

3. Economic Characteristics and Vitality

In this section, historic and current economic conditions within the two counties surrounding the Prescott National Forest (PNF) are examined. 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 PNF 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 construction, manufacturing, and wholesale trade. In general, employment grew much more slowly in Coconino County despite specific gains in the wholesale trade, finance, and real estate sectors. The occupational structures within Coconino and Yavapai Counties closely resembled those of the state overall with management, professional, and related occupations maintaining primary importance over sales and office and service occupations. Though both counties reported significant increases in per capita and median family income, data show that Yavapai County had substantially lower rates of unemployment and poverty, both of which were also below state averages for the same period. 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, Yavapai 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). Per capita personal income (PPI) in Arizona has, in a general sense, followed the national trends although it has often fluctuated more dramatically in the short term. Labor force growth has been in the process of slowing since the 1970s when it reached a peak of 2.7% per annum. It afterwards 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-educated workers to high-school-educated workers increasing dramatically since 1975, up to above 1.85:1 from

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.

1.55:1. 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 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 (BEA 2002). 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 \$27,285 as compared to the non-metro amount of \$18,992—a differential of 30.4%, up from 23.3% in 1970.

The counties surrounding the PNF are collectively the most economically successful when compared to those counties bordering and containing other forests in the state. The 2002 PPI of the two U.S. counties abutting PNF land is \$23,240², representing a -11.7% differential from the state average at that time, nearly identical to the discrepancy in 1969. This figure remains low in the national context. Compared to the national averages, the PPI of the counties containing the Prescott represents only 75.4% of the national total, down nearly 5.1% over the past thirty years (BEA 2002). The thirty-year average rate of income growth in this region, however, is 10.5%, above the 10.1% state average and, after the Kaibab NF, the second strongest growth rate of all the forest areas in the state. These figures suggest a healthy and robust future for the economy in Yavapai and Coconino Counties and imply a different economic context in forest management than might apply to less economically sound forest assessment areas like the Coronado NF and the Apache-Sitgreaves NF.

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 of relatively strong growth of Yavapai County when compared to 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%). Data show that job growth in Yavapai County was especially strong for wage and salary employment while Coconino County made substantial gains in proprietor's employment. Table 11 demonstrates that much of the growth in jobs for Yavapai County was fueled by significant increases in employment in construction, manufacturing, and wholesale trade. In general, employment grew much more slowly within Coconino County during that period although it too experienced considerable job growth within the finance/insurance/real estate and wholesale trade sectors. Both counties experienced substantial growth in government employment at the federal, state, and local levels when compared to the state overall.

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 the percentage of proprietor's employment in Yavapai County, both it and Coconino County maintained percentages of proprietor employment that were higher than average for the state. Table 12 shows that despite strong job growth in wholesale trade and financial services, both of the counties remain below the state average in percentage of total employees within these sectors. Alternatively, as of 2000, both 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			Yavapai County			Arizona		
	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%	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%	29,717	51,881	74.58%	1,607,628	2,355,299	46.51%
Proprietor's employment	7,898	14,647	85.45%	12,838	18,405	43.36%	302,251	464,003	53.52%
Farm proprietor's employment	276	204	-26.09%	509	527	3.54%	8,027	7,572	-5.67%
Non-farm proprietor's employment	7,622	14,443	89.49%	12,329	17,878	45.01%	294,224	456,431	55.13%
By industry									
Farm employment	313	254	-18.85%	598	752	25.75%	19,297	19,842	2.82%
Non-farm employment	48,664	70,032	43.91%	41,957	69,534	65.73%	1,890,582	2,799,460	48.07%
Private employment	36,864	54,305	47.31%	35,585	59,510	67.23%	1,583,146	2,410,566	52.26%
Ag. services, forestry, fishing and other	(D)	510	n/a	531	1,017	91.53%	27,817	46,873	68.50%
Mining	(D)	159	n/a	1,107	1,184	6.96%	15,475	12,607	-18.53%
Construction	2,363	4,014	69.87%	3,877	7,302	88.34%	108,918	200,373	83.97%
Manufacturing	3,562	2,985	-16.20%	2,847	4,189	47.14%	194,529	225,767	16.06%
Transportation and public utilities	1,979	1,957	-1.11%	1,454	1,866	28.34%	84,360	124,954	48.12%
Wholesale trade	801	1,378	72.03%	895	2,031	126.93%	82,812	122,582	48.02%
Retail trade	10,862	15,266	40.55%	9,168	13,592	48.25%	344,297	484,207	40.64%
Finance, insurance, and real estate	2,052	4,674	127.78%	3,431	6,216	81.17%	170,005	281,675	65.69%
Services	14,837	23,362	57.46%	12,275	22,113	80.15%	544,933	911,528	67.27%
Government and government enterprises	11,800	15,727	33.28%	6,372	10,024	57.31%	307,436	388,894	26.50%
Federal, civilian	3,054	3,322	8.78%	1,076	1,198	11.34%	45,843	48,135	5.00%
Military	378	283	-25.13%	414	394	-4.83%	38,197	33,258	-12.93%
State and local	8,368	12,122	44.86%	4,882	8,432	72.72%	223,396	307,501	37.65%
State government	3,560	(D)	n/a	652	(D)	n/a	61,595	81,026	31.55%
Local government	4,808	(D)	n/a	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.

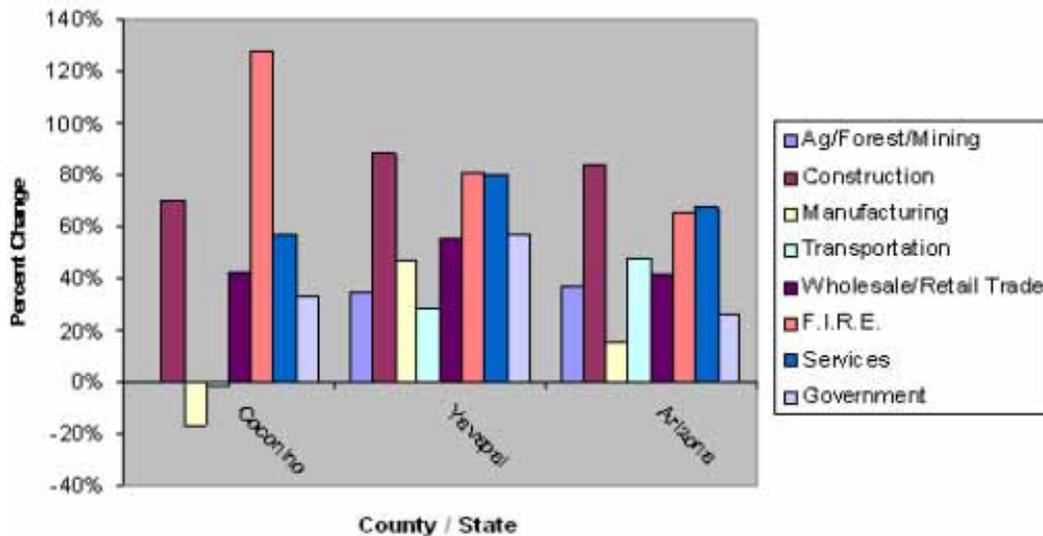
Source: Bureau of Economic Analysis

<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			Yavapai County			Arizona		
	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
By type									
Wage and salary employment	83.87%	79.16%	-5.62%	69.83%	73.81%	5.70%	84.17%	83.54%	-0.75%
Proprietors employment	16.13%	20.84%	29.23%	30.17%	26.19%	-13.20%	15.83%	16.46%	4.00%
Farm proprietors employment	0.56%	0.29%	-48.50%	1.20%	0.75%	-37.31%	0.42%	0.27%	-36.10%
Non-farm proprietors employment	15.56%	20.55%	32.04%	28.97%	25.44%	-12.20%	15.41%	16.19%	5.09%
By industry									
Farm employment	0.64%	0.36%	-43.45%	1.41%	1.07%	-23.86%	1.01%	0.70%	-30.34%
Non-farm employment	99.36%	99.64%	0.28%	98.59%	98.93%	0.34%	98.99%	99.30%	0.31%
Private employment	75.27%	77.26%	2.65%	83.62%	84.67%	1.25%	82.89%	85.50%	3.15%
Ag. services, forestry, fishing and other	n/a	0.73%	n/a	1.25%	1.45%	15.96%	1.46%	1.66%	14.15%
Mining	n/a	0.23%	n/a	2.60%	1.68%	-35.24%	0.81%	0.45%	-44.81%
Construction	4.82%	5.71%	18.37%	9.11%	10.39%	14.03%	5.70%	7.11%	24.62%
Manufacturing	7.27%	4.25%	-41.61%	6.69%	5.96%	-10.91%	10.19%	8.01%	-21.38%
Transportation and public utilities	4.04%	2.78%	-31.09%	3.42%	2.65%	-22.30%	4.42%	4.43%	0.34%
Wholesale trade	1.64%	1.96%	19.88%	2.10%	2.89%	37.39%	4.34%	4.35%	0.28%
Retail trade	22.18%	21.72%	-2.06%	21.54%	19.34%	-10.24%	18.03%	17.17%	-4.73%
Finance, insurance, and real estate	4.19%	6.65%	58.72%	8.06%	8.84%	9.69%	8.90%	9.99%	12.24%
Services	30.29%	33.24%	9.72%	28.85%	31.46%	9.07%	28.53%	32.33%	13.32%
Government and government enterprises	24.09%	22.38%	-7.13%	14.97%	14.26%	-4.75%	16.10%	13.79%	-14.31%
Federal, civilian	6.24%	4.73%	-24.20%	2.53%	1.70%	-32.59%	2.40%	1.71%	-28.87%
Military	0.77%	0.40%	-47.83%	0.97%	0.56%	-42.38%	2.00%	1.18%	-41.02%
State and local	17.09%	17.25%	0.94%	11.47%	n/a	n/a	11.70%	10.91%	-6.75%
State government	7.27%	n/a	n/a	1.53%	n/a	n/a	3.23%	2.87%	-10.89%
Local government	9.82%	n/a	n/a	9.94%	n/a	n/a	8.47%	8.03%	-5.18%

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 percentage of total employment, are shown for each county in Table 14. Data show that both counties within the area of assessment have maintained occupational structures similar to that of the state of Arizona as a whole. “Management, professional, and related occupations” is the dominant occupational category for both counties and the state followed by sales and office occupations and, finally, by service occupations. For both the state of Arizona and for each of the counties within the area of assessment, construction/extraction/maintenance and production/transportation/material moving were also among the five most dominant occupations as of 2004.

Table 15 presents annual unemployment rates for counties, the state of Arizona, and the United States as well as for selected cities within the area of assessment. Within the area of assessment, average unemployment ranges from 7.2% in Coconino County to 4.2% in Yavapai County, placing the counties in opposite relation to the statewide unemployment rate of 5.2% over the same period. Among selected cities within the area of assessment, average unemployment ranged from a high of 6.6% in Fredonia to a low of 2.2% in Sedona. Both Flagstaff and Chino Valley reported relatively high unemployment averages of 5.7% over the period.

Per capita and median family incomes, as well as rates of individual and family poverty, are provided in Table 16. Data demonstrate increases in per capita and median family income that were well above increases at the state level for both counties within the area of assessment. Despite these increases, however, per capita and median family income in both Coconino and Yavapai Counties remained lower than the state average as of 2000. A similar trend is evident in individual and family poverty between 1990 and 2000. While both counties saw a reduction in poverty that was greater than that of the state over the ten-year period, Coconino maintained rates of individual and family poverty that were greater than those for the state of Arizona as of 2000. Among 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. While the city of Camp Verde reported a reduction in per capita income between 1990 and 2000, rates of individual and family poverty were significantly reduced over the same 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.

Household income distribution for each county is presented in Table 17. The economic status of households in both counties appears to be limited with over 30% of households earning less than \$25,000 per year. Coconino County appears to be the more affluent of the two counties with a higher median household income (\$38,256) and 8.5% of households earning \$100,000 or more as of 2000.

Table 13. Major Employers by County, 2004

Coconino County	Yavapai County
ARA Leisure Services, Page	Ace Hardware, Prescott Valley
City of Flagstaff	APS, Prescott
Coconino Community College, Flagstaff	The Arbors, Camp Verde
Coconino County, Flagstaff	Atria & Kachina Point Assisted Living, Retirement, Sedona
Flagstaff United School District, Flagstaff	Camp Verde Public Schools, Camp Verde
Flagstaff Medical Center, Flagstaff	Caradon Better Bilt, Prescott Valley
Grand Canyon Railway, Williams	China Valley Unified Schools District # 51
Kaibab National Forest, Williams	Cliff Castle Casino
National Park Service, Page	City of Cottonwood
Navajo Generating Station, Page	Cottonwood/Oak Creek Schools
Navajo Government Executive Branch, Navajo Nation	Cyprus Bagdad Copper Corporation, Bagdad
Navajo Tribal Utility Authority, Navajo Nation	Double Tree Sedona Resort, Sedona
Northern Arizona University, Flagstaff	Embry-Riddle Aeronautical University
Pittsburg & Midway Coal Mining Co., Navajo Nation	Enchantment Resort, Sedona
Nestle Purina Petcare, Flagstaff	Humboldt Unified School District
Samaritan Family Health Center, Grand Canyon	Exsil, Inc.
Tooh-Dineh Industries, Leupp	Los Abridados Resort, Sedona
Tuba City Indian Medical Center	Mingus Union High School District
Tuba City Unified School District #15	Phelps and Sons Trusses, Cottonwood
Walgreens Distribution	Phoenix Cement Company, Clarkdale
Wal-Mart, Flagstaff and Page	City of Prescott
Window Rock Unified School District	Prescott College
SCA Tissue, Flagstaff	Prescott Resort
W.L. Gore and Associates, Inc., Flagstaff	Prescott Unified School District
	Price Costco Store, Prescott
	Ruger Investment Castings, Prescott
	Safeway, Chino Valley
	Sedona/Oak Creek Unified School District
	Sturm Ruger & Company, Prescott
	Target Store, Prescott
	Town of Prescott Valley
	U.S. Forest Service
	Veterans Administration Medical Center, Prescott
	Verde Valley Medical Center, Cottonwood
	Wal-Mart, Cottonwood and Prescott
	West Yavapai Guidance Clinic, Prescott
	Wulfsburg Electronics, Prescott
	Yavapai Community College
	Yavapai County
	Yavapai Gaming Agency
	Yavapai Regional Medical Center, Prescott

Source: Arizona Department of Commerce, County 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%
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 151. 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%
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/cgi/dataanalysis/?PAGEID=94&SUBID=142>

U.S. Bureau Of Labor Statistics

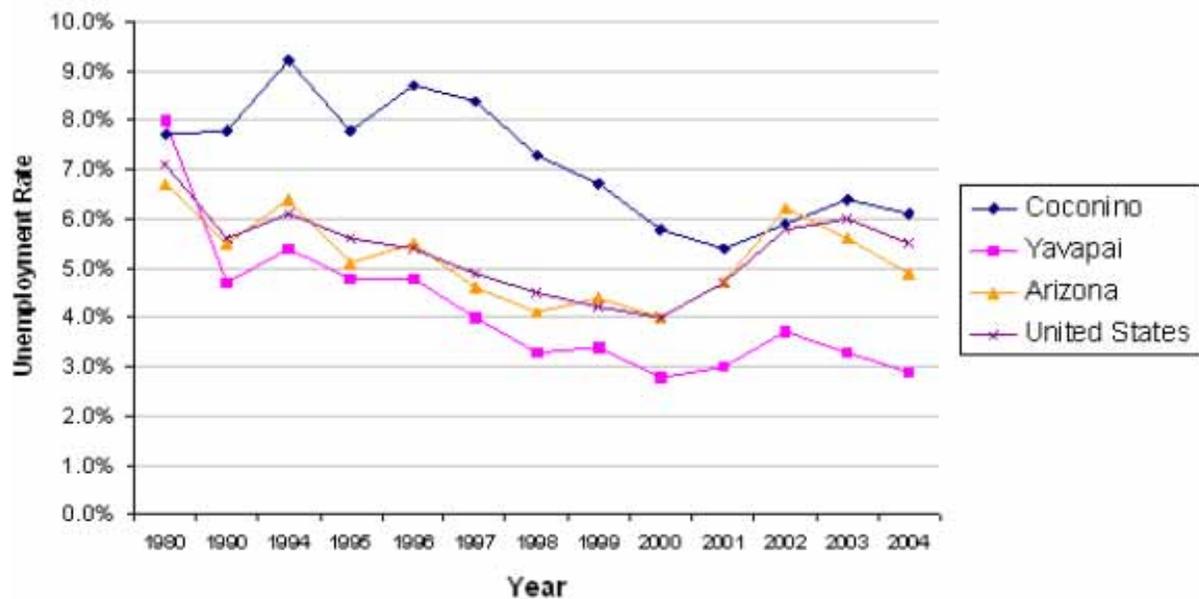
http://www.bls.gov/cps/prev_vrs.htm

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%
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%

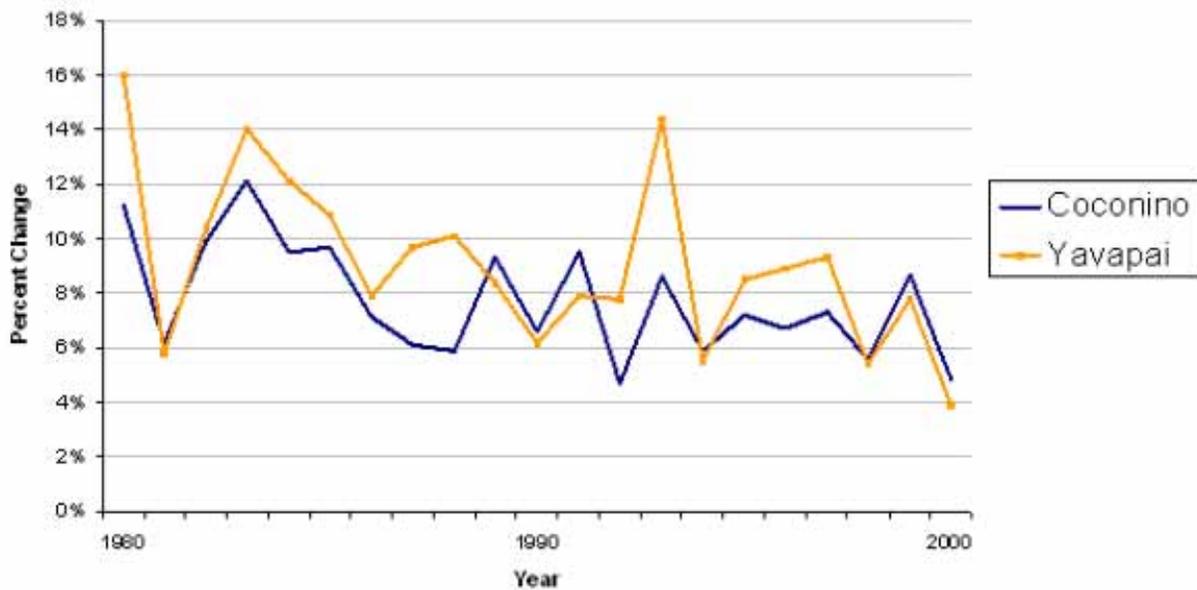
*2000 Income data adjusted to reflect 1990 constant dollars by applying deflation factor calculated by Consumer Price Index

Source: NRIS - Human Dimensions



Source: Arizona Department of Commerce, Arizona Workforce Informer

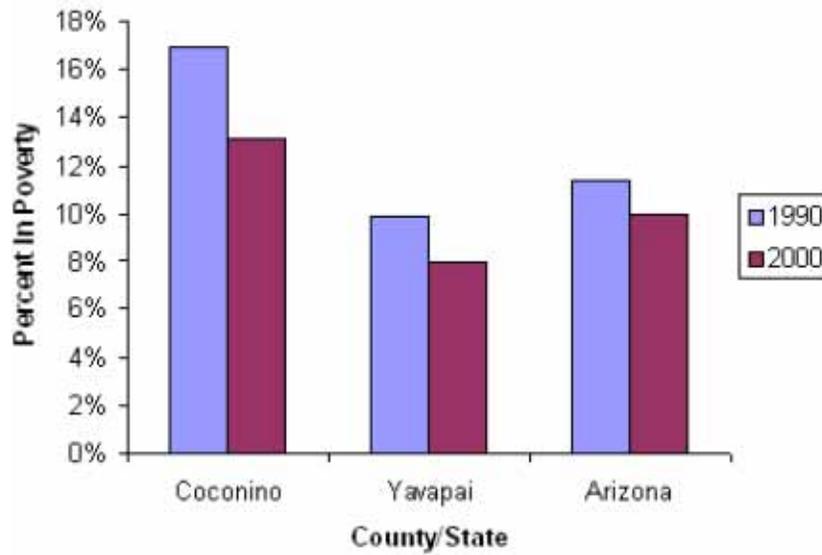
Figure 10. Unemployment Rates by County and State, 1980-2004



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		Yavapai County	
	Number	Percent	Number	Percent
Less than \$10,000	4,285	10.60%	6,298	9.00%
\$10,000 to \$14,999	2,838	7.00%	5,692	8.10%
\$15,000 to \$24,999	5,670	14.00%	12,019	17.20%
\$25,000 to \$34,999	5,542	13.70%	11,115	15.90%
\$35,000 to \$49,999	7,018	17.40%	13,098	18.70%
\$50,000 to \$74,999	7,661	19.00%	11,709	16.70%
\$75,000 to \$99,999	3,950	9.80%	4,924	7.00%
\$100,000 to \$149,999	2,349	5.80%	3,285	4.70%
\$150,000 to \$199,999	555	1.40%	762	1.10%
\$200,000 or more	518	1.30%	1,167	1.70%
Median household income (\$)	\$38,256	(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 two counties during the ten-year period. While Coconino County reported a dramatic decrease in total labor income from wood processing and products between 1990 and 2000 (-87.65%), 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 Yavapai County 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.

Information on tourism employment for both 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, analysis of tourism employment is 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 County also saw an increase in tourism employment between 1990 and 2000 that was slightly greater than that for the state as a whole.

Table 18. Total Labor Income from Forest Resources by County, 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%
Yavapai County	\$4,044,339.13	\$5,661,275.33	39.98%	\$2,229,247.46	\$975,280.64	-56.25%
Assessment Area Total	\$34,603,166.41	\$9,434,863.27	-72.73%	\$2,308,081.66	\$2,438,203.20	5.64%
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, 1990-2000 and % Change

Industry Sector	Coconino County			Yavapai County			Arizona		
	1990	2000	% Change	1990	2000	%Change	1990	2000	%Change
Retail	562	896	59.47%	514	828	60.96%	21,655	30,376	40.28%
Restaurant/Bar	1,054	1,451	37.69%	747	1,241	66.24%	26,393	38,395	45.47%
Lodging	3,812	4,831	26.73%	839	2,157	157.09%	47,848	56,848	18.81%
Amusement	60	121	101.21%	26	112	324.04%	1,442	3,462	140.05%
Total	5,488	7,299	33.00%	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. Initially counties received monies based on a 1908 law that allocated 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 the Act was 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 considered 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 FS lands. Actual PILT payments for each county are presented in Table 21. Despite less entitlement acreage, Yavapai County

has consistently been the largest recipient of PILT payments, averaging \$1.3 million over the last four years.

Annual forest receipts for the period spanning 1986-1999 are presented for each county in Table 22. Since 1986, Coconino County has reported much larger annual forest receipts, averaging over \$2.4 million compared to an annual average of \$546,200 for Yavapai County.

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	605,440	3,269,240	24,083	826,877	0	0	0	0	4,725,640
Yavapai	606,237	1,967,402	12,319	727	0	0	0	0	2,586,685
TOTAL	5,964,893	5,242,129	36,402	2,137,841	320	0	10,005	0	13,391,590

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

Table 21. County PILT Payments, 2000-2004

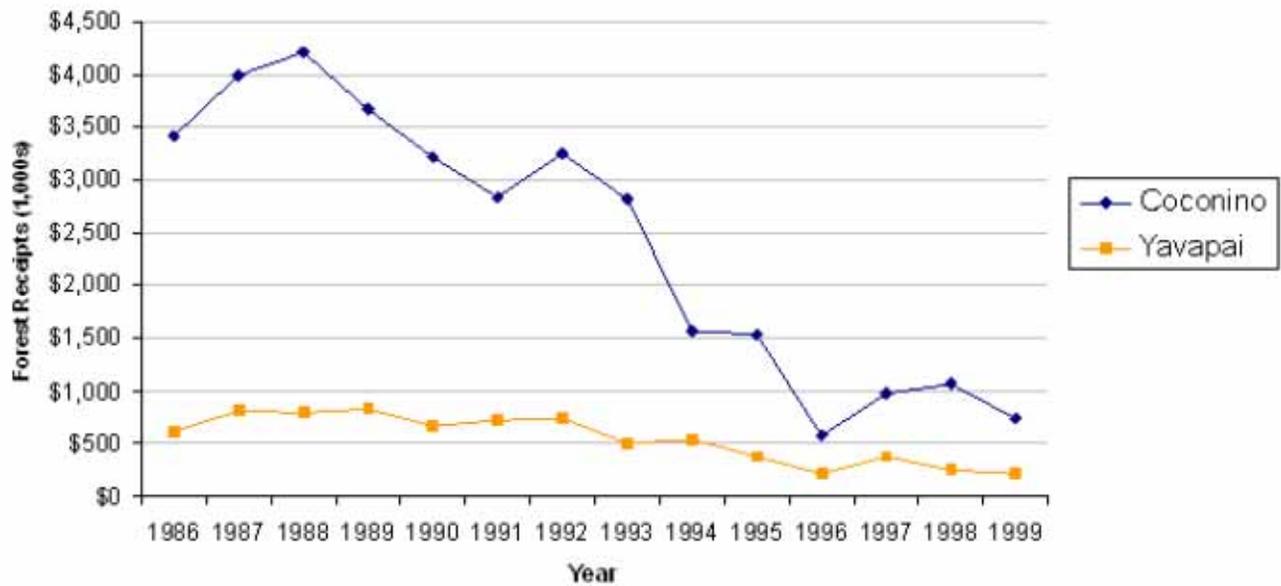
County	2000	2001	2002	2003	2004	Average
Coconino	\$820,879	\$1,260,220	\$1,329,731	\$858,124	\$896,233	\$1,033,037
Yavapai	\$973,796	\$1,417,178	\$1,473,737	\$1,359,624	\$1,280,574	\$1,300,982
TOTAL	\$1,794,675	\$2,677,398	\$2,803,468	\$2,217,748	\$2,176,807	\$2,334,019

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 (Amounts in 1,000s)

County	1986	1987	1988	1989	1990	1991	1992	1993
Coconino	\$3,418.8	\$3,991.3	\$4,208.3	\$3,671.3	\$3,218.2	\$2,839.2	\$3,256.8	\$2,817.3
Yavapai	\$610.9	\$806.9	\$787.5	\$837.5	\$664.5	\$729.2	\$732.2	\$498.8
County	1994	1995	1996	1997	1998	1999	Average	
Coconino	\$1,566.2	\$1,534.2	\$584.4	\$969.9	\$1,058.5	\$735.3	\$2,419.3	
Yavapai	\$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 PNF illustrate this trend, evincing substantial growth in the F.I.R.E. (finance, insurance, and real estate), construction, and service 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).

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 shown by the relatively strong population and economic growth centered in Yavapai County over the past decade, the area surrounding the PNF has seen the expansion of certain populations and industries that are increasingly important to the local economy. In particular, the increases in the retirement-age population and 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 both counties in the area of assessment. This trend takes on increasing relevance when combined with observed demographic trends showing the aforementioned 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 PNF 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).