3. Economic Characteristics and Vitality

In this section, historic and current economic conditions within the five counties surrounding the Kaibab National Forest (KNF) 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 changes 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 KNF has experienced significant economic growth over the past two decades. Washington and Yavapai Counties have been centers of much of this growth with substantial gains in total part-and full-time employment, particularly in the construction, finance, and real estate sectors. In general, employment grew much more slowly in Coconino and Mohave Counties despite specific gains in the agricultural services, wholesale trade, and finance and real estate sectors. In terms of occupational structure, the region's closely resembled those of the states of Arizona and Utah overall with management, professional, and related occupations maintaining primary importance over sales and office as well as service occupations. Despite significant increases in per capita and family income and decreasing rates of poverty, data show that the region remains economically challenged when compared to statewide figures over the same period. Within the area of assessment, Yavapai County appears to be the exception with rates of unemployment and poverty below those for the state of Arizona overall. Mohave and Washington Counties reported particularly strong gains in total labor income from wood products and processing along with decreases in income from special forest products and processing. Increases in income from special forest products and processing were greatest in Kane and Coconino Counties between 1990 and 2000. On the whole, the area of assessment saw significant increases in tourism employment over the same period. In terms of federal-lands related revenue, Mohave 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

The economy of the region surrounding KNF has undergone dramatic changes over the past century. Originally a territory isolated on the borders of a cohering nation, Arizona and Utah, and the West in general, are 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-.5 on the Industrial Diversity Index[1] suggesting that Arizona's economy remains fixated on a limited number of economic outlets such as agriculture and tourism (Sheridan 1995, Canamex 2001, ADOC 2002a). By contrast, Utah, as of 2001, ranked 13th in the country in state economic diversity with an IDI rating of .74 (Office of the Governor of Utah 2001).

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

[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.

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 1.55 to 1. Poverty rates have shifted only slightly in the past three or four decades, remaining between 14-16% in Arizona and between 9-12% in Utah (U.S. Census Bureau 2005, ADOC 2002a).

Over the past thirty to thirty-five years, the primary locus of economical advancement has shifted. Mining, which represented 3% of the Arizona'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 Arizona 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 $27,285 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 KNF are, collectively, some of the more economically challenged compared to those surrounding the other forests in the state but exhibit a far stronger rate of economic growth. The 2002 PPI of the five U.S. counties abutting forest land was $21,993[2], representing a 16.4% differential from the state average at that time, a 5% drop from 1969. Compared to the national averages, the PPI of the counties containing the Kaibab NF represents 71.4% of the national total, down nearly 9% over the past thirty years. Yet, despite the larger setbacks, the thirty-year average rate of income growth in this region is a brisk 11.1%, well above the averages for Arizona (10.1%) and Utah (9%) (BEA 2002). 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 Employment and income 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 the relatively strong growth of Kane, Washington, and Yavapai Counties, particularly when compared to regional and state averages. Washington County experienced the strongest economic growth in the region with a 121.87% increase in total full- and part-time employment between 1990 and 2000. This substantial increase in employment for Washington County was buoyed by strong gains in wage and salary employment as well as proprietor's employment. In northern Arizona, Coconino County saw a substantial increase in proprietor's employment during the same period. Washington County clearly experienced the most dramatic increases in employment, outpacing growth at the state level in virtually every industrial sector. The greatest increases in Washington County were seen in the agricultural services and the forest, construction, and finance/real estate sectors. In Arizona, Yavapai led other counties in the region with substantial job gains in wholesale trade, construction, finance/real estate, and services. Coconino County also saw increases in employment in the wholesale trade and finance/real estate sectors, but these gains were partially offset by job losses in farming and manufacturing. Mohave County also lost farming jobs but experienced incremental employment increases in both mining and wholesale trade. In Kane County, Utah, the decade between 1990 and 2000 saw relatively strong increases in both private and non-farm employment with some of the greatest growth coming in government and government enterprises as a result of federal, civilian employment.

[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 12 displays the percentage of employment in each industry at the state and county levels as well as the percentage change between 1990 and 2000. Despite declines in proprietor's employment in four of the five counties, each maintained a higher percentage of proprietor's employment than that of its respective state. Kane County, Utah was the only county that maintained a significant percentage of farming jobs despite a decrease in the sector's importance for overall employment. Each of the five counties exceeded state averages for percentage of employment in retail trade while Coconino and Kane Counties maintained a relatively high percentage of jobs in the government and government enterprises sector.

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

	Coconino County			Mohave County			Yavapai County			Kane County, UT		
	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%	37,255	54,637	46.66%	42,555	70,286	65.17%	2,388	3,744	56.78%
By type												
Wage and salary employment	41,079	55,639	35.44%	28,298	43,017	52.01%	29,717	51,881	74.58%	1,720	2,714	57.79%
Proprietors employment	7,898	14,647	85.45%	8,957	11,620	29.73%	12,838	18,405	43.36%	668	1,030	54.19%
Farm proprietors employment	276	204	-26.09%	226	247	9.29%	509	527	3.54%	140	163	16.43%
Non-farm proprietors employment	7,622	14,443	89.49%	8,731	11,373	30.26%	12,329	17,878	45.01%	528	867	64.20%
By industry												
Farm employment	313	254	-18.85%	342	327	-4.39%	598	752	25.75%	163	175	7.36%
Non-farm employment	48,664	70,032	43.91%	36,913	54,310	47.13%	41,957	69,534	65.73%	2,225	3,569	60.40%
Private employment	36,864	54,305	47.31%	32,380	46,839	44.65%	35,585	59,510	67.23%	1,731	2,862	65.34%
Ag. services, forestry, fishing and other	(D)	510	n/a	378	628	66.14%	531	1,017	91.53%	17	(D)	n/a
Mining	(D)	159	n/a	101	145	43.56%	1,107	1,184	6.96%	(D)	(L)	n/a
Construction	2,363	4,014	69.87%	4,189	5,412	29.20%	3,877	7,302	88.34%	79	(D)	n/a
Manufacturing	3,562	2,985	-16.20%	2,771	3,506	26.52%	2,847	4,189	47.14%	103	(D)	n/a
Transportation and public utilities	1,979	1,957	-1.11%	1,553	2,434	56.73%	1,454	1,866	28.34%	88	105	19.32%
Wholesale trade	801	1,378	72.03%	863	1,468	70.10%	895	2,031	126.93%	31	42	35.48%
Retail trade	10,862	15,266	40.55%	9,030	13,072	44.76%	9,168	13,592	48.25%	605	787	30.08%
Finance, insurance, and real estate	2,052	4,674	127.78%	3,321	4,335	30.53%	3,431	6,216	81.17%	(D)	268	n/a
Services	14,837	23,362	57.46%	10,174	15,839	55.68%	12,275	22,113	80.15%	676	1,009	49.26%
Government and government enterprises	11,800	15,727	33.28%	4,533	7,471	64.81%	6,372	10,024	57.31%	494	707	43.12%
Federal, civilian	3,054	3,322	8.78%	366	546	49.18%	1,076	1,198	11.34%	55	109	98.18%
Military	378	283	-25.13%	357	360	0.84%	414	394	-4.83%	40	31	-22.50%
State and local	8,368	12,122	44.86%	3,810	6,565	72.31%	4,882	8,432	72.72%	399	567	42.11%
State government	3,560	(D)	n/a	324	(D)	n/a	652	(D)	n/a	57	59	3.51%
Local government	4,808	(D)	n/a	3,486	(D)	n/a	4,230	(D)	n/a	342	508	48.54%

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

	Washington County, UT			Arizona			Utah		
	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change
Employment by place of work									
Total full-time and part-time employment	21,432	47,552	121.87%	1,909,879	2,819,302	47.62%	944,329	1,387,847	46.97%
By type									
Wage and salary employment	15,903	35,549	123.54%	1,607,628	2,355,299	46.51%	778,155	1,134,757	45.83%
Proprietors employment	5,529	12,003	117.09%	302,251	464,003	53.52%	166,174	253,090	52.30%
Farm proprietors employment	412	502	21.84%	8,027	7,572	-5.67%	13,771	15,748	14.36%
Non-farm proprietors employment	5,117	11,501	124.76%	294,224	456,431	55.13%	152,403	237,342	55.73%
By industry									
Farm employment	462	542	17.32%	19,297	19,842	2.82%	19,148	20,380	6.43%
Non-farm employment	20,970	47,010	124.18%	1,890,582	2,799,460	48.07%	925,181	1,367,467	47.81%
Private employment	18,126	41,930	131.33%	1,583,146	2,410,566	52.26%	754,468	1,163,728	54.24%
Ag. services, forestry, fishing and other	229	584	155.02%	27,817	46,873	68.50%	6,093	11,960	96.29%
Mining	130	215	65.38%	15,475	12,607	-18.53%	9,587	9,293	-3.07%
Construction	1,742	5,415	210.85%	108,918	200,373	83.97%	43,407	93,991	116.53%
Manufacturing	1,708	2,650	55.15%	194,529	225,767	16.06%	111,846	136,857	22.36%
Transportation and public utilities	1,011	2,054	103.17%	84,360	124,954	48.12%	46,493	67,540	45.27%
Wholesale trade	552	1,168	111.59%	82,812	122,582	48.02%	42,938	57,241	33.31%
Retail trade	4,768	11,008	130.87%	344,297	484,207	40.64%	157,440	233,707	48.44%
Finance, insurance, and real estate	1,771	5,107	188.37%	170,005	281,675	65.69%	69,241	132,075	90.75%
Services	6,215	13,729	120.90%	544,933	911,528	67.27%	267,423	421,064	57.45%
Government and government enterprises	2,844	5,080	78.62%	307,436	388,894	26.50%	170,713	203,739	19.35%
Federal, civilian	284	504	77.46%	45,843	48,135	5.00%	39,894	32,488	-18.56%
Military	385	468	21.56%	38,197	33,258	-12.93%	19,399	16,255	-16.21%
State and local	2,175	4,108	88.87%	223,396	307,501	37.65%	111,420	154,996	39.11%
State government	438	739	68.72%	61,595	81,026	31.55%	44,018	61,687	40.14%
Local government	1,737	3,369	93.96%	161,801	226,475	39.97%	67,402	93,309	38.44%

(D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.
(L) Less than 10 jobs, 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

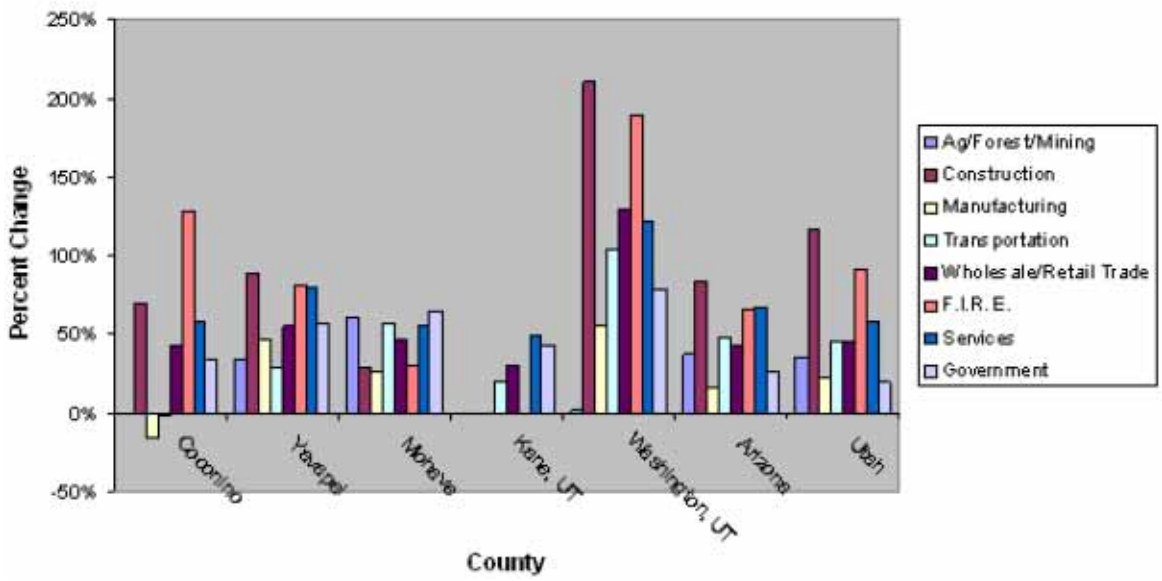
Table 12. County and State Employment by Industry Percentages, 1990-2000 and % Change

	Coconino County			Mohave County			Yavapai County			Kane County, UT		
	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%	75.96%	78.73%	3.65%	69.83%	73.81%	5.70%	72.03%	72.49%	0.64%
Proprietors employment	16.13%	20.84%	29.23%	24.04%	21.27%	-11.54%	30.17%	26.19%	-13.20%	27.97%	27.51%	-1.65%
Farm proprietors employment	0.56%	0.29%	-48.50%	0.61%	0.45%	-25.48%	1.20%	0.75%	-37.31%	5.86%	4.35%	-25.74%
Non-farm proprietors employment	15.56%	20.55%	32.04%	23.44%	20.82%	-11.18%	28.97%	25.44%	-12.20%	22.11%	23.16%	4.73%
By industry					0.00%							
Farm employment	0.64%	0.36%	-43.45%	0.92%	0.60%	-34.80%	1.41%	1.07%	-23.86%	6.83%	4.67%	-31.52%
Non-farm employment	99.36%	99.64%	0.28%	99.08%	99.40%	0.32%	98.59%	98.93%	0.34%	93.17%	95.33%	2.31%
Private employment	75.27%	77.26%	2.65%	86.91%	85.73%	-1.37%	83.62%	84.67%	1.25%	72.49%	76.44%	5.46%
Ag. services, forestry, fishing and other	n/a	0.73%	n/a	1.01%	1.15%	13.28%	1.25%	1.45%	15.96%	0.71%	n/a	n/a
Mining	n/a	0.23%	n/a	0.27%	0.27%	-2.11%	2.60%	1.68%	-35.24%	n/a	n/a	n/a
Construction	4.82%	5.71%	18.37%	11.24%	9.91%	-11.91%	9.11%	10.39%	14.03%	3.31%	n/a	n/a
Manufacturing	7.27%	4.25%	-41.61%	7.44%	6.42%	-13.73%	6.69%	5.96%	-10.91%	4.31%	n/a	n/a
Transportation and public utilities	4.04%	2.78%	-31.09%	4.17%	4.45%	6.87%	3.42%	2.65%	-22.30%	3.69%	2.80%	-23.90%
Wholesale trade	1.64%	1.96%	19.88%	2.32%	2.69%	15.99%	2.10%	2.89%	37.39%	1.30%	1.12%	-13.59%
Retail trade	22.18%	21.72%	-2.06%	24.24%	23.93%	-1.29%	21.54%	19.34%	-10.24%	25.34%	21.02%	-17.03%
Finance, insurance, and real estate	4.19%	6.65%	58.72%	8.91%	7.93%	-10.99%	8.06%	8.84%	9.69%	n/a	7.16%	n/a
Services	30.29%	33.24%	9.72%	27.31%	28.99%	6.15%	28.85%	31.46%	9.07%	28.31%	26.95%	-4.80%
Government and government enterprises	24.09%	22.38%	-7.13%	12.17%	13.67%	12.38%	14.97%	14.26%	-4.75%	20.69%	18.88%	-8.72%
Federal, civilian	6.24%	4.73%	-24.20%	0.98%	1.00%	1.72%	2.53%	1.70%	-32.59%	2.30%	2.91%	26.40%
Military	0.77%	0.40%	-47.83%	0.96%	0.66%	-31.24%	0.97%	0.56%	-42.38%	1.68%	0.83%	-50.57%
State and local	17.09%	17.25%	0.94%	10.23%	12.02%	17.49%	11.47%	12.00%	4.57%	16.71%	15.14%	-9.36%
State government	7.27%	n/a	n/a	0.87%	n/a	n/a	1.53%	n/a	n/a	2.39%	1.58%	-33.98%
Local government	9.82%	n/a	n/a	9.36%	n/a	n/a	9.94%	n/a	n/a	14.32%	13.57%	-5.26%

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

	Washington County, UT			Arizona			Utah		
	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	74.20%	74.76%	0.75%	84.17%	83.54%	-0.75%	82.40%	81.76%	-0.78%
Proprietors employment	25.80%	25.24%	-2.16%	15.83%	16.46%	4.00%	17.60%	18.24%	3.63%
Farm proprietors employment	1.92%	1.06%	-45.08%	0.42%	0.27%	-36.10%	1.46%	1.13%	-22.19%
Non-farm proprietors employment	23.88%	24.19%	1.30%	15.41%	16.19%	5.09%	16.14%	17.10%	5.97%
By industry									
Farm employment	2.16%	1.14%	-47.12%	1.01%	0.70%	-30.34%	2.03%	1.47%	-27.58%
Non-farm employment	97.84%	98.86%	1.04%	98.99%	99.30%	0.31%	97.97%	98.53%	0.57%
Private employment	84.57%	88.18%	4.26%	82.89%	85.50%	3.15%	79.89%	83.85%	4.95%
Ag. services, forestry, fishing and other	1.07%	1.23%	14.94%	1.46%	1.66%	14.15%	0.65%	0.86%	33.56%
Mining	0.61%	0.45%	-25.46%	0.81%	0.45%	-44.81%	1.02%	0.67%	-34.04%
Construction	8.13%	11.39%	40.10%	5.70%	7.11%	24.62%	4.60%	6.77%	47.34%
Manufacturing	7.97%	5.57%	-30.07%	10.19%	8.01%	-21.38%	11.84%	9.86%	-16.74%
Transportation and public utilities	4.72%	4.32%	-8.43%	4.42%	4.43%	0.34%	4.92%	4.87%	-1.15%
Wholesale trade	2.58%	2.46%	-4.63%	4.34%	4.35%	0.28%	4.55%	4.12%	-9.29%
Retail trade	22.25%	23.15%	4.06%	18.03%	17.17%	-4.73%	16.67%	16.84%	1.00%
Finance, insurance, and real estate	8.26%	10.74%	29.97%	8.90%	9.99%	12.24%	7.33%	9.52%	29.79%
Services	29.00%	28.87%	-0.44%	28.53%	32.33%	13.32%	28.32%	30.34%	7.13%
Government and government enterprises	13.27%	10.68%	-19.49%	16.10%	13.79%	-14.31%	18.08%	14.68%	-18.79%
Federal, civilian	1.33%	1.06%	-20.02%	2.40%	1.71%	-28.87%	4.22%	2.34%	-44.59%
Military	1.80%	0.98%	-45.21%	2.00%	1.18%	-41.02%	2.05%	1.17%	-42.98%
State and local	10.15%	8.64%	-14.87%	11.70%	10.91%	-6.75%	11.80%	11.17%	-5.35%
State government	2.04%	1.55%	-23.96%	3.23%	2.87%	-10.89%	4.66%	4.44%	-4.64%
Local government	8.10%	7.08%	-12.58%	8.47%	8.03%	-5.18%	7.14%	6.72%	-5.80%

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 Arizona Department of Commerce 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 four of the five counties within the area of assessment maintain occupational structures very similar to those of the states of Arizona and Utah as a whole. "Management, professional, and related occupations" is the dominant occupational category for both states, followed by sales and office occupations and, finally, by service occupations. Management/professional and sales/office are the two most common occupational areas in Coconino, Yavapai, Kane, and Washington Counties. The exception is Mohave County, where sales/office occupations were most dominant followed by service occupations. For both the states of Arizona and Utah as well as 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 occupations as of 2004.

Table 15 presents annual unemployment rates for counties, the states of Arizona and Utah, and the United States as well as decennial unemployment for selected cities within the area of assessment. During the period, average unemployment ranged from a high of 7.2% in Coconino County to a low of 3.8% in Washington County. In fact, both Yavapai and Washington Counties reported average unemployment rates that were well below those of their respective states over the same period. Within the area of assessment, Yavapai County appears to have made the greatest gains in employment with most cities reporting net decreases in unemployment over the period covered.

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 near or above increases at the state level for four of the five counties within the area of assessment. Despite these increases, however, per capita and median family income remained lower than the state averages in each of the counties as of 2000. A similar trend is evident in individual and family poverty between 1990 and 2000. Kane, Coconino, and Yavapai Counties each saw substantial declines in individual and family poverty that were greater than the reductions in poverty at the state level over the ten-year period. Kane County reported dramatic cuts in the percentages of individual and family poverty (-51.53% and -58.65% respectively). Nonetheless, Coconino and Washington Counties remain economically challenged with

incomes below and rates of poverty well above those for the state of Arizona and Utah respectively. 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. The city of Kanab mirrored the trend for Kane County as a whole, reporting substantial cuts in both individual and family poverty over the ten-year period.

Household income distribution for each county is presented in Table 17. The economic status of households in Mohave County appears to be the most limited with 18.7% of households earning less than $15,000 per year. Mohave County also reported the lowest median household income at $31,521. Median household income was highest in Coconino County at $38,256. Coconino County was also the most affluent of the five counties with 8.5% of households earning $100,000 or more as of 2000.

Table 13. Major Employers by County, 2004

Coconino County	Mohave County	Yavapai County
ARA Leisure Services, Page	American Woodmark Corporation, Kingman	Ace hardware, Prescott Valley
City of Flagstaff	Cyprus Climax Metals Co., Kingman	APS, Prescott
Coconino Community College, Flagstaff	Ford Proving Grounds, Yucca	The Arbors, Camp Verde
Coconino County, Flagstaff	General Cable, Kingman	Atria & Kachina Point Assisted Living Retirement, Sedona
Flagstaff Unified School District, Flagstaff	Goodyear, Kingman	Camp Verde Public Schools, Camp Verde
Flagstaff Medical Center, Flagstaff	Guardian Fiber Glass, Kingman	Caradon Better Bilt, Prescott Valley
Grand Canyon Railways, Williams	Havasu Regional Hospital, Lake Havasu City	Chino Valley Unified Schools District # 51
Kaibab National Forest, Williams	Home Depot, Bullhead City, Lake Havasu	Cliff Castle Casino
National Park Service, Page	IWX Motor Freight, Kingman	City of Cottonwood
Navajo Generating Station, Page	Kingman Regional Medical Center, Kingman	Cottonwood/Oak Creek School
Navajo Government Executive Branch, Navajo Nation	Laidlaw Corp., Kingman	Cyprus Bagdad Copper Corporation, Bagdad
Navajo Tribal Utility Authority, Navajo Nation	Mohave Community College	Double Tree Sedona Resort, Sedona
Northern Arizona University, Flagstaff	McKee Foods, Kingman	Embry-Riddle Aeronautical University
Pittsburg & Midway Coal Mining Co., Navajo Nation	Lake Havasu City	Enchantment Resort, Sedona
Nestle Purina Petcare, Flagstaff	Mohave County , Kingman	Humboldt Unified School District
Samaritan Family Health Center, Grand Canyon	Praxair Inc., Kingman	Exsil Inc.
Tooh-Dineh Industries, Leupp	Silver Ridge Village, Bullhead City	Los Abrigados Resort, Sedona
Tuba City Indian Medical Center	Smith's Food and Drug Centers, Kingman	Mingus Union High School District
Tuba City Unified School District #15	Sterlite Corporation	Phelps and Sons Trusses, Cottonwood
Walgreens Distribution	True Serv	Phoenix Cement Company, Clarkdale
Wal-Mart, Flagstaff and Page	Wal-Mart, Bullhead City/Lake Havasu City	City of Prescott
Window Rock Unified School District	West Coast Netting, Kingman	Prescott Resort
SCA Tissue, Flagstaff	Western Arizona Regional, Bullhead City	Prescott Unified School District
W.L. Gore and Associates, Inc., Flagstaff		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 Admin. Medical Center, Prescott
		Verde Valley Medical Center, Cottonwood
		Wal-Mart, Cottonwood and Prescott
		West Yavapai Guidance Clinic, Prescott
		Wulfsberg Electronics, Prescott
		Yavapai Community College
		Yavapai County
		Yavapai Gaming Agency
		Yavapai Regional Medical Center, Prescott

Kane County , UT	Washington County , UT
Aramark Sports and Entertainment, Lake Powell Resorts/Marina	Washington School District
Stampin Up	Dixie Regional Medical Center
Thunderbird Restaurant and Motel	Wal-Mart
Kane County	Dixie College
Kane County School District	City of St. George
Federal Government	Federal Government
State of Utah	Washington County
City of Kanab	Andrus Trucking
Best Friends Animal Sanctuary	SkyWest Airlines
Kane County Hospital	Lin's Supermarket
Honey IGA Supercenter	Sunroc Corporation
Glazier's Food Town	McDonald's
	Albertson's
	Boulevard Furniture

Source: Arizona Department of Commerce - Community Profiles
http://www.azcommerce.com/Communities/community_profiles.asp
http://governor.utah.gov/dea/WrittenProfiles.PDF

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%
Mohave County		
Sales and office occupations	16,892	27.9%
Service occupations	15,237	25.2%
Management, professional, and related occupations	12,366	20.4%
Construction, extraction, and maintenance occupations	7,989	13.2%
Production, transportation, and material moving occupations	7,772	12.8%
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%
Kane County ,UT		
Management, professional, and related occupations	779	29.2%
Sales and office occupations	651	24.4%
Service occupations	480	18.0%
Construction, extraction, and maintenance occupations	409	15.3%
Production, transportation, and material moving occupations	315	11.8%
Washington County, UT		
Sales and office occupations	9,799	27.5%
Management, professional, and related occupations	9,575	26.9%
Service occupations	6,517	18.3%
Construction, extraction, and maintenance occupations	4,914	13.8%
Production, transportation, and material moving occupations	4,693	13.2%
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%
Utah		
Management, professional, and related occupations	339,310	32.5%
Sales and office occupations	301,566	28.9%
Service occupations	145,862	14.0%
Production, transportation, and material moving occupations	141,334	13.5%
Construction, extraction, and maintenance occupations	110,873	10.6%

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%
Mohave County	6.6%	5.0%	8.7%	6.7%	7.2%	5.3%	4.3%	4.6%	4.2%	4.5%	5.6%	4.9%	3.9%	5.5%
Lake Havasu City	5.6%	2.7%	4.7%	3.6%	3.9%	2.8%	2.3%	2.5%	2.2%	2.4%	3.0%	2.6%	2.0%	3.1%
Bullhead City	7.1%	5.6%	9.6%	7.5%	8.0%	5.9%	4.8%	5.2%	4.7%	5.0%	6.2%	5.4%	4.3%	6.1%
Kingman	6.4%	3.4%	5.8%	4.5%	4.8%	3.5%	2.9%	3.1%	2.8%	3.0%	3.7%	3.2%	2.6%	3.8%
New Kingman	n/a	7.2%	12.2%	9.5%	10.2%	7.6%	6.2%	6.6%	6.1%	6.5%	7.9%	6.9%	5.5%	7.7%
Colorado City	n/a	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
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%
Kane County, UT	7.1%	6.9%	7.5%	8.7%	7.5%	4.8%	3.9%	3.9%	3.1%	3.5%	4.2%	4.6%	5.0%	5.4%
Kanab**	n/a	6.8%	n/a	n/a	n/a	n/a	n/a	n/a	4.3%	n/a	n/a	n/a	n/a	5.6%
Washington County, UT	5.1%	4.8%	2.4%	3.3%	3.6%	3.3%	3.8%	3.6%	3.2%	3.8%	4.5%	4.4%	3.9%	3.8%
St. George	4.2%	4.2%	3.2%	3.6%	3.9%	3.6%	4.1%	4.0%	3.5%	4.1%	4.9%	4.8%	4.2%	4.0%
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%
Utah	6.3%	4.3%	3.7%	3.6%	3.5%	3.1%	3.8%	3.7%	3.2%	4.4%	6.1%	5.6%	4.4%	4.3%
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

**Bureau of Labor Statistics publishes annual unemployment figures only for cities with populations greater than 25,000 individuals

Source: Arizona Department of Commerce, Arizona Workforce Informer
http://www.workforce.az.gov/cgi/dataanalysis/?PAGEID=94&SUBID=142
Utah Economic Data Viewer:
http://jobs.utah.gov/jsp/wi/utalmis/almisLaborforce/areaMap.jsp#
U.S. Department of Labor, Bureau of Labor Statistics
http://www.bls.gov/lau/home.htm#data

Table 16. Per Capita and Family Income by County and State

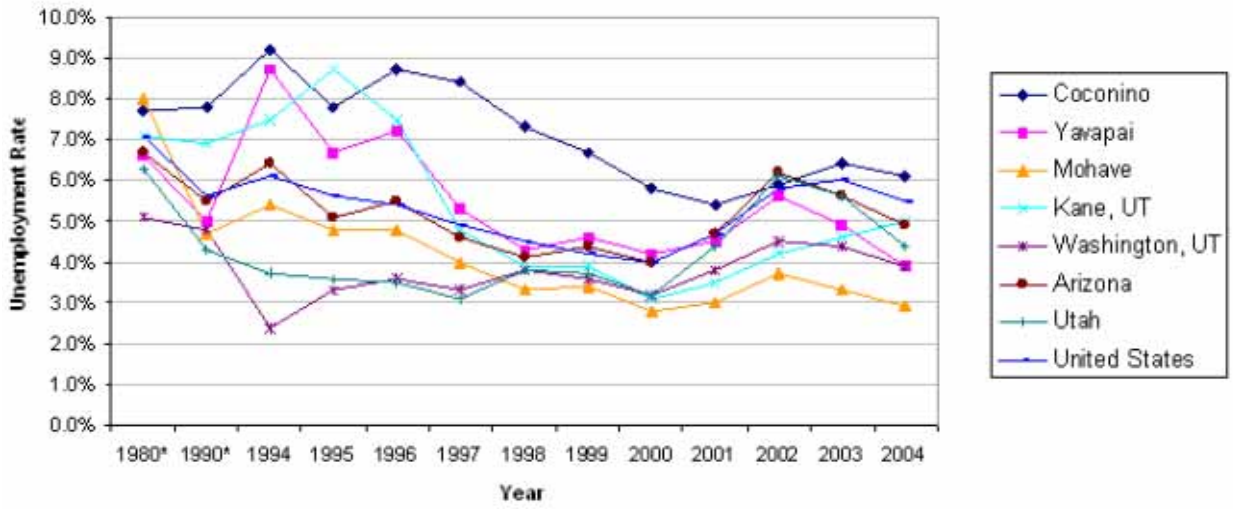
County/Place	Per Capita Income			Median Family Income			% Individuals in Poverty			% Families in Poverty		
	1990	2000*	% Change	1990	2000*	% Change	1990	2000	% Change	1990	2000	% Change
Coconino County	$10,580	$13,004	22.91%	$30,648	$34,805	13.56%	23.1%	18.2%	-21.21%	16.9%	13.1%	-22.49%
Flagstaff	$11,517	$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%
Mohave County	$11,933	$12,737	6.74%	$27,010	$27,550	2.00%	14.2%	13.9%	-2.1%	8.7%	9.8%	12.6%
Lake Havasu City	$14,418	$15,480	7.37%	$31,639	$31,406	-0.74%	8.1%	9.5%	17.28%	5.1%	6.6%	29.41%
Bullhead City	n/a	$12,329	n/a	n/a	$25,731	n/a	n/a	15.1%	n/a	n/a	11.3%	n/a
Kingman	$12,721	$13,036	2.47%	$31,458	$31,356	-0.32%	9.4%	11.6%	23.40%	5.5%	8.2%	49.09%
New Kingman	$9,469	$10,618	12.13%	$21,861	$23,652	8.19%	15.0%	18.2%	21.33%	11.5%	13.3%	15.65%
Colorado City	$2,319	$4,016	73.18%	$15,179	$24,540	61.67%	68.4%	31.9%	-53.36%	61.0%	29.0%	-52.46%
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%
Kane County, UT	$8,721	$11,726	34.46%	$24,904	$30,372	21.96%	16.30%	7.90%	-51.53%	13.30%	5.50%	-58.65%
Kanab	$8,956	$12,237	36.63%	$26,862	$30,939	15.18%	13.0%	5.6%	-56.92%	11.3%	4.0%	-64.60%
Washington County, UT	$9,450	$12,043	27.44%	$27,690	$31,749	14.66%	13.3%	11.2%	-15.79%	9.2%	7.7%	-16.30%
St. George	$10,520	$17,022	61.81%	$29,802	$41,788	40.22%	12.7%	11.6%	-8.66%	7.9%	7.4%	-6.33%
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%
Utah	$11,029	$13,797	25.10%	$33,246	$38,712	16.44%	11.40%	9.40%	-17.54%	8.60%	6.50%	-24.42%

*2000 Income data adjusted to reflect 1990 constant dollars by applying deflation factor calculated by Consumer Price Index
Source: NRIS - Human Dimensions

Table 17. Household Income Distribution by County, 2000

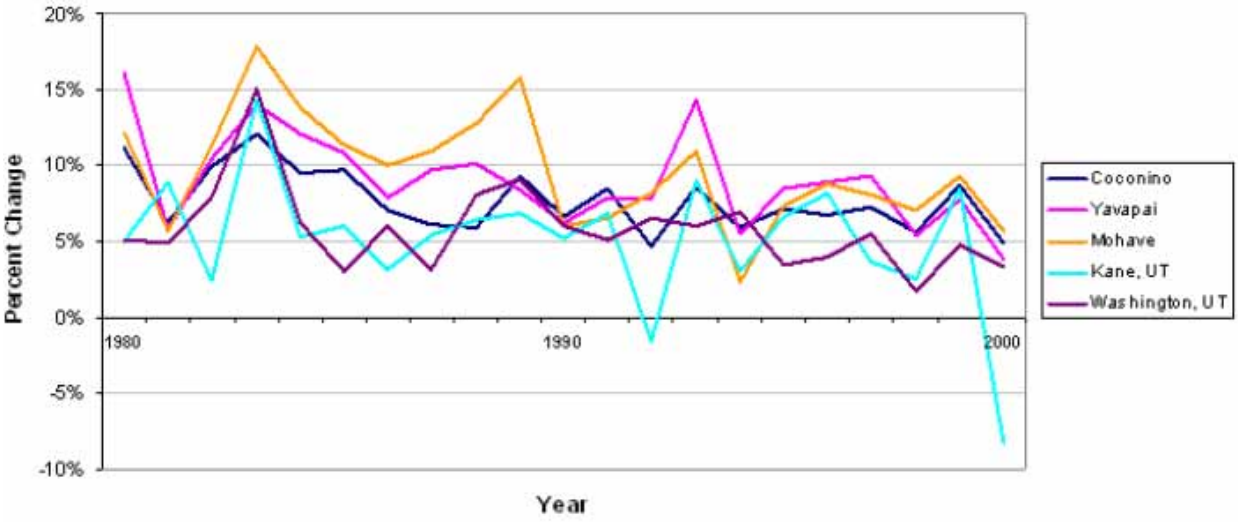
Household Income	Coconino County		Mohave County		Yavapai County		Kane County, UT		Washington County, UT	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than $10,000	4,285	10.60%	6,123	9.80%	6,298	9.00%	187	8.40%	2,001	6.70%
$10,000 to $14,999	2,838	7.00%	5,617	8.90%	5,692	8.10%	138	6.20%	1,966	6.60%
$15,000 to $24,999	5,670	14.00%	12,343	19.70%	12,019	17.20%	421	18.80%	4,850	16.20%
$25,000 to $34,999	5,542	13.70%	10,695	17.00%	11,115	15.90%	394	17.60%	4,902	16.40%
$35,000 to $49,999	7,018	17.40%	11,612	18.50%	13,098	18.70%	484	21.60%	6,297	21.00%
$50,000 to $74,999	7,661	19.00%	9,529	15.20%	11,709	16.70%	404	18.10%	5,785	19.30%
$75,000 to $99,999	3,950	9.80%	3,906	6.20%	4,924	7.00%	135	6.00%	2,112	7.00%
$100,000 to $149,999	2,349	5.80%	1,962	3.10%	3,285	4.70%	56	2.50%	1,413	4.70%
$150,000 to $199,999	555	1.40%	388	0.60%	762	1.10%	7	0.30%	305	1.00%
$200,000 or more	518	1.30%	621	1.00%	1,167	1.70%	10	0.40%	339	1.10%
Median household income ($)	$38,256	(x)	$31,521	(x)	$34,901	(x)	$34,247	(X)	$37,212	(X)

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



Source: Arizona Department of Commerce, Arizona Workforce Informer

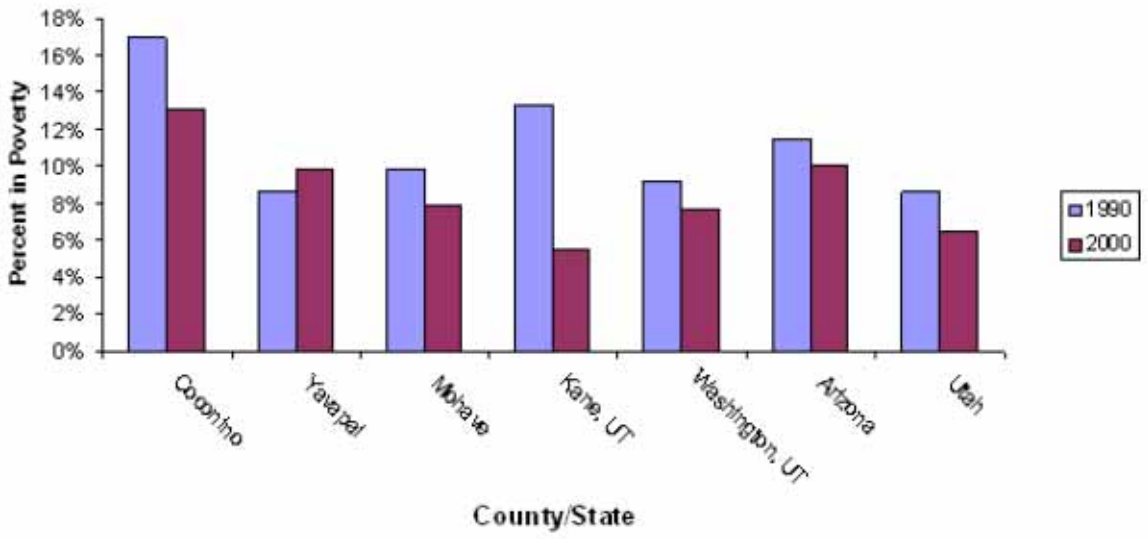
Figure 10. Unemployment Rates by County and State, 1980-2004



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

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 five counties during the ten-year period. Mohave and Washington Counties both reported dramatic increases in total labor income from wood processing and products between 1990 and 2000 (461% and 156% respectively) while Coconino and Kane Counties reported substantial decreases in the same category as a result of lost income from millwork, paper mills, logging, and

sawmills. The gains in Mohave and Washington Counties were largely the result of increases in income from millwork, wood and kitchen cabinets, structural wood members, and wood household furniture. Meanwhile, Kane and Coconino Counties both saw dramatic growth in total labor income from special forest products and processing (3,993% and 1,755% respectively) resulting from increases in agriculture, forestry, and fishery services. However, for the entire area of assessment, these gains were offset by income losses in the same category for the other three counties over the decade.

Information on tourism employment for all five 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, the 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 AZOT. Table 19 suggests that the strongest gains in tourism employment between 1990 and 2000 occurred in Kane, Washington, and Yavapai Counties. Kane County reported particularly strong gains in employment in lodging and amusement, contributing to an overall increase in tourism employment that far exceeded that of neighboring counties and the states of Arizona and Utah. Washington and Yavapai Counties also saw increases in tourism employment between 1990 and 2000 that were significantly greater than average for their respective states.

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

County / State	Income from Wood Products and Processing			Income From Special Forest Products and Processing		
	1990	2000	%Change	1990	2000	%Change
Coconino County	$30,558,827	$3,773,588	-87.65%	$78,834	$1,462,923	1,755.70%
Mohave County	$3,001,246	$16,838,392	461.05%	$711,194	$263,278	-62.98%
Yavapai County	$4,044,339	$5,661,275	39.98%	$2,229,247	$975,281	-56.25%
Kane County , UT	$590,510	$165,501	-71.97%	$25,926	$1,061,369	3,993.87%
Washington County, UT	$3,783,682	$9,689,287	156.08%	$594,512	$142,004	-76.11%
Assessment Area Total	**$41,980,594**	**$36,130,043**	**-13.94%**	**$3,641,704**	**$3,906,854**	**7.28%**
Arizona	$263,558,989	$369,474,539	40.19%	$175,994,087	$137,825,248	-21.69%
Utah	$156,598,593	$248,444,947	58.65%	$8,134,462	$8,811,387	8.32%

*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

	Coconino County			Mohave County		
Industry Sector	**1990**	**2000**	**%Change**	**1990**	**2000**	**%Change**
Retail	562	896	59.47%	590	830	40.74%
Restaurant/Bar	1,054	1,451	37.69%	612	968	58.16%
Lodging	3,812	4,831	26.73%	1,876	1,344	-28.35%
Amusement	60	121	101.21%	41	50	22.54%
Total	**5,488**	**7,299**	**33.00%**	**3,119**	**3,193**	**2.36%**

	Yavapai County			Kane County, UT		
Industry Sector	**1990**	**2000**	**%Change**	**1990**	**2000**	**%Change**
Retail	514	828	60.96%	32	39	22.80%
Restaurant/Bar	747	1,241	66.24%	63	96	53.17%
Lodging	839	2,157	157.09%	7	214	3,118.59%
Amusement	26	112	324.04%	1	23	2,407.86%
Total	**2,126**	**4,338**	**104.02%**	**102**	**371**	**265.10%**

	Washington County, UT			Arizona		
Industry Sector	**1990**	**2000**	**%Change**	**1990**	**2000**	**%Change**
Retail	304	756	148.72%	21,655	30,376	40.28%
Restaurant/Bar	337	699	107.50%	26,393	38,395	45.47%
Lodging	817	1,656	102.75%	47,848	56,848	18.81%
Amusement	16	25	54.84%	1,442	3,462	140.05%
Total	**1,474**	**3,137**	**112.78%**	**97,338**	**129,081**	**32.61%**

	Utah		
Industry Sector	**1990**	**2000**	**%Change**
Retail	10,145	15,575	49.54%
Restaurant/Bar	10,728	16,341	52.32%
Lodging	13,690	21,542	57.35%
Amusement	653	1,544	136.33%
Total	**35,486**	**55,002**	**54.99%**

Source: IMPLAN 2000 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 the 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 considered by Congress (S. 267, H.R. 517).

PILT entitlement acreage is presented for each county in Table 20. Mohave County holds by far the most entitlement acreage with over 6 million acres, only 5,487 of which are Forest Service lands. Coconino County holds the largest amount of FS lands entitled to PILT with over 3.2 million acres. Actual PILT payments for each county are presented in Table 21. Consistent with its abundance of entitlement acreage, Mohave County has consistently been the largest recipient of PILT payments, averaging $1.56 million over the last four years. Both Yavapai and Washington Counties averaged $1.3 million in annual PILT payments over the same period. Kane County reported the lowest average annual PILT payments at $431,395 between 2000 and 2004.

Annual forest receipts for the years 1986-1999 are presented for each county in Table 22. Coconino County reported by far the greatest amount in forest receipts with an annual average of over $2.4 million. In contrast, Mohave County reported the lowest amount in annual forest receipts with an average of $3,400 over the same period.

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
Mohave County	4,753,216	5,487	0	1,310,237	320	0	10,005	0	6,079,265
Yavapai County	606,237	1,967,402	12,319	727	0	0	0	0	2,586,685
Kane County, UT	1,589,997	121,204	131,132	459,558	0	0	0	0	2,301,891
Washington County , UT	634,343	393,358	0	120,872	0	0	0	0	1,148,573
TOTAL	8,189,233	5,756,691	167,534	2,718,271	320	0	10,005	0	16,842,054

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 County	$820,879	$1,260,220	$1,329,731	$858,124	$896,233	$1,033,037
Mohave County	$1,052,149	$1,509,613	$1,584,701	$1,818,201	$1,869,675	$1,566,868
Yavapai County	$973,796	$1,417,178	$1,473,737	$1,359,624	$1,280,574	$1,300,982
Kane County, UT	$292,000	$420,052	$432,522	$499,106	$513,297	$431,395
Washington County , UT	$885,447	$1,270,856	$1,324,136	$1,516,570	$1,556,724	$1,310,747
TOTAL	$4,024,271	$5,877,919	$6,144,827	$6,051,625	$6,116,503	$5,643,029

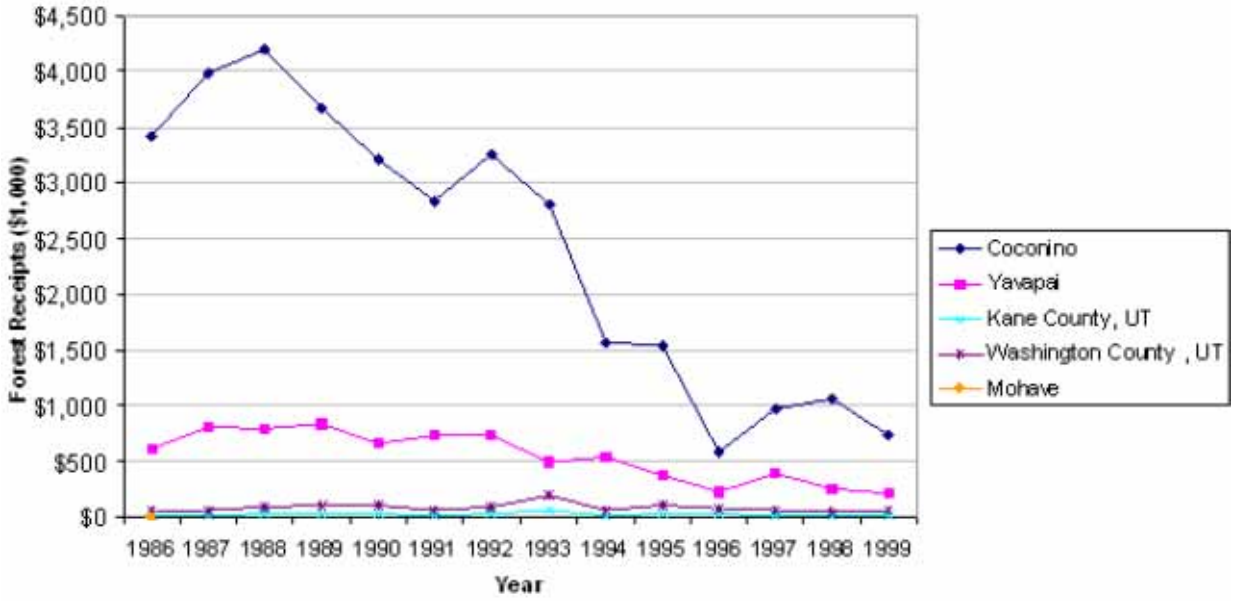
Source: U.S. Department of the Interior, Bureau of Land Management
http://www.blm.gov/pilt/search.html

Table 22. Forest Receipts by County, 1986-1999 (Amounts in 1,000s)

County	1986	1987	1988	1989	1990	1991	1992	1993
Coconino 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
Mohave County	$5.9	$5.4	$5.8	$4.1	$4.7	$2.6	$3.8	$4.3
Yavapai County	$610.9	$806.9	$787.5	$837.5	$664.5	$729.2	$732.2	$498.8
Kane County, UT	$17.5	$19.9	$26.7	$32.6	$31.6	$20.6	$28.0	$63.4
Washington County , UT	$55.4	$63.0	$84.8	$103.6	$100.5	$65.5	$88.8	$201.4

	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
Mohave County	$1.0	$2.7	$0.8	$2.0	$2.3	$1.6	$3.4
Yavapai County	$538.7	$378.7	$219.4	$382.3	$249.5	$210.8	$546.2
Kane County, UT	$20.2	$32.4	$25.8	$17.7	$14.4	$17.7	$26.3
Washington County , UT	$64.2	$102.9	$81.9	$56.2	$45.6	$56.2	$83.6

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 KNF 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 evinced by the relatively strong population and economic growth centered in Washington, Kane, and Yavapai Counties over the past decade, the area surrounding the KNF 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 state averages between

1990 and 2000, overall income levels remain below average for Arizona and Utah within 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, the 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 KNF 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).