

Responsive Management™



2013 ECONOMIC IMPACT OF FISHING IN ARIZONA

Conducted for the Arizona Game and Fish Department

by Anthony Fedler, PhD., and Responsive Management

2014

2013 ECONOMIC IMPACT OF FISHING IN ARIZONA

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INTRODUCTION

This economic analysis is a companion report to a 2014 study conducted by Responsive Management (RM) for the Arizona Department of Game and Fish (hereinafter referred to as the Department). The purpose of the study was to determine the views of Arizona's anglers on various regulations, their satisfactions and dissatisfactions with fishing in Arizona, the fishing methods and locations they typically used, and their fishing-related expenditures in Arizona during 2013. This report is concerned with the data gathered on the last point: it uses these expenditure data to produce an analysis of the 2013 economic impact of fishing in Arizona.

SURVEY METHODOLOGY

The study conducted by Responsive Management entailed a multi-modal survey of Arizona license-buying anglers. Internet and telephone surveys were developed and pre-tested to ensure proper wording, flow and logic in the surveys. Prior to the survey being administered, sample members were sent a postcard to encourage participation in the survey and offered two modes (telephone and Internet) for completing the survey. Because of the length of the survey, randomly selected subsets of the survey sample were administered selected question sets to avoid respondent fatigue, improve the quality of responses, and optimize the survey response rate.

The survey obtained data from a scientifically selected random sample, stratified by county, using telephone and Internet modes. The sample was drawn from a database of Arizona's licensed anglers (resident and nonresident), obtained from the Department. Resident license buyers were stratified by county of residence with the goal being a large enough sample size in each county to be statistically valid. A sample of non-residents was also surveyed.

The survey obtained data by telephone and the Internet. This approach allowed for a large number of anglers to be surveyed while still maintaining the representativeness of the sample. The multi-modal approach is also the most convenient for the respondents.

The entire sample included some anglers in the database who had not fished in Arizona in 2013. Some questions were asked of the entire sample, while other questions were asked only of those who had fished in 2013. The overall response rate for the Internet and telephone surveys combined was approximately 30%.

One important aspect of the data analysis was to look at fishing location information, which included obtaining data about the water body in Arizona in which the angler fished. The survey used a list of 93 water bodies or sections of water bodies provided by the Department. When an angler was unsure of the name of the water body, the survey asked the respondent to describe the location using local landmarks for later identification by researchers.

CALCULATING ANGLER EXPENDITURES

It is important to understand how this economic analysis was conducted in order to recognize what the results reported in each table or graph represent. The overall focus of this analysis was to produce angler expenditure totals for specific locations by those anglers fishing in each location. Angler expenditure totals were driven by two elements; the number of angler user days (AUD) for fishing in a waterbody, watershed, county or in the state and the mean expenditure per day made by each angler.

AUDs for each waterbody were calculated by Arizona Fish and Game (AFG) researchers based on license sales and results from the 2013 angler survey (Responsive Management 2014).

Waterbodies were grouped by county location and watershed for analysis and reporting purposes and were the basic unit of analysis for reporting. From a statewide perspective, the AFG was not only interested in total expenditures made by anglers, but wanted to know where anglers made their expenditures as well. Thus, the focus of the analysis was placed on where angling expenditures occurred, and by whom, for each county or watershed; in the county or watershed of residence, in a destination county or watershed by residents living outside the county or watershed, and a county or watershed by non-residents.

To estimate expenditures by anglers in each county or watershed, it was necessary to use angler expenditures per day as the basic computational unit. A series of calculations were used to estimate angler expenditures per day for each of 28 fishing trip, fishing equipment and auxiliary equipment expenditure items in the angler survey and assign a proportion of each expenditure to where it occurred; those made in the angler's residential county, those made by anglers traveling outside their counties to fish, and those made by non-resident anglers traveling to a specific county. This was accomplished by multiplying expenditures for each of the 28 items by the percentage of where expenditures occurred as reported by each angler.

For example, suppose an angler spent a total of \$500 during the year on food and reported that 60% was spent in the county of residence, 10% while traveling to a destination out of the county, and 30% in the county where fishing occurred outside the residential county. This would result in \$300 being allocated to the resident county, \$50 while traveling and \$150 while at the fishing destination. To estimate daily spending, expenditures in the county of residence were divided by the number of days the angler fish within the residential county. Similarly, expenditures while traveling and expenditures at fishing destinations outside the residential county were each divided by the number of days fishing locations outside of the residential county.

The estimation of angler spending statewide was achieved by summing the daily expenditures for each of the 28 items to produce a total daily expenditure for an angler for each item. The mean daily expenditure for all anglers was multiplied by the total AUDs for the state to produce a statewide total of direct expenditures for each item.

County expenditure calculations consisted of four steps. The first was to multiply the mean daily in-county expenditure by the number of AUDs attributed to county residents for that county. In the second step, the mean daily expenditure for non-county Arizona residents fishing in the county was multiplied by the appropriate county AUDs. Third, the mean expenditure made in destination counties by non-residents was multiplied by their appropriate AUDs for the county. Finally, the three calculations were summed to produce total expenditures made in the county. It should be noted that there were no angler user days for Pinal County. This occurred because none of the respondents from the mail survey indicated they had fished in Pinal County.

Expenditure estimates for watersheds were made in a similar fashion but were also based on waterbody fished and county of residence. Fortunately, most of the 93 waterbodies or waterbody segments were contained within a single county which greatly facilitated calculating economic impacts at the waterbody and watershed levels. Economic impacts for watersheds were derived by summing the impacts for individual waterbodies within the watershed.

Procedures for calculating direct expenditures for each waterbody consisted of four steps. The first was to multiply the mean daily in-county expenditure by the number of AUDs attributed to county residents where the waterbody was located. Second, the mean daily out-of-county expenditure made by out-of-county Arizona residents fishing the waterbody was multiplied by the appropriate AUDs for Arizona non-county residents. Third, the mean expenditure made in a

destination county by non-residents was multiplied by non-resident AUDs for the waterbody. The sum of these three calculations resulted in the total direct expenditures attributed to a given waterbody. The sum of the direct expenditures for all of the waterbodies within a watershed was the total direct expenditures for the watershed.

A distinction needs to be made between estimates for statewide expenditures, and county and watershed expenditures. Statewide expenditure estimates were based on all expenditures made in Arizona by an angler. That is, expenditures made by Arizona residents while fishing in their county of residence, while traveling to a destination county, and while fishing in a destination county. On the other hand, expenditures made in a specific county or watershed were based only on those expenditures made by residents of the county or watershed and those of anglers fishing in the specific county or watershed but not residing there. Expenditures while traveling between the county of residence and other counties for fishing were not included in individual county or watershed estimates because they occurred outside of a particular county or watershed where the fishing occurred. Further, only destination county fishing expenditures were used for non-resident anglers. Non-resident angler expenditures in their home counties cannot be attributed to economic impacts in Arizona. Likewise, expenditures made while traveling from the residence to an Arizona fishing destination cannot be attributed to Arizona because there was no way to determine if and how much of these expenses were made in Arizona or in another state. Thus, county and watershed angler expenditure and associated economic impact totals, when summed, will be lower than the statewide total.

CALCULATING ECONOMIC IMPACTS

The basis for estimating the economic impacts of angling in Arizona are the reported expenditures by anglers for 28 fishing-related items collected in the telephone and online surveys. Total expenditures for these 28 items are presented for the State of Arizona only. Total fishing expenditures for each county are presented in six aggregated categories shown in Figure 1. For waterbody and watershed direct expenditures, only totals for all expenditures are presented.

Figure 1: Fishing Expenditure Groups Used for County Analyses

1. Food, Restaurants
2. Lodging
3. Transportation (including vehicle fuel)
4. Other (Equipment Rental, Boat Fuel, Boat Launch Fees, and Fishing Guide Fees)
5. Fishing Equipment (Rods & Reels; Live Bait; Artificial Baits; Lures, Hooks, Swivels & Sinkers; Tackle Boxes; Creels, Stringers & Fish Bags; Depth & Fish Finders, Other Electronic Equipment, Other Fishing Equipment)
6. Auxiliary Equipment (Clothing, Waders, Four Weather Gear; PFD's & Life Jackets; First Aid Supplies & Medical Treatment Related to Fishing; Camping Equipment; Boat Equipment, Motors & Parts; Boat Maintenance & Insurance; Canoe Maintenance & Insurance; Fishing Licenses, Stamps & Tags; Fishing Club or Association Dues and Fees; Fishing Club, Association or Organization Donations; Fish Mounting, Processing & Taxidermy; Gifts & Souvenirs; Large Equipment, Campers, Boats, RV's)

The estimation of economic impacts resulting from angler expenditures relied upon data provided by the Bureau of Economic Analysis¹ (BEA). RIMS II multipliers were obtained at the state and county level that included coefficients for multiplier effects (indirect and induced impacts), earnings, and jobs.

To calculate the impacts of angler spending, direct expenditures for each of the 28 expenditure items were multiplied by the appropriate state-level or county-level coefficients for multipliers, earnings and jobs. For example, to calculate the impacts of food and drink expenditures, total direct expenditures for this item was multiplied by its respective state multiplier effect, earnings and jobs coefficients to produce totals for the expenditure category. These calculations for the Food and Restaurant expenditure category totaling \$205,713,606 are shown in Table 1.

These calculations were performed for each of the 28 expenditure items and summed to produce the overall statewide economic impacts of fishing during 2013. Similarly, county-level coefficients were applied to each expenditure item total for the county and summed to produce county impact totals.

¹ Bureau of Economic Analysis (BEA). 1997. Regional Multipliers: A User Handbook for the Regional Input-Output Modeling System (RIMS II). Washington, DC: U.S. Government Printing Office.

Table 1: Impact Calculations for Statewide Angler Food and Restaurant Expenditures

| Food & Restaurant | Direct Expenditure | Multiplier Effect | Earnings | Jobs |
|------------------------------|---------------------------|--------------------------|-----------------|-------------|
| State Coefficient | N/A | 1.6825 | 0.59172 | 0.00002185 |
| State Impact | \$205,713,606 | \$346,113,142 | \$121,724,855 | 4,495 |

Impact calculations for each waterbody were made the same as the county calculations. Direct expenditure totals for each expenditure item were multiplied by the county impact coefficients applied based on the waterbody's county location. Direct expenditures, multiplier effects, earnings and jobs totals were each added across all expenditure items to produce totals for each waterbody. Totals for all waterbodies within a watershed were then summed to produce direct expenditures, multiplier effects, earnings and jobs total for the watershed. Thus, impact totals from watersheds cutting across two or more counties were comprised of a mixture of impact coefficients from the waterbodies/counties within the watershed.

ECONOMIC IMPACT ANALYSIS RESULTS

STATEWIDE ECONOMIC IMPACTS

Table 2: Annual User Days by County

| | Angler User Days | | | |
|---|-------------------------|------------------|---------------------|--------------|
| | Resident County | Traveling | Non-Resident | Total |
| Arizona | 3,327,886 | 2,359,357 | 292,394 | 5,979,637 |
| Apache | 42,639 | 301,445 | 15,273 | 359,357 |
| Cochise | 39,325 | 23,799 | 4,501 | 67,625 |
| Coconino | 237,016 | 613,533 | 29,931 | 880,479 |
| Gila | 131,646 | 486,432 | 43,459 | 661,537 |
| Graham | 40,593 | 35,451 | 2,042 | 78,086 |
| Greenlee | 4,592 | 341 | — | 4,934 |
| La Paz | 24,020 | 152,653 | 30,253 | 206,927 |
| Maricopa | 1,573,529 | 231,910 | 47,846 | 1,853,285 |
| Mohave | 458,866 | 69,925 | 82,270 | 611,061 |
| Navajo | 143,628 | 142,041 | 6,274 | 291,943 |
| Pima | 224,046 | 10,486 | 4,549 | 239,082 |
| Santa Cruz | 21,405 | 150,942 | 2,185 | 174,532 |
| Yavapai | 188,926 | 105,223 | 6,538 | 300,687 |
| Yuma | 197,655 | 35,175 | 17,272 | 250,102 |
| <i>Note: Pinal County had no angler user days reported in the survey.</i> | | | | |

Table 3: Statewide Annual Expenditures for Fishing by Category

| Fishing Trip Expenditures | Amount |
|---|----------------------|
| Food, Drink, Groceries | \$205,713,606 |
| Lodging | \$79,052,870 |
| Equipment Rental | \$35,113,627 |
| Fuel for Vehicles | \$170,002,797 |
| Boat Fuel | \$43,223,178 |
| Boat Launch Fees | \$8,013,991 |
| Fishing Guide Fees | \$17,822,827 |
| Fishing Equipment Expenditures | |
| Rods & Reels | \$68,423,465 |
| Live Bait | \$17,958,193 |
| Artificial Baits a& Lures | \$34,576,290 |
| Hooks, Swivels & Sinkers | \$12,269,471 |
| Tackle Boxes | \$4,342,755 |
| Creels, Stringers & Fish Bags | \$1,991,985 |
| Depth & Fish Finders, Other Electronic Equipment | \$11,359,684 |
| Other Fishing Equipment | \$5,191,938 |
| Auxiliary Equipment | |
| Clothing, Waders, Four Weather Gear | \$13,766,921 |
| PFD's & Life Jackets | \$4,210,084 |
| First Aid Supplies & Medical Treatment Related to Fishing | \$2,505,577 |
| Camping Equipment | \$29,640,335 |
| Boat Equipment, Motors, Parts | \$23,867,655 |
| Boat Maintenance & Insurance | \$36,643,770 |
| Canoe Maintenance & Insurance | \$1,761,837 |
| Fishing Licenses, Stamps & Tags | \$44,102,331 |
| Fishing Club or Association Dues and Fees | \$963,893 |
| Fishing Club, Association or Organization Donations | \$1,656,995 |
| Fish Mounting, Processing & Taxidermy | \$148,212 |
| Gifts & Souvenirs | \$5,398,693 |
| Large Equipment; Campers, Boats, RV's | \$77,684,299 |
| Total | \$957,407,280 |

Table 4: Angler Direct Expenditures by Category for Arizona

| Expenditure Category | Resident County | Traveling | Non-Resident | Total Expenditures |
|-----------------------------|------------------------|----------------------|---------------------|---------------------------|
| Food | \$125,374,985 | \$67,101,557 | \$13,237,064 | \$205,713,606 |
| Lodging | \$12,501,966 | \$52,024,864 | \$14,526,041 | \$79,052,870 |
| Transportation | \$110,842,374 | \$52,559,041 | \$6,601,383 | \$170,002,797 |
| Other | \$58,960,048 | \$31,696,920 | \$13,516,655 | \$104,173,623 |
| Fishing Equipment | \$107,088,089 | \$28,908,048 | \$3,566,023 | \$139,562,160 |
| Auxiliary Equipment | \$224,490,999 | \$28,549,389 | \$5,861,836 | \$258,902,223 |
| Total | \$639,258,461 | \$260,839,818 | \$57,309,001 | \$957,407,280 |

Table 5: Angler Expenditures and Economic Impacts for Arizona

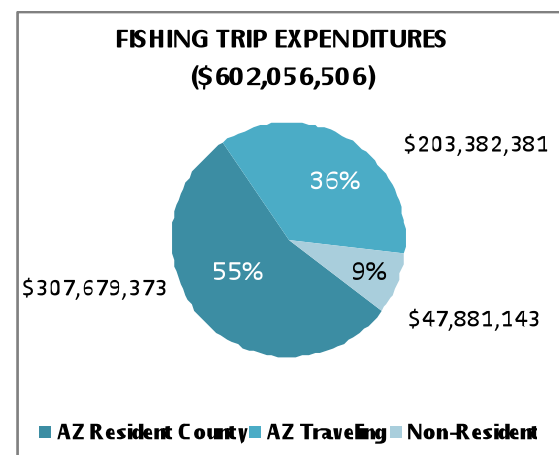
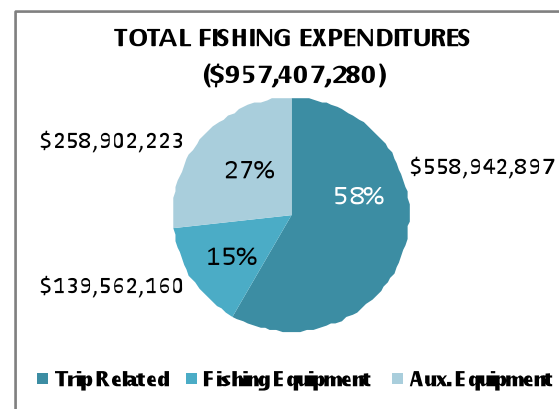
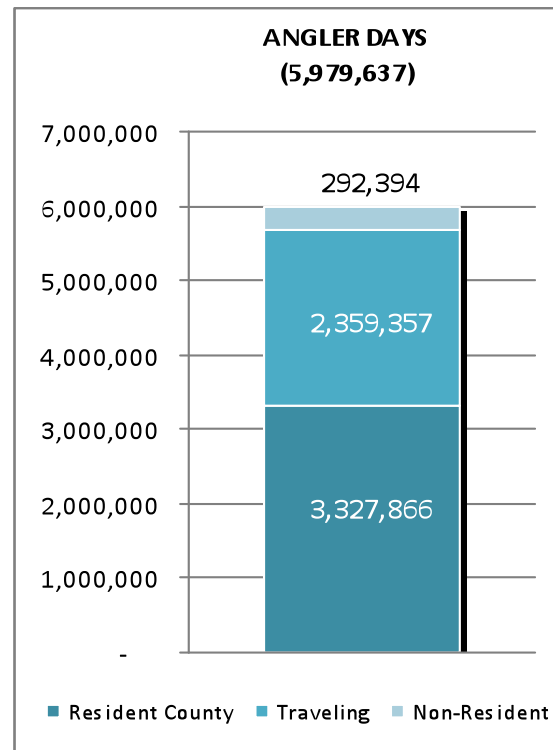
| Expenditure Category | Direct Expenditures | Multiplier Effects | Salaries & Wages | Jobs | State Tax Revenues |
|-----------------------------|----------------------------|---------------------------|-----------------------------|---------------|---------------------------|
| Food | \$205,713,606 | \$353,827,402 | \$121,364,959 | 4,305 | \$13,306,184 |
| Lodging | \$79,052,870 | \$132,808,822 | \$46,638,862 | 1,655 | \$5,113,381 |
| Transportation | \$170,002,797 | \$282,204,643 | \$100,296,636 | 3,558 | \$10,996,300 |
| Other | \$104,173,623 | \$152,093,490 | \$61,459,365 | 2,180 | \$6,738,268 |
| Fishing Equipment | \$139,562,160 | \$191,200,159 | \$82,337,557 | 2,921 | \$9,027,307 |
| Auxiliary Equipment | \$258,902,223 | \$359,874,091 | \$152,744,675 | 5,419 | \$16,746,586 |
| Total | \$957,407,280 | \$1,472,008,607 | \$564,842,053 | 20,038 | \$61,928,026 |

State of Arizona

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|------------------------|
| DIRECT EXPENDITURES | |
| | \$957,407,280 |
| TOTAL MULTIPLIER EFFECT | |
| | \$1,472,008,607 |
| SALARIES AND WAGES | |
| | \$564,842,053 |
| FULL-TIME AND PART-TIME JOBS | |
| | 20,038 |
| STATE TAX REVENUES | |
| | \$61,928,026 |

| ANGLER DAYS | |
|---------------------------|------------------|
| TOTAL ANGLER DAYS | |
| | 5,979,637 |
| AZ Resident in Own County | |
| | 3,327,886 |
| AZ Resident Traveling | |
| | 2,359,357 |
| Non-Resident | |
| | 292,394 |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|----------------------|
| TOTAL FISHING EXPENDITURES | |
| | \$957,407,280 |
| TOTAL TRIP-RELATED | |
| | \$558,942,897 |
| Food, Restaurant | |
| | \$205,713,606 |
| Lodging | |
| | \$79,052,870 |
| Transportation | |
| | \$170,002,797 |
| Other | |
| | \$104,173,623 |
| TOTAL EQUIPMENT EXPENDITURES | |
| | \$398,464,383 |
| Fishing Equipment | |
| | \$139,562,160 |
| Auxiliary Equipment | |
| | \$258,902,223 |



COUNTY ECONOMIC IMPACT

Table 6: 2013 Estimated Angler User Days by Arizona County

| County | Residents | Traveling | Non-Resident | Total |
|---|------------------|------------------|----------------|------------------|
| Apache | 42,639 | 301,445 | 15,273 | 359,357 |
| Cochise | 39,325 | 23,799 | 4,501 | 67,625 |
| Coconino | 237,016 | 613,533 | 29,931 | 880,479 |
| Gila | 131,646 | 486,432 | 43,459 | 661,537 |
| Graham | 40,593 | 35,451 | 2,042 | 78,086 |
| Greenlee | 4,592 | 341 | — | 4,934 |
| La Paz | 24,020 | 152,653 | 30,253 | 206,927 |
| Maricopa | 1,573,529 | 231,910 | 47,846 | 1,853,285 |
| Mohave | 458,866 | 69,925 | 82,270 | 611,061 |
| Navajo | 143,628 | 142,041 | 6,274 | 291,943 |
| Pima | 224,046 | 10,486 | 4,549 | 239,082 |
| Santa Cruz | 21,405 | 150,942 | 2,185 | 174,532 |
| Yavapai | 188,926 | 105,223 | 6,538 | 300,687 |
| Yuma | 197,655 | 35,175 | 17,272 | 250,102 |
| State Total | 3,327,886 | 2,359,357 | 292,394 | 5,979,637 |
| <i>Note: Pinal County had no angler user days reported in the survey.</i> | | | | |

Table 7: Expenditures and Economic Impact of Angler Spending by County

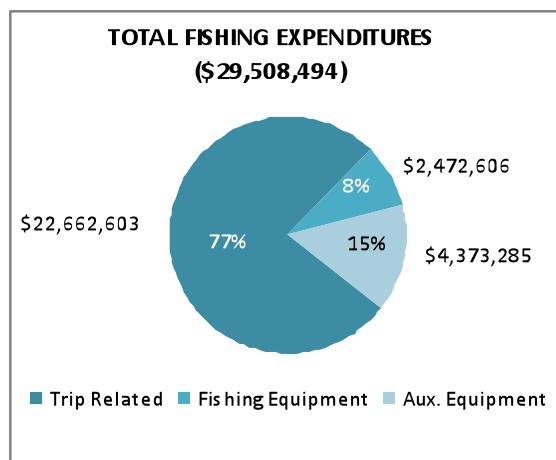
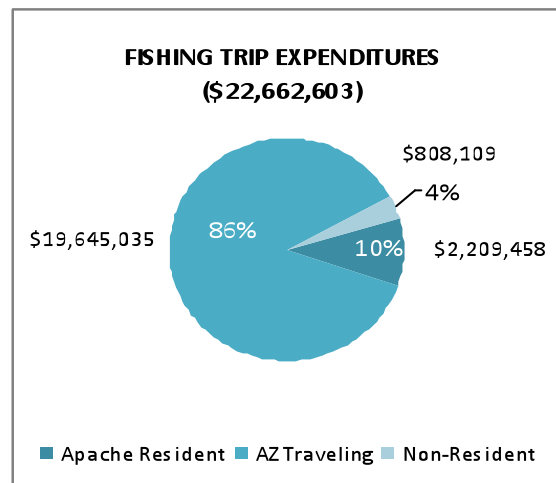
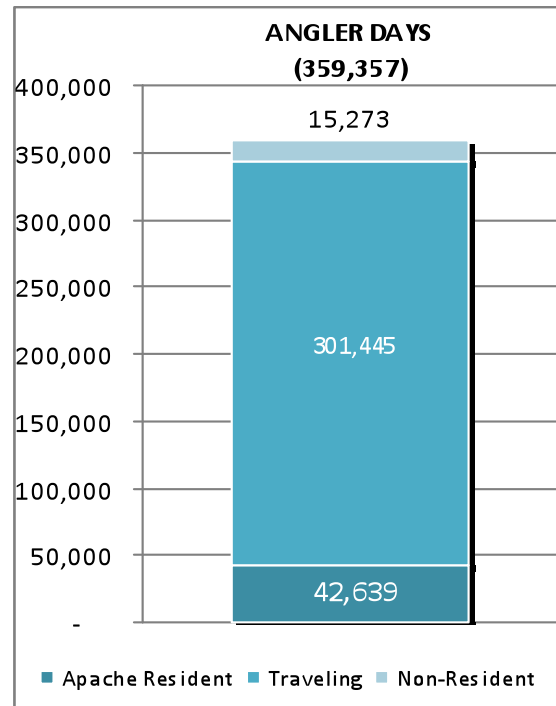
| County | Direct Expenditures | Multiplier Effects | Salaries & Wages | Jobs | State Tax |
|---------------|----------------------------|---------------------------|-----------------------------|-------------|------------------|
| Apache | \$29,501,192 | \$33,823,023 | \$4,180,901 | 474 | \$1,597,198 |
| Cochise | \$14,820,043 | \$17,737,375 | \$2,800,638 | 226 | \$776,827 |
| Coconino | \$100,426,781 | \$123,945,702 | \$22,129,617 | 1,846 | \$5,954,157 |
| Gila | \$53,994,388 | \$64,135,466 | \$10,278,120 | 1,054 | \$2,466,749 |
| Graham | \$6,150,989 | \$7,330,630 | \$1,154,364 | 104 | \$342,012 |
| Greenlee | \$1,831,931 | \$1,978,485 | \$205,176 | 26 | \$31,876 |
| La Paz | \$23,145,991 | \$27,177,035 | \$5,331,380 | 302 | \$1,068,227 |
| Maricopa | \$387,697,170 | \$488,176,144 | \$97,611,363 | 5,100 | \$19,996,114 |
| Mohave | \$111,640,669 | \$138,328,238 | \$24,731,412 | 2,350 | \$5,449,294 |
| Navajo | \$42,359,105 | \$48,719,330 | \$6,360,226 | 691 | \$1,653,659 |
| Pima | \$48,729,769 | \$60,551,784 | \$10,553,311 | 685 | \$3,114,092 |
| Santa Cruz | \$12,629,332 | \$15,173,370 | \$2,453,180 | 197 | \$835,807 |
| Yavapai | \$51,808,207 | \$64,630,739 | \$12,693,011 | 1,050 | \$2,978,972 |
| Yuma | \$24,467,910 | \$30,048,310 | \$5,580,400 | 493 | \$1,287,785 |
| Arizona | \$942,425,890 | \$1,381,622,281 | \$308,992,095 | 19,724 | \$60,958,984 |

Apache County

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| DIRECT EXPENDITURES | |
| | \$29,508,494 |
| TOTAL MULTIPLIER EFFECT | |
| | \$33,831,394 |
| SALARIES AND WAGES | |
| | \$4,181,936 |
| FULL-TIME AND PART-TIME JOBS | |
| | 475 |
| STATE TAX REVENUES | |
| | \$1,597,594 |

| ANGLER DAYS | |
|---------------------------|----------------|
| TOTAL ANGLER DAYS | |
| | 359,357 |
| AZ Resident in Own County | |
| | 42,639 |
| AZ Resident Traveling | |
| | 301,445 |
| Non-Resident | |
| | 15,273 |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| TOTAL FISHING EXPENDITURES | |
| | \$29,508,494 |
| TOTAL TRIP-RELATED | |
| | \$22,662,603 |
| Food, Restaurant | |
| | \$7,902,262 |
| Lodging | |
| | \$6,456,387 |
| Transportation | |
| | \$5,767,997 |
| Other | |
| | \$2,535,957 |
| TOTAL EQUIPMENT EXPENDITURES | |
| | \$6,845,891 |
| Fishing Equipment | |
| | \$2,472,606 |
| Auxiliary Equipment | |
| | \$4,373,285 |

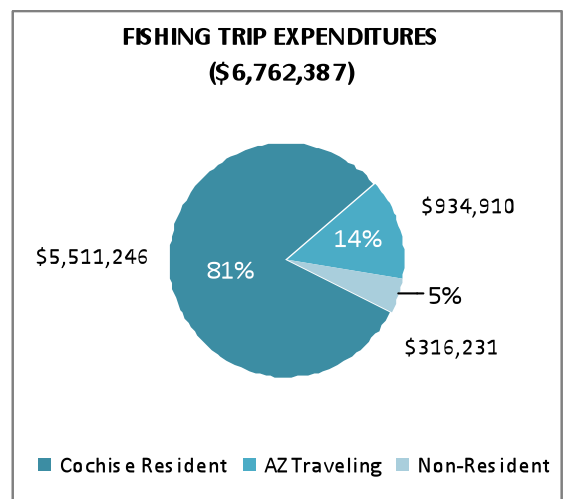
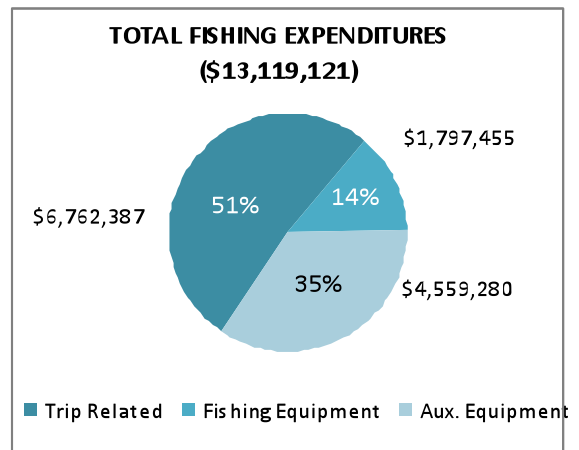
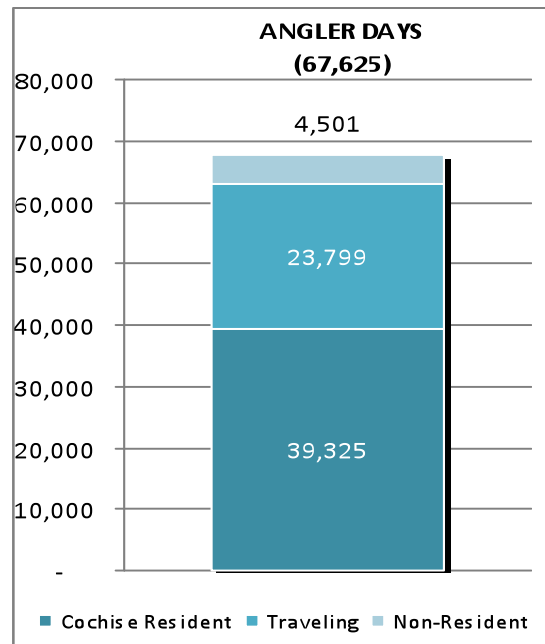


Cochise County

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| DIRECT EXPENDITURES | |
| | \$13,119,121 |
| TOTAL MULTIPLIER EFFECT | |
| | \$15,701,625 |
| SALARIES AND WAGES | |
| | \$2,479,204 |
| FULL-TIME AND PART-TIME JOBS | |
| | 200 |
| STATE TAX REVENUES | |
| | \$687,669 |

| ANGLER DAYS | |
|---------------------------|---------------|
| TOTAL ANGLER DAYS | |
| | 67,625 |
| AZ Resident in Own County | 39,325 |
| AZ Resident Traveling | 23,799 |
| Non-Resident | 4,501 |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| TOTAL FISHING EXPENDITURES | |
| | \$13,119,121 |
| TOTAL TRIP-RELATED | |
| | \$6,762,387 |
| Food, Restaurant | \$2,770,741 |
| Lodging | \$445,259 |
| Transportation | \$2,674,699 |
| Other | \$871,688 |
| TOTAL EQUIPMENT EXPENDITURES | |
| | \$6,356,734 |
| Fishing Equipment | \$1,797,455 |
| Auxiliary Equipment | \$4,559,280 |

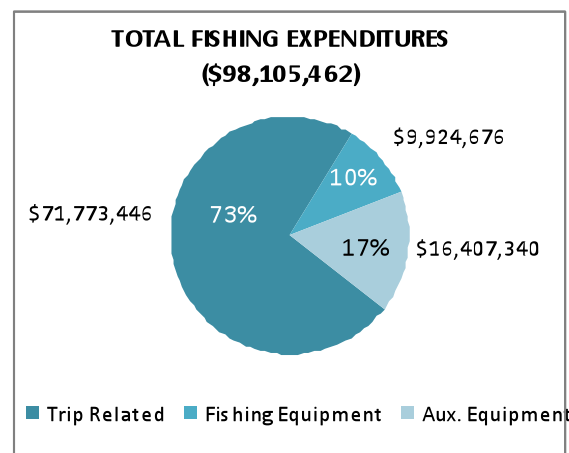
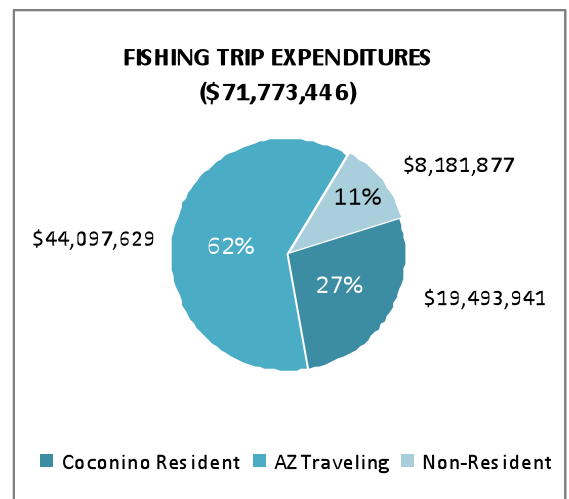
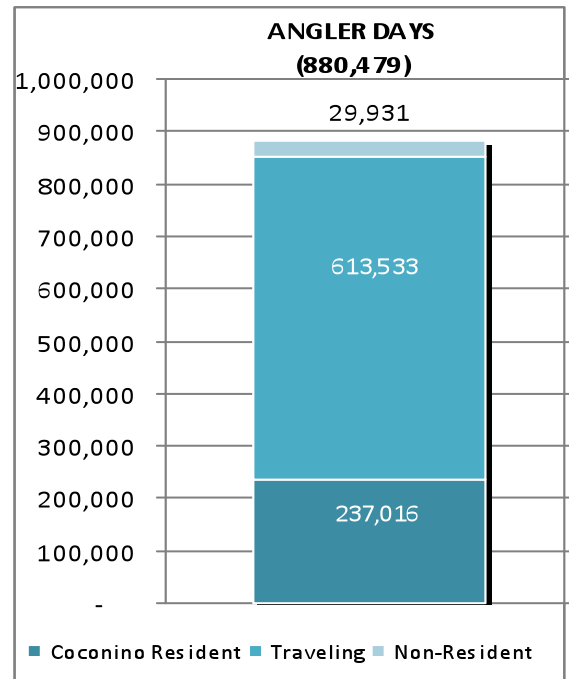


Coconino County

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|----------------------|
| DIRECT EXPENDITURES | |
| | \$98,105,462 |
| TOTAL MULTIPLIER EFFECT | |
| | \$121,080,753 |
| SALARIES AND WAGES | |
| | \$21,618,101 |
| FULL-TIME AND PART-TIME JOBS | |
| | 1,803 |
| STATE TAX REVENUES | |
| | \$5,816,529 |

| ANGLER DAYS | |
|---------------------------|----------------|
| TOTAL ANGLER DAYS | |
| | 880,479 |
| AZ Resident in Own County | 237,016 |
| AZ Resident Traveling | 613,533 |
| Non-Resident | 29,931 |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| TOTAL FISHING EXPENDITURES | |
| | \$98,105,462 |
| TOTAL TRIP-RELATED | |
| | \$71,773,446 |
| Food, Restaurant | \$23,818,606 |
| Lodging | \$14,339,596 |
| Transportation | \$18,406,089 |
| Other | \$15,209,155 |
| TOTAL EQUIPMENT EXPENDITURES | |
| | \$26,332,016 |
| Fishing Equipment | \$9,924,676 |
| Auxiliary Equipment | \$16,407,340 |

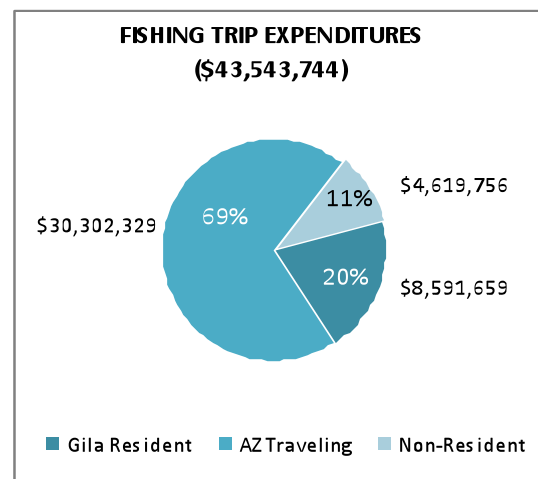
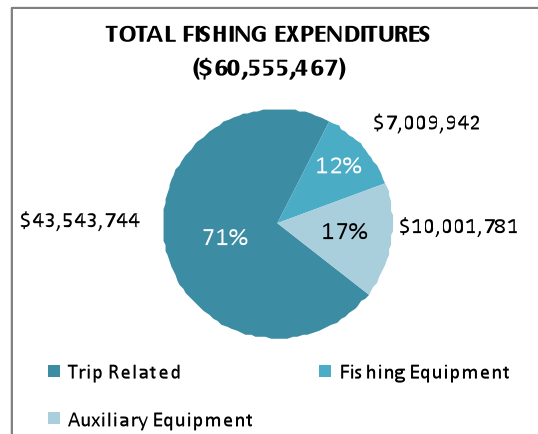
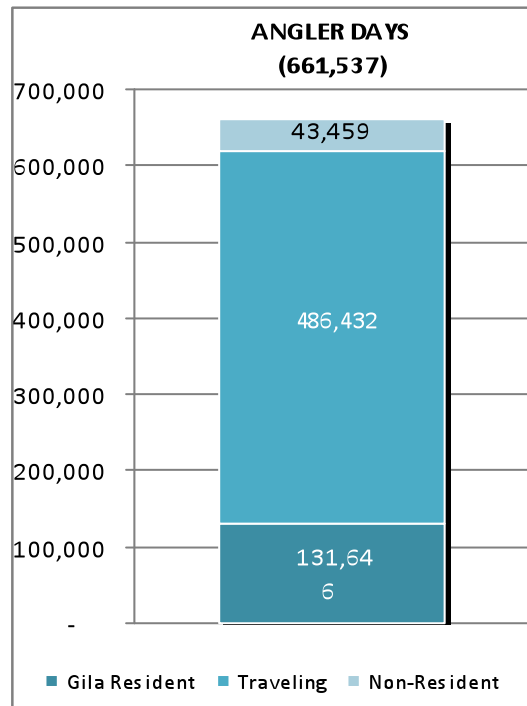


Gila County

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| DIRECT EXPENDITURES | |
| | \$60,555,467 |
| TOTAL MULTIPLIER EFFECT | |
| | \$71,928,829 |
| SALARIES AND WAGES | |
| | \$11,527,056 |
| FULL-TIME AND PART-TIME JOBS | |
| | 1,182 |
| STATE TAX REVENUES | |
| | \$2,766,493 |

| ANGLER DAYS | |
|---------------------------|----------------|
| TOTAL ANGLER DAYS | |
| | 661,537 |
| AZ Resident in Own County | 131,646 |
| AZ Resident Traveling | 486,432 |
| Non-Resident | 43,459 |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| TOTAL FISHING EXPENDITURES | |
| | \$60,555,467 |
| TOTAL TRIP-RELATED | |
| | \$43,543,744 |
| Food, Restaurant | \$14,595,614 |
| Lodging | \$8,666,124 |
| Transportation | \$12,722,264 |
| Other | \$7,559,742 |
| TOTAL EQUIPMENT EXPENDITURES | |
| | \$17,011,723 |
| Fishing Equipment | \$7,009,942 |
| Auxiliary Equipment | \$10,001,781 |

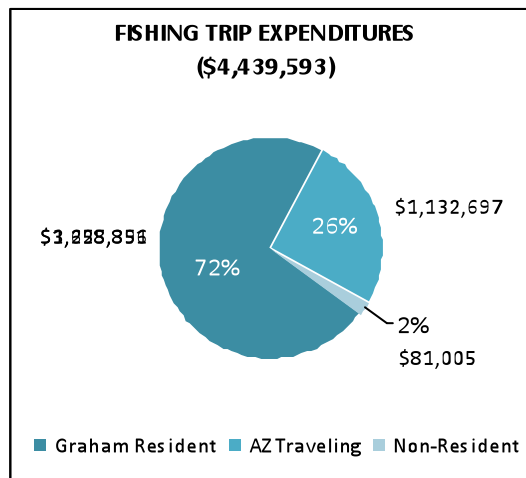
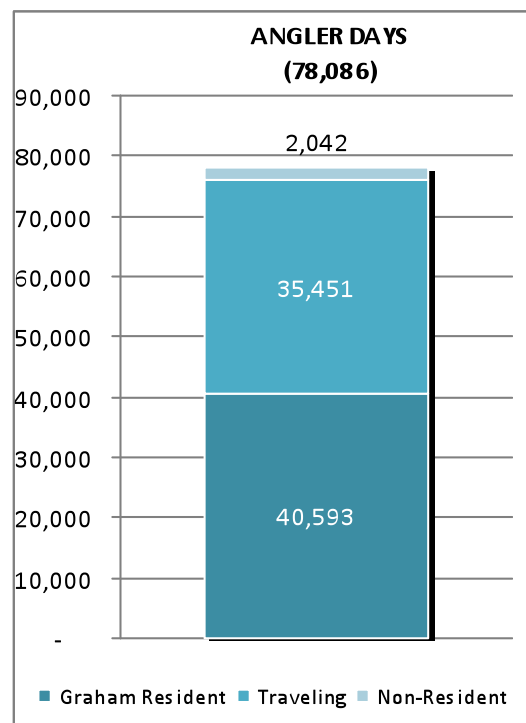
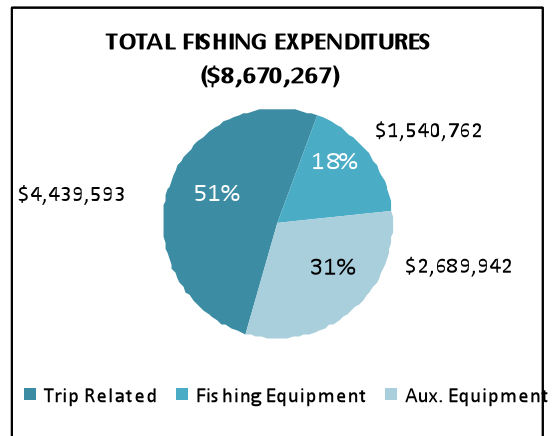


Graham County

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| DIRECT EXPENDITURES | |
| | \$8,670,267 |
| TOTAL MULTIPLIER EFFECT | |
| | \$10,333,058 |
| SALARIES AND WAGES | |
| | \$1,627,160 |
| FULL-TIME AND PART-TIME JOBS | |
| | 147 |
| STATE TAX REVENUES | |
| | \$482,091 |

| ANGLER DAYS | |
|---------------------------|---------------|
| TOTAL ANGLER DAYS | |
| | 78,086 |
| AZ Resident in Own County | 40,593 |
| AZ Resident Traveling | 35,451 |
| Non-Resident | 2,042 |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|--------------------|
| TOTAL FISHING EXPENDITURES | |
| | \$8,670,267 |
| TOTAL TRIP-RELATED | |
| | \$4,439,593 |
| Food, Restaurant | \$1,770,785 |
| Lodging | \$499,949 |
| Transportation | \$1,616,971 |
| Other | \$551,887 |
| TOTAL EQUIPMENT EXPENDITURES | |
| | \$4,230,674 |
| Fishing Equipment | \$1,540,732 |
| Auxiliary Equipment | \$2,689,942 |

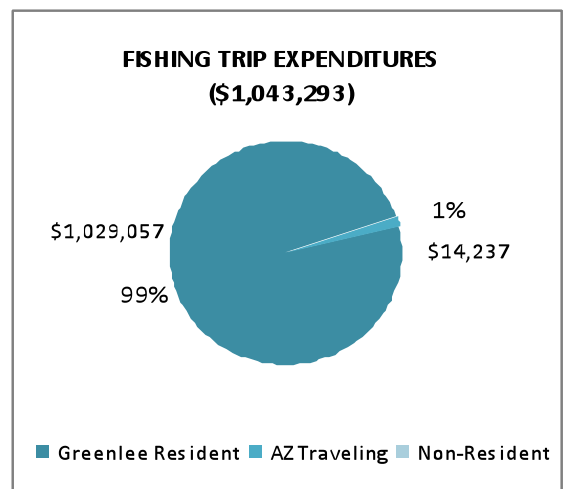
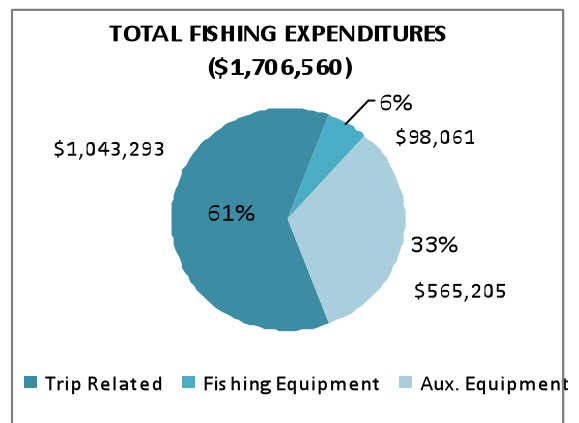
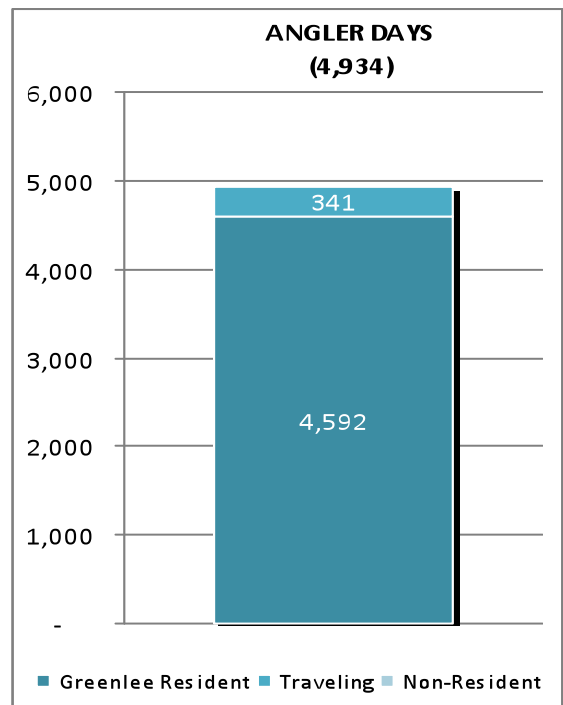


Greenlee County

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|--------------------|
| DIRECT EXPENDITURES | |
| | \$1,706,560 |
| TOTAL MULTIPLIER EFFECT | |
| | \$1,843,085 |
| SALARIES AND WAGES | |
| | \$191,135 |
| FULL-TIME AND PART-TIME JOBS | |
| | 24 |
| STATE TAX REVENUES | |
| | \$29,694 |

| ANGLER DAYS | |
|---------------------------|--------------|
| TOTAL ANGLER DAYS | |
| | 4,934 |
| AZ Resident in Own County | 4,592 |
| AZ Resident Traveling | 341 |
| Non-Resident | — |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|--------------------|
| TOTAL FISHING EXPENDITURES | |
| | \$1,706,560 |
| TOTAL TRIP-RELATED | |
| | \$1,043,293 |
| Food, Restaurant | \$230,740 |
| Lodging | \$940 |
| Transportation | \$806,329 |
| Other | \$5,285 |
| TOTAL EQUIPMENT EXPENDITURES | |
| | \$663,267 |
| Fishing Equipment | \$98,061 |
| Auxiliary Equipment | \$565,205 |

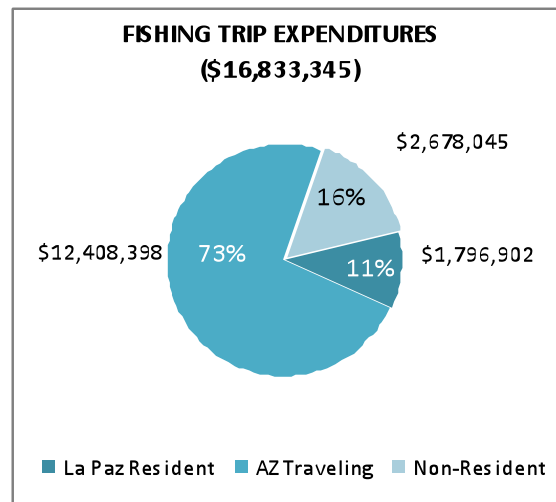
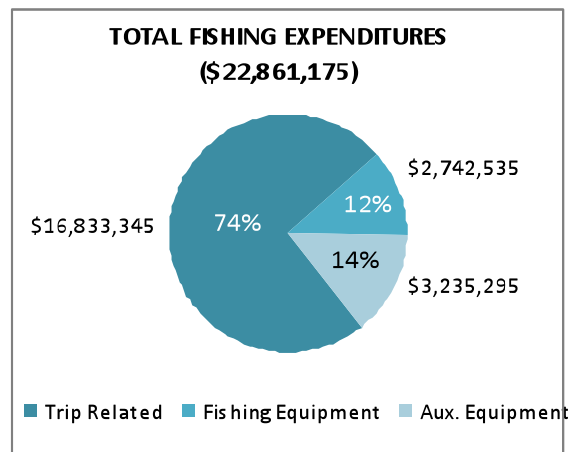
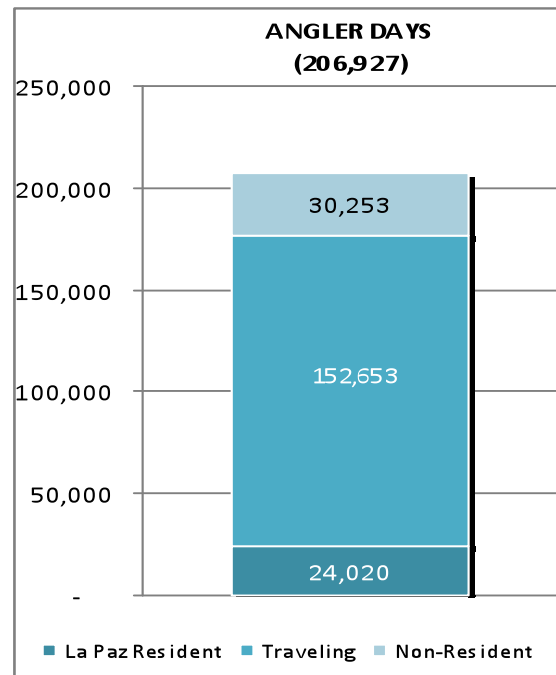


La Paz County

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| DIRECT EXPENDITURES | |
| | \$22,861,175 |
| TOTAL MULTIPLIER EFFECT | |
| | \$26,842,616 |
| SALARIES AND WAGES | |
| | \$5,265,776 |
| FULL-TIME AND PART-TIME JOBS | |
| | 298 |
| STATE TAX REVENUES | |
| | \$1,055,082 |

| ANGLER DAYS | |
|---------------------------|----------------|
| TOTAL ANGLER DAYS | |
| | 206,927 |
| AZ Resident in Own County | |
| | 24,020 |
| AZ Resident Traveling | |
| | 152,653 |
| Non-Resident | |
| | 30,253 |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| TOTAL FISHING EXPENDITURES | |
| | \$22,861,175 |
| TOTAL TRIP-RELATED | |
| | \$16,883,345 |
| Food, Restaurant | |
| | \$5,028,196 |
| Lodging | |
| | \$5,906,623 |
| Transportation | |
| | \$3,430,205 |
| Other | |
| | \$2,518,320 |
| TOTAL EQUIPMENT EXPENDITURES | |
| | \$5,977,831 |
| Fishing Equipment | |
| | \$2,742,535 |
| Auxiliary Equipment | |
| | \$3,235,295 |

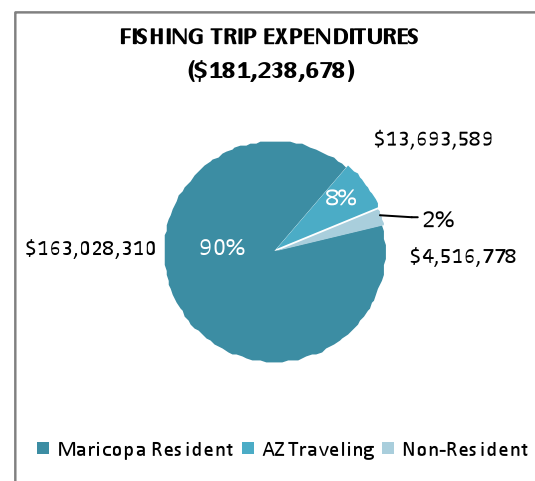
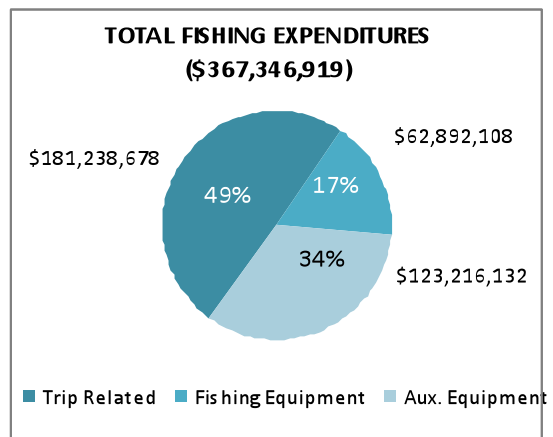
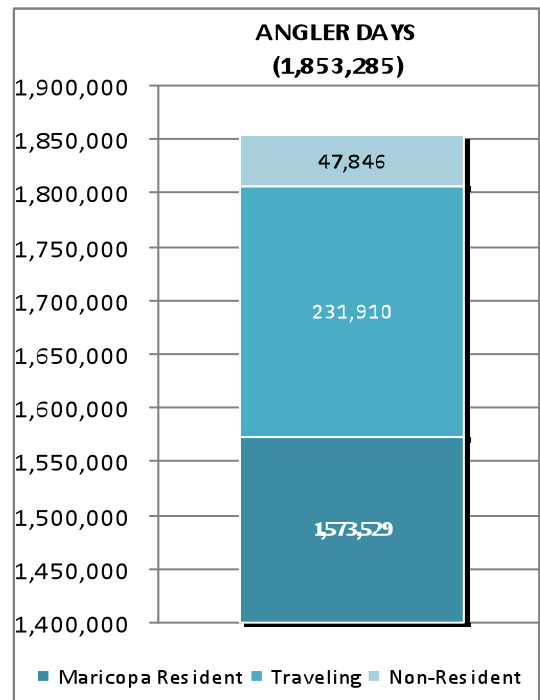


Maricopa County

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|----------------------|
| DIRECT EXPENDITURES | |
| | \$367,346,919 |
| TOTAL MULTIPLIER EFFECT | |
| | \$462,551,743 |
| SALARIES AND WAGES | |
| | \$92,487,736 |
| FULL-TIME AND PART-TIME JOBS | |
| | 4,833 |
| STATE TAX REVENUES | |
| | \$18,946,517 |

| ANGLER DAYS | |
|---------------------------|------------------|
| TOTAL ANGLER DAYS | |
| | 1,853,285 |
| AZ Resident in Own County | |
| | 1,573,529 |
| AZ Resident Traveling | |
| | 231,910 |
| Non-Resident | |
| | 47,846 |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|----------------------|
| TOTAL FISHING EXPENDITURES | |
| | \$367,346,919 |
| TOTAL TRIP-RELATED | |
| | \$181,238,678 |
| Food, Restaurant | |
| | \$74,908,003 |
| Lodging | |
| | \$9,945,509 |
| Transportation | |
| | \$60,091,549 |
| Other | |
| | \$36,293,617 |
| TOTAL EQUIPMENT EXPENDITURES | |
| | \$186,108,241 |
| Fishing Equipment | |
| | \$62,892,108 |
| Auxiliary Equipment | |
| | \$123,216,132 |

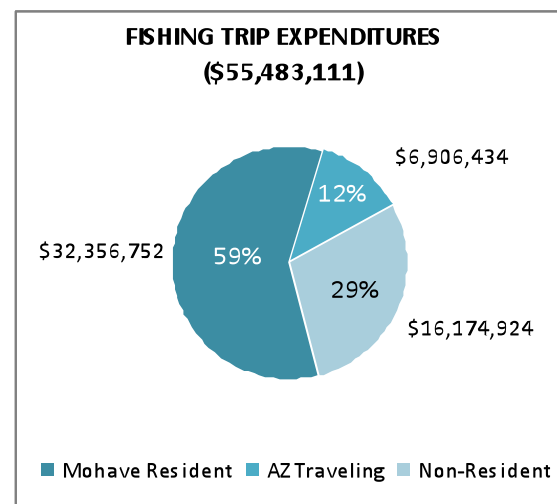
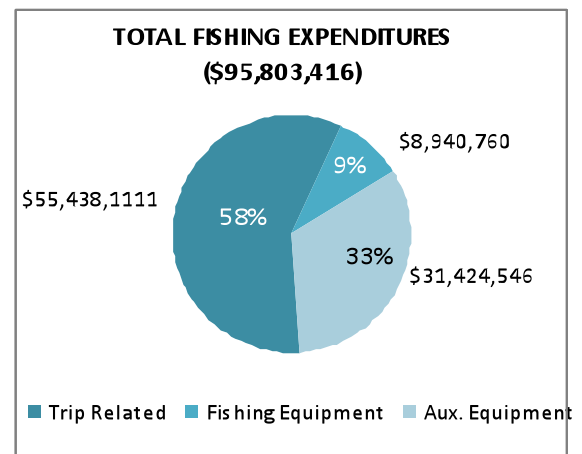
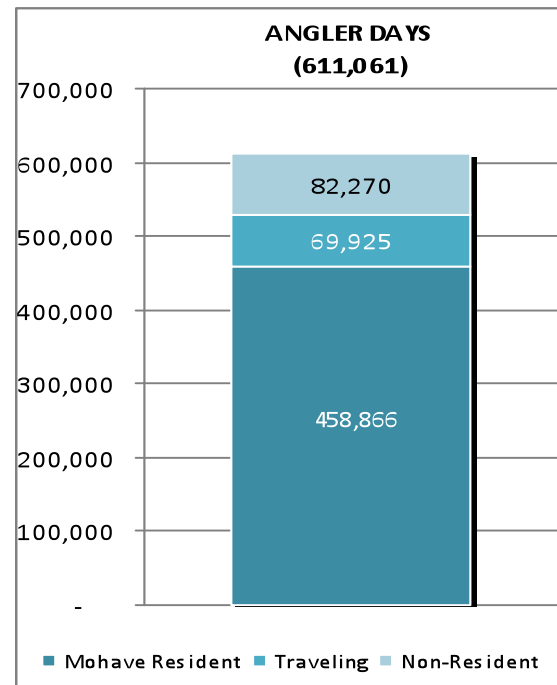


Mohave County

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|----------------------|
| DIRECT EXPENDITURES | |
| | \$95,803,416 |
| TOTAL MULTIPLIER EFFECT | |
| | \$118,705,109 |
| SALARIES AND WAGES | |
| | \$21,223,035 |
| FULL-TIME AND PART-TIME JOBS | |
| | 2,017 |
| STATE TAX REVENUES | |
| | \$4,676,262 |

| ANGLER DAYS | |
|---------------------------|----------------|
| TOTAL ANGLER DAYS | |
| | 611,061 |
| AZ Resident in Own County | 458,866 |
| AZ Resident Traveling | 69,925 |
| Non-Resident | 82,270 |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| TOTAL FISHING EXPENDITURES | |
| | \$95,803,416 |
| TOTAL TRIP-RELATED | |
| | \$55,438,111 |
| Food, Restaurant | \$15,501,495 |
| Lodging | \$7,887,833 |
| Transportation | \$13,919,841 |
| Other | \$18,128,942 |
| TOTAL EQUIPMENT EXPENDITURES | |
| | \$40,365,305 |
| Fishing Equipment | \$8,940,760 |
| Auxiliary Equipment | \$31,424,546 |

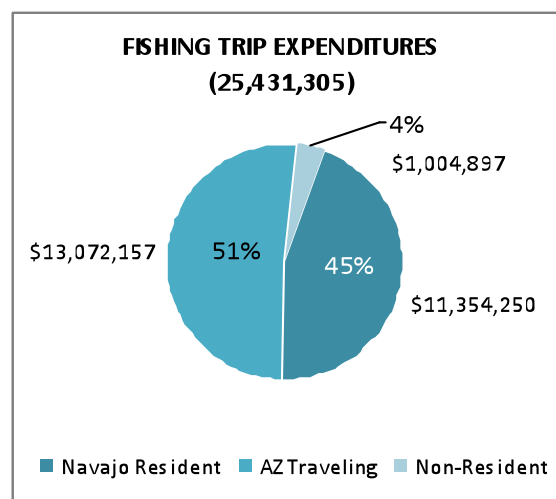
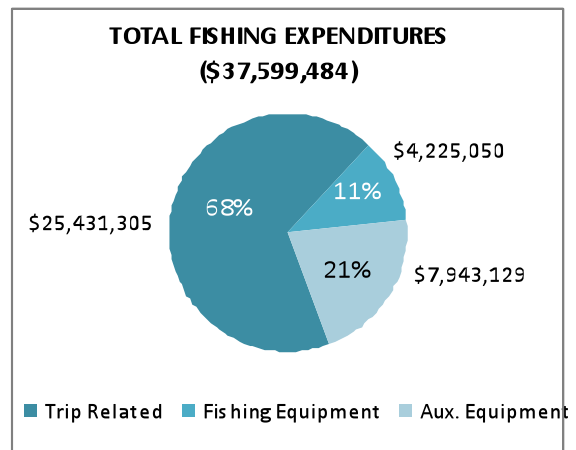
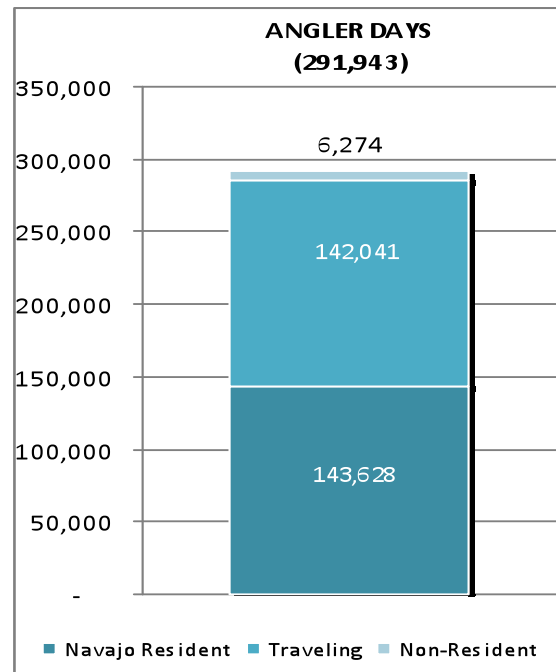


Navajo County

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| DIRECT EXPENDITURES | |
| | \$37,599,484 |
| TOTAL MULTIPLIER EFFECT | |
| | \$43,245,052 |
| SALARIES AND WAGES | |
| | \$5,645,568 |
| FULL-TIME AND PART-TIME JOBS | |
| | 613 |
| STATE TAX REVENUES | |
| | \$1,467,848 |

| ANGLER DAYS | |
|---------------------------|----------------|
| TOTAL ANGLER DAYS | |
| | 291,943 |
| AZ Resident in Own County | 143,628 |
| AZ Resident Traveling | 142,041 |
| Non-Resident | 6,274 |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| TOTAL FISHING EXPENDITURES | |
| | \$37,599,484 |
| TOTAL TRIP-RELATED | |
| | \$25,431,305 |
| Food, Restaurant | \$9,377,530 |
| Lodging | \$4,593,984 |
| Transportation | \$8,259,464 |
| Other | \$3,200,327 |
| TOTAL EQUIPMENT EXPENDITURES | |
| | \$12,168,179 |
| Fishing Equipment | \$4,225,050 |
| Auxiliary Equipment | \$7,943,129 |

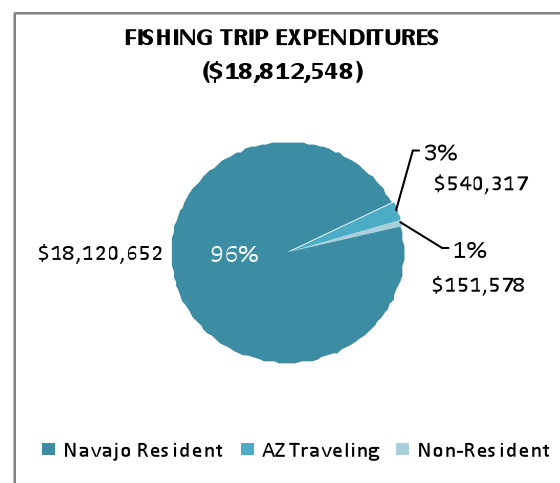
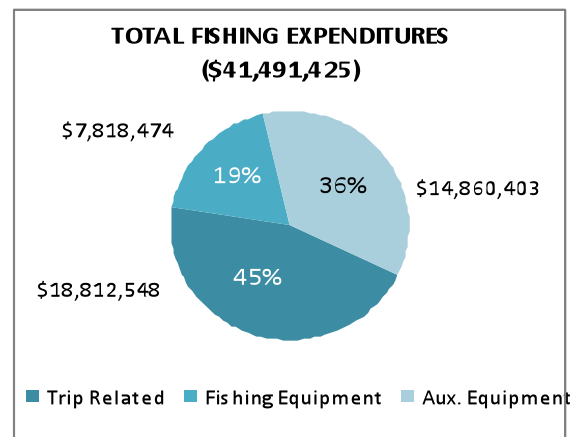
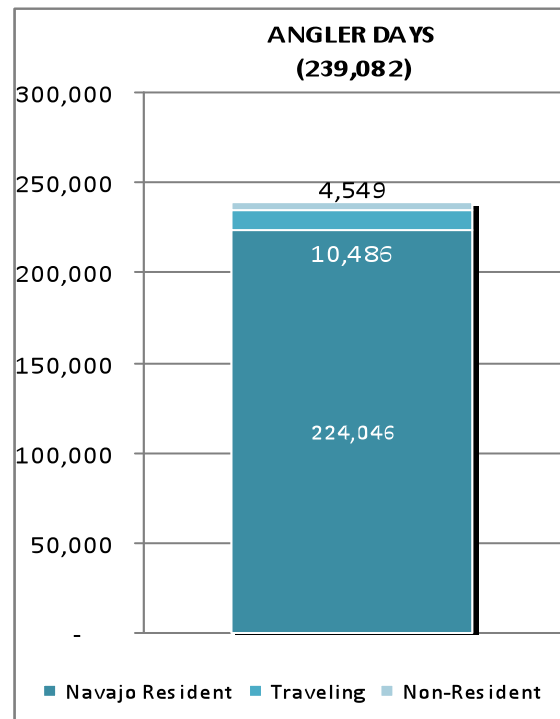


Pima County

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| DIRECT EXPENDITURES | |
| | \$41,491,425 |
| TOTAL MULTIPLIER EFFECT | |
| | \$51,557,392 |
| SALARIES AND WAGES | |
| | \$8,985,717 |
| FULL-TIME AND PART-TIME JOBS | |
| | 583 |
| STATE TAX REVENUES | |
| | \$2,651,523 |

| ANGLER DAYS | |
|---------------------------|----------------|
| TOTAL ANGLER DAYS | |
| | 239,082 |
| AZ Resident in Own County | 224,046 |
| AZ Resident Traveling | 10,486 |
| Non-Resident | 4,549 |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| TOTAL FISHING EXPENDITURES | |
| | \$41,491,425 |
| TOTAL TRIP-RELATED | |
| | \$18,812,548 |
| Food, Restaurant | \$7,875,329 |
| Lodging | \$1,157,205 |
| Transportation | \$7,375,018 |
| Other | \$2,404,996 |
| TOTAL EQUIPMENT EXPENDITURES | |
| | \$22,678,877 |
| Fishing Equipment | \$7,818,474 |
| Auxiliary Equipment | \$14,860,403 |

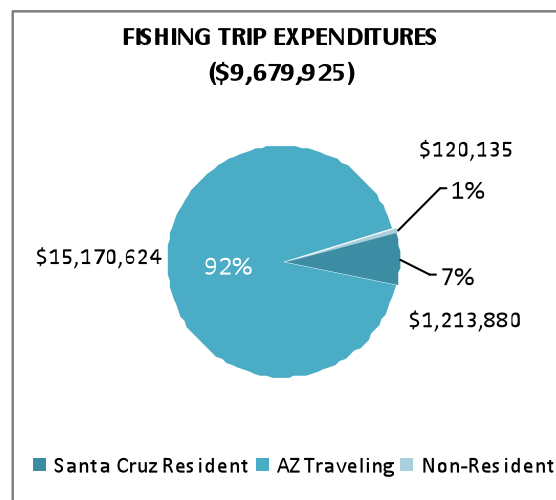
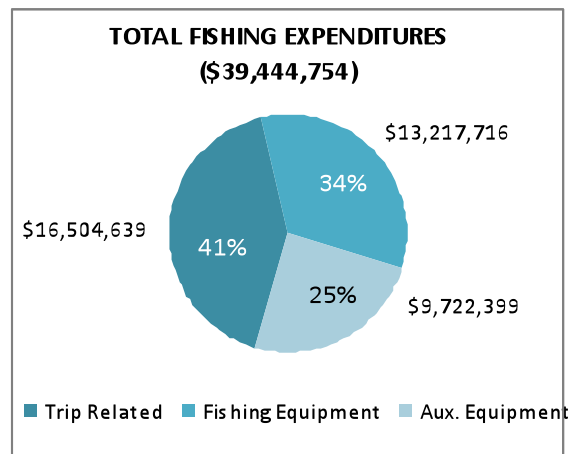
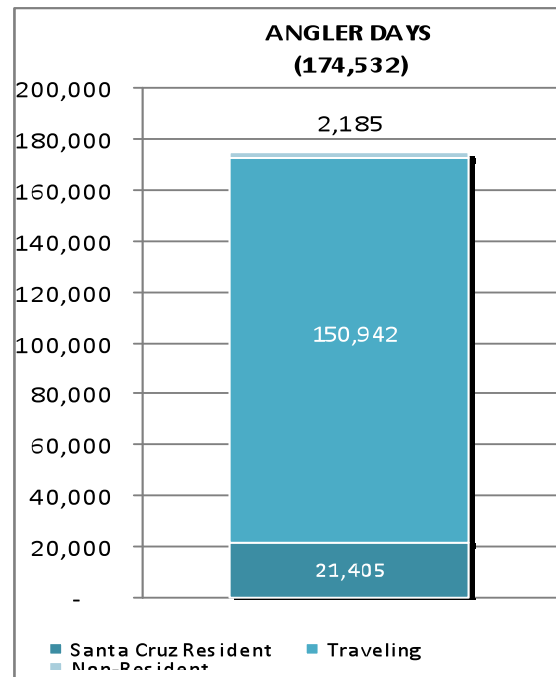


Santa Cruz County

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| DIRECT EXPENDITURES | |
| | \$39,444,754 |
| TOTAL MULTIPLIER EFFECT | |
| | \$47,390,460 |
| SALARIES AND WAGES | |
| | \$7,661,931 |
| FULL-TIME AND PART-TIME JOBS | |
| | 616 |
| STATE TAX REVENUES | |
| | \$2,610,448 |

| ANGLER DAYS | |
|---------------------------|----------------|
| TOTAL ANGLER DAYS | |
| | 174,532 |
| AZ Resident in Own County | |
| | 21,405 |
| AZ Resident Traveling | |
| | 150,942 |
| Non-Resident | |
| | 2,185 |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| TOTAL FISHING EXPENDITURES | |
| | \$39,444,754 |
| TOTAL TRIP-RELATED | |
| | \$16,504,639 |
| Food, Restaurant | |
| | \$3,436,921 |
| Lodging | |
| | \$6,207,180 |
| Transportation | |
| | \$4,115,647 |
| Other | |
| | \$2,744,891 |
| TOTAL EQUIPMENT EXPENDITURES | |
| | \$22,940,115 |
| Fishing Equipment | |
| | \$13,217,716 |
| Auxiliary Equipment | |
| | \$9,722,399 |

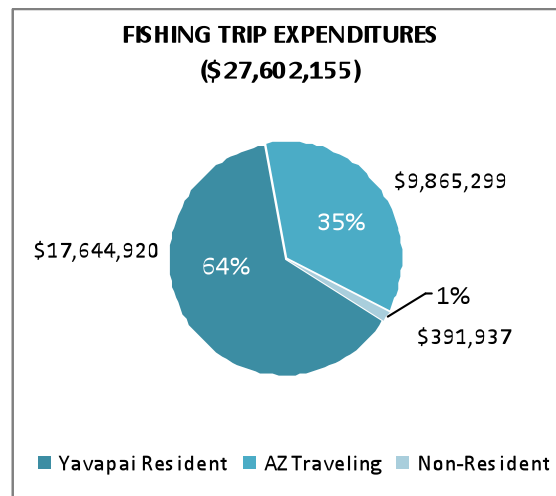
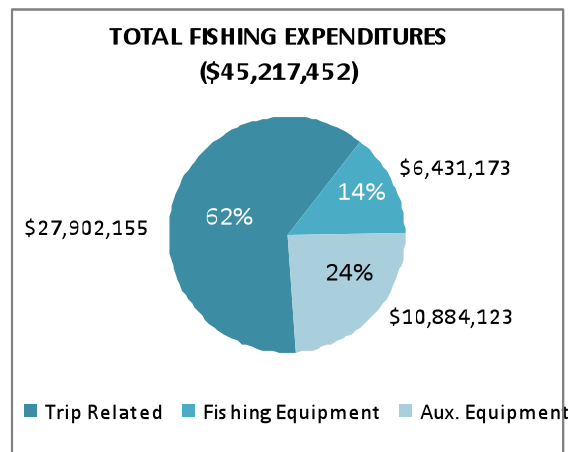
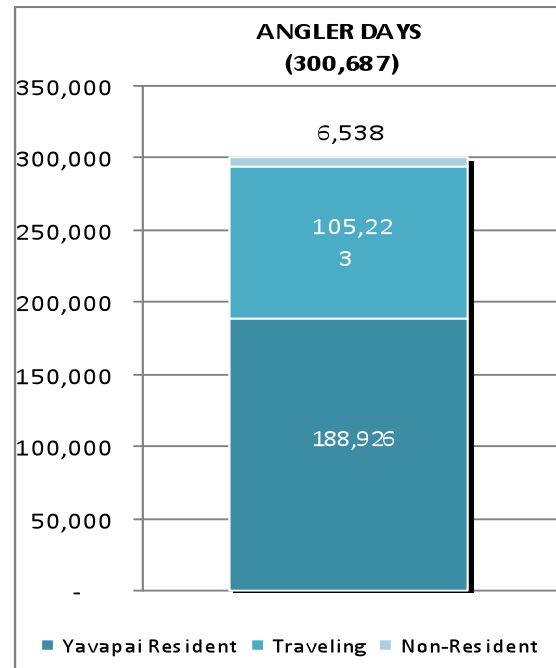


Yavapai County

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| DIRECT EXPENDITURES | \$45,217,452 |
| TOTAL MULTIPLIER EFFECT | \$56,408,771 |
| SALARIES AND WAGES | \$11,078,276 |
| FULL-TIME AND PART-TIME JOBS | 917 |
| STATE TAX REVENUES | \$2,600,003 |

| ANGLER DAYS | |
|---------------------------|----------------|
| TOTAL ANGLER DAYS | 300,687 |
| AZ Resident in Own County | 188,926 |
| AZ Resident Traveling | 105,223 |
| Non-Resident | 6,538 |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| TOTAL FISHING EXPENDITURES | \$45,217,452 |
| TOTAL TRIP-RELATED | \$27,902,155 |
| Food, Restaurant | \$9,264,637 |
| Lodging | \$3,783,788 |
| Transportation | \$11,520,476 |
| Other | \$3,333,253 |
| TOTAL EQUIPMENT EXPENDITURES | \$17,315,297 |
| Fishing Equipment | \$6,431,173 |
| Auxiliary Equipment | \$10,884,123 |

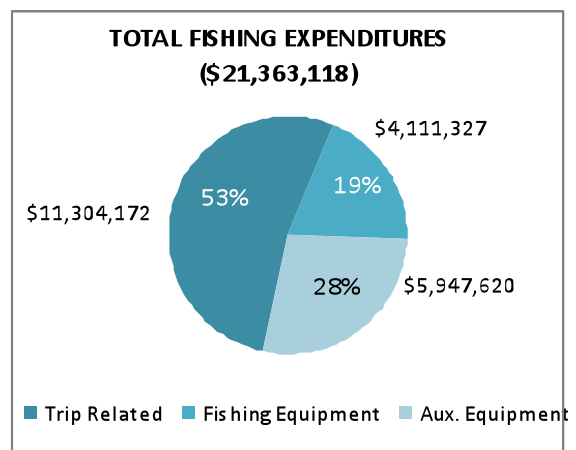
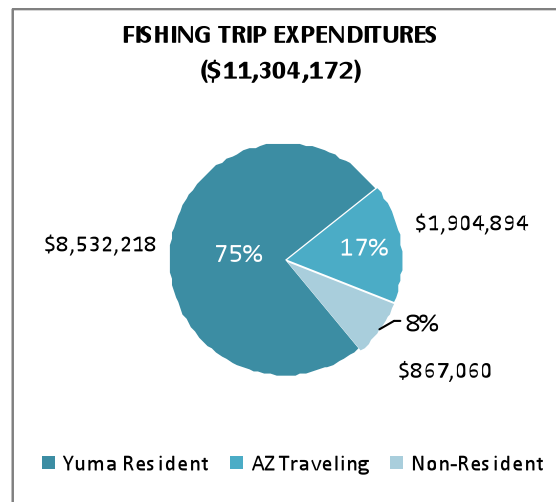
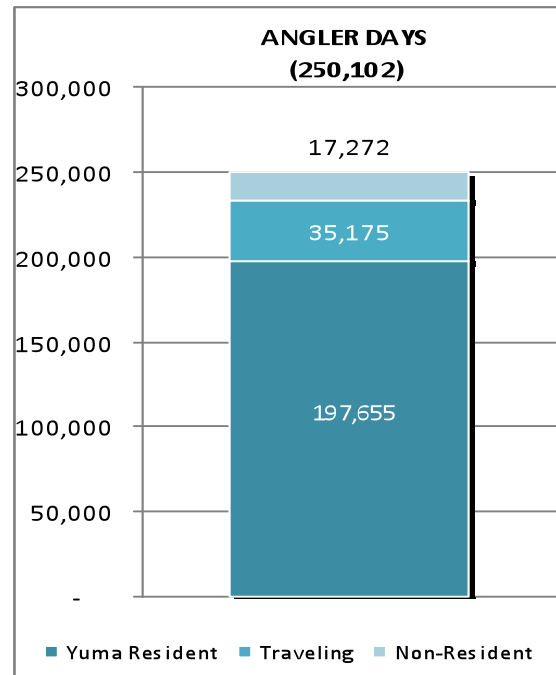


Yuma County

| TOTAL ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| DIRECT EXPENDITURES | |
| | \$21,363,118 |
| TOTAL MULTIPLIER EFFECT | |
| | \$26,235,408 |
| SALARIES AND WAGES | |
| | \$4,872,290 |
| FULL-TIME AND PART-TIME JOBS | |
| 430 | |
| STATE TAX REVENUES | |
| | \$1,124,375 |

| ANGLER DAYS | |
|---------------------------|----------------|
| TOTAL ANGLER DAYS | |
| | 250,102 |
| AZ Resident in Own County | 197,655 |
| AZ Resident Traveling | 35,175 |
| Non-Resident | 17,272 |

| DIRECT ECONOMIC IMPACTS | |
|-------------------------------------|---------------------|
| TOTAL FISHING EXPENDITURES | |
| | \$21,363,118 |
| TOTAL TRIP-RELATED | |
| | \$11,304,172 |
| Food, Restaurant | \$4,000,857 |
| Lodging | \$1,317,330 |
| Transportation | \$3,701,966 |
| Other | \$2,284,019 |
| TOTAL EQUIPMENT EXPENDITURES | |
| | \$10,058,946 |
| Fishing Equipment | \$4,111,327 |
| Auxiliary Equipment | \$5,947,620 |



WATERSHED ECONOMIC IMPACTS

Table 8: Annual Angler User Days by Watershed

| Watershed | Resident Watershed | Traveling | Non-Resident | Total Days |
|-----------------------|--------------------|------------------|----------------|------------------|
| Aqua Fria River | 376,923 | 51,919 | 9,288 | 438,131 |
| Bill Williams River | 3,063 | 76,359 | 8,859 | 88,281 |
| Colorado River | 791,761 | 353,905 | 140,763 | 1,286,428 |
| Gila River | 77,989 | 54,505 | 11,781 | 144,276 |
| Little Colorado River | 277,098 | 642,432 | 15,758 | 935,288 |
| Salt River | 1,101,659 | 835,078 | 77,783 | 2,014,520 |
| Santa Cruz River | 284,983 | 184,050 | 10,357 | 479,391 |
| Verde River | 417,214 | 159,898 | 15,152 | 592,263 |
| Total | 3,330,690 | 2,358,147 | 289,741 | 5,978,578 |

Table 9: Angler Expenditures by Watershed

| Watershed | Resident Watershed | Traveling | Non-Resident | Totals |
|-----------------------|----------------------|----------------------|---------------------|----------------------|
| Aqua Fria River | \$79,400,857 | \$4,945,688 | \$1,104,283 | \$85,450,827 |
| Bill Williams River | \$470,713 | \$7,860,287 | \$1,011,963 | \$9,342,963 |
| Colorado River | \$104,441,673 | \$33,483,968 | \$28,746,225 | \$166,671,866 |
| Gila River | \$96,025,103 | \$5,258,787 | \$1,626,878 | \$102,910,768 |
| Little Colorado River | \$41,136,226 | \$57,485,024 | \$3,385,466 | \$102,006,716 |
| Salt River | \$156,192,736 | \$61,776,606 | \$9,081,268 | \$227,050,610 |
| Santa Cruz River | \$54,261,974 | \$38,650,982 | \$700,333 | \$93,613,290 |
| Verde River | \$82,973,110 | \$15,497,157 | \$1,871,704 | \$100,341,971 |
| Totals | \$614,902,391 | \$224,958,500 | \$47,528,121 | \$887,389,011 |

Table 10: Economic Impacts of Fishing by Watershed

| Watershed | Direct Expenditures | Multiplier Effects | Salaries & Wages | Jobs | State Tax |
|-----------------------|----------------------|------------------------|----------------------|---------------|---------------------|
| Aqua Fria River | \$85,450,827 | \$106,647,737 | \$20,963,212 | 1,703 | \$4,889,143 |
| Bill Williams River | \$9,342,963 | \$10,970,109 | \$2,152,031 | 122 | \$431,194 |
| Colorado River | \$166,671,866 | \$205,251,734 | \$37,113,804 | 3,280 | \$8,579,102 |
| Gila River | \$102,910,768 | \$128,197,682 | \$24,607,385 | 1,412 | \$5,273,558 |
| Little Colorado River | \$102,006,716 | \$120,022,374 | \$17,460,706 | 1,727 | \$4,961,310 |
| Salt River | \$227,050,610 | \$279,917,984 | \$51,779,093 | 3,389 | \$11,435,928 |
| Santa Cruz River | \$93,613,290 | \$115,165,796 | \$19,640,830 | 1,358 | \$6,023,120 |
| Verde River | \$100,341,971 | \$125,462,648 | \$24,566,374 | 1,604 | \$5,359,819 |
| Totals | \$887,389,011 | \$1,091,636,063 | \$198,283,434 | 14,595 | \$46,953,174 |

Table 11a: Economic Impacts of Fishing by Watershed and Waterbody

| | Direct Expenditures | Multiplier Effect | Salaries & Wages | Jobs | State Tax |
|--|--------------------------------|------------------------------|---------------------------------|---------------------|---------------------------|
| <i>Aqua Fria River Watershed</i> | | | | | |
| Crystal Gardens Water Treatment Facility | \$774,993 | \$975,847 | \$195,122 | 10 | \$39,972 |
| Lake Pleasant | \$71,087,428 | \$88,681,566 | \$17,416,420 | 1,441 | \$4,087,527 |
| Fain Lake | \$3,323,961 | \$4,185,427 | \$836,881 | 44 | \$171,439 |
| Lynx Lake | \$10,264,447 | \$12,804,897 | \$2,514,789 | 208 | \$590,206 |
| <i>Aqua Fria River Total</i> | <i>\$85,450,827</i> | <i>\$106,647,737</i> | <i>\$20,963,212</i> | <i>1,703</i> | <i>\$4,889,143</i> |
| <i>Bill Williams River Watershed</i> | | | | | |
| Alamo Lake | \$9,342,963 | \$10,970,109 | \$2,152,031 | 122 | \$431,194 |
| <i>Bill Williams River Total</i> | <i>\$9,342,963</i> | <i>\$10,970,109</i> | <i>\$2,152,031</i> | <i>122</i> | <i>\$431,194</i> |
| <i>Colorado River Watershed</i> | | | | | |
| Cataract Lake | \$1,741,616 | \$2,149,485 | \$383,775 | 32 | \$103,258 |
| City Reservoir | \$83,253 | \$102,750 | \$18,345 | 2 | \$4,936 |
| Colorado River – Ehren./Blythe to Yuma (La Paz County) | \$6,057,206 | \$7,112,113 | \$1,395,199 | 79 | \$279,550 |
| Colorado River – Ehren./Blythe to Yuma (Yuma County) | \$4,709,974 | \$5,784,178 | \$1,074,205 | 95 | \$247,893 |
| Colorado River - Lees Ferry | \$13,663,100 | \$16,862,857 | \$3,010,742 | 251 | \$810,065 |
| Colorado River - Parker Strip Area | \$7,401,662 | \$8,690,716 | \$1,704,877 | 96 | \$341,599 |
| Colorado River - Topock Area | \$24,616,380 | \$30,500,896 | \$5,453,190 | 518 | \$1,201,550 |
| Council Park Pond (Somerton) | \$71,043 | \$87,246 | \$16,203 | 1 | \$3,739 |
| Dogtown Reservoir | \$1,889,986 | \$2,332,601 | \$416,469 | 35 | \$112,055 |
| Kaibab Lake | \$4,644,596 | \$5,732,313 | \$1,023,463 | 85 | \$275,371 |
| Lake Havasu | \$43,581,558 | \$53,999,678 | \$9,654,488 | 917 | \$2,127,260 |
| Lake Mead | \$8,217,772 | \$10,182,220 | \$1,820,458 | 173 | \$401,118 |
| Lake Mohave | \$19,502,876 | \$24,165,016 | \$4,320,412 | 411 | \$951,955 |
| Lake Powell | \$16,821,742 | \$20,761,222 | \$3,706,767 | 309 | \$997,337 |
| Martinez Lake | \$1,078,669 | \$1,324,681 | \$246,012 | 22 | \$56,772 |
| Mittry Lake | \$6,544,419 | \$8,037,006 | \$1,492,587 | 132 | \$344,443 |
| Santa Fe Lake | \$298,751 | \$368,716 | \$65,832 | 5 | \$17,713 |
| Yuma Area Canals | \$3,927,159 | \$4,822,827 | \$895,668 | 79 | \$206,693 |
| Yuma West Wetlands Pond | \$1,820,102 | \$2,235,213 | \$415,111 | 37 | \$95,795 |
| <i>Colorado River Total</i> | <i>\$166,671,866</i> | <i>\$205,251,734</i> | <i>\$37,113,804</i> | <i>3,280</i> | <i>\$8,579,102</i> |

Table 11b: Economic Impacts of Fishing by Watershed and Waterbody, continued

| | Direct Expenditures | Multiplier Effect | Salaries & Wages | Jobs | State Tax |
|------------------------------------|--------------------------------|------------------------------|---------------------------------|---------------------|---------------------------|
| <i>Gila River Watershed</i> | | | | | |
| ASU Research Park | \$387,496 | \$487,923 | \$97,561 | 5 | \$19,986 |
| Cluff Ranch Ponds | \$4,470,985 | \$5,351,100 | \$844,911 | 68 | \$234,357 |
| Desert Breeze Lake | \$391,540 | \$493,015 | \$98,579 | 5 | \$20,194 |
| Eagle Creek | \$155,363 | \$185,946 | \$29,360 | 2 | \$8,144 |
| Fortuna Pond (Moser Pond) | \$2,692,549 | \$3,306,639 | \$614,090 | 54 | \$141,713 |
| Frye Mesa Reservoir | \$722,538 | \$864,770 | \$136,543 | 11 | \$37,874 |
| Gila River - Phoenix Area | \$6,831,282 | \$8,601,736 | \$1,719,927 | 90 | \$352,335 |
| Gila River - Safford Area | \$4,419,285 | \$5,289,223 | \$835,141 | 68 | \$231,647 |
| Growler Pond | \$108,192 | \$132,867 | \$24,675 | 2 | \$5,694 |
| Luna Lake | \$1,169,834 | \$1,341,211 | \$165,789 | 19 | \$63,335 |
| Red Mountain Lake | \$31,176,097 | \$39,255,966 | \$7,849,274 | 410 | \$1,607,958 |
| Redondo Lake | \$541,202 | \$664,634 | \$123,432 | 11 | \$28,484 |
| Riggs Flat Lake | \$1,549,850 | \$1,854,939 | \$292,885 | 24 | \$81,239 |
| Rio Vista Pond | \$1,535,906 | \$1,933,965 | \$386,698 | 20 | \$79,217 |
| Roper Lake | \$2,401,003 | \$2,873,641 | \$453,733 | 37 | \$125,854 |
| San Fransico River | \$1,537,206 | \$1,660,183 | \$172,167 | 22 | \$26,747 |
| San Pedro River | \$292,594 | \$350,191 | \$55,293 | 4 | \$15,337 |
| Veterans Oasis Lake | \$30,245,607 | \$38,084,321 | \$7,615,002 | 398 | \$1,559,967 |
| Water Ranch Lake | \$12,282,238 | \$15,465,409 | \$3,092,326 | 162 | \$633,476 |
| <i>Gila River Total</i> | <i>\$102,910,768</i> | <i>\$128,197,682</i> | <i>\$24,607,385</i> | <i>1,412</i> | <i>\$5,273,558</i> |

Table 11c: Economic Impacts of Fishing by Watershed and Waterbody, continued

| | Direct Expenditures | Multiplier Effect | Salaries & Wages | Jobs | State Tax |
|---|--------------------------------|------------------------------|---------------------------------|---------------------|---------------------------|
| <i>Little Colorado River Watershed</i> | | | | | |
| Ashurst Lake | \$198,116 | \$244,512 | \$43,656 | 4 | \$11,746 |
| Bear Canyon Lake | \$11,873,012 | \$14,653,549 | \$2,616,286 | 218 | \$703,934 |
| Becker Lake | \$6,878,148 | \$7,885,775 | \$974,769 | 111 | \$372,384 |
| Black Canyon Lake | \$3,162,809 | \$3,637,706 | \$474,896 | 52 | \$123,473 |
| C.C. Cragin (Blue Ridge) Reservoir | \$2,908,732 | \$3,589,927 | \$640,956 | 53 | \$172,454 |
| Carnero Lake | \$4,465,131 | \$5,119,259 | \$632,797 | 72 | \$241,743 |
| Chevelon Lake | \$1,493,618 | \$1,843,408 | \$329,127 | 27 | \$88,554 |
| Clear Creek Reservoir | \$6,098,688 | \$7,014,406 | \$915,719 | 99 | \$238,087 |
| East Clear Creek | \$1,162,359 | \$1,434,572 | \$256,133 | 21 | \$68,915 |
| Fool Hollow Lake | \$814,141 | \$936,384 | \$122,243 | 13 | \$31,783 |
| Francis Short Pond | \$1,730,871 | \$2,136,223 | \$381,407 | 32 | \$102,621 |
| Greer Area Lakes - Bunch, River, Tunnel | \$2,083,942 | \$2,389,233 | \$295,336 | 34 | \$112,825 |
| Kinnikinick Lake | \$2,407,311 | \$2,971,079 | \$530,465 | 44 | \$142,726 |
| Knoll Lake | \$8,353,610 | \$10,309,939 | \$1,840,766 | 154 | \$495,273 |
| Lake Mary (Lower) | \$315,503 | \$389,390 | \$69,523 | 6 | \$18,706 |
| Lake Mary (Upper) | \$842,315 | \$1,039,577 | \$185,609 | 15 | \$49,940 |
| Lee Valley Lake | \$3,936,738 | \$4,513,458 | \$557,914 | 63 | \$213,136 |
| Little Colorado River (Greer) | \$537,593 | \$616,349 | \$76,188 | 9 | \$29,105 |
| Little Colorado River (Sheep's Crossing) | \$199,242 | \$228,430 | \$28,237 | 3 | \$10,787 |
| Long Lake | \$792,565 | \$978,175 | \$174,646 | 15 | \$46,990 |
| Lyman Lake | \$867,713 | \$994,830 | \$122,972 | 14 | \$46,978 |
| Nelson Reservoir | \$1,596,434 | \$1,830,306 | \$226,246 | 26 | \$86,431 |
| Rainbow Lake | \$9,777,595 | \$11,245,703 | \$1,468,107 | 159 | \$381,708 |
| Scotts Reservoir | \$2,780,688 | \$3,198,209 | \$417,521 | 45 | \$108,555 |
| Show Low Lake | \$11,183,404 | \$12,862,593 | \$1,679,190 | 182 | \$436,589 |
| Silver Creek | \$657,337 | \$756,036 | \$98,699 | 11 | \$25,662 |
| Willow Springs Lake | \$172,403 | \$212,779 | \$37,990 | 3 | \$10,222 |
| Woodland Reservoir | \$13,953,315 | \$16,048,407 | \$2,095,092 | 228 | \$544,724 |
| Woods Canyon Lake | \$763,383 | \$942,160 | \$168,216 | 14 | \$45,260 |
| <i>Little Colorado River Total</i> | <i>\$102,006,716</i> | <i>\$120,022,374</i> | <i>\$17,460,706</i> | <i>1,727</i> | <i>\$4,961,310</i> |

Table 11d: Economic Impacts of Fishing by Watershed and Waterbody, continued

| | Direct Expenditures | Multiplier Effect | Salaries & Wages | Jobs | State Tax |
|--------------------------------------|--------------------------------|------------------------------|---------------------------------|---------------------|----------------------------|
| <i>Salt River Watershed</i> | | | | | |
| Alvord Lake | \$17,458,864 | \$21,983,655 | \$4,395,656 | 230 | \$900,469 |
| Apache Lake | \$1,918,266 | \$2,415,421 | \$482,966 | 25 | \$98,938 |
| Big Lake | \$12,936,537 | \$14,831,699 | \$1,833,363 | 208 | \$700,386 |
| Black River, East Fork | \$2,429,273 | \$2,785,154 | \$344,276 | 39 | \$131,521 |
| Black River, West Fork | \$884,725 | \$1,014,334 | \$125,383 | 14 | \$47,899 |
| Canyon Creek | \$1,426,628 | \$1,694,574 | \$271,566 | 28 | \$65,176 |
| Canyon Lake | \$27,518,382 | \$34,650,286 | \$6,928,363 | 362 | \$1,419,305 |
| Chaparral Lake | \$6,204,247 | \$7,812,193 | \$1,562,057 | 82 | \$319,994 |
| Christopher Creek | \$1,167,011 | \$1,386,196 | \$222,147 | 23 | \$53,315 |
| Cortez Lake | \$1,660,856 | \$2,091,297 | \$418,157 | 22 | \$85,661 |
| Crescent Lake | \$2,199,149 | \$2,521,317 | \$311,663 | 35 | \$119,062 |
| Encanto Lake | \$813,742 | \$1,024,639 | \$204,878 | 11 | \$41,970 |
| Evelyn Hallman Pond | \$1,162,489 | \$1,463,770 | \$292,682 | 15 | \$59,957 |
| Haigler Creek | \$1,380,144 | \$1,639,358 | \$262,718 | 27 | \$63,052 |
| Kiwanis Lake | \$843,267 | \$1,061,816 | \$212,311 | 11 | \$43,493 |
| Phoenix Area Canals | \$1,556,761 | \$1,960,225 | \$391,949 | 20 | \$80,293 |
| Roosevelt Lake | \$40,822,795 | \$48,490,021 | \$7,770,837 | 797 | \$1,865,001 |
| Saguaro Lake | \$59,565,091 | \$75,002,499 | \$14,996,833 | 784 | \$3,072,167 |
| Salt River (Above Roosevelt) | \$5,140,220 | \$6,105,642 | \$978,468 | 100 | \$234,832 |
| Salt River (Below Saguaro) | \$20,742,812 | \$26,118,699 | \$5,222,463 | 273 | \$1,069,844 |
| Steele Indian School Pond | \$409,196 | \$515,247 | \$103,024 | 5 | \$21,105 |
| Surprise Lake | \$6,219,67 | \$7,831,547 | \$1,565,927 | 82 | \$320,787 |
| Tempe Town Lake | \$7,892,53 | \$9,937,930 | \$1,987,100 | 104 | \$407,066 |
| Tonto Creek (Salt River Drainage) | \$4,698,083 | \$5,580,464 | \$894,305 | 92 | \$214,633 |
| <i>Salt River Total</i> | <i>\$227,050,610</i> | <i>\$279,917,984</i> | <i>\$51,779,093</i> | <i>3,389</i> | <i>\$11,435,928</i> |

Table 11d: Economic Impacts of Fishing by Watershed and Waterbody, continued

| | Direct Expenditures | Multiplier Effect | Salaries & Wages | Jobs | State Tax |
|--|--------------------------------|------------------------------|---------------------------------|---------------------|---------------------------|
| <i>Santa Cruz River Watershed</i> | | | | | |
| Arivaca Lake | \$4,213,850 | \$5,236,145 | \$912,585 | 59 | \$269,287 |
| Kennedy Lake | \$3,081,365 | \$3,828,915 | \$667,325 | 43 | \$196,916 |
| Lakeside Lake | \$12,818,67 | \$15,928,533 | \$2,776,116 | 180 | \$819,182 |
| Parker Canyon Lake | \$1,660,593 | \$1,987,482 | \$313,813 | 25 | \$87,044 |
| Patagonia Lake | \$3,461,238 | \$4,158,465 | \$672,327 | 54 | \$229,064 |
| Pena Blanca Lake | \$22,833,946 | \$27,433,590 | \$4,435,371 | 356 | \$1,511,147 |
| Rose Canyon Lake | \$33,902,457 | \$42,127,313 | \$7,342,189 | 476 | \$2,166,548 |
| Sahuarita Lake | \$5,338,949 | \$6,634,197 | \$1,156,246 | 75 | \$341,187 |
| Silverbell Lake | \$6,302,216 | \$7,831,156 | \$1,364,859 | 89 | \$402,745 |
| <i>Santa Cruz River Total</i> | <i>\$93,613,290</i> | <i>\$115,165,796</i> | <i>\$19,640,830</i> | <i>1,358</i> | <i>\$6,023,120</i> |
| <i>Verde River Watershed</i> | | | | | |
| Bartlett Lake | \$57,606,044 | \$72,535,728 | \$14,503,600 | 758 | \$2,971,126 |
| Dead Horse Lake | \$9,846,032 | \$12,282,924 | \$2,412,278 | 200 | \$566,147 |
| East Verde River | \$2,783,332 | \$3,306,090 | \$529,822 | 54 | \$127,157 |
| Goldwater Lake | \$5,049,547 | \$6,299,310 | \$1,237,139 | 102 | \$290,349 |
| Granite Basin Lake | \$1,304,063 | \$1,626,819 | \$319,495 | 26 | \$74,984 |
| Green Valley Lake | \$3,033,533 | \$3,603,283 | \$577,449 | 59 | \$138,588 |
| JD Dam | \$101,814 | \$125,658 | \$22,435 | 2 | \$6,036 |
| Mingus Lake | \$612,865 | \$764,549 | \$150,152 | 12 | \$35,240 |
| Oak Creek (Coconino) | \$2,435,291 | \$3,005,611 | \$536,630 | 45 | \$144,385 |
| Oak Creek (Yavapai) | \$2,672,589 | \$3,334,055 | \$654,784 | 54 | \$153,674 |
| Perkins Tank | \$137,247 | \$169,389 | \$30,243 | 3 | \$8,137 |
| Verde River (Bartlett Dam to Fort McDowell Indian Reservation) | \$1,179,158 | \$1,484,759 | \$296,879 | 16 | \$60,817 |
| Verde River (Sullivan Lk to Perkinsville) | \$2,322,621 | \$2,897,470 | \$569,042 | 47 | \$133,551 |
| Verde River (Sycamore Ck to Childs) | \$6,658,204 | \$8,306,110 | \$1,631,260 | 135 | \$382,847 |
| Watson Lake | \$3,082,937 | \$3,845,964 | \$755,320 | 63 | \$177,269 |
| Wet Beaver Creek | \$228,583 | \$285,157 | \$56,003 | 5 | \$13,144 |
| Whitehorse Lake | \$1,288,109 | \$1,589,771 | \$283,842 | 24 | \$76,370 |
| <i>Verde River Total</i> | <i>\$100,341,971</i> | <i>\$125,462,648</i> | <i>\$24,566,374</i> | <i>1,604</i> | <i>\$5,359,819</i> |
| Total All Watersheds | \$887,389,011 | \$1,091,636,063 | \$198,283,434 | 14,595 | \$46,953,174 |