

**Potential Economic Impacts on Mena, Arkansas and
the Surrounding Region Regarding the 2010 Forest
Service Travel Management Decision for Ouachita
National Forest**

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Overview of Study

In January 2010, Ouachita National Forest managers announced the implementation of their travel management plan starting spring of 2010. The ruling eliminates most cross-country travel on established trails or through the forest, and it closes the Wolf Pen Gap trail system except for weekends and holidays from May 15th to September 15th. This study reports the findings from the brief examination of the potential economic impacts of the new trail usage regulations.

After identifying the tourist industry that has developed around off highway vehicle (OHV) and all terrain vehicle (ATV) recreation in Polk County, the study reviews the nation estimates of tourist and travel expenditures associated with OHV and ATV use. The Arkansas Department of Parks and Tourism estimates of the impacts of travel on Polk County are also reviewed. The findings from these reviews indicated:

- Nonlocal OHV day visitors spend \$50 to \$75 per day on average.
- Nonlocal overnight OHV users spend \$120 to \$210 per night on average. For an extended weekend (three night and four day) OHV user's spending was estimated to range from \$360 to \$630 per family.
- Tourist spending losses from the 32 weeks proposed closure of Wolf Pen Gap for OHV and ATV riders were estimate to be \$15,530 per non local overnight riders and \$1,918 per day rider.
- Arkansas Parks and Tourism estimated 2008 travel expenditures in Polk County at \$21 million; this spending supports approximately \$3.9 million in travel generated payrolls, and adds nearly \$1.7 million to state and local taxes.

To simulate the economic consequences of the new regulations, the study developed several scenarios to reflect the possible loss of tourist activity on Polk County's economy and analyzed the economic impacts of those losses. A 10% hypothetical reduction of \$5.8 million tourist related expenditures (= \$3.7 million retail reduction + \$2.1 million leisure and hospitality reduction) was found to:

- Reduce the output of Polk County by \$7.7 million. In other words, for every dollar reduction in tourist related expenditures, Polk County's output falls by an additional 32 cents or by a total of \$1.32. The expenditure multiplier for Polk County OHV and ATV tourist related activities is estimated at 1.327.

- Reduce value added (includes payments to the factors of production and indirect business taxes) in Polk County by approximately \$4.39 million, or equivalently for every dollar reduction in tourist related expenditures in Polk County reduces value added payments by 74 cents.
- Reduce Polk County's payrolls by \$2.4 million and employee's wage and salary by \$1.67 million. That is, a dollar reduction in tourist related expenditures can be expected to reduce Polk County's payrolls by 41 cents and employee's incomes by 28 cents.
- For every million dollar reduction in tourist expenditures in Polk County 21 full-time jobs are lost of 21 full-time jobs and the current unemployment rate increases by 0.2%.

The worse possible consequence of the closing of the Wolf Pen Gap would be a complete collapse of tourist activities by OHV and ATV riders. This possibility was analyzed by assuming a 100% reduction in tourist expenditures and then analyzing the economic impacts of this reduction. For this worse case scenario, the analysis found:

- Polk County direct tourist spending would decline by \$58.6 million.
- In turn this would cause total output to decline by \$77.1 million and value added to decline by \$33.1 million in Polk County.
- Polk County payrolls would decline by \$20.6 million.
- Unemployment rates would increase by approximately 13% from their current levels due to an estimated loss of 1,109 full-time equivalent jobs.
- State and Local tax revenues would decline by \$6.4 million.

Part I Economic Analysis

The Problem

Wolf Pen Gap is an all terrain vehicle (ATV) trail complex consisting of 35 miles of loop trails featuring scenic high mountain vistas and forests of large pines and hardwoods. The Gap opened in the 1990s especially for ATV riders. Wolf Pen Gap is open year-round except during hunting season lasting from mid-November until early December. The Wolf Pen Gap complex is near Mena, Arkansas in Polk County. It is surrounded by the Ouachita National Forest which also provides opportunities for cross-country travel, either on user created trails or just riding through the forest on an off highway vehicle (OHV) and ATVs.

Estimates of OHV and ATV ridership range from as low as 10,000 riders per year to as high as 22,000. The most quoted estimate is 17,000 riders per year. These riders come from all over the region. Although there are no official sources for ridership data, residents of Mena reported that riders from Louisiana, Texas, Missouri, and Oklahoma use the trail system.

In January 2010, Ouachita National Forest managers announced a decision regarding their travel management project that started in 2005. The project required National Forest managers to designate a travel system for OHV that would limit harmful environmental impacts of unregulated OHV usage. The January ruling eliminates most cross-country travel on established trails or through the forest starting in the spring of 2010. Travel will be limited to game retrieval corridors that are within ½ mile of designated trails. Regarding Wolf Pen Gap trail system, 31 miles of loop trails will be open routes on weekends and holidays from May 15th to September 15th.¹ The trail complex will be closed for the remainder of the year. Details of the regulation impacts on the transportation system are provided in an accompanying appendix.

This national forest travel management decision to restrict OHV and ATV recreation has evoked concerns about the economic consequences on Mena, AR. The Mena Chamber of Commerce contacted the Institute for Economic Advancement (IEA) at the University of Arkansas at Little Rock requesting and commissioning a study of the possible economic impacts of limiting ATV recreational activity in Polk County. This study reports the findings from the brief investigation of the potential economic impacts of the new trail usage regulations.

¹ Ouachita National Forest Makes Travel Management Decision, News Release, Ouachita, Ozark, and St Francis National Forest, Hot Springs, AR, January 4, 2010.

Economic Value of OHV Recreation

Very little is known about the recreational value of OHVs and ATVs so it is difficult to weigh recreational and economic values of this activity against the environmental and social costs of OHV activity. Silberman and Andereck (2006) cite several studies that estimated the economic value of OHV including:²

- Bergstrom and Cordell (1991), who used a travel cost model, reported a consumer surplus of \$15.06 per person per activity day in 1987.³
- Bergstrom et al. (1996) reported a consumer surplus in 1992 of \$3.97 and \$30.58 per activity day for two different U.S.D.A. Forest Service Regions using a travel cost model.⁴
- Walsh and Olienyk (1981) reported a consumer surplus of \$6.45 per activity day in 1980 for a Forest Service Region using a contingent valuation method.⁵

In their study, Silberman and Andereck (2006) surveyed Arizona OHV users by type of vehicle. They found that specialized OHV vehicles like ATV and Motorcycle/Dune Buggy/ Dirt Bike have higher consumer surplus values per trip, \$96 and \$82, respectively, than respondents who use vehicles that have multiple purposes like a 4-Wheel Truck (\$54) and a SUV (\$67).⁶

² Jonathan Silberman, and Kathleen L Andereck. The Economic Value of Off-Highway Vehicle Recreation. Journal of Leisure Research. Arlington: Second Quarter 2006, Vol. 38, Iss. 2, 208-223.

³ Bergstrom, J. C. and Cordell, H. K. (1991). An analysis of the demand for and value of outdoor recreation in the United States. Journal of Leisure Research, 23, 67-86.

⁴ Bergstrom, J. C., Bowker, J. M., Cordell, H. K., Bhat, G., English, D. B. K., Teasley, R. J., et al. (1996). Ecoregional estimates of the net economic values of outdoor recreational activities in the United States: Individual mode results. Final Report, Resources Program and Assessment Staff, USDA Forest Service, Washington, D. C., and Outdoor Recreation and Wilderness Assessment Group SE-4901, USDA Forest Service, and Department of Agricultural and Applied Economics, University of Georgia, Athens, GA:

⁵ Walsh, R. G., Oleinyk, J. P. (1981). Recreation demand effects of mountain pine beetle damage to the quality of forest recreation resources in the Colorado Front Range. Fort Collins, CO: Department of Economics, Colorado State University.

⁶ Consumer surplus is a measure of the willingness of people to pay for a good or services over and above what is required in the market place. In terms of recreation, consumer surplus is the value of a recreation activity over and above what must be paid to participate in the activity. It is a net benefit measure of the recreational activity.

Methodology

Due to the lack of OHV and ATV recreational data concerning the riders at Wolf Pen Gap, it is not currently possible to value the rider's willingness to pay or compute the net benefits of their recreational activities in terms of consumer surplus. Because of this lack of data it is not possible to evaluate the spending of the riders to determine their impacts on Mena and Polk County. Consequently, this study investigates the tourist industry that has developed around OHV recreation in Polk County. This industry is composed of selected retailers who service OHV tourists and a leisure and hospitality sector. After identifying these industries, this study develops several scenarios reflecting the possible loss of tourist activity on Polk County's economy, and analyzes the economic impact of these losses using an Implan Model of Polk County.⁷ The study proceeds by first examining the Polk County economy and the size of its tourist industry. It then summarizes the findings from the several scenarios that reflect the likely economic impacts of the Ouachita National Forest managers decision to restrict the use of the trail system.

Polk County and Mena, Arkansas Demographic and Economic Characteristics

The Census population estimates for Mena and Polk County have shown very little change over the 2000-2008 period.⁸ In fact for all effective purposes, there has been no significant change in total population estimates in either Mena or Polk County since Census 2000. Comparing the average annual population growth rates, Arkansas population has grown annually at an average of 8/10 of a percent while Polk County and Mena's annual average population growth have both been slightly negative.

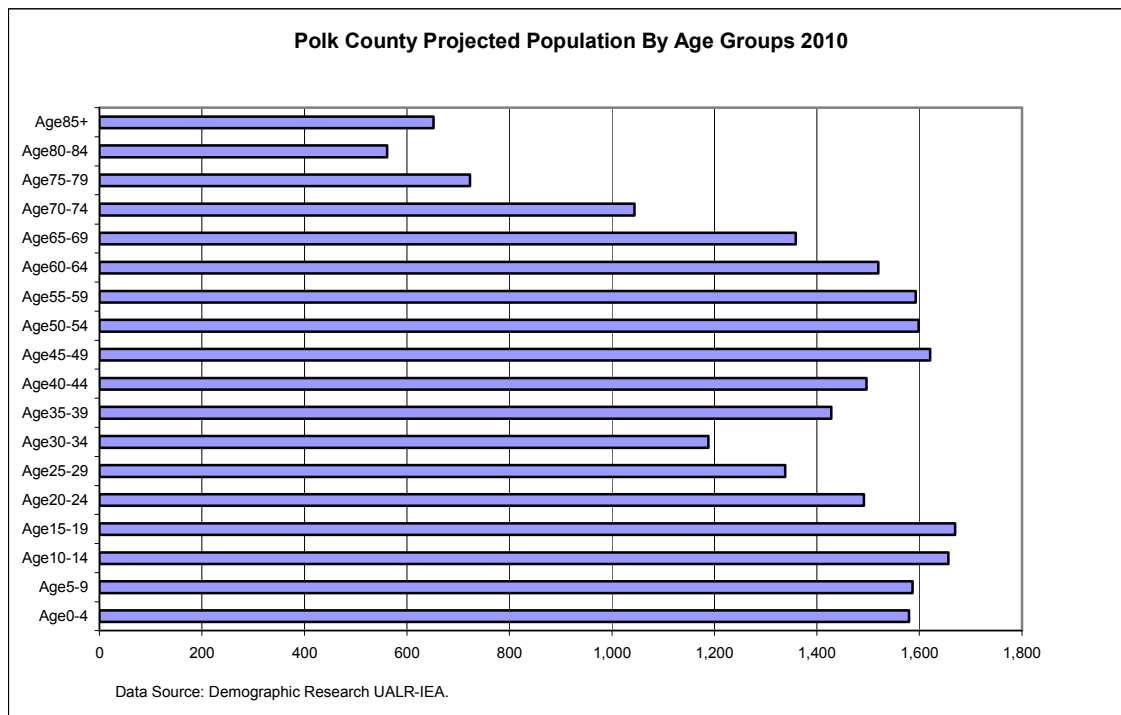
Geographic Area	Population Estimates								
	1-Jul 2008	1-Jul 2007	1-Jul 2006	1-Jul 2005	1-Jul 2004	1-Jul 2003	1-Jul 2002	1-Jul 2001	1-Jul 2000
Arkansas	2,855,390	2,830,557	2,804,199	2,768,918	2,740,191	2,717,909	2,701,889	2,689,601	2,678,217
Polk County	20,257	20,166	20,195	20,007	19,906	20,082	20,175	20,153	20,262
Mena	5,630	5,600	5,610	5,583	5,556	5,600	5,620	5,623	5,664
Percent Shares									
Polk County % of AR	0.71%	0.71%	0.72%	0.72%	0.73%	0.74%	0.75%	0.75%	0.76%
Mena % of Polk, CO	27.79%	27.77%	27.78%	27.91%	27.91%	27.89%	27.86%	27.90%	27.95%
Growth Rates									Annual Average
Arkansas	0.9%	0.9%	1.3%	1.0%	0.8%	0.6%	0.5%	0.4%	0.804%
Polk County	0.5%	-0.1%	0.9%	0.5%	-0.9%	-0.5%	0.1%	-0.5%	-0.001%
Mena	0.5%	-0.2%	0.5%	0.5%	-0.8%	-0.4%	-0.1%	-0.7%	-0.074%

Data Source: Demographic Research, UALR-IEA

⁷ Minnesota Implan Group Inc. Stillwater, MN.

⁸ Polk County population estimates for 2009 are 20,259. Demographic Research, UALR, Institute for Economic Advancement, (<http://www.iea.ualr.edu/research/demographic/population/default.html>).

A review of the population pyramid (age group population distribution) projected for Polk County shows a problem common to many rural areas. That is, Polk County’s youth (20-34 age groups) tend to leave the county when they become young adults as they seek opportunities elsewhere. Some return in latter years to raise families. Meanwhile the baby boomer (45-65 age groups) cohort continues to move through the age groups.

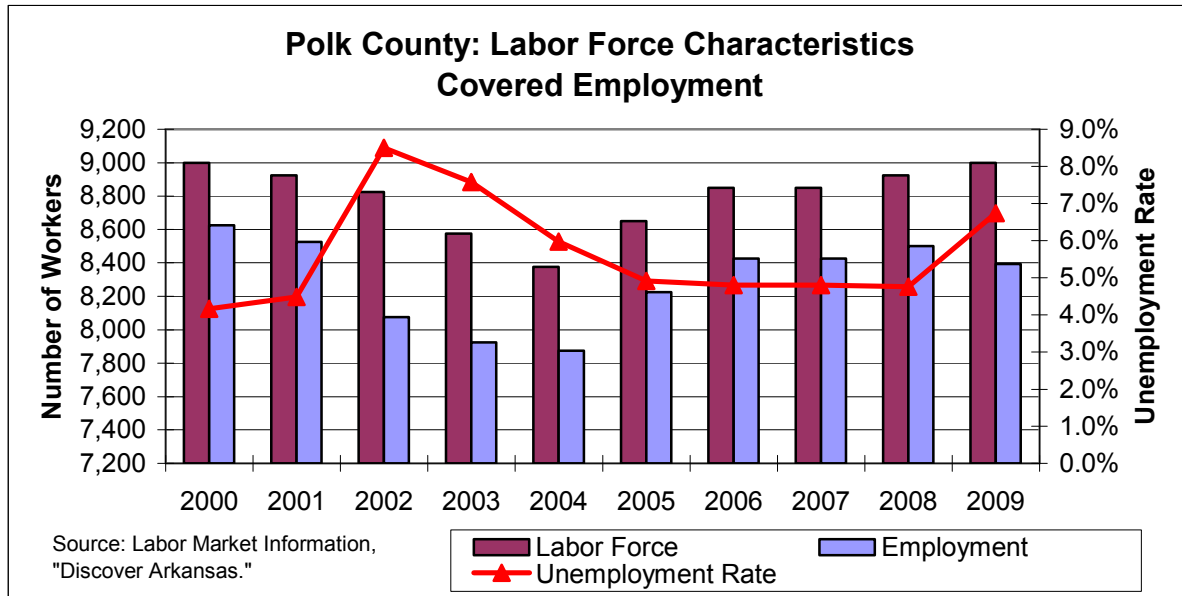


Labor Force, Employment, and Unemployment

The relative stability of the Polk County population is also reflected in its covered civilian labor force which is made up of individuals paying unemployment insurance and who are eligible for unemployment insurance.⁹ In 2000, the size of this labor force was 9,000 which is identical to the preliminary estimate for 2009. Even though the labor force appears stable, Polk County covered labor market has gone through a minor contraction and recovery cycle during

⁹ Department of Workforce Services “Discover Arkansas.” (<http://www.discoverarkansas.net/>). Currently, self-employed and unpaid family workers are excluded from coverage in the covered civilian labor force. Within this group of excluded workers, there may be owners of small business that provide services to ATV and OHV riders; such as, those services provided by locally owned and operated lodging establishments (cabins, bed and breakfast places for example).

the last nine years. Unemployment rates reached a peak in the 2002 national recession. After that the size of the labor force and number of employed declined until reaching the bottom of a trough in 2004. A period of recovery occurred during the 2005-2008, but it now appears the national slow down is beginning to impact Polk County's unemployment rate and employment level.



Nonfarm Employment in Polk County

Nonfarm employment is an estimate of jobs by place of work. It excludes self-employed, unpaid family workers, farm workers, and private household workers. Although, nonfarm employment data are not as timely as covered employment data they are consistent with the cycle pattern in the covered employment data for Polk County.

	2001	2002	2003	2004	2005	2006	2007
Total	10,884	9,608	9,587	9,731	9,994	10,017	10,162
Percent Change		-11.7%	-0.2%	1.5%	2.7%	0.2%	1.4%

Source: Bureau of Economic Analysis.

The nonfarm data series provides industrial detail in terms of employment and earnings by industry. An analysis of Polk County's nonfarm employment data found that the major

employment sectors were manufacturing, trade/transportation/utilities, government, health care and social services, respectively. Leisure and hospitality which is a part of Polk County’s tourist sector was a source of stable employment ranging from 484 to 543 over the 2001 to 2007 period.

Polk County: Nonfarm Employment by Major Sector- Number of Jobs 2001-2007							
	2001	2002	2003	2004	2005	2006	2007
Manufacturing	2,268	1,622	1,498	1,482	1,457	1,420	1,407
Trade/Transportation/Utilities*	1,939	1,970	1,933	1,963	2,069	2,007	1,927
Health Care & Social Services	911	906	963	1,061	1,104	1,091	1,117
Leisure and Hospitality	484	476	488	432	451	543	541
Government**	1,327	1,311	1,342	1,363	1,398	1,419	1,422
All Others***	3,955	3,323	3,363	3,430	3,515	3,537	3,748
Total	10,884	9,608	9,587	9,731	9,994	10,017	10,162
* includes wholesale, retail, transportation and warehousing, and utilities.							
** includes federal, military, state and local government.							
*** includes construction, information, financial services, real estate, professional services, business services, educational services, and other services.							
Source: Bureau of Economic Analysis, Department of Commerce.							

An industry’s employment share of total nonfarm employment indicates the significances of an industry’s contribution to overall employment. Polk County nonfarm employment shares indicate that there has been employment shifts between industrial sectors over the 2001-2007 period. Overall, total nonfarm employment declined over the period because of the loss of manufacturing employment. Manufacturing employment shares have declined from 25% of nonfarm employment to 14% in 2007. Except for “all others,” the other major industrial sectors have not shown large variations. Over this period, the variations in these sector shares have been less than 3%. The “all other” industry sector, which includes industries that essentially provide some type of service, employment shares have increased by approximately 23% from 2001 to 37% of all nonfarm employment in Polk County by 2007. Meanwhile, leisure and hospitality employment shares remained relatively stable varying from 4.4% to 5.4% over the 2001-2007 period.

Polk County: Employment Shares by Major Sectors 2001-2007							
	2001	2002	2003	2004	2005	2006	2007
Manufacturing	25.35%	16.88%	15.63%	15.23%	14.58%	14.18%	13.85%
Trade/Transportation/Utilities*	21.68%	20.50%	20.16%	20.17%	20.70%	20.04%	18.96%
Health Care & Social Services	10.18%	9.43%	10.04%	10.90%	11.05%	10.89%	10.99%
Leisure & Hospitality	5.41%	4.95%	5.09%	4.44%	4.51%	5.42%	5.32%
Government**	14.84%	13.64%	14.00%	14.01%	13.99%	14.17%	13.99%
All Other***	22.54%	34.59%	35.08%	35.25%	35.17%	35.31%	36.88%

* includes wholesale, retail, transportation and warehousing, and utilities.
** includes federal, military, state and local government.
*** includes construction, information, financial services, real estate, professional services, business services, educational services, and other services.

Tourism activities chiefly incorporate parts of the leisure and hospitality and trade/transportation/utilities sectors. As such, tourist related employment in Polk County has been a source of economic stability to the county and its communities. Tourism and its related employment have provided a solid employment base that has aided in mitigating some of the adverse effects of declining manufacturing employment in Polk County.

Nonfarm Earnings in Polk County

The components of earnings by place of work include wage and salary disbursements, contributions to pensions and insurance funds, and nonfarm proprietors' income. After a decline in 2002, Polk County earnings have grown annually at rates in excess of the national inflation rates except in 2007. Polk County's nonfarm earnings are less than 1% of Arkansas' nonfarm earnings.

Polk County: Total Nonfarm Earnings All Sectors 2001-2007							
	2001	2002	2003	2004	2005	2006	2007
Total (Thousands)	\$199,510	\$190,936	\$195,278	\$203,833	\$218,165	\$225,177	\$229,135
Percent Change		-4.3%	2.3%	4.4%	7.0%	3.2%	1.8%

Data Source: Bureau of Economic Analysis, Department of Commerce

Nonfarm earnings reflect Polk County's major employment sectors. In 2007, 60% of nonfarm earnings came from manufacturing, trade/transportation/utilities, and government activities. The leisure and hospitality sectors contributed approximately \$6 million to nonfarm earnings which amounted to 2.6% of Polk County's nonfarm earnings.

Polk County: Nonfarm Earnings by Major Sector 2001-2007							
	2001	2002	2003	2004	2005	2006	2007
Manufacturing	\$61,518,000	\$49,255,000	\$50,384,000	\$50,641,000	\$51,149,000	\$53,245,000	\$52,157,000
Trade/Transportation/Utilities*	\$43,510,000	\$44,433,000	\$42,116,000	\$43,274,000	\$47,601,000	\$46,056,000	\$46,817,000
Health Care & Social Services	\$21,034,000	\$21,692,000	\$23,421,000	\$26,403,000	\$28,972,000	\$30,405,000	\$31,943,000
Leisure & Hospitality	\$4,340,000	\$4,643,000	\$4,819,000	\$4,222,000	\$4,459,000	\$5,547,000	\$5,988,000
Government**	\$38,045,000	\$38,831,000	\$42,092,000	\$45,137,000	\$50,540,000	\$52,140,000	\$53,684,000
All Others***	\$31,063,000	\$32,082,000	\$32,446,000	\$34,156,000	\$35,444,000	\$37,784,000	\$38,546,000
Total	\$199,510,000	\$190,936,000	\$195,278,000	\$203,833,000	\$218,165,000	\$225,177,000	\$229,135,000
* includes wholesale, retail, transportation and warehousing, and utilities.							
** includes federal civilian, military, state and local government.							
*** includes construction, information, financial services, real estate, professional services, business services, educational services, and other services.							

Polk County: Nonfarm Earnings Share by Major Sector 2001-2007							
	2001	2002	2003	2004	2005	2006	2007
Manufacturing	30.8%	25.8%	25.8%	24.8%	23.4%	23.6%	22.8%
Trade/Transportation/Utilities*	21.8%	23.3%	21.6%	21.2%	21.8%	20.5%	20.4%
Health Care & Social Services	10.5%	11.4%	12.0%	13.0%	13.3%	13.5%	13.9%
Leisure & Hospitality	2.2%	2.4%	2.5%	2.1%	2.0%	2.5%	2.6%
Government**	19.1%	20.3%	21.6%	22.1%	23.2%	23.2%	23.4%
All Others***	15.6%	16.8%	16.6%	16.8%	16.2%	16.8%	16.8%
* includes wholesale, retail, transportation and warehousing, and utilities.							
** includes federal civilian, military, state and local government.							
*** includes construction, information, financial services, real estate, professional services, business services, educational services, and other services.							

Earnings by Workers

Nonfarm earnings per nonfarm worker is an indicator of an average worker's earnings. Since both nonfarm earnings and employment include nonfarm proprietors, the average worker may be a self-employed person, a worker for a business, or a government worker. In 2007, government workers ranked highest in Polk County in terms of earnings per worker, overtaking workers in manufacturing who had previously ranked first. Health care and social assistance and trade/transportation/utilities ranked third and fourth, respectively. The leisure and hospitality sector ranked fifth ahead of all the others.

Polk County: Non-Farm Earnings Per Worker by Major Sector - Number of Jobs 2001-2007							
	2001	2002	2003	2004	2005	2006	2007
Manufacturing	\$27,124	\$30,367	\$33,634	\$34,171	\$35,106	\$37,496	\$37,070
Trade/Transportation/Utilities*	\$22,439	\$22,555	\$21,788	\$22,045	\$23,007	\$22,948	\$24,295
Health Care & Social Services	\$23,089	\$23,943	\$24,321	\$24,885	\$26,243	\$27,869	\$28,597
Leisure & Hospitality	\$8,967	\$9,754	\$9,875	\$9,773	\$9,887	\$10,215	\$11,068
Government**	\$28,670	\$29,619	\$31,365	\$33,116	\$36,152	\$36,744	\$37,752
All Others***	\$7,854	\$9,655	\$9,648	\$9,958	\$10,084	\$10,682	\$10,284
Total	\$18,331	\$19,873	\$20,369	\$20,947	\$21,830	\$22,479	\$22,548
* includes wholesale, retail, transportation and warehousing, and utilities.							
** includes federal, military, state and local government.							
*** includes construction, information, financial services, real estate, professional services, business services, educational services, and other services.							
Data Source Bureau of Economic Analysis, Department of Commerce							

As is the case for many tourist related activities, earnings of tourist workers are low in Polk County relative to workers earnings in other sectors. One contributing factor may be the existences of unreported earnings, but regardless on average leisure and hospitality workers in Polk County are low income earnings.

Tourism and Travel Expenditures in Polk County

Generally, economic impact studies of tourism focus on the expenditures of tourists from outside the study area. Surveys are often administered to visitors, business establishments, and at the various tourist attractions to try to quantify visitors' expenditures by activity. Stynes and White (2006) have estimated some national nonlocal visitors spending for OHV use.¹⁰ These are shown in the accompanying table.

¹⁰ Stynes, Daniel J. and Eric M. White. 2006. Spending Profiles for National Forest Recreation Visitors by Activity.

OHV Use	Nonlocal Day Trip Visitors			Nonlocal Overnight Trip Visitors		
	Low	Average	High	Low	Average	High
Spending Category						
Lodging includes						
camping	\$0.00	\$0.00	\$0.00	\$9.00	\$22.83	\$29.66
Restaurant/Bar	\$9.07	\$10.99	\$13.92	\$20.44	\$28.99	\$37.66
Groceries	\$8.12	\$9.84	\$12.47	\$30.90	\$36.75	\$47.74
Gas and Oil	\$21.60	\$26.17	\$33.16	\$31.95	\$43.49	\$56.51
Activities	\$2.97	\$3.60	\$4.56	\$1.66	\$4.83	\$6.28
Admissions/Fees	\$2.93	\$3.55	\$4.49	\$5.40	\$6.41	\$8.32
Souvenirs/Other	\$4.78	\$5.79	\$7.33	\$20.70	\$18.48	\$24.01
Total Spending	\$49.47	\$59.94	\$75.93	\$120.05	\$161.78	\$210.18

Source: Environmental Assessment for Travel Management Project, USFS.

As shown by this data, nonlocal overnight visitors spend \$120 to \$210 per night at national prices. Over a three night four day weekend, spending could amount to \$360 to \$630 of spending per visiting group (family unit). The average amount would be \$486 per family per weekend trip. Nonlocal day visitors spend \$50 to \$76 per trip.

Unfortunately, the number of nonlocal OHV and ATV riders visiting Polk County is not known with certainty. Therefore, a direct estimate of the total loss of tourist spending due to the new regulations cannot be computed at this time.

An indirect estimate of the loss of nonlocal OHV and ATV rider's expenditures can be estimated for a typical nonlocal visitor for Wolf Pen Gap assuming that the national price reflects similar prices in Polk County. Under the new regulation, Wolf Pen Gap will be closed for approximately 32 additional weeks per year. That is, it is currently open approximately 48 weeks per year and under the new regulation it will be open 16 weeks. That is, there will be 32 weekends during which nonlocal visitors will not be making expenditures for their recreational activity. The loss of nonlocal overnight visitors spending would be \$15,530 (= 32 weeks x 3 nights x 161.78 per night) for the 32 closed weekends. The loss from a single nonlocal day visitor for the 32 weeks is \$1,918 (= \$59.94 x 32 weeks). It should be noted that the county may not necessarily lose all this visitors expenditures if the ATV riders opt to continue to recreate in Polk County instead of going elsewhere when Wolf Pen Gap is closed.

Arkansas Department of Parks and Tourism has estimated traveler expenditures by county for 2008 and published the findings on their website.¹¹ For both Polk County and Arkansas, their estimates of the impact of tourist expenditures are shown in the following table.

Impact of Travel on Arkansas Counties-2008 Preliminary			
Year 2008	Polk	Arkansas	Percent of Arkansas
Total Travel Expenditures (Dollars)	\$ 21,180,874	\$ 5,572,955,798	0.38%
Travel-Generated Payroll (Dollars)	\$ 3,875,265	\$ 1,052,053,185	0.37%
Travel-Generated Employment (Jobs)	246	59,677	0.41%
Travel-Generated State Tax (Dollars)	\$ 1,282,788	\$ 290,997,510	0.44%
Travel-Generated Local Tax (Dollars)	\$ 451,815	\$ 105,827,244	0.43%
Visitors (Person-Trips)	92,458	23,815,382	0.39%
Impact of Travel on Arkansas Counties-2006 Preliminary			
Year 2006	Polk	Arkansas	Percent of Arkansas
Total Travel Expenditures (Dollars)	\$ 18,799,173	\$ 5,108,407,442	0.37%
Travel-Generated Payroll (Dollars)	\$ 3,437,824	\$ 964,356,531	0.36%
Travel-Generated Employment (Jobs)	238	59,088	0.40%
Travel-Generated State Tax (Dollars)	\$ 1,132,361	\$ 266,740,649	0.42%
Travel-Generated Local Tax (Dollars)	\$ 400,000	\$ 97,005,736	0.41%
Visitors (Person-Trips)	87,458	23,350,238	0.37%
Percent Change 2006-2008	Polk	Arkansas	Polk: Impact per Visitor 2008
Total Travel Expenditures (Dollars)	12.7%	9.1%	\$370,487,376
Travel-Generated Payroll (Dollars)	12.7%	9.1%	\$67,784,585
Travel-Generated Employment (Jobs)	3.4%	1.0%	4,302.9
Travel-Generated State Tax (Dollars)	13.3%	9.1%	\$22,438,015
Travel-Generated Local Tax (Dollars)	13.0%	9.1%	\$7,902,967
Visitors (Person-Trips)	5.7%	2.0%	
Arkansas Department of Parks and Tourism, The Economic Impact of Travel in Arkansas.			

Although, the impact of travel expenditures is small in Polk County relative to the state, the growth of Polk County's travel expenditures exceeds the states for the 2006 to 2008 period. This table also shows the impact of travel expenditures per visitors (per trips) for 2008. If these travel expenditures reflect OHV expenditures for Arkansas, then a single OHV visitor trip to Polk County contributes \$229 to the local economy, generating \$42 in payroll, and \$5 in local

¹¹Arkansas Department of Parks and Tourism, The Economic Impact of Travel in Arkansas 2008, page 77. (<http://www.arkansas.com/governors-conference/pdfs/APT-10369-INT.pdf>)

tax revenues. For every visitor who does not visit Polk County because of the new regulation, the county will lose their travel expenditure, and this loss will result in a loss of payroll and local tax revenue. If the decline of visitor travel expenditures is large enough to significantly reduce local economic activity, employment could decline and unemployment rise as the economy adjusts to a lower level of travel expenditures by nonlocal visitors.

Polk County OHV and ATV Tourist Sector

For as active as OHV and ATV are in Polk County, there are little published and official data on their economic contribution to the region. Riding a forest trail in an OHV or on an ATV in and of itself does not have an economic impact per say, but getting to the trailhead and supporting the trail riding activity does have economic impacts. As a recreational activity, riding in OHVs and on ATVs combines several different activities across different industries, and thus impacts the economy through different sectors. This part of the study approaches the economic impact of OHV and ATV by assuming that it is similar to evaluating impacts of tourism on a region or on communities like Mena, Arkansas.

Tourist expenditures of nonlocal visitors are viewed similar to receiving payments from the export of goods produced locally. As such, they form an economic base in the local economy that supports activities indirectly in other businesses and induces additional income in the community. Survey data are not available for this study. Instead, the expenditures of tourists had to be estimated with a nonsurvey method.

To gather information on the type of tourist activities of OHV and ATV visitors, local merchants were contacted and interviewed regarding activities of OHV and ATV visitors. A phone survey was also designed and administered to various lodging establishments in the Mena area to discover how OHV and ATV visitors utilize their establishments. The findings of the survey are included in this study. From this information a picture of the tourist activities was gleaned. A typical out-of-town tourist arrives on Thursday and stays until Sunday. They stay in the various lodging establishments, visit local retail establishment to purchase groceries, eat dinner at local restaurants, and purchase fuel. They ride Wolf Pen Gap trail system and surrounding national forest trails on Friday and Saturday and return home on Sunday.

The first step in this economic impact study is to identify the industrial sectors that are impacted by the expenditures of OHV and ATV tourist. A focus of the leisure and hospitality

sector is tourism. In terms of North American Industrial Classification System (NAICS) codes leisure and hospitality is a super sector made up of the arts, entertainment, and recreation sector, plus accommodation and food and drinking places. According to NAICS, activities in these two sectors include:

The Arts, Entertainment, and Recreation sector includes a wide range of establishments that operate facilities or provide services to meet varied cultural, entertainment, and recreational interests of their patrons. This sector comprises (1) establishments that are involved in producing, promoting, or participating in live performances, events, or exhibits intended for public viewing; (2) establishments that preserve and exhibit objects and sites of historical, cultural, or educational interest; and (3) establishments that operate facilities or provide services that enable patrons to participate in recreational activities or pursue amusement, hobby, and leisure-time interests.

The Accommodation and Food Services sector comprises establishments providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption. The sector includes both accommodation and food services establishments because the two activities are often combined at the same establishment. (Bureau of Labor Statistic, Department of Labor)

In the previous section the analysis of Polk County's economy showed that its leisure and hospitality sector comprised about 5% of the county's employment and 2.6% of the economy's earnings. Implan data for the county provide some additional insights into the economy of Polk County. The accompanying tables list the various industries that make up Polk County's leisure and hospitality super sector. There are approximately 500 full-time jobs in this industry producing \$21.3 million in output, and adding approximately \$8.7 million to gross state product (value added), contributing \$5.2 million to payrolls (employee compensation), and pay approximately \$952 thousand in sales, excise taxes, and property taxes.

Polk County Leisure and Hospitality Sector 2008						
Description	Employment	Output	Value Added	Employee Compensation	Proprietor Income	Indirect Business Taxes
Performing arts companies	19.5	\$311,682	\$126,971	\$58,999	\$51,243	\$11,967
Independent artists, writers, and performers	2.6	\$245,818	\$190,938	\$23,069	\$131,306	\$1,067
Fitness and recreational sports centers	15.1	\$354,231	\$80,271	\$56,311	\$17,561	\$4,538
Bowling centers	6.8	\$242,991	\$57,896	\$28,463	\$13,213	\$5,726
Amusement parks, arcades, and gambling	10.4	\$886,654	\$221,327	\$147,080	\$20,519	\$16,967
Other amusement and recreation industries	4.1	\$350,545	\$60,566	\$21,507	\$12,513	\$6,432
Hotels and motels, including casino hotels	25.5	\$1,532,372	\$895,291	\$417,555	\$75,407	\$133,027
Other accommodations	4.8	\$393,164	\$194,492	\$85,941	\$11,374	\$15,558
Food services and drinking places	405.8	\$17,059,672	\$6,842,477	\$4,393,897	\$169,866	\$756,682
(Total)						
Leisure and Hospitality	494.6	\$21,377,129	\$8,670,229	\$5,232,822	\$503,002	\$951,964

Source Implan Data 2008, Minnesota Implan Group Inc.

OHV and ATV tourists also visit retail establishments to get the various supplies necessary for a successful trail riding experience. Retailers engaged in tourism trade included in this study were limited to food and beverage stores, gasoline stations, sporting goods stores, and general merchandise stores. As shown in the accompanying table, the largest group of retailers are those engaged in general merchandising, followed by gasoline stations, food and beverage stores, and sporting goods stores. Combined, these retailers support 615 full-time jobs, and generate approximately \$37 million in sales (output), they add \$20 million to the gross state product (value added), they have payrolls totaling \$12 million, and pay \$5.4 million in property taxes, excise and sales taxes.

Polk County: Tourist Retail Trade Sector 2008						
Description	Employment	Output	Value Added	Employee Compensation	Proprietor Income	Indirect Business Taxes
Retail Stores - General merchandise	395	\$21,713,000	\$4,309,000	\$1,717,000	\$1,216,000	\$1,376,000
Retail Stores - Gasoline stations	111	\$9,570,000	\$4,309,000	\$1,717,000	\$1,216,000	\$1,376,000
Retail Stores - Food and beverage	80	\$5,009,000	\$4,309,000	\$1,717,000	\$1,216,000	\$1,376,000
Retail Stores - Sporting goods	29	\$985,000	\$12,697,000	\$9,028,000	\$430,000	\$3,239,000
Total: Tourist Retail Sector	615	\$37,277,000	\$25,624,000	\$14,179,000	\$4,078,000	\$7,367,000

Data Source Implan Data 2008, Minnesota Implan Group Inc.

Economic Impact Scenario: Limiting OHV Recreation in Polk County

As noted several times, a major problem in assessing the potential economic impact of limiting OHV and ATV recreation in Polk County is the lack of reliable data on the current or future use of the trails especially by nonlocal tourist. Without reliable data on nonlocal riders, visiting ATV and OHV enthusiast spending behavior, or the number of visitor days by these enthusiasts, it is very difficult to quantify the economic impacts of the new off road regulations.

From discussions with individuals in Polk County, OHV and ATV clubs, state, and forest representatives, a general consensus has emerged. The new OHV regulations will likely reduce ATV recreational activities in Polk County somewhat. The new regulations will restrict activities to summer weekends at Wolf Pen Gap and also close the trails when there are excessive rains. Weather uncertainties may reduce nonlocal visitor trips further because visitors may be more reluctant to make a trip when rain may close the trail. Forest Service representatives stated that ridership will be reduced at Wolf Pen Gap, but there will still be trails to ride in Polk County. They pointed out that Arkansas will still have a substantial OHV trail system on public lands compared to other states in the region so riders will like still come to Arkansas.

One way to assess the economic impact of restrictions on OHV and ATV recreation in Polk County is to analyze the consequences of a reduction in related tourist expenditures. The Implan Model which is an economic assessment software system is well suited for this type of analysis. In the previous section, the study used the Implan data to define the OHV and ATV tourist sector for Polk County. The accompanying table combines this tourist data and shows the Implan data for the county as a whole.

Polk County Tourist Related Economy 2008						
(Millions of 2008 Dollars)	Output	Value Added	Labor Income	Employee Compensation	Indirect Business Taxes	Employment
Polk Co	\$1,021	\$417	\$263	\$218	\$29	8,815
Tourism Related Retail	\$37	\$24	\$15	\$12	\$5	615
Leisure&Hospitality	\$21	\$9	\$6	\$5	\$1	494
Tourism Related	\$59	\$33	\$21	\$17	\$6	1,109
Percent of Polk County						
Tourism Related Retail	3.7%	5.9%	5.7%	5.5%	18.9%	7.0%
Leisure&Hospitality	2.1%	2.1%	2.2%	2.4%	3.3%	5.6%
Tourism Related	5.7%	7.9%	7.9%	7.9%	22.2%	12.6%
Source: Implan Data 2008, Minnesota Impaln Group, Inc.						

The table shows both the absolute values for output, income, employment and local tax revenues for Polk County and its OHV tourism sector. The percent shares of these indicators are also shown. The tourism related activities make up 5.7% of the county's output, 7.9% of value added and related measures, 22.2% of the local sales, excise, and property taxes (indirect business taxes), and 12.6% of the employment in 2008.

Economic Impact of a 10% Reduction in OHV Tourist Activities in Polk County

The economic impact scenario assumed a 10% reduction in OHV and ATV tourism as a result of the new travel management policy of the forest service. The analysis assumed a 10% reduction in OHV and ATV tourist related by nonlocal tourist and expenditures in Polk County. The economic impact findings associated with this reduction in tourism related expenditures are shown in the next table.

Hypothetical Economic Impacts of a 10% Reduction in OHV Tourist Expenditures								
Assumptions		Impact on Polk County						
10% reduction in Tourism Related Expenditures.	Change in Expenditures	Output	Value Added	Labor Income	Employee Compensation	Indirect Business Taxes	Employment	Change in Unemployment Rate
Tourism Related Retail	-\$3,727,700	-\$4,854,538	\$3,139,813	-\$1,647,115	-\$985,946	-\$594,426	-66	0.7%
Leisure&Hospitality	-\$2,137,700	-\$2,876,496	\$1,248,229	-\$780,110	-\$683,376	-\$134,193	-58	0.6%
Tourism Related	-\$5,865,400	-\$7,731,034	\$4,388,042	-\$2,427,225	-\$1,669,322	-\$728,619	-124	1.37%
Source: Implan Software and Data, Minnesota Implan Group Inc. and IEA calculations.								

Economic impacts can be measured by various parameters. One measure is the value of the *economic output* created directly and indirectly by out-of-town tourist spending. This is the broadest measure of economic impact. It represents the value of all business activities related to visitor spending. The analysis found that a 10% hypothetical reduction of \$5.8 million tourist

related expenditures (= \$3.7 million retail reduction + \$2.1 million leisure and hospitality reduction) reduces the overall output of Polk County \$7.7 million. In other words, for every dollar reduction in tourist related expenditures, Polk County's output falls by an additional 32 cents or by a total of \$1.32 ($=\$7.7/\5.8). Hence, the expenditure multiplier for Polk County OHV and ATV tourist related activities is estimated at 1.327.

Another commonly presented measure of economic impact is the change in *value added*. Value added represents the payments to the factors of production (labor, capital, land, etc.). It is another broad measure, but value added adjusts output for the cost of those things purchased in order to produce other goods and services. In other words, output as a measure of economic impact includes some "double counting" of the economic effects while value added makes an adjustment for this double counting. A hypothetical reduction in tourist related expenditures of 10% in Polk County is expected to reduce value added in Polk County by approximately \$4.39 million. This is equivalent to saying that a dollar reduction in tourist related expenditures in Polk County reduces its contribution to payments to the factors of production (value added) by 74 cents ($=\$4.39/\5.8).

A third commonly provided economic impact measure is *labor income* (or the value of the added wages and salaries paid to workers (employee compensation, and proprietors' income). Labor income is a measure of an overall payroll created in the production of economic output. In this case, a 10% reduction in tourist related expenditures reduces Polk County's payrolls by \$2.4 million and employee's wage and salary by \$1.67 million. Thus, a dollar reduction in tourist related expenditures can be expected to reduce Polk County's payrolls by 41 cents ($=\$2.4/\5.8) and employee's incomes by 28 cents ($=\$1.67/\5.8).

Employment changes are a fourth commonly used measure of the economic impact. Employment refers to full-time equivalent (FTE) jobs and represents which in this study means annual number of full-time jobs. As shown in this analysis a 10% reduction in tourist expenditures would cause a loss of 124 FTE jobs and an increase in the unemployment rate by 1.37%. Based on these findings, a million dollar reduction in tourist expenditures in Polk

County would result in a loss of 21 full-time jobs and add 0.2% to the current unemployment rate.¹²

Indirect business taxes paid by business in Polk County are another measure of economic impact that commonly used to assess fiscal impacts. Indirect businesses are composed of property taxes, sales taxes, and excises taxes paid by businesses. This analysis found that dollar reduction in tourist expenditures would reduce indirect business tax collected in Polk County by 12 cents = (\$.72/\$5.8). The total reduction in indirect business taxes associated with the reduced tourist expenditures would be \$728.6 thousand.

Extended Economic Impact Findings of Reduced OHV Tourism in Polk County

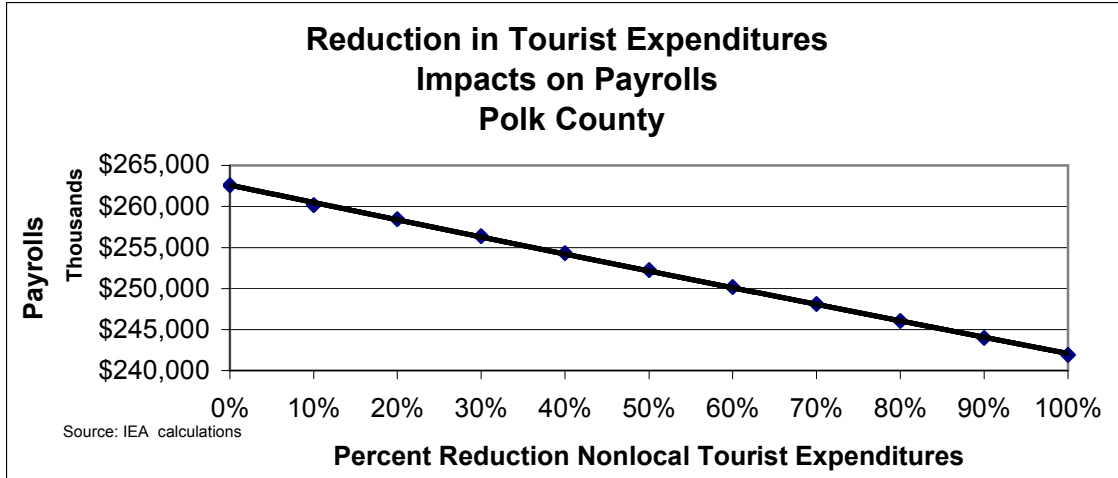
This section of the paper concludes the analysis by extending the previous findings to a 100% reduction in OHV and ATV tourist related expenditures in Polk County. Since the actual effects of the new forest regulation on Polk County will not be known for several years, these findings are presented as a ex ante means of assessing future possibilities outcomes based on the current economic conditions.

If there were a 100% reduction OHV and ATV tourist spending in Polk County's economy, direct tourist spending would be reduced by approximately \$58.6 million annually. In turn, this would cause a \$77.3 million reduction in Polk County's total output and a \$33.1 million dollar loss in value added. The likely impact of a collapse of OHV and ATV tourist expenditures for Polk County's payrolls, unemployment rates, and indirect business taxes are shown in the accompanying charts.

Impacts on Payrolls

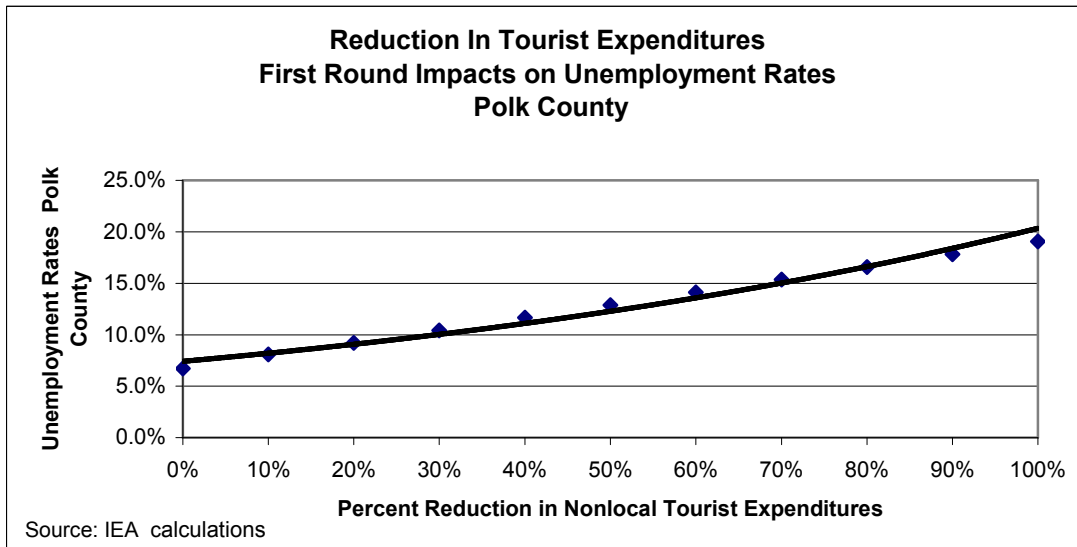
From their 2008 level of \$262.6 million, the accompany chart shows the decline in payrolls in Polk County associated with reduction in tourist expenditures. A 100% reduction in these expenditures is estimated to reduce payrolls by approximately \$20.6 million to \$242 million annually.

¹² At the time of this writing Polk County's labor force was 9,000, employment level was 8,394 and number of unemployed was 606. (<http://www.discoverarkansas.net/>).



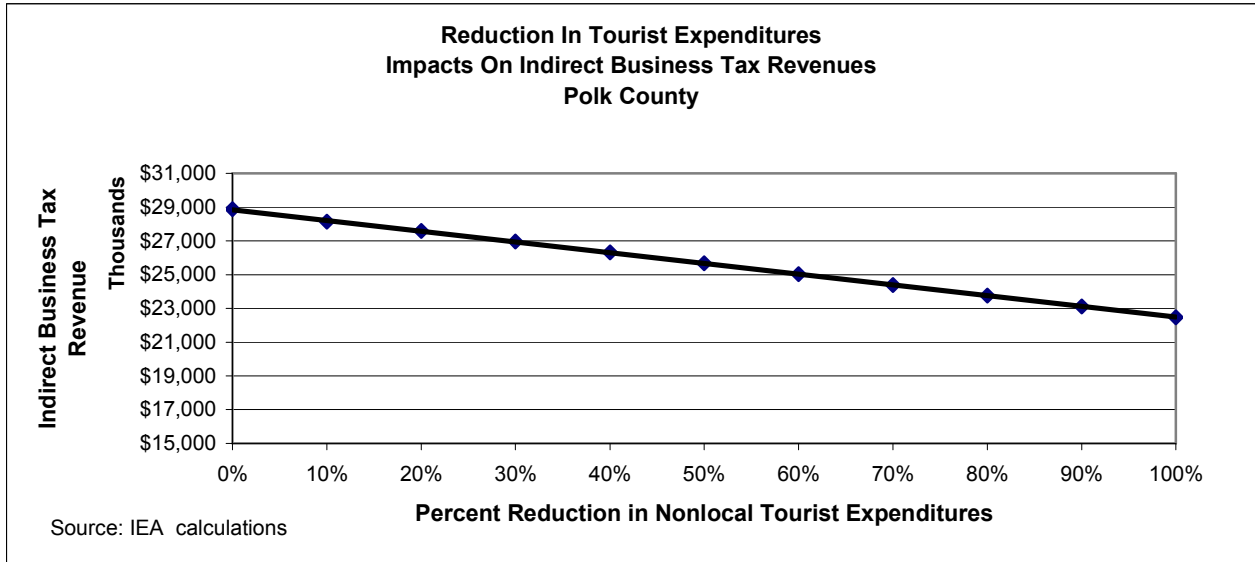
Impact on Unemployment Rates

This chart shows various unemployment rates in Polk County for different percent reductions in tourist expenditures (nonlocal tourist) associated with the estimated loss of 1,109 FTE jobs due to the collapse in tourist spending. The calculations are based on the current labor market conditions (2009). As such, they are really first round approximation of the impact of reduction in tourist expenditures. They do not take into account the feedback effects of unemployment on the labor market. People could find jobs outside Polk County or migrate, for example.



Impact on Indirect Business Taxes

This chart shows the impacts of reduced tourist expenditures on indirect business taxes. A 100% reduction in tourist related expenditures reduces indirect business taxes to approximately \$22.5 million per year or by \$6.4 million from the current level of \$28.9 million.



Part II

Mena Arkansas: Summary of 2010 Survey Results

Introduction

This part of the report summarizes information collected via phone surveys with businesses in Mena in February of 2010. Questionnaire construction was a cooperative effort between the Institute for Economic Advancement (IEA) and Mena Chamber of Commerce. Mr. Greg Goss of the Chamber of Commerce has asked the IEA to undertake the survey to determine the economic impact of the new All-Terrain Vehicles (ATV) regulations on businesses in the Mena area. The questionnaire was designed to obtain businesses' overall perceptions of the newly released Travel Management Decision in Ouachita National Forest, which states the following:

Under the newly released Travel Management Plan, National Forest is eliminating most cross-country travel and considerably restricting access for off-highway vehicles (OHVs), including All-Terrain Vehicles (ATVs). The plan is currently scheduled to be implemented by early spring 2010. Off-highway trails will be designated as open routes on weekends and holidays between May 15th and September 15th.¹³

The questionnaires included questions referring to the importance of ATV riders to the businesses, business adjustments (if any) under new regulations, estimated occupancy during ATV seasons, and visitors' comments. Results are based upon a sample of 53 businesses (hotels/motels, bed and breakfast, and cabins) in Mena.

Survey Report

The survey report shows the type of responses from the phone survey conducted over the month of February 2010. In February 2010, 53 phone calls were attempted and 31 were completed (58%).

¹³www.pryor.senate.gov

Type of Response	
Business Closed	6
No Answer	5
Answering Machine	6
Refusal- Hang up after the end of intro	5
Complete	31
Completion Rate	58%
Total Attempted	53
Total Sample Size	53

In addition to the calls shown in the sample report, several callbacks were also made to verify the validity of the responses.

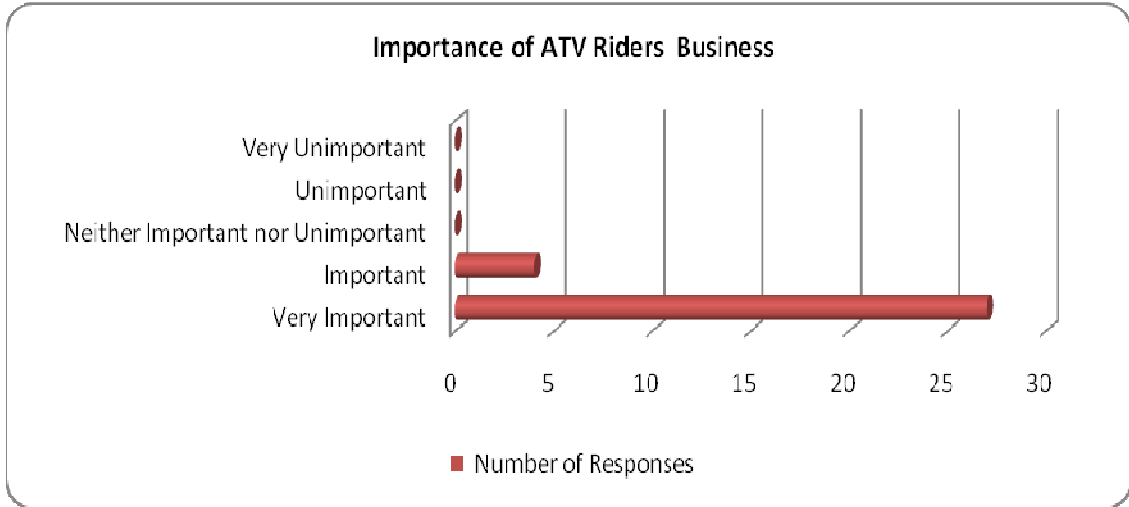
General Findings

Are you aware of the new ATV regulations?

When asked about the awareness of the new ATV regulations ninety-seven percent (29 of 30) of the respondents indicated they were aware of the new regulations and three percent (1 of 30) said they were not aware of the new ATV regulations.

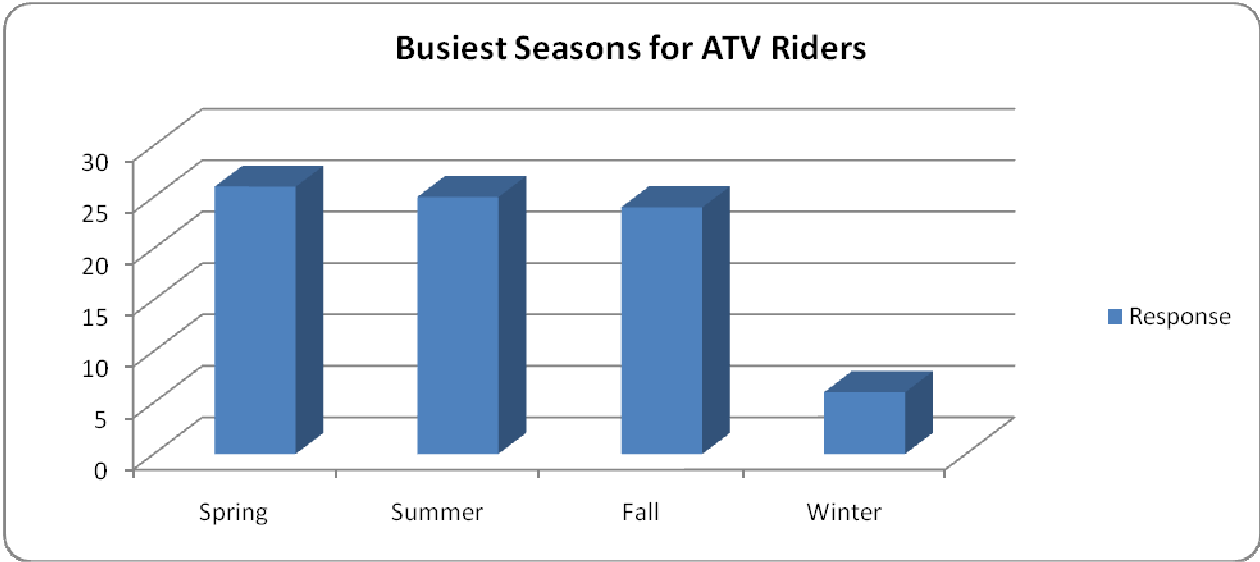
How important are ATV riders to your business?

When asked about the importance of ATV riders to the businesses, eighty-seven percent (27 of 31) of the respondents indicated that ATV riders are “Very Important” to their business and the remaining thirteen percent (4 of 31) indicated that ATV riders are “Important” to their business.



What are the busiest seasons for ATV riders?

When asked about the busiest seasons for ATV riders, eighty-seven percent (26 of 30) of the respondents indicated spring season, eighty-three (25 of 30) indicated summer season, eighty percent (24 of 30) indicated fall season, and twenty percent (6 of 30) indicated winter season.



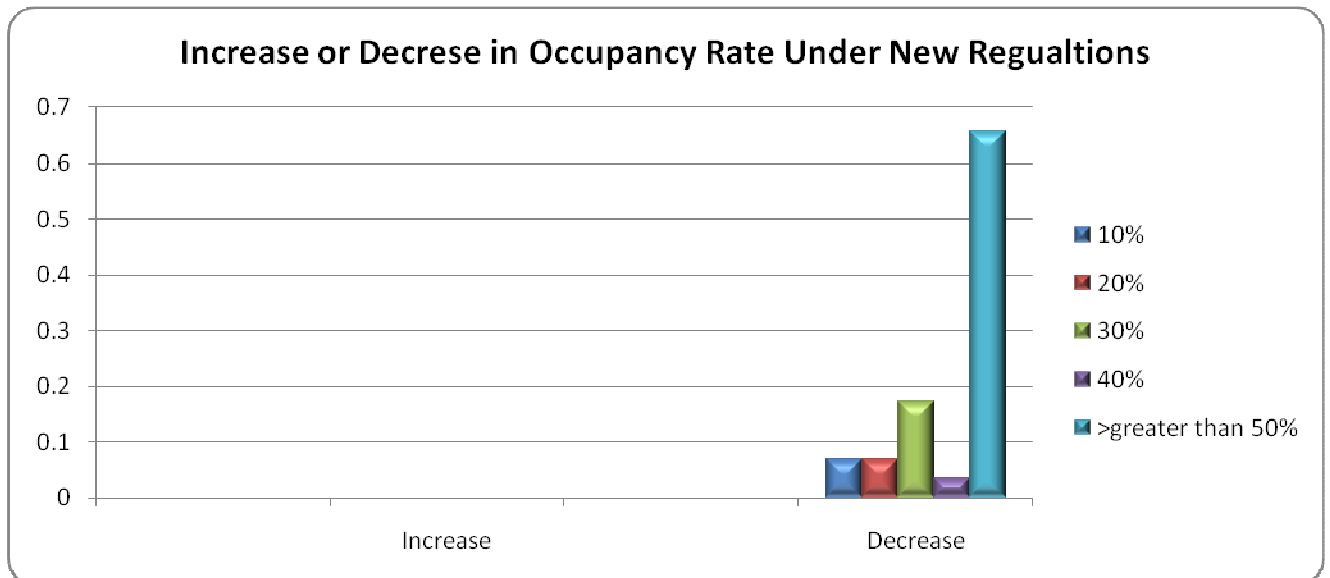
What percent of your business comes from ATV riders?

When asked what percent of their business was associated with ATV riders during the week and on weekend, the majority of accommodation business responded that more than 50% of their business was due to ATV riders.

What percent of your business comes from ATV riders during weekdays (weekends)?						
Percent of Business	10%	20%	30%	40%	Greater than 50%	Total Number of Responses
1 Weekdays	13.79%	10.34%	3.45%	6.90%	65.52%	29
2 Weekends	3.33%	10.00%	6.67%	10.00%	70.00%	30

Under the new regulations, what do you estimate to be the increase or decrease in your occupancy rate?

When asked about the increase or decrease in the occupancy rate under the new regulations, a total of twenty-nine responses were collected. Sixty-six percent (66% of total 29) of responses from accommodation businesses indicated that they expected a fifty or more percent decrease in their occupancy rate under the new regulations.



Do you think you will remain in business after the implementation of the new ATV regulations?

When asked about remaining in business after the implementation of the new ATV regulations, a total of twenty-eight responses were collected. Of the respondents, fifty percent (50% of total 28) indicated “Yes” and fifty percent (50% of total 28) indicated “No” to this question.

Are you planning to change your employee hours under the new rules? If yes, by what percent?

Of the respondents from accommodation businesses, fifty-nine percent (59% of total 29) indicated “Yes” and forty-one percent (41% of total 29) indicated “No” when asked about changing employee hours under the new rules. A total of twenty-nine respondents answered to this question.

Are you planning to adjust to the new regulations? If yes, how?

When asked about adjusting the business to the new ATV regulations, a total of sixteen responses were collected. One respondent indicated they would increase their employee hours while 11 businesses (73.3%) indicated they would decrease their employee hours by more than 50%.

Are you planning to adjust your employee hours under the new regulations? If yes, how?						
Change Employees Hours	10%	20%	30%	40%	Greater than 50%	Total Number of Responses
Increase	0%	0%	0%	0%	100%	1
Decrease	13%	0%	13%	0%	74 %	15

Are you planning to adjust your business to the new regulations? If yes, how?

The comments that were made by the survey respondents when asked “*Are you planning to adjust your business to the new regulations*” are listed below.

	Comments
1	No
2	Probably Not, Most business comes from ATV
3	Yes-will be selling other 2 cabins. Not sure what else to do
4	Yes- will have to shut
5	Under new regulations will not be able to survive-sell out
6	No.
7	Advertise more in the areas. Aim at different groups other than ATV riders
8	Yes, Close
9	No. Will be affected greatly if hotels/motels are not receiving lot of businesses
10	Yes- add different rental boat
11	No way to adjust just close
12	Probably have to close
13	Target a new clientele -would take years
14	No idea- no tourist no way to stay open
15	Undecided-if goes as planned no other adjustments to be made
16	Just wait and see. Lose too much money, will quit. Promote horse riding.
17	2 days minimum booking. Weekend booking may go up on rate.
18	Decreased hours of operation. Polk county extremely depends on tourism i.e. camping, lodging, and ATV sports. They are more than 50% of the interest. No other industry to attract people. Affects EVERY business.
19	Advertising to bring different clients-Probably have to close doors.
20	Not at this time
21	Yes-lease land for people to ride
22	Yes-sell out and relocate
23	No
24	Don't know-adjust cabin rentals. Possibly sale

25	No
26	No adjustment in employees-No revenue, no jobs 12-25 rooms per week minimal to ATV
27	No- not as of now
28	No
29	Under new regulations will not be able to survive-sell out.
30	Sell the property- wouldn't be able to keep it. Can't afford.

Part III Background Information

The growing popularity of ATV riding for recreation in Mena has brought together members from different surrounding states, including Arkansas, Texas, Louisiana, and Oklahoma. State government is taking steps to manage this popular recreational activity and many ATV user groups are looking for ways to enhance their ATV riding experience. This part of the paper outlines a mix of problems, benefits, and opportunities of All-Terrain Vehicles (ATV), and a variety of ideas to consider when deciding what level of ATV activity fits the community while sustaining National Forest System land. Off-highway vehicles are commonly defined as 1) 4-wheel drive jeeps, automobiles, or sport utility vehicles; 2) motorcycles designed for off-highway use; 3) all-terrain vehicles, better known as ATVs and other specially designed off road motor vehicles used in a wide variety of ways.¹⁴ This report, however, focuses **only** on the recreational uses of ATVs.

Issues

The National Forest Department has increased high levels of concern on where and how off-highway recreation vehicles (OHV) occur and are offered. Due to the unmanaged recreation, there are possible threats posed to environmental damage, or the perception of environmental damage. ATVs travel across land most of the year, which can lead to soil being churned up, washed away, or otherwise damaged.¹⁵ Since ATV travel is heavy, the damage is likely to occur any time of the year. Some undesirable impacts included severely eroded soils, unplanned roads, disrupted wetland ecosystems, as well as general habitat destructions and degraded water quality throughout forested lands.¹⁶ This section of the paper reviews recommended actions that have been proposed to minimize environmental damage associated with ATVs.

Growing Trends

A recent study (Outdoor Industry Foundation, 2006) estimated that 72% of Americans aged 16 and older, participated in an outdoor activity in 2005, with hiking, running, and bicycling on trails being three of the most frequently reported activities. The population of OHVs in the United States grew nearly as fast, increasing 174 percent between 1993 and 2003. Similar to annual sales, the number of ATVs existing in the United States represents about 70 percent of

¹⁴<http://www.srs.fs.usda.gov/>

¹⁵ www.tughill.org

¹⁶<http://www.asce.org/>

the total number of OHVs, not counting 4-wheel drive vehicles.¹⁷ With the increasing demand for ATVs, public land managers are increasingly concerned about mitigating potential adverse environmental impacts, unmanaged ATV use, and the ability to accommodate the rise in ATV recreation.

A survey done by National Survey on Recreation and Environment (NSRE), estimated that over 19 percent, or 13.3 million of the South's 70 million people over 16, were OHV participants. People under the age of 30 (30 percent) were about three times more likely to participate than people over the age of 50 (less than 10 percent). Almost one in four males participated compared to 14 percent of females.¹⁸

¹⁷www.fs.fed.us

¹⁸http://www.fs.fed.us/r2/blackhills/recreation/Travel%20Management/OHV_final_report.pdf#xml=http://www.fs.fed.us/cgi-bin/tehis/searchallsites/search.allsites/xml.txt?query=off+highway+recreation&db=allsites&id=4a498a340.

Part IV
Overview of New Regulation

The following are excerpts for the Environment Assessment for Travel Management Project.¹⁹

Alternative E (Additional Resource Protection) No cross-country travel except for limited big game retrieval provisions. Game retrieval would be permitted during the months of October, November, and December (during state-specified black bear and white-tailed deer seasons). Parking would be allowed up to 30 feet from the centerline of the road. Approximately 5.5 miles of nonsystem spur roads added to the Forest transportation system to provide motorized access to dispersed campsites. Maximum protection provided for impaired watersheds and T&E species (via more highway-legal only designations). This alternative limits OHV use on routes within the Wolf Pen Gap area to holidays and weekends (Saturday and Sunday) from May 15 through September 15. Approximately 2.6 miles of nonsystem road and 4.8 miles of nonsystem trail added. Some trail changed from motorcycle only, to ATV and motorcycle use designation.

Alternative E: Additional Resource Protection		
Designated Road Use	Change	Result
Highway (Hwy) and OHV year round	-789	1525
Hwy only-year round	593	599
Hwy year round -Seasonal OHV	109	110
OHV year round-Seasonal Hwy	14	14
Seasonal- Hwy only	52	52
Seasonal-OHV and Hwy	-43	257
Hwy year round-OHV WPG Seasonal	20	20
Designated Trail Use		
ATV and motorcycle	10	97
Motorcycle only	no change	0
WPG Seasonal ATV and motorcycle	19	19
US Forest Service, Ouachita National Forest, "Environmental Assessment for Travel Management Project," p. 18.		

¹⁹ Wagoner, Norman. Environmental Assessment for Travel Management Project, US Forest Service, Ouachita National Forest, p 18-19.

Alternative E (Additional Resource Protection) – Effects

Motorized road use (highway legal, OHV, or both) would be reduced by 441 miles. Roads available for OHV use would be reduced by 1,486 miles. Acres available for cross-country travel would be reduced by 52%. Remaining acreage would be available for limited cross country travel for game retrieval. Dispersed campers who have been driving into the woods to camp would be limited to routes designated for motorized use that access dispersed campsites. Campers would also be allowed to park up to 30 feet from the centerline of the road when it is safe to do so and without causing damage to national forest resources and facilities, and walk into the woods and camp. Mixed use of OHV riders and horse riders would remain unchanged. Miles of single track trail for motorcycle use would be reduced by 71%.