

Brian C. Steed, JD, PhD

Economics Instructor

Jon M. Huntsman School of Business,
Utah State University

Testimony on “Legislative Hearing on H.R. 41, H.R. 113, H.R. 490, H.R. 608, H.R. 977, H.R. 1126, H.R. 1413 and H.R. 2050”

10/21/2011

It is a pleasure to be in attendance at today's hearing to talk about research activities that have been going on over the past few years at the Center for Public Lands and Rural Economics at Utah State University and Southern Utah University. In 2008, Dr. Randy Simmons and I at Utah State University and Dr. Ryan Yonk, who is now at Southern Utah University, began a serious investigation of the relationship between the designation of Wilderness pursuant to the Wilderness Act of 1964 and local economic conditions. The impetus of the study stemmed from the vastly different claims made by environmentalists and local governmental officials in the Western United States surrounding the economic impacts of designated Wilderness. Environmentalists claim that Wilderness has quite positive results on local communities, by inviting tourism revenue and through increasing amenity values that draw business to the area. Contrary to these claims, local officials frequently bemoan the designation of Wilderness for permanently limiting land use options.

My interest in this area of research stemmed from my own personal life experiences as a Westerner and from my professional experience working in the mid-2000s as a Deputy Iron County Attorney in Southern Utah. In each of these settings, I have personally witnessed the genuine concern of local citizens that Wilderness designations cut off access to public lands for economic and recreational activities that would otherwise be potentially available.

Additionally, I am personally interested in natural resource and environmental management. I hold a Certificate in Natural Resource and Environmental Law from the University of Utah. I also hold a PhD in Public Policy from Indiana University with a focus on environmental policy. While at Indiana, I studied under Dr. Elinor Ostrom, a world renowned expert in environmental management and Nobel Prize winning economist. Dr. Ostrom's work principally focuses on creating the appropriate rules that allow human populations to sustainably manage natural resources over long time horizons. Her work has shown that local populations are often able to

sustainably manage natural resources in the absence of external governmental intervention.

Given my background and training, I have taken a particular interest in Wilderness issues. My colleagues and I in the Center for Public Lands and Rural Economic initially became intrigued by Wilderness because of the disconnect between what environmentalists and local officials assert about local economies and Wilderness. A series of environmental group reports has found overwhelmingly positive local economic benefits from Wilderness. The Wilderness Society, for instance, notes “[d]esignated wilderness areas on public lands generate a range of economic benefits for individuals, communities, and the nation—among them, the attraction and retention of residents and businesses.”ⁱ The Sonoran Institute similarly finds, “protected natural places are vital economic assets for those local economies in the West that are prospering the most.” The Sonoran Institute further notes, “Wilderness, National Parks, National Monuments, and other protected public lands, set aside for their wild land characteristics, can and do play an important role in stimulating economic growth—and the more protected, the better.”ⁱⁱ

In direct contrast to these views, local officials frequently claim that Wilderness harms local economies. A supermajority of Utah State Legislature in 2008, for instance, passed House Joint Resolution 10 encouraging the United States Congress to not designate any additional federal Wilderness Areas in Utah. The Resolution asserted that Utah relies on public lands for crucial economic activities including “oil and natural gas development, mining, outdoor recreation and other multiple uses, rights of way for transportation, waterlines, electric transmission, and telecommunication lines” (HJ 2008, 2). The Utah State Legislature claimed that limiting these multiple uses of public lands would result in substantial economic hardship for the state. By passing the Resolution, the Utah State Legislature echoed the belief of many local elected officials and residents that Wilderness is not good for local economies.

To evaluate the claims on both sides, we sought funding from the U.S. Department of Agriculture to specifically investigate the economic impact of Wilderness in 2008. I will detail the findings of our research today.

1. Wilderness Generally

Before delving into the details of our research, it may be helpful to have a brief reprise of Wilderness policy. The Wilderness Act of 1964 defines Wilderness as:

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions

and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

As so defined, Wilderness is the most restrictive land use designation of public lands in the United States. To preserve the land as being “untrammelled by man,” a variety of uses are restricted in designated Wilderness areas. Restricted uses listed by Congress include:

“no commercial enterprise and no permanent road within any wilderness area designated by this Act and, except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.” (Section 4(c)).

Other uses that are expressly allowed by the Wilderness Act are more difficult based on the other rules associated with Wilderness. Although mining claims were statutorily allowed for the first 20 years after the Wilderness Act passed, mining and mineral exploration are now generally prohibited within Wilderness. Valid existing mining rights may remain in effect after new designations, but mining activities must strive maintain Wilderness characteristics, including limiting mechanized travel and equipment. Although logging is not expressly proscribed by statutory language of the Act, the restrictions on mechanized travel, mechanized equipment, and road construction generally preclude large-scale logging activity. Grazing is expressly allowed in Wilderness Areas, but administrators may make “reasonable regulations” including the reduction of grazing to improve range conditions.

In addition to the prohibitory language found in the Wilderness Act, courts have aggressively blocked a variety of activities in Wilderness and areas adjacent to Wilderness. Uses of land surrounding Wilderness often receive more stringent review. The 10th Circuit Court of Appeals, for instance, in 1972 upheld an injunction of logging in an area that approached a Wilderness Area (*Parker v. United States* 448 F.2d 793 cert. denied 405 U.S. 989). Wilderness Areas also often raise review standards under the National Environmental Policy Act (NEPA). Under NEPA, land uses near Wilderness Areas may be found to have a more “significant” impact than actions near lands not under federal protection.

Wilderness is managed by four federal agencies: the National Forest Service, the National Park Service, the Fish and Wildlife Service, and the Bureau of Land Management (BLM). Wilderness

Areas dramatically vary in size from the Pelican Island Wilderness in Florida, which occupies a mere six acres, to the 9,078,675-acre Wrangle Island Wilderness in Alaska. Due to the stringent requirements laying out Wilderness characteristics, the majority of Wilderness Areas are found within largely rural and lightly populated counties within Alaska, California, Colorado, Montana, New Mexico, Nevada, Oregon, Utah, and Washington. Only six states contain no Wilderness: Connecticut, Delaware, Iowa, Kansas, Maryland, and Rhode Island.

2. Research Results

Today I will be presenting the results of three separate studies we have recently conducted at the Center for Public Lands and Rural Economics. The first directly involves the economic impact of Wilderness. The second examines the impact of the Grand Staircase Escalante National Monument in Southern Utah. The third examines the potential designation as National Monuments the properties identified in the Treasured Landscapes memorandum.

A. Wilderness Study

We focused our first study on economic impacts of Wilderness at the county level. We conducted research on all counties in the United States to compare economic conditions on Wilderness and Non-Wilderness Counties. Wilderness Counties are defined as those counties containing any portion of federally designated Wilderness. The study does not address BLM Wilderness Study Areas or areas managed by the Forest Service as Roadless Areas.

In comparing Wilderness and Non-Wilderness Counties, we sought to identify metrics of County economic conditions that would be applicable across different counties. We settled on three separate metrics: average household income, total payroll, and total tax receipts. The U.S. Census Bureau gathers average household income and total tax receipts. The Bureau of Labor Statistics gathers total payroll figures.

Average household income is calculated by dividing the sum of all income of the residents over the age of eighteen in each household by number of households. Average household income has the advantage of specifically addressing how individual households are on average affected by Wilderness designation in these counties. It has the disadvantage of being self-reported to the U.S. Census Bureau and, accordingly, may not be as valid as a more direct measure.

Total payroll is a broader metric that captures those under the age of eighteen and commuters who may live outside but work within a county. Further, it is a measure of the economic situation of individuals rather than households. Another approach would have been to use total receipts. We selected total payroll rather than total receipts on the assumption that payroll dollars are more likely to be spent in the geographic area than are total receipts, which may include corporate profits that leave the area. Total payroll is not a perfect proxy because it does not

capture the capital investment, county residents who work outside the county, or most importantly, retirees who do not receive payroll.

Total tax receipts is a measure that has at least two advantages over the others measures. First, the data are largely complete; local governments are required by state and federal statute to correctly report tax receipts. These requirements provide some confidence in the data that self-reporting does not provide. Second, tax receipts represent all taxable transactions in the county. This provides a useful metric of economic activity. Tax receipts, however, are not a perfect proxy as there are significant institutional differences across states, regions, and often counties themselves about how, when, and why taxes may be collected.

None of these variables is a perfect proxy for economic conditions, but, when taken together, they help paint a relatively complete picture of the economic conditions found at the county level.

We next constructed a model testing economic conditions in each county in the United States for the years 1995, 2000, and 2005. We also included a variety of other variables to account for other factors influencing economic conditions. We included information on the percent of different types of public lands within the county. Finally, we included traditional demographic variables that have been shown in the academic literature to contribute to economic growth. These variables include population, land area, number of households, birth rate and school enrollment, infant death rate, high school graduates, median household income, poverty rate, crime rate, government employment, unemployment rate, and social security recipients.

We then ran each of the three models. In each case, we found that Wilderness had a statistically significant negative relationship with county economic conditions. In the case of Average Household Income, we found that household incomes in Wilderness Counties were estimated to be \$1,446.06 less than Non-Wilderness Counties. Total payroll in Wilderness Counties is estimated to be \$37,500 less than in Non-Wilderness Counties. Total Tax Receipts in Wilderness Counties is estimated to be \$92,910 dollars less than in Non-Wilderness Counties.

It is important to note that these findings are specific to Wilderness and not to public land generally. Indeed, our models indicate that BLM Lands, Forest Service Lands, Bureau of Reclamation Lands, Fish and Wildlife Lands, and National Park Lands did not have as significant or negative an impact on county economic conditions as Wilderness.

Ideally, we would have run this study dating back prior to 1964 so we could track Wilderness county economic conditions pre-designations and post designation. To minimize the likelihood that other economic factors drove the economic conditions, it would have also been helpful to compare Wilderness Counties with other counties that match the Wilderness Counties on a variety of conditions, but that do not contain Wilderness. Such a “pre-post, matched-pair”

design could provide very useful information on to what extent Wilderness impacts economic conditions. Unfortunately, the data necessary to conduct such a study does not exist and compiling it would be overwhelmingly costly. However, we have conducted a similar study on a much smaller scale that I will discuss next.

B. Grand-Staircase Escalante National Monument

The Grand Staircase Escalante National Monument was created by President Clinton in 1996. The Monument spans nearly 1.9 million acres in south-central Utah along the Arizona border. The monument lies completely within Utah, and occupies the majority of Kane County and much of Garfield County. The designation of the Monument provides the opportunity to conduct the type of pre-post, matched pair design discussed above. Specifically, we can evaluate the county conditions of Garfield and Kane counties prior to the designation of the Monument and the county economic conditions after the designation of the monument. We can also compare county economic conditions within the two Monument counties with other similar counties across the United States.

To conduct this research, we used essentially the same methodology we used on the Wilderness study. We used total tax receipts and total payroll for our dependent variables. We again looked at county economic conditions in 1995, 2000, and 2005 and included the same demographic variables as the Wilderness Study to control for other factors that could be driving economic conditions. For the Grand-Staircase study, we included an additional step in matching Garfield and Kane Counties with other counties throughout the United States. The counties were matched with the 100 most similar counties in the United States based on land area, population, income, and education levels. This approach allows us to draw better conclusions regarding the impact of the Monument designation compared to what would have happened in the absence of the designation.

In running these models, we find little evidence that the Grand-Staircase Escalante National Monument has had a significant positive economic impact on county economic conditions. Rather, we mostly find a null result—that the impact has had no impact on the local county economies. In only one instance, tax receipts in Kane County, can we reject the null hypothesis of no effect of the designation. In that case, it appears that the designation of the Monument was associated with a statistically significant rise in additional tax revenues in Kane County, compared with the matched non-monument counties. However, the evidence for the other dependent variable, total payroll, shows no such effect. This is interesting in that total payroll may be a better indicator of gross economic activity in Kane County. It appears from this result that while the total tax revenues increased in Kane County, the payroll did not, leaving serious questions about the effects of the designation on the overall economic situation in Kane County. Further, Garfield County shows no such effect with relation to the comparison counties and exhibits no evidence that the designation of the monument is either helping or hurting the

economy of Garfield County. We conclude that designating the Grand Staircase Escalante National Monument has had little or no effect on the economic situation of the host counties.

Moreover, our study of the Grand Staircase Escalante National Monument does not include the opportunity costs (those opportunities given up) of the Monument designation. At the time leading up to the Monument designation, various groups were preparing plans for energy development. Located in a geologically diverse region, the Grand Staircase contains a treasure trove of mineral deposits. The area contains an estimated 62 billion tons of coal. The area also contains an estimated 270 million barrels of oil. In the early 1990s, Andalex Resources Company, a Dutch based coal mining company, had acquired permits to mine coal from the area. Conoco Oil, PacifiCorp, and various other companies had also acquired permission to develop other extraction activities in the area.

Locals in Garfield and Kane Counties frequently note that when the Monument was designated, these economic activities were forever taken off of the table. While we do not actually know what development activities would have occurred had the Monument not be designated, or what impact those activities would have had on the local communities, we do know that the choice to designate protected areas involve tradeoffs.

C. Treasured Landscapes

Finally, I would like to touch on a recent study that more fully explores the opportunity costs of designating protected areas. In 2011 we conducted a review of the fifteen areas identified by the “Treasured Landscapes” memorandum leaked by the BLM discussing the necessity of additional designations of National Monuments. Rather than comment on whether the proposed monuments should or should not be designated, we focused on what would be given up if the Monuments were designated. To explore this question we use data from the US Department of the Interior, US Department of Agriculture, local environmental groups, energy development companies, and state agencies to identify what resources exist in the proposed areas. In the end, we narrowed our study to focus principally on energy resources as an example of the types of opportunity costs that might be incurred.

In conducting the inventory of energy potential for each site we focused on both traditional fossil fuel energies and the renewable potential of each site. We found that only a few the sites contained significant fossil fuel reserves, although many of the sites had the potential for shale extraction. The costs to alternative energy generation potential, however, were more significant. The majority of the potential monuments were found to have significant renewable energy possibilities that would likely be foreclosed by increased protections. In fact, 80% of the proposed monuments were found to have potential for multiple types of renewable energy development. By seeking increased environmental protection through the designation of the

proposed monuments, we may incur additional difficulties for large-scale roll out of clean energy generation.

3. Conclusions

The stream of research I have detailed today contains a primary theme: the designation of any protected area involves tradeoffs. The creation of protected areas clearly forecloses other land use opportunities. In designating Wilderness, local populations are forever proscribed from a great number economic and recreational activities ranging from mining to mountain biking. Such designations may significantly change how local populations interact with the environment in which they live, including limiting economic gains potentially available from public lands. While there may be some local gains from increased tourism or other area attraction, we do not find uniformly positive economic gains from the protected areas we have studied. But, ensuring local economic growth was not the primary focus of the Wilderness Act or other enabling language for protected areas. Rather, Wilderness and other protected areas are established for emotional, ecological, and cultural purposes. Our results indicate that those ends are not accomplished without some costs to local populations.

The policy implications from our research are twofold. First, policy makers must carefully consider the tradeoffs inherent in public lands decisions. We cannot assume that all additional protected areas will sizably benefit local populations. Second, if policy makers seek to minimize the costs to local populations, they should seek input from local land users when making land use decisions. Local populations are often the most familiar with the potential economic opportunities present on public lands. By seeking local input in public lands decisions, policy makers can better assure that policy decisions are not disproportionately borne by local communities.

ⁱ The Wilderness Society, “The Economic Benefits of Wilderness: Focus on Property Value Enhancement,” *Wilderness Society Science and Policy Brief No. 2*, March, 2004.

ⁱⁱ R. Rasker, B. Alexander, J. van den Noort, and R. Carter, *Prosperity in the 21st Century West: The Role of Protected Lands*, The Sonoran Institute, 2004, p. ii.