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POLICY BRIEF

A Snapshot of Regulation in Rocky Mountain States

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October 2020

This policy brief uses RegData, an innovative tool from the Mercatus Center at George Mason University, to summarize and contextualize the volume of regulatory restrictions in five western states constituting the Rocky Mountain region as classified by the Bureau of Economic Analysis (BEA). In 2012, the Mercatus Center launched RegData to quantify regulation at the federal level in the United States. RegData uses text analysis and machine learning algorithms to convert legal text into quantitative data. Using these data, researchers can quantify the number of regulatory restrictions in a jurisdiction. Regulatory restrictions are the primary unit of measurement of regulation used by RegData and are instances of the terms *shall*, *must*, *may not*, *prohibited*, and *required* appearing in laws. Regulations by nature impose restrictions on regulated individuals and businesses, by either requiring or prohibiting certain activities. These terms approximate the number of restrictions that regulators impose on a jurisdiction.[1]

In 2019, the Mercatus Center launched State RegData, which extended the technology underlying RegData to state administrative codes. This allowed for aggregate levels of regulation across the various states to be compared with one another. This brief takes a deeper dive into the data generated by the various RegData projects to better understand the regulatory landscape in the Rocky Mountain region of the United States. Specifically, this report summarizes data for five states: Colorado, Idaho, Montana, Utah, and Wyoming. Using data from State RegData, version 2.0, as well as other sources, the brief compares these states' regulatory environments along a variety of dimensions, including overall word counts in state administrative codes, restrictiveness of regulations in state administrative codes, restrictions across industries, federal regulation of the various states' economies, and population-adjusted restrictions.

The analysis presented here provides new insights into the extent and scope of regulation across the Rocky Mountain region, which should prove useful to academics, policymakers, and even

the regulators themselves as they seek to understand the consequences of the regulatory state in America.

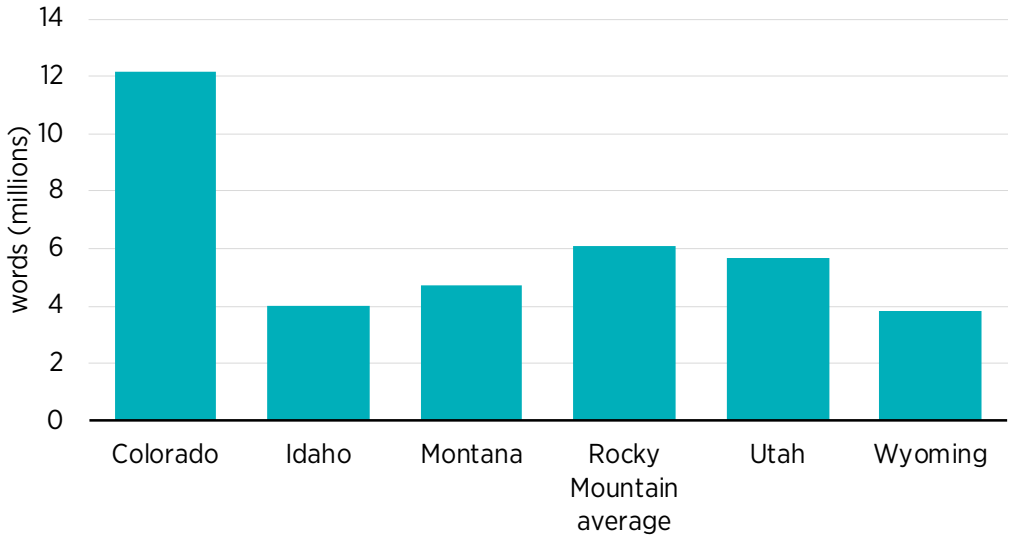
WORD AND RESTRICTION COUNTS IN STATE REGULATIONS

Almost every state in the country has a regulatory code where its administrative laws are housed.[2] Regulations are distinct from traditional laws written by legislators in that they are written mostly by unelected officials working at executive branch agencies. Elected representatives in a legislature delegate specific lawmaking powers to these agencies. Executive branch agencies are typically run by political appointees (although sometimes they are run by elected officials), and the staff who work at agencies are career civil servants. Thus, the administrative laws (i.e., regulations) written by these officials are different from statutes written by legislators in that there is generally no direct line of accountability from voters to the writers of these laws.

Perhaps the simplest way to quantify how much state regulation exists is to count the words in states' administrative codes (figure 1). For example, the Colorado administrative code contains 12.2 million words, while Wyoming's administrative code contains just 3.8 million words. Except for Colorado, the number of words in each Rocky Mountain state's administrative code is below the Rocky Mountain average of 6.1 million and the national average of 9.2 million.

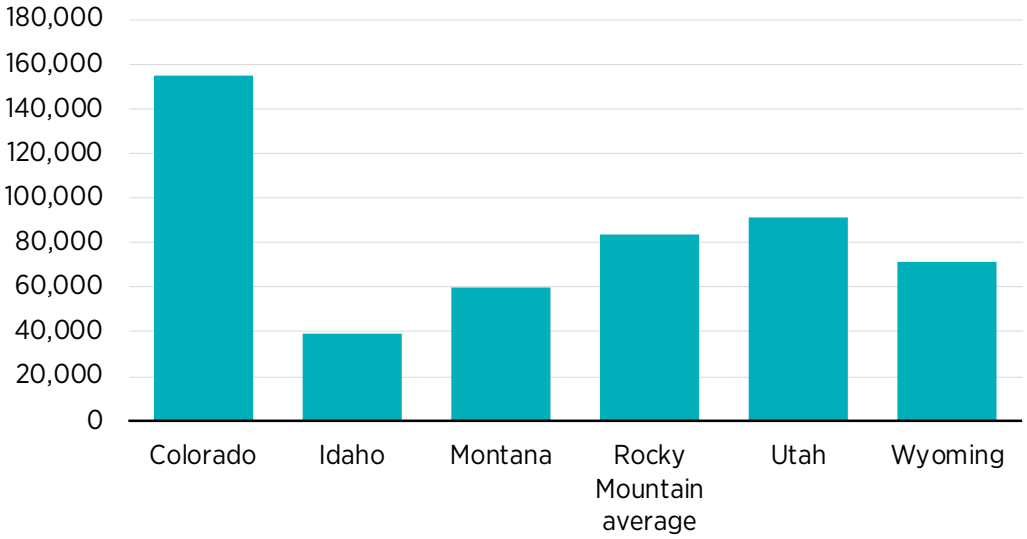
If one instead counts the restrictive terms in administrative codes, then Colorado remains the most regulated mountain state, with 154,964 restrictions (figure 2). Idaho is the least regulated state by this metric, as it has just 38,961 restrictions as of 2020.

Figure 1. Word Counts in Rocky Mountain State Administrative Codes



Source: Patrick A. McLaughlin et al., "State RegData 2.0" (dataset), QuantGov, Mercatus Center at George Mason University, Arlington, VA, 2020, https://quantgov.org/state-regdata/.

Figure 2. State Regulatory Restrictions in the Rocky Mountain Region



Source: McLaughlin et al., "State RegData 2.0."

REGULATION OF INDUSTRY AT THE STATE AND FEDERAL LEVELS

Another way to analyze the regulatory systems in these states is to look at industries that are targeted by state and federal regulation. RegData utilizes machine learning algorithms that are trained to identify text relevant to particular industries. When the probability that a certain piece of legal text applies to a particular industry is combined with regulatory restriction data, one can produce an estimate of the regulatory restrictions targeting particular sectors of the economy.[3] Figure 3a provides state regulatory restriction information for select industries. Figure 3a shows clearly that the number of regulatory restrictions varies widely both within and across states. In other words, for particular industries, some states impose far more regulation than others. And within particular states, some industries are far more regulated than others.

Several interesting observations can be made about the data in figure 3a. One obvious pattern is that Colorado tends to impose more regulation on these industries than the other states, which is consistent with its larger overall volume of regulations. Ambulatory healthcare services is the most regulated industry in Colorado (12,737 restrictions). Montana imposes the fewest regulatory restrictions on this industry, but also regulates crop production more than any other Rocky Mountain state (2,816 restrictions). Petroleum and coal products manufacturing is the most regulated industry in Utah and the third most regulated in Colorado.

The variation in the number of restrictions on various industries across this region could be explained by the relative importance of each sector to each state's economy. Without assuming any direct causal relationship between the volume of regulations that falls on an industry and that industry's contribution to GDP, in figure 3b we present the percentage of state GDP associated

Figure 3a. State Regulatory Restrictions for Select Industries in the Rocky Mountain States

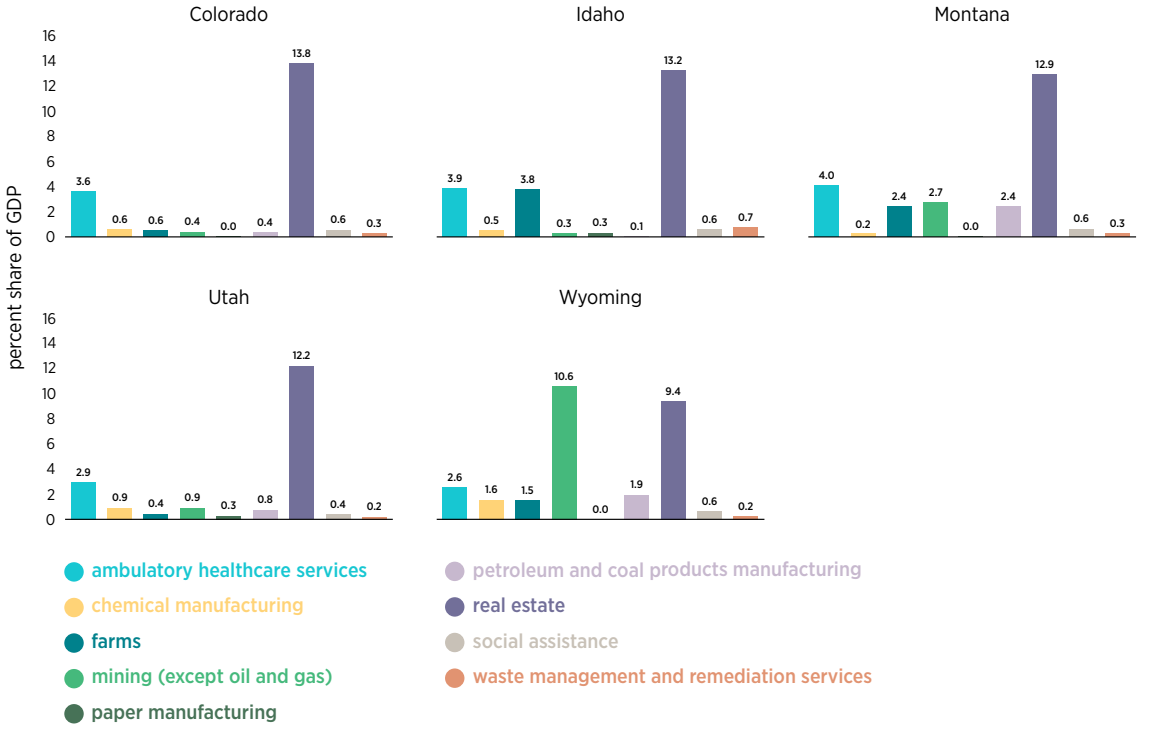
Note: We use the three-digit North America Industry Classification System to delineate industries. Not all industries are shown here. For more details on the algorithm that classifies regulations into industries and the methodology for assigning probabilities to industries, see Patrick A. McLaughlin and Oliver Sherouse, "RegData 2.2: A Panel Dataset on US Federal Regulations," Public Choice 180 (2019): 43–55.
Source: McLaughlin et al., "State RegData 2.0."

with each of these industries for the five states. The mining industry is much more important to Wyoming's economy than to the economies of the other states; this industry is also more heavily regulated than the other industries in Wyoming. Meanwhile, real estate is important in all the states' economies, and is lightly regulated in all the states.

States also vary in terms of the degree to which their economies are targeted by federal regulation. For example, the average number of regulatory restrictions imposed by the five states reviewed here is 83,305. By comparison, there are approximately 1.08 million regulatory restrictions in the US *Code of Federal Regulations*.[4] Therefore, it is quite possible that federal regulations have a larger impact on these state economies than do the states' own regulatory restrictions.

The Mercatus Center has also produced data to better understand the degree to which federal regulation targets states' economies. By weighting estimates of industry-relevant federal restrictions according to how important various industries are to states' gross state product, the Federal Regulation and State Enterprise (FRASE) index is able to rank the states in terms of how regulated they are by the federal government (figure 4). Wyoming receives a score of 1.50. This score

Figure 3b. Contribution to State GDP of Select Industries



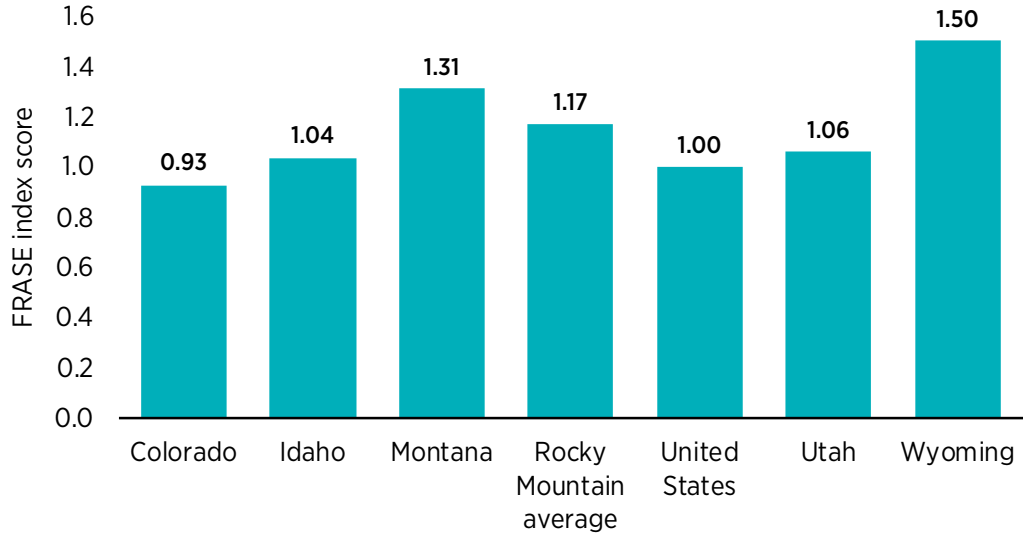
Source: "GDP by State," Bureau of Economic Analysis, accessed May 26, 2020, https://www.bea.gov/data/gdp/gdp-state.

is scaled relative to the nation as a whole, which receives a score of 1.00, so a score of 1.50 means that Wyoming industries are targeted by federal regulation 50 percent more than industries across the nation as a whole are. Notably, four of the five states in the Rocky Mountain region are more regulated than is the whole nation, by this measure.

REGULATION AND POPULATION

There is also evidence that more-populous states tend to have more regulation than less-populous states.[5] One can speculate about several reasons why this could be the case. For example, more-populous states might tend to have more industries, so some forms of regulation may not be necessary in less-populous states. It is possible that more-populous states have denser populations than less-populous states, and when more people are congregated in smaller areas, certain externalities or other market failures could be more prevalent, thereby necessitating more regulation. It may be that larger populations demand more regulation. Finally, some scholars have posited that there are fixed costs associated with regulating and that larger populations will be able to absorb these fixed costs more easily by spreading them across a greater number of people.[6] Therefore, more populous states could be expected to have more regulation because regulating becomes cheaper as population increases.

Figure 4. Relative Federal Regulatory Burden by State in the Rocky Mountain Region



Note: The score for the United States is 1.00.
Source: QuantGov, "2017 FRASE Index" (dataset), accessed March 17, 2020, https://www.quantgov.org/download-interactively.

For these reasons, it could make sense to adjust for population when reporting regulatory restrictions.[7] Figure 5a shows the number of state regulatory restrictions for every 1,000 residents in each of the Rocky Mountain states. Wyoming (123.2 restrictions) is the most regulated state in the region, adjusting for population. Idaho (21.8 restrictions) is the least regulated state in the region. Figure 5a also shows the regional average number of restrictions per 1,000 residents for the Rocky Mountain region. Utah, Colorado, and Idaho have fewer state restrictions per 1,000 residents than the regional average.

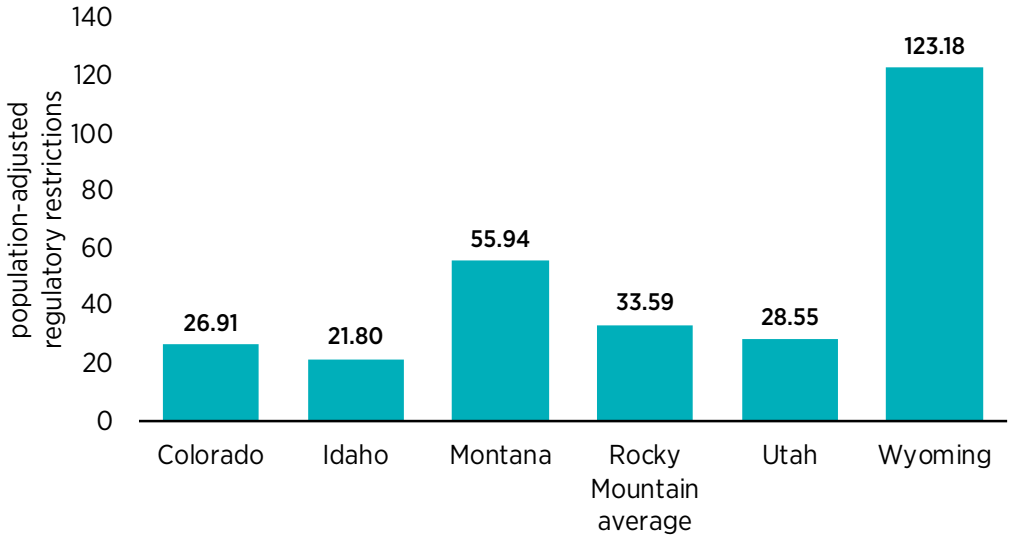
Figure 5b shows the 2018 GDP per capita for each of the Rocky Mountain states. While Idaho has the fewest regulations per capita, it also has the smallest GDP per capita. Wyoming has the highest GDP per capita and also the most restrictions per capita. Again, we stress that we are not attempting to establish a causal relationship between regulation and GDP, but merely putting the volume of regulatory restrictions in the context of the local economies.

CONCLUSION

There are a variety of ways one can compare the regulatory environments across states, as this policy brief has done for states in the Rocky Mountain region of the United States. We have looked at word counts in state administrative codes, regulatory restriction counts, restrictions targeting industries in these states, the extent to which federal regulation targets each state's industries, and the population-adjusted quantity of state regulation.

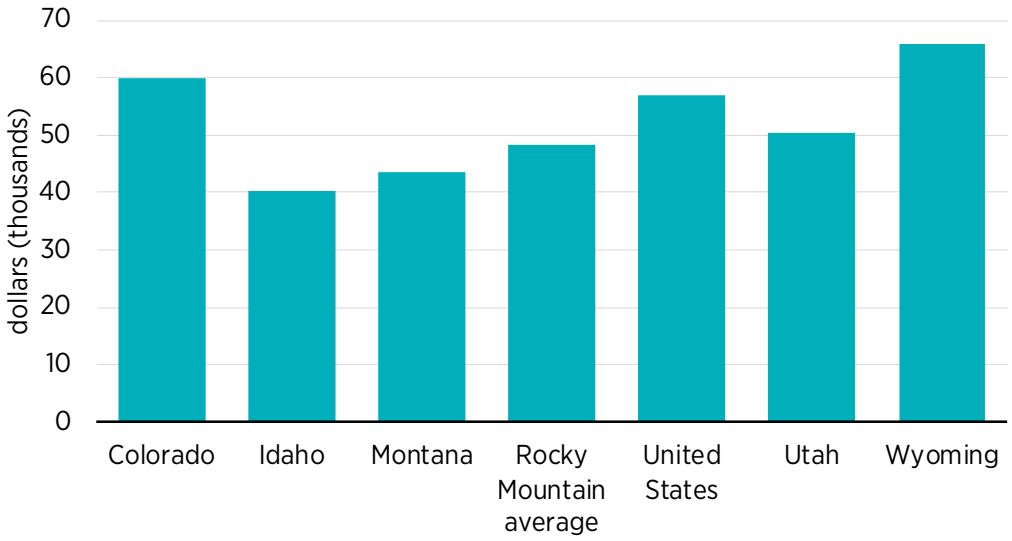
Each of these metrics has its own advantages and disadvantages. All told, the amount of regulation in the states is considerable. Further research will help gauge how levels of regulation are evolving in these states over time and what implications follow from this evolution. This snapshot of state regulations, however, provides a glimpse into the reach of various kinds of regulation in the Rocky Mountain region.

Figure 5a. Population-Adjusted Regulatory Restrictions for Rocky Mountain States



Source: McLaughlin et al., "State RegData 2.0"; Census Bureau, "2018 ACS 1-Year Estimates" (dataset), Summary File Data, American Community Survey, https://www.census.gov/programs-surveys/acs/data/summary-file.html.

Figure 5b. 2018 Per Capita GDP for Rocky Mountain States



Source: "GDP & Personal Income," Bureau of Economic Analysis, accessed March 19, 2020, https://apps.bea.gov/iTable/index_regional.cfm.

ABOUT THE AUTHORS

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NOTES

1. Restrictions can also occur in legal text for other purposes, such as for definitional purposes. At times, restrictions may relate to government employees rather than to the private sector.
2. Arkansas does not yet have an administrative code, but the state is actively working on compiling one. See H.B. 1429, 92nd Gen. Assemb., Reg. Sess. (Ark. 2019), which establishes the *Code of Arkansas Rules*.
3. Omar Al-Ubaydli and Patrick A. McLaughlin, "RegData: A Numerical Database on Industry-Specific Regulations for All United States Industries and Federal Regulations, 1997–2012," *Regulation and Governance* 11, no. 1 (2017): 109–23.
4. "Visualize QuantGov Data," QuantGov, accessed July 18, 2020, https://www.quantgov.org/visualize-data.
5. James Bailey, James Broughel, and Patrick A. McLaughlin, "Larger Polities Are More Regulated" (Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, September 2020).
6. Casey Mulligan and Andrei Schleifer, "The Extent of the Market and the Supply of Regulation," *Quarterly Journal of Economics* 120, no. 4 (2005): 1445–73.
7. That said, a regulatory restriction in a larger state may also carry a larger impact than the same restriction in a smaller state, simply because it affects more people.