

**State and National Economic Impacts of
Fishing, Hunting and Wildlife-Related Recreation
on U.S. Forest Service-Managed Lands**

Prepared by the:

American Sportfishing Association

for the:

Wildlife, Fish and Rare Plants

U.S. Forest Service

U.S. Department of Agriculture

January 23rd, 2006

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Acknowledgments

This project was conducted under a participating agreement between the United States Department of Agriculture Forest Service and the American Sportfishing Association (04-PA-11132422-315). Rob Southwick of Southwick Associates, Inc. was responsible for data compilation, analysis and report development. Tom Allen provided additional data analyses. Support was provided by Dave Cross of the Forest Service and Gordon Robertson of the American Sportfishing Association. Valuable input and data were provided by Bill Lorenz and Cindy S. Swanson of the Forest Service's Wildlife, Fish and Rare Plants division and Don English of the Recreation, Heritage & Wilderness Resources office. Important guidance and suggestions were also provided by the USFS's Debbie Pressman, Ross Arnold and many others. The author is indebted to all who helped on this project, but remains solely responsible for the contents herein.

State and National Economic Impacts of Fishing, Hunting and Wildlife-Related Recreation on U.S. Forest Service-Managed Lands

EXECUTIVE SUMMARY

Hunting, fishing and wildlife-viewing activities are popular uses of public lands. This report quantifies the state and national economic impacts of fishing, hunting and wildlife-viewing activities on U.S. Forest Service-managed lands.

Two approaches were used to estimate the economic impacts of fishing, hunting and wildlife viewing, resulting in two sets of final numbers. The first approach was conservative and can be considered the minimum estimate of the economic impacts created by wildlife-related recreation. This approach only considers expenditures made within 50 miles of each USFS unit. Expenditures beyond that range have a higher likelihood of being used for purposes other than USFS recreation or shared by multiple trips. This results in the exclusion of most equipment purchases such as binoculars, fishing tackle, firearms, etc. In addition, this approach excludes wildlife-related visits to USFS units when the trips were made for primary reasons other than wildlife. For example, the trip may have been made for camping, bicycling, or were just passing through to visit another town. For wildlife viewing, only 11 percent of all recorded trips were primary purpose trips, 55 percent of angler trips were for the primary purpose of fishing, and 89 percent of hunting trips were primary purpose trips. This approach is best used when considering the economic impacts of USFS-based recreation on communities within a 50-mile radius of USFS-managed lands.

The second approach includes all expenditures made in-state for wildlife-related trips. A portion of annual equipment expenditures are pro-rated to each trip, and all wildlife-related trips are included, even those taken for a primary purpose other than fish or wildlife. This approach is considered the maximum estimate, and is best used to explain the economic activity statewide related to USFS-based fish and wildlife recreation.

Using the first approach, hunting activities on USFS units, annually generated \$725.4 million in expenditures from 2000 to 2003. These expenditures include travel items such as food, fuel, food and beverages, lodging and more. Also included are non-travel items purchased within 50 miles of the hunting destination (USFS unit). These items include souvenirs, ammunition and other hunting supplies, and entertainment. As these expenditures are spent and re-spent by businesses, additional economic impacts are created for state and national economies. The

\$725.4 million spent by hunters supported 16,891 full and part-time jobs across the country, and increased federal income tax receipts by \$87.7 million. Anglers annually spent \$708.9 million within 50 miles of their USFS fishing holes. These expenditures supported 18,281 jobs and stimulated \$83.6 million in federal income tax receipts. Wildlife viewers added another \$263.1 million in retail sales annually to the regions surrounding USFS units, which in turn supported another 7,170 jobs and \$22.7 million in federal income taxes. Under this conservative approach, \$1.7 billion in retail sales were stimulated annually by hunting, fishing and wildlife viewing activities combined, which supported 42,342 jobs and \$194.0 million in annual federal income tax receipts. Montana was the state enjoying the greatest level of hunter expenditures (\$71.8 million), while California was tops for fishing (\$111.5 million) and Arizona for wildlife-viewing expenditures (\$30.7 million). National and state results are listed in Tables E-1, E-2 and E-3 for hunting, fishing and wildlife-viewing, respectively. Table E-4 presents the impacts for all wildlife-based recreation combined. Detailed economic impacts, including total economic activity, state and federal tax revenues, and earnings are found inside this report in Tables 10 and 11.

Table E-1: State-Specific Economic Impacts Generated by Hunting on U.S. Forest Service Units, annual average from 2000-2003

State	Approach #1: Based on Expenditures by Primary Participants Only Within a 50-mile Radius of USFS Units			Approach #2: Based on All In-State Expenditures by All Participants (includes equipment)		
	Retail Sales	Jobs (Full & Part-time)	Federal Income Tax Revenues	Retail Sales	Jobs (Full & Part-time)	Federal Income Tax Revenues
Alabama	\$9,924,632	209	\$470,202	\$17,678,592	373	\$837,564
Alaska	\$2,700,584	51	\$105,309	\$23,354,524	441	\$910,704
Arizona	\$34,957,881	614	\$2,729,073	\$225,309,203	3,954	\$17,589,315
Arkansas	\$27,000,139	584	\$1,157,904	\$30,100,674	624	\$1,208,102
California	\$37,469,972	636	\$3,381,602	\$262,810,666	4,464	\$23,718,218
Colorado	\$51,219,419	1,073	\$4,755,071	\$493,925,266	10,350	\$45,854,671
Connecticut	n/a	n/a	n/a	n/a	n/a	n/a
Delaware	n/a	n/a	n/a	n/a	n/a	n/a
Florida	\$18,812,878	346	\$1,360,490	\$180,606,315	3,320	\$13,060,901
Georgia	\$5,533,123	110	\$436,150	\$14,137,844	282	\$1,114,420
Hawaii	n/a	n/a	n/a	n/a	n/a	n/a
Idaho	\$61,513,047	1,195	\$2,446,005	\$291,511,283	5,661	\$11,591,657
Illinois	\$2,482,887	46	\$237,089	\$5,559,079	104	\$530,832
Indiana	\$2,772,729	51	\$192,816	\$5,215,505	96	\$362,686
Iowa	n/a	n/a	n/a	n/a	n/a	n/a
Kansas	n/a	n/a	n/a	n/a	n/a	n/a
Kentucky	\$12,472,001	235	\$822,066	\$47,184,054	890	\$3,110,039

Table E-1 (Continued)	Approach #1: Based on Expenditures by Primary Participants Only Within a 50-mile Radius of USFS Units			Approach #1: Based on Expenditures by Primary Participants Only Within a 50-mile Radius of USFS Units		
	State	Retail Sales	Jobs (Full & Part-time)	State	Retail Sales	Jobs (Full & Part-time)
Louisiana	\$5,853,851	93	\$325,558	\$3,682,952	58	\$204,825
Maine	\$130,272	2	\$6,945	\$1,472,572	26	\$78,510
Maryland	n/a	n/a	n/a	n/a	n/a	n/a
Massachusetts	n/a	n/a	n/a	n/a	n/a	n/a
Michigan	\$10,167,982	184	\$837,328	\$49,493,415	895	\$4,075,758
Minnesota	\$26,693,849	497	\$2,088,479	\$193,260,913	3,613	\$15,651,655
Mississippi	\$61,901,762	1,171	\$2,530,679	\$253,076,565	4,787	\$10,346,321
Missouri	\$3,551,841	65	\$243,323	\$3,557,054	65	\$243,680
Montana	\$71,816,348	1,606	\$2,757,745	\$251,937,624	5,633	\$9,674,394
Nebraska	\$1,065,356	23	\$45,632	\$7,464,930	161	\$319,740
Nevada	\$23,620,064	341	\$1,543,801	\$225,881,897	3,261	\$14,763,579
New Hampshire	\$130,272	2	\$6,945	\$1,472,572	26	\$78,510
New Jersey	n/a	n/a	n/a	n/a	n/a	n/a
New Mexico	\$21,210,257	439	\$896,381	\$104,508,683	2,163	\$4,416,711
New York	\$3,249,336	49	\$171,884	\$1,730,992	26	\$91,566
North Carolina	\$8,561,724	177	\$648,098	\$21,818,704	452	\$1,651,612
North Dakota	\$2,832,071	58	\$112,542	n/a	n/a	n/a
Ohio	\$844,996	17	\$71,659	\$1,955,655	39	\$165,847
Oklahoma	\$27,000,139	584	\$1,157,904	\$11,066,147	239	\$474,573
Oregon	\$37,918,893	651	\$2,502,712	\$442,371,044	7,602	\$29,179,666
Pennsylvania	\$9,482,883	156	\$725,590	\$11,985,786	198	\$917,102
Rhode Island	n/a	n/a	n/a	n/a	n/a	n/a
South Carolina	\$11,541,730	217	\$784,222	\$11,352,471	214	\$771,362
South Dakota	\$5,523,123	118	\$227,373	\$40,348,453	908	\$1,721,730
Tennessee	\$7,552,813	141	\$625,593	\$29,765,840	556	\$2,465,477
Texas	\$7,341,705	132	\$617,152	\$43,089,236	776	\$3,622,128
Utah	\$25,165,437	578	\$1,383,226	\$154,449,236	3,548	\$8,489,347
Vermont	\$3,249,336	49	\$171,884	\$1,730,992	26	\$91,566
Virginia	\$24,440,201	415	\$1,545,172	\$27,180,578	461	\$1,718,425
Washington	\$18,939,203	304	\$1,390,434	\$113,691,082	1,823	\$8,355,754
West Virginia	\$22,156,508	372	\$711,553	\$44,973,424	754	\$1,444,315
Wisconsin	n/a	n/a	n/a	n/a	n/a	n/a
Wyoming	\$16,589,181	368	\$674,969	\$167,821,330	3,723	\$6,828,196
United States	\$725,390,427	16,891	\$87,680,237	\$3,901,354,362	90,846	\$471,569,050

Table E-2: State-Specific Economic Impacts Generated by Fishing on U.S. Forest Service Units, annual average from 2000-2003

State	Approach #1: Based on Expenditures Within 50-mile Radius of USFS Site			Approach #2: Based on All Expenditures Made Within the State, Including Equipment		
	Retail Sales	Jobs (Full & Part-time)	Federal Income Tax Revenues	Retail Sales	Jobs (Full & Part-time)	Federal Income Tax Revenues
Alabama	\$705,752	16	\$35,450	\$9,829,830	221	\$493,758
Alaska	\$13,011,828	247	\$542,872	\$95,270,209	1,809	\$3,974,807
Arizona	\$47,163,730	898	\$3,736,825	\$511,869,967	9,741	\$40,555,917
Arkansas	\$4,903,721	110	\$241,604	\$8,476,989	186	\$404,320
California	\$111,530,390	1,989	\$10,993,072	\$1,412,177,564	25,190	\$139,192,279
Colorado	\$55,718,866	1,078	\$4,966,559	\$565,639,171	10,939	\$50,418,840
Connecticut	n/a	n/a	n/a	n/a	n/a	n/a
Delaware	n/a	n/a	n/a	n/a	n/a	n/a
Florida	\$14,958,533	276	\$1,105,301	\$296,243,626	5,473	\$21,889,746
Georgia	\$12,334,252	231	\$1,038,170	\$37,582,460	703	\$3,163,303
Hawaii	n/a	n/a	n/a	n/a	n/a	n/a
Idaho	\$29,711,423	562	\$1,143,488	\$326,160,587	6,175	\$12,552,772
Illinois	\$2,132,114	38	\$211,045	\$4,670,776	83	\$462,332
Indiana	\$6,479,747	133	\$533,535	\$13,209,378	271	\$1,087,645
Iowa	n/a	n/a	n/a	n/a	n/a	n/a
Kansas	n/a	n/a	n/a	n/a	n/a	n/a
Kentucky	\$40,269,242	796	\$2,537,093	\$41,129,244	813	\$2,591,276
Louisiana	\$548,799	10	\$37,457	\$1,291,506	24	\$88,149
Maine	\$260,545	5	\$13,680	\$1,926,534	34	\$101,152
Maryland	n/a	n/a	n/a	n/a	n/a	n/a
Massachusetts	n/a	n/a	n/a	n/a	n/a	n/a
Michigan	\$8,061,895	147	\$658,430	\$40,818,346	746	\$3,333,711
Minnesota	\$57,816,589	1,174	\$4,711,053	\$470,649,970	9,351	\$37,419,204
Mississippi	\$11,282,587	241	\$543,669	\$46,416,590	991	\$2,236,657
Missouri	\$1,183,947	21	\$81,820	\$2,019,745	36	\$139,581
Montana	\$36,340,554	803	\$1,522,834	\$188,267,232	4,158	\$7,889,248
Nebraska	\$150,925	3	\$6,923	\$1,276,779	26	\$58,570
Nevada	\$3,779,210	44	\$210,059	\$55,689,289	647	\$3,095,366
New Hampshire	\$260,545	5	\$13,680	\$1,926,534	34	\$101,152
New Jersey	n/a	n/a	n/a	n/a	n/a	n/a
New Mexico	\$6,202,802	115	\$241,910	\$61,436,656	1,137	\$2,396,038
New York	\$3,330,569	53	\$189,433	\$2,056,340	33	\$116,959
North Carolina	\$19,263,879	433	\$1,630,303	\$143,427,304	3,221	\$12,138,263
North Dakota	\$149,056	3	\$5,985	n/a	n/a	n/a
Ohio	\$3,226,347	67	\$279,130	\$6,930,979	143	\$599,640

Table E-2 (Continued)	Approach #1: Based on Expenditures Within 50-mile Radius of USFS Site			Approach #2: Based on All Expenditures Made Within the State, Including Equipment		
	State	Retail Sales	Jobs (Full & Part-time)	Federal Income Tax Revenues	Retail Sales	Jobs (Full & Part-time)
Oklahoma	\$4,903,721	110	\$241,604	\$4,181,252	94	\$206,008
Oregon	\$45,833,951	796	\$2,850,827	\$357,136,738	6,203	\$22,185,470
Pennsylvania	\$6,122,806	115	\$491,398	\$17,152,409	322	\$1,376,602
Rhode Island	n/a	n/a	n/a	n/a	n/a	n/a
South Carolina	\$5,026,237	105	\$367,641	\$7,390,076	154	\$540,542
South Dakota	\$6,818,185	147	\$292,951	\$83,636,145	1,806	\$3,598,778
Tennessee	\$17,098,730	353	\$1,474,489	\$45,393,820	938	\$3,914,482
Texas	\$3,234,851	58	\$272,283	\$15,943,873	288	\$1,342,025
Utah	\$52,554,104	1,182	\$2,926,158	\$368,379,737	8,282	\$20,511,000
Vermont	\$3,330,569	53	\$189,433	\$2,056,340	33	\$116,959
Virginia	\$24,582,295	437	\$1,765,509	\$37,456,917	667	\$2,690,168
Washington	\$21,446,364	365	\$1,618,408	\$152,946,410	2,600	\$11,562,979
West Virginia	\$15,729,794	303	\$558,002	\$37,770,127	728	\$1,339,865
Wisconsin	n/a	n/a	n/a	n/a	n/a	n/a
Wyoming	\$11,450,474	176	\$295,933	\$155,167,767	2,382	\$4,010,249
United States	\$708,909,930	18,281	\$83,611,260	\$5,638,489,904	145,399	\$665,022,770

Table E-3: State-Specific Economic Impacts Generated by Wildlife-Viewing on U.S. Forest Service Units, annual average from 2000-2003

State	Approach #1: Based on Expenditures Within 50-mile Radius of USFS Site			Approach #2: Based on All Expenditures Made Within the State, Including Equipment		
	Retail Sales	Jobs (Full & Part-time)	Federal Income Tax Revenues	Retail Sales	Jobs (Full & Part-time)	Federal Income Tax Revenues
Alabama	\$1,896,707	53	\$103,888	\$6,084,374	170	\$333,257
Alaska	\$14,692,895	378	\$795,166	\$191,539,961	4,925	\$10,365,963
Arizona	\$30,746,034	672	\$1,749,531	\$1,416,544,697	30,963	\$80,605,139
Arkansas	\$2,260,984	60	\$96,141	\$15,220,612	367	\$599,469
California	\$16,272,705	387	\$1,199,851	\$1,270,093,812	30,196	\$93,649,057
Colorado	\$29,807,539	764	\$2,105,241	\$2,385,919,323	61,115	\$168,512,239
Connecticut	n/a	n/a	n/a	n/a	n/a	n/a
Delaware	n/a	n/a	n/a	n/a	n/a	n/a
Florida	\$4,221,426	94	\$292,057	\$132,828,416	2,970	\$9,189,652
Georgia	\$2,420,741	57	\$156,774	\$49,510,073	1,156	\$3,206,419
Hawaii	n/a	n/a	n/a	n/a	n/a	n/a
Idaho	\$8,636,766	225	\$353,063	\$437,566,890	11,421	\$17,887,350
Illinois	\$869,947	19	\$68,434	\$4,479,980	99	\$352,417
Indiana	\$60,277	2	\$3,858	\$14,111,142	422	\$903,082
Iowa	n/a	n/a	n/a	n/a	n/a	n/a

Table E-3 (Continued)	Approach #1: Based on Expenditures by Primary Participants Only Within a 50-mile Radius of USFS Units			Approach #2: Based on All In-State Expenditures by All Participants (includes equipment)		
	State	Retail Sales	Jobs (Full & Part-time)	State	Retail Sales	Jobs (Full & Part-time)
Kansas	n/a	n/a	n/a	n/a	n/a	n/a
Kentucky	\$10,802,616	333	\$524,329	\$18,588,121	572	\$902,216
Louisiana	\$1,426,876	43	\$82,478	\$1,916,489	57	\$110,780
Maine	\$2,149,496	54	\$123,569	\$129,384,325	3,272	\$7,437,962
Maryland	n/a	n/a	n/a	n/a	n/a	n/a
Massachusetts	n/a	n/a	n/a	n/a	n/a	n/a
Michigan	\$3,468,855	87	\$229,321	\$77,171,976	1,933	\$5,101,727
Minnesota	\$3,044,442	85	\$192,482	\$109,290,482	2,620	\$6,729,051
Mississippi	\$8,385,707	173	\$287,352	\$128,427,091	2,652	\$4,400,797
Missouri	\$231,014	6	\$13,589	\$7,099,344	180	\$417,608
Montana	\$14,336,654	422	\$585,253	\$537,520,050	15,808	\$21,942,725
Nebraska	\$204,193	5	\$10,706	\$2,624,778	66	\$137,614
Nevada	\$4,409,079	74	\$241,521	\$142,888,594	2,404	\$7,827,164
New Hampshire	\$2,149,496	54	\$123,569	\$129,384,325	3,272	\$7,437,962
New Jersey	n/a	n/a	n/a	n/a	n/a	n/a
New Mexico	\$26,139,677	691	\$1,179,867	\$231,672,464	6,125	\$10,457,005
New York	\$2,112,068	60	\$135,687	\$2,363,482	67	\$151,839
North Carolina	\$9,096,832	227	\$513,753	\$192,655,655	4,799	\$10,880,420
North Dakota	\$521,697	14	\$21,817	n/a	n/a	n/a
Ohio	\$0	0	\$0	\$3,031,623	76	\$187,804
Oklahoma	\$2,260,984	60	\$96,141	\$9,009,549	237	\$383,100
Oregon	\$16,549,137	457	\$949,472	\$692,815,514	19,391	\$39,080,054
Pennsylvania	\$4,928,113	114	\$334,075	\$16,632,814	386	\$1,127,531
Rhode Island	n/a	n/a	n/a	n/a	n/a	n/a
South Carolina	\$868,732	24	\$47,774	\$8,755,935	240	\$481,508
South Dakota	\$1,750,221	49	\$79,237	\$89,293,859	2,530	\$4,173,517
Tennessee*	\$0	0	\$0	\$101,019,106	2,873	\$6,351,703
Texas*	\$0	0	\$0	\$15,880,592	351	\$1,028,667
Utah	\$6,829,773	201	\$362,567	\$471,935,299	13,906	\$25,053,251
Vermont	\$2,112,068	60	\$135,687	\$2,363,482	67	\$151,839
Virginia	\$7,673,086	245	\$550,719	\$54,899,897	1,750	\$3,940,317
Washington	\$9,744,129	229	\$663,339	\$602,723,086	13,834	\$41,943,246
West Virginia	\$3,616,697	87	\$139,359	\$61,761,038	1,491	\$2,379,783
Wisconsin	n/a	n/a	n/a	n/a	n/a	n/a
Wyoming	\$6,424,237	159	\$349,222	\$474,451,482	11,744	\$25,791,247
United States	\$263,121,903	7,170	\$22,673,322	\$10,283,806,100	275,157	\$870,072,452

* No expenditures were reported in the NVUM Survey.

Table E-4: Economic Impacts Generated by Combined Hunting, Fishing and Wildlife-Viewing on U.S. Forest Service Units, annual average from 2000-2003*

State	Approach #1: Based on Expenditures Within 50-mile Radius of USFS Site			Approach #2: Based on All Expenditures Made Within the State, Including Equipment*		
	Retail Sales	Jobs (Full & Part-time)	Federal Income Tax Revenues	Retail Sales	Jobs (Full & Part-time)	Federal Income Tax Revenues
Alabama	\$12,527,091	278	\$609,540	\$33,592,797	765	\$1,664,578
Alaska	\$30,405,307	676	\$1,443,346	\$310,164,693	7,175	\$15,251,474
Arizona	\$112,867,645	2,183	\$8,215,428	\$2,153,723,867	44,658	\$138,750,370
Arkansas	\$34,164,845	754	\$1,495,649	\$53,798,276	1,177	\$2,211,891
California	\$165,273,067	3,013	\$15,574,524	\$2,945,082,042	59,849	\$256,559,554
Colorado	\$136,745,824	2,914	\$11,826,871	\$3,445,483,760	82,405	\$264,785,750
Connecticut	n/a	n/a	n/a	n/a	n/a	n/a
Delaware	n/a	n/a	n/a	n/a	n/a	n/a
Florida	\$37,992,837	717	\$2,757,848	\$609,678,357	11,763	\$44,140,299
Georgia	\$20,288,116	398	\$1,631,094	\$101,230,377	2,141	\$7,484,142
Hawaii	n/a	n/a	n/a	n/a	n/a	n/a
Idaho	\$99,861,237	1,983	\$3,942,557	\$1,055,238,760	23,257	\$42,031,779
Illinois	\$5,484,948	103	\$516,569	\$14,709,834	286	\$1,345,582
Indiana	\$9,312,753	185	\$730,208	\$32,536,026	788	\$2,353,413
Iowa	n/a	n/a	n/a	n/a	n/a	n/a
Kansas	n/a	n/a	n/a	n/a	n/a	n/a
Kentucky	\$63,543,859	1,364	\$3,883,488	\$106,901,419	2,275	\$6,603,531
Louisiana	\$7,829,525	145	\$445,493	\$6,890,947	140	\$403,753
Maine	\$2,540,313	61	\$144,194	\$132,783,432	3,332	\$7,617,624
Maryland	n/a	n/a	n/a	n/a	n/a	n/a
Massachusetts	n/a	n/a	n/a	n/a	n/a	n/a
Michigan	\$21,698,732	418	\$1,725,079	\$167,483,738	3,574	\$12,511,196
Minnesota	\$87,554,880	1,756	\$6,992,013	\$773,201,365	15,584	\$59,799,910
Mississippi	\$81,570,056	1,585	\$3,361,700	\$427,920,245	8,430	\$16,983,775
Missouri	\$4,966,802	92	\$338,733	\$12,676,142	281	\$800,870
Montana	\$122,493,557	2,830	\$4,865,831	\$977,724,906	25,599	\$39,506,368
Nebraska	\$1,420,475	31	\$63,261	\$11,366,487	253	\$515,924
Nevada	\$31,808,352	459	\$1,995,381	\$424,459,779	6,312	\$25,686,109
New Hampshire	\$2,540,313	61	\$144,194	\$132,783,432	3,332	\$7,617,624
New Jersey	n/a	n/a	n/a	n/a	n/a	n/a
New Mexico	\$53,552,735	1,245	\$2,318,158	\$397,617,804	9,426	\$17,269,755
New York	\$8,691,973	161	\$497,004	\$6,150,814	125	\$360,364
North Carolina	\$36,922,435	837	\$2,792,154	\$357,901,663	8,472	\$24,670,295
North Dakota	\$3,502,825	75	\$140,344	n/a	n/a	n/a
Ohio	\$4,071,342	84	\$350,789	\$11,918,258	259	\$953,291

Table E-4 (Continued)	Approach #1: Based on Expenditures by Primary Participants Only Within a 50-mile Radius of USFS Units			Approach #2: Based on All In-State Expenditures by All Participants (includes equipment)		
	State	Retail Sales	Jobs (Full & Part- time)	State	Retail Sales	Jobs (Full & Part- time)
Oklahoma	\$34,164,845	754	\$1,495,649	\$24,256,947	571	\$1,063,681
Oregon	\$100,301,981	1,904	\$6,303,010	\$1,492,323,296	33,196	\$90,445,190
Pennsylvania	\$20,533,802	385	\$1,551,063	\$45,771,010	905	\$3,421,235
Rhode Island	n/a	n/a	n/a	n/a	n/a	n/a
South Carolina	\$17,436,700	346	\$1,199,636	\$27,498,483	608	\$1,793,412
South Dakota	\$14,091,529	314	\$599,561	\$213,278,457	5,244	\$9,494,026
Tennessee	\$24,651,543	494	\$2,100,081	\$176,178,766	4,367	\$12,731,662
Texas	\$10,576,555	191	\$889,435	\$74,913,700	1,415	\$5,992,820
Utah	\$84,549,315	1,961	\$4,671,950	\$994,764,271	25,736	\$54,053,598
Vermont	\$8,691,973	161	\$497,004	\$6,150,814	125	\$360,364
Virginia	\$56,695,582	1,097	\$3,861,399	\$119,537,392	2,878	\$8,348,911
Washington	\$50,129,695	898	\$3,672,182	\$869,360,578	18,256	\$61,861,979
West Virginia	\$41,502,999	762	\$1,408,913	\$144,504,589	2,973	\$5,163,962
Wisconsin	n/a	n/a	n/a	n/a	n/a	n/a
Wyoming	\$34,463,892	703	\$1,320,124	\$797,440,579	17,849	\$36,629,693
United States	\$1,697,422,260	42,342	\$193,964,819	\$19,823,650,365	511,402	\$2,006,664,272

* There may be a unknown level of double-counting in the Approach #2 results. A person may have participated in two activities in one trips, such as wildlife viewing and fishing. In such cases, two trips would have been reported when just one would be appropriate. How often this occurs is unknown.

Approach #2 yielded a higher level of impacts, as previously explained. Hunters annually spent \$3.9 billion from 2000-2003 for USFS-oriented hunting activities. These expenditures in turn nationally supported 90,846 jobs and generated \$471.6 million in federal income tax revenues. Anglers spent \$5.6 billion, supporting 145,399 jobs and \$665.0 million in federal income tax revenues. Wildlife viewers spent a larger amount, \$10.3 billion, which supported 275,157 jobs and \$870.1 million in federal tax revenues. Across the U.S., hunters, anglers and wildlife viewers spent a maximum of \$19.8 billion in retail sales for their activities that took place on USFS-managed lands. These expenditures supported 511,402 jobs and \$2.0 billion in federal income tax receipts. National and state results are listed in Tables E-1, E-2 and E-3 for hunting, fishing and wildlife-viewing, respectively. Table E-4 presents the impacts for all wildlife-based recreation combined. Detailed economic impacts, including total economic activity, state and federal tax revenues, and earnings are found inside this report in Tables 10 and 11.

Approach #1 reports hunters spent more than anglers, who spent more than wildlife viewers. Approach #2 reverses the order, with wildlife viewers spending the most and hunters the least. This difference is caused by the use of 'primary trips' in Approach #1. Only expenditures from trips made for the primary purpose of the reported activity were included in the analysis using Approach #1. With only 11 percent of wildlife viewing trips made for the primary purpose of

viewing wildlife, a significant percentage of wildlife viewing dollars were excluded from the analysis. However, with 89 percent of hunting trips being primary purpose trips, most hunter expenditures were included. Fifty-five percent of angler expenditures were retained in analysis based on the first approach. All of the dollars were retained in the analysis in Approach #2.

Due to a change in data sources and methodologies, the results in this report should not be compared to previous U.S. Forest Service (USFS) economic reports produced by the American Sportfishing Association. Those reports were based solely on the U.S. Fish and Wildlife Service's (USFWS) *National Survey of Fishing, Hunting and Wildlife-Associated Recreation*. This new report uses the National Visitor Use Monitoring Survey recently developed by the USFS as the basis for estimating annual visitor levels for each USFS unit. Due to its targeted methodology, the new USFS data is more accurate in regards to USFS participation levels and cannot be directly compared to data from the USFWS Survey.

Table E-5 presents the number of trips made annually per state for fishing, hunting and wildlife-viewing. Trips made for the primary purpose of wildlife-related recreation (from Approach #1) are presented as are the total number of trips from Approach #2.

Table E-5: Number of Visitors to Forest Service Units by State for Hunting, Fishing and Wildlife-Viewing, annual average from 2000-2003

State	Hunting		Fishing		Wildlife Viewing	
	Primary Participants (Approach #1)	All Participants (Approach #2)	Primary Participants (Approach #1)	All Participants (Approach #2)	Primary Participants (Approach #1)	All Participants (Approach #2)
Alabama	273,985	311,926	19,442	171,960	52,381	220,944
Alaska	82,208	97,665	224,217	361,879	160,318	682,350
Arizona	815,130	972,727	1,071,883	1,941,943	586,306	6,924,572
Arkansas	905,756	958,768	115,667	247,851	97,610	1,174,279
California	947,373	1,176,410	2,850,213	4,984,833	1,091,956	11,593,008
Colorado	1,059,696	1,164,162	1,473,041	2,599,879	1,697,747	12,399,613
Connecticut	n/a	n/a	n/a	n/a	n/a	n/a
Delaware	n/a	n/a	n/a	n/a	n/a	n/a
Florida	316,800	455,400	534,600	693,000	19,800	415,800
Georgia	140,152	197,397	298,810	560,607	59,466	962,803
Hawaii	n/a	n/a	n/a	n/a	n/a	n/a
Idaho	871,128	1,053,664	730,738	1,518,034	476,035	3,276,287
Illinois	64,677	66,846	42,861	70,185	6,055	257,406
Indiana	73,060	80,095	171,162	195,107	1,807	312,700
Iowa	n/a	n/a	n/a	n/a	n/a	n/a
Kansas	n/a	n/a	n/a	n/a	n/a	n/a
Kentucky	395,707	423,972	405,129	558,230	21,199	1,052,864
Louisiana	115,827	116,533	9,181	43,082	14,832	97,464
Maine	0	13,500	0	13,500	148,500	823,500

Table E-5 (Continued)	Hunting		Fishing		Wildlife Viewing	
	Primary Participants (Approach #1)	All Participants (Approach #2)	Primary Participants (Approach #1)	All Participants (Approach #2)	Primary Participants (Approach #1)	All Participants (Approach #2)
State						
Maryland	n/a	n/a	n/a	n/a	n/a	n/a
Massachusetts	n/a	n/a	n/a	n/a	n/a	n/a
Michigan	301,513	323,328	214,447	423,614	252,597	1,351,583
Minnesota	579,027	689,951	1,086,667	1,844,732	314,290	2,355,235
Mississippi	1,925,467	2,086,202	358,304	629,544	264,542	1,272,483
Missouri	91,740	88,977	30,948	39,238	6,632	245,929
Montana	1,540,729	1,623,663	684,185	1,411,561	509,943	4,585,468
Nebraska	33,280	38,800	4,870	11,039	6,331	87,178
Nevada	645,932	645,932	99,374	273,279	273,279	1,267,020
New Hampshire	0	13,500	0	13,500	148,500	823,500
New Jersey	n/a	n/a	n/a	n/a	n/a	n/a
New Mexico	481,028	486,884	133,727	793,575	910,526	3,409,845
New York	85,000	85,000	85,000	85,000	0	204,000
North Carolina	129,320	175,506	508,043	882,147	69,279	2,226,150
North Dakota	n/a	n/a	n/a	n/a	n/a	n/a
Ohio	25,830	28,627	101,291	119,169	165	373,850
Oklahoma	206,250	218,750	56,250	75,000	62,500	393,750
Oregon	908,342	1,153,506	1,233,964	2,549,329	733,162	7,738,073
Pennsylvania	158,130	170,837	148,247	351,557	144,011	857,008
Rhode Island	n/a	n/a	n/a	n/a	n/a	n/a
South Carolina	325,466	336,767	135,611	190,985	25,992	402,312
South Dakota	99,423	111,444	247,054	452,912	45,955	773,093
Tennessee	191,083	191,083	447,215	565,117	0	1,075,349
Texas	227,580	253,448	103,774	127,235	0	179,273
Utah	561,089	693,921	1,255,419	2,154,947	142,813	5,210,405
Vermont	85,000	85,000	85,000	85,000	0	204,000
Virginia	386,100	415,800	445,500	564,300	148,500	1,039,500
Washington	321,556	407,817	492,665	975,378	1,033,380	5,674,042
West Virginia	643,019	696,564	449,215	754,734	99,860	1,577,824
Wisconsin	n/a	n/a	n/a	n/a	n/a	n/a
Wyoming	517,579	554,448	338,884	782,490	194,492	2,741,705
United States	16,530,982	18,664,818	16,692,599	30,115,474	9,820,758	86,262,165

ECONOMIC CONCEPTS AND DESCRIPTIONS

The economic benefits of outdoor recreation can be estimated by two types of economic measures: economic impacts and economic values. An economic impact addresses the business and financial activity resulting from user's expenditures. Economic value measures the intrinsic value received by the user in the course of their outdoor activity. This concept is also known as "consumer surplus". Only **economic impacts** are addressed in this report.

There are three types of economic impacts: direct, indirect and induced. A direct impact is created by the initial purchase made by the consumer. For example, when a person buys binoculars for \$395 there is a direct impact to the retailer of \$395. Indirect impacts are the secondary effects generated from a direct impact. For example, the retail store must purchase additional binoculars; the binocular manufacturer must purchase additional glass and metals for production; glass manufacturers must buy inputs, and so on. Therefore, the original expenditure of \$395 for the binoculars benefits a host of other industries. An induced impact results from the wages and salaries paid by the directly and indirectly impacted industries. The employees of these industries spend their income on various goods and services. These expenditures are known as induced impacts which, in turn, create a continual cycle of additional indirect and induced effects.

The sum of the direct, indirect and induced impacts equals the total economic impact. As the original retail purchase goes through round after round of indirect and induced effects, the economic impact of the original purchase is multiplied, benefiting many industries and individuals. Likewise, the reverse is true. If a particular item or industry is removed from the economy, the economic loss is greater than the original lost retail sale. Once the original retail purchase is made, each successive round of spending is smaller than the previous round. When the economic benefits are no longer measurable, the economic examination ends.

METHODS and RESULTS

The approaches used to estimate the economic impacts of wildlife-related activities on U.S. Forest Service-managed areas are separated into three primary stages:

- (1) *Participation*: Develop state and national estimates of the number of trips to U.S. Forest Service-managed areas made for fishing, hunting or wildlife viewing.
- (2) *Expenditures*: Multiply the number of trips by the average dollars spent per trip to estimate the total expenditures attributable to people who visited USDA national forests to fish, hunt and view wildlife.
- (3) *Impacts*: Generate economic impact estimates by matching the expenditures per state and nation with appropriate economic multipliers.

Two approaches were used to estimate the economic impacts for fishing, hunting and wildlife viewing. The first approach was the conservative approach and can be considered the minimum estimate of the economic impacts created by wildlife-related recreation. This approach only considers expenditures made within 50 miles of each USFS unit. Expenditures beyond that range have a higher likelihood of being used for purposes other than USFS recreation or shared across multiplier trips. This results in the exclusion of most equipment purchases such as binoculars, fishing tackle, firearms, etc. In addition, this approach excludes wildlife-related visits to USFS units when the trips were made for a primary reason other than wildlife. For example, the trip may have been made for camping, bicycling, or were just passing through to visit another town. Irregardless of the purpose, it can be assumed the dollars for that trip would have been spent even if fish and wildlife were not present.

The second approach includes all expenditures made in-state for the wildlife-related trip. A portion of annual equipment expenditures are pro-rated to each trip, and all wildlife-related trips are included, even those taken for a primary purpose other than fish or wildlife. This approach is considered the maximum estimate, and is best used to explain the economic activity statewide related to USFS-based fish and wildlife recreation. The rest of the text in this chapter will be divided into “Approach #1” and “Approach #2” based on the descriptions here.

I. Participation

For both approaches, participation data were obtained from the National Visitor Use Monitoring Program (NVUM), conducted by the U.S. Forest Service’s Recreation, Heritage & Wilderness Resources office. The NVUM is “...designed to provide an estimate of national forest recreation

visits” (English, et al; 2001) and conducts regular surveys on each individual forest unit to estimate total visitors, the primary motivations for their visits, and to develop expenditure profiles for a sub-sample of forest visitors. More information about the NVUM is available at www.fs.fed.us/recreation/programs/nvum/.

Visitor data from the first full cycle of surveys, from January 2000 through September 2003, were used in this project. The estimated number of annual visits per forest unit were downloaded from the survey. This was the only necessary step for Approach #2. For Approach #1, the estimated annual visits were next multiplied by the percentage of all trips made for the *primary* purpose of fishing, hunting and wildlife viewing.

The next step in Approach #1 was to divide the visitation data into six primary categories of users. Analyses of expenditures reported by forest visitors show the primary factor determining the amount spent by a visitor was the type of trip taken and not the specific activity or forest visited (Stynes and White; 2005). These six trip type segments are defined in Figure 1.

Figure 1 (Stynes and White; 2005):

Visitors who reside greater than 50 miles from the forest visited:
1. Non-local day trips: Non-local residents on day trips
2. Non-local OVN-NF: Non-local residents staying overnight on the NF
3. Non-local OVN: Non-local residents staying overnight off the NF
Visitors who live within 50 miles of the forest visited:
4. Local day trips: Local residents on day trips
5. Local OVN-NF: Local residents staying overnight on the NF
6. Local-OVN: Local residents staying overnight off the NF

A seventh category of trip types was not included, non-primary visits. As this project was only interested in primary activities, these trips were excluded from this analysis. Appendix A presents the estimated number of hunting, fishing and wildlife-viewing trips per forest unit.

The data used to divide total visits into trip types were provided by Stynes and White (2005). These data, from the NVUM survey, report the percentage of all trips taken nationally by trip type. Due to limited sample sizes in the NVUM data, estimating the number of trips per trip type at the forest and state levels were not possible. Table 1 presents the percentage of trips per segment specific to hunting, fishing and wildlife-viewing.

Table 1: Percent of Hunting, Fishing and Wildlife-Viewing Trips by Trip Type Segment (Stynes and White, 2005)

Local Trips:			Non-Local Trips:				
Day	OVN-NF	OVN	Day	OVN-NF	OVN	Non-Primary	TOTAL ¹
6.9%	10.7%	10.4%	50.5%	8.9%	8.8%	n/a	100.1%

The visitation data developed up to this point represent the total number of visitors. However, the expenditure data from the NVUM survey used in Approach #1 explains the dollars spent per travel party and not per person. There are typically more than one person per auto, or travel party, entering a forest. Therefore, for Approach #1 only, a step was made to adjust the number of visitors to reflect the number of parties visiting each forest.² The data to make this conversion were obtained from Stynes and White (2005). Table 2 presents the average number of people identified nationally per fishing, hunting and wildlife-viewing party based on the NVUM surveys. State and forest unit-specific results were not possible based on the limited sample sizes.

Table 2. Average Number of People Per Party for Hunting, Fishing and Wildlife-Related Trips (Stynes and White, 2005)

Local Trips:			Non-Local Trips:			
Day	OVN-NF	OVN	Day	OVN-NF	OVN	Non-Primary
2.0	2.1	2.2	1.9	2.0	2.2	n/a

Appendix B presents the estimated number of hunting, fishing and wildlife-viewing travel parties per forest unit.

II. Expenditures

Expenditures per Trip:

Approach #1: Using Travel-Related Expenditures Derived from the NVUM

Developing the state and regional expenditure estimates was a simple process of matching a per-trip expenditure profile for hunting, fishing or wildlife-viewing with the appropriate estimate of visits. The expenditure profiles are found in the appendices of the Stynes and White (2005) report. These profiles provide average expenditures made for each of the six trip segments

¹ The total exceeds 100 percent due to rounding error and is considered insignificant.

² Expenditure data for Approach #2 reports dollars per person, not per party. A similar adjustment was not necessary for Approach #2.

presented in Figure 1. A statistical analysis showed that the average expenditure did not vary much between fishing, hunting and wildlife-viewing, but varied based on the type and duration of the trip (Stynes and White, 2005). The expenditures per trip segment are presented in Table 3.

Table 3. Average Expenditure Per Party for Hunting, Fishing and Wildlife-Related Trips (Stynes and White, 2005)

Local Trips:			Non-Local Trips:		
Day	OVN-NF	OVN	Day	OVN-NF	OVN
\$40.71	\$203.78	\$249.95	\$44.03	\$151.92	\$116.49

The expenditure profiles report the amount spent per party, not per visitor. In addition, the expenditures only represent the amount spent within 50 miles of the interview site for travel-related expenses. Expenditures made for travel beyond a 50-mile radius around the forest are excluded as are any durable goods used on the trip that were purchased outside of the radius. This is done intentionally as a major purpose of the NVUM is to help each unit measure the amount of expenditures and benefits generated for communities within and around the forest. All dollars are reported in 2002 terms.

Estimates of the total travel-related expenditures per forest were generated by multiplying the number of trips per forest for each activity (hunting, fishing and wildlife viewing) by the appropriate expenditure profile. These results are presented in Appendix C.

Expenditures per Trip:

Approach #2: Considering Equipment Expenditures Using USFWS Data

Estimates of the total expenditures (travel-related expenditures plus equipment (durable goods)) made for primary activities within each unit were also developed using U.S. Fish and Wildlife Service data. It is reasonable to say all hunters, anglers and wildlife-viewers use some level of equipment during their visits to a forest unit. The specific amount of equipment used will vary per person. If the focus requires a look at the economic impacts generated by all expenditures associated with a forest unit, including expenditures made further than a 50-mile radius of the forest, then including equipment estimates is reasonable.

When estimating portions of equipment expenditures associated with usage on Forest Service-managed lands, there are several unknowns to consider:

1. Given available data, the amount of the user's equipment that would not have been purchased if the user could not visit a USDA forest unit is unknown.
2. The level that substitutes would play are unknown. For example, if other lands were available for recreation, would the purchase still have been made? Also, if Forest Service-managed lands were not available, would the recreationist have still participated, but maybe less frequently and possibly bought lower priced substitute equipment as a result?

3. Equipment is also worn, or depreciated, to some unknown degree by usage within a forest, causing the owner to replace that item sooner than if the item had been left at home.

The first two issues, which are closely linked, cannot be addressed given available data. The assumption is made that the portion of an expenditure assigned to a particular trip to a Forest Service unit would not have been made at all, including any substitution options. The third issue can be addressed. It is deemed reasonable to appropriate a small percentage of an equipment purchase price to a forest's economic impact, if that item was used in that forest. The availability of equipment from retailers within and around most forests attests to the point that some level of equipment sales can be attributed to activities on a forest unit, and that the presence of recreational opportunities on USDA-managed lands stimulates sales of equipment in areas beyond the 50 mile radius. An example would be an REI retailer in the Washington, D.C. metro area who sells camping gear for local residents planning to visit the George Washington or Jefferson National Forests. Please note that in this study "equipment" will also include the small level of expenditures made for services associated with equipment, such as maintenance and storage.

Participant expenditures, including equipment, are estimated using data from the 2001 National Survey of Fishing, Hunting and Wildlife-Associated Recreation (Survey). The Survey is developed every five years by the U.S. Fish and Wildlife Service at the request of the International Association of Fish and Wildlife Agencies. The U.S. Bureau of the Census is contracted to field the Survey. The Survey inquires about the total annual expenditures made by anglers, hunters and wildlife viewers, including the amount spent for specific travel-related items and equipment. The Survey also tracks the total number of days of annual participation.

Recognizing that not all outdoor recreationists replace their equipment every year, their equipment purchases in one specific year will not reflect the total products in use that year. Some items, such as cooking utensils and firearms, can last nearly a lifetime. However, it is reasonable to assume that a *percentage* of all equipment are replaced each year based on either wear-and-tear or obsolescence in face of new products that promise greater service. Collectively, the total amount spent for equipment in one year reflects the level of products worn out or made obsolete that year, plus the growth rate in the number of recreationists. Therefore, recognizing a lack of better data, the annual expenditures made for equipment in one year are a decent measure of the percentage of all equipment "consumed" that year.

Per-day expenditures for travel and equipment were estimated by dividing the entire amount reported in the Survey as spent by hunters, anglers and wildlife viewers respectively by their total days of activity. This yields the total dollars attributed to a day of recreation, and includes expenditures by both primary users and all users. Table 4 presents the average expenditure per trip and the percentage attributable to equipment. Equipment represents nearly one-half or more of all expenditures. Appendix D presents the estimated total expenditures per forest, including equipment.

Table 4. Average Expenditure Per Trip and Estimated Percentage of All Purchases Composed of Equipment, 2001

	Average Per Trip	% Travel-Related	% Equipment
Hunting	\$81.52	41.9%	58.1%
Fishing	\$67.60	51.8%	48.2%
Wildlife Viewing	\$105.38	43.5%	56.5%

Expenditures per State and for the Nation

The objective of this project and both research approaches is to develop state-level and national economic impacts for hunting, fishing and wildlife viewing, not forest-level impacts. The amount spent in a state was produced by simply summing the dollars attributable to each forest within that state's borders. In a case were a forest crosses a state boundary, the expenditures were split between the two states. The results for Approach #1 are presented in Table 5a. Table 5b presents the estimated expenditures from Approach #2. Appendix E lists the amounts spent for different types of hunting (big game, small game, migratory bird and other).

Table 5a. Estimated Dollars Spent Per State within 50 Miles of a USFS-Managed Unit, annual average from 2000-2003 (Based on USFS NVUM Data, Limited to Dollars Spent (Approach #1))

State	Wildlife Viewing	Fishing	Hunting
Alabama	\$1,896,707	\$705,752	\$9,924,632
Alaska	\$14,692,895	\$13,011,828	\$2,700,584
Arizona	\$30,746,034	\$47,163,730	\$34,957,881
Arkansas	\$2,260,984	\$4,903,721	\$27,000,139
California	\$16,272,705	\$111,530,390	\$37,469,972
Colorado	\$29,807,539	\$55,718,866	\$51,219,419
Connecticut	n/a	n/a	n/a
Delaware	n/a	n/a	n/a
Florida	\$4,221,426	\$14,958,533	\$18,812,878
Georgia	\$2,420,741	\$12,334,252	\$5,533,123
Hawaii	n/a	n/a	n/a
Idaho	\$8,636,766	\$29,711,423	\$61,513,047
Illinois	\$869,947	\$2,132,114	\$2,482,887

Table 5a (Continued)			
State	Wildlife Viewing	Fishing	Hunting
Indiana	\$60,277	\$6,479,747	\$2,772,729
Iowa	n/a	n/a	n/a
Kansas	n/a	n/a	n/a
Kentucky	\$10,802,616	\$40,269,242	\$12,472,001
Louisiana	\$1,426,876	\$548,799	\$5,853,851
Maine	\$2,149,496	\$260,545	\$130,272
Maryland	n/a	n/a	n/a
Massachusetts	n/a	n/a	n/a
Michigan	\$3,468,855	\$8,061,895	\$10,167,982
Minnesota	\$3,044,442	\$57,816,589	\$26,693,849
Mississippi	\$8,385,707	\$11,282,587	\$61,901,762
Missouri	\$231,014	\$1,183,947	\$3,551,841
Montana	\$14,336,654	\$36,340,554	\$71,816,348
Nebraska	\$204,193	\$150,925	\$1,065,356
Nevada	\$4,409,079	\$3,779,210	\$23,620,064
New Hampshire	\$2,149,496	\$260,545	\$130,272
New Jersey	n/a	n/a	n/a
New Mexico	\$26,139,677	\$6,202,802	\$21,210,257
New York	\$2,112,068	\$3,330,569	\$3,249,336
North Carolina	\$9,096,832	\$19,263,879	\$8,561,724
North Dakota	\$521,697	\$149,056	\$2,832,071
Ohio	\$0	\$3,226,347	\$844,996
Oklahoma	\$2,260,984	\$4,903,721	\$27,000,139
Oregon	\$16,549,137	\$45,833,951	\$37,918,893
Pennsylvania	\$4,928,113	\$6,122,806	\$9,482,883
Rhode Island	n/a	n/a	n/a
South Carolina	\$868,732	\$5,026,237	\$11,541,730
South Dakota	\$1,750,221	\$6,818,185	\$5,523,123
Tennessee	\$0	\$17,098,730	\$7,552,813
Texas	\$0	\$3,234,851	\$7,341,705
Utah	\$6,829,773	\$52,554,104	\$25,165,437
Vermont	\$2,112,068	\$3,330,569	\$3,249,336
Virginia	\$7,673,086	\$24,582,295	\$24,440,201
Washington	\$9,744,129	\$21,446,364	\$18,939,203
West Virginia	\$3,616,697	\$15,729,794	\$22,156,508
Wisconsin	n/a	n/a	n/a
Wyoming	\$6,424,237	\$11,450,474	\$16,589,181
United States	\$263,121,903	\$708,909,930	\$725,390,427

Table 5b. Estimated Dollars Spent Statewide For USFS-Oriented Recreation, annual average from 2000-2003 (Based on U.S. Fish and Wildlife Service Expenditures, Including Equipment and Services Purchased More than 50 Miles from Activity Site (Approach #2))

State	Wildlife Viewing	Fishing	Hunting
Alabama	\$30,261,504	\$9,829,830	\$17,678,592
Alaska	\$214,177,090	\$95,270,209	\$23,354,524
Arizona	\$3,438,455,087	\$511,869,967	\$225,309,203
Arkansas	\$92,750,921	\$8,476,989	\$30,100,674
California	\$2,804,075,357	\$1,412,177,564	\$262,810,666
Colorado	\$3,077,932,868	\$565,639,171	\$493,925,266
Connecticut	n/a	n/a	n/a
Delaware	n/a	n/a	n/a
Florida	\$272,353,643	\$296,243,626	\$180,606,315
Georgia	\$171,620,923	\$37,582,460	\$14,137,844
Hawaii	n/a	n/a	n/a
Idaho	\$897,674,185	\$326,160,587	\$291,511,283
Illinois	\$21,824,086	\$4,670,776	\$5,559,079
Indiana	\$40,575,348	\$13,209,378	\$5,215,505
Iowa	n/a	n/a	n/a
Kansas	n/a	n/a	n/a
Kentucky	\$114,295,503	\$41,129,244	\$47,184,054
Louisiana	\$3,699,597	\$1,291,506	\$3,682,952
Maine	\$212,847,847	\$1,926,534	\$1,472,572
Maryland	n/a	n/a	n/a
Massachusetts	n/a	n/a	n/a
Michigan	\$120,388,089	\$40,818,346	\$49,493,415
Minnesota	\$344,858,750	\$470,649,970	\$193,260,913
Mississippi	\$777,711,563	\$46,416,590	\$253,076,565
Missouri	\$14,496,755	\$2,019,745	\$3,557,054
Montana	\$770,927,836	\$188,267,232	\$251,937,624
Nebraska	\$13,739,819	\$1,276,779	\$7,464,930
Nevada	\$476,515,292	\$55,689,289	\$225,881,897
New Hampshire	\$212,847,847	\$1,926,534	\$1,472,572
New Jersey	n/a	n/a	n/a
New Mexico	\$605,770,910	\$61,436,656	\$104,508,683
New York	\$5,322,759	\$2,056,340	\$1,730,992
North Carolina	\$706,122,922	\$143,427,304	\$21,818,704
North Dakota	n/a	n/a	n/a
Ohio	\$9,264,059	\$6,930,979	\$1,955,655
Oklahoma	\$39,216,848	\$4,181,252	\$11,066,147
Oregon	\$1,300,474,583	\$357,136,738	\$442,371,044
Pennsylvania	\$70,074,540	\$17,152,409	\$11,985,786
Rhode Island	n/a	n/a	n/a
South Carolina	\$18,174,675	\$7,390,076	\$11,352,471

Table 5b (Continued)			
State	Wildlife Viewing	Fishing	Hunting
South Dakota	\$114,950,629	\$83,636,145	\$40,348,453
Tennessee	\$145,923,147	\$45,393,820	\$29,765,840
Texas	\$71,112,517	\$15,943,873	\$43,089,236
Utah	\$1,138,932,410	\$368,379,737	\$154,449,236
Vermont	\$5,322,759	\$2,056,340	\$1,730,992
Virginia	\$131,074,076	\$37,456,917	\$27,180,578
Washington	\$1,528,719,381	\$152,946,410	\$113,691,082
West Virginia	\$93,338,181	\$37,770,127	\$44,973,424
Wisconsin	n/a	n/a	n/a
Wyoming	\$767,920,301	\$155,167,767	\$167,821,330
United States	\$20,875,744,609	\$5,631,005,219	\$3,818,533,150

III. Impacts

The scope of the study was to develop national and state-level economic impacts for fishing, hunting and wildlife viewing activities that occurred within USDA forest units. Resources did not permit the construction of new economic models unique to each forest or state. Information on the multipliers applicable to each state were obtained from the three sources listed below. These will be collectively referred to as the “source reports”:

Fishing: Sportfishing in America – Values of Our Traditional Pastime (ASA 2002). Produced by the American Sportfishing Association with funding from the IAFWA/U.S. Fish and Wildlife Multi-State Grants program, this study was based on the U.S. Fish and Wildlife Service’s *2001 National Survey of Fishing, Hunting and Wildlife-Associated Recreation* (2001 Survey). This report estimates economic impacts for sportfishing for each state and the nation as a whole. The multipliers were developed using the Regional Input-Output Modeling System (RIMS-II) developed by the U.S. Department of Commerce.

Hunting: The Economic Importance of Hunting in America (IAFWA 2002). Produced by the International Association of Fish and Wildlife Agencies (IAFWA) under funding from the IAFWA/U.S. Fish and Wildlife Services’ Multi-State Grants program, this study was also based on the 2001 Survey. This report provided economic impact estimates generated by hunting for each state and the nation as a whole. RIMS-II was also the basis for this study.

Wildlife Viewing: 2001 National and State Economic Impacts of Wildlife Watching. Addendum to the 2001 National Survey of Fishing, Hunting and Wildlife-Associated Recreation. (Caudill 2003). Produced by the U.S. Fish and Wildlife Service's Division of Economics, and based on the 2001 Survey, this report used IMPLAN models to estimate economic impacts. Both the IMPLAN and RIMS-II models were built from the same business expenditure matrices developed by the U.S. Department of Commerce.

Each of these reports presents detailed economic impacts for each state and the U.S. as a whole, including:

Retail sales: the amount spent by recreationists for goods and services related to their activity, including travel and equipment expenditures.

Output, or Total Multiplier Effect: The total economic activity originally stimulated by recreationists' expenditures. These includes multiple rounds of expenditures by the retailer and its vendors and employees for inventory, payroll and operating expenses as part of their activities related to supporting the original retail sale.

Earnings (salaries, wages & profits): The total wages, salaries, rent income and profits received by individuals and businesses as a result of the economic activity generated by recreationists' expenditures.

Jobs: The total jobs, full and part time, supported by the economic activity generated by recreationists' expenditures. These include jobs directly associated with outdoor recreation, such as bait shops or boot manufacturers, and indirectly-supported jobs such as accountants, utility staff, mining and others who support businesses in the outdoor industry.

Tax Revenues: Tax revenues include separate estimates for state income tax, state sales tax and federal income tax revenues. For the hunting and fishing estimates, sales tax revenues are only associated with original retail sales as it is not possible to track the appropriate tax rates through the subsequent rounds of spending. For hunting and fishing, sales tax estimates also include fuel tax receipts. State and federal income tax receipts are based on the total economic activity created by the original retail sale. The specific state tax percentages and exemptions are included in the fishing and hunting estimates. For wildlife viewing, it is not clear the level of exemptions allowed in the data source.

Within these three reports, detailed economic impact estimates were provided for multiple travel-related expenditures as well as durable goods and services. Also provided were the retail sales used to estimate impacts. "Multiplier ratios" were developed for each of the several dozen expenditure categories in the three reports by dividing each reported impact by its respective retail sales. For example, the earnings multiplier ratio for U.S. hunting impacts, .67874, was developed by dividing the total reported earnings generated by hunter's lodging expenditures, \$24.709 billion, by its respective retail sales, \$16.771 billion.

Approach #1: Applying the Multipliers to the NVUM Expenditure Data

The economic multipliers derived from the reports listed above are based on the expenditures provided by the U.S. Fish and Wildlife Service’s *2001 National Survey of Fishing, Hunting and Wildlife-Associated Recreation* (2001 Survey) and not the U.S. Forest Service’s *National Visitor Use Monitoring Survey* (NVUM). The expenditure estimates within NVUM are composed of eight major expenditure categories and not the 30-plus expenditure categories in the 2001 Survey. Therefore, multipliers derived from the 2001 Survey-based reports will not match the different mix of expenditures provided by NVUM. However, multipliers were needed that matched the NVUM’s expenditures. Such multipliers were developed using weighted multiplier “ratios”.

For hunting and fishing, weighted multiplier ratios were developed specific to each state. We developed state-level (versus forest or county level) multiplier ratios that report the impacts for all trips taken within a state. Multiplier ratios were developed for each type of trip reported in the NVUM survey: Day, OVN-NF, and OVN for both local and non-local visitors. Table 6 lists the types of trips and average expenditure per party. The specific steps taken to develop the weighted multiplier ratios are explained using the Louisiana fishing multiplier calculations:

Table 6. Average Expenditures Per Day & Per Party by Wildlife-Related Forest Visitors (Stynes & White, 2005)

	<u>Non-Local Visitors:</u>			<u>Local Visitors:</u>		
	Day	OVN-NF	OVN	Day	OVN-NF	OVN
Lodging	\$0.00	\$31.62	\$63.70	\$0.00	\$15.02	\$14.87
Restaurant	\$8.39	\$28.44	\$57.76	\$6.19	\$15.15	\$18.44
Groceries	\$7.00	\$48.53	\$33.62	\$8.11	\$49.42	\$24.67
Gas & oil	\$16.00	\$54.31	\$47.04	\$15.51	\$38.40	\$34.89
Other transportation	\$0.00	\$2.10	\$1.74	\$0.02	\$0.52	\$0.16
Activities	\$2.97	\$8.47	\$18.81	\$1.81	\$3.28	\$4.58
Admissions/fees	\$2.44	\$8.03	\$6.50	\$2.81	\$6.47	\$3.46
Souvenirs/other	\$3.91	\$22.28	\$20.78	\$9.58	\$23.66	\$15.42
	\$40.71	\$203.78	\$249.95	\$44.03	\$151.92	\$116.49

Step 1. From the three source reports, the fishing, hunting and wildlife viewing multipliers were extracted that best correspond with the expenditures reported in the NVUM (Table 7). In the case of the NVUM’s Restaurant and Groceries line items, the best corresponding datum from the fishing and hunting source reports was “Food, drink and refreshment.” The multipliers developed in the source reports for “Food, drink and refreshment” were a combination of “Eating and drinking establishments” and “food retail”, and already reflect the combination of related expenditures provided by the NVUM.

Step 2. To develop a weighted average for the extracted multiplier ratios (Column A, Table 8) for each trip type (listed Columns B, Table 8), we first calculated the percentage of each trip's expenditure comprised of each line item (Columns B), then multiplied this percentage by the state-specific multipliers (Column A). The results are presented in Table 9. The final multiplier ratio, which is the weighted average, used in the impact analyses is presented in the bottom row of Table 9.

Table 7. First Step in the Multiplier Development Process:

<u>USFWS:</u>	<u>State Earnings Multipliers:</u>		<u>NVUM:</u>
Lodging	0.56520		Lodging
Food, drink & refreshments	0.45558	→	Restaurant + Groceries
Transportation by private vehicle	0.31343		Gas & oil
Public transportation	0.49860		Other transportation
Guide fees/pack trip + equip. rental	0.49305		Activities
Public land use fees	0.42880	→	Admissions/fees
Other expenses related to fishing trip	0.54312		Souvenirs/other

Table 8. Second Step in the Multiplier Development Process:

<u>Column A</u>		<u>Columns B</u>					
	<u>State Earnings Multipliers:</u>	<u>Non-Local Visitors:</u>			<u>Local Visitors:</u>		
		<u>Day</u>	<u>OVN-NF</u>	<u>OVN</u>	<u>Day</u>	<u>OVN-NF</u>	<u>OVN</u>
Lodging	0.56520	0.0%	15.5%	25.5%	0.0%	9.9%	12.8%
Restaurant + Groceries	0.45558	37.8%	37.8%	36.6%	32.5%	42.5%	37.0%
Gas & oil	0.31343	39.3%	26.7%	18.8%	35.2%	25.3%	30.0%
Other transportation	0.49860	0.0%	1.0%	0.7%	0.0%	0.3%	0.1%
Activities	0.49305	7.3%	4.2%	7.5%	4.1%	2.2%	3.9%
Admissions/fees	0.42880	6.0%	3.9%	2.6%	6.4%	4.3%	3.0%
Souvenirs/other	0.54312	9.6%	10.9%	8.3%	21.8%	15.6%	13.2%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 9. Weighted Averages and Final Multiplier Ratios:

<u>Weighted Earnings Multipliers: Louisiana Fishing</u>						
	<u>Non-Local Visitors:</u>			<u>Local Visitors:</u>		
	<u>Day</u>	<u>OVN-NF</u>	<u>OVN</u>	<u>Day</u>	<u>OVN-NF</u>	<u>OVN</u>
Lodging	0.00000	0.08770	0.14404	0.00000	0.05588	0.07215
Restaurant + Groceries	0.17223	0.17208	0.16656	0.14796	0.19364	0.16860
Gas & oil	0.12318	0.08353	0.05899	0.11041	0.07922	0.09387
Other transportation	0.00000	0.00514	0.00347	0.00023	0.00171	0.00068
Activities	0.03597	0.02049	0.03710	0.02027	0.01065	0.01939
Admissions/fees	0.02570	0.01690	0.01115	0.02737	0.01826	0.01274
<u>Souvenirs/other</u>	<u>0.05216</u>	<u>0.05938</u>	<u>0.04515</u>	<u>0.11817</u>	<u>0.08459</u>	<u>0.07189</u>
TOTAL / Final Multiplier Ratios:	0.40925	0.44522	0.46647	0.42440	0.44394	0.43932

State-specific multipliers were developed for hunting, fishing and wildlife viewing. The final multiplier ratios are presented in appendices F, G, and H for each activity respectively. The expenditures associated with each forest (Tables 5a and 5b, Appendix C) were then matched with the appropriate multipliers to develop the final impact estimates. Then, the results for all trip-types within a unit were summed, and the impacts for all units within a state were summed to arrive at the final state-level impacts. The final hunting and fishing impacts from Approach #1 are presented in Tables 10a and 10b. These figures represent the state-wide economic impacts resulting from expenditures within 50 miles of U.S. Forest Service-managed units for primary purpose trips only.

Tables 10a – 10c. The Economic Impacts of Hunting, Fishing and Wildlife-Viewing Activities Within U.S. Forest Service-Managed Units (Based on the expenditures made by primary-purpose recreationists within 50 miles of each unit).

Table 10a. Hunting Impacts, Annual average from 2000-2003

State	Retail Sales	Total Multiplier Effect	Salaries, Wages & Business Profits	Jobs (Full & Part-time)	Sales/Fuel Tax Revenues	State Income Tax Revenues	Federal Income Tax Revenues
Alabama	\$9,924,632	\$19,226,100	\$4,646,239	232	\$643,652	\$186,832	\$520,497
Alaska	\$2,700,584	\$4,595,451	\$1,060,220	45	\$46,127	\$0	\$92,815
Arizona	\$34,957,881	\$62,449,274	\$15,823,820	647	\$2,110,244	\$406,000	\$2,877,537
Arkansas	\$27,000,139	\$53,190,220	\$12,357,079	628	\$1,769,798	\$660,312	\$1,243,989
California	\$37,469,972	\$64,644,577	\$15,990,236	541	\$2,104,262	\$768,103	\$2,873,238
Colorado	\$51,219,419	\$104,461,033	\$25,902,159	980	\$3,023,140	\$831,217	\$4,339,986
Connecticut	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Delaware	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Florida	\$18,812,878	\$33,795,670	\$8,734,192	354	\$1,015,363	\$0	\$1,391,019
Georgia	\$5,533,123	\$10,851,776	\$2,687,437	104	\$180,578	\$118,564	\$412,136
Hawaii	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Idaho	\$61,513,047	\$106,291,142	\$25,662,335	1,319	\$5,241,541	\$864,543	\$2,699,664
Illinois	\$2,482,887	\$5,234,346	\$1,267,091	45	\$155,327	\$28,486	\$228,820
Indiana	\$2,772,729	\$5,060,920	\$1,172,262	52	\$146,414	\$30,603	\$195,946
Iowa	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kansas	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kentucky	\$12,472,001	\$19,075,699	\$4,046,021	202	\$606,824	\$257,330	\$704,391
Louisiana	\$5,853,851	\$11,092,240	\$2,588,927	113	\$404,643	\$63,852	\$399,269
Maine	\$130,272	\$192,642	\$43,708	2	\$6,916	\$1,127	\$5,999
Maryland	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Massachusetts	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Michigan	\$10,167,982	\$17,694,890	\$4,381,723	176	\$666,014	\$127,937	\$802,656
Minnesota	\$26,693,849	\$50,331,184	\$12,040,759	494	\$1,721,033	\$419,528	\$2,074,975

Table 10a (Continued)	Retail Sales	Total Multiplier Effect	Salaries, Wages & Business Profits	Jobs (Full & Part- time)	Sales/Fuel Tax Revenues	State Income Tax Revenues	Federal Income Tax Revenues
Mississippi	\$61,901,762	\$120,335,523	\$27,367,589	1,280	\$5,241,293	\$957,192	\$2,766,002
Missouri	\$3,551,841	\$6,717,694	\$1,464,612	61	\$201,942	\$56,469	\$229,720
Montana	\$71,816,348	\$130,449,187	\$30,883,536	1,607	\$4,254,985	\$1,138,757	\$2,760,888
Nebraska	\$1,065,356	\$1,975,779	\$448,862	23	\$76,500	\$17,868	\$46,194
Nevada	\$23,620,064	\$37,701,765	\$9,152,779	339	\$1,797,942	\$0	\$1,534,119
New Hampshire	\$130,272	\$192,642	\$43,708	2	\$6,916	\$0	\$5,999
New Jersey	n/a	n/a	n/a	n/a	n/a	n/a	n/a
New Mexico	\$21,210,257	\$38,261,615	\$8,820,892	443	\$1,445,048	\$336,332	\$903,917
New York	\$3,249,336	\$5,338,808	\$1,205,018	49	\$235,169	\$34,019	\$173,597
North Carolina	\$8,561,724	\$15,504,693	\$3,713,189	167	\$595,106	\$187,248	\$608,652
North Dakota	\$2,832,071	\$4,737,192	\$1,042,261	56	\$187,042	\$5,071	\$108,538
Ohio	\$844,996	\$1,621,764	\$385,819	16	\$57,249	\$25,213	\$67,883
Oklahoma	\$27,000,139	\$53,190,220	\$12,357,079	628	\$1,769,798	\$660,312	\$1,243,989
Oregon	\$37,918,893	\$65,830,404	\$15,118,948	660	\$1,948,003	\$1,245,814	\$2,535,870
Pennsylvania	\$9,482,883	\$18,932,188	\$4,505,217	175	\$479,413	\$133,108	\$812,722
Rhode Island	n/a	n/a	n/a	n/a	n/a	n/a	n/a
South Carolina	\$11,541,730	\$17,855,427	\$4,225,450	201	\$695,597	\$181,882	\$727,126
South Dakota	\$5,523,123	\$9,528,830	\$2,147,655	114	\$384,549	\$0	\$218,503
Tennessee	\$7,552,813	\$14,310,990	\$3,424,409	136	\$611,035	\$0	\$603,323
Texas	\$7,341,705	\$16,346,344	\$3,983,653	148	\$504,192	\$0	\$691,934
Utah	\$25,165,437	\$50,781,847	\$12,460,872	568	\$2,106,001	\$510,044	\$1,359,209
Vermont	\$3,249,336	\$5,338,808	\$1,205,018	49	\$235,169	\$34,019	\$173,597
Virginia	\$24,440,201	\$45,827,030	\$10,469,025	445	\$1,594,770	\$461,269	\$1,658,364
Washington	\$18,939,203	\$34,028,770	\$8,414,793	337	\$1,436,661	\$6,608	\$1,541,149
West Virginia	\$22,156,508	\$38,816,658	\$8,274,399	432	\$1,847,922	\$301,229	\$827,949
Wisconsin	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Wyoming	\$16,589,181	\$28,368,277	\$6,410,815	331	\$934,199	\$0	\$606,667
United States	\$725,390,427	\$1,965,019,388	\$488,046,200	17,483	\$48,488,379	\$11,056,890	\$90,750,732

Table 10b. Fishing Impacts, Annual average from 2000-2003

State	Retail Sales	Total Multiplier Effect	Salaries, Wages & Business Profits	Jobs (Full & Part- time)	Sales/Fuel Tax Revenues	State Income Tax Revenues	Federal Income Tax Revenues
Alabama	\$705,752	\$1,361,376	\$332,011	17	\$45,771	\$14,282	\$36,240
Alaska	\$13,011,828	\$21,731,001	\$4,806,781	207	\$222,249	\$0	\$462,009
Arizona	\$47,163,730	\$86,869,477	\$22,251,209	909	\$2,910,176	\$551,530	\$3,812,152
Arkansas	\$4,903,721	\$9,676,847	\$2,273,022	116	\$321,428	\$131,703	\$253,253
California	\$111,530,390	\$230,503,959	\$58,945,149	1,975	\$7,530,734	\$2,830,419	\$10,608,994

Table 10b (Continued)	Retail Sales	Total Multiplier Effect	Salaries, Wages & Business Profits	Jobs (Full & Part- time)	Sales/Fuel Tax Revenues	State Income Tax Revenues	Federal Income Tax Revenues
Colorado	\$55,718,866	\$114,438,464	\$28,588,165	1,095	\$3,288,712	\$964,062	\$5,075,037
Connecticut	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Delaware	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Florida	\$14,958,533	\$27,033,012	\$7,040,617	290	\$807,338	\$0	\$1,169,642
Georgia	\$12,334,252	\$24,183,558	\$6,043,010	235	\$423,384	\$333,777	\$1,059,749
Hawaii	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Idaho	\$29,711,423	\$52,690,633	\$12,891,771	669	\$2,567,222	\$589,096	\$1,364,315
Illinois	\$2,132,114	\$4,485,498	\$1,095,803	39	\$174,518	\$28,226	\$220,099
Indiana	\$6,479,747	\$12,061,866	\$2,835,570	127	\$342,163	\$79,632	\$517,676
Iowa	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kansas	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kentucky	\$40,269,242	\$72,353,102	\$15,976,344	778	\$2,293,769	\$943,763	\$2,490,471
Louisiana	\$548,799	\$1,031,428	\$243,406	11	\$37,935	\$6,221	\$38,947
Maine	\$260,545	\$424,921	\$98,659	5	\$13,833	\$3,198	\$12,876
Maryland	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Massachusetts	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Michigan	\$8,061,895	\$14,287,348	\$3,592,344	148	\$528,063	\$102,100	\$639,137
Minnesota	\$57,816,589	\$110,162,565	\$26,263,224	1,141	\$3,348,390	\$803,334	\$4,654,673
Mississippi	\$11,282,587	\$21,753,197	\$5,007,006	234	\$955,310	\$185,390	\$536,839
Missouri	\$1,183,947	\$2,282,688	\$525,414	21	\$67,314	\$19,841	\$81,036
Montana	\$36,340,554	\$66,287,640	\$15,837,755	837	\$2,153,110	\$666,910	\$1,596,059
Nebraska	\$150,925	\$280,873	\$64,316	3	\$10,838	\$2,938	\$7,524
Nevada	\$3,779,210	\$6,055,052	\$1,483,661	55	\$287,671	\$0	\$263,176
New Hampshire	\$260,545	\$424,921	\$98,659	5	\$13,833	\$0	\$12,876
New Jersey	n/a	n/a	n/a	n/a	n/a	n/a	n/a
New Mexico	\$6,202,802	\$11,511,683	\$2,710,291	137	\$430,007	\$108,189	\$290,013
New York	\$3,330,569	\$5,640,560	\$1,292,031	53	\$243,438	\$35,451	\$181,073
North Carolina	\$19,263,879	\$35,668,098	\$8,661,298	393	\$1,359,707	\$432,589	\$1,399,898
North Dakota	\$149,056	\$267,522	\$60,166	3	\$10,360	\$331	\$6,594
Ohio	\$3,226,347	\$6,380,826	\$1,539,938	65	\$218,587	\$96,965	\$253,662
Oklahoma	\$4,903,721	\$9,676,847	\$2,273,022	116	\$321,428	\$131,703	\$253,253
Oregon	\$45,833,951	\$80,409,226	\$18,675,779	827	\$2,355,243	\$1,498,544	\$2,986,976
Pennsylvania	\$6,122,806	\$12,164,139	\$2,921,771	115	\$309,542	\$85,158	\$512,712
Rhode Island	n/a	n/a	n/a	n/a	n/a	n/a	n/a
South Carolina	\$5,026,237	\$9,145,042	\$2,232,508	104	\$337,711	\$94,165	\$376,426
South Dakota	\$6,818,185	\$12,212,525	\$2,842,583	151	\$499,836	\$0	\$303,871
Tennessee	\$17,098,730	\$33,010,942	\$8,018,930	317	\$1,407,834	\$0	\$1,329,891
Texas	\$3,234,851	\$7,152,831	\$1,758,227	66	\$222,154	\$0	\$296,480
Utah	\$52,554,104	\$106,814,099	\$26,458,579	1,214	\$4,398,056	\$1,140,546	\$3,012,894
Vermont	\$3,330,569	\$5,640,560	\$1,292,031	53	\$243,438	\$35,451	\$181,073
Virginia	\$24,582,295	\$46,051,801	\$10,620,546	454	\$1,258,959	\$494,987	\$1,809,338

Washington	\$21,446,364	\$38,798,942	\$9,678,547	390	\$1,625,845	\$8,773	\$1,696,331
West Virginia	\$15,729,794	\$27,290,582	\$5,876,515	313	\$1,311,914	\$212,968	\$580,410
Wisconsin	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Wyoming	\$11,450,474	\$16,881,193	\$3,693,519	194	\$579,218	\$0	\$332,236
United States	\$708,909,930	\$1,916,488,873	\$479,609,917	17,271	\$45,477,035	\$12,632,244	\$78,995,269

Detailed expenditures were not available per state for wildlife viewing. As a substitute source, the multiplier ratios from Approach #2 were used, which are based on all expenditures (travel plus equipment), not just travel-related expenditures as in Approach #1. Therefore, adjustments were made to the Approach #1 multipliers to exclude as best as possible the effects from equipment expenditures. The percentage differences between the hunting and fishing multipliers in Approach #1 and Approach #2 were calculated. These differences, with the Approach #2 multipliers approximately one percent to four percent lower at the national level, were applied to the Approach #2 multipliers. The result is considered to be multiplier ratios that better reflect their travel-oriented nature.³

Table 10c. Wildlife Viewing Impacts, Annual average from 2000-2003

State	Retail Sales	Total Multiplier Effect	Salaries, Wages & Business Profits	Jobs (Full & Part-time)	Sales/Fuel Tax Revenues	State Income Tax Revenues	Federal Income Tax Revenues
Alabama	\$1,896,707	\$3,744,303	\$1,059,863	49	\$61,679	\$21,965	\$97,736
Alaska	\$14,692,895	\$22,388,871	\$7,245,177	440	\$15,833	\$0	\$918,268
Arizona	\$30,746,034	\$54,992,644	\$16,195,268	650	\$1,376,947	\$252,941	\$1,687,113
Arkansas	\$2,260,984	\$3,657,870	\$997,575	57	\$105,450	\$27,476	\$91,945
California	\$16,272,705	\$35,315,340	\$11,109,966	423	\$947,336	\$326,445	\$1,327,715
Colorado	\$29,807,539	\$55,584,037	\$18,552,945	794	\$1,000,792	\$435,911	\$2,183,416
Connecticut	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Delaware	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Florida	\$4,221,426	\$7,497,296	\$2,280,095	91	\$202,386	\$0	\$280,819
Georgia	\$2,420,741	\$4,862,003	\$1,432,482	58	\$126,904	\$39,140	\$159,746
Hawaii	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Idaho	\$8,636,766	\$13,908,808	\$3,491,289	197	\$224,287	\$105,906	\$307,903
Illinois	\$869,947	\$1,895,532	\$577,700	19	\$29,360	\$11,075	\$68,263
Indiana	\$60,277	\$131,599	\$39,216	2	\$2,360	\$1,179	\$3,886
Iowa	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kansas	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kentucky	\$10,802,616	\$22,001,667	\$6,541,592	364	\$447,759	\$225,873	\$573,034
Louisiana	\$1,426,876	\$2,644,715	\$736,595	38	\$72,036	\$11,903	\$73,287

³ At the national level, all multipliers were lower in Approach #2 than Approach #1 except for state level tax revenues. The results varied state-by-state.

Maine	\$2,149,496	\$3,946,168	\$1,208,979	56	\$31,930	\$31,165	\$141,800
Maryland	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Massachusetts	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Michigan	\$3,468,855	\$7,124,666	\$2,173,235	89	\$156,877	\$57,058	\$237,735
Minnesota	\$3,044,442	\$6,472,252	\$1,935,256	86	\$124,489	\$63,851	\$194,333
Mississippi	\$8,385,707	\$12,495,308	\$3,121,752	168	\$335,507	\$55,939	\$276,957
Missouri	\$231,014	\$486,653	\$135,871	6	\$10,591	\$3,728	\$14,057
Montana	\$14,336,654	\$21,991,062	\$6,283,207	413	\$0	\$171,798	\$571,495
Nebraska	\$204,193	\$375,245	\$111,886	5	\$6,112	\$2,553	\$10,213
Nevada	\$4,409,079	\$6,410,413	\$1,707,072	67	\$183,414	\$0	\$217,910
New Hampshire	\$2,149,496	\$3,946,168	\$1,208,979	56	\$31,930	\$0	\$141,800
New Jersey	n/a	n/a	n/a	n/a	n/a	n/a	n/a
New Mexico	\$26,139,677	\$41,241,448	\$12,056,998	632	\$1,156,296	\$264,967	\$1,077,100
New York	\$2,112,068	\$3,756,545	\$1,203,859	61	\$44,306	\$45,903	\$142,552
North Carolina	\$9,096,832	\$19,377,963	\$5,837,778	245	\$290,996	\$183,024	\$572,679
North Dakota	\$521,697	\$848,237	\$223,403	14	\$15,501	\$3,612	\$21,138
Ohio	\$0	\$0	\$0	0	\$0	\$0	\$0
Oklahoma	\$2,260,984	\$3,657,870	\$997,575	57	\$105,450	\$27,476	\$91,945
Oregon	\$16,549,137	\$32,631,824	\$9,781,619	444	\$66,251	\$354,984	\$917,416
Pennsylvania	\$4,928,113	\$9,966,977	\$2,839,647	108	\$193,713	\$79,446	\$309,223
Rhode Island	n/a	n/a	n/a	n/a	n/a	n/a	n/a
South Carolina	\$868,732	\$1,905,702	\$543,389	25	\$39,139	\$13,227	\$49,092
South Dakota	\$1,750,221	\$2,813,825	\$778,683	50	\$55,565	\$0	\$79,824
Tennessee	\$0	\$0	\$0	0	\$0	\$0	\$0
Texas	\$0	\$0	\$0	0	\$0	\$0	\$0
Utah	\$6,829,773	\$12,842,283	\$4,052,208	200	\$264,314	\$116,077	\$360,551
Vermont	\$2,112,068	\$3,756,545	\$1,203,859	61	\$44,306	\$45,903	\$142,552
Virginia	\$7,673,086	\$15,147,644	\$4,691,874	232	\$219,594	\$128,809	\$525,253
Washington	\$9,744,129	\$17,634,898	\$5,244,642	212	\$471,525	\$0	\$619,412
West Virginia	\$3,616,697	\$5,284,757	\$1,526,878	80	\$119,080	\$38,306	\$126,873
Wisconsin	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Wyoming	\$6,424,237	\$10,198,815	\$2,542,561	160	\$175,811	\$0	\$349,801
United States *	\$263,121,903	\$685,783,327	\$202,398,754	7,259	\$8,755,825	\$3,147,641	\$22,952,197

* plus \$4,865,032 spent in Puerto Rico

Approach #2: Applying the Multipliers to the Travel + Equipment Expenditure Data

The multipliers derived from the source reports did not need to be adjusted to fit the expenditure data in Approach #2. The multipliers were originally developed from the same data set (the U.S. Fish and Wildlife Service's National Survey) used to obtain the expenditures in Approach #2. Applying the multipliers was a simple process of matching the state-level multipliers to the expenditures reported for each unit. Then, the impacts associated with all units

in a state were summed to arrive at the final state-level impact estimates. Table 11a-11c present the final impacts using this approach. These figures represent the impacts generated by all travel, equipment and service expenditures made statewide by all recreationists for their activities on U.S. Forest Service-managed lands within each state.

Tables 11a – 11c. The Economic Impacts of Hunting, Fishing and Wildlife-Viewing Within U.S. Forest Service-Managed Units (Based on expenditures made statewide by all recreationists for activities within USFS units in each state).

Table 11a. Hunting Impacts, Annual average from 2000-2003

State	Retail Sales	Total Multiplier Effect	Salaries, Wages & Business Profits	Jobs (Full & Part-time)	Sales/Fuel Tax Revenues	State Income Tax Revenues	Federal Income Tax Revenues
Alabama	\$17,678,592	\$34,866,121	\$8,065,117	373	\$690,687	\$300,643	\$837,564
Alaska	\$23,354,524	\$37,341,203	\$9,004,713	441	\$87,049	\$0	\$910,704
Arizona	\$225,309,203	\$424,235,308	\$103,130,357	3,954	\$12,281,296	\$2,481,729	\$17,589,315
Arkansas	\$30,100,674	\$53,619,359	\$12,203,006	624	\$1,366,948	\$606,663	\$1,208,102
California	\$262,810,666	\$531,073,755	\$132,100,565	4,464	\$17,984,306	\$6,340,592	\$23,718,218
Colorado	\$493,925,266	\$998,638,615	\$273,069,223	10,350	\$17,198,788	\$8,782,332	\$45,854,671
Connecticut	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Delaware	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Florida	\$180,606,315	\$323,369,939	\$81,603,508	3,320	\$9,815,878	\$0	\$13,060,901
Georgia	\$14,137,844	\$27,823,620	\$6,952,376	282	\$416,511	\$320,598	\$1,114,420
Hawaii	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Idaho	\$291,511,283	\$490,037,678	\$114,926,415	5,661	\$16,149,455	\$3,712,123	\$11,591,657
Illinois	\$5,559,079	\$11,690,771	\$2,997,683	104	\$292,035	\$66,084	\$530,832
Indiana	\$5,215,505	\$9,995,163	\$2,303,219	96	\$247,004	\$56,644	\$362,686
Iowa	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kansas	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kentucky	\$47,184,054	\$96,037,263	\$20,448,548	890	\$2,695,651	\$1,136,167	\$3,110,039
Louisiana	\$3,682,952	\$6,290,546	\$1,342,813	58	\$160,520	\$32,756	\$204,825
Maine	\$1,472,572	\$2,530,308	\$584,983	26	\$41,995	\$11,699	\$78,510
Maryland	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Massachusetts	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Michigan	\$49,493,415	\$94,431,984	\$24,013,742	895	\$2,835,963	\$649,643	\$4,075,758
Minnesota	\$193,260,913	\$383,194,169	\$94,034,626	3,613	\$12,471,497	\$3,365,633	\$15,651,655
Mississippi	\$253,076,565	\$471,577,512	\$100,806,763	4,787	\$17,484,141	\$3,580,407	\$10,346,321
Missouri	\$3,557,054	\$6,943,259	\$1,555,369	65	\$144,712	\$59,901	\$243,680
Montana	\$251,937,624	\$426,097,960	\$101,954,079	5,633	\$7,242,466	\$3,990,304	\$9,674,394
Nebraska	\$7,464,930	\$13,209,902	\$3,200,734	161	\$406,296	\$123,679	\$319,740
Nevada	\$225,881,897	\$356,546,039	\$87,182,478	3,261	\$14,486,389	\$0	\$14,763,579
New Hampshire	\$1,472,572	\$2,530,308	\$584,983	26	\$41,995	\$11,699	\$78,510
New Jersey	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Table 11a (Continued)	Retail Sales	Total Multiplier Effect	Salaries, Wages & Business Profits	Jobs (Full & Part- time)	Sales/Fuel Tax Revenues	State Income Tax Revenues	Federal Income Tax Revenues
New Mexico	\$104,508,683	\$182,596,082	\$43,830,042	2,163	\$5,498,203	\$1,643,382	\$4,416,711
New York	\$1,730,992	\$2,855,850	\$642,908	26	\$74,032	\$18,008	\$91,566
North Carolina	\$21,818,704	\$42,684,000	\$10,647,551	452	\$1,058,940	\$508,110	\$1,651,612
North Dakota	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ohio	\$1,955,655	\$4,217,349	\$1,008,089	39	\$98,504	\$61,598	\$165,847
Oklahoma	\$11,066,147	\$20,468,573	\$4,755,965	239	\$520,101	\$252,118	\$474,573
Oregon	\$442,371,044	\$807,560,607	\$184,196,205	7,602	\$7,273,588	\$14,428,101	\$29,179,666
Pennsylvania	\$11,985,786	\$23,408,291	\$5,364,425	198	\$523,336	\$150,204	\$917,102
Rhode Island	n/a	n/a	n/a	n/a	n/a	n/a	n/a
South Carolina	\$11,352,471	\$21,815,944	\$5,000,252	214	\$590,185	\$192,947	\$771,362
South Dakota	\$40,348,453	\$71,006,012	\$17,518,039	908	\$2,123,057	\$0	\$1,721,730
Tennessee	\$29,765,840	\$63,143,924	\$14,678,683	556	\$1,764,742	\$0	\$2,465,477
Texas	\$43,089,236	\$88,965,355	\$21,140,871	776	\$2,275,732	\$0	\$3,622,128
Utah	\$154,449,236	\$313,271,092	\$80,188,009	3,548	\$8,721,945	\$3,185,631	\$8,489,347
Vermont	\$1,730,992	\$2,855,850	\$642,908	26	\$74,032	\$18,008	\$91,566
Virginia	\$27,180,578	\$50,371,600	\$10,988,842	461	\$1,189,689	\$477,975	\$1,718,425
Washington	\$113,691,082	\$200,917,266	\$49,108,888	1,823	\$7,516,695	\$0	\$8,355,754
West Virginia	\$44,973,424	\$72,399,611	\$14,645,872	754	\$2,711,683	\$525,479	\$1,444,315
Wisconsin	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Wyoming	\$167,821,330	\$279,338,443	\$70,280,983	3,723	\$7,927,093	\$0	\$6,828,196
United States	\$3,901,354,362	\$10,668,483,874	\$2,648,034,890	90,846	\$150,854,288	\$42,255,679	\$471,569,050

Table 11b. Fishing Impacts, Annual average from 2000-2003

State	Retail Sales	Total Multiplier Effect	Salaries, Wages & Business Profits	Jobs (Full & Part- time)	Sales/Fuel Tax Revenues	State Income Tax Revenues	Federal Income Tax Revenues
Alabama	\$9,829,830	\$19,124,851	\$4,763,791	221	\$484,705	\$193,917	\$493,758
Alaska	\$95,270,209	\$155,988,238	\$38,531,164	1,809	\$478,089	\$0	\$3,974,807
Arizona	\$511,869,967	\$966,818,274	\$247,543,003	9,741	\$29,815,220	\$5,869,983	\$40,555,917
Arkansas	\$8,476,989	\$15,734,198	\$3,932,343	186	\$508,588	\$201,083	\$404,320
California	\$1,412,177,564	\$2,906,539,820	\$764,921,812	25,190	\$100,390,641	\$36,947,887	\$139,192,279
Colorado	\$565,639,171	\$1,128,046,204	\$295,719,277	10,939	\$23,375,627	\$9,587,792	\$50,418,840
Connecticut	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Delaware	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Florida	\$296,243,626	\$530,563,641	\$135,819,926	5,473	\$15,472,892	\$0	\$21,889,746
Georgia	\$37,582,460	\$75,296,476	\$18,720,997	703	\$1,387,263	\$996,784	\$3,163,303
Hawaii	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Idaho	\$326,160,587	\$541,012,256	\$124,747,682	6,175	\$18,676,932	\$5,415,991	\$12,552,772
Illinois	\$4,670,776	\$10,185,201	\$2,532,326	83	\$330,871	\$59,441	\$462,332
Indiana	\$13,209,378	\$27,504,515	\$6,735,017	271	\$684,419	\$167,805	\$1,087,645
Iowa	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Kansas	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kentucky	\$41,129,244	\$79,531,349	\$17,778,717	813	\$2,465,068	\$983,756	\$2,591,276
Louisiana	\$1,291,506	\$2,343,785	\$571,783	24	\$73,663	\$14,067	\$88,149
Maine	\$1,926,534	\$3,295,201	\$775,359	34	\$66,065	\$21,771	\$101,152
Maryland	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Massachusetts	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Michigan	\$40,818,346	\$78,200,772	\$19,789,278	746	\$2,559,910	\$531,803	\$3,333,711
Minnesota	\$470,649,970	\$924,778,309	\$232,127,101	9,351	\$33,918,210	\$8,036,680	\$37,419,204
Mississippi	\$46,416,590	\$89,610,508	\$21,498,832	991	\$3,760,127	\$772,795	\$2,236,657
Missouri	\$2,019,745	\$3,931,069	\$878,639	36	\$100,280	\$34,188	\$139,581
Montana	\$188,267,232	\$321,069,055	\$80,244,504	4,158	\$4,278,697	\$3,294,556	\$7,889,248
Nebraska	\$1,276,779	\$2,316,674	\$563,853	26	\$78,808	\$22,856	\$58,570
Nevada	\$55,689,289	\$85,869,646	\$17,905,383	647	\$4,165,798	\$0	\$3,095,366
New Hampshire	\$1,926,534	\$3,295,201	\$775,359	34	\$66,065	\$21,771	\$101,152
New Jersey	n/a	n/a	n/a	n/a	n/a	n/a	n/a
New Mexico	\$61,436,656	\$105,205,476	\$23,535,839	1,137	\$3,723,426	\$893,596	\$2,396,038
New York	\$2,056,340	\$3,417,134	\$805,723	33	\$131,794	\$22,598	\$116,959
North Carolina	\$143,427,304	\$300,077,895	\$77,231,107	3,221	\$7,099,667	\$3,714,973	\$12,138,263
North Dakota	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ohio	\$6,930,979	\$14,915,466	\$3,652,274	143	\$436,572	\$223,126	\$599,640
Oklahoma	\$4,181,252	\$8,030,907	\$1,998,782	94	\$247,421	\$107,138	\$206,008
Oregon	\$357,136,738	\$630,418,099	\$144,394,960	6,203	\$9,750,700	\$11,241,495	\$22,185,470
Pennsylvania	\$17,152,409	\$34,470,240	\$8,309,527	322	\$932,286	\$232,667	\$1,376,602
Rhode Island	n/a	n/a	n/a	n/a	n/a	n/a	n/a
South Carolina	\$7,390,076	\$14,273,474	\$3,544,584	154	\$460,946	\$135,147	\$540,542
South Dakota	\$83,636,145	\$145,380,174	\$36,000,220	1,806	\$5,048,106	\$0	\$3,598,778
Tennessee	\$45,393,820	\$93,678,743	\$23,865,194	938	\$3,346,340	\$0	\$3,914,482
Texas	\$15,943,873	\$33,059,623	\$7,837,947	288	\$911,947	\$0	\$1,342,025
Utah	\$368,379,737	\$755,257,172	\$191,816,281	8,282	\$24,298,118	\$7,760,081	\$20,511,000
Vermont	\$2,056,340	\$3,417,134	\$805,723	33	\$131,794	\$22,598	\$116,959
Virginia	\$37,456,917	\$71,785,829	\$16,629,272	667	\$1,850,471	\$733,903	\$2,690,168
Washington	\$152,946,410	\$271,066,023	\$68,751,556	2,600	\$11,459,061	\$10,548	\$11,562,979
West Virginia	\$37,770,127	\$63,789,934	\$13,772,770	728	\$3,022,037	\$492,681	\$1,339,865
Wisconsin	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Wyoming	\$155,167,767	\$228,992,646	\$42,576,695	2,382	\$6,649,283	\$0	\$4,010,249
United States	\$5,638,489,904	\$15,900,801,769	\$4,126,860,209	145,399	\$273,817,477	\$72,006,381	\$665,022,770

Table 11c. Wildlife Viewing Impacts, Annual average from 2000-2003

State	Retail Sales	Total Multiplier Effect	Salaries, Wages & Business Profits	Jobs (Full & Part-time)	Sales/Fuel Tax Revenues	State Income Tax Revenues	Federal Income Tax Revenues
Alabama	\$6,084,374	\$11,853,031	\$3,392,009	170	\$290,382	\$75,032	\$333,257
Alaska	\$191,539,961	\$304,029,855	\$90,951,727	4,925	\$806,242	\$0	\$10,365,963
Arizona	\$1,416,544,697	\$2,436,795,178	\$732,868,135	30,963	\$68,695,600	\$12,082,141	\$80,605,139
Arkansas	\$15,220,612	\$24,050,936	\$6,392,007	367	\$844,274	\$179,472	\$599,469
California	\$1,270,093,812	\$2,543,780,047	\$787,331,198	30,196	\$65,106,518	\$23,080,088	\$93,649,057
Colorado	\$2,385,919,323	\$4,534,545,901	\$1,406,179,230	61,115	\$124,187,024	\$33,626,025	\$168,512,239
Connecticut	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Delaware	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Florida	\$132,828,416	\$237,362,820	\$73,685,837	2,970	\$6,449,618	\$0	\$9,189,652
Georgia	\$49,510,073	\$98,197,751	\$28,876,256	1,156	\$2,624,274	\$785,434	\$3,206,419
Hawaii	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Idaho	\$437,566,890	\$738,574,443	\$193,683,454	11,421	\$17,310,338	\$6,154,787	\$17,887,350
Illinois	\$4,479,980	\$9,597,917	\$2,817,834	99	\$177,336	\$57,108	\$352,417
Indiana	\$14,111,142	\$28,413,848	\$8,309,526	422	\$588,371	\$273,661	\$903,082
Iowa	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kansas	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kentucky	\$18,588,121	\$31,457,058	\$9,281,701	572	\$692,111	\$355,325	\$902,216
Louisiana	\$1,916,489	\$3,805,283	\$1,085,641	57	\$132,936	\$18,002	\$110,780
Maine	\$129,384,325	\$214,911,141	\$64,764,189	3,272	\$2,027,928	\$1,020,262	\$7,437,962
Maryland	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Massachusetts	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Michigan	\$77,171,976	\$145,588,587	\$43,676,576	1,933	\$3,809,587	\$1,225,306	\$5,101,727
Minnesota	\$109,290,482	\$210,246,818	\$60,973,018	2,620	\$4,341,987	\$2,243,017	\$6,729,051
Mississippi	\$128,427,091	\$195,285,346	\$49,170,438	2,652	\$5,797,203	\$888,622	\$4,400,797
Missouri	\$7,099,344	\$14,651,096	\$4,092,246	180	\$409,699	\$110,730	\$417,608
Montana	\$537,520,050	\$883,693,397	\$245,513,012	15,808	\$0	\$6,598,162	\$21,942,725
Nebraska	\$2,624,778	\$5,000,638	\$1,400,421	66	\$97,139	\$34,403	\$137,614
Nevada	\$142,888,594	\$212,933,142	\$60,960,468	2,404	\$6,513,115	\$0	\$7,827,164
New Hampshire	\$129,384,325	\$214,911,141	\$64,764,189	3,272	\$2,027,928	\$1,020,262	\$7,437,962
New Jersey	n/a	n/a	n/a	n/a	n/a	n/a	n/a
New Mexico	\$231,672,464	\$386,535,734	\$113,367,217	6,125	\$12,448,816	\$2,572,755	\$10,457,005
New York	\$2,363,482	\$4,223,559	\$1,334,438	67	\$70,478	\$47,652	\$151,839
North Carolina	\$192,655,655	\$371,355,483	\$106,451,045	4,799	\$8,806,849	\$3,494,782	\$10,880,420
North Dakota	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ohio	\$3,031,623	\$6,323,058	\$1,807,005	76	\$140,123	\$67,629	\$187,804
Oklahoma	\$9,009,549	\$15,111,077	\$3,996,674	237	\$518,447	\$113,288	\$383,100
Oregon	\$692,815,514	\$1,337,636,401	\$405,388,023	19,391	\$0	\$16,388,410	\$39,080,054
Pennsylvania	\$16,632,814	\$33,812,101	\$9,793,266	386	\$674,444	\$287,071	\$1,127,531
Rhode Island	n/a	n/a	n/a	n/a	n/a	n/a	n/a
South Carolina	\$8,755,935	\$16,675,208	\$4,798,007	240	\$440,529	\$129,768	\$481,508

South Dakota	\$89,293,859	\$143,549,584	\$37,561,656	2,530	\$3,688,225	\$0	\$4,173,517
Tennessee	\$101,019,106	\$201,677,831	\$56,647,280	2,873	\$6,734,607	\$0	\$6,351,703
Texas	\$15,880,592	\$30,400,768	\$8,221,911	351	\$694,443	\$0	\$1,028,667
Utah	\$471,935,299	\$881,279,934	\$268,876,580	13,906	\$24,968,324	\$8,067,996	\$25,053,251
Vermont	\$2,363,482	\$4,223,559	\$1,334,438	67	\$70,478	\$47,652	\$151,839
Virginia	\$54,899,897	\$107,766,979	\$34,056,593	1,750	\$1,921,427	\$967,675	\$3,940,317
Washington	\$602,723,086	\$1,096,639,078	\$324,911,901	13,834	\$35,406,346	\$134,606	\$41,943,246
West Virginia	\$61,761,038	\$95,380,197	\$28,217,429	1,491	\$2,417,557	\$717,712	\$2,379,783
Wisconsin	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Wyoming	\$474,451,482	\$762,991,059	\$194,150,777	11,744	\$15,403,106	\$0	\$25,791,247
United States	\$10,283,806,100	\$25,642,013,089	\$7,430,083,036	275,157	\$555,169,457	\$190,606,931	\$870,072,452

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APPENDIX A

Number of Hunting, Fishing and Wildlife-Viewing Trips per Forest Unit

(Data presented in thousands. Multiply by 1,000 for actual number)

USFS REGION	FOREST NAME	STATE	# OF VISITS (x1,000)	80% CONFIDENCE INTERVAL
1	CLEARWATER	ID	1,122	43.82
1	IDAHO PANHANDLE	ID	855	15.1
1	NEZPERCE	ID	650	17.69
1	BEAVERHEAD	MT	1,215	19.22
1	BITTERROOT	MT	760	12.39
1	CUSTER	MT	788	23.26
1	FLATHEAD	MT	1,314	12.79
1	GALLATIN	MT	1,981	11.92
1	HELENA	MT	529	24.22
1	KOOTENAI	MT	1,337	14.8
1	LEWIS+CLARK	MT	557	12.67
1	LOLO	MT	1,455	17.56
1	DAKOTA-PRAIRIE	ND/SD	638	20.08
2	ARAPAHO	CO	6,711	18.87
2	GRAND MESA- UNCOMPA	CO	3,386	29.15
2	PIKE-SAN ISABEL	CO	3,833	14.01
2	RIO GRANDE	CO	1,266	35
2	ROUTT	CO	1,687	8.12
2	SAN JUAN	CO	2,221	21.92
2	WHITE RIVER	CO	9,698	4.66
2	NEBRASKA	NE	190	19.99
2	BLACK HILLS	SD	1,252	18.17
2	BIGHORN	WY	732	23.96
2	MEDICINE BOW	WY	862	14.21
2	SHOSHONE	WY	651	12.11
3	APACHE-SITGREAVES	AZ	1,998	13.97
3	COCONINO	AZ	2,089	14.2
3	CORONADO	AZ	2,164	17.68
3	KAIBAB	AZ	429	19.97
3	PRESCOTT	AZ	816	18.91
3	TONTO	AZ	5,922	10.93
3	CARSON	NM	1,010	14.06
3	CIBOLA	NM	2,386	22.91
3	GILA	NM	1,361	21.24
3	LINCOLN	NM	735	20.5
3	SANTA FE	NM	1,356	12.84

USFS REGION	FOREST NAME	STATE	# OF VISITS (x1,000)	80% CONFIDENCE INTERVAL
4	BOISE	ID	1,552	20.3
4	CARIBOU-TARGHEE	ID	2,548	21.72
4	PAYETTE	ID	616	11.32
4	SALMON-CHALLIS	ID	467	19.05
4	SAWTOOTH	ID	913	10.36
4	HUMBOLT-TOYIABE	NV	3,370	35.42
4	ASHLEY	UT	1,359	12.9
4	DIXIE	UT	774	13.3
4	FISHLAKE	UT	457	15.31
4	MANTI-LASAL	UT	882	22.74
4	UINTA	UT	2,879	11.07
4	WASATCH-CACHE	UT	4,947	12.96
4	BRIDGER-TETON	WY	2,474	12.23
5	ANGELES	CA	3,083	10.6
5	CLEVELAND	CA	1,080	39.43
5	ELDORADO	CA	2,116	9.37
5	INYO	CA	3,862	18.46
5	KLAMATH	CA	429	17.63
5	LASSEN	CA	621	22.86
5	LOS PADRES	CA	1,537	18.03
5	LTBMU	CA	2,953	17.64
5	MENDOCINO	CA	285	10.48
5	MODOC	CA	124	23.03
5	PLUMAS	CA	940	10.12
5	SAN BERNADINO	CA	1,954	8.39
5	SEQUOIA	CA	1,445	23.39
5	SHASTA-TRINITY	CA	2,443	11.19
5	SIERRA	CA	1,919	15.01
5	SIX RIVERS	CA	415	19.16
5	STANISLAUS	CA	1,760	14.95
5	TAHOE NF	CA	3,527	16.61

USFS REGION	FOREST NAME	STATE	# OF VISITS (x1,000)	80% CONFIDENCE INTERVAL
6	DESCHUTES	OR	2,911	10.5
6	FREMONT	OR	513	56.89
6	MALHEUR	OR	423	26.42
6	MOUNT HOOD	OR	4,076	18.72
6	OCHOCO	OR	634	20.12
6	ROGUE	OR	440	34.66
6	SISKIYOU	OR	661	20.27
6	SIUSLAW	OR	1,864	22.19
6	UMATILLA	OR	652	18.64
6	UMPQUA	OR	824	19.65
6	WALLOWA-WHITMAN	OR	566	18.72
6	WILLAMETTE	OR	1,575	11.59
6	WINEMA	OR	393	11.94
6	COLUMBIA GORGE	OR/WA	1,903	17.07
6	COLVILLE	WA	546	21.04
6	GIFFORD PINCHOT	WA	1,737	16.72
6	MT. BAKER- SNOQUALMIE	WA	4,832	19.61
6	OKANAOGAN	WA	444	26.12
6	OLYMPIC	WA	545	20.57
6	WENATCHEE	WA	2,585	12.16
8	NFS IN ALABAMA	AL	944	39.81
8	OUACHITA	AR/OK	1,628	17.55
8	OZARK-ST FRANCIS	AR/OK	2,638	11.29
8	FLORIDA	FL	1,964	16.04
8	CHATAHOOCHEE- OCONEE	GA	2,467	29.32
8	DANIEL BOONE	KY	2,507	21.91
8	LAND BETWEEN THE LAKES	KY	1,371	10.09
8	KISATCHIE	LA	783	37.94
8	MISSISSIPPI	MS	3,263	17.28
8	NFS IN NC	NC	5,726	15.58
8	CARRIBEAN	P.R.	518	31.94
8	FRANCIS MARION	SC	1,328	17.29
8	CHEROKEE	TN	2,245	15.39
8	NFS IN TEXAS	TX	602	18.56
8	GW-JEFFERSON	VA	3,041	15.39

USFS REGION	FOREST NAME	STATE	# OF VISITS (x1,000)	80% CONFIDENCE INTERVAL
9	MIDWIN NG	IL	29	37.86
9	SHAWNEE	IL	585	10.91
9	HOOSIER	IN	645	15.67
9	WHITE MTN	ME/NH	2,788	31.77
9	HIAWATHA	MI	753	11.84
9	HURON-MANISTEE	MI	1,283	33.37
9	OTTOWA	MI	638	14.16
9	CHIPPEWA	MN	2,077	13.95
9	SUPERIOR	MN	4,035	20.24
9	MARK TWAIN	MO	618	12.99
9	GREEN MTN	NY/VT	3,477	15.82
9	WAYNE	OH	548	15.49
9	ALLEGHENY	PA	1,598	27.89
9	CHEQUAMEGON	WV	2,416	30.17
9	MONONGAHELA	WV	1,022	13.68
10	CHUGACH	AK	631	31.9
10	TONGASS	AK	1,824	18.8

APPENDIX B

Number of Hunting, Fishing and Wildlife-Viewing Travel Parties per Forest Unit

(Actual numbers. No need to multiply by 1,000)

			Total Parties - Hunting					
			Non-local:			Local:		
			Day	OVN-NF	OVN	Day	OVN-NF	OVN
REGION	FOREST NAME	STATE						
1	CLEARWATER	ID	2,748	4,059	3,766	21,173	3,545	3,186
1	IDAHO PANHANDLE	ID	4,543	6,709	6,224	34,997	5,859	5,267
1	NEZPERCE	ID	3,969	5,862	5,439	30,579	5,120	4,602
1	BEAVERHEAD	MT	11,443	16,901	15,680	88,161	14,760	13,268
1	BITTERROOT	MT	2,989	4,415	4,096	23,028	3,855	3,466
1	CUSTER	MT	4,187	6,183	5,737	32,254	5,400	4,854
1	FLATHEAD	MT	2,629	3,883	3,603	20,256	3,391	3,048
1	GALLATIN	MT	5,057	7,469	6,930	38,963	6,523	5,864
1	HELENA	MT	4,964	7,331	6,802	38,244	6,403	5,756
1	KOOTENAI	MT	10,332	15,260	14,158	79,601	13,327	11,980
1	LEWIS+CLARK	MT	4,746	7,010	6,504	36,567	6,122	5,503
1	LOLO	MT	6,676	9,860	9,148	51,434	8,611	7,741
1	DAKOTA-PRAIRIE	ND/SD	4,182	6,176	5,730	32,219	5,394	4,849
2	ARAPAHO	CO	5,325	7,865	7,297	41,025	6,869	6,174
2	GRAND MESA-UNCOMPA	CO	10,747	15,872	14,726	82,797	13,862	12,460
2	PIKE-SAN ISABEL	CO	5,025	7,421	6,885	38,713	6,482	5,826
2	RIO GRANDE	CO	3,494	5,160	4,788	26,919	4,507	4,051
2	ROUTT	CO	2,386	3,524	3,270	18,384	3,078	2,767
2	SAN JUAN	CO	9,501	14,032	13,019	73,199	12,255	11,016
2	WHITE RIVER	CO	1,338	1,977	1,834	10,311	1,726	1,552
2	NEBRASKA	NE	787	1,162	1,078	6,060	1,015	912
2	BLACK HILLS	SD	1,987	2,934	2,723	15,307	2,563	2,304
2	BIGHORN	WY	2,273	3,357	3,114	17,510	2,932	2,635
2	MEDICINE BOW	WY	2,766	4,085	3,790	21,307	3,567	3,207
2	SHOSHONE	WY	1,662	2,455	2,277	12,804	2,144	1,927
3	APACHE-SITGREAVES	AZ	1,310	1,934	1,795	10,090	1,689	1,518
3	COCONINO	AZ	1,153	1,703	1,580	8,884	1,487	1,337
3	CORONADO	AZ	2,688	3,969	3,683	20,706	3,467	3,116
3	KAIBAB	AZ	1,865	2,754	2,555	14,367	2,405	2,162
3	PRESCOTT	AZ	816	1,206	1,119	6,290	1,053	947
3	TONTO	AZ	17,979	26,553	24,636	138,512	23,191	20,845
3	CARSON	NM	1,603	2,367	2,196	12,349	2,067	1,858
3	CIBOLA	NM	6,174	9,118	8,459	47,563	7,963	7,158
3	GILA	NM	7,137	10,541	9,779	54,984	9,206	8,275
3	LINCOLN	NM	279	412	382	2,149	360	323
3	SANTA FE	NM	468	691	641	3,604	603	542

			Total Parties – Hunting (continued)					
			Non-local:			Local:		
REGION	FOREST NAME	STATE	Day	OVN-NF	OVN	Day	OVN-NF	OVN
4	BOISE	ID	9,317	13,760	12,766	71,776	12,017	10,802
4	CARIBOU-TARGHEE	ID	18,548	27,393	25,415	142,896	23,924	21,505
4	PAYETTE	ID	2,614	3,861	3,582	20,138	3,372	3,031
4	SALMON-CHALLIS	ID	2,513	3,712	3,444	19,363	3,242	2,914
4	SAWTOOTH	ID	1,165	1,721	1,597	8,979	1,503	1,351
4	HUMBOLT-TOYIABE	NV	17,440	25,756	23,896	134,357	22,495	20,220
4	ASHLEY	UT	4,267	6,301	5,846	32,870	5,503	4,947
4	DIXIE	UT	1,495	2,208	2,049	11,520	1,929	1,734
4	FISHLAKE	UT	2,223	3,283	3,046	17,127	2,867	2,577
4	MANTI-LASAL	UT	1,704	2,517	2,335	13,128	2,198	1,976
4	UINTA	UT	4,966	7,335	6,805	38,260	6,406	5,758
4	WASATCH-CACHE	UT	3,925	5,797	5,379	30,242	5,063	4,551
4	BRIDGER-TETON	WY	5,548	8,194	7,602	42,742	7,156	6,432
5	ANGELES	CA	2,659	3,927	3,644	20,486	3,430	3,083
5	CLEVELAND	CA	2,236	3,302	3,063	17,223	2,884	2,592
5	ELDORADO	CA	2,117	3,127	2,901	16,310	2,731	2,455
5	INYO	CA	266	394	365	2,053	344	309
5	KLAMATH	CA	622	918	852	4,789	802	721
5	LASSEN	CA	1,114	1,645	1,527	8,583	1,437	1,292
5	LOS PADRES	CA	318	470	436	2,451	410	369
5	LTBMU	CA	0	0	0	0	0	0
5	MENDOCINO	CA	777	1,147	1,064	5,984	1,002	901
5	MODOC	CA	98	145	135	758	127	114
5	PLUMAS	CA	616	910	844	4,747	795	714
5	SAN BERNADINO	CA	67	100	92	519	87	78
5	SEQUOIA	CA	2,842	4,197	3,894	21,892	3,665	3,295
5	SHASTA-TRINITY	CA	5,816	8,589	7,969	44,803	7,501	6,743
5	SIERRA	CA	596	880	816	4,590	769	691
5	SIX RIVERS	CA	2,534	3,743	3,472	19,524	3,269	2,938
5	STANISLAUS	CA	607	897	832	4,678	783	704
5	TAHOE NF	CA	4,381	6,470	6,002	33,748	5,650	5,079
6	DESCHUTES	OR	904	1,335	1,238	6,963	1,166	1,048
6	FREMONT	OR	3,964	5,855	5,432	30,542	5,114	4,596
6	MALHEUR	OR	2,116	3,125	2,899	16,302	2,729	2,453
6	MOUNT HOOD	OR	0	0	0	0	0	0
6	OCHOCO	OR	3,172	4,684	4,346	24,434	4,091	3,677
6	ROGUE	OR	1,806	2,668	2,475	13,917	2,330	2,094

			Total Parties – Hunting (continued)					
			Non-local:			Local:		
REGION	FOREST NAME	STATE	Day	OVN-NF	OVN	Day	OVN-NF	OVN
6	SISKYYOU	OR	616	909	844	4,744	794	714
6	SIUSLAW	OR	1,286	1,900	1,762	9,909	1,659	1,491
6	UMATILLA	OR	3,307	4,883	4,531	25,474	4,265	3,834
6	UMPQUA	OR	3,269	4,828	4,480	25,186	4,217	3,790
6	WALLOWA- WHITMAN	OR	3,339	4,931	4,575	25,725	4,307	3,871
6	WILLAMETTE	OR	2,174	3,210	2,978	16,745	2,804	2,520
6	WINEMA	OR	1,749	2,583	2,397	13,475	2,256	2,028
6	COLUMBIA GORGE	OR/WA	591	873	810	4,552	762	685
6	COLVILLE	WA	2,750	4,062	3,768	21,188	3,547	3,189
6	GIFFORD PINCHOT	WA	1,618	2,390	2,217	12,465	2,087	1,876
6	MTBAKER- SNOQUALMIE	WA	1,834	2,708	2,513	14,127	2,365	2,126
6	OKANAOGAN	WA	797	1,176	1,091	6,137	1,027	924
6	OLYMPIC	WA	714	1,055	979	5,505	922	828
6	WENATCHEE	WA	5,975	8,825	8,187	46,033	7,707	6,928
8	NFS IN ALABAMA	AL	7,328	10,822	10,041	56,454	9,452	8,496
8	OUACHITA	AR/OK	22,579	33,346	30,938	173,948	29,123	26,178
8	OZARK-ST FRANCIS	AR/OK	17,292	25,538	23,694	133,219	22,304	20,049
8	FLORIDA	FL	13,890	20,514	19,033	107,012	17,917	16,105
8	CHATAHOOCHEE- OCONEE	GA	4,085	6,034	5,598	31,474	5,270	4,737
8	DANIEL BOONE	KY	8,736	12,901	11,970	67,300	11,268	10,128
8	LAND BETWEEN THE LAKES	KY	473	699	648	3,644	610	548
8	KISATCHIE	LA	4,322	6,383	5,922	33,298	5,575	5,011
8	MISSISSIPPI	MS	45,705	67,501	62,626	352,112	58,953	52,991
8	NFS IN NC	NC	6,322	9,336	8,662	48,701	8,154	7,329
8	CARRIBEAN	P.R.	0	0	0	0	0	0
8	FRANCIS MARION	SC	8,522	12,586	11,677	65,652	10,992	9,880
8	CHEROKEE	TN	5,577	8,236	7,641	42,962	7,193	6,466
8	NFS IN TEXAS	TX	5,421	8,006	7,428	41,761	6,992	6,285
8	GW-JEFFERSON	VA	18,045	26,651	24,726	139,022	23,276	20,922
9	MIDEWIN NG	IL	743	1,098	1,019	5,727	959	862
9	SHAWNEE	IL	1,090	1,610	1,493	8,396	1,406	1,264
9	HOOSIER	IN	2,047	3,024	2,805	15,772	2,641	2,374
9	WHITE MTN	ME/NH	192	284	264	1,482	248	223
9	HIAWATHA	MI	2,338	3,453	3,204	18,013	3,016	2,711

			Total Parties – Hunting (continued)					
			Non-local:			Local:		
REGION	FOREST NAME	STATE	Day	OVN-NF	OVN	Day	OVN-NF	OVN
9	HURON-MANISTEE	MI	3,453	5,099	4,731	26,599	4,453	4,003
9	OTTOWA	MI	1,717	2,536	2,352	13,227	2,214	1,991
9	CHIPPEWA	MN	14,976	22,118	20,521	115,377	19,317	17,364
9	SUPERIOR	MN	4,733	6,990	6,485	36,464	6,105	5,488
9	MARK TWAIN	MO	2,622	3,873	3,593	20,204	3,383	3,041
9	GREEN MTN	NY/VT	4,798	7,086	6,575	36,966	6,189	5,563
9	WAYNE	OH	624	921	855	4,807	805	723
9	ALLEGHENY	PA	7,002	10,341	9,594	53,941	9,031	8,118
9	CHEQUAMEGON	WV	14,420	21,296	19,758	111,091	18,600	16,719
9	MONONGAHELA	WV	1,939	2,864	2,657	14,940	2,501	2,248
10	CHUGACH	AK	610	900	835	4,696	786	707
10	TONGASS	AK	1,384	2,045	1,897	10,666	1,786	1,605

			Total Parties - Fishing					
			Non-local:			Local:		
REGION	FOREST NAME	STATE	Day	OVN-NF	OVN	Day	OVN-NF	OVN
1	CLEARWATER	ID	3,987	5,888	5,463	30,716	5,143	4,623
1	IDAHO PANHANDLE	ID	1,947	2,875	2,668	14,999	2,511	2,257
1	NEZPERCE	ID	1,480	2,186	2,028	11,402	1,909	1,716
1	BEAVERHEAD	MT	5,114	7,553	7,007	39,398	6,596	5,929
1	BITTERROOT	MT	787	1,162	1,078	6,060	1,015	912
1	CUSTER	MT	2,990	4,417	4,098	23,039	3,857	3,467
1	FLATHEAD	MT	6,029	8,905	8,261	46,450	7,777	6,990
1	GALLATIN	MT	3,827	5,652	5,244	29,486	4,937	4,437
1	HELENA	MT	383	566	525	2,953	494	444
1	KOOTENAI	MT	3,875	5,722	5,309	29,850	4,998	4,492
1	LEWIS+CLARK	MT	865	1,277	1,185	6,662	1,115	1,003
1	LOLO	MT	2,962	4,374	4,058	22,817	3,820	3,434
1	DAKOTA-PRAIRIE	ND/SD	220	325	302	1,696	284	255
2	ARAPAHO	CO	13,429	19,833	18,400	103,455	17,321	15,570
2	GRAND MESA-UNCOMPA	CO	5,490	8,109	7,523	42,298	7,082	6,366
2	PIKE-SAN ISABEL	CO	7,009	10,351	9,603	53,995	9,040	8,126
2	RIO GRANDE	CO	3,975	5,870	5,446	30,621	5,127	4,608
2	ROUTT	CO	3,085	4,556	4,227	23,765	3,979	3,576
2	SAN JUAN	CO	4,138	6,111	5,670	31,877	5,337	4,797
2	WHITE RIVER	CO	4,015	5,930	5,501	30,932	5,179	4,655
2	NEBRASKA	NE	111	165	153	859	144	129
2	BLACK HILLS	SD	4,924	7,272	6,747	37,936	6,351	5,709
2	BIGHORN	WY	2,323	3,431	3,184	17,899	2,997	2,694
2	MEDICINE BOW	WY	1,814	2,679	2,486	13,976	2,340	2,103
2	SHOSHONE	WY	1,415	2,090	1,939	10,901	1,825	1,641
3	APACHE-SITGREAVES	AZ	11,167	16,492	15,301	86,030	14,404	12,947
3	COCONINO	AZ	5,045	7,451	6,913	38,866	6,507	5,849
3	CORONADO	AZ	597	882	818	4,601	770	692
3	KAIBAB	AZ	755	1,115	1,034	5,815	974	875
3	PRESCOTT	AZ	1,323	1,954	1,813	10,194	1,707	1,534
3	TONTO	AZ	15,936	23,536	21,836	122,772	20,555	18,477
3	CARSON	NM	697	1,029	955	5,369	899	808
3	CIBOLA	NM	412	608	564	3,171	531	477
3	GILA	NM	1,503	2,219	2,059	11,576	1,938	1,742
3	LINCOLN	NM	51	75	69	391	65	59
3	SANTA FE	NM	1,918	2,833	2,628	14,777	2,474	2,224

			Total Parties – Fishing (continued)					
			Non-local:			Local:		
REGION	FOREST NAME	STATE	Day	OVN-NF	OVN	Day	OVN-NF	OVN
4	BOISE	ID	3,962	5,852	5,429	30,525	5,111	4,594
4	CARIBOU-TARGHEE	ID	5,890	8,698	8,070	45,375	7,597	6,829
4	PAYETTE	ID	1,658	2,448	2,271	12,771	2,138	1,922
4	SALMON-CHALLIS	ID	2,352	3,474	3,223	18,122	3,034	2,727
4	SAWTOOTH	ID	661	977	906	5,096	853	767
4	HUMBOLT-TOYIABE	NV	2,790	4,121	3,823	21,497	3,599	3,235
4	ASHLEY	UT	10,924	16,134	14,969	84,161	14,091	12,666
4	DIXIE	UT	1,656	2,445	2,269	12,755	2,135	1,920
4	FISHLAKE	UT	3,532	5,216	4,839	27,208	4,555	4,095
4	MANTI-LASAL	UT	2,282	3,371	3,127	17,582	2,944	2,646
4	UINTA	UT	12,217	18,043	16,740	94,121	15,758	14,165
4	WASATCH-CACHE	UT	8,192	12,099	11,225	63,113	10,567	9,498
4	BRIDGER-TETON	WY	2,902	4,286	3,976	22,357	3,743	3,365
5	ANGELES	CA	7,339	10,839	10,056	56,541	9,466	8,509
5	CLEVELAND	CA	745	1,101	1,021	5,741	961	864
5	ELDORADO	CA	5,840	8,625	8,002	44,993	7,533	6,771
5	INYO	CA	12,924	19,087	17,709	99,568	16,670	14,985
5	KLAMATH	CA	725	1,071	994	5,587	935	841
5	LASSEN	CA	3,964	5,854	5,431	30,535	5,112	4,595
5	LOS PADRES	CA	5,144	7,596	7,048	39,626	6,634	5,964
5	LTBMU	CA	2,445	3,611	3,350	18,837	3,154	2,835
5	MENDOCINO	CA	393	581	539	3,030	507	456
5	MODOC	CA	1,271	1,876	1,741	9,788	1,639	1,473
5	PLUMAS	CA	6,616	9,771	9,065	50,968	8,533	7,670
5	SAN BERNADINO	CA	1,011	1,493	1,386	7,790	1,304	1,172
5	SEQUOIA	CA	4,836	7,142	6,626	37,254	6,237	5,607
5	SHASTA-TRINITY	CA	11,378	16,804	15,591	87,659	14,676	13,192
5	SIERRA	CA	5,164	7,627	7,076	39,784	6,661	5,987
5	SIX RIVERS	CA	702	1,036	961	5,405	905	813
5	STANISLAUS	CA	6,254	9,237	8,570	48,182	8,067	7,251
5	TAHOE NF	CA	5,597	8,267	7,670	43,122	7,220	6,490
6	DESCHUTES	OR	13,658	20,172	18,715	105,225	17,617	15,836
6	FREMONT	OR	1,628	2,405	2,231	12,544	2,100	1,888
6	MALHEUR	OR	540	797	740	4,160	696	626
6	MOUNT HOOD	OR	1,969	2,908	2,698	15,167	2,539	2,283
6	OCHOCO	OR	1,137	1,680	1,558	8,763	1,467	1,319
6	ROGUE	OR	137	202	187	1,053	176	158
6	SISKYOU	OR	730	1,078	1,000	5,622	941	846
6	SIUSLAW	OR	2,508	3,704	3,437	19,322	3,235	2,908
6	UMATILLA	OR	1,012	1,495	1,387	7,798	1,306	1,174

			Total Parties – Fishing (continued)					
			Non-local:			Local:		
REGION	FOREST NAME	STATE	Day	OVN-NF	OVN	Day	OVN-NF	OVN
6	UMPQUA	OR	2,672	3,947	3,662	20,587	3,447	3,098
6	WALLOWA-WHITMAN	OR	1,211	1,788	1,659	9,327	1,562	1,404
6	WILLAMETTE	OR	4,293	6,340	5,882	33,071	5,537	4,977
6	WINEMA	OR	1,952	2,883	2,675	15,042	2,518	2,264
6	COLUMBIA GORGE	OR/WA	788	1,164	1,080	6,070	1,016	913
6	COLVILLE	WA	433	640	594	3,338	559	502
6	GIFFORD PINCHOT	WA	6,292	9,293	8,622	48,476	8,116	7,295
6	MTBAKER-SNOQUALMIE	WA	2,501	3,693	3,426	19,264	3,225	2,899
6	OKANAOGAN	WA	245	362	336	1,888	316	284
6	OLYMPIC	WA	2,670	3,943	3,658	20,569	3,444	3,096
6	WENATCHEE	WA	3,300	4,873	4,521	25,421	4,256	3,826
8	NFS IN ALABAMA	AL	521	770	714	4,014	672	604
8	OUACHITA	AR/OK	5,785	8,544	7,927	44,569	7,462	6,707
8	OZARK-ST FRANCIS	AR/OK	1,456	2,151	1,995	11,218	1,878	1,688
8	FLORIDA	FL	11,045	16,311	15,134	85,088	14,246	12,805
8	CHATAHOOCHEE-OCONEE	GA	9,107	13,450	12,479	70,160	11,747	10,559
8	DANIEL BOONE	KY	10,292	15,201	14,103	79,294	13,276	11,933
8	LAND BETWEEN THE LAKES	KY	19,440	28,711	26,637	149,767	25,075	22,539
8	KISATCHIE	LA	405	598	555	3,122	523	470
8	MISSISSIPPI	MS	8,330	12,303	11,415	64,178	10,745	9,658
8	NFS IN NC	NC	14,223	21,006	19,489	109,578	18,346	16,491
8	CARRIBEAN	P.R.	0	0	0	0	0	0
8	FRANCIS MARION	SC	3,711	5,481	5,085	28,590	4,787	4,303
8	CHEROKEE	TN	12,625	18,645	17,299	97,262	16,284	14,637
8	NFS IN TEXAS	TX	2,388	3,527	3,273	18,401	3,081	2,769
8	GW-JEFFERSON	VA	18,150	26,806	24,870	139,830	23,411	21,044
9	MIDEWIN NG	IL	0	0	0	0	0	0
9	SHAWNEE	IL	1,574	2,325	2,157	12,128	2,031	1,825
9	HOOSIER	IN	4,784	7,066	6,556	36,858	6,171	5,547
9	WHITE MTN	ME/NH	385	568	527	2,964	496	446
9	HIAWATHA	MI	2,858	4,220	3,916	22,015	3,686	3,313
9	HURON-MANISTEE	MI	2,434	3,595	3,336	18,755	3,140	2,823
9	OTTOWA	MI	660	975	905	5,087	852	766
9	CHIPPEWA	MN	12,898	19,049	17,673	99,368	16,637	14,954

			Total Parties – Fishing (continued)					
			Non-local:			Local:		
REGION	FOREST NAME	STATE	Day	OVN-NF	OVN	Day	OVN-NF	OVN
9	SUPERIOR	MN	29,790	43,997	40,820	229,507	38,425	34,540
9	MARK TWAIN	MO	874	1,291	1,198	6,735	1,128	1,014
9	GREEN MTN	NY/VT	4,918	7,264	6,739	37,890	6,344	5,702
9	WAYNE	OH	2,382	3,518	3,264	18,352	3,073	2,762
9	ALLEGHENY	PA	4,521	6,677	6,194	34,828	5,831	5,241
9	CHEQUAMEGON	WV	6,501	9,602	8,908	50,087	8,386	7,538
9	MONONGAHELA	WV	5,113	7,551	7,005	39,387	6,594	5,928
10	CHUGACH	AK	2,308	3,408	3,162	17,778	2,976	2,675
10	TONGASS	AK	7,300	10,781	10,002	56,237	9,415	8,463

			Total Parties - Wildlife Viewing					
			Non-local:			Local:		
REGION	FOREST NAME	STATE	Day	OVN-NF	OVN	Day	OVN-NF	OVN
1	CLEARWATER	ID	697	1,029	955	5,368	899	808
1	IDAHO PANHANDLE	ID	1,681	2,483	2,304	12,953	2,169	1,949
1	NEZPERCE	ID	1,256	1,855	1,721	9,675	1,620	1,456
1	BEAVERHEAD	MT	2,347	3,467	3,216	18,084	3,028	2,722
1	BITTERROOT	MT	498	736	683	3,838	643	578
1	CUSTER	MT	272	402	373	2,094	351	315
1	FLATHEAD	MT	1,587	2,343	2,174	12,224	2,047	1,840
1	GALLATIN	MT	1,640	2,422	2,248	12,637	2,116	1,902
1	HELENA	MT	475	701	650	3,656	612	550
1	KOOTENAI	MT	1,891	2,793	2,591	14,570	2,439	2,193
1	LEWIS+CLARK	MT	269	397	369	2,073	347	312
1	LOLO	MT	1,606	2,372	2,201	12,375	2,072	1,862
1	DAKOTA-PRAIRIE	ND/SD	770	1,138	1,056	5,935	994	893
2	ARAPAHO	CO	5,788	8,549	7,931	44,593	7,466	6,711
2	GRAND MESA-UNCOMPA	CO	1,752	2,588	2,401	13,499	2,260	2,032
2	PIKE-SAN ISABEL	CO	5,686	8,398	7,791	43,807	7,334	6,593
2	RIO GRANDE	CO	1,529	2,258	2,095	11,777	1,972	1,772
2	ROUTT	CO	640	946	877	4,932	826	742
2	SAN JUAN	CO	3,601	5,319	4,935	27,745	4,645	4,175
2	WHITE RIVER	CO	3,011	4,447	4,126	23,199	3,884	3,491
2	NEBRASKA	NE	151	223	207	1,162	194	175
2	BLACK HILLS	SD	907	1,340	1,243	6,988	1,170	1,052
2	BIGHORN	WY	909	1,343	1,246	7,004	1,173	1,054
2	MEDICINE BOW	WY	1,368	2,020	1,874	10,539	1,765	1,586
2	SHOSHONE	WY	1,101	1,625	1,508	8,478	1,420	1,276
3	APACHE-SITGREAVES	AZ	758	1,120	1,039	5,842	978	879
3	COCONINO	AZ	6,486	9,580	8,888	49,971	8,366	7,520
3	CORONADO	AZ	5,151	7,608	7,059	39,687	6,645	5,973
3	KAIBAB	AZ	281	415	385	2,166	363	326
3	PRESCOTT	AZ	1,239	1,829	1,697	9,543	1,598	1,436
3	TONTO	AZ	8,785	12,975	12,038	67,682	11,332	10,186
3	CARSON	NM	801	1,184	1,098	6,174	1,034	929
3	CIBOLA	NM	13,006	19,208	17,821	100,199	16,776	15,080
3	GILA	NM	4,602	6,796	6,305	35,450	5,935	5,335
3	LINCOLN	NM	330	487	452	2,540	425	382
3	SANTA FE	NM	561	829	769	4,325	724	651

			Total Parties - Wildlife Viewing (continued)					
			Non-local:			Local:		
REGION	FOREST NAME	STATE	Day	OVN-NF	OVN	Day	OVN-NF	OVN
4	BOISE	ID	321	474	440	2,475	414	372
4	CARIBOU-TARGHEE	ID	879	1,298	1,205	6,772	1,134	1,019
4	PAYETTE	ID	361	534	495	2,783	466	419
4	SALMON-CHALLIS	ID	709	1,047	971	5,461	914	822
4	SAWTOOTH	ID	472	698	647	3,640	609	548
4	HUMBOLT-TOYIABE	NV	3,255	4,808	4,461	25,080	4,199	3,774
4	ASHLEY	UT	1,407	2,077	1,927	10,836	1,814	1,631
4	DIXIE	UT	507	749	695	3,909	654	588
4	FISHLAKE	UT	205	303	281	1,579	264	238
4	MANTI-LASAL	UT	609	899	834	4,689	785	706
4	UINTA	UT	1,291	1,907	1,769	9,948	1,666	1,497
4	WASATCH-CACHE	UT	1,024	1,512	1,403	7,889	1,321	1,187
4	BRIDGER-TETON	WY	1,366	2,017	1,871	10,521	1,761	1,583
5	ANGELES	CA	745	1,100	1,020	5,736	960	863
5	CLEVELAND	CA	1,006	1,486	1,378	7,750	1,298	1,166
5	ELDORADO	CA	146	216	200	1,125	188	169
5	INYO	CA	1,865	2,755	2,556	14,371	2,406	2,163
5	KLAMATH	CA	178	262	243	1,368	229	206
5	LASSEN	CA	300	443	411	2,311	387	348
5	LOS PADRES	CA	1,061	1,566	1,453	8,170	1,368	1,230
5	LTCMU	CA	1,732	2,558	2,373	13,343	2,234	2,008
5	MENDOCINO	CA	177	261	243	1,364	228	205
5	MODOC	CA	184	272	252	1,417	237	213
5	PLUMAS	CA	422	623	578	3,248	544	489
5	SAN BERNADINO	CA	404	597	554	3,116	522	469
5	SEQUOIA	CA	299	442	410	2,304	386	347
5	SHASTA-TRINITY	CA	1,686	2,490	2,310	12,986	2,174	1,954
5	SIERRA	CA	199	293	272	1,530	256	230
5	SIX RIVERS	CA	215	317	294	1,655	277	249
5	STANISLAUS	CA	789	1,166	1,082	6,081	1,018	915
5	TAHOE NF	CA	608	899	834	4,687	785	705
6	DESCHUTES	OR	1,406	2,077	1,927	10,832	1,814	1,630
6	FREMONT	OR	478	706	655	3,681	616	554
6	MALHEUR	OR	890	1,315	1,220	6,858	1,148	1,032
6	MOUNT HOOD	OR	2,109	3,115	2,890	16,250	2,721	2,446
6	OCHOCO	OR	612	905	839	4,718	790	710
6	ROGUE	OR	471	695	645	3,625	607	546
6	SISKYOU	OR	502	741	687	3,865	647	582
6	SIUSLAW	OR	1,479	2,184	2,027	11,395	1,908	1,715
6	UMATILLA	OR	135	199	185	1,040	174	156

			Total Parties - Wildlife Viewing (continued)					
			Non-local:			Local:		
REGION	FOREST NAME	STATE	Day	OVN-NF	OVN	Day	OVN-NF	OVN
6	UMPQUA	OR	512	756	701	3,942	660	593
6	WALLOWA-WHITMAN	OR	820	1,211	1,124	6,318	1,058	951
6	WILLAMETTE	OR	978	1,445	1,340	7,535	1,262	1,134
6	WINEMA	OR	54	80	74	418	70	63
6	COLUMBIA GORGE	OR/WA	3,545	5,236	4,858	27,313	4,573	4,110
6	COLVILLE	WA	188	278	258	1,451	243	218
6	GIFFORD PINCHOT	WA	1,558	2,301	2,135	12,004	2,010	1,806
6	MTBAKER-SNOQUALMIE	WA	2,000	2,954	2,741	15,412	2,580	2,319
6	OKANAOGAN	WA	383	566	525	2,950	494	444
6	OLYMPIC	WA	846	1,250	1,159	6,518	1,091	981
6	WENATCHEE	WA	446	659	611	3,435	575	517
8	NFS IN ALABAMA	AL	1,400	2,068	1,919	10,789	1,806	1,624
8	OUACHITA	AR/OK	2,247	3,318	3,078	17,308	2,898	2,605
8	OZARK-ST FRANCIS	AR/OK	1,092	1,613	1,496	8,414	1,409	1,266
8	FLORIDA	FL	3,117	4,603	4,271	24,012	4,020	3,614
8	CHATAHOOCHEE-OCONEE	GA	1,787	2,640	2,449	13,770	2,305	2,072
8	DANIEL BOONE	KY	692	1,022	948	5,331	892	802
8	LAND BETWEEN THE LAKES	KY	7,284	10,758	9,981	56,117	9,395	8,445
8	KISATCHIE	LA	1,054	1,556	1,444	8,116	1,359	1,221
8	MISSISSIPPI	MS	6,192	9,144	8,484	47,700	7,986	7,179
8	NFS IN NC	NC	6,717	9,920	9,203	51,745	8,663	7,787
8	CARRIBEAN	P.R.	3,592	5,305	4,922	27,673	4,633	4,165
8	FRANCIS MARION	SC	641	947	879	4,942	827	744
8	CHEROKEE	TN	0	0	0	0	0	0
8	NFS IN TEXAS	TX	0	0	0	0	0	0
8	GW-JEFFERSON	VA	5,665	8,367	7,763	43,646	7,308	6,569
9	MIDEWIN NG	IL	57	84	78	439	74	66
9	SHAWNEE	IL	585	864	802	4,509	755	679
9	HOOSIER	IN	45	66	61	343	57	52
9	WHITE MTN	ME/NH	3,174	4,688	4,349	24,454	4,094	3,680
9	HIAWATHA	MI	572	844	783	4,403	737	663
9	HURON-MANISTEE	MI	1,593	2,353	2,183	12,276	2,055	1,848
9	OTTOWA	MI	396	585	543	3,052	511	459
9	CHIPPEWA	MN	717	1,058	982	5,520	924	831
9	SUPERIOR	MN	1,531	2,262	2,098	11,797	1,975	1,775
9	MARK TWAIN	MO	171	252	234	1,314	220	198

			Total Parties - Wildlife Viewing (continued)					
			Non-local:			Local:		
REGION	FOREST NAME	STATE	Day	OVN-NF	OVN	Day	OVN-NF	OVN
9	GREEN MTN	NY/VT	3,119	4,606	4,274	24,028	4,023	3,616
9	WAYNE	OH	0	0	0	0	0	0
9	ALLEGHENY	PA	3,639	5,374	4,986	28,032	4,693	4,219
9	CHEQUAMEGON	WV	2,000	2,954	2,741	15,412	2,580	2,319
9	MONONGAHELA	WV	670	989	918	5,161	864	777
10	CHUGACH	AK	2,982	4,405	4,087	22,977	3,847	3,458
10	TONGASS	AK	7,866	11,617	10,778	60,600	10,146	9,120

APPENDIX C

Expenditures Per Forest Unit for Travel-Related Expenditures Within a 50-Mile Radius by Primary-Purpose Trips Only, Approach #1 (based on NVUM; expenditures made within 50 miles of each unit)

Forest	State	Hunting	Fishing	Wildlife Viewing
Northern Region, Region 1: Northern Idaho, Montana and North Dakota.				
<i>National Forests:</i>				
BEAVERHEAD	MT	\$15,498,827	\$6,926,216	\$3,179,247
BITTERROOT	MT	\$4,048,353	\$1,065,356	\$674,725
CLEARWATER	ID	\$3,722,298	\$5,399,953	\$943,681
CUSTER	MT	\$5,670,311	\$4,050,222	\$368,202
DAKOTA-PRAIRIE	ND/SD	\$5,664,143	\$298,113	\$1,043,395
FLATHEAD	MT	\$3,561,093	\$8,165,954	\$2,148,935
GALLATIN	MT	\$6,849,772	\$5,183,611	\$2,221,548
HELENA	MT	\$6,723,331	\$519,081	\$642,671
IDAHO PANHANDLE	ID	\$6,152,431	\$2,636,756	\$2,277,198
KOOTENAI	MT	\$13,993,918	\$5,247,719	\$2,561,387
LEWIS+CLARK	MT	\$6,428,536	\$1,171,191	\$364,370
LOLO	MT	\$9,042,209	\$4,011,205	\$2,175,569
NEZPERCE	ID	\$5,375,842	\$2,004,551	\$1,700,831
Rocky Mountain Region, Region 2: Colorado, Kansas, Nebraska, South Dakota and Eastern Wyoming.				
<i>National Forests:</i>				
ARAPAHO	CO	\$7,212,320	\$18,187,589	\$7,839,478
BIGHORN	WY	\$3,078,318	\$3,146,725	\$1,231,327
BLACK HILLS	SD	\$2,691,052	\$6,669,128	\$1,228,524
GRAND MESA- UNCOMPA	CO	\$14,555,753	\$7,436,091	\$2,373,221
MEDICINE BOW	WY	\$3,745,848	\$2,456,954	\$1,852,785
NEBRASKA	NE	\$1,065,356	\$150,925	\$204,193
PIKE-SAN ISABEL	CO	\$6,805,849	\$9,492,369	\$7,701,356
RIO GRANDE	CO	\$4,732,423	\$5,383,132	\$2,070,435
ROUTT	CO	\$3,231,907	\$4,177,831	\$867,097
SAN JUAN	CO	\$12,868,566	\$5,604,053	\$4,877,602
SHOSHONE	WY	\$2,250,985	\$1,916,379	\$1,490,517
WHITE RIVER	CO	\$1,812,600	\$5,437,801	\$4,078,351

Forest	State	Hunting	Fishing	Wildlife Viewing
Southwestern Region, Region 3: Arizona and New Mexico.				
<i>National Forests:</i>				
APACHE-SITGREAVES	AZ	\$1,773,818	\$15,124,130	\$1,026,947
CARSON	NM	\$2,170,896	\$943,868	\$1,085,448
CIBOLA	NM	\$8,361,643	\$557,443	\$17,615,194
COCONINO	AZ	\$1,561,774	\$6,832,763	\$8,784,982
CORONADO	AZ	\$3,640,153	\$808,923	\$6,976,960
GILA	NM	\$9,666,330	\$2,035,017	\$6,232,239
KAIBAB	AZ	\$2,525,735	\$1,022,321	\$380,865
LINCOLN	NM	\$377,781	\$68,687	\$446,468
PRESCOTT	AZ	\$1,105,727	\$1,792,041	\$1,677,655
SANTA FE	NM	\$633,606	\$2,597,786	\$760,328
TONTO	AZ	\$24,350,674	\$21,583,552	\$11,898,625
Intermountain Region, Region 4: Southern Idaho, Nevada, Utah, and Western Wyoming				
<i>National Forests:</i>				
ASHLEY	UT	\$5,778,575	\$14,795,692	\$1,905,025
BOISE	ID	\$12,618,301	\$5,366,404	\$435,114
BRIDGER-TETON	WY	\$7,514,031	\$3,930,416	\$1,849,608
CARIBOU-TARGHEE	ID	\$25,121,281	\$7,976,900	\$1,190,582
DIXIE	UT	\$2,025,298	\$2,242,294	\$687,155
FISHLAKE	UT	\$3,010,892	\$4,783,261	\$277,600
HUMBOLT-TOYIABE	NV	\$23,620,064	\$3,779,210	\$4,409,079
MANTI-LASAL	UT	\$2,307,898	\$3,090,934	\$824,249
PAYETTE	ID	\$3,540,346	\$2,245,098	\$489,316
SALMON-CHALLIS	ID	\$3,404,093	\$3,185,882	\$960,129
SAWTOOTH	ID	\$1,578,456	\$895,880	\$639,914
UINTA	UT	\$6,726,228	\$16,546,520	\$1,748,819
WASATCH-CACHE	UT	\$5,316,547	\$11,095,402	\$1,386,925
Pacific Southwest Region, Region 5: California.				
<i>National Forests:</i>				
ANGELES	CA	\$3,601,417	\$9,939,912	\$1,008,397
CLEVELAND	CA	\$3,027,854	\$1,009,285	\$1,362,534
ELDORADO	CA	\$2,867,303	\$7,909,801	\$197,745
INYO	CA	\$360,913	\$17,504,266	\$2,526,389
KLAMATH	CA	\$841,912	\$982,230	\$240,546
LASSEN	CA	\$1,508,881	\$5,368,133	\$406,237
LOS PADRES	CA	\$430,908	\$6,966,353	\$1,436,362
LTBMU	CA	\$0	\$3,311,575	\$2,345,699
MENDOCINO	CA	\$1,052,039	\$532,678	\$239,705
MODOC	CA	\$133,263	\$1,720,830	\$249,144
PLUMAS	CA	\$834,529	\$8,960,205	\$570,993

Forest	State	Hunting	Fishing	Wildlife Viewing
SAN BERNADINO	CA	\$91,303	\$1,369,543	\$547,817
SEQUOIA	CA	\$3,848,599	\$6,549,369	\$405,116
SHASTA-TRINITY	CA	\$7,876,485	\$15,410,515	\$2,283,039
SIERRA	CA	\$807,007	\$6,994,062	\$269,002
SIX RIVERS	CA	\$3,432,269	\$950,176	\$290,870
STANISLAUS	CA	\$822,380	\$8,470,515	\$1,069,094
TAHOE NF	CA	\$5,932,911	\$7,580,942	\$824,015
Pacific Northwest Region, Region 6: Oregon and Washington.				
<i>National Forests:</i>				
COLUMBIA GORGE	OR/WA	\$800,279	\$1,067,038	\$4,801,672
COLVILLE	WA	\$3,724,821	\$586,787	\$255,125
DESCHUTES	OR	\$1,224,178	\$18,498,692	\$1,904,277
FREMONT	OR	\$5,369,394	\$2,205,287	\$647,204
GIFFORD PINCHOT	WA	\$2,191,409	\$8,522,147	\$2,110,246
MALHEUR	OR	\$2,865,948	\$731,311	\$1,205,675
MOUNT HOOD	OR	\$0	\$2,666,380	\$2,856,836
MTBAKER-SNOQUALMIE	WA	\$2,483,588	\$3,386,711	\$2,709,368
OCHOCO	OR	\$4,295,534	\$1,540,467	\$829,482
OKANAOGAN	WA	\$1,078,813	\$331,942	\$518,660
OLYMPIC	WA	\$967,698	\$3,616,136	\$1,145,959
ROGUE	OR	\$2,446,581	\$185,036	\$637,345
SISKYOU	OR	\$833,921	\$988,351	\$679,492
SIUSLAW	OR	\$1,741,950	\$3,396,803	\$2,003,243
UMATILLA	OR	\$4,478,420	\$1,370,945	\$182,793
UMPQUA	OR	\$4,427,769	\$3,619,220	\$693,042
WALLOWA-WHITMAN	OR	\$4,522,436	\$1,639,714	\$1,110,774
WENATCHEE	WA	\$8,092,734	\$4,469,122	\$603,935
WILLAMETTE	OR	\$2,943,747	\$5,813,900	\$1,324,686
WINEMA	OR	\$2,368,875	\$2,644,326	\$73,453
Southern Region, Region 8: Alabama, Arkansas, Georgia, Florida, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia.				
<i>National Forests:</i>				
CARRIBEAN	Puerto Rico	\$0	\$0	\$4,865,032
CHATAHOOCHEE-OCONEE	GA	\$5,533,123	\$12,334,252	\$2,420,741
CHEROKEE	TN	\$7,552,813	\$17,098,730	\$0
DANIEL BOONE	KY	\$11,831,386	\$13,939,949	\$937,139
NFS IN FLORIDA	FL	\$18,812,878	\$14,958,533	\$4,221,426
FRANCIS MARION	SC	\$11,541,730	\$5,026,237	\$868,732
GW-JEFFERSON	VA	\$24,440,201	\$24,582,295	\$7,673,086
KISATCHIE	LA	\$5,853,851	\$548,799	\$1,426,876
LANDBETWEENLAKES	KY	\$640,615	\$26,329,292	\$9,865,477
MISSISSIPPI	MS	\$61,901,762	\$11,282,587	\$8,385,707
NFS IN ALABAMA	AL	\$9,924,632	\$705,752	\$1,896,707

Forest	State	Hunting	Fishing	Wildlife Viewing
NFS IN NC	NC	\$8,561,724	\$19,263,879	\$9,096,832
NFS IN TEXAS	TX	\$7,341,705	\$3,234,851	\$0
OUACHITA	AR/OK	\$30,580,203	\$7,835,226	\$3,042,806
OZARK-ST FRANCIS	AR/OK	\$23,420,076	\$1,972,217	\$1,479,163
The Eastern Region, Region 9: Illinois, Indiana, Maine, Michigan, Minnesota, Missouri, New Hampshire, Ohio, Pennsylvania, Vermont, West Virginia and Wisconsin.				
<i>National Forests:</i>				
ALLEGHENY	PA	\$9,482,883	\$6,122,806	\$4,928,113
CHEQUAMEGON	WV	\$19,530,031	\$8,805,448	\$2,709,368
CHIPPEWA	MN	\$20,283,490	\$17,469,035	\$970,502
GREEN MTN	NY/VT	\$6,498,672	\$6,661,138	\$4,224,136
HIAWATHA	MI	\$3,166,631	\$3,870,326	\$774,065
HOOSIER	IN	\$2,772,729	\$6,479,747	\$60,277
HURON-MANISTEE	MI	\$4,676,072	\$3,297,230	\$2,158,187
MARK TWAIN	MO	\$3,551,841	\$1,183,947	\$231,014
MIDEWIN NG	IL	\$1,006,808	\$0	\$77,238
MONONGAHELA	WV	\$2,626,476	\$6,924,347	\$907,328
OTTOWA	MI	\$2,325,280	\$894,338	\$536,603
SHAWNEE	IL	\$1,476,079	\$2,132,114	\$792,709
SUPERIOR	MN	\$6,410,359	\$40,347,555	\$2,073,940
WAYNE	OH	\$844,996	\$3,226,347	\$0
WHITE MTN	ME/NH	\$260,545	\$521,090	\$4,298,992
Alaska Region, Region 10: Alaska.				
<i>National Forests:</i>				
CHUGACH	AK	\$825,557	\$3,125,325	\$4,039,335
TONGASS-3YRS	AK	\$1,875,027	\$9,886,504	\$10,653,560

APPENDIX D

Expenditures Per Forest Unit for All Expenditures, Approach #2 (Based on U.S. Fish and Wildlife-Service Data; includes travel and equipment expenditures made statewide)

	Forest	State	Hunting	Fishing	Wildlife Viewing
Northern Region, Region 1: Northern Idaho, Montana and North Dakota.					
National Forests:					
	Beaverhead-Deerlodge	MT	\$35,962,565	\$131,370,176	\$52,495,318
	Bitterroot	MT	\$9,259,988	\$62,039,619	\$20,026,641
	Clearwater	ID	\$135,114,274	\$163,747,472	\$35,183,313
	Custer	MT	\$18,491,712	\$55,477,398	\$20,984,866
	Flathead	MT	\$53,925,573	\$133,134,184	\$27,058,729
	Gallatin	MT	\$23,600,886	\$152,160,714	\$24,675,630
	Helena	MT	\$2,854,773	\$33,094,541	\$20,244,488
	Idaho Panhandle	ID	\$16,710,951	\$86,949,161	\$29,975,986
	Kootenai	MT	\$14,115,309	\$75,646,457	\$44,896,234
	Lewis & Clark	MT	\$18,944,839	\$95,813,859	\$25,467,028
	Lolo	MT	\$11,111,588	\$32,190,889	\$16,088,690
	Nez Perce.	ID	\$31,848,035	\$109,820,713	\$44,281,423
Rocky Mountain Region, Region 2: Colorado, Kansas, Nebraska, South Dakota and Eastern Wyoming.					
National Forests:					
	Arapaho	CO	\$178,706,886	\$1,254,822,472	\$24,518,911
	Bighorn	WY	\$19,229,689	\$127,642,345	\$21,787,002
	Black Hills	SD	\$83,636,145	\$114,950,629	\$40,348,453
	Grand Mesa / Gunnison	CO	\$97,042,125	\$299,813,573	\$214,394,078
	Gunnison	CO	\$0	\$0	\$0
	Medicine Bow	WY	\$37,932,925	\$137,080,920	\$44,509,478
	Nebraska	NE	\$1,276,779	\$13,739,819	\$7,464,930
	Pike	CO	\$47,030,256	\$310,245,097	\$19,532,307
	Rio Grande	CO	\$23,120,280	\$156,099,226	\$57,098,604
	Roosevelt	CO	\$0	\$0	\$0
	Routt	CO	\$26,084,748	\$124,516,357	\$35,028,636
	Samuel R. McKelvie	NE	\$0	\$0	\$0
	San Isabel	CO	\$0	\$0	\$0
	San Juan	CO	\$146,088,307	\$400,721,542	\$115,545,358

Forest	State	Hunting	Fishing	Wildlife Viewing
Shoshone	WY	\$38,659,836	\$149,311,708	\$23,402,420
Uncompahgre	CO	\$0	\$0	\$0
White River.	CO	\$47,566,569	\$531,714,601	\$27,807,373
Southwestern Region, Region 3: Arizona and New Mexico.				
National Forests:				
Apache-Sitgreaves	AZ	\$403,978,191	\$1,618,412,380	\$35,106,011
Carson	NM	\$7,860,174	\$56,635,383	\$9,314,409
Cibola	NM	\$8,020,207	\$53,212,551	\$5,362,866
Coconino	AZ	\$4,340,898	\$48,989,014	\$1,269,999
Coronado	AZ	\$1,280,575	\$160,380,574	\$10,068,788
Gila	NM	\$32,860,121	\$252,788,073	\$83,510,304
Kaibab	AZ	\$11,254,179	\$371,732,358	\$46,096,242
Lincoln	NM	\$1,753,329	\$129,387,469	\$3,995,720
Prescott	AZ	\$6,026,785	\$117,294,196	\$6,223,170
Santa Fe	NM	\$10,942,825	\$113,747,435	\$2,325,383
Tonto	AZ	\$84,989,340	\$1,121,646,565	\$126,544,994
Intermountain Region, Region 4: Southern Idaho, Nevada, Utah, and Western Wyoming.				
National Forests:				
Ashley	UT	\$129,315,840	\$204,431,970	\$31,340,613
Boise	ID	\$38,215,692	\$67,386,545	\$23,289,690
Bridger-Teton	WY	\$59,345,317	\$353,885,328	\$78,122,429
Caribou-Targhee	ID	\$37,262,246	\$230,211,951	\$88,815,992
Dixie	UT	\$41,711,055	\$199,616,423	\$28,342,952
Fishlake	UT	\$65,116,407	\$125,661,116	\$43,472,910
Humboldt-Toiyabe	NV	\$55,689,289	\$476,515,292	\$225,881,897
Manti-LaSal	UT	\$22,712,888	\$113,954,498	\$9,921,888
Payette	ID	\$18,769,982	\$56,209,296	\$26,548,056
Salmon-Challis	ID	\$31,597,346	\$109,442,357	\$38,909,209
Sawtooth	ID	\$16,642,062	\$73,906,691	\$4,507,613
Uinta	UT	\$66,722,384	\$165,886,483	\$19,179,136
Wasatch-Cache.	UT	\$42,801,164	\$329,381,921	\$22,191,737
Pacific Southwest Region, Region 5: California.				
National Forests:				
Angeles	CA	\$61,571,128	\$184,250,193	\$15,801,911
Cleveland	CA	\$9,498,778	\$52,245,306	\$11,996,140
Eldorado	CA	\$51,585,049	\$132,625,150	\$15,083,685
Inyo	CA	\$160,341,372	\$317,548,571	\$3,539,852
Klamath	CA	\$14,781,997	\$125,463,031	\$6,381,963
Lassen	CA	\$184,765,521	\$62,949,517	\$22,314,876
Los Padres	CA	\$8,339,642	\$65,655,348	\$1,268,341

Forest	State	Hunting	Fishing	Wildlife Viewing
Mendocino	CA	\$4,237,263	\$35,443,978	\$4,851,797
Modoc	CA	\$10,368,964	\$7,506,989	\$443,523
Plumas	CA	\$296,660,395	\$510,823,568	\$16,461,914
San Bernardino	CA	\$7,481,862	\$101,385,512	\$1,246,306
Sequoia	CA	\$108,527,982	\$258,341,312	\$34,204,650
Shasta-Trinity	CA	\$203,341,592	\$283,774,092	\$78,047,562
Sierra	CA	\$77,064,777	\$118,569,085	\$8,114,164
Six Rivers	CA	\$13,137,595	\$62,334,174	\$18,657,407
Stanislaus	CA	\$149,371,423	\$264,322,859	\$8,868,545
Tahoe.	CA	\$48,092,894	\$156,346,751	\$15,528,028
Other areas: Giant Sequoia National Monument and Lake Tahoe Basin Management Unit.				
Lake Tahoe Basin Management Unit	CA	\$3,009,329	\$64,489,921	\$0
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Pacific Northwest Region, Region 6: Oregon and Washington.				
National Forests:				
Colville	WA	\$4,987,102	\$39,399,342	\$19,542,129
Deschutes	OR	\$94,041,320	\$195,611,933	\$35,284,063
Fremont	OR	\$66,910,819	\$50,757,487	\$44,141,560
Gifford Pinchot,	WA	\$29,231,431	\$98,110,783	\$14,626,403
Malheur,	OR	\$14,056,456	\$95,724,952	\$59,336,301
Mt. Baker-Snoqualmie	WA	\$43,460,852	\$968,915,119	\$36,874,188
Mt. Hood	OR	\$19,246,809	\$245,975,670	\$0
Ochoco	OR	\$25,941,897	\$86,977,015	\$38,690,000
Okanogan	WA	\$4,618,943	\$80,025,964	\$6,270,278
Olympic	WA	\$7,787,856	\$80,272,107	\$2,402,755
Rogue River	OR	\$832,259	\$19,649,683	\$13,890,063
Siskiyou	OR	\$9,788,421	\$23,943,479	\$7,500,507
Siuslaw	OR	\$31,967,306	\$249,568,837	\$22,278,670
Umatilla	OR	\$19,917,534	\$79,774,299	\$82,425,577
Umpqua	OR	\$15,013,541	\$39,992,189	\$35,541,814
Wallowa-Whitman	OR	\$14,335,479	\$81,260,714	\$62,397,356
Wenatchee	WA	\$62,525,131	\$249,699,832	\$33,975,330
Willamette	OR	\$33,834,002	\$105,485,705	\$20,930,015
Winema.	OR	\$10,915,799	\$13,456,384	\$19,955,118
National Grasslands:				
Columbia River Gorge National Scenic Area,	WA/OR	\$670,191	\$24,592,471	\$0
Southern Region, Region 8: Alabama, Arkansas, Georgia, Florida, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia.				
National Forests:				
Alabama Forests	AL	\$9,829,830	\$30,261,504	\$17,678,592

Forest	State	Hunting	Fishing	Wildlife Viewing
Caribbean	P.R.	\$0	\$0	\$0
Chattahoochee-Oconee	GA	\$37,582,460	\$171,620,923	\$14,137,844
Cherokee	TN	\$45,393,820	\$145,923,147	\$29,765,840
Daniel Boone	KY	\$41,129,244	\$114,295,503	\$47,184,054
Florida Forests	FL	\$296,243,626	\$272,353,643	\$180,606,315
Francis Marion	SC	\$7,390,076	\$18,174,675	\$11,352,471
George Washington & Jefferson	VA	\$37,456,917	\$131,074,076	\$27,180,578
Kisatchie	LA	\$1,291,506	\$3,699,597	\$3,682,952
Mississippi Forests	MS	\$46,416,590	\$777,711,563	\$253,076,565
North Carolina Forests	NC	\$143,427,304	\$706,122,922	\$21,818,704
Ouachita	AR/OK	\$8,362,503	\$78,433,696	\$22,132,293
Ozark-St. Francis	AR	\$4,295,738	\$53,534,073	\$19,034,527
Sumter	SC	\$0	\$0	\$0
Texas National Forests	TX	\$15,943,873	\$71,112,517	\$43,089,236
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The Eastern Region, Region 9: Illinois, Indiana, Maine, Michigan, Minnesota, Missouri, New Hampshire, Ohio, Pennsylvania, Vermont, West Virginia and Wisconsin.				
National Forests:				
Allegheny	PA	\$17,152,409	\$70,074,540	\$11,985,786
Chequamegon-Nicolet	WV	\$22,289,045	\$55,353,509	\$37,186,914
Chippewa	MN	\$159,766,656	\$152,160,021	\$118,715,090
Green Mountain & Finger Lakes	NY/VT	\$4,112,680	\$10,645,518	\$3,461,984
Hiawatha	MI	\$16,070,420	\$42,502,783	\$16,466,185
Hoosier	IN	\$13,209,378	\$40,575,348	\$5,215,505
Huron-Manistee	MI	\$15,235,510	\$51,433,937	\$14,211,133
Mark Twain	MO	\$2,019,745	\$14,496,755	\$3,557,054
Monongahela	WV	\$15,481,083	\$37,984,672	\$7,786,510
Ottawa	MI	\$9,512,417	\$26,451,369	\$18,816,097
Shawnee	IL	\$4,670,776	\$21,271,170	\$4,771,092
Superior	MN	\$310,883,314	\$192,698,728	\$74,545,823
Wayne	OH	\$6,930,979	\$9,264,059	\$1,955,655
White Mountain	ME/NH	\$3,853,069	\$425,695,693	\$2,945,145
National Grasslands:				
Midwin National Tallgrass Prairie	IL	\$0	\$552,916	\$787,987
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Alaska Region, Region 10: Alaska.				
National Forests:				
Chugach	AK	\$21,825,048	\$96,695,911	\$5,427,292
Tongass	AK	\$73,445,161	\$117,481,179	\$17,927,232

APPENDIX E

Hunting Expenditures Per Unit, by Type of Hunting, Based on Approach #2

		All Hunting	Big Game Hunting	Small Game Hunting	Migratory Bird Hunting	Other Game Hunting
Northern Region, Region 1: Northern Idaho, Montana and North Dakota						
National Forests:						
Beaverhead-Deerlodge	MT	\$52,495,318	\$48,734,898	\$4,263,561	\$1,540,118	\$266,881
Bitterroot	MT	\$20,026,641	\$18,592,064	\$1,626,522	\$587,546	\$101,813
Clearwater	ID	\$35,183,313	\$30,124,887	\$3,741,470	\$2,305,041	\$1,117,984
Custer	MT	\$20,984,866	\$19,481,647	\$1,704,347	\$615,658	\$106,685
Flathead	MT	\$27,058,729	\$25,120,419	\$2,197,654	\$793,854	\$137,564
Gallatin	MT	\$24,675,630	\$22,908,029	\$2,004,104	\$723,939	\$125,448
Helena	MT	\$20,244,488	\$18,794,305	\$1,644,215	\$593,937	\$102,921
Idaho Panhandle	ID	\$29,975,986	\$25,666,234	\$3,187,712	\$1,963,882	\$952,516
Kootenai	MT	\$44,896,234	\$41,680,162	\$3,646,379	\$1,317,175	\$228,248
Lewis & Clark	MT	\$25,467,028	\$23,642,737	\$2,068,379	\$747,157	\$129,472
Lolo	MT	\$16,088,690	\$14,936,201	\$1,306,690	\$472,013	\$81,793
Nez Perce.	ID	\$44,281,423	\$37,914,930	\$4,708,983	\$2,901,105	\$1,407,086
Rocky Mountain Region, Region 2: Colorado, Kansas, Nebraska, South Dakota and Eastern Wyoming.						
National Forests:						
Arapaho	CO	\$24,518,911	\$34,597,984	\$1,480,487	\$1,272,229	\$1,408,042
Bighorn	WY	\$21,787,002	\$23,400,092	\$1,817,432	\$240,385	\$510,008
Black Hills	SD	\$40,348,453	\$9,024,523	\$25,227,154	\$6,365,043	\$423,034
Grand Mesa / Gunnison	CO	\$214,394,078	\$302,525,782	\$12,945,425	\$11,124,409	\$12,311,963
Gunnison	CO	\$0	\$0	\$0	\$0	\$0
Medicine Bow	WY	\$44,509,478	\$47,804,918	\$3,712,899	\$491,092	\$1,041,914
Nebraska	NE	\$7,464,930	\$4,237,688	\$1,916,172	\$1,186,952	\$299,034
Pike	CO	\$19,532,307	\$27,561,518	\$1,179,389	\$1,013,486	\$1,121,678
Rio Grande	CO	\$57,098,604	\$80,570,322	\$3,447,696	\$2,962,713	\$3,278,989
Roosevelt	CO	\$0	\$0	\$0	\$0	\$0
Routt	CO	\$35,028,636	\$49,427,977	\$2,115,080	\$1,817,554	\$2,011,582
Samuel R. McKelvie	NE	\$0	\$0	\$0	\$0	\$0
San Isabel	CO	\$0	\$0	\$0	\$0	\$0
San Juan	CO	\$115,545,358	\$163,042,983	\$6,976,796	\$5,995,379	\$6,635,399
Shoshone	WY	\$23,402,420	\$25,135,113	\$1,952,187	\$258,209	\$547,823
Uncompahgre	CO	\$0	\$0	\$0	\$0	\$0
White River.	CO	\$27,807,373	\$39,238,244	\$1,679,049	\$1,442,860	\$1,596,888

			All Hunting	Big Game Hunting	Small Game Hunting	Migratory Bird Hunting	Other Game Hunting
Southwestern Region, Region 3: Arizona and New Mexico.							
National Forests:							
Apache-Sitgreaves	AZ	\$35,106,011	\$35,903,585	\$6,050,290	\$2,266,950	\$349,888	
Carson	NM	\$9,314,409	\$9,222,639	\$550,158	\$401,460	\$391,490	
Cibola	NM	\$5,362,866	\$5,310,028	\$316,759	\$231,145	\$225,404	
Coconino	AZ	\$1,269,999	\$1,298,852	\$218,876	\$82,009	\$12,658	
Coronado	AZ	\$10,068,788	\$10,297,541	\$1,735,289	\$650,186	\$100,352	
Gila	NM	\$83,510,304	\$82,687,516	\$4,932,553	\$3,599,372	\$3,509,988	
Kaibab	AZ	\$46,096,242	\$47,143,504	\$7,944,385	\$2,976,638	\$459,423	
Lincoln	NM	\$3,995,720	\$3,956,352	\$236,008	\$172,219	\$167,943	
Prescott	AZ	\$6,223,170	\$6,364,554	\$1,072,522	\$401,858	\$62,024	
Santa Fe	NM	\$2,325,383	\$2,302,472	\$137,349	\$100,226	\$97,737	
Tonto	AZ	\$126,544,994	\$129,419,973	\$21,809,198	\$8,171,570	\$1,261,225	
Intermountain Region, Region 4: Southern Idaho, Nevada, Utah, and Western Wyoming.							
National Forests:							
Ashley	UT	\$31,340,613	\$34,752,636	\$2,052,886	\$2,816,239	\$629,799	
Boise	ID	\$23,289,690	\$19,941,251	\$2,476,677	\$1,525,828	\$740,053	
Bridger-Teton	WY	\$78,122,429	\$83,906,540	\$6,516,830	\$861,958	\$1,828,754	
Caribou-Targhee	ID	\$88,815,992	\$76,046,609	\$9,444,887	\$5,818,794	\$2,822,216	
Dixie	UT	\$28,342,952	\$31,428,622	\$1,856,532	\$2,546,872	\$569,560	
Fishlake	UT	\$43,472,910	\$48,205,765	\$2,847,581	\$3,906,436	\$873,601	
Humboldt-Toiyabe	NV	\$225,881,897	\$416,370,458	\$15,440,746	\$41,178,745	\$1,313,884	
Manti-LaSal	UT	\$9,921,888	\$11,002,075	\$649,908	\$891,572	\$199,383	
Payette	ID	\$26,548,056	\$22,731,150	\$2,823,178	\$1,739,300	\$843,591	
Salmon-Challis	ID	\$38,909,209	\$33,315,097	\$4,137,690	\$2,549,143	\$1,236,378	
Sawtooth	ID	\$4,507,613	\$3,859,538	\$479,349	\$295,317	\$143,234	
Uinta	UT	\$19,179,136	\$21,267,150	\$1,256,280	\$1,723,420	\$385,410	
Wasatch-Cache.	UT	\$22,191,737	\$24,607,730	\$1,453,612	\$1,994,129	\$445,949	
Pacific Southwest Region, Region 5: California.							
National Forests:							
Angeles	CA	\$15,801,911	\$14,045,744	\$1,909,962	\$4,588,798	\$101,855	
Cleveland	CA	\$11,996,140	\$10,662,933	\$1,449,962	\$3,483,621	\$77,324	
Eldorado	CA	\$15,083,685	\$13,407,339	\$1,823,151	\$4,380,229	\$97,225	
Inyo	CA	\$3,539,852	\$3,146,446	\$427,859	\$1,027,956	\$22,817	
Klamath	CA	\$6,381,963	\$5,672,695	\$771,382	\$1,853,291	\$41,136	
Lassen	CA	\$22,314,876	\$19,834,882	\$2,697,179	\$6,480,132	\$143,836	
Los Padres	CA	\$1,268,341	\$1,127,382	\$153,303	\$368,320	\$8,175	
Mendocino	CA	\$4,851,797	\$4,312,586	\$586,432	\$1,408,938	\$31,273	
Modoc	CA	\$443,523	\$394,232	\$53,608	\$128,797	\$2,859	
Plumas	CA	\$16,461,914	\$14,632,396	\$1,989,736	\$4,780,460	\$106,109	
San Bernardino	CA	\$1,246,306	\$1,107,796	\$150,640	\$361,921	\$8,033	

		All Hunting	Big Game Hunting	Small Game Hunting	Migratory Bird Hunting	Other Game Hunting
Sequoia	CA	\$34,204,650	\$30,403,269	\$4,134,285	\$9,932,865	\$220,474
Shasta-Trinity	CA	\$78,047,562	\$69,373,640	\$9,433,537	\$22,664,635	\$503,073
Sierra	CA	\$8,114,164	\$7,212,385	\$980,752	\$2,356,314	\$52,302
Six Rivers	CA	\$18,657,407	\$16,583,891	\$2,255,104	\$5,418,021	\$120,261
Stanislaus	CA	\$8,868,545	\$7,882,927	\$1,071,933	\$2,575,383	\$57,164
Tahoe.	CA	\$15,528,028	\$13,802,300	\$1,876,858	\$4,509,264	\$100,089
Pacific Northwest Region, Region 6: Oregon and Washington.						
National Forests:						
Colville	WA	\$19,542,129	\$13,659,283	\$3,298,023	\$2,725,306	\$370,098
Deschutes	OR	\$35,284,063	\$28,613,903	\$3,189,070	\$3,421,951	\$255,154
Fremont	OR	\$44,141,560	\$35,796,963	\$3,989,634	\$4,280,976	\$319,206
Gifford Pinchot,	WA	\$14,626,403	\$10,223,358	\$2,468,422	\$2,039,769	\$277,002
Malheur,	OR	\$59,336,301	\$48,119,264	\$5,362,976	\$5,754,606	\$429,086
Mt. Baker-Snoqualmie	WA	\$36,874,188	\$25,773,803	\$6,223,065	\$5,142,400	\$698,341
Mt. Hood	OR	\$0	\$0	\$0	\$0	\$0
Ochoco	OR	\$38,690,000	\$31,375,975	\$3,496,907	\$3,752,268	\$279,784
Okanogan	WA	\$6,270,278	\$4,382,711	\$1,058,202	\$874,440	\$118,750
Olympic	WA	\$2,402,755	\$1,679,444	\$405,500	\$335,083	\$45,505
Rogue River	OR	\$13,890,063	\$11,264,262	\$1,255,422	\$1,347,099	\$100,445
Siskiyou	OR	\$7,500,507	\$6,082,598	\$677,916	\$727,421	\$54,239
Siuslaw	OR	\$22,278,670	\$18,067,072	\$2,013,607	\$2,160,650	\$161,106
Umatilla	OR	\$82,425,577	\$66,843,704	\$7,449,848	\$7,993,871	\$596,054
Umpqua	OR	\$35,541,814	\$28,822,928	\$3,212,366	\$3,446,948	\$257,018
Wallowa-Whitman	OR	\$62,397,356	\$50,601,652	\$5,639,643	\$6,051,476	\$451,222
Wenatchee	WA	\$33,975,330	\$23,747,600	\$5,733,840	\$4,738,131	\$643,441
Willamette	OR	\$20,930,015	\$16,973,369	\$1,891,712	\$2,029,853	\$151,354
Winema.	OR	\$19,955,118	\$16,182,768	\$1,803,598	\$1,935,305	\$144,304
Southern Region, Region 8: Alabama, Arkansas, Georgia, Florida, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia.						
National Forests:						
Alabama Forests	AL	\$17,678,592	\$15,151,615	\$1,305,208	\$837,709	\$452,125
Caribbean	P.R.	\$0	\$0	\$0	\$0	\$0
Chattahoochee-Oconee	GA	\$14,137,844	\$10,758,904	\$2,069,943	\$1,079,616	\$409,572
Cherokee	TN	\$29,765,840	\$16,398,933	\$4,213,101	\$7,120,128	\$332,831
Daniel Boone	KY	\$47,184,054	\$35,972,652	\$9,042,471	\$2,542,415	\$295,353
Florida Forests	FL	\$180,606,315	\$128,268,923	\$11,749,163	\$61,347,689	\$253,304
Francis Marion	SC	\$11,352,471	\$8,227,400	\$2,409,783	\$686,425	\$48,185
George Washington & Jefferson	VA	\$27,180,578	\$19,475,577	\$2,046,560	\$1,661,922	\$3,822,366
Kisatchie	LA	\$3,682,952	\$2,168,956	\$286,456	\$872,237	\$376,528
Mississippi Forests	MS	\$253,076,565	\$196,600,853	\$41,049,551	\$8,459,930	\$4,573,359
North Carolina Forests	NC	\$21,818,704	\$17,275,718	\$2,778,250	\$1,798,632	\$13,195
Ouachita	AR/OK	\$22,132,293	\$13,195,019	\$3,292,556	\$4,588,030	\$431,766
Ozark-St. Francis	AR	\$19,034,527	\$11,442,326	\$1,196,046	\$6,290,667	\$195,498

		All Hunting	Big Game Hunting	Small Game Hunting	Migratory Bird Hunting	Other Game Hunting
Sumter	SC	\$0	\$0	\$0	\$0	\$0
Texas National Forests	TX	\$43,089,236	\$32,115,848	\$3,008,871	\$8,052,852	\$1,375,946
The Eastern Region, Region 9: Illinois, Indiana, Maine, Michigan, Minnesota, Missouri, New Hampshire, Ohio, Pennsylvania, Vermont, West Virginia and Wisconsin.						
National Forests:						
Allegheny	PA	\$11,985,786	\$9,940,510	\$1,179,810	\$317,601	\$349,462
Chequamegon-Nicolet	WV	\$37,186,914	\$28,087,717	\$6,368,091	\$312,209	\$596,443
Chippewa	MN	\$118,715,090	\$73,823,103	\$16,887,446	\$24,454,537	\$2,669,462
Green Mountain & Finger Lakes	NY/VT	\$3,461,984	\$2,938,479	\$360,124	\$201,718	\$52,747
Hiawatha	MI	\$16,466,185	\$12,729,874	\$3,315,165	\$896,897	\$34,475
Hoosier	IN	\$5,215,505	\$3,905,512	\$1,165,538	\$26,025	\$34,773
Huron-Manistee	MI	\$14,211,133	\$10,986,512	\$2,861,152	\$774,067	\$29,754
Mark Twain	MO	\$3,557,054	\$2,870,112	\$362,031	\$271,915	\$39,678
Monongahela	WV	\$7,786,510	\$5,881,243	\$1,333,405	\$65,373	\$124,888
Ottawa	MI	\$18,816,097	\$14,546,572	\$3,788,277	\$1,024,894	\$39,395
Shawnee	IL	\$4,771,092	\$3,038,800	\$540,553	\$999,030	\$174,968
Superior	MN	\$74,545,823	\$46,356,398	\$10,604,284	\$15,355,955	\$1,676,259
Wayne	OH	\$1,955,655	\$1,547,182	\$416,443	\$52,945	\$80,351
White Mountain	ME/NH	\$2,945,145	\$2,219,712	\$665,159	\$154,272	\$22,623
National Grasslands:						
Midewin National Tallgrass Prairie	IL	\$787,987	\$501,884	\$89,277	\$164,998	\$28,898
Alaska Region, Region 10: Alaska.						
National Forests:						
Chugach	AK	\$5,427,292	\$4,881,525	\$158,191	\$271,762	\$54,173
Tongass	AK	\$17,927,232	\$16,124,476	\$522,530	\$897,675	\$178,943

APPENDIX F

Hunting Multiplier Ratios

Approach #1 Multipliers, Hunting:

	Retail Sales	Total Multiplier Effect	Salaries and Wages	Jobs	Sales and Motor Fuel Taxes	State Income Taxes	Federal Income Taxes
Alabama	1.000	1.972	0.456	0.000021	0.039	0.017	0.047
Alaska	1.000	1.599	0.386	0.000019	0.004	0.000	0.039
Arizona	1.000	1.883	0.458	0.000018	0.055	0.011	0.078
Arkansas	1.000	1.742	0.391	0.000020	0.044	0.019	0.039
California	1.000	2.021	0.503	0.000017	0.068	0.024	0.090
Colorado	1.000	2.022	0.553	0.000021	0.035	0.018	0.093
Connecticut	1.000	1.716	0.412	0.000013	0.042	0.013	0.076
Delaware	1.000	1.567	0.288	0.000013	0.010	0.011	0.043
Florida	1.000	1.790	0.452	0.000018	0.054	0.000	0.072
Georgia	1.000	1.968	0.492	0.000020	0.029	0.023	0.079
Hawaii	1.000	1.640	0.375	0.000014	0.056	0.026	0.063
Idaho	1.000	1.681	0.394	0.000019	0.055	0.013	0.040
Illinois	1.000	2.103	0.539	0.000019	0.053	0.012	0.095
Indiana	1.000	1.916	0.442	0.000018	0.047	0.011	0.070
Iowa	1.000	1.944	0.444	0.000020	0.057	0.024	0.066
Kansas	1.000	1.988	0.461	0.000022	0.059	0.017	0.047
Kentucky	1.000	2.035	0.433	0.000019	0.057	0.024	0.066
Louisiana	1.000	1.708	0.365	0.000016	0.044	0.009	0.056
Maine	1.000	1.656	0.376	0.000019	0.048	0.016	0.038
Maryland	1.000	1.865	0.430	0.000016	0.046	0.016	0.072
Massachusetts	1.000	1.802	0.457	0.000014	0.052	0.022	0.085
Michigan	1.000	1.908	0.485	0.000018	0.057	0.013	0.082
Minnesota	1.000	1.983	0.487	0.000019	0.065	0.017	0.081
Mississippi	1.000	1.863	0.398	0.000019	0.069	0.014	0.041
Missouri	1.000	1.952	0.437	0.000018	0.041	0.017	0.069
Montana	1.000	1.691	0.405	0.000022	0.029	0.016	0.038
Nebraska	1.000	1.770	0.429	0.000022	0.054	0.017	0.043
Nevada	1.000	1.578	0.386	0.000014	0.064	0.000	0.065
New Hampshire	1.000	1.781	0.419	0.000016	0.010	0.000	0.069
New Jersey	1.000	1.881	0.447	0.000017	0.049	0.011	0.075
New Mexico	1.000	1.747	0.419	0.000021	0.053	0.016	0.042
New York	1.000	1.717	0.382	0.000013	0.036	0.012	0.069
North Carolina	1.000	1.956	0.488	0.000021	0.049	0.023	0.076

North Dakota	1.000	1.730	0.366	0.000018	0.063	0.004	0.037
Ohio	1.000	2.156	0.515	0.000020	0.050	0.031	0.085
Oklahoma	1.000	1.958	0.468	0.000023	0.050	0.027	0.047
Oregon	1.000	1.826	0.416	0.000017	0.016	0.033	0.066
Pennsylvania	1.000	1.953	0.448	0.000016	0.044	0.013	0.077
Rhode Island	n/a	n/a	n/a	n/a	n/a	n/a	n/a
South Carolina	1.000	1.922	0.440	0.000019	0.052	0.017	0.068
South Dakota	1.000	1.760	0.434	0.000023	0.053	0.000	0.043
Tennessee	1.000	2.121	0.493	0.000019	0.059	0.000	0.083
Texas	1.000	2.065	0.491	0.000018	0.053	0.000	0.084
Utah	1.000	2.028	0.519	0.000023	0.056	0.021	0.055
Vermont	1.000	1.583	0.360	0.000017	0.049	0.009	0.037
Virginia	1.000	1.853	0.404	0.000017	0.044	0.018	0.063
Washington	1.000	1.767	0.432	0.000016	0.066	0.000	0.073
West Virginia	1.000	1.610	0.326	0.000017	0.060	0.012	0.032
Wisconsin	1.000	1.844	0.445	0.000020	0.044	0.011	0.047
Wyoming	1.000	1.664	0.419	0.000022	0.047	0.000	0.041
United States	1.000	2.735	0.679	0.000023	0.039	0.011	0.121
State Avg	1.000	1.843	0.434	0.000018	0.048	0.014	0.062

Approach #2 Multipliers, Hunting:

	Retail Sales	Total Multiplier Effect	Salaries and Wages	Jobs	Sales and Motor Fuel Taxes	State Income Taxes	Federal Income Taxes
Alabama	1.000	1.972	0.456	0.000021	0.039	0.017	0.047
Alaska	1.000	1.599	0.386	0.000019	0.004	0.000	0.039
Arizona	1.000	1.883	0.458	0.000018	0.055	0.011	0.078
Arkansas	1.000	1.742	0.391	0.000020	0.044	0.019	0.039
California	1.000	2.021	0.503	0.000017	0.068	0.024	0.090
Colorado	1.000	2.022	0.553	0.000021	0.035	0.018	0.093
Connecticut	1.000	1.716	0.412	0.000013	0.042	0.013	0.076
Delaware	1.000	1.567	0.288	0.000013	0.010	0.011	0.043
Florida	1.000	1.790	0.452	0.000018	0.054	0.000	0.072
Georgia	1.000	1.968	0.492	0.000020	0.029	0.023	0.079
Hawaii	1.000	1.640	0.375	0.000014	0.056	0.026	0.063
Idaho	1.000	1.681	0.394	0.000019	0.055	0.013	0.040
Illinois	1.000	2.103	0.539	0.000019	0.053	0.012	0.095
Indiana	1.000	1.916	0.442	0.000018	0.047	0.011	0.070
Iowa	1.000	1.944	0.444	0.000020	0.057	0.024	0.066
Kansas	1.000	1.988	0.461	0.000022	0.059	0.017	0.047
Kentucky	1.000	2.035	0.433	0.000019	0.057	0.024	0.066
Louisiana	1.000	1.708	0.365	0.000016	0.044	0.009	0.056
Maine	1.000	1.656	0.376	0.000019	0.048	0.016	0.038
Maryland	1.000	1.865	0.430	0.000016	0.046	0.016	0.072

Massachusetts	1.000	1.802	0.457	0.000014	0.052	0.022	0.085
Michigan	1.000	1.908	0.485	0.000018	0.057	0.013	0.082
Minnesota	1.000	1.983	0.487	0.000019	0.065	0.017	0.081
Mississippi	1.000	1.863	0.398	0.000019	0.069	0.014	0.041
Missouri	1.000	1.952	0.437	0.000018	0.041	0.017	0.069
Montana	1.000	1.691	0.405	0.000022	0.029	0.016	0.038
Nebraska	1.000	1.770	0.429	0.000022	0.054	0.017	0.043
Nevada	1.000	1.578	0.386	0.000014	0.064	0.000	0.065
New Hampshire	1.000	1.781	0.419	0.000016	0.010	0.000	0.069
New Jersey	1.000	1.881	0.447	0.000017	0.049	0.011	0.075
New Mexico	1.000	1.747	0.419	0.000021	0.053	0.016	0.042
New York	1.000	1.717	0.382	0.000013	0.036	0.012	0.069
North Carolina	1.000	1.956	0.488	0.000021	0.049	0.023	0.076
North Dakota	1.000	1.730	0.366	0.000018	0.063	0.004	0.037
Ohio	1.000	2.156	0.515	0.000020	0.050	0.031	0.085
Oklahoma	1.000	1.958	0.468	0.000023	0.050	0.027	0.047
Oregon	1.000	1.826	0.416	0.000017	0.016	0.033	0.066
Pennsylvania	1.000	1.953	0.448	0.000016	0.044	0.013	0.077
Rhode Island	n/a	n/a	n/a	n/a	n/a	n/a	n/a
South Carolina	1.000	1.922	0.440	0.000019	0.052	0.017	0.068
South Dakota	1.000	1.760	0.434	0.000023	0.053	0.000	0.043
Tennessee	1.000	2.121	0.493	0.000019	0.059	0.000	0.083
Texas	1.000	2.065	0.491	0.000018	0.053	0.000	0.084
Utah	1.000	2.028	0.519	0.000023	0.056	0.021	0.055
Vermont	1.000	1.583	0.360	0.000017	0.049	0.009	0.037
Virginia	1.000	1.853	0.404	0.000017	0.044	0.018	0.063
Washington	1.000	1.767	0.432	0.000016	0.066	0.000	0.073
West Virginia	1.000	1.610	0.326	0.000017	0.060	0.012	0.032
Wisconsin	1.000	1.844	0.445	0.000020	0.044	0.011	0.047
Wyoming	1.000	1.664	0.419	0.000022	0.047	0.000	0.041
United States	1.000	2.735	0.679	0.000023	0.039	0.011	0.121
State Avg:	1.000	1.843	0.434	0.000018	0.048	0.014	0.062

APPENDIX G

Fishing Multiplier Ratios

Approach #1 Multipliers, Fishing:

	Retail Sales	Total Multiplier Effect	Salaries and Wages	Jobs	Sales and Motor Fuel Taxes	State Income Taxes	Federal Income Taxes
Alabama	1.000	1.946	0.484626	0.000023	0.049	0.020	0.050
Alaska	1.000	1.637	0.404441	0.000019	0.005	0.000	0.042
Arizona	1.000	1.889	0.483605	0.000019	0.058	0.011	0.079
Arkansas	1.000	1.793	0.450111	0.000021	0.061	0.022	0.046
California	1.000	2.058	0.541661	0.000018	0.071	0.026	0.099
Colorado	1.000	1.994	0.522806	0.000019	0.041	0.017	0.089
Connecticut	1.000	1.753	0.421323	0.000013	0.067	0.013	0.078
Delaware	1.000	1.634	0.349436	0.000015	0.034	0.013	0.037
Florida	1.000	1.791	0.458474	0.000018	0.052	0.000	0.074
Georgia	1.000	2.004	0.498131	0.000019	0.037	0.027	0.084
Hawaii	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Idaho	1.000	1.659	0.382473	0.000019	0.057	0.017	0.038
Illinois	1.000	2.181	0.542164	0.000018	0.071	0.013	0.099
Indiana	1.000	2.082	0.509866	0.000020	0.052	0.013	0.082
Iowa	1.000	2.046	0.460947	0.000020	0.059	0.025	0.071
Kansas	1.000	1.962	0.460856	0.000021	0.064	0.021	0.068
Kentucky	1.000	1.934	0.432265	0.000020	0.060	0.024	0.063
Louisiana	1.000	1.815	0.442726	0.000019	0.057	0.011	0.068
Maine	1.000	1.680	0.405616	0.000019	0.053	0.023	0.042
Maryland	1.000	1.901	0.477247	0.000018	0.059	0.018	0.079
Massachusetts	1.000	1.814	0.455459	0.000016	0.059	0.022	0.080
Michigan	1.000	1.916	0.484813	0.000018	0.063	0.013	0.082
Minnesota	1.000	1.965	0.493205	0.000020	0.072	0.017	0.080
Mississippi	1.000	1.931	0.463171	0.000021	0.081	0.017	0.048
Missouri	1.000	1.946	0.435025	0.000018	0.050	0.017	0.069
Montana	1.000	1.705	0.426227	0.000022	0.023	0.017	0.042
Nebraska	1.000	1.814	0.441621	0.000020	0.062	0.018	0.046
Nevada	1.000	1.542	0.321523	0.000012	0.075	0.000	0.056
New Hampshire	1.000	1.741	0.399311	0.000017	0.015	0.000	0.063
New Jersey	1.000	1.886	0.447026	0.000016	0.059	0.011	0.079
New Mexico	1.000	1.712	0.383091	0.000019	0.061	0.015	0.039

New York	1.000	1.795	0.443626	0.000015	0.057	0.014	0.080
North Carolina	1.000	2.092	0.538469	0.000022	0.050	0.026	0.085
North Dakota	1.000	1.707	0.367712	0.000018	0.060	0.004	0.037
Ohio	1.000	2.152	0.526949	0.000021	0.063	0.032	0.087
Oklahoma	1.000	2.048	0.505957	0.000024	0.058	0.029	0.052
Oregon	1.000	1.765	0.404313	0.000017	0.027	0.031	0.062
Pennsylvania	1.000	2.010	0.484452	0.000019	0.054	0.014	0.080
Rhode Island	1.000	1.650	0.394772	0.000016	0.086	0.017	0.064
South Carolina	1.000	1.931	0.479641	0.000021	0.062	0.018	0.073
South Dakota	1.000	1.738	0.430439	0.000022	0.060	0.000	0.043
Tennessee	1.000	2.064	0.525737	0.000021	0.074	0.000	0.086
Texas	1.000	2.074	0.491596	0.000018	0.057	0.000	0.084
Utah	1.000	2.050	0.520703	0.000022	0.066	0.021	0.056
Vermont	1.000	1.528	0.340022	0.000017	0.071	0.008	0.034
Virginia	1.000	1.916	0.443957	0.000018	0.049	0.020	0.072
Washington	1.000	1.772	0.449613	0.000017	0.075	0.000	0.076
West Virginia	1.000	1.689	0.364647	0.000019	0.080	0.013	0.035
Wisconsin	1.000	1.900	0.483957	0.000022	0.065	0.012	0.051
Wyoming	1.000	1.476	0.274391	0.000015	0.043	0.000	0.026
United States	1.000	2.820	0.731909	0.000026	0.049	0.013	0.118
State Avg	1.000	1.859	0.448	0.000019	0.057	0.015	0.064

Approach #2 Multipliers, Fishing:

	Retail Sales	Total Multiplier Effect	Salaries and Wages	Jobs	Sales and Motor Fuel Taxes	State Income Taxes	Federal Income Taxes
Alabama	1.000	1.946	0.484626	0.000023	0.049	0.020	0.050
Alaska	1.000	1.637	0.404441	0.000019	0.005	0.000	0.042
Arizona	1.000	1.889	0.483605	0.000019	0.058	0.011	0.079
Arkansas	1.000	1.793	0.450111	0.000021	0.061	0.022	0.046
California	1.000	2.058	0.541661	0.000018	0.071	0.026	0.099
Colorado	1.000	1.994	0.522806	0.000019	0.041	0.017	0.089
Connecticut	1.000	1.753	0.421323	0.000013	0.067	0.013	0.078
Delaware	1.000	1.634	0.349436	0.000015	0.034	0.013	0.037
Florida	1.000	1.791	0.458474	0.000018	0.052	0.000	0.074
Georgia	1.000	2.004	0.498131	0.000019	0.037	0.027	0.084
Hawaii	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Idaho	1.000	1.659	0.382473	0.000019	0.057	0.017	0.038
Illinois	1.000	2.181	0.542164	0.000018	0.071	0.013	0.099
Indiana	1.000	2.082	0.509866	0.000020	0.052	0.013	0.082
Iowa	1.000	2.046	0.460947	0.000020	0.059	0.025	0.071

Kansas	1.000	1.962	0.460856	0.000021	0.064	0.021	0.068
Kentucky	1.000	1.934	0.432265	0.000020	0.060	0.024	0.063
Louisiana	1.000	1.815	0.442726	0.000019	0.057	0.011	0.068
Maine	1.000	1.680	0.405616	0.000019	0.053	0.023	0.042
Maryland	1.000	1.901	0.477247	0.000018	0.059	0.018	0.079
Massachusetts	1.000	1.814	0.455459	0.000016	0.059	0.022	0.080
Michigan	1.000	1.916	0.484813	0.000018	0.063	0.013	0.082
Minnesota	1.000	1.965	0.493205	0.000020	0.072	0.017	0.080
Mississippi	1.000	1.931	0.463171	0.000021	0.081	0.017	0.048
Missouri	1.000	1.946	0.435025	0.000018	0.050	0.017	0.069
Montana	1.000	1.705	0.426227	0.000022	0.023	0.017	0.042
Nebraska	1.000	1.814	0.441621	0.000020	0.062	0.018	0.046
Nevada	1.000	1.542	0.321523	0.000012	0.075	0.000	0.056
New Hampshire	1.000	1.741	0.399311	0.000017	0.015	0.000	0.063
New Jersey	1.000	1.886	0.447026	0.000016	0.059	0.011	0.079
New Mexico	1.000	1.712	0.383091	0.000019	0.061	0.015	0.039
New York	1.000	1.795	0.443626	0.000015	0.057	0.014	0.080
North Carolina	1.000	2.092	0.538469	0.000022	0.050	0.026	0.085
North Dakota	1.000	1.707	0.367712	0.000018	0.060	0.004	0.037
Ohio	1.000	2.152	0.526949	0.000021	0.063	0.032	0.087
Oklahoma	1.000	2.048	0.505957	0.000024	0.058	0.029	0.052
Oregon	1.000	1.765	0.404313	0.000017	0.027	0.031	0.062
Pennsylvania	1.000	2.010	0.484452	0.000019	0.054	0.014	0.080
Rhode Island	1.000	1.650	0.394772	0.000016	0.086	0.017	0.064
South Carolina	1.000	1.931	0.479641	0.000021	0.062	0.018	0.073
South Dakota	1.000	1.738	0.430439	0.000022	0.060	0.000	0.043
Tennessee	1.000	2.064	0.525737	0.000021	0.074	0.000	0.086
Texas	1.000	2.074	0.491596	0.000018	0.057	0.000	0.084
Utah	1.000	2.050	0.520703	0.000022	0.066	0.021	0.056
Vermont	1.000	1.528	0.340022	0.000017	0.071	0.008	0.034
Virginia	1.000	1.916	0.443957	0.000018	0.049	0.020	0.072
Washington	1.000	1.772	0.449613	0.000017	0.075	0.000	0.076
West Virginia	1.000	1.689	0.364647	0.000019	0.080	0.013	0.035
Wisconsin	1.000	1.900	0.483957	0.000022	0.065	0.012	0.051
Wyoming	1.000	1.476	0.274391	0.000015	0.043	0.000	0.026
U.S.	1.000	2.820	0.731909	0.000026	0.049	0.013	0.118
State average:	1.000	1.859	0.448	0.000019	0.057	0.015	0.064

APPENDIX H

Wildlife Viewing Multiplier Ratios

Approach #1 Multipliers, Wildlife Viewing:

	Retail Sales	Total Multiplier Effect	Salaries and Wages	Jobs	Sales and Motor Fuel Taxes	State Income Taxes	Federal Income Taxes
Alabama	1	1.94811	0.557495	0.000028	0.047726	0.012332	0.054773
Alaska	1	1.587292	0.474845	0.000026	0.004209	0	0.054119
Arizona	1	1.720239	0.517363	0.000022	0.048495	0.008529	0.056903
Arkansas	1	1.439344	0.385656	0.000021	0.052459	0.010656	0.034836
California	1	2.002828	0.6199	0.000024	0.051261	0.018172	0.073734
Colorado	1	1.900545	0.589366	0.000026	0.05205	0.014094	0.070628
Connecticut	1	1.805333	0.577778	0.000019	0.04	0.016	0.093333
Delaware	1	1.751773	0.543735	0.000024	0	0.018913	0.059102
Florida	1	1.786988	0.554745	0.000022	0.048556	0	0.069184
Georgia	1	1.983389	0.58324	0.000023	0.053005	0.015864	0.064763
Hawaii	1	1.577508	0.472644	0.000019	0.056231	0.018997	0.041033
Idaho	1	1.687912	0.442637	0.000026	0.03956	0.014066	0.040879
Illinois	1	2.142402	0.628984	0.000022	0.039584	0.012747	0.078665
Indiana	1	2.013575	0.588863	0.000030	0.041696	0.019393	0.063998
Iowa	1	1.819002	0.487792	0.000027	0.04034	0.014862	0.048301
Kansas	1	1.893551	0.516706	0.000030	0.048951	0.013986	0.058275
Kentucky	1	1.69232	0.499335	0.000031	0.037234	0.019116	0.048537
Louisiana	1	1.985549	0.566474	0.000030	0.069364	0.009393	0.057803
Maine	1	1.66764	0.496885	0.000027	0.031347	0.015771	0.04965
Maryland	1	2.05506	0.662919	0.000029	0.033847	0.028167	0.078938
Massachusetts	1	1.878329	0.615811	0.000021	0.032602	0.025357	0.080759
Michigan	1	1.886547	0.565964	0.000025	0.049365	0.015878	0.066109
Minnesota	1	1.923743	0.557899	0.000024	0.039729	0.020523	0.06157
Mississippi	1	1.520593	0.382867	0.000021	0.04514	0.006919	0.034267
Missouri	1	2.063725	0.576426	0.000025	0.057709	0.015597	0.058824
Montana	1	1.644019	0.456751	0.000029	0	0.012275	0.040822
Nebraska	1	1.905166	0.533539	0.000025	0.037008	0.013107	0.052429
Nevada	1	1.490204	0.426629	0.000017	0.045582	0	0.054778
New Hampshire	1	1.654418	0.504229	0.000024	0	0	0.065325
New Jersey	1	1.820791	0.540923	0.000016	0.026451	0.011497	0.0726
New Mexico	1	1.668458	0.489343	0.000026	0.053735	0.011105	0.045137

New York	1	1.86562	0.590677	0.000022	0.039511	0.026578	0.070068
North Carolina	1	1.927561	0.552546	0.000025	0.045713	0.01814	0.056476
North Dakota	1	1.664207	0.424354	0.000027	0.02952	0.00738	0.0369
Ohio	1	2.085701	0.596052	0.000025	0.046221	0.022308	0.061948
Oklahoma	1	1.915114	0.501553	0.000032	0.062629	0.014493	0.050207
Oregon	1	1.930725	0.585131	0.000028	0	0.023655	0.056408
Pennsylvania	1	2.032855	0.588792	0.000023	0.040549	0.017259	0.06779
Rhode Island	1	1.53066	0.471698	0.000018	0.027123	0.012382	0.050118
South Carolina	1	1.904446	0.547972	0.000027	0.050312	0.014821	0.054992
South Dakota	1	1.607609	0.420652	0.000028	0.041304	0	0.046739
Tennessee	1	1.996433	0.560758	0.000028	0.066667	0	0.062876
Texas	1	1.914335	0.517733	0.000022	0.043729	0	0.064775
Utah	1	1.867374	0.569732	0.000029	0.052906	0.017096	0.053086
Vermont	1	1.708395	0.538537	0.000034	0.020128	0.013746	0.058419
Virginia	1	1.962972	0.62034	0.000032	0.034999	0.017626	0.071773
Washington	1	1.818414	0.538634	0.000023	0.059304	0	0.069715
West Virginia	1	1.544343	0.456881	0.000024	0.039144	0.011621	0.038532
Wisconsin	1	1.870692	0.542696	0.000026	0.031336	0.020052	0.05764
Wyoming	1	1.608154	0.409211	0.000025	0.032465	0	0.05436
United States	1	2.493436	0.722503	0.000027	0.053985	0.018535	0.084606
State Avg	1.000	1.813	0.529034	0.000025	0.040	0.013	0.058

Approach #2 Multipliers, Wildlife Viewing:

	Retail Sales	Total Multiplier Effect	Salaries and Wages	Jobs	Sales and Motor Fuel Taxes	State Income Taxes	Federal Income Taxes
Alabama	1	1.948110	0.557495	0.000028	0.047726	0.012332	0.054773
Alaska	1	1.587292	0.474845	0.000026	0.004209	0.000000	0.054119
Arizona	1	1.720239	0.517363	0.000022	0.048495	0.008529	0.056903
Arkansas	1	1.439344	0.385656	0.000021	0.052459	0.010656	0.034836
California	1	2.002828	0.619900	0.000024	0.051261	0.018172	0.073734
Colorado	1	1.900545	0.589366	0.000026	0.052050	0.014094	0.070628
Connecticut	1	1.805333	0.577778	0.000019	0.040000	0.016000	0.093333
Delaware	1	1.751773	0.543735	0.000024	0.000000	0.018913	0.059102
Florida	1	1.786988	0.554745	0.000022	0.048556	0.000000	0.069184
Georgia	1	1.983389	0.583240	0.000023	0.053005	0.015864	0.064763
Hawaii	1	1.577508	0.472644	0.000019	0.056231	0.018997	0.041033
Idaho	1	1.687912	0.442637	0.000026	0.039560	0.014066	0.040879
Illinois	1	2.142402	0.628984	0.000022	0.039584	0.012747	0.078665
Indiana	1	2.013575	0.588863	0.000030	0.041696	0.019393	0.063998
Iowa	1	1.819002	0.487792	0.000027	0.040340	0.014862	0.048301

Kansas	1	1.893551	0.516706	0.000030	0.048951	0.013986	0.058275
Kentucky	1	1.692320	0.499335	0.000031	0.037234	0.019116	0.048537
Louisiana	1	1.985549	0.566474	0.000030	0.069364	0.009393	0.057803
Maine	1	1.667640	0.496885	0.000027	0.031347	0.015771	0.049650
Maryland	1	2.055060	0.662919	0.000029	0.033847	0.028167	0.078938
Massachusetts	1	1.878329	0.615811	0.000021	0.032602	0.025357	0.080759
Michigan	1	1.886547	0.565964	0.000025	0.049365	0.015878	0.066109
Minnesota	1	1.923743	0.557899	0.000024	0.039729	0.020523	0.061570
Mississippi	1	1.520593	0.382867	0.000021	0.045140	0.006919	0.034267
Missouri	1	2.063725	0.576426	0.000025	0.057709	0.015597	0.058824
Montana	1	1.644019	0.456751	0.000029	0.000000	0.012275	0.040822
Nebraska	1	1.905166	0.533539	0.000025	0.037008	0.013107	0.052429
Nevada	1	1.490204	0.426629	0.000017	0.045582	0.000000	0.054778
New Hampshire	1	1.654418	0.504229	0.000024	0.000000	0.000000	0.065325
New Jersey	1	1.820791	0.540923	0.000016	0.026451	0.011497	0.072600
New Mexico	1	1.668458	0.489343	0.000026	0.053735	0.011105	0.045137
New York	1	1.865620	0.590677	0.000022	0.039511	0.026578	0.070068
North Carolina	1	1.927561	0.552546	0.000025	0.045713	0.018140	0.056476
North Dakota	1	1.664207	0.424354	0.000027	0.029520	0.007380	0.036900
Ohio	1	2.085701	0.596052	0.000025	0.046221	0.022308	0.061948
Oklahoma	1	1.915114	0.501553	0.000032	0.062629	0.014493	0.050207
Oregon	1	1.930725	0.585131	0.000028	0.000000	0.023655	0.056408
Pennsylvania	1	2.032855	0.588792	0.000023	0.040549	0.017259	0.067790
Rhode Island	1	1.530660	0.471698	0.000018	0.027123	0.012382	0.050118
South Carolina	1	1.904446	0.547972	0.000027	0.050312	0.014821	0.054992
South Dakota	1	1.607609	0.420652	0.000028	0.041304	0.000000	0.046739
Tennessee	1	1.996433	0.560758	0.000028	0.066667	0.000000	0.062876
Texas	1	1.914335	0.517733	0.000022	0.043729	0.000000	0.064775
Utah	1	1.867374	0.569732	0.000029	0.052906	0.017096	0.053086
Vermont	1	1.708395	0.538537	0.000034	0.020128	0.013746	0.058419
Virginia	1	1.962972	0.620340	0.000032	0.034999	0.017626	0.071773
Washington	1	1.818414	0.538634	0.000023	0.059304	0.000000	0.069715
West Virginia	1	1.544343	0.456881	0.000024	0.039144	0.011621	0.038532
Wisconsin	1	1.870692	0.542696	0.000026	0.031336	0.020052	0.057640
Wyoming	1	1.608154	0.409211	0.000025	0.032465	0.000000	0.054360
U.S.	1	2.493436	0.722503	0.000027	0.053985	0.018535	0.084606
State average:	1.000	1.813	0.529034	0.000025	0.040	0.013	0.058

APPENDIX I

Standard Errors and Confidence Limits

Hunting:

	<i># of Days</i>	<i>Standard Error</i>	<i>Lower Confidence Limit</i>	<i>Upper Confidence Limit</i>	<i>All Hunting Total Spending per Trip</i>	<i>Standard Error</i>	<i>Lower Confidence Limit</i>	<i>Upper Confidence Limit</i>
Alabama	7,615,502	1,277,986	5,513,214	9,717,789	61.83	9.37	46.41	77.24
Alaska	1,145,862	402,907	483,081	1,808,644	195.02	63.02	91.34	298.69
Arizona	1,693,994	472,674	916,445	2,471,543	167.99	42.81	97.57	238.41
Arkansas	8,411,150	1,401,571	6,105,566	10,716,734	48.23	7.24	36.32	60.13
California	3,425,654	704,995	2,265,938	4,585,371	101.15	19.01	69.89	132.42
Colorado	2,610,127	522,945	1,749,883	3,470,372	201.94	37.56	140.15	263.73
Connecticut	765,506	390,856	122,549	1,408,464	34.74	15.52	9.20	60.27
Delaware	225,815	193,220	0	543,662	53.87	41.00	0.00	121.31
Florida	4,693,274	1,079,065	2,918,212	6,468,336	97.12	20.07	64.11	130.14
Georgia	7,972,711	1,349,565	5,752,676	10,192,745	48.01	7.32	35.98	60.05
Hawaii	316,003	264,415	0	750,965	45.50	34.05	0.00	101.51
Idaho	2,100,413	506,193	1,267,725	2,933,100	111.90	24.69	71.29	152.51
Illinois	4,521,757	878,962	3,075,864	5,967,650	72.40	12.71	51.49	93.31
Indiana	5,000,118	1,010,594	3,337,691	6,662,544	42.01	7.49	29.70	54.32
Iowa	3,989,010	879,500	2,542,232	5,435,787	31.83	6.24	21.56	42.09
Kansas	3,646,631	727,654	2,449,641	4,843,621	53.64	9.69	37.70	69.59
Kentucky	4,663,776	889,112	3,201,187	6,126,366	79.49	13.55	57.20	101.78
Louisiana	6,441,650	1,220,444	4,434,020	8,449,280	62.17	10.57	44.78	79.57
Maine	2,468,778	659,301	1,384,227	3,553,329	45.37	10.86	27.50	63.24
Maryland	1,798,899	507,707	963,721	2,634,076	48.91	12.37	28.56	69.26
Massachusetts	1,157,640	490,005	351,581	1,963,699	47.03	17.45	18.33	75.74
Michigan	8,993,683	1,117,108	7,156,041	10,831,326	86.54	9.74	70.51	102.56
Minnesota	8,437,408	1,184,320	6,489,202	10,385,614	75.71	9.63	59.88	91.55
Mississippi	8,481,295	1,558,996	5,916,746	11,045,844	44.38	7.28	32.41	56.35

Missouri	6,605,601	1,022,064	4,924,306	8,286,897	53.30	7.41	41.11	65.50
Montana	2,442,222	545,525	1,544,833	3,339,612	107.87	22.10	71.52	144.22
Nebraska	2,203,652	569,844	1,266,258	3,141,045	89.83	21.11	55.12	124.55
Nevada	490,298	240,661	94,410	886,186	276.08	124.40	71.44	480.72
New Hampshire	1,459,049	568,518	523,837	2,394,262	49.83	17.12	21.66	78.00
New Jersey	3,119,724	931,079	1,588,098	4,651,350	34.49	9.18	19.39	49.59
New Mexico	1,667,054	497,476	848,706	2,485,402	133.01	36.05	73.70	192.31
New York	13,187,353	1,707,408	10,378,667	15,996,039	48.75	5.67	39.43	58.07
North Carolina	7,526,009	1,522,281	5,021,857	10,030,162	54.45	9.80	38.33	70.56
North Dakota	1,634,942	469,934	861,901	2,407,984	63.27	16.49	36.14	90.39
Ohio	10,233,091	1,601,281	7,598,984	12,867,198	55.02	7.67	42.40	67.64
Oklahoma	5,642,357	1,210,273	3,651,458	7,633,257	33.26	6.36	22.79	43.72
Oregon	2,947,339	635,085	1,902,623	3,992,054	173.57	34.17	117.36	229.78
Pennsylvania	13,955,198	1,516,830	11,460,013	16,450,383	48.39	4.75	40.57	56.20
Rhode Island	104,333	119,865	0	301,510	37.10	36.97	0.00	97.91
South Carolina	4,744,340	1,003,975	3,092,802	6,395,879	49.94	9.48	34.35	65.54
South Dakota	2,424,869	569,472	1,488,087	3,361,651	155.72	33.53	100.57	210.88
Tennessee	6,650,666	1,210,847	4,658,822	8,642,510	73.02	11.94	53.37	92.67
Texas	14,081,256	1,388,759	11,796,748	16,365,763	93.58	8.58	79.47	107.70
Utah	2,454,904	592,969	1,479,470	3,430,338	117.80	25.93	75.15	160.46
Vermont	1,509,576	516,920	659,243	2,359,909	26.44	7.94	13.38	39.50
Virginia	5,817,697	1,062,229	4,070,331	7,565,062	40.64	6.64	29.72	51.56
Washington	2,950,917	667,219	1,853,342	4,048,493	135.13	27.81	89.38	180.88
West Virginia	5,166,160	1,057,049	3,427,316	6,905,005	44.78	8.12	31.42	58.14
Wisconsin	9,652,829	1,290,658	7,529,697	11,775,961	67.95	8.20	54.46	81.44
Wyoming	1,304,045	379,642	679,534	1,928,556	155.96	41.77	87.25	224.67

Fishing:

	Fishing Days	Standard Error	Lower Confidence Limit	Upper Confidence Limit	Fishing Total Spending per Trip	Standard Error	Lower Confidence Limit	Upper Confidence Limit
Alabama	11,216,843	1,724,354	8,380,280	14,053,406	62.36	7.15	50.59	74.13
Alaska	3,641,214	790,552	2,340,756	4,941,672	214.35	34.50	157.60	271.11
Arizona	4,245,633	928,323	2,718,542	5,772,725	114.84	18.61	84.23	145.45
Arkansas	13,005,934	2,096,391	9,557,372	16,454,497	46.60	5.57	37.44	55.76
California	27,729,819	2,472,208	23,663,038	31,796,600	98.53	6.60	87.68	109.39
Colorado	9,267,000	1,363,915	7,023,359	11,510,641	105.13	11.48	86.25	124.02
Connecticut	4,913,633	1,192,029	2,952,745	6,874,521	47.42	8.55	33.35	61.49
Delaware	1,307,666	479,754	518,471	2,096,861	56.65	15.46	31.22	82.09
Florida	50,962,122	4,036,415	44,322,219	57,602,025	104.69	6.25	94.41	114.96
Georgia	13,543,820	1,837,412	10,521,277	16,566,363	44.94	4.55	37.46	52.42
Hawaii	2,760,573	1,024,290	1,075,616	4,445,531	42.15	11.61	23.06	61.24
Idaho	4,070,034	892,887	2,601,235	5,538,834	75.11	12.26	54.95	95.28
Illinois	15,002,576	1,903,793	11,870,836	18,134,316	44.37	4.20	37.45	51.28
Indiana	13,476,865	2,049,975	10,104,656	16,849,074	43.68	4.95	35.54	51.82
Iowa	7,484,539	1,447,947	5,102,665	9,866,412	47.83	6.89	36.50	59.17
Kansas	5,662,266	1,270,710	3,571,949	7,752,583	38.31	6.39	27.80	48.82
Kentucky	12,393,649	1,998,985	9,105,318	15,681,979	52.63	6.31	42.24	63.01
Louisiana	13,091,780	1,884,510	9,991,761	16,191,800	58.97	6.33	48.55	69.39
Maine	4,149,283	959,815	2,570,387	5,728,180	70.50	12.12	50.56	90.44
Maryland	7,438,042	1,256,663	5,370,831	9,505,254	76.97	9.69	61.03	92.91
Massachusetts	7,863,927	1,424,260	5,521,020	10,206,835	67.10	9.05	52.21	81.99
Michigan	19,819,089	2,410,379	15,854,016	23,784,163	56.30	5.10	47.91	64.69
Minnesota	28,761,733	3,195,282	23,505,494	34,017,971	63.15	5.23	54.55	71.75
Mississippi	9,453,898	1,762,538	6,554,524	12,353,272	26.97	3.73	20.84	33.11
Missouri	13,278,827	1,696,462	10,488,147	16,069,507	68.63	6.55	57.86	79.40
Montana	4,068,266	978,108	2,459,279	5,677,254	80.62	14.40	56.92	104.31
Nebraska	3,203,580	835,730	1,828,804	4,578,356	54.00	10.46	36.79	71.21
Nevada	1,575,313	538,171	690,021	2,460,605	160.88	40.85	93.68	228.08

New Hampshire	3,190,712	879,566	1,743,826	4,637,598	54.05	11.08	35.83	72.27
New Jersey	10,666,166	1,686,292	7,892,216	13,440,117	67.57	7.97	54.45	80.68
New Mexico	2,485,037	624,311	1,458,044	3,512,029	87.02	16.27	60.26	113.79
New York	23,776,868	2,700,055	19,335,277	28,218,459	37.34	3.17	32.13	42.55
North Carolina	15,475,426	1,924,226	12,310,074	18,640,777	71.21	6.61	60.33	82.08
North Dakota	2,185,612	736,875	973,454	3,397,771	89.00	22.28	52.36	125.65
Ohio	19,453,422	2,349,355	15,588,733	23,318,112	46.84	4.22	39.90	53.79
Oklahoma	12,740,550	2,063,348	9,346,343	16,134,757	43.20	5.21	34.64	51.77
Oregon	8,848,056	1,515,694	6,354,740	11,341,372	69.83	8.91	55.18	84.48
Pennsylvania	18,607,108	2,342,060	14,754,419	22,459,796	33.65	3.16	28.45	38.85
Rhode Island	2,157,329	726,833	961,688	3,352,970	50.47	12.65	29.66	71.28
South Carolina	10,725,547	1,689,554	7,946,230	13,504,864	57.33	6.73	46.25	68.40
South Dakota	2,984,192	920,298	1,470,301	4,498,082	79.43	18.16	49.56	109.29
Tennessee	15,035,262	2,252,064	11,330,616	18,739,908	37.65	4.19	30.75	44.55
Texas	33,188,236	3,018,258	28,223,202	38,153,269	68.98	4.70	61.24	76.71
Utah	5,237,905	1,030,106	3,543,380	6,932,429	96.77	14.14	73.50	120.03
Vermont	2,321,274	800,541	1,004,385	3,638,164	51.98	13.27	30.15	73.82
Virginia	14,128,095	1,994,459	10,847,211	17,408,980	41.27	4.34	34.12	48.42
Washington	12,740,633	1,865,553	9,671,799	15,809,467	79.63	8.69	65.34	93.93
West Virginia	4,151,742	1,049,787	2,424,842	5,878,641	33.00	6.17	22.85	43.15
Wisconsin	21,223,645	2,527,489	17,065,925	25,381,364	59.29	5.26	50.63	67.94
Wyoming	2,497,084	650,754	1,426,594	3,567,573	100.81	19.46	68.80	132.81

Wildlife Viewing:

	Non-Residential Trips	Standard Error	Lower Confidence Limit	Upper Confidence Limit	Total Spending per Trip	Standard Error	Lower Confidence Limit	Upper Confidence Limit
Alabama	2,593,653	1,295,003	463,373	4,723,933	149.42	53.35	61.65	237.18
Alaska	1,523,843	956,959	0	3,098,040	283.39	129.16	70.93	495.85
Arizona	2,336,891	1,168,190	415,219	4,258,564	316.10	117.88	122.19	510.01
Arkansas	1,333,469	904,165	0	2,820,820	128.60	62.64	25.55	231.65
California	16,920,623	3,255,203	11,565,815	22,275,431	114.14	15.70	88.31	139.97
Colorado	4,044,913	1,553,668	1,489,129	6,600,698	132.50	37.15	71.39	193.61

Connecticut	3,852,326	1,636,334	1,160,557	6,544,096	28.76	8.95	14.05	43.48
Delaware	555,352	580,807	0	1,510,780	39.45	29.76	0.00	88.40
Florida	8,545,581	2,276,472	4,800,785	12,290,377	160.41	30.88	109.62	211.20
Georgia	3,383,863	1,464,728	974,386	5,793,340	119.50	36.94	58.73	180.26
Hawaii	656,596	624,926	0	1,684,600	177.33	123.44	0.00	380.40
Idaho	1,798,912	1,028,002	107,848	3,489,976	107.92	45.68	32.78	183.07
Illinois	6,901,987	2,138,431	3,384,268	10,419,705	59.61	13.27	37.78	81.45
Indiana	4,065,574	1,610,281	1,416,663	6,714,486	83.71	23.68	44.76	122.67
Iowa	3,768,568	1,597,227	1,141,129	6,396,007	26.31	8.07	13.03	39.60
Kansas	1,709,320	1,018,466	33,944	3,384,696	39.51	17.00	11.56	67.47
Kentucky	3,944,968	1,608,915	1,298,302	6,591,634	77.54	22.68	40.24	114.84
Louisiana	1,430,493	921,559	0	2,946,457	74.67	35.26	16.68	132.67
Maine	2,720,457	1,293,465	592,707	4,848,208	91.89	31.36	40.31	143.47
Maryland	3,467,708	1,460,562	1,065,084	5,870,333	140.28	42.40	70.53	210.03
Massachusetts	5,368,676	1,871,470	2,290,108	8,447,244	59.08	14.75	34.82	83.34
Michigan	8,276,432	2,313,436	4,470,830	12,082,033	53.00	10.59	35.58	70.43
Minnesota	9,736,549	2,633,723	5,404,075	14,069,023	37.48	7.51	25.12	49.83
Mississippi	957,985	772,977	0	2,229,533	223.60	129.02	11.37	435.84
Missouri	4,076,273	1,569,603	1,494,276	6,658,270	78.60	21.90	42.57	114.62
Montana	2,699,859	1,274,526	603,264	4,796,454	109.81	37.60	47.95	171.67
Nebraska	1,306,287	900,352	0	2,787,367	73.59	36.31	13.86	133.32
Nevada	786,224	670,421	0	1,889,067	296.91	195.28	0.00	618.15
New Hampshire	2,137,255	1,131,327	276,222	3,998,289	133.68	51.49	48.98	218.39
New Jersey	6,521,712	2,055,620	3,140,216	9,903,207	86.84	19.58	54.63	119.04
New Mexico	2,391,527	1,209,392	402,077	4,380,978	164.97	59.99	66.28	263.66
New York	12,605,663	2,858,474	7,903,473	17,307,852	60.69	9.84	44.50	76.87
North Carolina	4,172,966	1,610,665	1,523,423	6,822,509	138.92	38.37	75.79	202.04
North Dakota	350,277	452,609	0	1,094,819	54.84	52.76	0.00	141.64
Ohio	19,680,259	3,929,501	13,216,230	26,144,288	19.96	3.12	14.83	25.09
Oklahoma	3,139,399	1,405,401	827,516	5,451,283	31.83	10.18	15.08	48.57
Oregon	5,714,528	1,871,335	2,636,182	8,792,874	99.20	23.35	60.79	137.62
Pennsylvania	12,780,430	2,890,688	8,025,248	17,535,612	56.39	9.13	41.36	71.42
Rhode Island	1,447,930	1,010,746	0	3,110,608	105.38	54.30	16.05	194.71

South Carolina	2,702,700	1,308,149	550,794	4,854,605	66.93	23.13	28.87	104.98
South Dakota	1,074,870	808,877	0	2,405,473	63.95	34.68	6.90	121.00
Tennessee	4,693,989	1,704,829	1,889,544	7,498,433	63.61	16.55	36.38	90.83
Texas	4,546,792	1,642,962	1,844,119	7,249,465	218.35	57.85	123.19	313.51
Utah	2,914,167	1,326,852	731,494	5,096,839	145.56	47.95	66.68	224.44
Vermont	2,706,796	1,316,453	541,231	4,872,361	35.65	12.39	15.28	56.03
Virginia	5,247,149	1,801,338	2,283,948	8,210,349	78.40	19.29	46.67	110.13
Washington	7,039,758	2,083,202	3,612,891	10,466,625	101.45	21.54	66.02	136.88
West Virginia	3,040,998	1,454,671	648,064	5,433,932	39.03	13.68	16.52	61.54
Wisconsin	10,922,138	2,692,864	6,492,376	15,351,900	72.93	12.93	51.67	94.20
Wyoming	1,488,115	931,443	0	3,020,338	147.37	68.95	33.95	260.80