

## Socio-Economic Overview

### DANIEL BOONE NATIONAL FOREST

#### THE PLANNING AREA AND FOREST AREA OF INFLUENCE

The Daniel Boone National Forest includes parts of 21 Eastern Kentucky Counties. The last plan included 22 counties. The 736 acres in Bell County were exchanged for other land that consolidated ownership and reduced management costs. The 21 Eastern Kentucky Counties is the Forest's direct area of influence.

The 21 counties of the Daniel Boone lie within a distinct section of the Southern Appalachian Region. Here one finds counties isolated by topography, geographic features and resulting poor arteries of transportation. Industry is specialized, and the area is like other coal, subsistence level farming, or wood-processing counties in eastern Kentucky. Within eastern Kentucky there is a large cluster of socially and culturally isolated counties. Within the area of eastern Kentucky that we call the area of influence (AOI), frequency and intensity of interaction between local residents and people outside the isolated portions of the mountains vary considerably. This isolation is an important part of the socio-economic picture of eastern Kentucky. Although the cultural remoteness is more severe in Owsley, Clay, Leslie, and Morgan counties, the entire mountainous region is but a part of a larger aggregate of socially and economically isolated counties.

Transportation continues to be a major influence on the social and economic characteristics of these 21 counties. *Figure 1* shows the major roads and lakes in Eastern Kentucky. The interstate system and the Parkways are posted for 65 miles an hour and users can generally maintain the posted speeds. Most other roads are posted at 55 miles an hour but most only permit 25 to 50 mile an hour speeds without significant traffic. In many areas the distance from one location to another is not as important as the travel time and condition of the roads. Most of the best roads followed old railroad beds. Many of these followed the meander of streams. Most other roads came from horse or wagon trails used to get from one land owner to another. So roads that follow flat ridge tops meander with sharp turns and abrupt changes in elevation. Until the recent past, improvements to roads were in the form of improvements in road surface. Only in the past twenty years has there been an effort to improve roads through relocation and re-alignment. The roads that have this improvement are providing significant improvement to the access of the area, due to the reduced travel times and the increased safety of the traveler. These roads are shown in *Figure 1*.

#### POPULATION DYNAMICS

Kentucky's population in 1980 was 3,660,330 a 13.64% increase over 1970. The population of the 21 counties grew 24.45% during this time. The increase in population between 1970 and 1980 occurred due to expanded industry in the southwestern counties of Laurel, Pulaski and Whitley. The 1990 census identified significant changes in population trends. Many national trends continued as predicted but at a slower pace, such as the movement from north to south. Kentucky experienced an unanticipated reduction in growth. From the adjusted 13 % between 1970 to 1980 to 0.7 % from 1980 to 1990. The area lost 0.57% of its population between 1980 to 1990. Seven counties, Estill, Laurel, Powell, Pulaski, Rockcastle, Rowan and Wayne had an increase in population greater than the State's increase from 1980 to 1990. Four of these counties Laurel, Pulaski, Rockcastle and Rowan had a increase in migration. All

the other counties had a negative growth rate and negative net migration into the county. *Table 1* shows the growth rate of each of the 21 counties in the Daniel Boone and the net migration in each of the counties from 1980 to 1990.

County	Total Population 1970	Total Population 1980	% Growth 1970-1980	Total Population 1990	% Growth 1980-1990	% Migration 1980-1990
Bath IL	9,235	10,025	8.55%	9,692	-3.32%	-6.1
Clay C	18,481	22,752	23.11%	21,746	-4.42%	-13.3
Estill	12,752	14,495	13.67%	14,614	0.82%	-3.4
Harlan	37,370	41,889	12.09%	36,574	-12.69%	-18.0
Jackson	10,005	11,996	19.90%	11,955	-0.34%	-5.1
Knox	23,689	30,239	27.65%	29,676	-1.86%	-7.2
Laurel IL	27,386	38,982	42.34%	43,438	11.43%	4.7
Lee	6,587	7,754	17.72%	7,422	-4.28%	-7.5
Leslie C	11,623	14,882	28.04%	13,642	-8.33%	-17.1
McCreary	12,543	15,634	24.64%	15,603	-0.20%	-7.5
Menifee	4,050	5,117	26.35%	5,092	-0.49%	-4.2
Morgan	10,019	12,103	20.80%	11,648	-3.76%	-7.9
Owsley	5,023	5,709	13.66%	5,036	-11.79%	-14.7
Perry C	26,259	33,763	28.58%	30,283	-10.31%	-17.4
Powell	7,704	11,101	44.09%	11,686	5.27%	-2.9
Pulaski L	35,234	45,803	30.00%	49,489	8.05%	4.7
Rockcastle I	12,305	13,973	13.56%	14,803	5.94%	2.6
Rowan IL	17,010	19,049	11.99%	20,353	6.85%	1.7
Wayne L	14,268	17,022	19.30%	17,468	2.62%	-2.4
Whitley IL	24,145	33,396	38.31%	33,326	-0.21%	-5.6
Wolfe	5,669	6,698	18.15%	6,503	-2.91%	-10.0
DBNF Area	331,357	412,382	24.45%	410,049	-0.57%	
Kentucky	3,220,711	3,660,330	13.65%	3,685,296	0.68%	-4.7

Letters after county name represent: I = Interstate, L = Large Lake and C = Coal County.

TABLE 1 : Changes in Population

Throughout its history, the population of eastern Kentucky has been almost entirely White. A few African-American settled in the southeastern part of the state, especially in Bell County, where in 1900 they made up 11% of the population. Decline in proportions of African-American after 1910 were steady in all counties except a few major coal-producing counties, which attracted African-American miners between 1910 and 1930. After 1930, their proportions in the mining counties also decreased. During the period of the greatest out-migration in the late fifties and sixties, the total number of African-American in the area decreased to 4239 or 1% of the total population of 387,801. The Forest counties continue to contain almost entirely Caucasian Native Kentuckians. The African-American population is remaining steady or is slightly declining. The population of other minorities remains as less than one percent of the county's population. There has been very little migration into the area by non Kentucky Native Caucasians.

## LABOR AND INDUSTRY

Unemployment in the area has been above national and state levels since 1970. This can be explained in part by several interrelated characteristics. First, there are limited opportunities for jobs. Second, with the possible exception of a few families in the most isolated coves and hollows who are still farming at a near subsistence level, people in the area import most of what they consume. Many counties are extreme

in this. But the products these counties sell, on which they must depend to pay the bills for imports, are exceptionally vulnerable to the accelerator process in national economic cycles. For example, small companies that depend on the automobile industry are particularly susceptible to economic fluctuations. Timber products are also cycle-sensitive, especially barn wood, dimension Lumber, flooring and coal-mine timbers. Cycle-sensitivity of local employment is an inevitable result of shifts in the economy. Third, people in the area who commute to jobs elsewhere typically enter the labor markets where employment variability is greatest. The result is exceptional cycle-sensitivity in employment and incomes among eastern Kentuckians.

From 1974 to the early 1980's employment in manufacturing within Kentucky declined as did mining and agriculture. The early 1980's was more susceptible to national economic downturns than the recession in 1975 and 1976. In these years the mining industry was booming in the wake of a four-fold increase in the price of oil. Over the past two decades, the counties in the area have attracted assembly line industries, more of the so-called "cyclical" industries, that manufacture old-line products. For this reason, the reliance on traditional products makes the area even more vulnerable to sharp dips in the economy. When the economy does recover, eastern Kentucky's cyclical economy will exhibit some strong growth, but competitive pressures will force the old-line manufacturers to limit employment to improve productivity. According to the 1994 Kentucky Deskbook of Economic Statistics, within the AOI there has been a 15% increase in manufacturing jobs from 1982 to 1992. There was a 14.3% change from 1974 to 1984 (Table 2). The change in Manufacturing jobs from 1984 to 1994 was 40%. The two year difference between 1982 and 1984 was -8% and the two year difference between 1992 and 1994 was 13%. Manufacturing jobs are very volatile because there are so few manufacturers and very low total numbers in manufacturing. If one factory goes out of business or relocates the total number of people affected may only be 100 to 200 people but that is a large percent of the total people in manufacturing within the county. These changes may have a minor effect on the total State manufacturing jobs and the State economy, but have a major effect on the economy and employment on the local county.

The unemployment rate has decreased in the past ten years but not as rapidly as the state (*Table 3*). The unemployment rate was 5.6% higher than the state's in 1981 and is 6.4% higher than the state's in 1991. *Table 3* shows the persons and families below the poverty level for 1989. In 1991 the per capita personal income for the AOI counties was at or below \$13,884, with 66% of the counties below \$10,874, as shown in *Table 3*. Average per capita income for the AOI was \$10,872 while the Per capita income for Kentucky in 1991 was \$15,626. The percent growth in the per capita income within the AOI was 32.42% from 1987 to 1991 and was greater than the states 27.91%. But the net increase in per capita income by families in the area was \$2,662 compared to the states increase of \$3,410.

According to the 1990 census, within the AOI, between 35.5% and 57.9% of the population that are more than 25 years old have graduated from high school. Only 5 of the 21 counties have greater than 50% high school graduates, with Rowan County having the most high school graduates with 57.9% (*Table 3*). 64.6 % of Kentuckians older than 25 years have graduated from high school. Nationally 75.2% have graduated. Between 17.3% and 4.6% of the people older than 25 years within the area have Bachelor Degrees or higher. Only Whitley County and Rowan County have more than 10% College Graduates or above. The other 19 counties have less than 10% college graduates. Morehead State University is in Rowan county and Cumberland College is in Whitley county. This compares to 13.6% for the State and 20.3% for the Nation (*Table 3*).

## Workers in Manufacturing

COUNTY	1974	1982	1984	1992	1994	%	%	%		Difference	%		Differen ce	%
	*		*		*	74-84	84-94	82-92		82-84	82-84		92-94	92-94
						Change	Change	Change			Change			Change
Bath IL	27	17	60	371	502	122.2%	736.7%	2082%		43	72%		131	35%
Clay C	283	362	*	648	944			79%					296	46%
Estill	*	492	*	427	533			-13%					106	25%
Harlan C	446	298	288	171	214	-35.4%	-25.7%	-43%		-10	-3%		43	25%
Jackson	138	178	197	216	164	42.8%	-16.8%	21%		19	10%		-52	-24%
Knox	896	1,189	870	1,298	1,363	-2.9%	56.7%	9%		-319	-37%		65	5%
Laurel IL	2,786	3,747	3,820	3,615	3,722	37.1%	-2.6%	-4%		73	2%		107	3%
Lee	*	85	*	186	218			119%					32	17%
Leslie C	78	310	80	*	*	2.6%				-230	-288%		0	
McCreary	407	436	474	815	1,289	16.5%	171.9%	87%		38	8%		474	58%
Menifee	30	20	37	99	135	23.3%	264.9%	395%		17	46%		36	36%
Morgan	350	502	156	305	319	-55.4%	104.5%	-39%		-346	-222%		14	5%
Owsley	*	158	*	0	*			-100%						
Perry C	166	158	150	148	246	-9.6%	64.0%	-6%		-8	-5%		98	66%
Powell	149	406	788	973	1,233	428.9%	56.5%	140%		382	48%		260	27%
Pulaski L	3,546	3,561	3,969	4,168	4,493	11.9%	13.2%	17%		408	10%		325	8%
Rockcastle I	48	142	315	727	764	556.3%	142.5%	412%		173	55%		37	5%
Rowan IL	691	744	594	774	689	-14.0%	16.0%	4%		-150	-25%		-85	-11%
Wayne L	1,076	1,475	1,427	1,788	2,057	32.6%	44.1%	21%		-48	-3%		269	15%
Whitley IL	1,676	1,249	1,403	1,269	1,415	-16.3%	0.9%	2%		154	11%		146	12%
Wolfe	*	397	*	286	278			-28%					-8	-3%
													0	
DBNF Area	12,793	15,926	14,628	18,284	20,578	14.3%	40.7%	15%		(1,298)	(0)		20,578	13%
Kentucky	291,160	0	257,835	284,564	305,275	-11.4%	18.4%						20,711	7%

\* Data are not disclosed for any industry consisting of fewer than three reporting units. or where one unit accounts for 80% or more of industries employment

**TABLE 2 Workers in manufacturing 1974 - 1994**

COUNTY	Unemployment Rates					% Family's > Poverty		Per Capita Income			Education		
	% 1974	%1980	%1981	% 1984	% 1991	%1994	> Poverty 1979	> Poverty 1989	1987	1991	% Change 1987-91	% HS Grad 1990	%Bachelors + 1990
Bath IL	8.7	15.4	21.9	11.9	12.3	10.8	22.7	22.2	\$8,912	\$12,361	38.70%	46.3	6.2
Clay C	7.8	10.9	12.5	12.6	11.2	7.1	37.1	35.9	\$7,994	\$9,319	16.57%	38.9	7.4
Estill	6.4	11.9	16	11.6	13.4	7.4	24.6	25.3	\$8,550	\$10,874	27.18%	46.5	5.4
Harlan C	5.2	9.8	15.5	13.3	13.2	10.1	22.1	29.7	\$9,047	\$12,188	34.72%	49.5	6.4
Jackson	7.7	14.6	20.4	14.8	10.5	9.4	36	34.6	\$6,911	\$9,379	35.71%	38.3	4.9
Knox	5.8	10	11.5	10.1	8.5	6.8	31.4	34.8	\$8,265	\$10,802	30.70%	46.6	8
Laurel IL	4.6	8.2	9.6	10.2	7.7	6.8	18.7	22.2	\$10,270	\$12,885	25.46%	52.7	8.2
Lee	7.6	15.6	17.8	11.1	8.4	8.5	29.9	33.7	\$6,982	\$9,343	33.82%	43.4	5.8
Leslie C	7.9	9.1	10.7	12.4	9.8	8.2	30.9	33.2	\$7,401	\$10,550	42.55%	40.4	6.6
McCreary	7	14.1	14.9	17.3	13.8	7.4	34.3	40.1	\$5,948	\$8,741	46.96%	40.2	4.6
Menifee	11.9	20.6	31	14.7	12.5	12.4	25.7	30.7	\$6,520	\$8,933	37.01%	46	4.9
Morgan	8	9.8	17.2	28	14	10.1	32	33.8	\$7,161	\$10,375	44.88%	44.1	6.7
Owsley	8.2	13	12	14	8.3	5.5	40.8	46.8	\$6,669	\$9,127	36.86%	35.5	9.8
Perry C	5.4	10.2	11.4	13.2	11.3	7.6	21.4	28.8	\$10,963	\$13,843	26.27%	47.6	6.7
Powell	12.9	15.1	23.9	9.6	10.4	7.6	22.5	23.1	\$8,377	\$10,404	24.20%	50.1	5.3
Pulaski L	5.9	10.5	11.7	10.1	9	6.3	18.6	19.1	\$10,590	\$13,884	31.10%	56.2	9.2
Rockcastle I	6.4	11	15.7	10.3	7.4	7.2	28.9	26.9	\$8,068	\$10,800	33.86%	44.9	5.9
Rowan IL	4.6	7.8	12.9	10.7	6.9	6.8	18.5	24.2	\$8,482	\$11,283	33.02%	57.9	17.3
Wayne L	5.6	11.1	22.1	12.8	9.3	6.1	31.1	32.7	\$7,682	\$10,281	33.83%	44.6	5.5
Whitley IL	7	12.1	11.9	10.9	8.9	7.1	23.1	28.9	\$10,043	\$13,047	29.91%	53	11.3
Wolfe	5.7	13.2	19.6	16.8	14.1	9.7	30.1	41	\$7,580	\$9,899	30.59%	42.8	7.7
DBNF Area	6.3	12.1	15.6	12.1	13.8	7.5			\$8,210	\$10,872	32.42%		
Kentucky	4.5	8.1	10	9.3	7.4	5.4		16	\$12,216	\$15,626	27.91%	64.6	13.6
Nation												75.2	20.3

TABLE 3 Labor Force and Income

## LOCAL ECONOMY AND PATTERNS OF WORK

On the whole the American economy today is experiencing changes in its occupational structure. The directions of these changes show a flight away from the urban sprawl of our nation's major metropolitan centers. New magnetic centers in the Sunbelt and in the South have grown three-fold between 1960 and 1980. These "flights" from the cities and large metropolitan centers have helped cluster-centers in the area, namely Pulaski, Laurel, and Whitley counties. Morehead, in Rowan County, has not lived up to prospects for industrial development that was predicted in the 1950's. The types of manufacturing that one finds in the area are small, transient enterprises that 1) do not gain significantly from locating at major centers; that is, these companies have little effect on the national economy; 2) make only modest demands on water supplies and energy; and 3) utilize primarily unskilled, lower cost labor of the kind available in the mountains of eastern Kentucky as noted in *Table 3*.

In 1982 the southwest section of the area was identified with the best economic base in manufacturing, especially Knox, Laurel, Pulaski, and Whitley counties. Here terrain, railroads, and highways are comparatively superior to the rest of the AOI. From 1957 to 1982 these counties had quadrupled their numbers of workers in manufacturing. From 1982 to 1992 the increase in workers in manufacturing for these counties was: Knox 9%, Laurel -4%, Pulaski 17%, and Whitley 2% (*Table 2*). As stated in 1982, predictions into the future are extremely hazardous because limitations may be flexible. In addition one or two industries changing their employment by 50 to 100 people have a major effect on the employment percentages because the total workforce is so small.

Most counties and local governments have relied on State and Federal grants to put in basic services and develop infrastructures. They do not have the economic tax base to provide these services. Because of these grants, industrial parks with sewer, treated water, and garbage collection have become available in the past ten years within some of the 21 county AOI.

Industries within the AOI are generally small with only 7 of the 21 counties having more than 1000 manufacturing jobs in 1994. The other 14 counties have less than 1000 manufacturing jobs. In all counties, these jobs are spread over several firms. Data is not reported unless there are three or more manufacturing industries and only two counties were not reported. Owsley had 565 total jobs in all industries and Powell had 2916 jobs in all industries. In 1992 the county with the largest percent of its workers in the lumber and furniture manufacturing industry was Wayne county with 11.3% which included 529 jobs. Pulaski County had 762 jobs in Lumber and furniture manufacturing, which was 4.1% of their jobs (*Table 4*). *Table 2* illustrates the volatile changes in manufacturing within the AOI. It also illustrates how 98 more jobs in Perry county (1992-94) has a 66% change in employment while an increase of 325 jobs in Pulaski county (1992-94) has a 8% increase in employment.

Most of the AOI is rural with small isolated pockets of communities. Within the communities there are few housing developments, trailer parks or multiple family

residences. At one time the counties had many small general stores that serviced isolated river valleys or ridge tops. The general store was typically associated with one or two small churches that formed small communities supporting themselves without a formal structure. Many of the "general stores" have disappeared as transportation has improved.

Most people have a place to live, with two-thirds owning their own home (1990 census). Many are still living on land handed down from generation to generation or on lands acquired from relatives or friends. Until recently, water and waste disposal were generally taken care of on-site. The only common services received from government are road maintenance, deed records and the sheriff.

table4 COUNTY	Workers in All Industries		% change 1992-94	Lumber	Workers in Manufacturing		Workers in Mining		State & Local Gov't		SERVICES		Wholesale & Retail	
	1992	1994		1992 %of Total	1992 %of Total	1994 %of Total	1992 %of Total	1994 %of Total	1992 %of Total	1994 %of Total	1992 %of Total	1994 %of Total	1992 %of Total	1994 %of Total
Bath IL	1582	1791	11.7%	0.8%	23.5%	28.0%	0	0.0%	26.7%	26.1%	11.6%	9.9%	20.7%	17.8%
Clay C	4142	4512	8.2%	*	15.6%	20.9%	3.2%	4.0%	28.5%	26.6%	16.1%	17.4%	25.8%	22.6%
Estill	2233	2321	3.8%	2.9%	19.1%	23.0%	4.4%	1.8%	25.9%	26.2%	14.2%	13.0%	26.9%	24.5%
Harlan C	9111	9043	-0.8%	0.8%	1.9%	2.4%	28.4%	24.4%	20.7%	21.7%	15.7%	17.1%	24.2%	24.4%
Jackson	1549	1683	8.0%	4.6%	13.9%	9.7%		*	31.1%	33.9%	15.6%	18.0%	13.0%	13.0%
Knox	6351	6892	7.8%	4.1%	20.4%	19.8%	3.0%	3.4%	21.9%	22.6%	16.9%	16.5%	26.3%	25.4%
Laurel IL	15711	17343	9.4%	2.0%	23.0%	21.5%	1.7%	1.4%	11.1%	11.5%	18.9%	20.1%	32.1%	34.1%
Lee	1418	1542	8.0%	2.8%	13.1%	14.1%	9.9%	5.3%	28.7%	26.3%	22.5%	25.5%	19.2%	20.4%
Leslie C	3008	3344	10.0%	*	*	*	42.0%	87.3%	21.9%	20.0%	15.2%	16.8%	10.6%	9.3%
McCreary	2436	3063	20.5%	5.3%	33.5%	42.1%	0.2%	*	28.5%	24.0%	15.8%	13.9%	15.7%	13.5%
Menifee	565	654	13.6%	7.8%	17.5%	20.6%		*	41.4%	37.9%	10.4%	12.7%	17.0%	15.4%
Morgan	2406	2560	6.0%	2.4%	511.4%	12.5%		*	40.1%	39.6%	13.4%	15.5%	18.4%	18.3%
Owsley	525	565	7.1%	*	*	*		*	55.4%	53.3%	*	*	14.5%	13.3%
Perry C	10334	10925	5.4%	0.1%	1.4%	2.3%	21.5%	16.5%	20.6%	20.7%	18.6%	21.7%	26.8%	27.6%
Powell	2495	2916	14.4%	*	39.0%	42.3%		*	23.2%	21.4%	8.3%	7.6%	18.4%	18.2%
Pulaski L	18768	20149	6.9%	4.1%	22.2%	22.3%	0.4%	0.3%	16.2%	15.8%	19.5%	20.1%	27.9%	27.3%
Rockcastle I	2811	3107	9.5%	1.7%	25.9%	24.6%	0.5%	*	20.6%	20.5%	25.4%	22.6%	18.4%	21.7%
Rowan IL	6935	7268	4.6%	4.4%	11.2%	9.5%		*	31.5%	30.9%	21.4%	23.0%	27.1%	27.8%
Wayne L	4662	5218	10.7%	11.3%	38.4%	39.4%		*	16.9%	16.7%	12.1%	12.5%	20.6%	20.0%
Whitley IL	9525	10059	5.3%	0.5%	13.3%	14.1%	6.4%	5.5%	16.3%	17.2%	28.7%	27.9%	26.4%	26.1%
Wolfe	1137	1125	-1.1%	3.5%	25.2%	24.7%		*	31.2%	32.4%	18.4%	19.9%	16.9%	17.0%
DBNF Area	107704	116080	7.2%	2.6%	28.1%	1.4%		5.8%	20.6%	20.4%	18.5%	19.2%	25.3%	25.2%
Kentucky	1402896	1504926	6.8%	1.1%	20.3%	20.3%	2.1%	1.9%	14.7%	14.4%	22.1%	22.6%	25.3%	25.1%

TABLE 4 Workers By Job Catagory

Although common services provided by government are limited, State and Local government accounts for 11% of jobs in Laurel County and 53% of jobs in Owsley county. State and Local government jobs account for over 25% of jobs in 10 of the 21 county AOI in 1994 (*Table 4*). Since the 1960's entitlement programs have been available and heavily used. This is viewed as a service provided directly to individuals not as a service to assist the general public. Even though residents may work outside the area, or are receiving public assistance, there is a feeling of self-sufficiency and independence. Personal rights and property rights are very important, because there has been very little need within the informal community to abridge rights for a common need.

The feeling of ownership rights and personal rights extends to adjacent public land. There has been very little restriction on the use of public lands in the past. The property lines have been marked but the activities that occurred on private and National Forest System land have been very similar in character.

Commonly, local residents have gained benefits from products obtained directly from the land, either in garden plots, farming, raising tobacco, or logging. Many feel short term negative effects of land use is healed quickly and worth the short term gain from land utilization. They have experienced changes in the land such as old fields naturally changing to forests or mined land reclaimed after extracting the minerals.

Benefits of typical public programs such as water and sewer systems are just now arriving to the area in the form of independent districts. Electricity is provided by the RECC which is not affiliated with any local government. Garbage collection and land fills are relatively new and still not completely accepted. Traditional government benefits such as zoning laws, effective law enforcement, and local ordinances are just beginning to be used in some areas, and many see them as an infringement of personal rights rather than an enhancement of their quality of life.

Generally, the local residents that want more government involvement and want community development are looking for outside assistance for guidance and resources. As with most areas, a small portion of the typical community is involved in a development association, tourism committee, chamber of commerce, or community events. General citizen involvement usually comes when citizens feel personal rights and welfare are being affected.

There is a general willingness to accept changes, development, and new residents to the area as long as it does not interfere with the present quality of life. This is true of most areas in the country. It is important to identify how changes will effect the quality of life as perceived by the local residents before proposing or instituting change.

#### UNITS of ANALYSIS

Within the Forest zone of influence the following units of analysis exist.

The Lake Cumberland area includes Pulaski and Wayne counties. The area is near I-75, The Cumberland Parkway and recently improved routes 80, 461, 90 and 27.

The Laural River Lake area includes Laurel, Rockcastle and Whitley Counties. This area lies along Interstate 75, the Daniel Boone Parkway, and recently improved routes 25E, 80, 90 and 461.

The Cave Run Lake area includes Rowan and Bath counties. This area lies along Interstate 64 and recently improved 60, and 519.

The three lake areas have experienced population growth in the past ten years (*Table 1*). The areas have generally higher per capita income, lower unemployment, more manufacturing jobs and more businesses than the general forest area (*Table 2,3,4*). Each of these areas has a large lake with developed recreation facilities and a good transportation system.

The General Forest Area includes the remaining 14 counties. Except for Powell and Estill counties there was a loss in population the last ten years. Powell and Estill county had a net increase but a negative net migration from the counties (*Table 1*). Estill and Powell counties are the only two that had less than 28% of their population below the poverty level in 1989 (*Table 3*). All but three counties (Harlan, Perry) had a per capita income of less than \$11,000 in 1991 (*Table 3*). Less than 51% of adults over the age of 25 have a high school education or equivalent in these 14 counties (*Table 3*).

Powell and Estill counties have good transportation links to larger cities. Estill county is adjacent to Richmond with Route 52 improved all the way to the county seat of Irvine, and Powell county is adjacent to Winchester and along the Bert Combs Parkway just off of Interstate 64. Natural Bridge State Resort Park and the Red River Gorge are adjacent to the Bert Combs Parkway in Powell County.

Except for Powell and Estill Counties the General Forest area is isolated by rugged terrain and a poor transportation system. The General Forest Area generally has dispersed recreation or small developed sites.

#### STATUS OF LAND

As of 1995, the Daniel Boone National Forest, which includes the Redbird Purchase Unit, contains 687,713 acres of public land. The total area within the proclaimed boundaries of the National Forest is 2,047,789 acres. The National Forest covers 33 percent of the land area within the boundaries of the purchase unit. Table 5 below gives a county-by-county analysis of total National Forest acreage.

COUNTY	Area Sq. Miles	Area Acres	DBNF Acres 09/30/95	% Nat,l Forest
Bath IL	279	178,560	18,469	10.3%
Clay C	471	301,440	76,902	25.5%
Estill	254	162,560	5,598	3.4%
Harlan C	467	298,880	803	0.3%
Jackson	346	221,440	58,239	26.3%
Knox	387	247,680	74	0.0%
Laurel IL	435	278,400	61,427	22.1%
Lee	209	133,760	8,588	6.4%
Leslie C	404	258,560	52,179	20.2%
McCreary	427	273,280	140,896	51.6%
Menifee	203	129,920	45,824	35.3%
Morgan	381	243,840	12,948	5.3%
Owsley	198	126,720	16,153	12.7%
Perry C	342	218,880	2,191	1.0%
Powell	180	115,200	14,245	12.4%
Pulaski L	661	423,040	36,288	8.6%
Rockcastle l	317	202,880	13,967	6.9%
Rowan IL	280	179,200	62,496	34.9%
Wayne L	459	293,760	642	0.2%
Whitley IL	440	281,600	43,617	15.5%
Wolfe	222	142,080	16,167	11.4%
DBNF Area		4,711,680	687,713	14.6%

TABLE 5 Forest Acres

Early in the 1940's, funds for acquisition were curtailed due to World War II. Substantial acquisition did not commence again until the mid 1960's when the LWCF program was initiated and the Redbird Purchase Unit was established. During the period of non-acquisition private ownership changed hands, land use patterns changed, and development took place in residential or farm type properties. As a result numerous private inholdings on the Forest are no longer available for acquisition. For this reason, administration is costly because of problems associated with maintenance of land lines, claims, and rights-of-way needs.

Most private land within the proclaimed boundaries is in individual ownership, averaging 100-300 acres. Although industrial ownership is limited, there are major holdings in Clay and Leslie counties of the Redbird Unit. These holdings are held mainly for coal and other private mineral resources.

Many private in-holdings which have been resold in the last five years have developed into residences, small farming units, and vacation retreats. Change of ownership through sale of real estate is rather infrequent, but generally increasing at this time. In many cases, mineral rights have been separated from the surface and can be acquired only by separate purchase.

Over the years, coal-resources in Kentucky have affected the availability of land for purchase. Either coal companies are buying surfaces and minerals for development, or owners of the surfaces are holding land to attain "wheeling rights." On the Redbird Unit this situation is most common. Since the 1973-75 coal boom, such private interest has accelerated greatly.

Three state parks, Natural Bridge, Euckhorn, and Cumberland Falls, are located on 4,550 acres that lie within the proclaimed boundaries of the Daniel Boone. There are also four Corps of Engineers reservoirs that lie within the Forest: Cave Run Lake, Buckhorn Lake, Lake Cumberland, and Laurel River Lake. These lakes contain 63,850 acres of water at normal pool level and 85,690 acres at maximum pool level.

The Big South Fork National River and Recreation Area, administered by the National Park Service, has been established in the southwestern part of the Forest on the Big South Fork of the Cumberland River.

#### References

Kentucky Cabinet for Economic Development (KCED), Division of Research, 1970. 1970 Kentucky Deskbook of Economic Statistics, State of Kentucky

Kentucky Cabinet for Economic Development (KCED), Division of Research, 1980. 1980 Kentucky Deskbook of Economic Statistics, State of Kentucky

Kentucky Cabinet for Economic Development (KCED), Division of Research, 1993. 1993 Kentucky Deskbook of Economic Statistics, State of Kentucky, 161 p.

Kentucky Cabinet for Economic Development, Division of Research, 1994. 1994 Kentucky Deskbook of Economic Statistics, State of Kentucky, 163 p.