

# How Do Federal Lands Impact Local Economies?

Jennifer Morales

Megan Jenkins

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## Introduction

Do public lands help or harm adjacent local economies? This question, which has fueled debate for decades, recently returned to the national spotlight following President Trump's decision to reduce the size of several national monuments.<sup>1</sup> The Antiquities Act grants the president the power to create national monuments, but is ambiguous about presidential authority to reduce their size.<sup>2</sup> Trump's decision created controversy and inspired legal challenges from several organizations, most notably the outdoor gear company Patagonia and five Native American tribes.<sup>3</sup>

Although interested parties across the nation participate in the debate over federal lands, this issue is most salient in the 11 coterminous western states, where the federal government owns 46.4 percent of all land.<sup>4</sup> This paper establishes some key facts relating to federal lands in the West. We then review the existing literature on the impact of federal land designations on local economies. We find that no clear consensus has been reached. Determining whether federal lands benefit or harm local economies is not a straightforward task, in part because different types of federal land are subject to a variety of regulatory schemes. Understanding the real impacts of federal land designations on local economies depends on which metrics of economic health are deemed most important, because the designations create important policy trade-offs.

## Know Your Park: Types of Federal Lands

The economic impact of a new federal land designation depends, in part, on the type of federal land involved, the managing agency, and the interaction of land management regulations with major industries that support surrounding communities.

The National Park Service, the Forest Service, the Bureau of Land Management, and the Fish and Wildlife Service manage nearly all public lands in the US.<sup>5</sup> Every land type is managed by a specific agency, or jointly managed by multiple federal agencies, each with unique organizational priorities and authorizations. Land management plans from the Bureau of Land Management and the Forest Service call for sustained yield of multiple uses. *Multiple uses* means that the agencies are authorized to extract or use multiple surface resources simultaneously, while also allowing for non-extractive uses such as outdoor recreation. *Sustained yield* means that the use of these resources is maintained at a level

that will not impair future productivity of the land.<sup>6</sup> Most Fish and Wildlife Service lands are managed primarily for conservation of plants and animals, and National Park Service lands are managed to preserve resources and provide opportunities for public recreation. However, each agency also administers some lands that diverge from the overarching agency management priorities.<sup>7</sup>

The economic literature tends to focus on the following four types of protected federal lands: national parks, national monuments, national forests, and wilderness areas. National monuments do not restrict existing valid uses, including extractive commercial activities, but most monuments designated since 1996 have restricted new mining, oil, and gas leases following designation.<sup>8</sup> National forests are managed under the multiple-use concept, which allows not only for recreation and conservation activities, but also for timber harvesting and prescribed burns.<sup>9</sup> National forests allow for new mining or oil developments as long as they comply with the conservation and sustainable-use mandate.<sup>10</sup> National parks were specifically created with recreation and perpetual conservation in mind, and therefore prohibit nearly all resource extraction, although grazing is allowed in some parks.<sup>11</sup> The 1976 Mining in the Parks Act closed national parks to all new mining, but lots of existing mining claims can still be developed. Wilderness areas are the most-protected type of public land, with commercial activities, permanent roads, and all motor vehicles and mechanical transport prohibited, except in case of emergency.<sup>12</sup>

Adding another layer of complexity, the actors who are authorized to create new public lands vary by land type. National parks, national forests, and wilderness areas can only be created by Congress, but national monuments can be created by Congress or designated by the president.<sup>13</sup>

## Examining the Effect of Federal Lands on Local Economies

The issue of how federal land affects local economies has been debated in the United States since at least the early 1900s, and with increased intensity since the environmental movement of the 1960s and '70s.<sup>14</sup> Often, a flurry of academic research will emerge in response to controversy about a specific land type. Since the 1990s, much of the literature has focused on wilderness areas, which many feared would stifle local economies by restricting commercial activities.<sup>15</sup> Currently, much of the new

literature focuses on national monuments, reflecting the renewed national attention sparked by reductions implemented by the Trump administration.

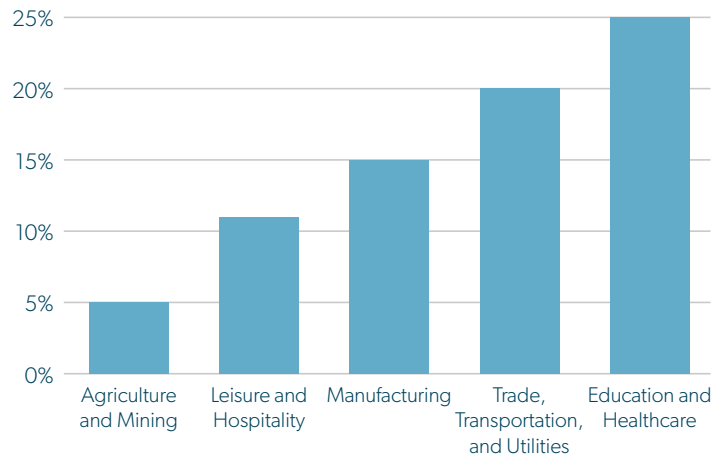
Recent research has found that public lands have no statistically significant effect on measurable economic indicators such as employment growth and per capita income. Two 2018 studies found that national monument designations, including the designation of Grand Staircase–Escalante National Monument, had no effect on per capita income for surrounding counties.<sup>16</sup>

One often-expressed concern about protected public lands is that their presence will dampen extractive and resource-based industries. A 1998 study by Kevin Duffy-Deno focused on the effect of federal wilderness areas, the most commercially restrictive type of protected land, on local employment. The study found no empirical evidence that county-level employment in extractive industries was affected by the presence of protected wilderness.<sup>17</sup> Another study found that areas with “protected lands,” including national parks, national monuments, wilderness, and roadless areas, had higher population and employment growth.<sup>18</sup> A 2018 study of the communities surrounding Grand Staircase–Escalante National Monument found that the monument’s designation increased transaction costs for extractive-industry companies because of increased permitting and transportation hurdles. However, the study found that no actively operating leases ended because of the monument’s designation.<sup>19</sup>

Many western counties have seen a transition in the past 40 years from extractive-based economies to service-based ones. A report from the Department of Agriculture summarizes key trends in employment in rural areas by industry. Mining and agriculture have long played an important role in rural economies. Although jobs in these two sectors grew by 25 percent from 2001 to 2015 (largely because of growth in hydraulic fracturing), they still made up only 5 percent of rural jobs in 2015. Service industries, including education, health care, transportation, utilities, leisure, and hospitality, all saw growth as well, making up 70 percent of rural jobs in 2015.<sup>20</sup> Figure 1 shows the percentage of jobs by industry in rural areas in 2015.

If regulations prevent certain types of extractive commercial activities on protected lands, these restrictions could affect whether and how quickly local economies begin to transition away from extractive industries and toward service jobs. One study found that the presence of wilderness areas had no effect on whether or how quickly local economies transitioned from extractive-based to service-based.<sup>21</sup> However, another study found that rural counties with a higher percentage of wilderness land also had greater populations and economic growth. Employment in wilderness counties in wilderness-related industries grew faster than employment in urban counties for the studied time period (1969–1996). Employment growth in construction was 151 percent higher; and 129 percent higher in service-industry jobs; and finance, insurance, and real estate employment together grew 115 percent more than in urban counties. The study also found that more wilderness land in a county correlated with a quicker transition to a service-based economy.<sup>22</sup>

Figure 1. Percentage of Rural Jobs by Industry, 2015



Source: “Rural America at a Glance,” 2017 ed. (Economic Information Bulletin 182, US Department of Agriculture Economic Research Service, November 2017), <https://www.ers.usda.gov/webdocs/publications/85740/eib-182.pdf?v=0>.

Some economists argue that even if service-sector jobs increase as extractive industries wane, locals are still worse off because wages for service-sector jobs are generally lower than for extractive jobs. A study of 113 western counties found that in counties with federal wilderness, the number of lower-wage service-sector jobs increased more than the number of extractive jobs, but there was also an increase in high-wage service-sector jobs such as those related to legal services and real estate.<sup>23</sup>

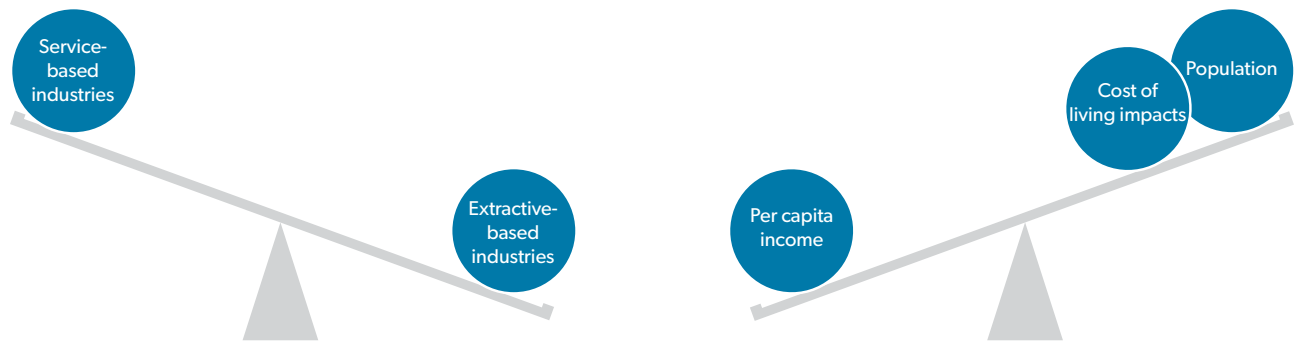
Data from the Bureau of Labor Statistics show that the average annual wage for extractive-industry workers in the US was \$52,580 in 2019. The average annual wage for service-industry workers was \$26,670. Real estate professionals received an average annual wage of \$66,100.<sup>24</sup>

Another study of wilderness areas and local economies concluded that growing populations in areas with federal wilderness may encourage small-business growth, and create a need for higher-wage service jobs such as real estate jobs.<sup>25</sup> Of course, average wages do not provide a full cross-industry comparison because the distribution of wages in any industry also matters, but they do provide a point of comparison. Whether a new public land designation helps create enough service-sector jobs to make up for declining extractive industries likely depends on the specific land type and location.

### Are We Asking the Right Questions?

Many studies focus on a wide variety of federal or protected lands, or on amenity-rich areas that are characterized by greater-than-average desirable physical characteristics such as a mild climate, varied topography, and presence of water.<sup>26</sup> While many amenity-rich areas overlap with federal lands, the two categories are not the same. This broad focus makes it hard to effectively determine the economic impact of a specific federal land designation on a specific locale.

Figure 2. Possible impacts of federal land designation on local economies



Studies that do focus on one type of federal land may still face methodological hurdles. The smallest geographic unit for which economic data are commonly available is the county level. This makes it hard to pinpoint local economic effects of a federal land unit that may mainly impact a single town, since the effects have so far been measured only at the county level. Researchers have called for evaluations at even finer levels so that the effect of public land on individual communities can be investigated.<sup>27</sup> Data at finer levels could be used to more accurately measure within-county differences, which is particularly important in the rural West, where counties can stretch nearly the width of an entire state, and a parcel of public land may only touch one corner of the county.

Additionally, no single metric can provide a full picture of economic health. A study might measure population, income, or employment growth and its correlation with public lands. Each of these metrics is a useful tool to begin to understand the economic health of an area. However, to get a full picture of economic health, studies need to analyze multiple metrics. If studies draw their conclusions from only one or two indicators, they are missing important economic data that may shed light on how a public land unit impacts the surrounding area.

Another complicating factor is that gains in one metric are often offset by losses in another. One study comparing income and housing costs from 1990–2001 between counties with and without high levels of natural amenities concluded that although counties with natural amenities had family incomes that were \$9,000 higher on average, this did not equate to greater economic prosperity. Because median housing costs in amenity-rich counties were double the median housing costs in amenity-poor counties, gains in income were offset by rising housing costs.<sup>28</sup> This raises an important question—which indicators of economic health are most important?

Direct employment in public land management is an obvious indicator of economic impact. Park managers and rangers are usually hired when a piece of land receives a federal designation, and these new employees may contribute to local job growth and consumer spending to some degree. Visitor expenditures are also a direct impact of the existence of a public land unit. Admission fees generate revenue for the federal government,

but visitors also spend money in nearby communities—on food, transportation, and lodging. How much visitors spend in different local industries varies by location. In more isolated areas with federal land, a higher amount is often spent on transportation, while in less isolated areas visitors tend to spend more on lodging.<sup>29</sup>

Visitor spending and direct employment in land management are helpful indicators, but to measure the broader impact of a public land designation on a local or regional economy, measures of income and employment growth may be needed as well. Visitor spending may increase with a new designation, but how much of that money stays in the local economy and ends up in the pockets of local residents? If, as some economists have hypothesized, public land designations restrict certain economic activities, we can expect income or employment in those industries to decrease following a new land designation.<sup>30</sup> Sales figures from before and after a designation, and job rates by industry, can provide insight about how local industries change in response to new land regulations. Several studies focus on one or a few of these economic indicators.

Recently, Paul Jakus and Sherzod Akhundjanov, authors of a study on national monuments, argued that per capita income is a better measure of economic health than employment growth.<sup>31</sup> Their study finds that because average wages in extractive industries are higher than those in service industries, a loss of 25 jobs in the mining and logging industry would require 52 jobs in the leisure and hospitality sector to keep wage income constant.<sup>32</sup> Because per capita income captures overall wage income and non wage income, the authors argue that it is a better measure of overall economic health than employment growth by industry. Still, even if per capita income increases, this alone is not enough to show that residents are economically better off—researchers must also compare relevant cost-of-living statistics, such as median housing costs.

A well-designed recent study by Margaret Walls, Patrick Lee, and Matthew Ashenfarb examined the average number of business establishments, jobs, and average wages in zip codes near national monuments, before and after their designation. The authors find either positive effects or no effects for all metrics examined. In particular, they find that the number of business establishments increased by 10 percent on average and the number

of jobs increased by 8.5 percent in areas near national monuments across eight western states. They also find that monument designation had no effect on natural-resource industries, including mining, forestry, and livestock grazing, but that several service industries and construction saw positive effects.<sup>33</sup>

Nonmarket value is another important consideration for research examining public lands. The value that local and national residents derive from federal lands is often quantified by willingness-to-pay models.<sup>34</sup> These models gather data on how much money people are willing to pay to visit public lands, to have the option to visit them in the future, or even just to know they exist.<sup>35</sup> Nonmarket values can be evaluated alongside traditional economic indicators to deliver a fuller picture of the impact of a federal land designation on a local community.

Because so few studies compare a robust selection of economic indicators measured at a suitably narrow scope, and those that do have not reached a common consensus, the literature cannot conclusively determine whether federal lands benefit or hurt local economies.

## Conclusion

Further research categorized by individual land type is needed in order for researchers to better understand the effects of federal land designations on local economic indicators. Additionally, policy makers and researchers need to decide which measures of economic health are most important in determining the impact of federal lands—overall employment growth, per capita income, cost of living, or population growth. Because gains in one metric can be offset by losses in another, we caution against using only one indicator to measure the health of an entire local or regional economy.

We know that communities near new public lands may face trade-offs that could impact their economies. For instance, a federal land designation may prevent new extractive exploration but add more service-sector jobs to the local economy. Important questions to ask when considering a new land designation include the following: Will the designation prevent any current businesses from operating? Will additional business activity generated by the designation match or outweigh any potential losses for local businesses and workers?

Additional studies that compare industry-specific effects in one location or for one particular land type are needed before scholars can confidently predict the impact of a new national monument, park, forest, or wilderness area. Communities near federal lands are not just affected economically—they may see social change as well. Studies that focus on cultural and social impacts, crime rates, and public health can help provide a fuller picture of the overall impact of federal lands on nearby communities. When the outcome of these economic trade-offs is known for past land designations, policy makers will be better equipped to carefully consider similar trade-offs when contemplating new public land designations or management changes.

*Jennifer Morales* is a Graduate Research Fellow at the Center for Growth and Opportunity at Utah State University

*Megan Jenkins* is the Research Director at the Center for Growth and Opportunity at Utah State University

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## Endnotes

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