

Methods

General Statistics Used

Mean & Median: For a set of data, the mean and median were both used to approximate the value that will be most similar to all data in the set. The mean is the average of the dataset. The median is the middle value of the dataset, if all values are put in order. Depending on the values in the dataset, one method may have been deemed more appropriate than the other.

Standard Deviation: The standard deviation is a measure of the dispersion of a dataset, or how spread out or tightly centered the data is, and was used as part of the method for comparing and combining different sets of data as detailed in the Indicator Rankings method above.

Deriving Broadband Holdings Companies by County

The FCC reports holdings companies by zip code. To convert to the county level, the figures for each zip code within a county were averaged. For any given zip code, the FCC uses an “*” to denote 1-3 holdings companies. To find county averages, a “*” was assumed to be 2 companies.

Determining Federal Expenditures by County

Data from the 2004 Consolidated Federal Fund Report were condensed by agency code. State undistributed funds for each agency were divided among counties based on 2004 county population as a share of total state population.

Forest Health Fire Risk Ranking

Analysis began with isolating areas of Fire Regime Condition Class 3 (FRCC 3). This corresponds to areas most departed from the historical range of variability. The FRCC 3 areas were intersected with Wildland Urban Interface Categories, using the sum of Interface + Intermix WUI areas (minimum, medium, and maximum). The sum of WUI + FRCC for each county by WUI value was then calculated. Finally, the Z-scores and weights for each county based on the WUI value were calculated. The Z-Score for a county and for a given variable is equal to the value of the variable for that unit minus the mean value of the variable for all counties all divided by the standard deviation of the variable for the group.

$Z = (X - X_{\text{mean}}) / S_x$, where Z is the Z-Score, X is the value of a variable for a geographic unit, X_{mean} is the mean value of the variable for all units in the group, and S_x is the standard deviation of the variable for all units in the group.

County Groups: Metro, Micro, and Rural

The State of the Rockies uses the rural-urban continuum codes developed by the Economic Research Service at the U.S. Department of Agriculture in 2003 based on their metropolitan-nonmetropolitan status and size of their metropolitan or urban populations. Beginning in June 2003, the Office of Management and Budget (OMB) has instructed the Census Bureau to track “micropolitan” areas as well as metropolitan areas. Micropolitan statistical areas must have an urban cluster of at least 10,000 people but fewer than 50,000 people. The designation includes the county where the urban cluster is, plus adjacent counties linked by commuting ties. For more information <http://www.census.gov/population/www/estimates/metrodef.html> and <http://www.ers.usda.gov/briefing/rurality/RuralUrbCon/>.

Note: Because it was so recently created, and most data sets do not yet include it, Broomfield County, Colorado is not included in our analyses.

State of the Rockies County Label	Code	Census/ USDA Label	Definition	Number of Counties in the Rockies
Metro	1	Metro	County in metro area with 1 million population or more	12
Metro	2	Metro	County in metro area of 250,000 to 1 million population	24
Metro	3	Metro	County in metro area of fewer than 250,000 population	25
Micro	4	Non Metro	Nonmetro county with urban population of 20,000 or more, adjacent to a metro area	14
Micro	5	Non Metro	Nonmetro county with urban population of 20,000 or more, not adjacent to a metro area	14
Micro	6	Non Metro	Nonmetro county with urban population of 2,500-19,999, adjacent to a metro area	38
Micro	7	Non Metro	Nonmetro county with urban population of 2,500-19,999, not adjacent to a metro area	72
Rural	8	Non Metro	Nonmetro county completely rural or less than 2,500 urban population, adj. to metro area	25
Rural	9	Non Metro	Nonmetro county completely rural or less than 2,500 urban population, not adj. to metro area	56

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Cover photo by Stephen G. Weaver. Photo contributions for this report, unless otherwise noted, were made by the Colorado College State of the Rockies staff and the Colorado College Office of External Relations. Other photos came from a contract with Shutterstock.com.

State of the Rockies Contributors



Tom Cronin is a political scientist and a business and leadership consultant. He currently serves as the Mc Hugh Professor of American Institutions and Leadership at Colorado College, president of CRC, Inc., serves as director of Cascade Natural Gas Corporation, and on several other civic, educational and editorial boards. He is past president of Whitman College where he served from 1993 to 2005, a former president of the Presidency Research Group, a former president of the Western Political Science Association and a former Executive Committee member of the American Political Science Association. Cronin has won prizes for his scholarship, teaching and civic leadership. He is the author or co-author of more than 150 scholarly or public affairs essays and ten books. He has lectured at over 300 colleges and universities in the U.S. and in two-dozen nations abroad. He has served as White House Fellow scholar-in-residence at the Brookings Institution, the Hoover Institution, the Aspen Institute and the Center for the Study of Democratic Institutions.



Jon Goldstein will receive a B.A. in International Political Economy in May, 2007 from Colorado College where he is research assistant to Professor Tom Cronin. He attended the Universidad de Costa Rica in San Jose during 2005. Last year, he was a lead field organizer in suburban St. Louis on behalf of U.S. Senator Claire McCaskill and other party nominees and directed the Democratic Senatorial Campaign Committee’s election day Get-Out-The-Vote (GOTV) operation. In 2004, he coordinated El Paso County volunteers for U.S. Senator Ken Salazar and served as GOTV transportation coordinator. Goldstein is a native of Washington, D.C., and a graduate of St. Albans School.



Brian Hall is a 2006/07 student researcher for the Colorado College State of the Rockies Project. He is a 2004 Boettcher Scholar and will graduate in May 2008 with a B.A. degree in economics. Brian was raised in rural Nebraska and graduated from high school in Westcliffe, Colorado. He has served as an intern in Congressman Joel Hefley’s district office and worked at several farms and ranches. He is very interested in political discussions regarding energy and water. Brian also enjoys playing sports, writing music, and spending time with his family.



Walter E. Hecox is professor of economics, director of the Slade Sustainable Development Workshop, and project director for the State of the Rockies Project at Colorado College, Colorado Springs, Colorado. Walt received his B.A. degree from Colorado College in 1964 and an M.A. (1967) and Ph.D. (1970) from Syracuse University, Syracuse, New York. He teaches courses in ecological economics, and sustainable development. He has conducted research and taken leave to work for the World Bank, U.S. Agency for International Development, U.S. Department of Energy, and Colorado Department of Natural Resources. He is author of *Charting the Colorado Plateau: an Economic and Demographic Exploration* (The Grand Canyon Trust, 1996), co-author of *Beyond the Boundaries: the Human and Natural Communities of the Greater Grand Canyon* (Grand Canyon Trust, 1997), and co-editor of the *Colorado College State of the Rockies Report Cards*.

Chris Jackson is 2006/07 program coordinator for the Colorado College State of the Rockies Project. This is his second year with the State of the Rockies Project, having spent last summer as a researcher. Chris' work for the 2006 Report Card focused on innovative resource management techniques in the Rockies. He graduated cum laude from Colorado College in May 2006 with a B.A. degree in International Political Economics. Growing up in the mountains of Eagle County, Colorado, Chris gained a particular interest in exploring ways to maintain the unique character of the Rockies Region.



Cory Jackson is corporate counsel for the Tri County Telephone Association in Basin, Wyoming. He received a B.A. in Economics from Colorado College in 2002, and a J.D. from the University of Colorado School of Law in 2005. Cory's work in telecommunications policy involves advocacy before the Wyoming Legislature, U.S. Congress, and Federal Communications Commission. He is an avid backcountry enthusiast and spends his free time exploring the peaks of the Gore and Absaroka Ranges near his homes in Avon, Colorado and Cody, Wyoming.



Carissa Look is a 2006/07 summer researcher for the State of the Rockies Project. She is an Environmental Science major and French minor at the Colorado College and will graduate in June of 2007. Carissa studied ecology and conservation in Madagascar in the fall of 2005 and plans to write her thesis, entitled "Medicinal Plants and Sustainable Development in Madagascar," using the research she conducted while abroad. Carissa is from Martha's Vineyard, Massachusetts, and enjoys swimming, hiking, cooking, camping, and traveling in her spare time.



Phillip M. Kannan is distinguished lecturer and legal-scholar-in-residence, Colorado College. His education includes a B.S. (1961) and M.A. (1963) in mathematics at the University of North Carolina, Chapel Hill, N. Carolina; and a JD degree (1974) from the University of Tennessee College of Law, Knoxville, Tennessee. He has practiced law for over 30 years as the general counsel for nonprofit and public corporations and has published many articles in the fields of administrative and environmental law. Since 1997 he has taught a variety of courses at Colorado College in the Environmental Science and Southwest Studies programs and the Master of Arts in Teaching Program, focusing on environmental policy nationally, internationally, and in the Southwest.



Julianne Kellogg is a 2006/07 student researcher for the Colorado College State of the Rockies Project. As a sophomore graduating in 2009, Julianne will continue to cultivate her knowledge and skills through the Environmental Science major. Julianne was first driven to major in Environmental Science by her experience as a volunteer research assistant in the Canyonlands National Park in Utah. Outside of hands-on research, Julianne is interested in environmental activism. Hoping to bridge the gap between environmentalism and markets, she and two other CC students have founded the CC Buying Back the Earth Project. A native of Massachusetts, Julianne grew up hiking and backpacking in the mountains of New England, developing a lifetime hobby and passion for preserving the natural world.



Robert Loevy has been professor of Political Science at Colorado College since 1968. He received his A.B. from Williams College in 1957 and his Ph.D. from Johns Hopkins University in 1963. During the 1963-1964 academic year, Loevy served as an American Political Science Association Congressional Fellow in the office of United States Senator Thomas H. Kuchel, of California, the Republican floor manager in the Senate for the civil rights bill that later became the Civil Rights Act of 1964. Loevy is the author of several books, including: *To End All Segregation: The Politics of the Passage of the Civil Rights Act of 1964*, and he is the editor of *The Civil Rights Act of 1964: The Passage of the Law that Ended Racial Segregation*. He also wrote *The Flawed Path to the Presidency 1992: Unfairness and Inequality in the Presidential Selection Process*, and, with Thomas Cronin, *Colorado Politics and Government: Governing the Centennial State*. Loevy also is the co-author of a high school civics text, *American Government: We Are One*.



Tyler McMahan is a 2006/07 student researcher for the Colorado College State of the Rockies Project. He is currently a senior economics major at Colorado College graduating in May 2007. His interests are in the field of environmental economics, particularly in resource use and its impacts on both the environment and poverty. The interest in resource use and poverty came from his semester in Nepal, where he observed drastic differences in access to resources, particularly water, between people of different castes, and saw how this affected their livelihoods and also the environment. Next year, Tyler will be studying water supply issues in Kathmandu, Nepal on a Fulbright Student Grant. Tyler grew up in Fairplay, Colorado and is an avid cyclist.



Pablo Navarro is a 2006/07 student researcher for the State of the Rockies Project. He will graduate from Colorado College in May 2008 with a degree in Mathematical Economics. Upon graduation from Karl C. Parrish School in Barranquilla, Colombia, Pablo received the prestigious Ecopetrol award. At Colorado College he has worked as a Junior Research Fellow with Professor Andrew Price-Smith on a project on Health and Global Affairs and with Professor Daniel Johnson on a project focusing on innovation and economic development in the U.S. His main interest is international economic development and regional integration, particularly in the area of the Americas. Summer, 2007, Pablo will be conducting research in Brazil on the Family Fund, a conditional cash transfer program.



Matthew K. Reuer serves as the technical liaison for the State of the Rockies Project, overseeing tasks including data assimilation, GIS analysis, and logistics management. He received his doctorate degree from MIT in 2002 and was a Harry Hess postdoctoral research fellow at Princeton University from 2002 to 2004, focusing on global carbon cycle research. Matt's scientific interests in this region include the environmental chemistry of western rivers and watersheds and global change impacts on alpine biogeochemical cycles. He is also highly interested in western development issues and the creation of innovative energy policies in the Rocky Mountain West.



Stephen G. Weaver is an award-winning photographer with over 30 years experience making images of the natural world and serves as technical director for the Colorado College geology department. Educated as a geologist, Steve combines his scientific knowledge with his photographic abilities to produce stunning images that illustrate the structure and composition of the earth and its natural systems. As an undergraduate geology student, he first visited the Rocky Mountains, where he fell in love with the mountain environment and the grand landscapes of the West. Steve currently photographs throughout North America with a major emphasis on mountain and desert environments. His use of a 4x5 large format view camera allows him to capture images with amazing clarity and depth.

