

3. Economic Characteristics and Vitality

This section examines historic and current economic conditions within the three counties surrounding the Coconino National Forest (COF). One primary purpose of this analysis is to determine trends in the economic dependency of communities on certain industries and forest resources. Data on selected cities within the area of assessment are also included in order to illustrate trends that may signal associations between forest management alternatives and economic change affecting specific populations. Indicators used to assess economic characteristics and vitality include major employers within the region, employment by industry, per capita and household income, portion of income derived from natural resources, and federal-lands related payments based on forest resource use.

Data show that the area of assessment for the COF has experienced significant economic growth over the past two decades. Yavapai County has been the center of much of this growth with substantial gains in total part- and full-time employment, particularly in the construction, manufacturing and wholesale trade sectors. In general, employment grew much more slowly in Coconino and Gila Counties despite specific gains in the agricultural services, wholesale trade, and finance and real estate sectors. The occupational structures within Coconino and Yavapai Counties closely resembled those of the state overall while Gila County reported a relatively high percentage of sales and office and service occupations. Despite significant increases in per capita and family income and decreasing rates of poverty, data show that both Coconino and Gila Counties remained economically limited when compared to statewide figures over the same period. Here again, Yavapai County was the exception with rates of unemployment and poverty that were below those for the state overall. Yavapai County also reported relatively strong gains in total labor income from wood products and processing along with decreases in income from special forest products and processing while Coconino County demonstrated opposite trends. On the whole, the area of assessment saw significant increases in tourism employment between 1990 and 2000. In terms of federal-lands related revenue, Gila County has consistently been the largest recipient of PILT payments over the last several years whereas Coconino County has reported the greatest amount in forest receipts or “twenty-five percent monies.”

3.1 Historical context and regional economic conditions

Arizona’s economy has undergone dramatic changes over the past century. Originally a territory isolated on the borders of a cohering nation, Arizona, and the West in general, is quickly becoming more metropolitan, and economic realities have shifted to reflect this change. For the first half of the century, Arizona’s economy was dominated by the mining, agricultural, and ranching industries. Following World War II and a dramatic increase in population which continues to the present, Arizona shifted away from a dependence on these earlier industries and diversified into a mix of urban and rural industries that cover nearly every sector. Industrial diversity showed some increases after 1971, but reached a peak in the mid-80s and has now fallen well below other states to between .45 and .5 on the Industrial Diversity Index¹ (Sheridan 1995, Canamex 2001, ADOC 2002a). This suggests that Arizona’s economy remains fixated on a limited number of economic outlets such as agriculture and tourism. Per capita personal income (PPI) in Arizona has, in a general sense, followed the national trends although it has often fluctuated more dramatically. Labor force growth has been in the process of slowing since the 1970s when it reached a peak of 2.7% per annum. It afterward slowed to 1.7% in the 1980s and to 1.2% in the 1990s. The relation and impact of education on economic standing has also heightened, with the salary ratio of college

¹ Where 1.0 represents a state of industrial diversity equal to the U.S. as a whole. While no longer limited to agricultural and mining interests, Arizona is still restricted in its industrial array. By contrast, states like Texas and Illinois have IDIs near 0.8 which suggests a much broader industrial foundation.

educated workers to high-school educated workers increasing dramatically since 1975, up to above 1.85:1 from 1.55 to 1. Poverty rates have shifted only slightly in the past three or four decades, remaining between 14-16% (ADOC 2002a).

Over the past thirty to thirty-five years, the primary locus of economical advancement has shifted. Mining, which represented 3% of the state's per capita income in the late 1960s, had dropped to a mere fraction of a percent by 2002. Agriculture, too, remained beneath 1%. While the construction, manufacturing, and trade/utilities areas of the economy have either remained static or dropped slightly in the second half of the past century, the service industry has skyrocketed, topping 20% by 2002, up from 13% in 1969 (Morton 2003). This trend is partially due to the fact that Arizona has become an increasingly urbanized state, with 88.2% of the population living in urban areas according to the 2000 census. Recent PPI also reflects this disparity, with the 2002 metro figure being \$27,659 as compared to the non-metro amount of \$18,890—a differential of 46.4%, up from 31.6% in 1970.

The counties surrounding the COF are, collectively, some of the less economically challenged compared to those surrounding the other forests in the state. The 2002 PPI of the three U.S. counties abutting the forest land was \$22,357², representing a 15.1% differential from the state average at that time, a 2.6% improvement from 1969. Compared to the national averages, the PPI of the counties containing the Coconino NF represents 72.6% of the national total, down nearly 2.5% over the past thirty years (BEA 2002). The thirty-year average rate of income growth in this region is a brisk 9.8%, slightly below the 10.1% state average. This suggests that although Arizona's growth continues to be strong, it nonetheless remains behind the country as a whole in individual economic status.

3.2 Income and employment within key industries

Table 11 presents employment by industry at both the state and county levels for the years 1990 and 2000. Economic data confirm earlier findings which suggested relatively strong growth in Yavapai County when compared to regional and state averages. In fact, the increase in total full- and part-time employment in Yavapai County (65.17%) significantly outpaced job growth at the state level between 1990 and 2000 (47.62%). Table 11 demonstrates that much of the growth in jobs for Yavapai County was fueled by significant employment increases in construction, manufacturing, and government services at the federal, state, and local level. In general, employment grew much more slowly within Coconino and Gila Counties during the same period although these counties experienced considerable job growth as well within certain sectors. Although Gila County experienced little growth in overall and private employment, it demonstrated relatively strong growth in farm employment as well as in agricultural services, forestry, etc. Both Coconino and Gila Counties saw considerable increases in the non-farm proprietor's employment category, and all three counties experienced substantial growth in the wholesale trade and financial services/real estate sectors.

Table 12 displays the percentage of employment in each industry at the state and county levels as well as the percent change between 1990 and 2000. Despite a decline in proprietor's employment in Yavapai County, all three counties in the area of assessment maintained percentages of proprietor employment that were higher than the average for the state. Table 12 shows that despite strong job growth in wholesale trade and financial services, each of the three counties remained below the state average in percent of total employees within these sectors. Alternatively, as of 2000, each of the three counties maintained a relatively high percentage of workers in the government and government enterprise sector when compared to the state as a whole.

² N.B.: Discrepancies between these figures and the PPIs listed in Table 16 stem from the latter having been adjusted for deflation in order to calculate % change. The salaries listed in this section represent current PPIs in non-adjusted dollars.

Table 11. Employment by Industry, County, and State, 1990-2000 and % Change

	Coconino County			Gila County			Yavapai County			Arizona		
	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change
Employment by place of work												
Total full-time and part-time employment	48,977	70,286	43.51%	15,108	20,655	36.72%	42,555	70,286	65.17%	1,909,879	2,819,302	47.62%
By type												
Wage and salary employment	41,079	55,639	35.44%	11,932	14,810	24.12%	29,717	51,881	74.58%	1,607,628	2,355,299	46.51%
Proprietors employment	7,898	14,647	85.45%	3,176	5,845	84.04%	12,838	18,405	43.36%	302,251	464,003	53.52%
Farm proprietors employment	276	204	-26.09%	162	198	22.22%	509	527	3.54%	8,027	7,572	-5.67%
Non-farm proprietors employment	7,622	14,443	89.49%	3,014	5,647	87.36%	12,329	17,878	45.01%	294,224	456,431	55.13%
By industry												
Farm employment	313	254	-18.85%	201	242	20.40%	598	752	25.75%	19,297	19,842	2.82%
Non-farm employment	48,664	70,032	43.91%	14,907	20,413	36.94%	41,957	69,534	65.73%	1,890,582	2,799,460	48.07%
Private employment	36,864	54,305	47.31%	11,739	15,492	31.97%	35,585	59,510	67.23%	1,583,146	2,410,566	52.26%
Ag. services, forestry, fishing and other	(D)	510	n/a	89	253	184.27%	531	1,017	91.53%	27,817	46,873	68.50%
Mining	(D)	159	n/a	(D)	(D)	n/a	1,107	1,184	6.96%	15,475	12,607	-18.53%
Construction	2,363	4,014	69.87%	922	(D)	n/a	3,877	7,302	88.34%	108,918	200,373	83.97%
Manufacturing	3,562	2,985	-16.20%	1,448	(D)	n/a	2,847	4,189	47.14%	194,529	225,767	16.06%
Transportation and public utilities	1,979	1,957	-1.11%	537	664	23.65%	1,454	1,866	28.34%	84,360	124,954	48.12%
Wholesale trade	801	1,378	72.03%	138	348	152.17%	895	2,031	126.93%	82,812	122,582	48.02%
Retail trade	10,862	15,266	40.55%	3,071	3,893	26.77%	9,168	13,592	48.25%	344,297	484,207	40.64%
Finance, insurance, and real estate	2,052	4,674	127.78%	739	1,620	119.22%	3,431	6,216	81.17%	170,005	281,675	65.69%
Services	14,837	23,362	57.46%	(D)	5,225	n/a	12,275	22,113	80.15%	544,933	911,528	67.27%
Government and government enterprises	11,800	15,727	33.28%	3,168	4,921	55.33%	6,372	10,024	57.31%	307,436	388,894	26.50%
Federal, civilian	3,054	3,322	8.78%	483	560	15.94%	1,076	1,198	11.34%	45,843	48,135	5.00%
Military	378	283	-25.13%	152	119	-21.71%	414	394	-4.83%	38,197	33,258	-12.93%
State and local	8,368	12,122	44.86%	2,533	4,242	67.47%	4,882	8,432	72.72%	223,396	307,501	37.65%
State government	3,560	(D)	n/a	244	454	86.07%	652	(D)	n/a	61,595	81,026	31.55%
Local government	4,808	(D)	n/a	2,289	3,788	65.49%	4,230	(D)	n/a	161,801	226,475	39.97%

(D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

Source: Bureau of Economic Analysis

<http://www.bea.doc.gov/bea/regional/reis/action.cfm>

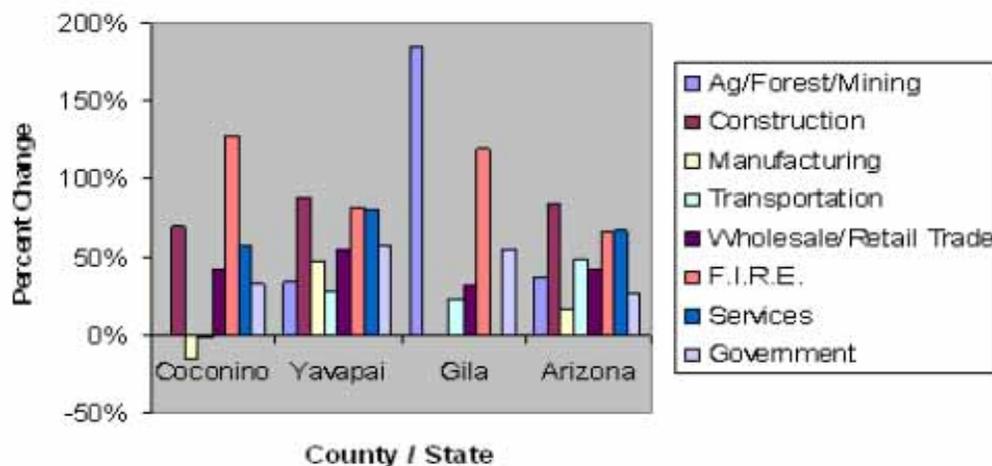
Table 12. Employment by Industry Percentages, County, and State, 1990-2000 and % Change

	Coconino County			Gila County			Yavapai County			Arizona		
	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change
Employment by place of work												
Total full-time and part-time employment	100.00%	100.00%	0.00%	100.00%	100.00%	0.00	100.00%	100.00%	0.00	100.00%	100.00%	0.00%
By type												
Wage and salary employment	83.87%	79.16%	-5.62%	78.98%	71.70%	-9.21%	69.83%	73.81%	5.70%	84.17%	83.54%	-0.75%
Proprietors employment	16.13%	20.84%	29.23%	21.02%	28.30%	34.61%	30.17%	26.19%	-13.20%	15.83%	16.46%	4.00%
Farm proprietors employment	0.56%	0.29%	-48.50%	1.07%	0.96%	-10.60%	1.20%	0.75%	-37.31%	0.42%	0.27%	-36.10%
Non-farm proprietors employment	15.56%	20.55%	32.04%	19.95%	27.34%	37.04%	28.97%	25.44%	-12.20%	15.41%	16.19%	5.09%
By industry												
Farm employment	0.64%	0.36%	-43.45%	1.33%	1.17%	-11.94%	1.41%	1.07%	-23.86%	1.01%	0.70%	-30.34%
Non-farm employment	99.36%	99.64%	0.28%	98.67%	98.83%	0.16%	98.59%	98.93%	0.34%	98.99%	99.30%	0.31%
Private employment	75.27%	77.26%	2.65%	77.70%	75.00%	-3.47%	83.62%	84.67%	1.25%	82.89%	85.50%	3.15%
Ag. services, forestry, fishing and other	n/a	0.73%	n/a	0.59%	1.22%	107.93%	1.25%	1.45%	15.96%	1.46%	1.66%	14.15%
Mining	n/a	0.23%	n/a	n/a	n/a	n/a	2.60%	1.68%	-35.24%	0.81%	0.45%	-44.81%
Construction	4.82%	5.71%	18.37%	6.10%	n/a	n/a	9.11%	10.39%	14.03%	5.70%	7.11%	24.62%
Manufacturing	7.27%	4.25%	-41.61%	9.58%	n/a	n/a	6.69%	5.96%	-10.91%	10.19%	8.01%	-21.38%
Transportation and public utilities	4.04%	2.78%	-31.09%	3.55%	3.21%	-9.56%	3.42%	2.65%	-22.30%	4.42%	4.43%	0.34%
Wholesale trade	1.64%	1.96%	19.88%	0.91%	1.68%	84.45%	2.10%	2.89%	37.39%	4.34%	4.35%	0.28%
Retail trade	22.18%	21.72%	-2.06%	20.33%	18.85%	-7.28%	21.54%	19.34%	-10.24%	18.03%	17.17%	-4.73%
Finance, insurance, and real estate	4.19%	6.65%	58.72%	4.89%	7.84%	60.34%	8.06%	8.84%	9.69%	8.90%	9.99%	12.24%
Services	30.29%	33.24%	9.72%	n/a	25.30%	n/a	28.85%	31.46%	9.07%	28.53%	32.33%	13.32%
Government and government enterprises	24.09%	22.38%	-7.13%	20.97%	23.82%	13.62%	14.97%	14.26%	-4.75%	16.10%	13.79%	-14.31%
Federal, civilian	6.24%	4.73%	-24.20%	3.20%	2.71%	-15.19%	2.53%	1.70%	-32.59%	2.40%	1.71%	-28.87%
Military	0.77%	0.40%	-47.83%	1.01%	0.58%	-42.74%	0.97%	0.56%	-42.38%	2.00%	1.18%	-41.02%
State and local	17.09%	17.25%	0.94%	16.77%	20.54%	22.49%	11.47%	n/a	n/a	11.70%	10.91%	-6.75%
State government	7.27%	n/a	n/a	1.62%	2.20%	36.10%	1.53%	n/a	n/a	3.23%	2.87%	-10.89%
Local government	9.82%	n/a	n/a	15.15%	18.34%	21.04%	9.94%	n/a	n/a	8.47%	8.03%	-5.18%

(D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

Source: Bureau of Economic Analysis

<http://www.bea.doc.gov/bea/regional/reis/action.cfm>



Source: Bureau of Economic Analysis

Figure 9. Percent Change in Industry by County and State, 1990-2000

Table 13 presents a list of major employers throughout the region which has been adapted from the ADOC Community Profiles. Dominant occupations, as determined by number of employees and percent of total employment, are shown for each county in Table 14. Data show that two of the three counties within the area of assessment maintain occupational structures very similar to that of the state as a whole. Management, professional, and related occupations is the dominant occupational category for the state, followed by sales and office occupations and finally by service occupations. The same ranking occurs in Coconino and Yavapai Counties. The exception is Gila County, where sales and office occupations were slightly more predominant than management, professional, and related occupations as of 2004. Gila County also reported a relatively high percentage of individuals in service occupations at 22.8%. For the state of Arizona and for each of the counties within the area of assessment, construction, extraction, and maintenance and production, transportation, and material moving were also among the five most dominant occupational categories.

Table 15 presents annual unemployment rates for counties, the state of Arizona, and the United States as well as decennial unemployment for selected cities within the area of assessment. During the period covered, both Gila and Coconino Counties reported relatively high rates of unemployment (7.4% and 7.2% respectively), rates that were higher than those of the state. Meanwhile the average unemployment in Yavapai County was comparably low during the same period (4.2%). High unemployment in Gila County may be due, at least in part, to the extremely high average unemployment rate in San Carlos, which, at 21.3%, was the highest of all cities within the area of assessment. Among individual cities within the area of assessment, Sedona enjoyed the lowest average unemployment rate, which was 2.2% during this period.

Table 16 provides per capita and median family incomes as well as rates of individual and family poverty. Data demonstrate increases in per capita and median family income that were greater in each county than the increases at the state level during the same period. Despite these increases, however, per capita and median family income remained lower than the state average in each of the counties as of 2000. A similar trend is evident in individual and family poverty between 1990 and 2000. Both Coconino and Yavapai Counties saw substantial rates of decline in individual and family poverty that were greater than the reductions in poverty at the state level over the ten-year period. Nonetheless, Coconino and Gila Counties remain economically challenged with incomes below and rates of poverty well above those for the state of Arizona. Among the individual cities within the area of assessment, Williams reported negative trends in

both per capita and median family income between 1990 and 2000. Both Williams and Page saw significant increases in individual and family poverty over the same ten-year period. The city of Cottonwood demonstrated perhaps the most significant change with substantial increases in income and decreases in poverty over the ten-year period. As of 2000, San Carlos remained severely limited economically with 58.8% of individuals and 57.5% of families living in poverty.

Household income distribution for each county is presented in Table 17. Here again, the economic status of Gila County is seen to be considerably limited with over 40% of households earning less than \$25,000 per year. Median household income was greatest in Coconino County at \$38,256 in 2000. Coconino County was also the most affluent of the three counties with 8.5% of households earning \$100,000 or more as of 2000.

Table 13. Major Employers by County, 2004

Coconino County	Gila County
ARA Leisure Services, Page	Apache Gold, Globe
City of Flagstaff	APS, Globe/Payson
Coconino Community College, Flagstaff	Asarco Inc. Hayden
Coconino County, Flagstaff	Asarco Ray Complex, Hayden
Flagstaff Unified School District, Flagstaff	Basha's, San Carlos
Flagstaff Medical Center, Flagstaff	B.J. Cecil Trucking, Claypool
Grand Canyon Railway, Williams	BHP Copper, Miami
Kaibab National Forest, Williams	Cobre Valley Community Hospital, Claypool
National Park Service, Page	Copper Mountain Inn, Globe
Navajo Generating Station, Page	Phelps Dodge Corporation, Claypool
Navajo Government Executive Branch, Navajo Nation	Fry's, Globe/Payson
Navajo Tribal Utility Authority, Navajo Nation	Gila County
Northern Arizona University, Flagstaff	Globe Unified School District, Globe
Pittsburg & Midway Coal Mining Co., Navajo Nation	Payson Regional Medical Center, Payson
Nestle Purina Petcare, Flagstaff	Manzanita Manor, Payson
Samaritan Family Health Center, Grand Canyon	Mazatzal Casino
Tooh-Dineh Industries, Leupp	Miami Unified School District, Miami
Tuba City Indian Medical Center	Payson Unified School District, Payson
Tuba City Unified School District #15	Safeway, Globe/Payson
Walgreens Distribution	San Carlos Unified School District, San Carlos
Wal-Mart, Flagstaff and Page	Select Care, Globe
Window Rock Unified School District	Town of Payson
SCA Tissue, Flagstaff	Wal-Mart Superstore, Globe/Payson
W.L. Gore and Associates, Inc., Flagstaff	U.S. Forest Service, Globe/Payson

Table 13 (cont.). Major Employers by County, 2004

Yavapai County	
Ace Hardware, Prescott Valley	Prescott College
APS, Prescott	Prescott Resort
The Arbors, Camp Verde	Prescott Unified School District
Atria & Kachina Point Assisted Living, Retirement, Sedona	Price Costco Store, Prescott
Camp Verde Public Schools, Camp Verde	Ruger Investment Castings, Prescott
Caradon Better-Bilt, Prescott Valley	Safeway, Chino Valley
Chino Valley Unified School District #51	Sedona/Oak Creek Unified School District
Cliff Castle Casino	Sturm Ruger & Company, Prescott
City of Cottonwood	Target Store, Prescott
Cottonwood/Oak Creek Schools	Town of Prescott Valley
Cyprus Bagdad Copper Corporation, Bagdad	U.S. Forest Service
Double Tree Sedona Resort, Sedona	Veterans Administration Medical Center, Prescott
Embry-Riddle Aeronautical University	Verde Valley Medical Center, Cottonwood
Enchantment Resort, Sedona	Wal-Mart, Cottonwood and Prescott
Humboldt Unified School District	West Yavapai Guidance Clinic, Prescott
Exsil, Inc., Prescott	Wulfsburg Electronics, Prescott
Los Abridados Resort, Sedona	Yavapai Community College
Mingus Union High School District, Cottonwood	Yavapai County
Phelps and Sons Trusses, Cottonwood	Yavapai Gaming Agency
Phoenix Cement Company, Clarkdale	Yavapai Regional Medical Center, Prescott
City of Prescott	

Source: Arizona Department of Commerce - Community Profiles
http://www.azcommerce.com/Communities/community_profiles.asp

Table 14. Dominant Occupations of State and County Populations, 2000

County/State	Number	Percent
Coconino County		
Management, professional, and related occupations	19,309	38.4%
Sales and office occupations	14,240	25.7%
Service occupations	10,610	19.1%
Construction, extraction, and maintenance occupations	5,548	10.0%
Production, transportation, and material moving occupations	5,529	10.0%
Gila County		
Sales and office occupations	4,481	24.8%
Management, professional, and related occupations	4,386	24.3%
Service occupations	4,122	22.8%
Construction, extraction, and maintenance occupations	2,959	16.4%
Production, transportation, and material moving occupations	1,963	10.9%
Yavapai County		
Management, professional, and related occupations	13,125	26.7%
Sales and office occupations	13,012	26.4%
Service occupations	8,697	17.7%
Production, transportation, and material moving occupations	5,989	12.2%
Construction, extraction, and maintenance occupations	5,289	10.7%
Arizona		
Management, professional, and related occupations	730,001	32.70%
Sales and office occupations	636,970	28.50%
Service occupations	362,547	16.20%
Construction, extraction, and maintenance occupations	245,578	11.00%
Production, transportation, and material moving occupations	244,015	10.90%

Source: U.S. Census Bureau, American Fact Finder
<http://factfinder.census.gov>

Table 15. Average Annual Unemployment Rates by County, State, Place, and U.S., 1980-2004

Area	1980*	1990*	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Average
Coconino County	7.7%	7.8%	9.2%	7.8%	8.7%	8.4%	7.3%	6.7%	5.8%	5.4%	5.9%	6.4%	6.1%	7.2%
Flagstaff	7.0%	6.1%	7.3%	6.1%	6.9%	6.6%	5.8%	5.3%	4.6%	4.3%	4.6%	5.1%	4.8%	5.7%
Sedona	5.3%	2.1%	2.5%	2.1%	2.4%	2.3%	2.0%	1.8%	1.6%	1.5%	1.6%	1.8%	1.6%	2.2%
Page	4.8%	6.1%	7.3%	6.1%	6.9%	6.6%	5.8%	5.3%	4.6%	4.2%	4.6%	5.0%	4.8%	5.5%
Williams	n/a	3.7%	4.4%	3.6%	4.1%	4.0%	3.4%	3.2%	2.7%	2.5%	2.7%	3.0%	2.9%	3.4%
Fredonia	n/a	7.2%	8.6%	7.2%	8.1%	7.8%	6.8%	6.3%	5.3%	5.0%	5.4%	5.9%	5.7%	6.6%
Gila County	7.1%	7.6%	8.7%	7.9%	8.6%	7.9%	7.4%	7.1%	5.9%	6.0%	8.0%	7.8%	6.7%	7.4%
Payson	7.6%	3.7%	4.2%	3.9%	4.2%	3.9%	3.6%	3.5%	2.8%	2.9%	3.9%	3.8%	3.2%	3.9%
Globe	3.8%	4.7%	5.3%	4.9%	5.3%	4.9%	4.5%	4.4%	3.6%	3.6%	4.9%	4.8%	4.1%	4.5%
San Carlos	16.3%	22.2%	24.6%	22.9%	24.4%	22.9%	21.5%	20.9%	17.7%	17.9%	23.0%	22.6%	19.8%	21.3%
Miami	1.4%	7.0%	8.0%	7.3%	7.9%	7.3%	6.8%	6.6%	5.3%	5.5%	7.3%	7.2%	6.1%	6.4%
Yavapai County	8.0%	4.7%	5.4%	4.8%	4.8%	4.0%	3.3%	3.4%	2.8%	3.0%	3.7%	3.3%	2.9%	4.2%
Prescott	7.3%	5.3%	6.0%	5.4%	5.3%	4.5%	3.7%	3.8%	3.2%	3.3%	4.1%	3.7%	3.3%	4.5%
Prescott Valley	n/a	4.1%	4.8%	4.2%	4.2%	3.5%	2.9%	3.0%	2.5%	2.6%	3.3%	2.9%	2.6%	3.4%
Cottonwood/Verde Village	n/a	4.8%	5.5%	4.9%	4.9%	4.1%	3.4%	3.5%	2.9%	3.0%	3.8%	3.4%	3.0%	3.9%
Sedona	5.3%	2.4%	2.8%	2.4%	2.4%	2.0%	1.7%	1.7%	1.4%	1.5%	1.9%	1.7%	1.5%	2.2%
Camp Verde	n/a	4.2%	4.8%	4.2%	4.2%	3.5%	2.9%	3.0%	2.5%	2.6%	3.3%	2.9%	2.6%	3.4%
Cottonwood	n/a	6.1%	7.0%	6.2%	6.2%	5.2%	4.3%	4.4%	3.7%	3.8%	4.8%	4.3%	3.7%	5.0%
Chino Valley	6.6%	6.9%	7.9%	7.0%	7.0%	5.8%	4.9%	5.0%	4.2%	4.4%	5.4%	4.8%	4.3%	5.7%
Arizona	6.7%	5.5%	6.4%	5.1%	5.5%	4.6%	4.1%	4.4%	4.0%	4.7%	6.2%	5.6%	4.9%	5.2%
United States	7.1%	5.6%	6.1%	5.6%	5.4%	4.9%	4.5%	4.2%	4.0%	4.7%	5.8%	6.0%	5.5%	5.3%

* 1980 and 1990 unemployment data unavailable for towns with a population of less than 2,500 individuals

Source: Arizona Department of Commerce, Arizona Workforce Informer

<http://www.workforce.az.gov/cqi/dataanalysis/?PAGEID=94&SUBID=142>

U.S. Bureau Of Labor Statistics

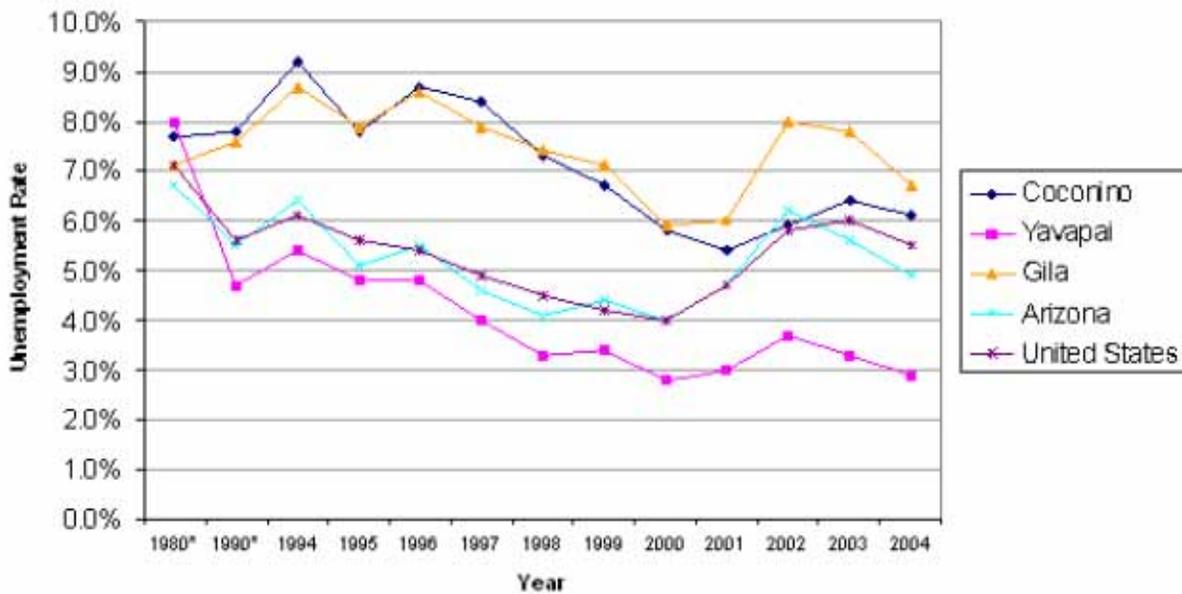
http://www.bls.gov/cps/prev_vrs.htm

Table 16. Per Capita and Family Income by County and State, 1990-2000 and % Change

County/Place	Per Capita Income			Median Family Income			% Individuals in Poverty			% Families in Poverty		
	1990	2000*	% Change	1990	2000*	% Change	1990	2000	% Change	1990	2000	% Change
Coconino County	\$10,580	\$13,004	22.91%	\$30,648	\$34,805	13.56%	23.1%	18.2%	-21.21%	16.9%	13.1%	-22.49%
Flagstaff	\$11,517	\$14,140	22.78%	\$34,952	\$36,743	5.12%	17.2%	17.4%	1.16%	10.4%	10.6%	1.92%
Sedona	\$19,893	\$23,786	19.57%	\$35,559	\$39,954	12.36%	8.9%	9.7%	8.99%	6.3%	4.7%	-25.40%
Page	\$12,352	\$14,181	14.81%	\$42,068	\$41,216	-2.02%	9.2%	13.9%	51.09%	8.5%	12.8%	50.59%
Williams	\$10,121	\$10,098	-0.23%	\$26,524	\$23,454	-11.57%	11.7%	15.0%	28.21%	8.0%	12.3%	53.75%
Fredonia	\$8,185	\$12,309	50.38%	\$27,065	\$29,638	9.51%	13.5%	12.8%	-5.19%	11.1%	9.9%	-10.81%
Gila County	\$10,297	\$12,379	20.22%	\$24,877	\$27,764	11.61%	18.3%	17.4%	-4.92%	13.5%	12.6%	-6.67%
Payson	\$26,464	\$29,373	10.99%	\$11,748	\$14,805	26.02%	11.9%	9.9%	-16.81%	7.8%	6.5%	-16.67%
Globe	\$32,071	\$32,079	0.02%	\$11,493	\$12,237	6.47%	11.7%	11.4%	-2.56%	8.3%	8.8%	6.02%
San Carlos	\$10,678	\$10,788	1.03%	\$3,692	\$3,502	-5.16%	58.8%	58.8%	0.00%	55.0%	57.5%	4.55%
Miami	\$21,650	\$23,236	7.33%	\$8,115	\$10,375	27.85%	21.1%	23.6%	11.85%	17.6%	20.5%	16.48%
Yavapai County	\$12,657	\$14,967	18.25%	\$26,238	\$31,039	18.30%	13.6%	11.9%	-12.50%	9.8%	7.9%	-19.39%
Prescott	\$13,851	\$17,121	23.61%	\$29,473	\$35,266	19.66%	13.3%	13.1%	-1.50%	8.1%	7.4%	-8.64%
Prescott Valley	\$9,848	\$12,328	25.18%	\$23,947	\$28,268	18.04%	9.6%	10.9%	13.54%	7.3%	7.8%	6.85%
Cottonwood/Verde Village	\$10,328	\$12,697	22.93%	\$25,089	\$29,284	16.72%	11.3%	8.7%	-23.01%	9.1%	6.7%	-26.37%
Sedona	\$19,893	\$23,786	19.57%	\$35,559	\$39,954	12.36%	8.9%	9.7%	8.99%	6.3%	4.7%	-25.40%
Camp Verde	\$19,514	\$11,436	-41.40%	\$21,865	\$28,110	28.56%	20.3%	14.0%	-31.03%	13.2%	9.5%	-28.03%
Cottonwood	\$9,235	\$13,291	43.92%	\$18,932	\$28,675	51.46%	22.7%	13.5%	-40.53%	20.5%	8.9%	-56.59%
Chino Valley	\$8,821	\$11,802	33.79%	\$21,972	\$26,565	20.91%	17.0%	15.5%	-8.82%	13.3%	12.6%	-5.26%
Arizona	\$13,461	\$15,383	14.28%	\$32,178	\$35,450	10.17%	15.7%	14.0%	-10.83%	11.4%	10.0%	-12.28%

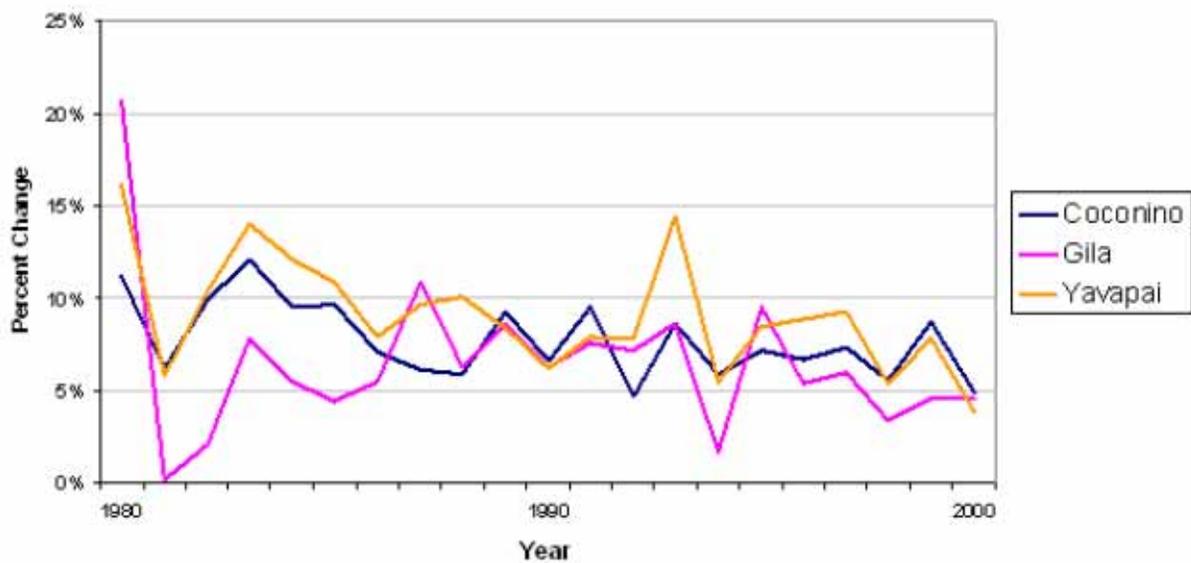
*2000 Income data adjusted to reflect 1990 constant dollars by applying deflation factor calculated by Consumer Price Index

Source: NRIS - Human Dimensions



Source: Arizona Department of Commerce, Arizona Workforce Informer

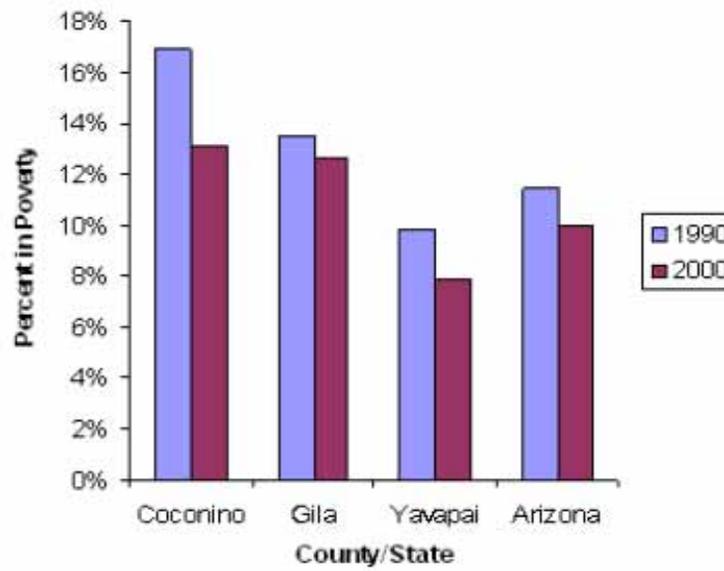
Figure 10. Unemployment Rates by County and State, 1980-2004



Source: Bureau of Economic Analysis

* Annual percent change in per capita personal income based on mid-year Census Bureau estimates of County population

Figure 11. Annual Percent Change in Per Capita Income by County, 1980-2000



Source: NRIS – Human Dimensions

Figure 12. Percent of Families in Poverty by County, 1990-2000

Table 17. Household Income Distribution by County, 2000

	Coconino County		Gila County		Yavapai County	
	Number	Percent	Number	Percent	Number	Percent
Less than \$10,000	4,285	10.60%	2,491	12.40%	6,298	9.00%
\$10,000 to \$14,999	2,838	7.00%	2,025	10.00%	5,692	8.10%
\$15,000 to \$24,999	5,670	14.00%	3,688	18.30%	12,019	17.20%
\$25,000 to \$34,999	5,542	13.70%	3,017	15.00%	11,115	15.90%
\$35,000 to \$49,999	7,018	17.40%	3,446	17.10%	13,098	18.70%
\$50,000 to \$74,999	7,661	19.00%	3,254	16.10%	11,709	16.70%
\$75,000 to \$99,999	3,950	9.80%	1,174	5.80%	4,924	7.00%
\$100,000 to \$149,999	2,349	5.80%	639	3.20%	3,285	4.70%
\$150,000 to \$199,999	555	1.40%	205	1.00%	762	1.10%
\$200,000 or more	518	1.30%	226	1.10%	1,167	1.70%
Median household income (\$)	\$38,256	(x)	\$30,917	(X)	\$34,901	(X)

Source: U.S. Census Bureau, Profile of Selected Economic Characteristics: 2000
<http://www.census.gov/census2000/states/az.html>

3.3 Forest and natural-resource dependent economic activities

Data on natural-resource dependent economic activities are comprised of available information on income from wood products and processing, income from special forest products and processing, and tourism employment. Analysis is based on IMPLAN data provided by the USFS Planning Analysis Group and Inventory and Monitoring Institute in Fort Collins, Colorado. IMPLAN is a form of input-output analysis developed specifically for the unique needs of the Forest Service. Input-output analysis (I-O) is used to

quantify linkages among the structural parts of an economy. Given a particular economic impact, for example a public lands management decision, I-O analysis generally calculates the overall effects resulting from a direct impact on the economy. This mathematical model accounts for a variety of employment, income, and output effects including both direct effects (i.e. wages) and indirect effects (i.e. the stimulation of local economy to supply inputs and processing). Some I-O analyses also model induced effects, the additional economic effects of household spending of increased wages within the community. The secondary (indirect and induced) effects are often described as “ripplelike” effects of spending throughout other sectors of a local economy (Loomis 2002). IMPLAN data are tabulated for 525 distinct industries according to the North American Industry Classification System (NAICS). A list of industries used to calculate income from wood and special forest products and processing as well as tourism employment is included in Appendix A. It should also be noted that analysis of IMPLAN data in this assessment is based solely on the direct economic impacts of selected industries and does not include indirect or induced economic impacts. Appendix B addresses some of the indirect economic effects of forest-related industries.

Total labor income from forest resources for the years 1990 and 2000 is shown in Table 18. Total labor income is commonly defined as the sum of employee compensation and proprietor’s income. Data show divergent trends among the three counties during the ten-year period. While Coconino and Gila Counties reported substantial decreases in total labor income from wood processing and products between 1990 and 2000 (-87% and -86% respectively), Yavapai County reported a relatively large increase in the category over the same period (nearly 40%). Meanwhile, a dramatic increase in total labor income from special forest products and processing in Coconino County (1,755%) was offset by income losses in the same category for Gila and Yavapai Counties over the decade. Coconino County suffered substantial losses in income from paper mills, logging, and sawmills and saw significant gains in agriculture and forestry services between 1990 and 2000. Alternatively, Yavapai County reported sharp decreases in income from agriculture and forestry services and considerable increases in income from wood office furniture, wood partitions, and structural wood members over the same period. Gila County was apparently hardest hit in terms of income from natural resources during the period, reporting significant declines in both wood products and special products categories.

Information on tourism employment for each of the counties within the area of assessment as well as the state of Arizona is provided in Table 19. Calculating the direct impact of tourism is made particularly difficult given the fact that a limited percentage of business activity in any given industry can be considered the result of tourism. For the purposes of this assessment, tourism employment has been assessed based on percentages derived from the Travel Industry Association of America’s Tourism Economic Impact Model (TEIM). This is the same model used in the Arizona Tourism Statistical Report issued by the Arizona Office of Tourism (AZOT). Table 19 suggests that the strongest gains in tourism employment between 1990 and 2000 occurred in Yavapai County. In fact, Yavapai County reported the strongest increases in each category, exceeding the overall increase in tourism employment at the state level by over seventy percent. Coconino and Gila Counties also saw increases in tourism employment between 1990 and 2000 although for Gila County, the gains were slightly less than those for the state as a whole.

Table 18. Total Labor Income from Forest Resources by County and State, 1990-2000 and % Change

County / State	Income from Wood Processing and Products			Income from Special Forest Products and Processing		
	1990	2000	%Change	1990	2000	%Change
Coconino County	\$30,558,827.28	\$3,773,587.94	-87.65%	\$78,834.20	\$1,462,922.56	1,755.70%
Gila County	\$3,958,866.20	\$534,774.15	-86.49%	\$366,479.88	\$202,780.13	-44.67%
Yavapai County	\$4,044,339.13	\$5,661,275.33	39.98%	\$2,229,247.46	\$975,280.64	-56.25%
Assessment Area Total	\$38,562,032.61	\$9,969,637.42	-74.15%	\$2,674,561.54	\$2,640,983.33	-1.26%
Arizona	\$263,558,989.17	\$369,474,538.71	40.19%	\$175,994,086.50	\$137,825,248.28	-21.69%

*2000 Income data adjusted to reflect 1990 constant dollars by applying deflation factor calculated by Consumer Price Index

Source: IMPLAN 2000 data

Table 19. Tourism Employment by County and State, 1990-2000 and % Change

Industry Sector	Coconino County			Gila County		
	1990	2000	% Change	1990	2000	% Change
Retail	562	896	59.47%	187	238	27.03%
Restaurant/Bar	1,054	1,451	37.69%	235	349	48.67%
Lodging	3,812	4,831	26.73%	296	245	-17.18%
Amusement	60	121	101.21%	3	76	2,666.51%
Total	5,488	7,299	33.00%	721	908	26.02%
Industry Sector	Yavapai County			Arizona		
	1990	2000	% Change	1990	2000	% Change
Retail	514	828	60.96%	21,655	30,376	40.28%
Restaurant/Bar	747	1,241	66.24%	26,393	38,395	45.47%
Lodging	839	2,157	157.09%	47,848	56,848	18.81%
Amusement	26	112	324.04%	1,442	3,462	140.05%
Total	2,126	4,338	104.02%	97,338	129,081	32.61%

Source: IMPLAN data

3.4 Government earnings from federal-lands related payments

Federal lands support the fiscal management of local governments through Payments in Lieu of Taxes (PILT) and what are commonly referred to as “Payments to States” or “Secure Schools and Roads” funding. PILT funds derive from a 1976 law (Public Law 94-565) that provides funds to local governments based on the amount of federal lands within their jurisdiction. These payments are affected by federal funding limitations, prior year “Payments to States,” and formulas derived from county populations. Based on annual congressional appropriation decisions, PILT payments may not always be fully funded. Counties may also receive monies based on a 1908 law that allocates to them ten percent of the gross revenues generated from timber harvest, grazing, mining, and all other uses from the federal lands within their jurisdictions.

The Weeks Law of 1911 increased the amount of forest receipt payments from ten to twenty-five percent. These “twenty-five percent monies” were mandated for use in schools and on roads. With recent diminishing commercial uses of federal lands, the President, in 2000, signed the Secure Rural Schools

and Community Self Determination Act (PL 106-393). The purpose of this act is to address the diminishing amounts of the twenty-five percent monies. This new law provides counties with the option of continuing to receive the twenty-five percent amount or to elect to receive a fixed amount based on the average of the three highest years between 1986 and 1999. In rural counties, these funds can be an important source of funding to maintain roads and provide support for schools. The law was originally scheduled to sunset in 2006, but a bill to reauthorize the Act and extend it through FY 2013 was, at the time of this report, being reviewed by Congress (S. 267, H.R. 517).

PILT entitlement acreage is presented for each county in Table 20. Coconino County holds by far the greatest entitlement acreage with over 4.7 million acres, 3.2 million of which are Forest Service lands. Yavapai County also holds a significant amount of FS lands entitled to PILT with over 1.9 million acres. Actual PILT payments for each county are presented in Table 21. Despite fewer entitlement acres, Gila County has consistently been the largest recipient of PILT payments over the past four years. Coconino County reported the lowest average annual PILT payment at just over \$1 million between 2000 and 2004.

Annual forest receipts for the period spanning 1986-1999 are presented for each county in Table 22. Here again, Coconino County is shown to be the clear exception within the area of assessment with average annual receipts of over \$2.4 million during the period. By contrast, Gila County reported the fewest forest receipts with an annual average of \$229,900.

Table 20. Payment in Lieu of Taxes (PILT) Entitlement Acreage by County and Agency, FY 2004

County	BLM	FS	BOR	NPS	COE	ARMY	FISH	URC	TOTAL
Coconino County	605,440	3,269,240	24,083	826,877	0	0	0	0	4,725,640
Gila County	64,368	1,704,384	13,535	1,120	0	0	0	0	1,783,407
Yavapai County	606,237	1,967,402	12,319	727	0	0	0	0	2,586,685
TOTAL	1,276,045	6,941,026	49,937	828,724	0	0	0	0	9,095,732

Source: U.S. Department of the Interior, Bureau of Land Management
<http://www.blm.gov/pilt/search.html>

Table 21. Arizona County PILT Payments, 2000-2004

County	2000	2001	2002	2003	2004	Average
Coconino County	\$820,879	\$1,260,220	\$1,329,731	\$858,124	\$896,233	\$1,033,037
Gila County	\$1,046,543	\$1,498,572	\$1,574,039	\$1,798,227	\$1,849,029	\$1,553,282
Yavapai County	\$973,796	\$1,417,178	\$1,473,737	\$1,359,624	\$1,280,574	\$1,300,982
TOTAL	\$2,841,218	\$4,175,970	\$4,377,507	\$4,015,975	\$4,025,836	\$3,887,301

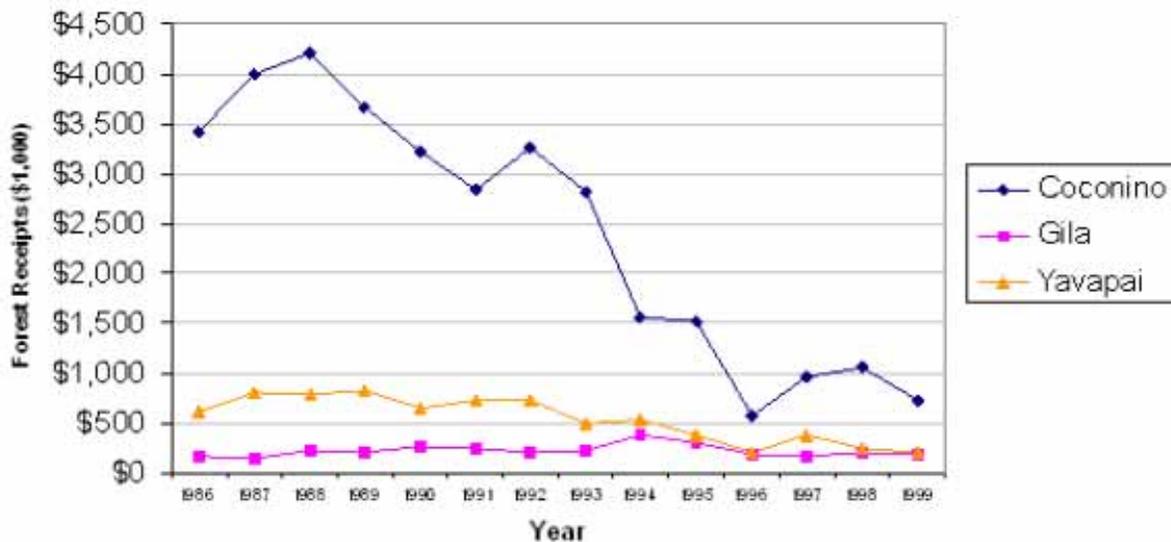
Source: U.S. Department of the Interior, Bureau of Land Management
<http://www.blm.gov/pilt/search.html>

Table 22. Forest Receipts by County, 1986-1999 (in 1000s)

County	1986	1987	1988	1989	1990	1991	1992	1993
Coconino County	\$3,418.8	\$3,991.3	\$4,208.3	\$3,671.3	\$3,218.2	\$2,839.2	\$3,256.8	\$2,817.3
Gila County	\$172.8	\$158.3	\$234.1	\$216.8	\$270.5	\$245.6	\$211.4	\$231.9
Yavapai County	\$610.9	\$806.9	\$787.5	\$837.5	\$664.5	\$729.2	\$732.2	\$498.8

	1994	1995	1996	1997	1998	1999	Average
Coconino County	\$1,566.2	\$1,534.2	\$584.4	\$969.9	\$1,058.5	\$735.3	\$2,419.3
Gila County	\$391.3	\$314.5	\$188.5	\$178.4	\$206.3	\$197.6	\$229.9
Yavapai County	\$538.7	\$378.7	\$219.4	\$382.3	\$249.5	\$210.8	\$546.2

Source: NRIS - Human Dimensions



Source: NRIS – Human Dimensions

Figure 13. Forest Receipts by County, 1986-1999

3.5 Key issues for forest planning and management

In the early stages of Arizona’s development, extractive industries such as mining, ranching, farming, and timber harvesting were the mainstays of local economies. For decades, these sectors provided the foundation for employment upon which the state’s predominantly rural economy was based (Case and Alward 1997, Rasker 2000). In recent decades, however, Arizona has joined neighboring western states in experiencing a significant decline in extractive industries along with the employment and income traditionally provided by these sectors (Baden and Snow 1997, Booth 2002).

While these changes have undoubtedly had a negative impact on many local economies, the relative expansion of information- and service-based industries has led to a more diverse, and some say more sustainable, state economy (Baden and Snow 1997, Booth 2002). The economic data gathered for the area

of assessment for the Coconino National Forest illustrate this trend, showing substantial growth in the F.I.R.E. (finance, insurance and real estate), wholesale trade, and construction sectors. When matched with a simultaneous decline in extractive and productive industries, these changes have made the composition of the area's rural economy similar to those of urban areas and the state of Arizona as a whole (Booth 2002, Case and Alward 1997). The exception was Gila County, which reported a relatively high number of employees in sales and office occupations.

Again, these changes are emblematic of those seen in recent decades throughout the Mountain West and signal important demographic and economic trends that are likely to shape the region's future development. As evidenced by the relatively strong population and economic growth centered in Yavapai County over the past decade, the area surrounding the COF has seen the expansion of certain populations and industries that are increasingly important to the local economy. In particular, the increase in retirement-aged population and increase in seasonal housing units, when combined with increases in the service/professional, wholesale trade, manufacturing and construction industries, mirror a common trend in rural western economies (Booth 2002).

These trends support the notion that growth in many western communities is increasingly supported by individuals and households with the wherewithal to support non-extractive economies. Although the data show that per capita and median household incomes grew somewhat faster than the state average between 1990 and 2000, overall income levels remain below the state average for each of the counties in the area of assessment. This trend takes on increasing relevance when combined with observed demographic trends showing an influx of retirement-age residents and seasonal homeowners. Several researchers have noted that while labor income is growing in the rural Mountain West, it is growing more slowly than transfer (social security, pensions, retirement) and dividend income. In other words, growth of rural communities is being fueled, at least in part, by income that is not tied to local employment (Booth 2002, Rasker 2000).

The relative expansion of the service and professional industries is also facilitated by advances in transportation and information technology that increasingly allow urban populations to relocate to high-amenity rural communities while maintaining employment and income characteristics typical of more urban settings (Booth 2002, Rasker 2000).

Together, these trends signal a convergence of rural and urban economies that carries important implications for natural resource management. Many of the communities hardest hit by the transition away from extractive industries belong to traditional constituencies associated with the FS, the BLM, and other federal and state agencies. In many cases, these agencies are caught between the necessity of responding to market forces and those powerful interests determined to protect established industries from such changes (Baden and Snow 1997). Finally, data for the area surrounding the COF demonstrate the reciprocal cause-and-effect relationships between economic and demographic trends. Although economic growth in many western communities may be fueled by households with relatively "footloose" income, potentially negative consequences include an increased demand for construction, schools, health care, and other services as well as undesirable side effects such as pollution, urban sprawl, and congestion (Rasker 2000, Case and Alward 1997).