ECONOMIC IMPACTS OF ELK HUNTING IN HUNTING DISTRICTS 410, 412, 417, & 426

The Hunting Districts (HDs) encompassed by HD 410, 412, 417, and 426[1] accounted for nearly four million dollars in expenditures during the most recent 2015 hunting season (see locator map at the end of this document).

A total of $3,957,227 in economic expenditures for 2015 was calculated the four Districts for elk, antelope, moose, and bighorn sheep using hunter days estimated by the Montana Department of Fish, Wildlife & Parks (FWP) as well as hunter expenditures by trip.[2] Of this, slightly more than $3.8 million was from elk hunting alone, with roughly $2.3 million of that amount occurring in HD 410. The total is split roughly evenly between resident and non-resident hunters.

Elk Hunting by Hunting District, Residency, and Expenditures, 2015

Species	Residency	Area	Hunter Expenditures
Elk	Non-resident	410	$1,147,805
Elk	Resident	410	$1,143,869
Elk	Non-resident	412	$274,387
Elk	Resident	412	$338,438
Elk	Non-resident	417	$287,096
Elk	Resident	417	$265,829
Elk	Non-resident	426	$192,360
Elk	Resident	426	$151,175
Total			**$3,800,958**

For context, this total of hunter expenditures is roughly equal to the earnings for a number of economic sectors in Fergus County, Montana, where the great majority of the four Hunting Districts reside. For example, in 2014, the latest year available, the U.S. Bureau of Economic Analysis reports that in Fergus County the economic sector of Real Estate, Rental, and Leasing had $3.7 million in total earnings,[3] just less than the $3.8 million in expenditures for elk hunting in the four Hunting Districts.

For Petroleum County, which includes part of HD 410, the 2015 expenditures by hunters in that Hunting District alone were greater than the earnings of any industry sector in the county other than farming.[4]

FWP estimated more than 25,000 elk hunter days in 2015 on the four Hunting Districts, and roughly ten percent of the hunters were non-residents. This number of hunting days closely matches numbers from earlier years for these Hunting Districts, showing that hunting provides a consistent and significant economic impact to the region from Montana hunters and non-residents alike.

These numbers also show that the high quality of elk hunting in the four Hunting Districts, especially HD 410, is known not only to local residents but also to hunters from across the state and beyond. As such, in addition to their economic impact, the four Hunting Districts play a

significant role in the hunting experiences of Montanans and the quality of life of our state's outdoors.

To estimate economic impact, FWP conservatively assesses the approximate dollar amount spent, per hunter day, directly related to hunting opportunities. FWP then uses this information in combination with hunter uses (total hunter days) to produce estimates of total hunter expenditures in Montana and for specific Hunting Districts. From this work, for example, FWP estimated that hunters and anglers in the state spent $1.26 billion in 2014 on trip-related expenditures. To be clear, no other expenditure data from other outdoor activities such as hiking, camping, summer outfitting, or fishing is included in this estimate.[5]

MONTANA AND OUTDOOR RECREATION

Montana's fish, wildlife, and habitats annually contribute $5.8 billion to the state's economy through hunting, fishing, and all forms of outdoor recreation. These activities sustain 64,000 jobs (roughly equal to construction and manufacturing combined) with $1.5 billion in wages and salaries, and generate more than $403 million in state and local tax revenue.[6]

Wildlife viewing alone is one of the most popular activities in Montana; and the U.S. Fish and Wildlife Service (USFWS) estimates that 402,000 adult Montanans engage in this practice annually. This participation rate brings in significant amounts of local revenue. USFWS notes that wildlife watching and expenditures and economic impacts in 2011 totaled 11,102 jobs, $401 million in direct expenditures, and $245 million in wages, salaries, and business income.[7]

Looking at hunting, fishing, and wildlife-viewing on only U.S. Forest Service lands in Montana, another study from 2007 found that these activities generated $383 million in retail sales and 8,851 jobs.[8]

Montana's outfitting industry also plays an important economic role, attracting additional visitors and income to the state. A 2007 University of Montana research paper found that 82 percent of non-Montana hunters visiting the state came specifically for an outfitted trip. Statewide, outfitters in Montana annually serve more than 318,000 clients, resulting in $120 million in client expenditures and $40 million in direct income to outfitters and employees.[9]

A study by the Economic Research Service of the U.S. Department of Agriculture found that "recreation and tourism development contributes to rural well-being, increasing local employment, wage levels, and income, reducing poverty, and improving education and health." Job earnings in rural recreation counties, for example, are $2,000 more per worker than for those in other rural counties.[10]

BRIEF DISCUSSION OF THE IMPORTANCE OF PUBLIC LANDS

Conserving Montana's public land assets, such as the Hunting Districts discussed in this research brief, is an important step toward securing the state's economic vibrancy and quality of life. A sustained effort to protect wildlife and increase outdoor recreation will provide direct benefits, including hundreds of jobs in both cities and rural communities across Montana.

While every county has its own set of unique circumstances, there is a large body of peer-reviewed literature that examines the relationship between natural amenities, land conservation, and local and regional economic well-being. Numerous studies by Headwaters Economics and others—carefully scrutinized to pass scientific muster and credibility—have concluded that protected federal public lands in the West, including lands in non-metro counties, can be an important economic asset that extends beyond tourism and recreation to attract people and businesses across a range of sectors critical to our economic future.[11]

Research published in the *American Journal of Agricultural Economics* also has shown that, nationwide, protected natural amenities—such as pristine scenery and wildlife—help sustain property values and attract new investment.[12]

Looking at the impact of federal lands on rural counties, a recent study reviewed the 276 non-metro counties in the 11 contiguous western states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

From 1970-2014 (latest year available), population, employment, and personal income on average all grew significantly faster—three times more rapidly or more—in western rural counties with the highest share of federal lands compared to counties with the lowest share of federal lands. Per capita income growth was slightly higher. These same findings are true on average for non-metro western counties with a larger share of protected federal lands.[13]

Another study examining employment found that protected federal lands such as national parks, monuments, and wilderness areas are associated with higher rates of job growth. Headwaters Economics produced economic profiles of every non-metropolitan county in the West from 1970 to 2010, looking at how each of them created jobs during that time frame. The study found that non-metropolitan western counties with more than 30 percent of their federal land base in protected status increased jobs by 345 percent during this time frame. By contrast, non-metro counties with little or no protected federal lands increased employment by 83 percent during the same period.

Looking at income, a recent study found a meaningful relationship between the amount of protected public land and higher per capita income levels in 2010 for rural western counties. According to this analysis western non-metro counties, on average, have a per capita income that is $436 higher for every 10,000 acres of protected public lands within their boundaries.[14]

Certainly a note of caution is needed here as well. Because of differences between counties and among different types of land protection and uses, sweeping declarations about the economic impact of protected public lands in all counties should be scrutinized carefully. Each county will have specific circumstances and some have sustained more traditional resource economies.

It is important to note that natural amenities are not the only element needed for economic success. Other factors such as access to markets and education levels also are important. How local leaders combine these assets along with investments, marketing, and policy decisions will play a significant role in determining future economic prosperity.

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Headwaters Economics is an independent, nonprofit research group that works to improve community development and land management decisions in the West.

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1 This study looks at these four Hunting Districts because they contain the majority of the Bureau of Land Management's planning area for Lewistown Field Office Resource Management Plan. All reports for hunting various wildlife and expenditures come from Montana Department of Fish, Wildlife & Parks. Harvest data can be downloaded at: http://fwp.mt.gov/hunting/planahunt/harvestReports.html.

[2] Antelope, moose, and bighorn sheep contributed a relatively small amount of expenditures compared to elk. The Hunting Districts used by FWP for these wildlife do not fully match the number or geographic boundaries used for elk and deer—so exact overlays and comparisons are not possible. For 2015, antelope contributed $101,684 for Hunting Districts 480 and 481; moose contributed $13,530 for HD 496; and bighorn sheep contributed $41,055 for HD 482. Note that there is no mountain goat hunting in this area of Montana. Also, deer hunting is not included in this analysis because FWP measures elk and deer hunting days together resulting in a large overlap between the two estimates. The degree of overlap is not estimated by FWP but believed to be fairly high. Finally, while bird hunting has a significant economic impact in Montana, the figures available include all of Region 4 which is significantly larger than the four Hunting Districts studies, so were not included in this report.

[3] U.S. Department of Commerce. 2105. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C. Table CA05N.

[4] Ibid.

[5] Calculations are from Montana Fish, Wildlife & Parks (2014), "Summary of Research," http://fwp.mt.gov/fwpDoc.html?id=66570.

6 The habitat employment and taxation statistics from this paragraph all come from Outdoor Industry Foundation. (2013). "Outdoor Recreation Economy." For Montana numbers see: https://outdoorindustry.org/images/ore_reports/MT-montana-outdoorrecreationeconomy-oia.pdf.
The comparison to other sectors comes from U.S. Department of Commerce. 2105. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C. Table CA05N.

7 U.S. Fish and Wildlife Service (2011). "Wildlife Watching in the U.S.: The Economic Impacts on National and State Economies in 2011." Washington, D.C. http://digitalmedia.fws.gov/cdm/ref/collection/document/id/1906.

8American Sportfishing Association (2007), "State and National Economic Effects of Fishing, Hunting, and Wildlife-Related Recreation on U.S. Forest Service-Managed Lands." Prepared for the U.S. Forest Service, Washington, D.C.

[9] Nickerson, N. et al. (2007) "Montana's Outfitting Industry" Institute for Tourism and Recreation Research, University of Montana. Missoula.

10 The information for this paragraph comes from Reeder, R.J., D.M. Brown (2005). "Recreation, Tourism, and Rural Well-Being." Economic Research Service. U.S. Department of Agriculture. Washington, D.C.

11 Lorah, P. R. Southwick, et al. (2003). Environmental Protection, Population Change, and Economic Development in the Rural Western United States. Population and Environment 24(3): 255-272; McGranahan, D. A. 1999. Natural Amenities Drive Rural Population Change. U.S. Department of Agriculture Economic Research Service. Washington, D.C.

12 Deller, S. C., T.-H. Tsai, et al. (2001). "The Role of Amenities and Quality of Life in Rural Economic Growth." American Journal of Agricultural Economics 83(2): 352-365.

[13] Headwaters Economics 2016. Federal Lands in the West: Liability or Asset? http://headwaterseconomics.org/public-lands/federal-lands-performance/.

[14] Rasker, R., P.H. Gude, M. Delorey. 2013. The effect of protected federal lands on economic prosperity in the non-metropolitan West. Journal of Regional Analysis and Policy. Accessible here: http://headwaterseconomics.org/public-lands/protected-lands/protected-public-lands-increase-per-capita-income/.

Elk Hunting Districts with County Boundaries