily Orr
Physical and Behavioral Health Unit Manager
Department of Health Care Policy and Financing
Health Care Policy and Financing
emilykayburns@gmail.com

Stephanie Thompson
American InterContinental University
sthompson@AIUNIV.edu

Financial Activities

Ron New (Chair)
Director of Operations
WhippleWood Advisors
rnew@whipplewoodadvisors.com

Shaun Brog
Metro Denver EDC
Economic Research Associate
509-713-9867
shaun.brog@metrodenver.org

Brandon Knudtson
Director of Membership
Colorado Bankers Association
brandon@coloradobankers.org

Richard Morgan
SVP/Head of Lending - Denver
Kirkpatrick Bank
rmorgan@kirkpatrickbank.com

Jessica Ostermick
Sr. Managing Director
CBRE
jessica.ostermick@cbre.com

Frances Padilla
District Director
U.S. Small Business Administration
SBA Colorado District Office
frances.padilla@sba.gov

Troy Sibelius
Executive Vice President
The Buckner Company
tsibelius@buckner.com

Megan Sisk Aller
First American Title Insurance Company
Title insurance license: 360158
Real estate license: FA100080623, Porchlight Real Estate Group
Realtor NRDS: 219534435
megan.sisk.aller@firstam.com

Jonathan Sullivan
Research Manager
CBRE Colorado
jonathan.sullivan@cbre.com

John Trull
VP, Regulatory Affairs
GoWest Credit Union Association
jtrull@gowest.org

Jenifer Waller
President
Colorado Bankers Association
jenifer@coloradobankers.org

Government

Jennifer Pinsonneault (Chair)
Sr. Program Manager, Economic Vitality
City of Boulder
City Manager's Office
pinsonneaultj@bouldercolorado.gov

Kieran Boes
Legislative & Membership Coordinator
Colorado Counties, Inc.
kboes@ccionline.org

Justin Fazzari
Sanborn Geospatial
justinfazz@gmail.com

Elizabeth Haskell
Legislative & Policy Advocate
Colorado Municipal League
ehaskell@cml.org

James MacDonald
Tax Manager
City of Boulder
Finance
MacdonaldJ@bouldercolorado.gov

Ben Mendenhall
Centennial State Liquid Investment Pool
ben.mendenhall@cslip.org

Meredith Moon
Director of Research
Institute of Evidence-based Policymaking
meredithamoon@gmail.com

Dylan Peper
Legislative Liaison
Colorado Counties Inc.
dylanpeper13@gmail.com

Jason Schrock
Director of Budget and Planning Colorado
Department of Law
jschrock.js@gmail.com

Bill Sutter
Chief Financial Officer
Boulder Valley School District
bill.sutter@bvsd.org

Information

Kate Watkins (Chair)
State Demographer
Colorado Department of Local Affairs
State Demography Office
kate.m.watkins@state.co.us

Arielle Brachfeld
Deputy Film Commissioner
Colorado Office of Film Television & Media
arielle.brachfeld@state.co.us

Julien Christensen
Student Research Assistant
University of Colorado Boulder
Business Research Division
julien.christensen@colorado.edu

Adam Illig
Data Scientist
University of Colorado Boulder
Business Research Division
adam.illig@colorado.edu

Skylar McKelvey
Colorado Office Film Television and Media
skylar.mckelvey@state.co.us

Makayla O'Malley
Senior Program Manager
Office of Economic Development
makayla.omalley@state.co.us

Cody Pearson
State of Colorado - Office of Economic Development & International Trade
Business Funding & Incentives + Office of Film, Television & Media
cody.pearson@state.co.us

Donald Zuckerman
Film Commissioner
Colorado Office of Film Television & Media
donald.zuckerman@state.co.us

International Trade

Rachel Rose (Chair)
Manager - Strategy and Analytics
Colorado Office of Economic Development and International Trade
Global Business Development
rachel.rose@state.co.us

John Addison
Marketing Specialist
Colo Dept of Agriculture
Markets Division
john.addison@state.co.us

Bryce Cooke
Senior Economist
Office of State Planning and Budgeting
Governor's Office
bryce.cooke@state.co.us

William Craighead
University of Colorado Colorado Springs
College of Business
wcraigh2@uccs.edu

Bill Germain
Data Visualization Manager, Global Business Development
Colorado Office of Economic Development and International Trade
Global Business Develpoment, Strategy & Analytics
bill.germain@state.co.us

Inta Morris
Principal
Confluence Strategies, LLC
inta@confluencestrategies.biz

Macie Murcray
Strategy & Analytics Coordinator
Colorado Office of Economic Development and International Trade
macie.murcray@state.co.us

Leisure and Hospitality

Tony Gurzick (Chair)
Grizzly Peak Consulting
tony.gurzick@hotmail.com

David Becher
Director of Research
RRC Associates
david@rrcassociates.com

Katy Black
Managing Director
HVS
kblack@hvs.com

Shelley Cooper
Colorado Tourism Office
shelley.cooper@state.co.us

Elizabeth Fogarty
Director
City of Grand Junction
Visit Grand Junction
ElizabethF@GJcity.org

Tom Foley
Senior Vice President Business Operations and Analytics
Inntopia
Business Intelligence
tfoley@inntopia.com

Denise Mickelsen
Communication Director
Colorado Restaurant Association
dmickelsen@corestaurant.org

Melanie Mills
President/CEO
Colorado Ski Country USA
mmills@coloradoski.com

Hayes Norris-McDonald
Communications Manager
Colorado Tourism Office
hayes.norris@state.co.us

Peggi O'Keefe
Executive Director
Colorado Gaming Association
peggi@clearstrategies.biz

Doug Price
President and CEO
Visit Colorado Springs
doug@VisitCOS.com

Alyssa Roche
Metro Denver EDC
Economic Research Associate
Alyssa.roche@metrodenver.org

Richard W. Scharf
President and CEO
Visit Denver
rscharf@visitdenver.com

Hanna Scovill
Research Economist
Metro Denver EDC
hanna.scovill@metrodenver.org

Taylor Shields
Director of PR & Communications
Visit Denver
tshields@visitdenver.com

Alexea Veneracion
Director of Communications
Visit Colorado Springs
Alexea@visitcos.com

Tim Wolfe
Director
Office of Economic Development & International Trade
Colorado Tourism Office
tim.wolfe@state.co.us

continued on page 170

Estimating Groups

continued from page 169

Manufacturing

David Hansen (Chair)
Principal Economist
Colorado Legislative Council
david.hansen@coleg.gov

Jennifer Hagan-Dier
Vice President and COO
Manufacturer's Edge
jhagan-dier@manufacturersedge.com

Adam Illig
Data Scientist
University of Colorado Boulder
Business Research Division
adam.illig@colorado.edu

Marcus Popoff
Student Research Assistant
University of Colorado Boulder
Business Research Division
marcus.popoff@colorado.edu

Elizabeth A. Ramey
Principal Economist
Legislative Council Staff
elizabeth.ramey@coleg.gov

Daniel Salvetti
Semiconductor Industry Manager
Colorado Office of Economic Development and International Trade
daniel.salvetti@state.co.us

Rebecca Wilder
Associate Director of Data Analytics
Data-Driven Economic Strategies
rwilder@ddestrategies.org

Natural Resources and Mining

Chris Eisinger (Chair)
Information and Applied Technology Manager
Colorado Energy and Carbon Management Commission
chris.eisinger@state.co.us

Adam Eckman
President and CEO
Colorado Mining Association
adam@coloradomining.org

Alexandra Evans
Policy Analysat
Colorado State University
Center for the New Energy Economy
Alexandra.I.Evans@colostate.edu

Todd Ohlheiser
Executive Director
Colorado Stone, Sand and Gravel Association, and Colorado Ready Mixed Concrete Association
todd@coloradocaa.org

Mike O'Keeffe
Mineral Resources Program Manager
Colorado Geological Survey
okeeffe@mines.edu

Alexander Papp
Consultant
Coalgeo, LLC
apapp5@comcast.net

Suzanne Tegen
Interim Director
Center for the New Energy Economy
Suzanne.Tegen@colostate.edu

John Tobin
President
Natural Reources Education Program
jtobin3es@gmail.com

Other Services

Adam Illig (Chair)
Data Scientist
University of Colorado Boulder
Business Research Division
adam.illig@colorado.edu

Population and Employment

Elizabeth Garner (Co-Chair)
State Demographer
Colorado Department of Local Affairs
elizabeth.garner@state.co.us

Joseph Winter (Co-Chair)
Program Manager CES
Colorado Department of Labor and Employment
joseph.winter@state.co.us

Monicque Aragon
Economist
Colorado Department of Labor and Employment
monicque.aragon@state.co.us

Cindy DeGroen
Projections Demographer
Colorado Department of Local Affairs
State Demography Office
cindy.degroen@dola.state.co.us

Adam Illig
Data Scientist
Business Research Division
University of Colorado Boulder
adam.illig@colorado.edu

Brian Lewandowski
Executive Director
Business Research Division
University of Colorado Boulder
brian.lewandowski@colorado.edu

Shannon Kerr
Statistical Analyst III
Colorado Department of Labor and Employment
shannon.kerr@state.co.us

Robert McNown
Economist
JTC Econometrics
mcnownr@gmail.com

Bryce Petrillo
Student Research Assistant
Leeds School of Business
Business Research Division
bryce.petrillo@colorado.edu

Marcus Popoff
Student Research Assistant
University of Colorado Boulder
Business Research Division
marcus.popoff@colorado.edu

Ethan Street
Student Research Assistant
Leeds School of Business
Business Research Division
ethan.street@colorado.edu

Richard Wobbekind
Faculty Director
Business Research Division
Leeds School of Business
richard.wobbekind@colorado.edu

Tim Wonhof
Program Manager - CES, LAUS, Projections, UIRR
Colorado Department of Labor and Employment
Office of Labor Market Information
tim.wonhof@state.co.us

Professional and Business Services

Brian Pool (Chair)
Partner
Government Performance Solutions, Inc.
brian@governmentperformance.us

Ashley Cawthorn
Marketing Director
Berg Hill Greenleaf Ruscitti, LLP
adc@bhgrlaw.com

Mark Hamouz
Engineering Consultant
jmhmah@aol.com

Adam Illig
Data Scientist
University of Colorado Boulder
Business Research Division
adam.illig@colorado.edu

Marcus Popoff
Leeds School of Business
Business Research Division
marcus.popoff@colorado.edu

Greg Totten
Economist
Colorado Department of Local Affairs
State Demography Office
greg.totten@state.co.us

Special Section Contributors

Adam Abrahamson
Student Research Assistant
Leeds School of Business
Business Research Division
adam.abrahamson@colorado.edu

John Carlson
Fiscal Compliance Analyst
University of Colorado Boulder
Campus Controller's Office (CCO)
jcarlsonjr@gmail.com

Julien Christensen
Student Research Assistant
University of Colorado Boulder
Business Research Division
julien.christensen@colorado.edu

Millar Kelley
Senior Research Analyst
Reshoring Initiative
theregoesmillar@gmail.com

Harry Moser
Founder and President
Reshoring Initiative
harry.moser@reshorenow.org

Trade, Transportation, and Utilities

Tim Sheesley (Chair)
Chief Economist
Xcel Energy
tim.sheesley@xcelenergy.com

Gregory Fulton
President
Colorado Motor Carriers Association
greg@cmca.com

Chance Gorsuch
Statistical Analyst
Colorado Department of Labor & Employment
chance.gorsuch@state.co.us

Matthew Groves
Vice President of Legal, Regulatory & Compliance
Colorado Automobile Dealers Association
Matthew.Groves@colorado.auto

Laura Jackson
Senior Director, Research and Market Intelligence
Denver International Airport
laura.jackson@flydenver.com

Brian Lewandowski
Executive Director
University of Colorado Boulder
Leeds School of Business
brian.lewandowski@colorado.edu

William Mixon
Senior Economist
Office of State Planning and Budgeting
william.mixon@state.co.us

Pam Reichert
Senior Manager, Air Service Development
Denver International Airport
Air Service Development
pam.reichert@flydenver.com

Tim Wonhof
Program Manager - CES, LAUS, Projections, UIRR
Colorado Department of Labor and Employment
Office of Labor Market Information
tim.wonhof@state.co.us

U.S. Economic Outlook

Adam Illig
Data Scientist
Business Research Division
University of Colorado Boulder
adam.illig@colorado.edu

Brian Lewandowski
Executive Director
Business Research Division
University of Colorado Boulder
brian.lewandowski@colorado.edu

Richard Wobbekind
Faculty Director
Business Research Division
Leeds School of Business
richard.wobbekind@colorado.edu

Marcus Popoff
Student Research Assistant
University of Colorado Boulder
Business Research Division
marcus.popoff@colorado.edu

60 YEARS

Be Boulder.

University of Colorado **Boulder**