

## **1. BACKGROUND-REGIONS ECONOMIC DEVELOPMENT SITUATION**

### **A. General Description of Area**

The Cumberland Plateau Planning District is in Southwest Virginia and encompasses the counties of Buchanan, Dickenson, Russell and Tazewell. The District borders West Virginia on the north and Kentucky on the northeast. Wise, Scott, Washington, Smyth and Bland Counties in Virginia form the boundaries on the west, south, and east. The District is 67 miles long and 40 miles wide and covers approximately 1,848 square miles.

The District is divided into two physiographically distinct regions, both lying in the Appalachian Highlands. The counties of Buchanan and Dickenson, along with the northern portions of Russell and Tazewell Counties, lie in the Cumberland Plateau which is, in turn, a part of the Appalachian Plateau. This area has a uniformly mountainous surface characterized by many small streams separated by sharply rising ridges, steep slopes, and narrow valleys. The remaining region of the District, comprising the greater portion of Russell and Tazewell Counties, lies in the Valley and Ridge Province of the Appalachian Highlands. This belt, consisting of alternate valleys and ridges is bordered on the south by the Clinch Mountains and on the north by the Cumberland Plateau.

Elevations vary from 845 feet above sea level where the Levisa Fork crosses into Kentucky to 4,705 feet atop Garden Mountain in the southeastern part of the District near the Bland County line. The most prominent physiographic features in the District are Clinch Mountain, Breaks of the Cumberland, Burkes Garden, Big A Mountain, and Pine Mountain.

Comparatively smooth to moderately sloping uplands are found in places in the southern and southeastern portions of the District. The northern and northwestern portions of the District are areas that have been thoroughly dissected by streams, with the result that the land features consist of steep ridges and narrow valleys. There is practically no smooth upland or lowland in this area.

The southern section of the District lies in the Clinch River Basin. The northern portion of the District lies in the Big Sandy River Basin. Numerous creeks and branches in all parts of the district afford a good drainage system for the upland areas. The only poorly drained areas are in the flat, low places near some of the streams.

Approximately 80 percent of the District in the Cumberland Plateau region is covered by forest. The portion of the District that lies in the ridge and valley province is approximately 50 percent forest cover and 50 percent grass and pasture land. The District is served by three major U. S. Highways, nine primary state highways, and numerous state secondary highways. No interstate highways pass through the District. U. S. 19 is a major north-south highway that runs from Erie, Pennsylvania to St. Petersburg, Florida; U. S. 460 is an east-west highway that runs from Norfolk, Virginia to St. Louis, Missouri; and U. S. 58 is an east-west highway that runs from Norfolk, Virginia to Middlesboro, Kentucky. State primary and secondary highways provide intra-district access, as well as access to points in neighboring counties and West Virginia and Kentucky. From Lebanon, it is twenty miles to I-81, in Abingdon, Virginia and 65 miles from I-77 in Bluefield, West Virginia.

**Distances from Lebanon where the Planning District office is located to major cities are as follows:**

<b>Atlanta</b>	<b>350 miles</b>
<b>Chicago</b>	<b>575 miles</b>
<b>New York City</b>	<b>585 miles</b>
<b>Norfolk</b>	<b>360 miles</b>
<b>Richmond</b>	<b>280 miles</b>
<b>Pittsburgh</b>	<b>385 miles</b>
<b>Washington, D. C.</b>	<b>350 miles</b>

**Figures 1 and 2 are maps showing the Planning District and the surrounding counties and its location in the Southeastern portion of the United States.**

#### **B. Natural Resources**

**In the Cumberland Plateau, four natural resources are of major importance - coal, hardwoods, natural gas and agricultural land. Each of these resources will be briefly discussed.**

**Coal: As shown in Table 1 and Table 2, coal remains to be an abundant resource and source of employment for the Planning District. Conventional wisdom has long held that resources can support current production for many more years. The U. S. Department of Energy has estimated that there are 848 million tons of recoverable reserves in Virginia at present. Based on the Static Reserve Index (Reserves current annual production) the reserves would be depleted in 37 years.**

**Coal mining will remain as one of the major economic activities in the planning district for the foreseeable future. The uncertainty with regard to coal**

Figure 1



## Cumberland Plateau Planning District

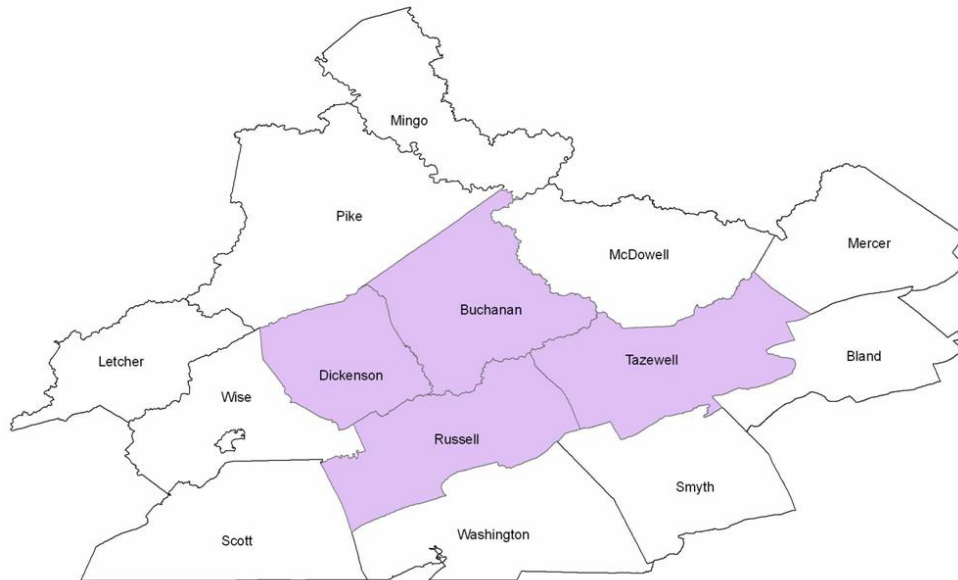


Figure 2

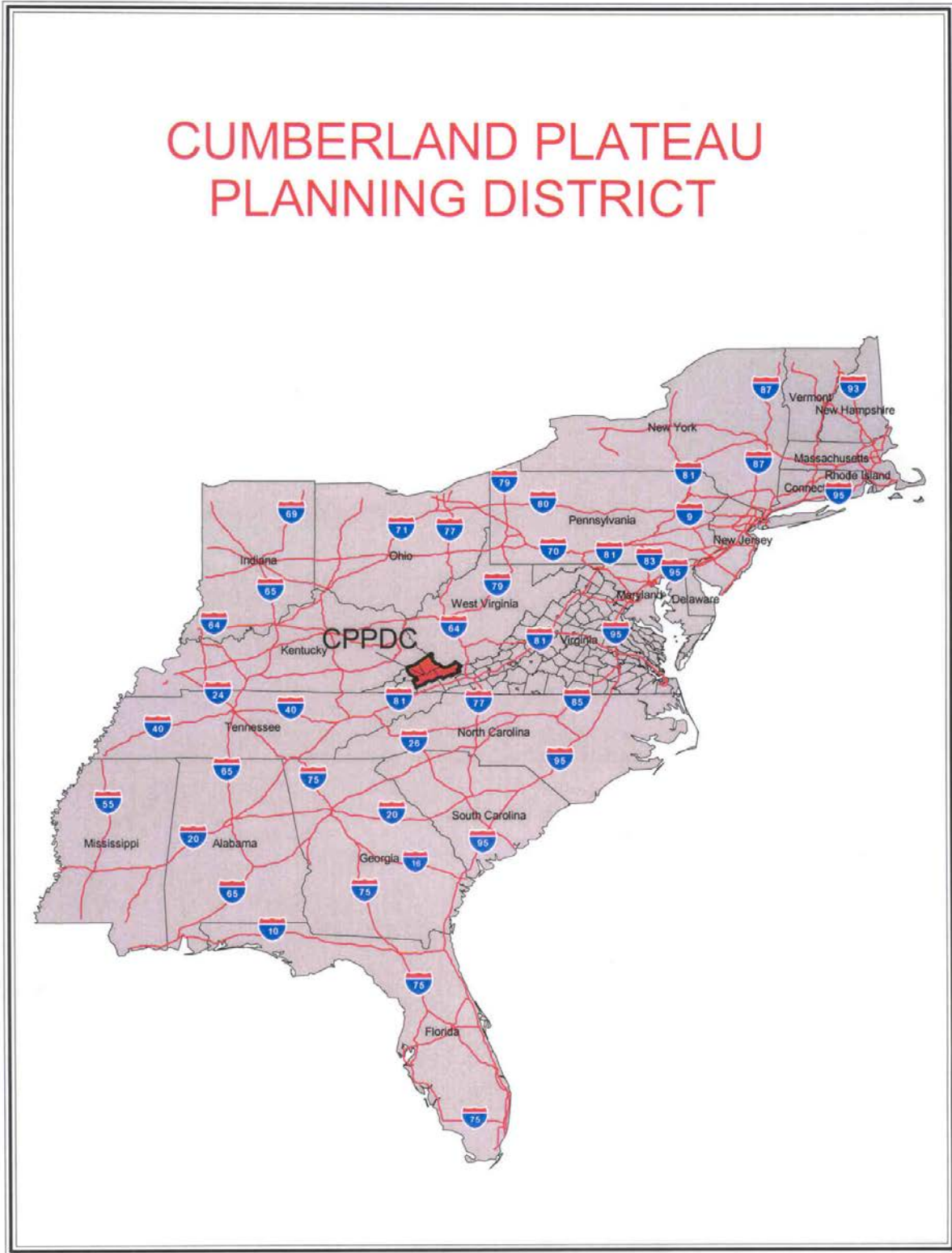


Table 1  
1990 - 2016 Coal Production (Tons)

Year	Buchanan	Dickenson	Russell	Tazewell	PDC Total
1990	20,938,340	6,686,984	926,249	3,716,869	32,268,442
1991	17,479,189	5,857,352	1,114,282	3,921,886	28,372,709
1992	17,962,757	6,360,976	1,094,510	3,534,018	28,952,261
1993	13,958,036	5,516,515	1,552,558	2,862,372	23,889,481
1994	13,594,006	4,303,346	1,467,694	2,481,842	21,846,888
1995	13,791,629	2,704,253	1,728,600	2,156,220	20,380,702
1996	14,783,931	2,988,258	1,345,502	1,839,618	20,957,309
1997	14,224,401	3,699,032	696,401	1,699,083	20,318,917
1998	12,467,167	4,021,151	705,429	1,806,652	19,000,399
1999	10,655,918	4,168,329	394,430	2,069,730	17,288,407
2000	11,154,684	4,259,431	156,525	1,469,825	17,040,465
2001	11,589,519	3,230,718	665,065	1,626,539	17,111,841
2002	10,048,222	2,779,463	556,557	1,435,455	14,819,697
2003	10,812,659	2,735,067	555,534	1,293,990	15,397,250
2004	10,347,697	2,564,014	489,984	1,335,068	14,736,763
2005	7,756,474	2,566,576	952,366	1,237,844	12,513,260
2006	10,180,930	2,582,717	980,663	1,349,704	15,094,014
2007	7,777,265	2,139,842	1,072,568	1,165,052	12,154,727
2008	8,438,897	2,070,185	1,133,535	744,959	12,387,576
2009	6,799,719	1,384,909	1,031,003	836,322	10,051,953
2010	8,744,056	1,058,819	726,205	943,236	11,472,316
2011	9,315,749	1,331,667	881,376	1,118,585	12,647,377
2012	7,183,857	3,412,332	725,511	1,410,408	12,732,108
2013	7,695,116	3,542,761	397,957	1,248,095	12,883,929
2014	7,224,000	3,466,000	280,000	1,325,000	12,295,000
2015	7,100,586	3,585,016	348,866	728,966	11,763,434
2016	7,429,542	3,500,698	179,268	250,145	11,359,653

Source: Department of Mines Minerals and Energy

Table 2  
2001 to 2016 Mine Employment Data for PDC

Year	Average Employees	Labor Hours	Tonnage Annual
2001	2,770	5,720,006	17,111,841
2002	2,503	4,892,852	14,819,697
2003	2,204	4,702,403	15,397,250
2004	2,364	5,069,337	14,736,763
2005	2,541	5,236,048	12,513,260
2006	2,652	5,662,523	15,094,014
2007	2,413	5,122,625	14,154,727
2008	2,604	5,753,573	12,387,576
2009	2,447	5,019,815	10,051,953
2010	2,610	6,018,567	11,472,316
2011	2,765	6,687,826	12,647,377
2012	3,346	7,356,641	12,732,108
2013	3,124	6,752,199	12,883,929
2014	2,685	5,852,779	12,294,070
2015	2,227	4,863,208	11,763,434
2016	1,913	4,214,410	11,359,653

Source: Department of Mines Minerals and Energy

reserves should, however, increase the effort of the planning district in its economic diversification activities.

**Hardwoods:** Most of the area in the Cumberland Plateau is either covered by or suitable for hardwood forest growth. Approximately 84 percent of the hardwood area is owned by private interest, making the district an ideal location for manufacturers of high quality wood products. It also means that a long range development plan should be prepared if the district environment is to be protected.

The following table shows the annual growth and removal of hardwood saw timber.

TABLE 3

Timber Growth and Removal in Board Feet

County	Growth	Removals	Surplus
Buchanan	16,309,565	9,475,846	6,833,719
Dickenson	12,030,494	7,000,933	5,029,561
Russell	8,020,969	5,802,265	2,218,704
Tazewell	12,783,269	2,432,594	10,350,675
<b>TOTAL</b>	<b>49,144,298</b>	<b>24,711,637</b>	<b>24,432,661</b>

Source: US Forest Service, Southern Research Station - Forest Inventory, 2011

The District is in the center of the Central Appalachian region that is home to some of the highest quality hardwoods in the world. The region is also the home for an effort to reintroduce the American Chestnut focused on strip mined lands.

The region's timber source could support greater utilization and would provide much needed jobs.

**Natural Gas:** A major portion of the known gas fields in Virginia are located in the Cumberland Plateau Planning District. In fact about 91 percent of the state's annual production occurs in the District, with Buchanan County (56%) and Dickenson County (23%) leading the way. Natural gas has been produced in the district since 1930 and production has increased dramatically from the mid-to-late 1990's and 2000's as shown in Table 4.

Most analysts foresee natural gas as a growing source of energy in the U.S. While not that many jobs have been created as the Cumberland Plateau gas fields have been developed, local and state governments benefit greatly from gas severance taxes and revenue from industry-related real estate taxes.

**Agricultural Land:** According to the 2012 Census of Agriculture (See Table 5), there are 1,829 farms in the Cumberland Plateau. Cattle and sheep are the



**Table 4**

## Gas Production by County (Thousands of Cubic Feet)

Year	Buchanan	Dickenson	Russell	Tazewell	CPPDC
2009	75,351,846	32,898,449	10,796,414	12,128,558	131,175,267
2008	69,644,706	29,885,414	10,044,097	9,401,291	118,975,508
2007	60,232,768	27,352,761	8,692,041	7,536,382	103,813,952
2006	57,199,657	23,551,631	7,601,657	5,986,470	94,339,415
2005	49,989,439	20,192,044	6,422,942	3,886,336	80,490,761
2004	50,637,115	17,475,252	5,901,345	3,153,322	77,167,034
2003	49,487,021	15,734,527	4,876,771	2,485,299	72,583,618
2002	45,389,410	16,480,236	3,500,511	2,563,883	67,934,040
2001	44,479,589	14,877,235	2,075,174	1,846,158	63,278,156
2000	44,384,057	14,859,535	491,297	1,912,571	61,647,460
1999	41,916,758	17,665,116	615,795	1,604,506	61,802,175
1998	36,343,503	12,972,617	433,824	709,713	50,459,657
1997	35,125,597	13,853,818	517,497	732,111	50,229,023
1996	30,673,132	13,374,276	523,662	419,745	44,990,815
1995	27,420,560	14,057,072	573,539	319,626	42,370,797
1994	25,890,226	14,265,050	687,899	410,896	41,254,071
1993	17,537,586	11,539,915	703,643	421,280	30,202,424
1992	6,974,926	10,962,851	524,087	331,189	18,793,053
1991	2,686,239	7,310,579	199,557	357,802	10,554,177
1990	2,887,119	7,944,115	13,459	484,596	11,329,289

Source: Virginia Center for Coal and Energy Research

Table 5 Agricultural Base Data												
Base Data	Buchanan County			Dickenson County			Russell County			Tazewell County		
	2007	2012	% Change	2007	2012	% Change	2007	2012	% Change	2007	2012	% Change
Total Land in Farms (Acres)	9,331	9,559	2.44%	14,342	15,048	4.92%	151,564	187,620	23.78%	153,677	150,181	2.27%
Number of Farms	107	103	-3.73%	170	147	-13.52%	1,019	995	2.35%	576	584	1.38%
Average Farm Size (Acres)	87	93	6.89%	84	102	21.42%	149	189	26.84%	267	257	3.74%
Total Market Value of Products Sold	\$363,000	\$479,000	31.95%	\$620,000	\$781,000	25.96%	\$20,707,000	\$32,164,000	55.32%	\$21,490,000	\$27,020,000	25.73%
Average Per Farm	3,392	4,961	46.25%	3,645	5,314	45.78%	20,321	32,325	59.07%	37,308	46,268	24.01%
Source: U.S. Dept. of Agriculture												

**predominant farm activities. While tobacco farming has seen significant declines over the last 10-15 years, farming is still important to the area. In fact, between 1997 and 2012 the District showed a decrease of 43 farms and an 39.98 percent increase in the total market value of farm products sold. This is an encouraging sign that many of the burley tobacco farmers have switched to raising produce or have converted to raising livestock. The growing number of local Farmers' Markets in the region is a development that provides a significant market for the District's small farmers.**

### **C. Environmental Issues**

**The Cumberland Plateau Planning District has always strived to maintain a proper balance between economic development and the environment. The industrial marketing effort of the district is directed toward industries that will not pose environmental problems and thus far we have been successful in this effort. Most of the environmental problems that the district has to confront are caused by existing industries such as coal mining, agriculture and silviculture. These problems are being addressed for the most part by state and federal regulations.**

**Following is a list of sensitive environmental areas in the District that are**

**being protected from development that would upset the natural balance.**

**1. Criterion**

**A sensitive environmental area is an area which has unusual natural or man-made features which are worthy of protection by State or local governments. These natural or man-made features might consist of:**

- a). Groupings of historic buildings located within relatively undisturbed contiguous natural areas.**
- b). Roads through undisturbed countryside containing scenery and buildings uniquely historic and representative of the District.**
- c). Natural wildlife habitats supporting unique fish or wildlife populations, species whose range in the State is restricted or whose numbers are so limited as to warrant special consideration.**
- d). Natural areas possessing unique physical characteristics as:
  - 1. Bluffs having unusual exposed geologic strata, or beautiful vistas.**
  - 2. Inland river banks having wild character, profuse blooming flora, unusual flora communities, unusual crystalline beauty, or exceptional water quality.**
  - 3. Rivers with churning action, having visual interest, waterfalls or sinking streams.**
  - 4. High altitude lakes or elevated lakes in poquosins.**
  - 5. Unaltered mountain coves, significant peaks, natural arches, caves or tunnels.****

6. **Monadnocks, karst outcrops, and other unusual geological formations.**
  7. **Spectacular gorges.**
  8. **Climax forest communities of mature individuals.**
  9. **Forest communities at range limits such as balsam fir, red spruce and arbor vitae.**
  10. **Endangered forest species such as native chestnut and elm**
- e). **Areas possessing qualities suitable for future park development such as:**
1. **Being accessible from population centers and well-traveled tourist routes.**
  2. **Having good scenic qualities, yet relatively level terrain to permit the construction of any necessary facilities.**
  3. **Possessing bodies of water or potential pond and lake sites.**
  4. **Being a relatively large and undeveloped tract.**

**2. Criterion**

**A sensitive environmental area is a natural area which is crucial to an ecological system and should be protected from inappropriate development. Such areas will not readily support intense development or may be hazardous to the public health and safety. Areas within this category might include:**

- a). **Flood plain areas with special flood hazards and those which are located within the one hundred year flood level.**

- b). **Areas of severe topography where it is difficult to locate structures. Steep slopes with shallow soil profiles making it impractical to install sub-surface sewage disposal facilities, to find adequate soil for cut and fill, and to find sufficient water of adequate quality for a domes water supply. Areas where underlying rock formations make it possible for rock or earth slides to take place after heavy precipitation.**
- c). **Low wetlands which are regularly inundated at high tide. These areas are critical to the production of detritus, an important link in the food chain for nearly all marine life, and serve as spawning, breeding, or feeding grounds for many marine species.**

### **3. Criterion**

**A sensitive environmental area includes certain natural, scenic, or historic areas which are presently endangered, or in obvious danger of destruction, alteration, or loss because of the activities of man. Activities which might create a danger to the natural environment include:**

- a). **Existing or potential urbanization whose rate or intensity of growth exceeds the capacity of an area to support it without itself being substantially despoiled.**
- b). **A major public or private facility or improvement which would significantly alter the natural or historic environment.**
- c). **Power generation and transmission facilities or any facility which might pollute the water or air, or despoil the natural, scenic, or historic qualities of an area.**

**4. Criterion**

A sensitive environmental area is an area appropriate for public use through future acquisition by State or local agencies. Many types of natural areas could qualify for public acquisition. Uses to which this land might be put include:

- a). Parks
- b). Historic preserves
- c). Game and fish management areas
- d). Trails
- e). Public forests
- f). Scenic areas
- g). Highways and parkways
- h). Water impoundment sites

**5. Criterion**

A sensitive environmental area is an area which can be considered to contain a primary State resource. These could include wildlife, mineral, or agricultural production. Types of primary resource areas might include:

- a). Natural wildlife habitats of high productivity for use by man
- b). Primary agricultural production areas
- c). Primary forest production areas
- d). Mineral resource areas to include ore deposits and major quarries

<u>Site</u>	<u>Description</u>
Russell Fork Area	Natural area on the Virginia-Kentucky line with wild and spectacular scenery. Views include the

	<b>Breaks of the Cumberland. Criteria 1, 2, 3</b>
<b>Clinch River Gorge Area</b>	<b>Unique sandstone gorge and scenic area. Clinch River has excellent canoeing, fishing, and scenic potential. Important adjacent sites include Big Falls on Cedar Creek, and Pinnacle Rock formations. Criteria 1, 2, 3</b>
<b>Cove Creek Area</b>	<b>Natural area in relatively untouched condition, recreational potential. Criteria 1, 2, 3</b>
<b>Elk Garden</b>	<b>Small settlement centering on an early 19th Century mill overlooked by the classical revival mansion of Governor Stuart. Criteria 1, 3</b>
<b>Burkes Garden</b>	<b>Historic and scenic community in rich agricultural area - relatively isolated. Critical area includes Garden Mountain, unspoiled natural and scenic area - unsuitable for intense development. Criteria 1, 2, 3, 5</b>
<b>Knob Mountain - Paint</b>	<b>Undisturbed scenic and natural area.</b>
<b>Lick Mountain - Cove</b>	<b>Mountains are wildlife habitats of great recreational value. Site of historic Indian battle and pre-historic Indian paintings. Cove area is rich agricultural and cattle-raising area. Criteria 1, 2, 3, 4, 5</b>





Table 6  
Population Counts and Percentages of Change Census 1990, Census 2000, Census 2010 and ACS 2011 - 2015 Estimates

Locality	2011-2015 ACS Estimates	2010	2000	1990	2010-2015 % Change	2000-2010 % Change	1990-2000 % Change	1990-2010 % Change
Buchanan County	23,486	24,098	26,978	31,333	-1.29%	-10.68%	-13.90%	-23.09%
Grundy Town	891	1,021	1,105	1,305	-12.73%	-7.60%	-15.33%	-21.76%
Dickenson County	15,463	15,903	16,395	17,620	-2.76%	-3.00%	-6.95%	-9.75%
Clintwood Town	1,423	1,414	1,549	1,542	0.63%	-8.72%	0.45%	-8.30%
Haysi Town	452	498	186	222	-9.23%	167.70%	-16.22%	124.32%
Clinchco Town	336	337	424	N/A	-0.29%	-20.50%	N/A	N/A
Russell County	28,245	28,897	30,308	28,667	-2.25%	-4.66%	5.72%	0.80%
Cleveland Town	198	202	148	214	-1.98%	36.48%	-30.84%	-5.61%
Lebanon Town	3,388	3,424	3,273	3,386	-1.05%	4.60%	-3.34%	1.12%
Honaker Town	1,576	1,449	945	950	8.76%	53.30%	-0.53%	52.53%
Tazewell County	43,870	45,078	44,598	45,960	-2.68%	1.07%	-2.96%	-1.92%
Bluefield Town	5,350	5,444	5,078	5,363	-1.72%	7.20%	-5.31%	1.51%
Pocahontas Town	365	389	441	513	-6.17%	-11.79%	-14.04%	-24.17%
Richlands Town	5,630	5,823	4,144	4,456	-3.31%	40.56%	-7.00%	30.68%
Tazewell Town	4,522	4,627	4,206	4,176	-2.26%	10.00%	0.72%	10.80%
Cedar Bluff Town	1,148	1,137	1,085	1,290	0.96%	4.79%	-15.89%	-11.86%
CPPDC	111,064	113,976	118,279	123,580	-2.55%	3.63%	-4.29%	-7.77%
Virginia	8,256,630	8,001,024	7,078,515	6,187,358	3.19%	13.00%	14.40%	29.31%

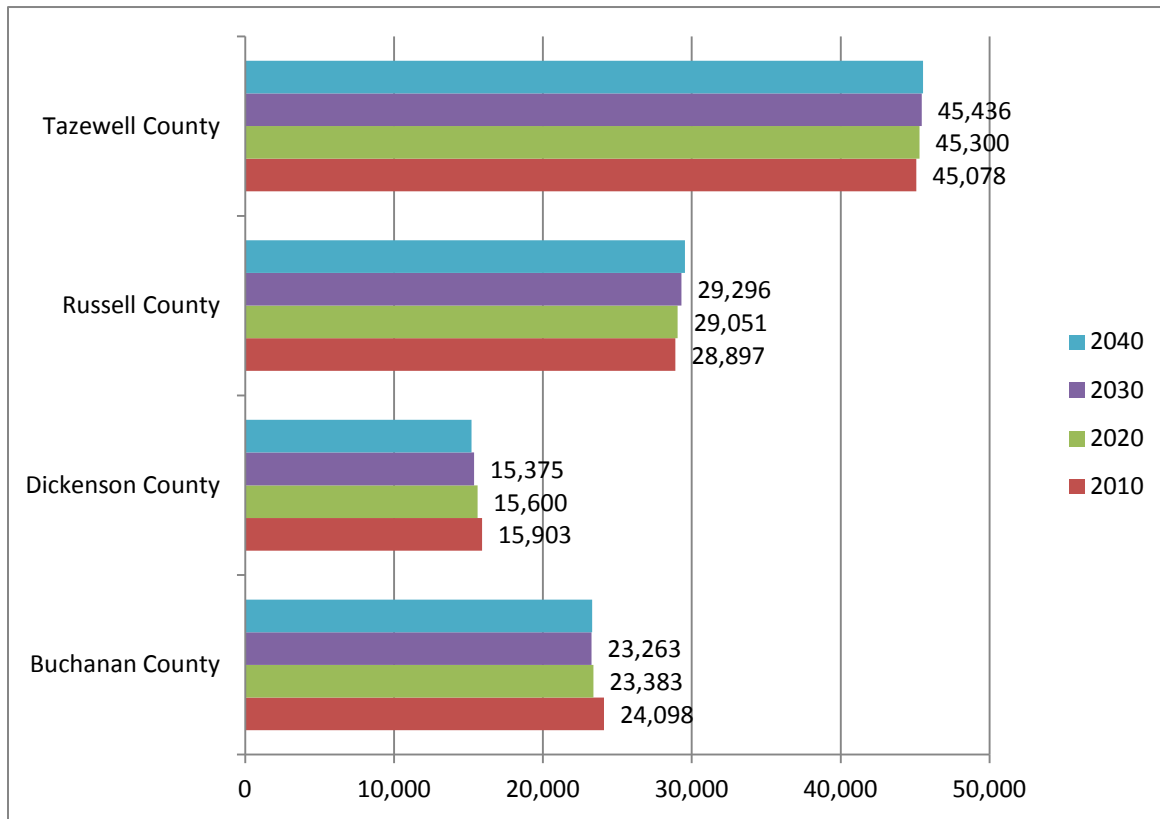
Source: U.S. Census Bureau, 1990 - 2000 - 2010  
and U.S. Census Bureau American Community Survey 2011 - 2015

Table 6a  
Population Projections

Jurisdiction	2010	2020	2030	2040
Buchanan County	24,098	23,383	23,263	23,296
Dickenson County	15,903	15,600	15,375	15,193
Russell County	28,897	29,051	29,296	29,534
Tazewell County	45,078	45,300	45,436	45,535
CPPDC	113,976	113,334	113,370	113,558
Virginia	8,001,024	8,811,512	9,645,281	10,530,229

Source: Virginia Employment Commission

Figure 6



Source: Virginia Employment Commission

decades, the racial composition of that population has remained stable. According to the 2011 - 2015 U.S. Census American Community Survey Estimate, 96.2 percent of the population in the District was white, with data for Tazewell County showing the only significant (but still quite low) number of minorities with a black population of 3.0 percent. Similarly, in 2010, 96.2 percent of the population in the four-county area reported white as their race. The black population in Tazewell County (3.0 percent) was the largest minority representation among the four counties. Table 7 and Figures 7a and 7b show the racial composition of each county and of the State of Virginia as reported in the 2011 - 2015 U.S. Census American Community Survey Estimate. In comparison to the State of Virginia as a whole, the Cumberland Plateau Area has a very small minority population.

Age as shown in Table 8 and Figure 8 is another characteristic that differs somewhat from the State's statistic. The populations of all four counties appear to be slightly older on average than that of the State, with median ages of 45.5, 43.4, 43.8, and 43.1 for the four counties, in comparison to 37.6 for the State in the 2011-2015 U.S. Census American Community Survey Estimate.

**b. Labor Force**

As shown in Tables 9 through figure 9e, from 2000 to 2015 the labor force in all counties within the Planning District decreased. Russell County has experienced a 5.31 percent decrease in its labor force, which has decreased from 11,789 in 2000 to 11,162 in 2011-2015 estimates, while total employment in Russell County has decreased 6.65 percent. Russell's decrease in labor force was less than that recorded in Tazewell County, where the number of people in the labor force decreased by 17.60 percent.

Table 7

## Selected Racial Data By Population and Percentage

Jurisdiction	Population	White	Percent	Black or African American	Percent	Asian	Percent	Hispanic Latino	Percent
Buchanan County	24,098	23,271	96.6%	616	2.6%	53	0.2%	95	0.4%
Dickenson County	15,903	15,712	98.8%	51	0.3%	18	0.1%	86	0.5%
Russell County	28,897	28,270	97.8%	233	0.8%	53	0.2%	275	1.0%
Tazewell County	45,078	42,868	95.1%	1,333	3.0%	289	0.6%	296	0.7%
CPPDC	113,976	109,689	96.2%	2,222	2.0%	409	0.4%	752	0.7%
Virginia	8,001,024	5,486,852	68.6%	1,551,399	19.4%	439,890	5.5%	631,825	7.9%

Source : U.S. Census Bureau 2010

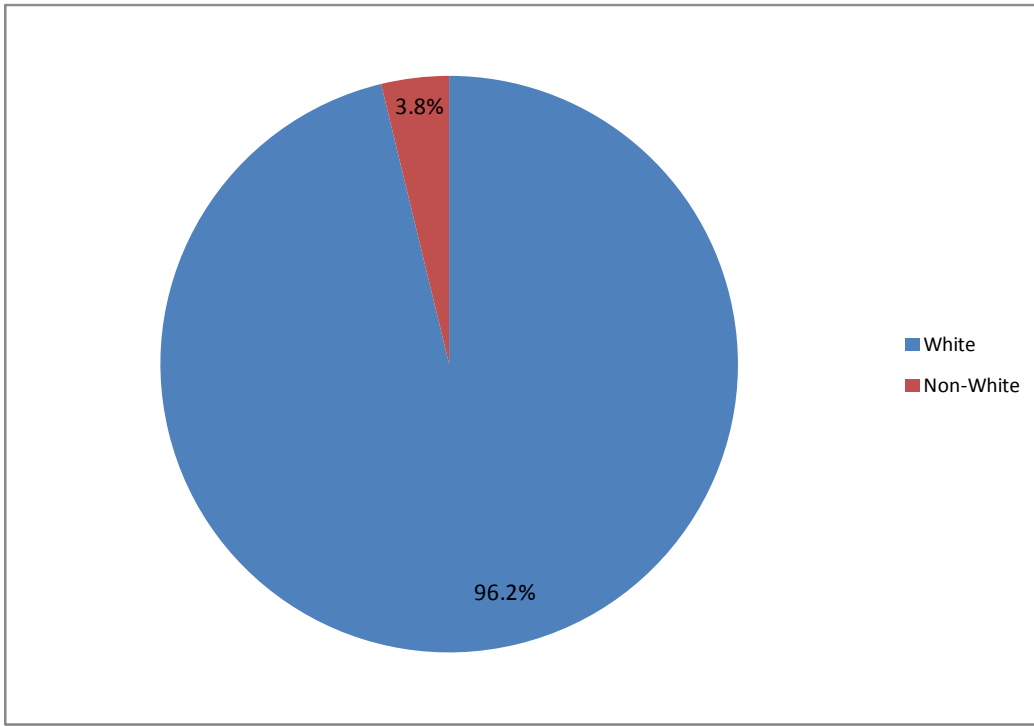
Table 7

## Selected Racial Data Estimates By Population and Percentage

Jurisdiction	Population	White	Percent	Black or African American	Percent	Asian	Percent	Hispanic Latino	Percent
Buchanan County	23,486	22,408	95.4%	623	2.7%	114	0.5%	74	0.3%
Dickenson County	15,463	15,157	98.0%	139	0.9%	11	0.1%	118	0.8%
Russell County	28,245	27,321	96.7%	293	1.0%	41	0.1%	320	1.1%
Tazewell County	43,870	43,503	99.2%	1,279	2.9%	173	0.4%	367	0.8%
CPPDC	111,064	108,389	97.6%	2,334	2.1%	339	0.3%	879	0.8%
Virginia	8,256,630	5,237,848	63.4%	1,560,316	18.9%	489,610	5.9%	709,156	8.6%

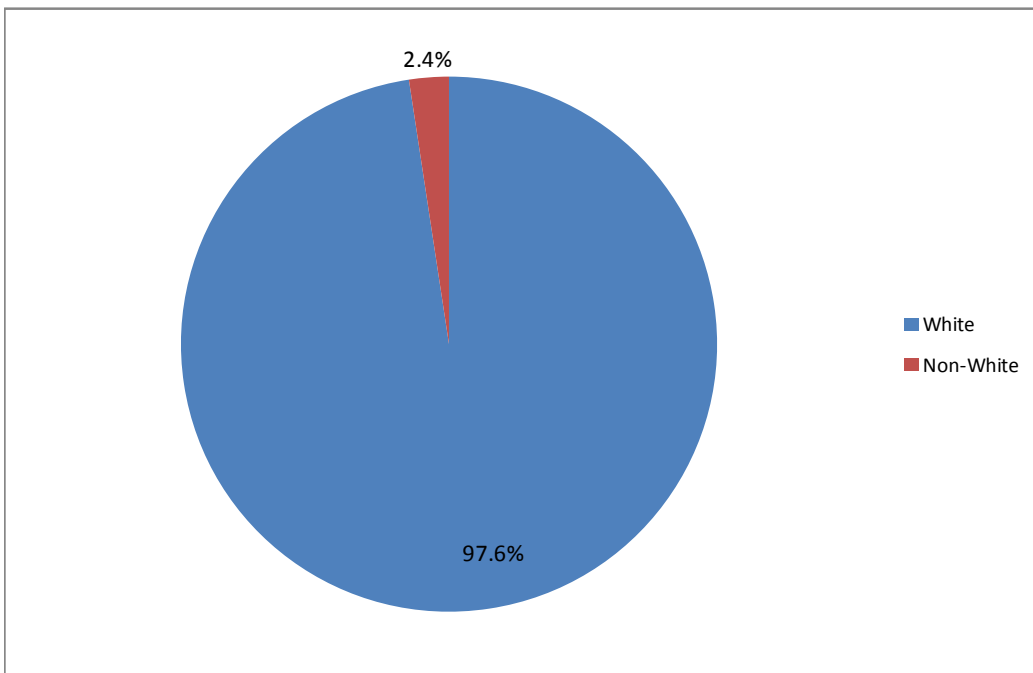
Source : U.S. Census Bureau American Community Survey 2011-2015

Figure 7a  
CPPDC BY RACE, 2010



Source : U.S. Census Bureau 2010

Figure 7b  
CPPDC BY RACE, 2011 - 2015



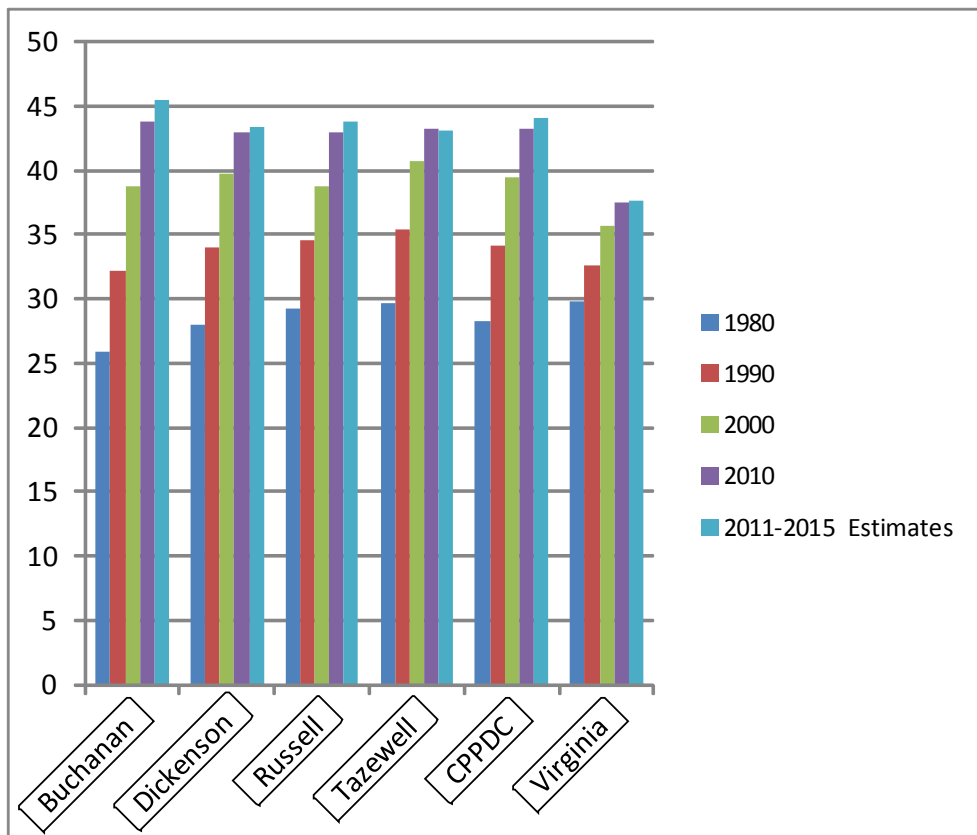
Source : U.S. Census Bureau American Community Survey Estimates 2011-2015

Table 8  
Median Age Years

	1980	1990	2000	2010	2011-2015 Estimates
Buchanan	25.9	32.2	38.8	43.8	45.5
Dickenson	28	34	39.7	43	43.4
Russell	29.3	34.6	38.7	43	43.8
Tazewell	29.6	35.4	40.7	43.2	43.1
CPPDC	28.2	34.1	39.5	43.2	44
Virginia	29.8	32.6	35.7	37.5	37.6

Source: US Census Bureau & 2011 - 2015 American Community Survey Estimates

Figure 8  
Median Age Years



Source: US Census Bureau & 2011 - 2015 American Community Survey Estimates

Table 9  
Labor Force

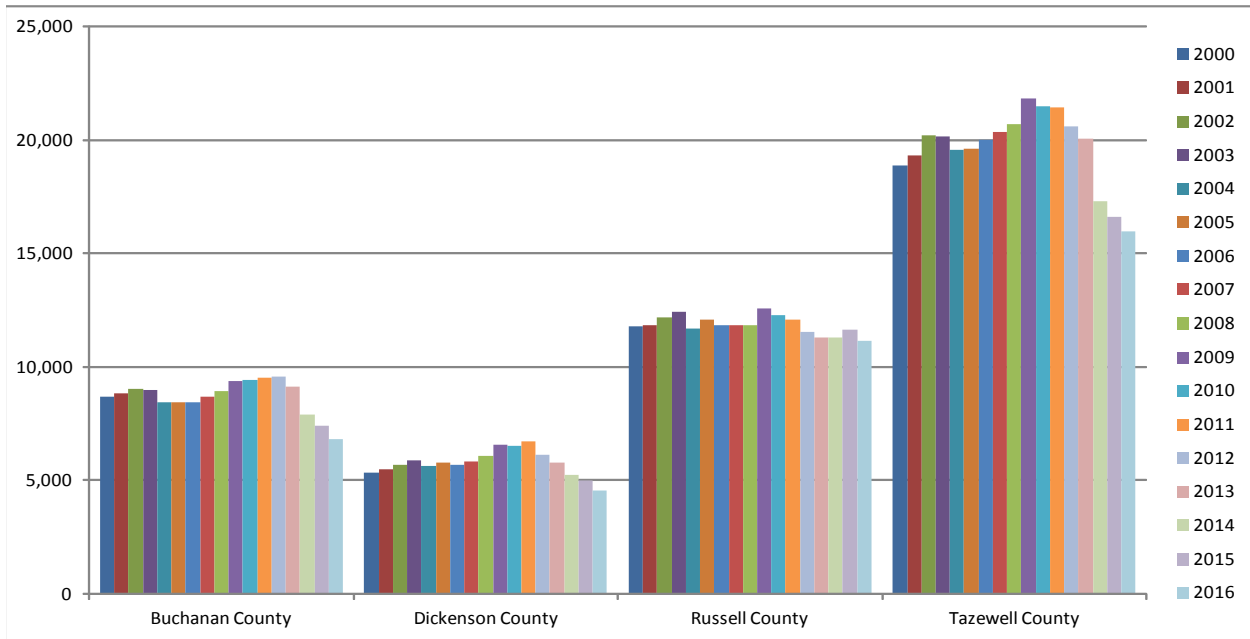
Year	Buchanan County				Dickenson County			
	Labor Force	Employed	Unemployed	Unemployed Rate	Labor Force	Employed	Unemployed	Unemployed Rate
2000	8,680	8,175	505	5.8%	5,330	5,023	307	5.8%
2001	8,845	8,313	632	6.0%	5,467	5,085	382	7.0%
2002	9,025	8,387	638	7.1%	5,676	5,233	443	7.8%
2003	8,952	8,329	623	7.0%	5,869	5,374	495	8.4%
2004	8,448	7,973	475	5.6%	5,645	5,299	346	6.1%
2005	8,451	8,002	449	5.3%	5,752	5,387	365	6.3%
2006	8,426	8,011	415	4.9%	5,665	5,378	287	5.1%
2007	8,683	8,260	423	4.9%	5,804	5,501	303	5.2%
2008	8,917	8,468	449	5.0%	6,052	5,704	348	5.8%
2009	9,377	8,564	813	8.7%	6,541	5,965	576	8.8%
2010	9,435	8,618	817	8.7%	6,522	5,955	567	8.7%
2011	9,527	8,829	698	7.3%	6,689	6,150	539	8.1%
2012	9,575	8,827	748	7.8%	6,111	5,549	562	9.2%
2013	9,122	8,232	890	9.8%	5,766	5,192	574	10.0%
2014	7,874	7,058	816	10.4%	5,239	4,720	519	9.9%
2015	7,408	6,610	798	10.8%	4,986	4,484	502	10.1%
2016	6,826	6,090	736	10.8%	4,535	4,084	451	9.9%

Year	Russell County				Tazewell County			
	Labor Force	Employed	Unemployed	Unemployed Rate	Labor Force	Employed	Unemployed	Unemployed Rate
2000	11,789	11,183	606	5.1%	18,877	17,918	959	5.1%
2001	11,853	11,096	757	6.4%	19,304	18,356	948	4.9%
2002	12,198	11,428	770	6.3%	20,196	19,034	1162	5.8%
2003	12,440	11,672	768	6.2%	20,162	19,076	1086	5.4%
2004	11,703	11,033	670	5.7%	19,581	18,673	908	4.6%
2005	12,067	11,385	682	5.7%	19,610	18,728	882	4.5%
2006	11,821	11,118	703	5.9%	20,007	19,220	787	3.9%
2007	11,806	11,199	607	5.1%	20,359	19,443	916	4.5%
2008	11,833	11,149	684	5.8%	20,675	19,761	914	4.4%
2009	12,592	11,247	1,345	10.7%	21,808	20,137	1,671	7.7%
2010	12,249	11,012	1,237	10.1%	21,458	19,970	1,488	6.9%
2011	12,080	10,956	1,124	9.3%	21,441	20,042	1,399	6.5%
2012	11,513	10,495	1,018	8.8%	20,605	19,158	1,447	7.0%
2013	11,264	10,280	984	8.7%	20,068	18,656	1,412	7.0%
2014	11,307	10,406	901	8.0%	17,303	15,913	1,390	8.0%
2015	11,609	10,856	753	6.5%	16,620	15,376	1,244	7.6%
2016	11,162	10,439	723	6.5%	15,969	14,764	1,205	7.5%

Year	CPPDC				Virginia			
	Labor Force	Employed	Unemployed	Unemployed Rate	Labor Force	Employed	Unemployed	Unemployed Rate
2000	44,676	42,299	2377	5.3%	3,584,037	3,502,524	81,513	2.3%
2001	45,469	42,850	2619	5.8%	3,655,371	3,537,719	117,652	3.2%
2002	47,095	44,082	3013	6.4%	3,744,636	3,588,079	156,557	4.2%
2003	47,423	44,451	2972	6.3%	3,802,819	3,647,095	155,724	4.1%
2004	45,377	42,978	2399	5.3%	3,857,590	3,715,272	142,678	3.7%
2005	45,840	43,461	2379	5.2%	3,921,799	3,783,813	137,986	3.5%
2006	45,919	43,727	2192	4.8%	3,983,717	3,862,508	121,209	3.0%
2007	46,652	44,403	2249	4.8%	4,017,176	3,894,111	123,065	3.1%
2008	47,477	45,082	2395	5.0%	4,138,205	3,974,624	163,581	4.0%
2009	50,318	45,913	4,405	8.8%	4,129,132	3,842,447	286,685	6.9%
2010	49,619	45,496	4,123	8.3%	4,134,422	3,840,619	293,803	7.1%
2011	49,737	45,977	3,760	7.6%	4,198,399	3,928,267	270,132	6.4%
2012	47,804	44,029	3,775	7.9%	4,209,532	3,962,496	247,036	5.9%
2013	46,220	42,360	3,860	8.4%	4,240,111	4,004,981	235,130	5.5%
2014	41,723	38,097	3,626	8.7%	4,261,175	4,041,105	220,070	5.2%
2015	40,623	37,326	3,297	8.1%	4,240,470	4,051,908	188,562	4.4%
2016	38,492	35,377	3,115	8.1%	4,240,403	4,070,260	170,143	4.0%

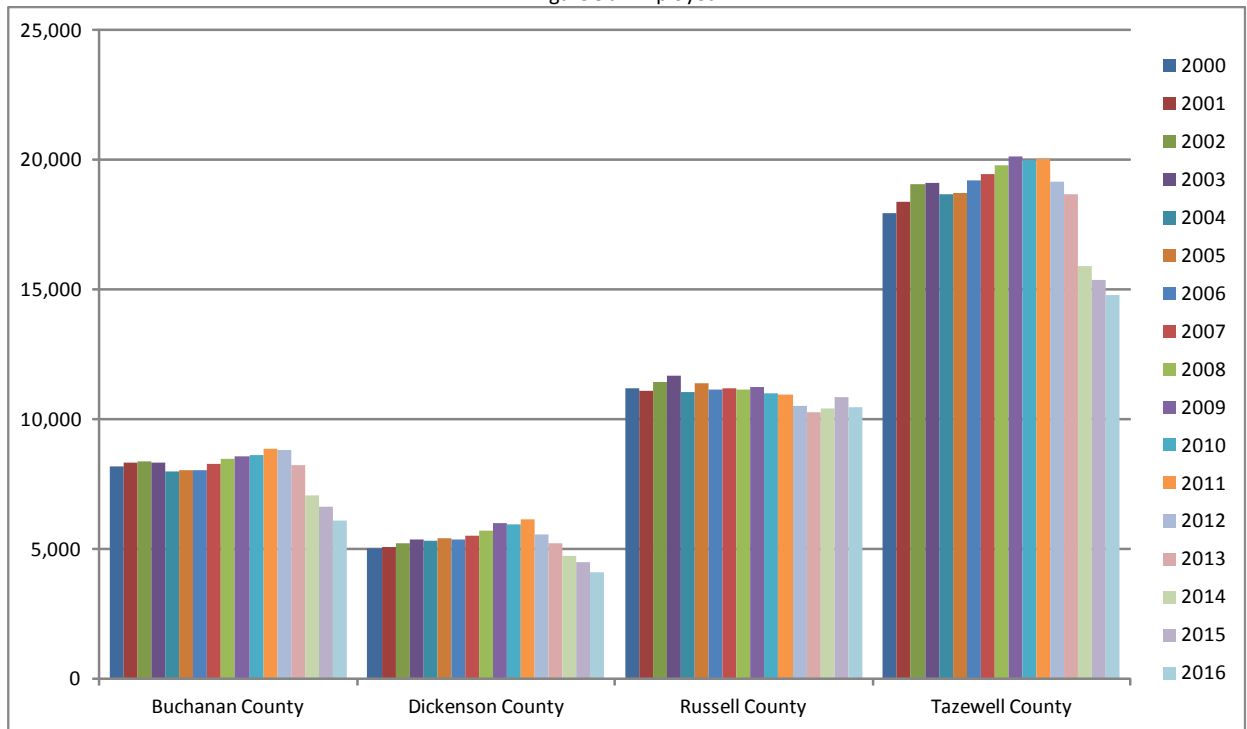
Source : Virginia Employment Commission : Local Area Unemployment Statistics

Figure 9a - Labor Force



Source: Virginia Employment commission

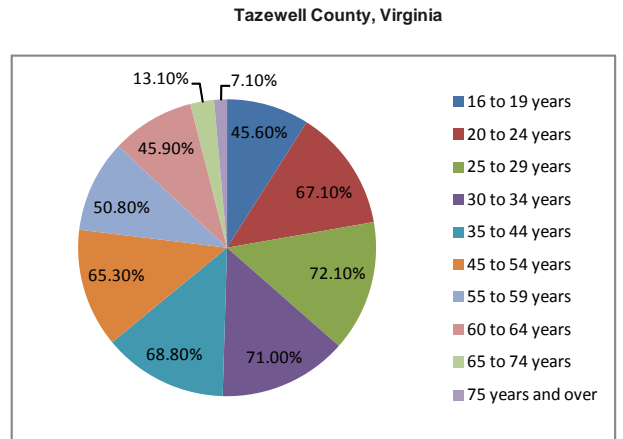
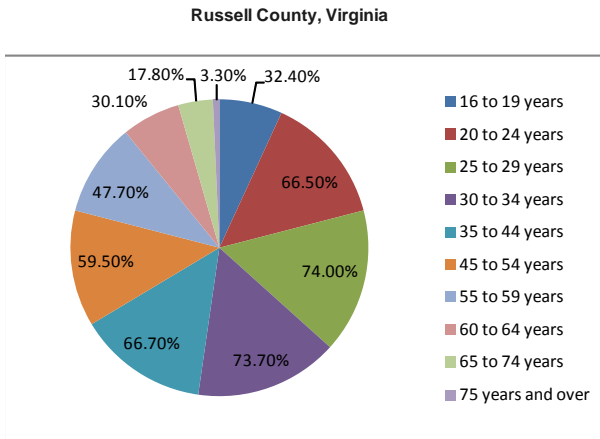
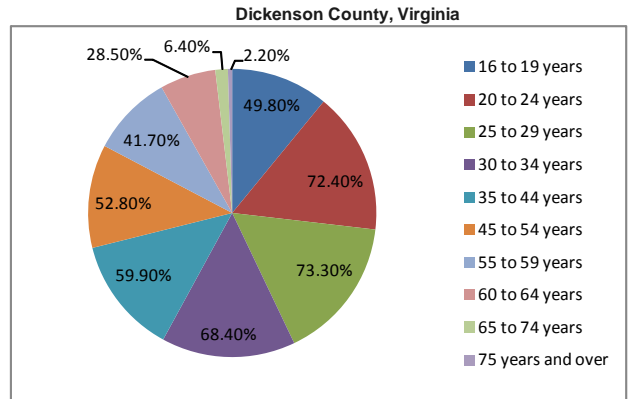
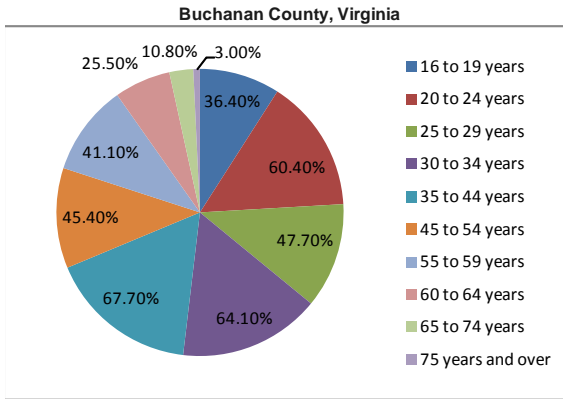
Figure 9b Employed



Source : Virginia Employment Commission : Local Area Unemployment Statistics



Percentage in Labor Force Figure 9C



Source: 2011-2015 United States Census Bureau, American Community Survey

Percentage in Labor Force Figure 9d

Subject	2011-2015 American Community 5 Year Survey				2011-2015 American Community 5 Year Survey			
	Buchanan County, Virginia				Dickenson County, Virginia			
	Total Estimate	In labor force Estimate	Employed Estimate	Unemployment rate Estimate	Total Estimate	In labor force Estimate	Employed Estimate	Unemployment rate Estimate
Population 16 years and over	19,849	40.10%	35.90%	10.60%	12,623	43.60%	39.70%	8.40%
<b>AGE</b>								
16 to 19 years	1,024	36.40%	26.60%	27.10%	622	49.80%	31.20%	37.40%
20 to 24 years	1,288	60.40%	50.50%	16.30%	885	72.40%	59.90%	17.30%
25 to 29 years	1,438	47.70%	35.80%	24.90%	828	73.30%	59.80%	18.50%
30 to 34 years	1,347	64.10%	58.90%	8.00%	979	68.40%	63.40%	4.00%
35 to 44 years	2,886	67.70%	60.70%	10.30%	1,939	59.90%	56.30%	6.00%
45 to 54 years	3,721	45.40%	42.90%	5.70%	2,218	52.80%	51.70%	2.00%
55 to 59 years	2,082	41.10%	37.40%	9.00%	1,101	41.70%	41.50%	0.40%
60 to 64 years	1,648	25.50%	25.50%	0.00%	1,222	28.50%	28.50%	0.00%
65 to 74 years	2,708	10.80%	10.80%	0.00%	1,725	6.40%	6.40%	0.00%
75 years and over	1,707	3.00%	3.00%	0.00%	1,104	2.20%	2.20%	0.00%
Population 20 to 64 years	14,410				9,172			
<b>SEX</b>								
Male	7,492	53.20%	47.00%	11.70%	4,786	57.70%	53.40%	6.60%
Female	6,918	47.10%	43.10%	8.50%	4,386	52.40%	48.60%	7.10%

Subject	2011-2015 American Community 5 Year Survey				2011-2015 American Community 5 Year Survey			
	Russell County, Virginia				Tazewell County, Virginia			
	Total Estimate	In labor force Estimate	Employed Estimate	Unemployment rate Estimate	Total Estimate	In labor force Estimate	Employed Estimate	Unemployment rate Estimate
Population 16 years and over	23,372	47.50%	43.70%	8.00%	36,248	50.30%	46.20%	8.00%
<b>AGE</b>								
16 to 19 years	1,250	32.40%	22.70%	29.90%	2,103	45.60%	36.90%	18.90%
20 to 24 years	1,670	66.50%	61.70%	7.30%	2,526	67.10%	51.50%	23.20%
25 to 29 years	1,513	74.00%	60.50%	17.60%	2,391	72.10%	60.40%	16.00%
30 to 34 years	1,669	73.70%	70.60%	4.20%	2,779	71.00%	66.30%	6.30%
35 to 44 years	3,559	66.70%	59.50%	10.80%	5,436	68.80%	64.50%	6.20%
45 to 54 years	4,241	59.50%	55.90%	6.00%	6,084	65.30%	63.10%	3.30%
55 to 59 years	2,371	47.70%	46.10%	3.20%	3,700	50.80%	49.90%	1.90%
60 to 64 years	2,043	30.10%	30.10%	0.00%	3,142	45.90%	44.00%	4.10%
65 to 74 years	3,011	17.80%	17.80%	0.00%	4,576	13.10%	12.40%	5.00%
75 years and over	2,045	3.30%	3.30%	0.00%	3,511	7.10%	7.10%	0.00%
Population 20 to 64 years	17,066	59.20%	54.60%	7.60%	26,058	63.00%	58.20%	7.60%
<b>SEX</b>								
Male	8,534	66.30%	61.00%	7.80%	13,238	68.40%	62.90%	8.00%
Female	8,532	52.10%	48.20%	7.40%	12,820	57.40%	53.30%	7.20%

Source: 2011-2015 United States Census Bureau, American Community Survey

**Labor Force Status**

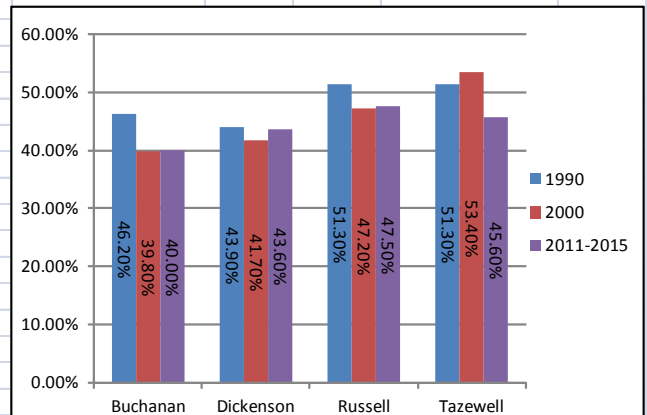
**Table 9e**

Buchanan County				Tazewell County			
	1990	2000	2011 - 2015 Estimate		1990	2000	2011 - 2015 Estimate
Persons 16+	23,849	22,008	19,849	Persons 16+	35,946	36,235	36,248
In labor force	11,022	8,754	7,939	In labor force	18,446	19,346	16,529
% in labor force	46.20%	39.80%	40.00%	% in labor force	51.30%	53.40%	45.60%
Males 16+	11,595	11,127	10,032	Males 16+	16,977	16,917	17,989
Males in labor force	7,019	4,756	4,324	Males in labor force	10,827	10,436	10,025
% in labor force	60.50%	42.74%	43.10%	% in labor force	63.80%	61.69%	55.73%
Females 16+	12,254	10,881	9,817	Females 16+	18,969	19,318	18,259
Females in labor force	4,003	3,998	3,615	Females in labor force	7,619	8,910	6,504
% in labor force	32.70%	36.70%	82.00%	% in labor force	40.20%	46.10%	35.62%

Dickenson County			
	1990	2000	2011 - 2015 Estimate
Persons 16+	13,462	13,259	12,623
In labor force	5,916	5,535	5,503
% in labor force	43.90%	41.70%	43.60%
Males 16+	6,485	6,425	6,384
Males in labor force	3,666	3,149	3,016
% in labor force	56.50%	49.01%	47.24%
Females 16+	6,977	6,834	6,239
Females in labor force	2,250	2,386	2,487
% in labor force	32.20%	34.90%	39.86%

Russell County			
	1990	2000	2011 - 2015 Estimate
Persons 16+	22,508	24,782	23,372
In labor force	11,548	11,695	11,101
% in labor force	51.30%	47.20%	47.50%
Males 16+	10,894	12,540	11,359
Males in labor force	6,988	6,394	5,786
% in labor force	64.10%	51.00%	50.94%
Females 16+	11,614	12,242	12,013
Females in labor force	4,560	5,301	5,315
% in labor force	39.30%	43.30%	44.24%

**Percent in Labor Force  
Figure 9e**



Source: US Census Bureau 1990 and 2000

Source: US Census Bureau American Community Survey 2011-2015

**The labor forces in Buchanan and Dickenson Counties both decreased between 2000 and 2011-2015 estimates. Over the fifteen year period, Buchanan County experienced a -21.35 percent decrease in its labor force and an 25.50 percent decrease in employment. In Dickenson County, the labor force has decreased from 5,330 in 2000 to 4,535 in 2011-2015 estimates, a 14.91 percent decrease, and a 18.69 percent decrease was seen in employment in the county. The District's labor force participation rate of 45.37 percent is considerably lower than Virginia's 63.6 percent, and the participation of women in the labor force is also much lower in the District (52.25 percent) than in the State (66.0 percent). The United States labor force participation rates are 62.7 percent for the total labor force and 59.4 percent**

for females. The low labor force participation rates in the District indicate a disproportionately large number of people in the working age population who are neither employed nor actively seeking employment.

It is believed that the main reason for the exceptionally low labor force participation rates in the District as compared with the State as a whole is a large number of discouraged workers. If the gap between labor force participation between the District and the State as a whole is assumed to be related to the discouragement phenomenon, 19,153 additional members of the working age population can be counted as potential labor force participants.

**c. Unemployment**

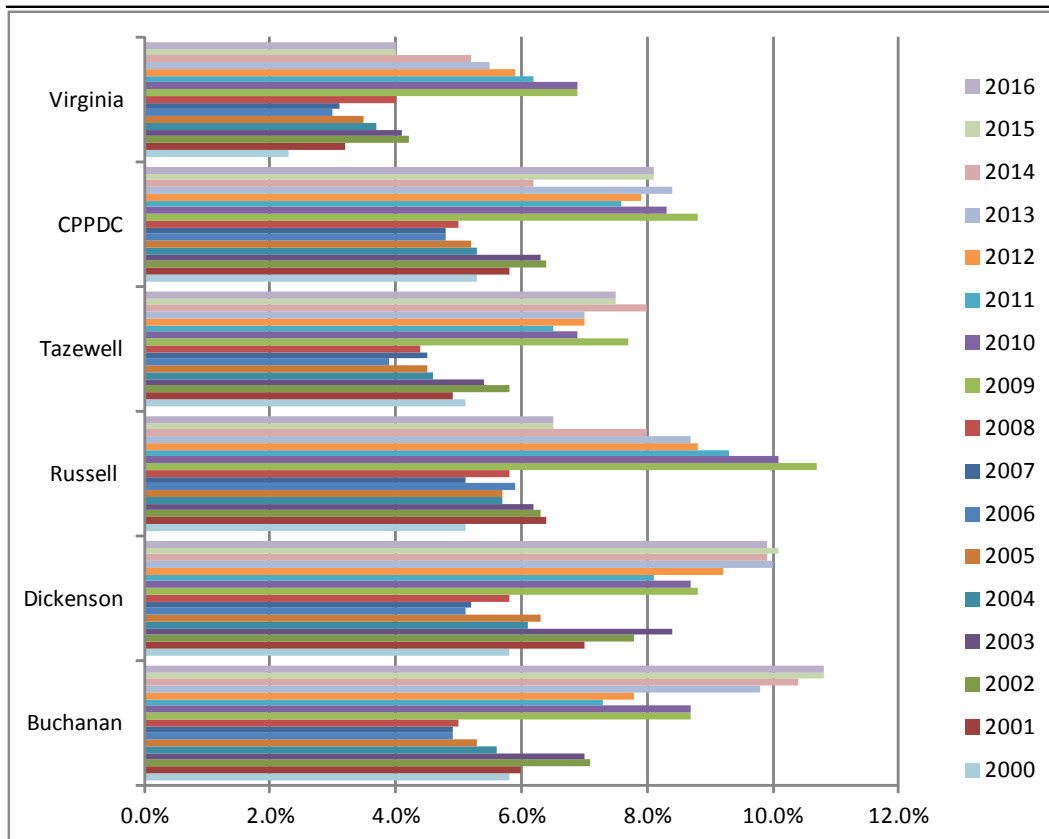
Table 10 and Figure 10 also present annual unemployment data for the Cumberland Plateau Planning District, from 2000 through 2016. In 2016, unemployment is the same in Buchanan, slightly lower in Dickenson, the same in Russell County and the same in Tazewell County compared to 2015. A comparison of the unemployment rate increases from 2007 to 2015 shows a huge increase in unemployment in all four counties: from 4.9 percent unemployment in 2007 to 10.8 percent in Buchanan, 5.2 percent to 9.9 percent in Dickenson, 5.1 percent to 6.5 percent in Russell and 4.5 percent to 7.5 percent in Tazewell. Unemployment in the four counties continued to remain high through 2016 with rates of

Average Unemployment Rates  
2000-2016

Year	Buchanan	Dickenson	Russell	Tazewell	CPPDC	Virginia
2000	5.8%	5.8%	5.1%	5.1%	5.3%	2.3%
2001	6.0%	7.0%	6.4%	4.9%	5.8%	3.2%
2002	7.1%	7.8%	6.3%	5.8%	6.4%	4.2%
2003	7.0%	8.4%	6.2%	5.4%	6.3%	4.1%
2004	5.6%	6.1%	5.7%	4.6%	5.3%	3.7%
2005	5.3%	6.3%	5.7%	4.5%	5.2%	3.5%
2006	4.9%	5.1%	5.9%	3.9%	4.8%	3.0%
2007	4.9%	5.2%	5.1%	4.5%	4.8%	3.1%
2008	5.0%	5.8%	5.8%	4.4%	5.0%	4.0%
2009	8.7%	8.8%	10.7%	7.7%	8.8%	6.9%
2010	8.7%	8.7%	10.1%	6.9%	8.3%	6.9%
2011	7.3%	8.1%	9.3%	6.5%	7.6%	6.2%
2012	7.8%	9.2%	8.8%	7.0%	7.9%	5.9%
2013	9.8%	10.0%	8.7%	7.0%	8.4%	5.5%
2014	10.4%	9.9%	8.0%	8.0%	6.2%	5.2%
2015	10.8%	10.1%	6.5%	7.5%	8.1%	4.0%
2016	10.8%	9.9%	6.5%	7.5%	8.1%	4.0%

Source: Virginia Employment Office

Average Unemployment Rates  
2000-2016



Source: Virginia Employment Office

10.8 percent (Buchanan), 9.9 percent (Dickenson), 6.5 percent (Russell) and 7.5 percent (Tazewell). In comparison, Virginia's unemployment during 2016 was 4.0 percent and the Cumberland Plateau Planning District as a whole posted a rate of 8.1 percent, as shown in Table 10.

d. Principal Labor Needs

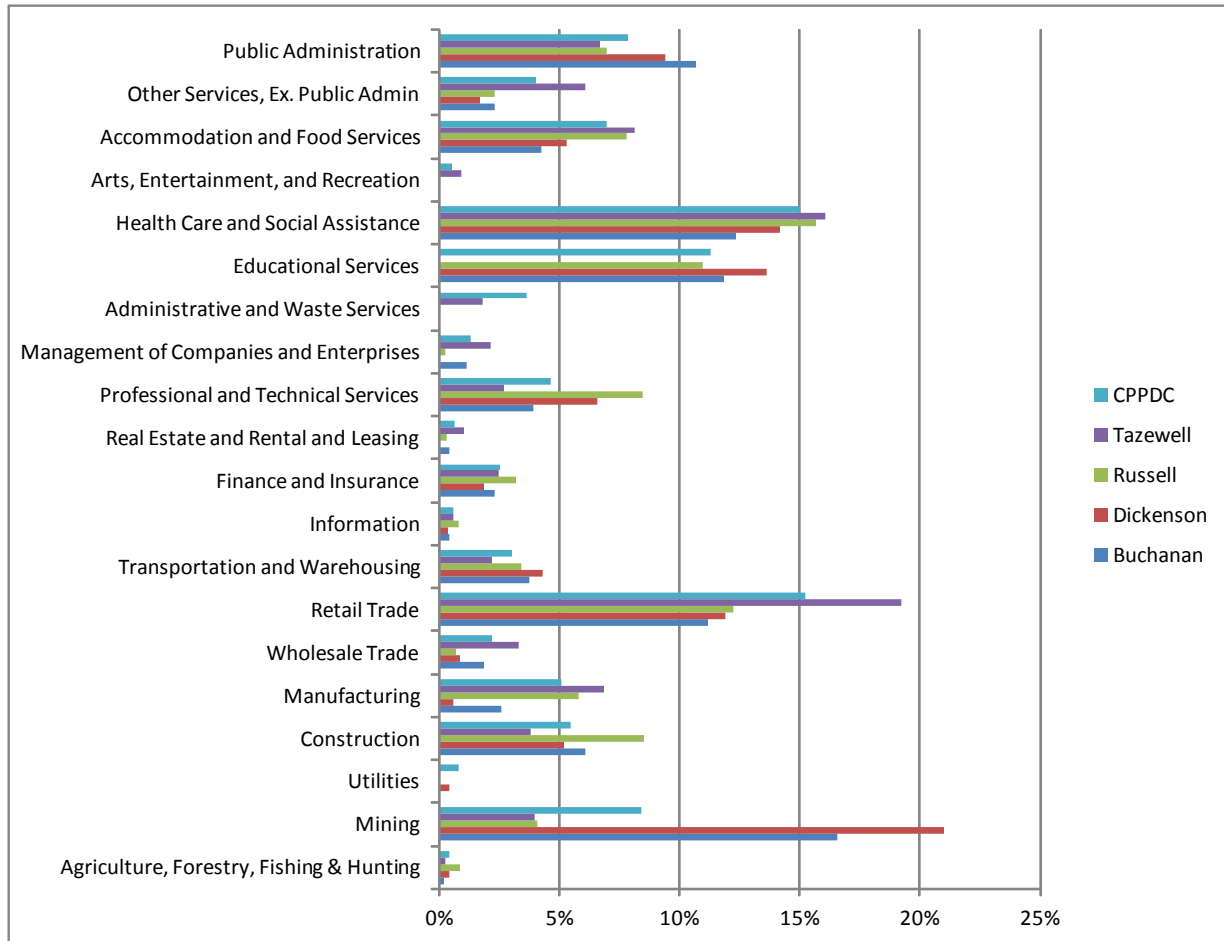
While the annual unemployment rates for the district have been fluctuating within a range of 4.8 to 8.1 percent, the monthly rates have remained fairly stable within a given year, reflecting the non-seasonal nature of the economies within the Cumberland Plateau Planning District. Table 10 and Figure 10 show the unemployment rates in the four counties in 2016, which fluctuated between 10.8 percent in Buchanan, 9.9 percent in Dickenson, 6.5 percent in Russell and 7.5 percent in Tazewell. This pattern of fluctuations follows normal yearly business cycles and indicates that the target area is primarily dependent upon non-seasonal employment. Table 11 and figure 11 present employment by industry data and show that the largest percentages of employment in the four county area are in retail trade, health care and social assistance sectors in 2011-2015 estimates. Mining employment is the third largest sector. The percent of employment in mining was appreciably smaller in Tazewell County (3.98 percent) and Russell County (4.10 percent) than it was in Dickenson County (20.98 percent) or Buchanan County (16.55 percent), reiterating the relative diversity of the economies in Tazewell and Russell as opposed to the other two counties. The figures for mining employment in 2015 are considerably smaller than they were in 2000 in all four counties due to

Table 11  
Distribution of Employment 2016

Industry	Buchanan	Dickenson	Russell	Tazewell	CPPDC
	%	%	%	%	%
Agriculture, Forestry, Fishing & Hunting	0.22%	0.45%	0.89%	0.27%	0.41%
Mining	16.55%	20.98%	4.10%	3.98%	8.39%
Utilities	***	0.45%	***	***	0.82%
Construction	6.11%	5.19%	8.54%	3.82%	5.48%
Manufacturing	2.59%	0.60%	5.83%	6.88%	5.10%
Wholesale Trade	1.90%	0.90%	0.72%	3.31%	2.19%
Retail Trade	11.21%	11.92%	12.23%	19.21%	15.25%
Transportation and Warehousing	3.78%	4.29%	3.43%	2.21%	3.02%
Information	0.42%	0.36%	0.84%	0.58%	0.58%
Finance and Insurance	2.33%	1.86%	3.22%	2.47%	2.54%
Real Estate and Rental and Leasing	0.42%	***	0.30%	1.02%	0.63%
Professional and Technical Services	3.94%	6.60%	8.47%	2.69%	4.64%
Management of Companies and Enterprises	1.13%	***	0.29%	2.13%	1.31%
Administrative and Waste Services	***	***	***	1.82%	3.65%
Educational Services	11.87%	13.63%	10.96%	***	11.28%
Health Care and Social Assistance	12.36%	14.20%	15.66%	16.09%	15.03%
Arts, Entertainment, and Recreation	***	***	***	0.95%	0.54%
Accommodation and Food Services	4.25%	5.31%	7.80%	8.14%	6.97%
Other Services, Ex. Public Admin	2.33%	1.71%	2.32%	6.09%	4.02%
Public Administration	10.70%	9.40%	6.97%	6.68%	7.86%

Source: Virginia Employment Commission

Figure 11  
Distribution of Employment 2016



Source: Virginia Employment Commission

**technology increases in mining which have reduced the amount of human labor required. These figures will continue to decline in the future. The two counties with the highest concentrations of mining employment, Buchanan and Dickenson, have consistently recorded average weekly wage rates that are higher than those in Russell and Tazewell Counties, as illustrated in Tables 12 and Figure 12. These**



Table 12  
Average Weekly Wages

	1990	2000	2010	2016
Buchanan County	\$477	\$525	\$841	\$795
Dickenson County	\$396	\$455	\$728	\$714
Russell County	\$365	\$469	\$638	\$734
Tazewell County	\$348	\$426	\$599	\$619
CPPDC	\$397	\$461	\$675	\$690
Virginia	\$438	\$676	\$955	\$1,055

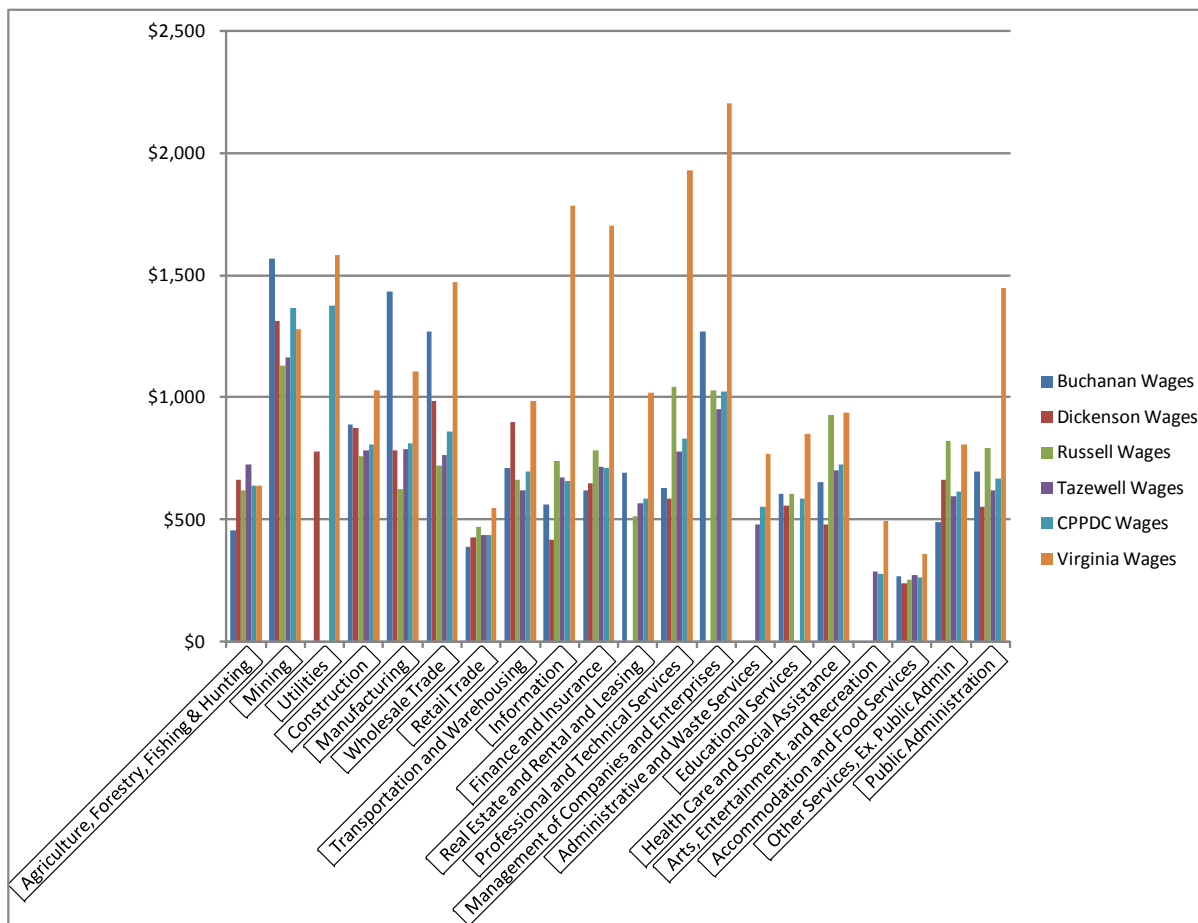
Source: Virginia Employment Commission

Table 12  
Average Weekly Wages 2016

Industry	Average Weekly Wages 2016					
	Buchanan Wages	Dickenson Wages	Russell Wages	Tazewell Wages	CPPDC Wages	Virginia Wages
Agriculture, Forestry, Fishing & Hunting	\$455	\$663	\$620	\$726	\$639	\$635
Mining	\$1,568	\$1,312	\$1,131	\$1,161	\$1,363	\$1,277
Utilities	***	\$775	***	***	\$1,375	\$1,583
Construction	\$890	\$873	\$759	\$782	\$808	\$1,027
Manufacturing	\$1,432	\$782	\$623	\$785	\$812	\$1,103
Wholesale Trade	\$1,270	\$985	\$720	\$761	\$858	\$1,473
Retail Trade	\$388	\$427	\$469	\$435	\$433	\$545
Transportation and Warehousing	\$708	\$899	\$661	\$617	\$695	\$983
Information	\$561	\$418	738	\$669	\$655	\$1,783
Finance and Insurance	\$618	\$649	\$782	\$713	\$709	\$1,702
Real Estate and Rental and Leasing	\$691	***	\$514	\$566	\$584	\$1,017
Professional and Technical Services	\$626	\$584	\$1,042	\$775	\$828	\$1,929
Management of Companies and Enterprises	\$1,271	***	\$1,029	\$950	\$1,022	\$2,206
Administrative and Waste Services	***	***	***	\$477	\$553	\$766
Educational Services	\$603	556	605	***	\$585	\$847
Health Care and Social Assistance	\$651	\$477	\$928	\$702	\$723	\$936
Arts, Entertainment, and Recreation	***	***	***	\$284	\$277	\$495
Accommodation and Food Services	\$267	\$239	\$252	\$270	\$263	\$357
Other Services, Ex. Public Admin	\$490	\$660	\$821	\$592	\$612	\$807
Public Administration	\$697	\$549	\$793	\$619	\$666	\$1,446

Source: Virginia Employment Commission

Figure 12  
Average Weekly Wages 2015



Source: Virginia Employment Commission

**high weekly wage averages reflect the good wages available within the mining sector, but do not reflect the large numbers of laid off miners and unemployed persons in the two counties. Obviously, the mining industries cannot employ all of the local residents who would like to have a job, and there were few alternative sources of employment outside the mining sector. The figures and table for 2015 show that the average weekly wage in most sectors fell below the State average. Decreases in average weekly wage rates may continue into the next few years as productivity increases and intense competition within the coal and alternative fuels industries forebode further cutbacks in mining employment and/or wages.**

Since mining jobs pay wages two to three times those of the average service job, even if many of the laid-off miners could find sources of employment, which has not been the case thus far, the loss incurred in the communities' overall cash flow would be substantial.

Average weekly wage rates in Russell and Tazewell Counties have been consistently lower than those for the State of Virginia as a whole from 2000 to 2015. With less of their labor force in high-wage mining jobs during these years, adjusted weekly wage rates in the two counties ranged from \$252 to \$1,161, lower than the State's range of \$357 to \$2,206. However, the wide variety of jobs which provide these wages may be more secure than those which provide higher wages in Buchanan and Dickenson Counties but are solely dependent upon the mining sector. Average weekly wages continued to grow through 2015 but at a slower rate. The slower rate is due in part to continuing decline in the coal mining sector. Average weekly wage rates which are below the State's averages may prove to be an advantage to the area as local governments and economic development agencies attempt to attract new businesses to the Cumberland Plateau Area.

Career and technology centers are located in each of the counties to provide students and adults with specific job skills. The Buchanan County Career and Technology Center (Grundy) had an enrollment of approximately 260 students in the 2012-2013 school year, Dickenson County Career and Technology Center (Clinchco) had 190 students enrolled in this year, 327 students were enrolled at the Russell County Career and Technology Center (Lebanon) and 335 were enrolled in programs at the Tazewell County Career and Technology Center (Tazewell). These

vocational schools offer training for high school students, and adults in areas such as auto repair, carpentry, cosmetology, electronics, masonry, mine machinery repair, practical nursing, and welding.

**E. The Economy**

**a. Principal Economic Activity**

As shown in Table 13, the principal economic activity in terms of employment in the Planning District is shifting away from mining. In 2015 the principal employment activity was retail service with 15.25 percent followed by Health Care and Social Assistance with 15.03 percent. Mining accounted for 8.39 percent of total employment. However, trade is still not as important when both employment and income are compared. Agriculture and forestry are relatively insignificant as sources of employment. At present, tourism does not have a significant impact on the local economy.

**b.. Recent Trends in Economic Activity**

In recent years the trade and service sectors have increased in importance as a source of employment. Between 2000 and 2015 employment in the service sector continued to increase. Increases in these sectors helped offset losses in mining and mining related manufacturing. Table 14 shows that taxable sales, which indicates a growing service sector, have increased substantially since 2000.

Another fairly recent development in Russell County was the loss of three automobile parts manufacturers, which employed about 1400 people. This has been partially offset by two information technology industries that employ approximately 600 people. Other industrial development projects assisted through State and

Table 13  
Distribution of Employment 2016

Industry	Buchanan	Dickenson	Russell	Tazewell	CPPDC
	%	%	%	%	%
Agriculture, Forestry, Fishing & Hunting	0.22%	0.45%	0.89%	0.27%	0.41%
Mining	16.55%	20.98%	4.10%	3.98%	8.39%
Utilities	***	0.45%	***	***	0.82%
Construction	6.11%	5.19%	8.54%	3.82%	5.48%
Manufacturing	2.59%	0.60%	5.83%	6.88%	5.10%
Wholesale Trade	1.90%	0.90%	0.72%	3.31%	2.19%
Retail Trade	11.21%	11.92%	12.23%	19.21%	15.25%
Transportation and Warehousing	3.78%	4.29%	3.43%	2.21%	3.02%
Information	0.42%	0.36%	0.84%	0.58%	0.58%
Finance and Insurance	2.33%	1.86%	3.22%	2.47%	2.54%
Real Estate and Rental and Leasing	0.42%	***	0.30%	1.02%	0.63%
Professional and Technical Services	3.94%	6.60%	8.47%	2.69%	4.64%
Management of Companies and Enterprises	1.13%	***	0.29%	2.13%	1.31%
Administrative and Waste Services	***	***	***	1.82%	3.65%
Educational Services	11.87%	13.63%	10.96%	***	11.28%
Health Care and Social Assistance	12.36%	14.20%	15.66%	16.09%	15.03%
Arts, Entertainment, and Recreation	***	***	***	0.95%	0.54%
Accommodation and Food Services	4.25%	5.31%	7.80%	8.14%	6.97%
Other Services, Ex. Public Admin	2.33%	1.71%	2.32%	6.09%	4.02%
Public Administration	10.70%	9.40%	6.97%	6.68%	7.86%

Source: Virginia Employment Commission

Taxable Sales 2000-2016  
Table 14

Year	Buchanan	Dickenson	Russell	Tazewell	CPPDC
2000	\$115,923,478	\$48,398,260	\$107,862,419	\$409,177,303	\$681,361,460
2001	\$114,597,950	\$47,977,617	\$101,878,423	\$414,883,974	\$679,337,964
2002	\$114,720,922	\$49,531,310	\$122,525,574	\$421,810,028	\$708,587,834
2003	\$112,152,118	\$50,249,767	\$129,188,820	\$439,228,597	\$730,819,302
2004	\$116,924,712	\$52,914,791	\$138,753,368	\$462,767,675	\$771,360,546
2005	\$107,211,477	\$50,357,215	\$132,085,662	\$433,462,904	\$723,117,258
2006	\$123,290,187	\$57,182,687	\$149,040,720	\$503,888,173	\$833,401,767
2007	\$127,687,900	\$60,083,344	\$156,657,814	\$520,718,233	\$865,147,291
2008	\$139,948,887	\$63,232,095	\$161,030,985	\$541,605,045	\$905,817,012
2009	\$127,560,716	\$64,054,957	\$157,889,960	\$532,354,982	\$881,860,615
2010	\$125,345,514	\$65,984,411	\$158,276,136	\$531,158,462	\$880,764,523
2011	\$142,304,553	\$68,042,398	\$159,840,501	\$540,216,247	\$910,403,699
2012	\$156,984,874	\$66,417,728	\$160,139,687	\$552,018,668	\$935,560,957
2013	\$148,802,737	\$65,552,723	\$153,199,811	\$527,292,801	\$894,848,072
2014	\$147,726,232	\$69,962,263	\$159,893,054	\$521,246,767	\$898,828,316
2015	\$141,875,222	\$60,520,561	\$172,010,922	\$531,489,881	\$905,896,586
2016	\$134,661,123	\$58,322,259	\$158,768,726	\$515,363,533	\$867,115,641

Source: Virginia Department of Taxation

**Federal funding include: Wardell Industrial Park - three industries, two non-mining related and one mining related, have expanded in the park, creating 190 new jobs.**

**There have been no major bankruptcies that have had a significant impact upon the economy.**

**c. Median Family and Per Capita Income**

**Tables 15 and 16 and Figures 15 and 16 show that median family income increased in all four counties between 1990 and 2011-2015 average. The problem, however, is that all of the counties continue to lag behind the State. Between 1990 and 2011-2015 median family income in Buchanan, Dickenson, Russell and Tazewell Counties increased by 71.59, 116.98, 120.60 and 108.04 percent respectively. During this same period the State increased by 118.00 percent. Even though the counties increased in per capita income at a significant rate, there is still a great disparity**

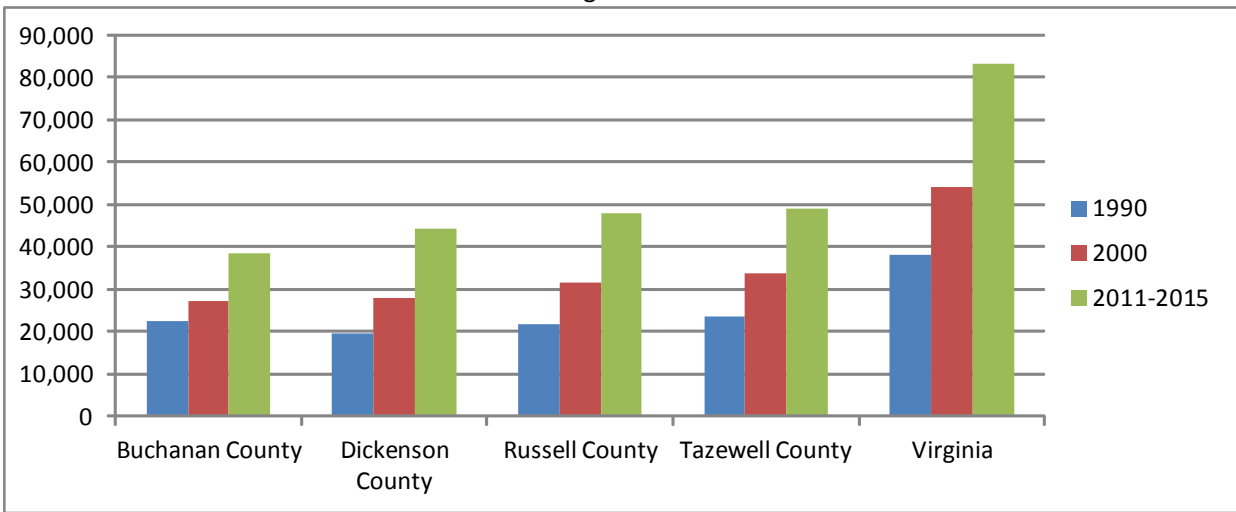
**with the State**

Median Family Income

Table 15

Median Family Income	1990	2000	2011-2015
Buchanan County	22,464	27,328	38,546
Dickenson County	19,498	27,986	44,227
Russell County	21,777	31,491	48,040
Tazewell County	23,535	33,732	48,963
Virginia	38,213	54,169	83,306

Figure 15



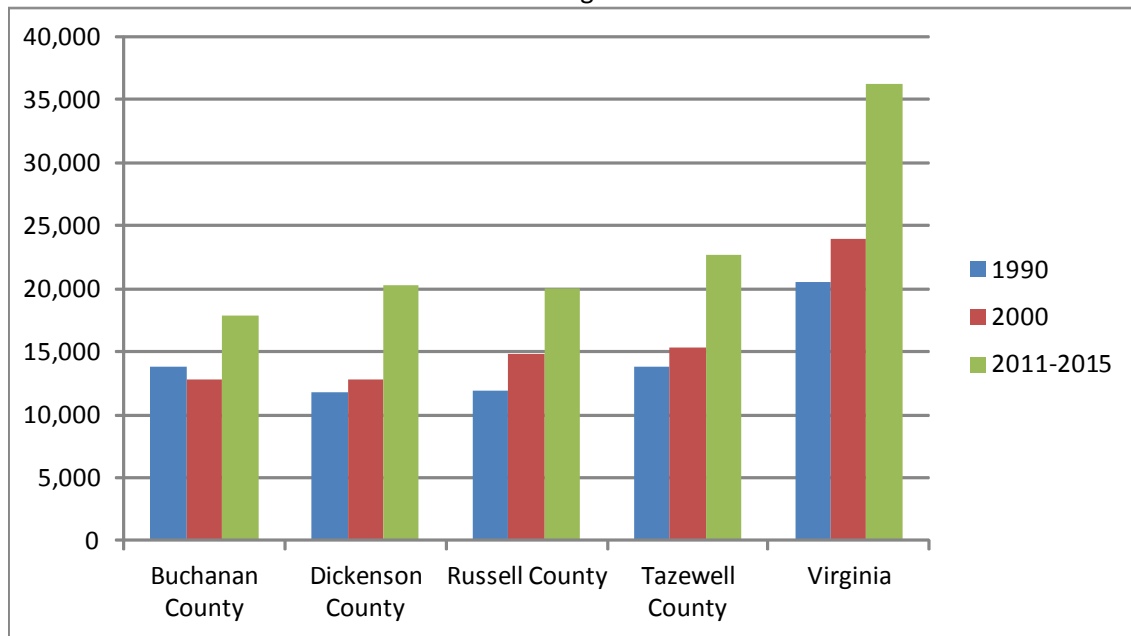
Source: U.S. Census Bureau 2000 data and 20011-2015 American Community Survey data

PerCapita Income

Table 16

PerCapita Income	1990	2000	2011-2015
Buchanan County	13,875	12,788	17,883
Dickenson County	11,793	12,822	20,275
Russell County	11,972	14,863	20,053
Tazewell County	13,797	15,282	22,721
Virginia	20,527	23,975	36,206

Figure 16



Source: U.S. Census Bureau 2000 data and 2011-2015 American Community Survey data

**on the actual dollar amounts of the median family incomes. The same trend holds**



for per capita income. From 1990 – 2011-2015 average per capita income increased by 28.88% in Buchanan County, 71.92% in Dickenson County 67.49% in Russell County and by 64.68% in Tazewell County. State per capita income increased by 76.38% for the same period. The counties of the planning district would have to grow at a much faster rate for several years in order to close the income gap. This decrease relative to the State results from losing high paying mining jobs and replacing them with lower paying manufacturing and telecommunications jobs.

**d. Economic Ties to Surrounding Area**

The area's economy is somewhat tied to the coalfields of Eastern Kentucky and Southern West Virginia, because some of the people who live along the District's border work in these states. Ties with other areas in Virginia have been less evident, but there is a rise in commuters coming into the District to work in the new IT companies such as CGI, Northrup Grumman, Sykes and SI. There is, however, out-leakage of disposable income due to the drawing power of the commercial sector in the Tri-Cities area.

**e. Financial Resources**

The financial resources of the District are substantial according to Table 17. Deposits in banks, Savings and Loans and Credit Unions are approximately 2.3 billion dollars. The problem, however is that many of the banks in the area are affiliated with large State banks and are therefore reluctant to invest in the local

Deposits in Banks, Savings Institutions and US Branches of Foreign Banks: 2000 - 2017 (Millions of \$)

Locality	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
United States	4,003,744	4,326,207	4,606,092	5,132,110	5,464,782	5,933,763	6,449,864	6,702,212	7,025,791	7,559,590	7,676,878	8,249,233	8,947,239	9,433,525	10,112,716	11,979,347	12,519,652	13,091,400
Virginia	87,819	100,926	117,669	129,719	147,775	155,264	172,785	182,183	193,910	212,671	214,271	227,963	248,783	240,787	239,965	278,290	278,176	307,654
Buchanan County	371	385	380	410	423	440	503	509	522	509	516	506	518	510	512	502	493	486
Dickenson County	130	137	151	154	157	162	170	183	205	219	212	198	202	202	200	204	196	198
Russell County	288	320	323	338	346	348	388	427	461	496	535	517	516	509	506	505	517	501
Tazewell County	671	691	696	682	686	727	791	865	910	1,112	1,082	1,121	1,135	1,101	1,055	1,060	988	1,031
CPPDC	1,460	1,533	1,550	1,584	1,612	1,677	1,852	1,984	2,098	2,336	2,345	2,342	2,371	2,322	2,273	2,271	2,194	2,216

Source: Federal Reserve Bank of Richmond

Note-Total Bank Deposits=Commercial Banks + Savings Institutions + US Branches of Foreign Banks

Note-Annual Estimates are as of June 30th of Each Year

economy.

All attempts to persuade the banks to collectively provide a pool of risk capital has been unsuccessful. As a result of the lending policies of these banks, industries seeking to locate in the area or existing industries seeking to expand are sometimes forced to find other outside sources of financial capital. This is a barrier to development that the planning district will continue trying to bridge.

**f. Community Facilities and Services**

Over the past several years, jurisdictions in the District have made significant strides in improving their community facilities and services. In the major towns, where most economic development occurs, water and sewer capacity is sufficient for most light industry. Much remains, however, to be done in other areas with potential for development.

**Housing**

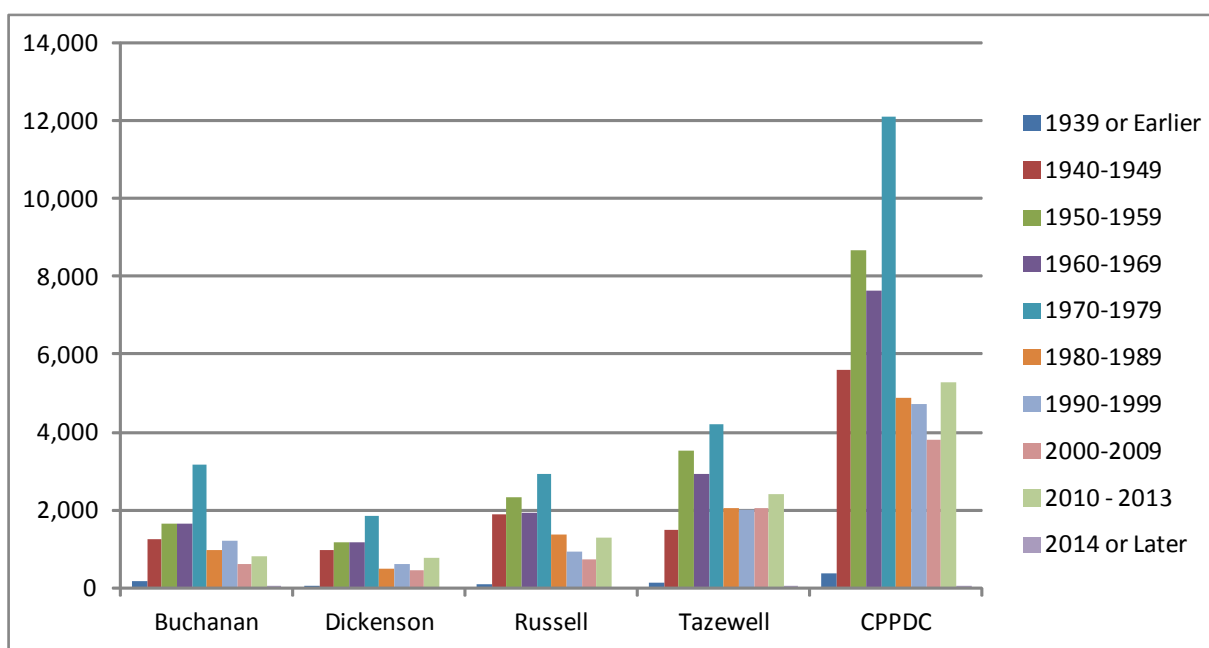
Table 18 and Figure 18 profile housing units by the year in which they were built. Housing stock differed somewhat in the District from those of the State as a

Table 18  
Housing Units by Year Built

Year	Buchanan	Dickenson	Russell	Tazewell	CPPDC	Virginia
2014 or Later	9	0	0	44	53	3823
2010 - 2013	159	37	78	115	389	61,957
2000-2009	1,262	956	1,905	1,489	5612	547,215
1990-1999	1,664	1,186	2,307	3,503	8660	550,964
1980-1989	1,645	1,149	1,938	2,910	7642	574,843
1970-1979	3,150	1,856	2,917	4,185	12108	561,594
1960-1969	975	508	1,375	2,037	4895	378,759
1950-1959	1,191	609	925	2,005	4730	316,938
1940-1949	616	436	712	2,037	3801	163,958
1939 or Earlier	818	788	1,271	2,391	5268	263,240
Total	11,489	7,525	13,428	20,716	53,158	3,423,291

20011-2015 United States Census Bureau American Community Survey

Figure 18  
Housing Units by Year Built



20011-2015 United States Census Bureau American Community Survey

whole. Of the year round residential structures in the State, 49.8 percent were built before 1970 , while Dickenson , Russell and Tazewell had larger percentages of pre-1970 structures (37.5, 43.43 and 34.56 percents, respectively), and Buchanan

had fewer with only 37.9 percent.

The coal boom of the 1970's brought with it an increase in population and income, which in turn resulted in an increased demand for new housing. All four counties had larger percentages of houses built between 1970 and 1980 (Buchanan—28.0 percent, Dickenson—28.0 percent, Russell—20.8 percent and Tazewell—21.7 percent) than did the State (16.9 percent). The percent of year-round units vacant, a measure that can indicate a housing shortage or surplus, was only slightly higher in the District (four county average of 12.81 percent) than in the State (7.6 percent) in 2000. In Tazewell County, that rate was lower (11.6 percent), indicating that the housing market in Tazewell counties in 1990's was better than the other counties in the district.

Table 19 profiles the value of housing in the four counties. The district value differed substantially from that of the State in the last census year. In 2015, the median value for an owner-occupied unit in the District of \$83,250 was 33.98 percent of the median value in the State (\$245,000). Within the District, values of houses had the lowest average in Buchanan County (\$71,500) and highest in Russell County (\$96,000). Rents for renter-occupied units reflect this same trend with the State reporting a substantially higher figure than in the four counties.

The 2011- 2015 information on the housing market indicates that housing values have increased substantially in all four counties of the Cumberland Plateau Planning District.

Comparative Values for Owner Occupied Housing By Value Range

Value	2000 Census						2001-2015 American Community Survey					
	Buchanan	Dickenson	Russell	Tazewell	CPPDC	Virginia	Buchanan 2011-2015 ACS	Dickenson 2011-2015 ACS	Russell 2011-2015 ACS	Tazewell 2011-2015 ACS	CPPDC 2011-2015 ACS	Virginia 2011-2015 ACS
Less than \$50,000	4,861	3,016	4,360	6,315	18,552	91,881	2,651	1,626	2,061	3,145	9,483	115,300
\$50,000 to \$99,999	2,960	1,984	3,722	5,532	14,198	462,870	2,547	1,497	2,459	4,255	10,758	157,670
\$100,000 to \$149,999	499	370	1,013	1,314	3,196	373,288	904	835	1,333	2,326	5,398	224,710
\$150,000 to \$199,999	210	68	226	509	1,013	233,999	434	410	1,245	1,645	3,734	294,598
\$200,000 to \$299,999	97	53	136	301	587	209,613	405	276	971	1,342	2,994	446,227
\$300,000 to \$499,999	24	9	84	82	199	107,093	359	99	425	476	1,359	455,559
\$500,000 to \$999,999	9	13	15	60	97	28,041	93	40	95	117	345	285,998
\$1,000,000 or more	14	12	8	14	48	4,013	56	22	25	132	235	46,943
Median (dollars)	42,800	45,100	55,200	55,700	49,700	118,800	71,500	74,100	96,000	91,400	83,250	245,000

Source: U.S. Census Bureau (2000 data) and 2011-2015 U.S. Census Bureau American Community Survey Estimates

**Real estate agents in the four counties provided estimates that indicate that the price of a standard house in the area (e.g., a three-bedroom house with central heating, fireplace, two bathrooms, kitchen, living room and garage) has increased between 2000 and 2015. The time that a house in these two counties stays on the market before it is sold has increased from approximately three to four months in 2000 to seven to twelve months in 2015. The housing markets in Russell and Tazewell Counties appear to be a bit stronger. Real estate agents estimate that between 2000 and 2015, the price of a standard house has increased by approximately 20 percent in Russell County and by 13 percent in Tazewell County. In addition to these price increases, the length of time that a house will remain on the market in Russell and Tazewell Counties is longer now than in 2000,**

according to local real estate agents. The increase in the time needed to sell an average slump, a decrease in supply or a combination of both factors. In this case, both factors appear to play a role: low interest rates have made financing affordable to greater numbers of potential home buyers, increasing the demand for housing, and the number of houses being built in the two counties (i.e., the housing supply) has decreased in recent years.

Table 20 summarizes data on the number of new building permits and public contracts authorized in the Cumberland Plateau between 2000 and 2015. A somewhat negative picture of the area's real estate market is portrayed in the table since the number of building permits and public contracts authorized in the four counties has decreased between 2000 and 2015, not surprising in view of the nationwide housing slump and the decrease in the District's population. Dickenson and Tazewell Counties saw significant loss in the number of residential building permits between 2000-2015. The gradual decline in building permits for housing units might reflect pessimistic expectations about the future demand for new housing in an area which has experienced severe economic dislocations and significant population losses.

These economic dislocations have prompted a shift in demand away from single-family homes and towards a less expensive alternative--mobile homes. Local realtors estimate that the average house in Dickenson County is selling for about 2-3

Number of Single Family Unit Permits Issued 2000 - 2015

Table 20

Locality	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Virginia	39,756	41,681	45,711	46,263	48,990	49,959	38,977	30,944	19,939	16,268	16,149	23,297	27,278	31,944	28,693	28,469
Buchanan County	17	18	20	22	12	14	13	10	18	15	18	12	10	10	9	2
Dickenson County	24	15	25	29	23	18	18	15	27	14	12	23	16	6	8	6
Russell County	58	64	61	59	74	79	117	79	34	26	40	29	24	19	21	17
Tazewell County	79	71	77	77	77	73	130	74	53	40	22	39	36	34	15	31
CPPDC	178	168	183	187	186	184	278	178	132	95	92	103	86	69	53	56

Source: United States Census Bureau

**times what a single-wide mobile home (including the land on which it sits) will cost the buyer.**

**A double-wide mobile home plus a small plot of land (one-fourth to one-half acre) costs approximately two-thirds what a stick-built house would cost. The price difference between a mobile home and a stick-built house makes the former the only affordable choice for many residents.**

### **Education**

**The educational system in the District includes private and public primary and secondary schools, vocational schools, and several colleges. In the 2015-2016 school year, a total of 15,520 students were enrolled in public elementary and secondary schools throughout the four counties. The student/teacher ratios in Dickenson (11.11), Russell (11.59), Tazewell (11.14) and Buchanan (12.64) were slightly lower than the ratio for the State of Virginia as a whole (12.76), for the 2014-2015 school year. (See Table 21.) Average teacher salaries for that same year were also lower in the Cumberland Plateau Counties than in the State. Russell and Tazewell Counties had the lowest average teacher salaries with \$39,017 and \$37,497, respectively ;**

Pupil Teacher Ratios Fiscal Year 2015 - 2016

Table 21

<b>Elementary</b>	Virginia	Buchanan	Dickenson	Russell	Tazewell
Teaching Positions	58,568.41	128.25	123.30	204.89	358.00
End of Year Membership, K-7	764,952.04	1,737.42	1,338.47	2,310.37	3,594.82
Pupil/Teacher Ratio	13.06	13.55	10.86	11.28	10.04
<b>Secondary</b>					
Teaching Positions	37,442.84	98.25	61.50	128.63	188.40
End of Year Membership, 8-12	466,738.26	1,153.18	1,552.57	1,530.73	2,306.96
Pupil/Teacher Ratio	12.47	11.74	11.37	11.90	12.25

Source: Virginia Department of Education Superintendent's Annual Report

salaries in Dickenson (\$40,667) and Buchanan (\$45,036) were also well below the State average of \$54,889 for the 2016 year.

The higher numbers of students per teacher and lower teacher salaries, combined with lower expenditures per pupil compared with the State have contributed to producing an educational gap between the Cumberland Plateau area and the State as a whole. This gap extends throughout Southwest Virginia and was addressed by the Southwest Virginia Economic Development Commission in Forward Southwest Virginia. Two key recommendations in this report are:

**\*to substantially increase spending on elementary and secondary education; and**

**\*to obtain appropriations from the General Assembly to be used by the region's community colleges to mount an all-out assault on adult illiteracy.**

Career and technology centers are located in each of the counties to provide students with specific job skills. The Buchanan County Career and Technology Center (Grundy) had an enrollment of approximately 260 students in the 2012-2013



school year, Dickenson County Career and Technology Center (Clinchco) had 190 students enrolled in that year, 327 students were enrolled at the Russell County Career and Technology Center (Lebanon) and 335 were enrolled in programs at the Tazewell County Career and Technology Center (Tazewell). These centers offer training for high school students in areas such as auto repair, carpentry, cosmetology, electronics, masonry, mine machinery repair, practical nursing, and welding.

Tazewell County also offers post-secondary educational programs at two two-year colleges, National Business College and Southwest Virginia Community College, and at Bluefield College, a four-year institution. National Business College, located in Bluefield, Virginia, offers seven associate degree programs and five one-year diplomas in a variety of business courses. In Wardell, approximately 2,630 students (fall 2013-2014 enrollment) study at Southwest Virginia Community College (SVCC) towards two-year associate degrees which include accounting, data processing, business administration, engineering, nursing, mining and many other areas. SVCC also offers one-year programs leading towards certificates in areas which include banking, drafting, law enforcement, machine tool operations, mine machinery maintenance, respiratory care and welding.

Bluefield College is a private, Baptist- affiliated liberal arts college offering four-year programs leading to Bachelor of Arts and Bachelor of Science degrees in a wide variety of disciplines, and two-year Associate of Arts, Associate of Science and Associate of General Studies degree programs. In addition, pre-professional programs to prepare students for graduate level study in law, medicine and

dentistry are offered. In total, twenty-one majors are offered. While the majority of the College's 500 traditional students are recent high school graduates, Bluefield's special adult admissions program is designed to attract adults who are at least 24 years old and have two years work experience. Adults who qualify for this program are able to attend classes during the evening hours to accommodate their work schedules and family lives.

The Town of Grundy in Buchanan County is the location of the Appalachian School of Law, established in 1996 and currently having 370 students. The school, which has been granted provisional accreditation by the American Bar Association, specializes in alternative dispute resolution. Oakwood in Buchanan County is home to the Appalachian College of Pharmacy, the first program of the University of Appalachia.

### Utilities

Electricity in Buchanan and Tazewell Counties is provided by the Appalachian Power Company. Dickenson and Russell Counties are serviced by both the Appalachian Power Company and Old Dominion Power Company. Electricity rates are comparatively low in the District.

Natural gas is currently not available to households in most areas in the District, with the exception of Bluefield in Tazewell County which is served by Commonwealth Natural Gas Company, Clintwood in Dickenson County which is served by Appalachian Natural Gas Distribution Company and Castlewood and Lebanon in Russell County served by Virginia Gas. Bottled gas is available in the four counties through nearby suppliers.

**Verizon provides telephone services in Buchanan, Dickenson, Russell and Tazewell Counties. Fiber optics is now available in most areas for business and industry.**

### **Transportation**

**The Cumberland Plateau Planning District is located in Southwest Virginia near Virginia's borders with the States of West Virginia, Kentucky and Tennessee. As shown in Table 22, the locations of the District's four counties place them within convenient reach of the region's major cities.**

**The network of highways running through the four counties includes three U. S. numbered highways and eleven state highways. U. S. Route 460 runs through the center of Buchanan and Tazewell Counties, linking Grundy (Buchanan), Richlands, Tazewell and Bluefield (all three in Tazewell County) to Blacksburg and Roanoke, Virginia to the east, and to Pikeville, Kentucky to the west. U. S. Alternate Route 58 cuts diagonally northwest-southeast through Russell County, heading southeast towards Abingdon, Virginia (and access to Interstate 81), and northwest towards Norton, Virginia (and access to U.S. Rt. 23). U.S. Route 19 runs east to west through the center of Russell County and Tazewell County, linking to Interstate-81 at Abingdon and Interstate-77 at Bluefield, West Virginia. Interstate 81 runs close to the southern county borders of Russell and Tazewell Counties (access to I-81 from either Lebanon or the Town of Tazewell is less than 30 miles)**

Table 22  
Distance From County Seat to Nearby Metropolitan Areas

	Grundy Buchanan County	Clintwood Dickenson County	Lebanon Russel County	Tazewell Tazewell County
Bristol, VA/TN	89	68	39	91
Blacksburg, VA	147	175	140	85
Knoxville, TN	250	154	152	195
Roanoke, VA	180	200	160	126
Richmond, VA	370	385	350	303

Source: Virginia Department of Transportation

**and links the District to the metropolitan areas of Knoxville, Tennessee and Roanoke, Virginia. From Lebanon, Knoxville is approximately a two and one-half hour drive along a well-developed highway system. Interstate 77, which runs north to south near Tazewell County's eastern border, also provides access for the Cumberland Plateau area to various points in the eastern United States from Cleveland, Ohio to Columbia, South Carolina. These two interstate highways, along with the U. S. highways discussed above and a network of state highways within the region, link the four counties to major markets within Virginia, Tennessee, Kentucky and West Virginia. The recent locations of two major IT firms, CGI and Northrup Grumman in Russell County, illustrate the region's potential for recruiting new businesses based on its advantageous Mid-Atlantic location.**

**The Cumberland Plateau area coal mines are served by railroad lines operated by CSX Transportation and the Norfolk Southern Railroad. CSX Transportation maintains rail lines running mainly north to south, transporting coal from Dickenson County to utility customers in the Carolinas to the south, and**

to customers in Kentucky to the north. Buchanan, Russell and Tazewell Counties are serviced by the Norfolk Southern Railroad which has an east-west orientation. Much of the coal is taken through Bluefield, Virginia to the port at Hampton Roads, Virginia, from which it can be shipped to foreign customers.

Major interstate truck lines providing service for the Cumberland Plateau Counties include Consolidated Freight, Mason-Dixon Lines, Overnite Transportation, and Smith Transfer. Many smaller companies provide trucking services within the four-county region.

Residents of the Cumberland Plateau area have access to Greyhound-Trailways bus service through bus stops in Bluefield, Marion, and Wytheville.

The Cumberland Plateau area is serviced by the Tri-Cities Airport, Roanoke Regional Airport, Tazewell County Airport, Grundy Municipal Airport and the Mercer County Airport (located between Princeton and Bluefield, West Virginia). A general aviation airport with a 4,200-foot runway and instrument landing capability is now open at the Tazewell County Airport.

### Climate and Amenities

#### 1. Climate

The climate in the Cumberland Plateau area is moderate for an area that enjoys four distinct seasons. The average temperature in July is a pleasant 74 degrees Fahrenheit, and winters are not too severe, with average temperatures of about 36 degrees Fahrenheit in January. The average annual precipitation is approximately 47 inches.

## **2. Recreational and Tourist Attractions**

**There is an amazing number of outdoor recreation and cultural heritage tourism assets throughout the four county-region.**

**These assets are being aggressively marketed through several regional initiatives, the most prominent being the Southwest Virginia Cultural Heritage Foundation and the Friends of Southwest Virginia. As the umbrella organization for the Crooked Road: Virginia's Heritage Music Trail, 'Round the Mountain': Southwest Virginia's Artisan Network, and Appalachian Spring: Southwest Virginia's Outdoor Recreation Initiative, the Foundation promotes the 19 counties and 4 cities of Southwest Virginia to national and international tourists. This effort has brought the region to near the top of Virginia's tourism destinations.**

**A brand new initiative, The Spearhead Trails, is focused on the development of a multi-trail system in Virginia's Coalfield counties. Of special importance is the development of an ATV trail system similar to the Hatfield-McCoy Trail in West Virginia. This trail has prompted a increase in tourism and economic development in its service area.**

**All of the District's counties have easy access to Breaks Interstate Park which is located on the Virginia-Kentucky border with most of the Park's 4,500 acres falling within Dickenson County. The Park boasts the largest canyon east of the Mississippi, carved out by the Russell Fork River, and nicknamed the "Grand Canyon of the South." The Park's numerous recreational facilities include picnic tables and shelters, hiking trails,**

**campsites, cottages and a motor lodge, swimming pools, a new water park, scenic overlooks, an amphitheater, and a large conference center with dining rooms, a restaurant and gift shop. In addition, the Park has paddleboats, stables, playground facilities, as well as a 12-acre lake well stocked for fishing.**

**Another significant outdoor recreation site in Dickenson County is the John W. Flannagan Dam and Reservoir which is located five miles from Haysi on the Pound River, a tributary of the Russell Fork River. Visitors to the Reservoir enjoy opportunities to participate in outdoor activities such as picnicking, hiking, camping, swimming, fishing, boating and water skiing. The lake is a well-known small-mouth bass fishing venue. White water rafting and kayaking are additional activities offered on a seasonal basis on the Russell Fork River below the Flannagan Dam. During October of each year, whitewater enthusiasts from all over the world come to Dickenson County to enjoy one of the best whitewater experiences in North America. Estimates of the regional economic impact of a 21-day rafting season on the Gauley River in West Virginia--\$16.8 million in total direct and indirect revenues-- provide strong incentive for pursuing the development of rafting and related tourist industries in the area around the Flannagan Dam. Efforts are being made to increase the number of releases from the Dam to expand the length of the whitewater season.**

**The four counties share access to Jefferson National Forest, a 690,000 acre forest located in Southwest Virginia. Dickenson, Russell and Tazewell**

Counties claim small portions of this forest's huge acreage and its many recreational attractions. Jefferson National Forest has received media attention for becoming the nation's first forest to actively promote tourism rather than simply waiting for people to ask for information. This bodes well for the District and Southwest Virginia as many world-class outdoor recreation assets are located in the region. In the District, in addition to the aforementioned Breaks Park, The Channels State Forest, Brumley Mountain Trail, Laurel Bed Lake, the Clinch Mountain Wildlife Management Area, the Appalachian Trail and Burkes Garden are all located along Clinch Mountain on the District's southern border. In addition, many assets, including the Pinnacle Natural Area Preserve, are associated with the Clinch River, North America's most biodiverse river.

The residents of Buchanan, Dickenson, Russell and Tazewell Counties enjoy other local recreation facilities which include several country clubs complete with 18-hole golf courses, skating rinks, indoor and outdoor movie theaters, and numerous sports fields. Sports fans can attend home games of Tazewell County's professional minor league baseball team, the Bluefield Blue Jays, which plays at Bowen Field in Bluefield. A few miles away, near the Town of Tazewell, is the Historic Crab Orchard Museum and Pioneer Park, located on 110 acres of land designated as a pre-historic and historic site by the Virginia Division of Historic Landmarks and the National Register of Historic Places. The Museum presents the history of Tazewell County and Southwest Virginia from five hundred and seventy million years



ago to the present time. Other sites of historic interest in the target area include: the Town of Pocahontas, which has been placed on the Virginia Register and the National Register as a historic preservation zone; the Old Russell County Courthouse, designated as a Virginia historic landmark and placed on the State Register; Honaker Historic Downtown District, and the Cedar Bluff Roller Mills, placed on both the State and National Registers for historic places. And the recently completed Ralph Stanley Museum and Traditional Mountain Music Center in Clintwood is one of the major venues on “The Crooked Road” Music Trail that is attracting thousands of cultural heritage tourists to the region. Numerous affiliated venues of the Crooked Road are located throughout the District, and all four counties are on Artisan Trails sponsored by ‘Round the Mountain’.

### **3. Religious Facilities**

There are numerous religious congregations in the Cumberland Plateau area, where people take pride in their strong religious values and work ethic. These congregations represent the full spectrum of denominations and vary greatly in size. Denominations with churches in the four county region include Assembly of God; Baptist; Bible; Christian; Church of Christ; Church of God; Disciples of Christ; Episcopal; Full Gospel; Independent; Methodist; Nondenominational; Pentecostal; Presbyterian; Roman Catholic; Seventh-Day Adventist; and United Methodist. A Jewish synagogue in Bluefield, West Virginia is easily accessible to residents in the District.

#### **4. Health Care**

Each of the four counties in the Cumberland Plateau area has at least one hospital or medical center to serve its residents. In Buchanan County, a 100-bed facility of Buchanan General Hospital is located on Slate Creek. The Dickenson County Medical Center (25 beds) provides services to local residents at its facility in Clintwood. The people of Russell County are served by the 78-bed Russell County Medical Center, located in Lebanon. Tazewell County boasts two hospitals, the Humana Hospital in Richlands (200 beds) and the Tazewell Community Hospital in the town of Tazewell (56 beds). The bed rate, which is the number of hospital beds per 100,000 residents, for each of the counties in 2012, the most recent date for which this information is available, was: 394.9 in Buchanan County, 245.6 in Russell County and 516.7 in Tazewell County. At that point, Dickenson County did not have a hospital. These figures are all lower, in most cases very much lower, than the State figure of 584.3 for that same year.

Other medical facilities providing services to residents of the four counties include the Haysi Medical Clinic, the Hurley Medical Clinic, the Clearview Psychiatric Center, which is a medical division of the Russell County Medical Center providing inpatient psychiatric treatment, along with the following hospitals which are located in nearby areas: Bristol Regional Medical Center (Bristol, TN/VA), Johnston Memorial Hospital (Abingdon, VA), Princeton Community Hospital (Princeton, WV), Roanoke Valley Psychiatric Center (Salem, VA), Saint Albans Psychiatric Hospital (Radford,

VA) and Southern Hills Regional Rehabilitation Hospital (Princeton, WV).

**5. Communications**

Communications media that serve the Cumberland Plateau area are fairly comprehensive and include AM and FM radio stations (one of each in Buchanan County, four AM stations and three FM stations in Tazewell County, two AM and one FM station in Russell County and one AM and one FM station in Dickenson County) and several daily and weekly newspapers. Daily newspapers which serve the four counties and surrounding areas are: the Bluefield Daily Telegraph (based in Bluefield, West Virginia), Bristol Herald Courier, and Roanoke Times. Local weekly newspapers include the Virginia Mountaineer (Buchanan), Dickenson Star (Dickenson), Lebanon News (Russell), Tazewell County Free Press (Richlands), Clinch Valley News (Tazewell) and Richlands News Press (Richlands).

**6. Industrial Building and Site Utilization Analysis**

The Cumberland Plateau Planning District has industrial parks located in Russell, Tazewell, Buchanan and Dickenson Counties. The Cumberland Plateau Regional Industrial Park has one tenant, AT&T, Inc., which has a 50,000 square-foot building on a 10-acre lot, with a workforce of approximately 400 people.

In order to recruit more tenants into the Park, the target area is prepared to use various incentives, including donation of land and the development of special financing programs. Twenty nine acres of land

suitable for development and two industrial buildings are available in the Regional Industrial Park, which is located on the Lebanon By-pass. The Park is served by a six-inch water main, an eight-inch sewer line and electricity supplied by the Appalachian Power Company. High-speed broadband is available from CPC Optinet.

In Buchanan County, Southern Gap Industrial Park offers 1100 acres for business and industry. The Buchanan Public Service Authority serves this park with an eleven-inch waterline and a ten-inch sewer line. Three phase power and high speed broadband are also available in the park.

In Tazewell County, Wardell Industrial Park offers 40 acres of available land adjacent to Southwest Virginia Community College, 4.75 miles west of Claypool Hill on U. S. Route 19. Ceramic Technologies Incorporated, Pepsi-Cola and Jen-Mar are located in the Park. The Tazewell County Public Service Authority serves the site with a six-inch water line (total capacity of 500,000 gallons per day) on the property, and an eight-inch sewer line (350,000 gallons per day capacity) adjacent to the property. Verizon, CPC Optinet and Appalachian Power Company also provide utilities to the site.

The Bluestone Business and Technology Park, located on U.S. Route 19/460, west of Bluefield, Virginia, has 600+ acres of land available for mixed use development. In addition to the standard six-inch water main and eight-inch sewer line serving the site, natural gas is available through a four-inch gas line maintained by Commonwealth Gas Services. Phase I of the

**Bluestone Business and Technology Park is nearing completion. One site is now reserved for the proposed new dental school that is being developed by Tazewell County and Bluefield College. This project fits in well with the county's plan to focus on advanced manufacturing, high quality research and technology businesses in the Park.**

**Three tenants already enjoy the benefits of Tazewell Industrial Park's convenient location right outside the town limits of Tazewell. The Park's location places its tenants within 22 miles of Interstate 77, and 20 miles of the Richlands Airport. Twenty-two acres of land are still available for development in the 60-acre Park. The park is served by three-phase electrical power, a six-inch water line and an eight-inch sewer line.**

## **2. ANALYSIS OF ECONOMIC DEVELOPMENT PROBLEMS AND OPPORTUNITIES**

### **A. State of the Regional Economy**

#### **a. Strengths and Weaknesses/Assets and Liabilities**

**The Cumberland Plateau Planning District Commission is already noted for the willingness of its local governments to work together to improve their quality of life. The Cumberland Plateau, is the second oldest rural regional economic development agency in the state. Local government support of the PDC and regionalism is strong and entrenched. The strengths of the District are as follows:**

- The quality of life, strong family values, friendly community environment, low crime rate, safe public schools, low cost of housing, and recreational and cultural opportunities in the Region are attractive to workers and employers.**
- The natural beauty of this mountainous area, epitomized in the Breaks Interstate Park, Burkes Garden, The Cove, The Channels Natural Area Preserve, the Pinnacle Natural Area Preserve, and the Jefferson National Forest is breathtaking.**
- Regional cooperation is strong between the Cumberland Plateau Planning District Commission and its local governments and economic development organizations, as evidenced by the creation of the Cumberland Plateau Regional Waste Management Authority, the District RLF Program, and the District Water and Sewer Roundtable. Broader cooperative efforts with LENOWISCO PDC, involved the creation of the Virginia Coalfield Economic Development**

**Authority, the industrial marketing entity of PDC's One and Two, the Heart of Appalachia Regional Tourism Authority, the Area One Workforce Investment Program, the Coalfield Water Development Fund, the Virginia Coalfield Coalition, and the Coalfields Water and Sewer initiatives. Even broader regional cooperation, as evidenced by the Cumberland Plateau's participation in and leadership of The Crooked Road, 'Round the Mountain', Appalachian Spring and Heartwood cultural heritage initiatives, is strong in Southwest Virginia. This 19-county effort involves five planning district Commissions and is supported by several state and federal agencies. The District's leaders recognized early on that strong cooperation across political boundaries was the only way to effectively address our many challenges.**

- The Region's workforce has a proven record of high productivity, low turnover rates, and low absentee rates.**
- Community colleges, vocational training schools and the regional Workforce Investment Program provide extensive training opportunities.**
- The Region has a growing higher education emphasis as illustrated by the recent establishment of the Appalachian School of Law and the University of Appalachia College of Pharmacy in Buchanan County, as well as planning for a new college of Ophthalmology in Buchanan County.**

- **Exceptional local incentive programs are provided to assist new and expanding industry.**
- **Power rates are among the lowest in the nation.**
- **Sustainable development initiatives, which look to creating new jobs in forest products, agriculture, and nature tourism while safeguarding the beauty and environment of the region, are in place.**
- **Most of the district has an excellent telecommunication infrastructure, with fiber optics and digital switching and wireless options.**

**The Cumberland Plateau Planning District Commission, despite many strengths, still has to deal with some issues that pose significant impediments and barriers to the region's overall economic competitiveness. Most of these weaknesses are related to the reality that the entire region is mountainous, making the acquisition and development of large industrial sites, infrastructure, housing, community facilities, and highways extremely costly. Many of these issues have been identified through various strategic planning exercises that have taken place in the region over the years.. The District staff revisited these issues and identified several significant liabilities to the district's overall economic recovery. They are as follows:**



- **Lack of adequate water and sewer, especially sewer, in some areas with development potential.**
- **There are only one or two large (100-200) acre) industrial sites in the Region that so many industries are now requiring.**
- **There is a lack of capital from local lending institutions, and of affordable space for complimentary technical support to meet the needs of local entrepreneurs.**
- **The region's labor force generally has lower levels of educational attainment because there is a lack of job opportunities for high school and college graduates. This has led to outmigration of many of our most educated citizens.**
- **No Interstate Highway passes through the district. No four-lane highway passes through Dickenson County.**
- **There is a lack of quality market-rate housing.**
- **The region lacks a significant growth center or centers.**

While these are considered the most significant impediments and liabilities to economic recovery, some of these are directly related to our assets and opportunities listed previously. For instance, the lack of an interstate highway and the sometimes chaotic growth it brings may be a large reason that our region's natural beauty is somewhat unspoiled. Other liabilities may have another side to the coin as well. The region's labor force, for example, does have lower educational attainment levels, largely because many older persons quit school early to go to work in the coal mines because the salaries and benefits were so good. Now, many are unemployed as a result of the boom and bust nature of the coal industry. But as new industries

come in, especially manufacturing, they will find that many of these dislocated miners who worked in a highly mechanized industry have a multitude of skills that make them ideal employees. The district will look to redefine some of these perceptions and make positives where negatives once resided.

**b. Growth Clusters**

A significant proportion of growth in the planning district is concentrated in services and telecommunications. This trend of job growth in sectors other than mining helps in achieving the district's primary goals of diversification.

In 1998, the district embarked upon a journey to transform itself from a resource-based economy to a knowledge-based one. Dramatic success in recruiting knowledge-based companies to the district as a result of our robust broadband network has helped to stabilize the economy and provide a platform for future economic growth.

**c. Progress During the Past Five Years**

It is the premise of the staff that to regain our lost economic ground and stability requires innovation and cooperation between business, educational, and governmental agencies and the investment necessary to achieve and maintain a strong and stable economy.

Since it was first organized in 1968, the Cumberland Plateau Planning District and its member governments have pursued the goal of economic diversification. This effort has been hampered by mountainous terrain, a one-industry economy, lack of infrastructure, an inadequate transportation system, outmigration, and a poorly educated labor force.

Many of the obstacles preventing economic development have been

overcome. Some, such as mountainous terrain, will be difficult to ever overcome and will continue to increase the cost of water and sewer systems, industrial sites and highways.

Through EDA, ARC, RD, EPA, HUD, and other federal assistance programs, the area's communities have greatly improved and expanded local infrastructure, transportation systems and community services. With federal assistance, new hospitals, libraries, schools, water and sewer systems, public housing units, and recreation and industrial parks have been built.

The Cumberland Plateau Planning District Commission has reached many of the goals established in earlier CEDS's, but some have not been met. However, the ground work has been laid to eventually achieve the goal of economic diversification. No major changes in program direction are needed. The patience and persistence shown by local governments is finally paying dividends. The Virginia Coalfield Economic Development Authority has set a goal of creating 1,000 new manufacturing jobs per year over the next ten years. If this goal is realized, the Cumberland Plateau will be well on its way to achieving economic diversification and stability.

#### **B. External Trends and Forces**

At present, the economy is in transition from coal mining and timber operations to service and telecommunications. The success of the local economic development community in recruiting telecommunication companies to the area, such as Northrop Grumman, CGI, Sykes, Serco and AT & T, seems to be the wave of the future.

The planning district's rate of economic growth has not kept pace with the

**national and global economies for several decades. Arrested growth means we are at a disadvantage in any competition and that, if this adverse trend continues, the extent to which the area is losing ground will accelerate.**

**C. Partners For Economic Development**

**The PDC had rigorously sought out and engaged federal, state, regional, local, and private partners and resources to assist in the diversification of the area economy. With all four counties in the District leading or near the top of the state in unemployment rates, particular attention had been given to improving the infrastructure and enabling local governments to recruit new industry to create the desperately needed new jobs to replace lost coal mining jobs.**

**After forty-five years of work, the district's localities are seeing gains in service and technology employment. Those gains have been largely due to the commitment of resources and energy from numerous local and regional partners, working not only in the economic development arena, but also in water, sewer, housing, business development, jobs training and other community development initiatives. These partners are as follows:**

**Local and Regional Partners**

**Local Governments**

**Local Planning Commissions**

**Local Industrial Development Authorities**

**Local Public Service Authorities**

**Local Chambers of Commerce**

**Cumberland Plateau Company**

**People, Inc. / Business Start**

**Southwestern Virginia Workforce Investment Board**

**Southwest Virginia Small Business Development Center**

**Virginia Coalfield Economic Development Authority**

**Virginia Coalfield Coalition**

**Cumberland Plateau Regional Housing Authority**

**Appalachian Agency for Senior Citizens**

**Southwest Virginia Community College**

**Appalachian School of Law**

**University of Appalachia College of Pharmacy**

**Coalfield Water Development Fund**

**LENOWISCO Planning District Commission**

**Southwest Virginia Cultural Heritage Foundation**

**The Crooked Road: Virginia's Heritage Music Trail**

**Round The Mountain : Southwest Virginia's Artisan Network**

**Appalachian Spring : Outdoor Recreation Initiative**

**D. Resources for Economic Development**

The CEDS Committee and EDD staff work with numerous agencies and organizations, primarily at the private, state and federal level, who provide support and funding for the work plan activities and projects. They are listed below.

**Federal Resources**

**Economic Development Administration**

**Appalachian Regional Commission**

**Department of Housing and Urban Development**

**Rural Development**

**Department of Energy**

**Army Corps of Engineers**

**Environmental Protection Agency**

**Small Business Administration**

**Office of Surface Mining**

**Federal Legislators**

**State Resources**

**Virginia Department of Housing and Community Development**

**Virginia Economic Development Partnership**

**Virginia Department of Business Assistance**

**Virginia Tourism Corporation**

**Virginia Department of Environmental Quality**

**Virginia Department of Health**

**Virginia Tobacco Indemnification & Community Revitalization**

**Commission**

**Virginia Department of Mines, Minerals and Energy**

**Virginia Department of Transportation**

**Virginia Department of Conservation and Recreation**

**Virginia Legislature**

**Private Resources**

**Virginia Resources Authority**

## **Appalachian Sustainable Development**

### **Thompson Foundation**

### **Nature Conservancy**

**Over its nearly 47 years, the Cumberland Plateau has worked with its local governments and agencies to bring in about 500 million in federal, state, and regional grant and low-interest loan funds for infrastructure projects. This effort has enabled huge advances in economic diversification and the quality of life in the District.**

#### **E. Economic Development: Potentials and Constraints**

##### **a. Analysis of Potentials**

**The Cumberland Plateau Planning District is already noted for the willingness of its local governments to work together to improve their quality of life. Cumberland Plateau is one of the oldest rural regional economic development agencies in the state, and local government support of the PDC and regionalism is strong and entrenched. The result has been the implementation of several joint activities that other districts around the state are just now beginning. These and other strengths and opportunities are included here:**

- The quality of life, strong family values, friendly community environment, low crime rate, safe public schools, low cost of housing, and outdoor recreation opportunities in the Region are attractive to workers and employers.**

**The natural beauty of this mountainous area, epitomized in the Breaks Interstate Park, Burkes Garden, The Channels Park and the**

**Pinnacles Park, is breathtaking.**

- **Regional cooperation is strong among the PDC and its local governments and economic development organizations, as evidenced by the creation of the Virginia Coalfield Economic Development Authority, the industrial marketing effort for the PDC and LENOWISCO, the Virginia Heart of Appalachia Tourism Authority, the Virginia Coalfields Coalition, and the Coalfield Water Development Fund all of which are joint efforts of the Cumberland Plateau and LENOWISCO PDC's.**
- **The district, through the Cumberland Plateau Company and the Virginia Coalfield Coalition, is deploying an excellent telecommunication infrastructure, with both fiber optic broadband and wireless 4G service. When the project is completed, the broadband network will consist of over 700 miles of fiber backbone and middle mile fiber and service to 38 cell towers providing 4G service to about 80 percent of residents in the region. This impressive network will place Cumberland Plateau and LENOWISCO as a top rural area in the nation for broadband services.**
- **The Region's workforce has a proven record of high productivity, low turnover rates, and low absentee rates.**
- **Community colleges, the Southwest Virginia Technology Development Center and vocational training schools provide extensive training**



**opportunities. The new Centers of Excellence will greatly enhance workforce skill levels for advanced manufacturing firms.**

- Exceptional local incentive programs are provided to assist new and expanding industry,**
- Power rates are among the lowest in the nation.**
- The District is part of a 19-county cultural heritage tourism project that has made Southwest Virginia an international tourism destination.**
- Sustainable development initiatives, which look to creating new jobs in forest products, agriculture, and nature tourism while safeguarding the beauty and environment of the region, are in place.**
- The Coalfields Expressway, a major four-lane highway that will run from Beckley, West Virginia through Buchanan and Dickenson Counties to Pound, Virginia is in various stages of design and/or construction. Several major industrial sites will be developed along this route.**
- The District has significant energy resources, including coal, natural gas and wind.**

**As could be expected, the emphasis in the District to diversify has been focused on attracting new service and telecommunication jobs. Our area is no different than most—we hope also to attract higher-paying manufacturing jobs for our citizens. This is especially true in the District because the labor force, primarily made up of unemployed coal miners, has been used to finding good-paying jobs in the basic industry sector. Because our labor force is large and equipped with skills in welding,**

metal fabrication, electronics and mechanics, we have excellent potential for attracting automotive firms, equipment manufacturers and other basic industries. State marketing concerns have focused on our labor force characteristics and are bringing prospects in these fields to our area. These efforts should result in reemployment of a number of our unemployed miners.

While the majority of local efforts are aimed at attracting basic industry jobs, the District has a great potential for attracting service sector jobs in the tourism and recreation areas. There is a good supply of recreational and tourist attractions spread through-out the four-county region. All of the counties have easy access to Breaks Interstate Park, which is located on the Virginia-Kentucky border with most of the Park's 4,500 acres falling within Dickenson County. The Park boasts the largest Canyon east of the Mississippi, carved out by the Russell Fork River, and nicknamed the "Grand Canyon of the South".

Potential for this park to be developed into a major tourist attraction is significant. It is truly a unique and magnificent natural scenic wonder. This park has the potential to bring tens of thousands of tourists to the District and create many more jobs.

Another recreational site in Dickenson County is the John W. Flannagan Dam and Reservoir, which is located five miles from Haysi on the Pound River, a tributary of the Russell Fork River. Visitors to the Reservoir enjoy opportunities to participate in outdoor activities such as picnicking, hiking, camping, swimming, fishing, and boating. It is an especially fine small and large mouth bass lake.

Another asset to the area is the fact that the TransAmerica Bike Trail bisects

**the District along Route 80 from Hayters Gap in Russell County through Council in Buchanan County to the Breaks Interstate Park in Dickenson County. Established in 1976 for the Bicentennial, the trail is still used by hundreds of bicyclists every year and is the nation's most traveled bike trail extending from Yorktown, Virginia to Astoria, Oregon. More could be done to accommodate these tourists and give them a chance to spend more than one day in the District. The Towns of Haysi and Honaker are planning an event across Big A Mountain, one of the steepest climbs on the Trail.**

**The four counties share access to Jefferson National Forest, a 690,000 acre forest located in central Southwest Virginia. Russell and Tazewell Counties both claim small portions of this forest's huge acreage and its many recreational attractions, including the beautiful Clinch Mountain Wildlife Management Area and the Channels State Forest. Jefferson National Forest has recently received media attention for becoming the nation's first forest to actively promote tourism rather than simply waiting for people to ask for information.**

**The District also has several points of historical interest that could bring tourists to the area. One of the most significant ones is the Daniel Boone National Historic Trail which crosses the District in Russell County. Castlewood, in western Russell County, is the site of Fort Castle's Woods, one of the early frontier forts on the Clinch River. It was from here that Daniel Boone tracked the Indians who kidnapped and killed one of his sons. Portions of the old frontier trail to Cumberland Gap are still present. If the National Park Service pursues development of this project, it could be a major tourist attraction.**

**Another historic asset is the Fincastle Trail, an off-shoot of the National**

**Migration Trail which ran from Philadelphia west and then southwest through the Valley of Virginia and eventually to the Cumberland Gap. Portions of this trail are still visible.**

**Also, near the Town of Tazewell, is the Historic Crab Orchard Museum and Pioneer Park, located on 110 acres of land designated as a prehistoric and historic site by the Virginia Division of Historic Landmarks and the National Register of Historic Places. The Museum presents the history of Tazewell County and Southwest Virginia from five hundred and seventy million years ago to the present time.**

**A new initiative seeks to promote economic opportunities along the Clinch River, North America's most bio-diverse river. Communities along the river have joined to promote a Clinch River State Park, more access points for canoeists and kayakers, environmental education programs, a water quality initiative and a downtown revitalization effort.**

**Other sites of historic interest in the target area include: the Town of Pocahontas, which has been placed on the Virginia Register and the National Register as a historic preservation zone; the Old Russell County Courthouse, designated as a Virginia historic landmark and placed on the State Register; and the Cedar Bluff Roller Mills, placed on both the State and National Registers for historic places. All of these places collectively offer an interesting variety of historical attractions for tourists.**

**b. Problems and Constraints**

**The Cumberland Plateau Planning District, despite many strengths, still has to deal with some issues that pose significant constraints and barriers to the**

**District's overall economic development** Most of these issues are related to the reality that the District is mountainous, making the acquisition and development of large industrial sites, infrastructure, housing, community facilities, and highways extremely costly. Many of these issues have been identified through various strategic planning exercises that have taken place recently in the region. The Cumberland Plateau revisited these issues and identified several current significant constraints and barriers to the District's overall economic recovery and prioritized them. They are as follows:

- **Topography offers many constraints to development. Roads are difficult and expensive to build, industrial sites are hard to find and expensive to buy and develop, and public utilities, such as water and sewer systems, are costly to construct.**
- **There is a lack of capital from local lending institutions, and of affordable space for complimentary technical support to meet the needs of local entrepreneurs.**
- **The District's labor force generally has lower levels of educational attainment because there is a lack of job opportunities for high school and college graduates. This has led to outmigration of many of our most educated citizens.**
- **There are few large (50-100 acre) industrial sites in the District that so many industries are now requiring.**
- **There is a lack of quality market-rate housing, especially rental housing, in the District.**

- The region lacks a significant growth center or centers.

While these are considered the most significant constraints and barriers to economic recovery, some of these are directly related to our potential strengths and listed previously. For instance, the lack of an interstate highway and the sometimes chaotic growth it brings may be a large reason that our District's natural beauty is somewhat unspoiled. And some of the impediments have another side of the coin. The District's labor force, for example, does have lower educational attainment levels, largely because many older persons quit school early to go to work in the coal mines because the salaries and benefits were so good. Now, many are unemployed. But as new industries come in, they are finding that many of these dislocated miners who worked in a highly mechanized industry have a multitude of skills that make them ideal employees. The District will look to redefine some of these perceptions and make positives where negatives once resided.

### **3. GOALS AND OBJECTIVES**

#### **A. Goals**

The goals and objectives defining regional expectations were developed by the EDD staff in cooperation with the CEDS Committee, local governments and other regional organizations. The CEDS Committee and local government representatives reviewed information submitted by the staff and discussed it in committee meetings. The CEDS Committee set priorities for goals and objectives based on activities already underway, the opportunities available to meet the goals and objectives, as well as the impact each goal and objective would have on addressing economic development needs in the District.

#### **Goal No. 1 -- Economic Development/Tourism**

Diversify the District's economic base in order to reduce dependence on coal mining and improve the ability of local governments to foster new or expanding business, especially in the target industries of information technology, automotive, clean and alternative energy, advanced manufacturing, aquaculture and wood products and in the field of asset – based development. A more robust regional marketing effort is needed to focus on our strengths to attract more industrial prospects and locations. Attract more tourists through the development of more and better park and recreation facilities, especially trails, and through partnerships with state and regional cultural heritage initiatives. Promote outdoor recreation, such as white water rafting, hiking, ATV trails and rock climbing, in the region.

### **Goal No. 2 – Workforce Development/Education**

Provide a highly trained work force by effectively using K-12 public school system, WIB Programs, SWCC's Fast Track Training Program and the programs and facilities of the Southwest Virginia Technology Development Center, UVA-Wise and Bluefield College. Support the development of Centers of Excellence in the District and Southwest Virginia to meet the workforce needs of advanced manufacturers. Encourage the continued development of graduate schools in the District in partnership with area 4-year colleges and other institutions. Address regional opportunities to improve K-12 education systems in the District, to better prepare its young people for 21<sup>st</sup> century jobs.

### **Goal No. 3 -- Infrastructure Development**

Work to provide public water and sewer service, waste management programs, broadband and wireless infrastructure and natural gas service in existing areas of population concentration and in areas targeted for residential, commercial and industrial development.

### **Goal No. 4 – Transportation**

Encourage the continued development of a transportation network and public transportation that will enhance safer highways and provide better access to District industrial sites and to major trade markets and to the District's unique cultural heritage and outdoor recreation assets.

### **Goal No. 5 – Asset-based Development**

Create quality jobs to build sustainable local economies through the support



of value-added businesses and asset-based development strategies, especially in the areas of wood products (alternative fuels from wood chips), agri-technology (aquaculture), agriculture (produce and livestock), cultural and natural heritage tourism and outdoor recreation.

**Goal No. 6 – Natural Resources**

Promote the proper use of natural resources, such as coal, natural gas and timber. Encourage natural resource development using clean coal technology, alternative energy and hydro-electric technologies that will create the most jobs while protecting the natural environment. Support research programs at Dickenson Center for Education and Research and other regional research facilities. Support the use of natural gas locally as an economic development incentive. Support the development of wind and solar energy projects.

**Goal No. 7 -- Physical Environment**

Encourage the achievement of a healthful, pleasing and efficient environment which encompasses a diversity of living patterns and provides for a broad range of choice for each citizen. Promote the revitalization of the District's downtowns. This goal relates to the needs of all citizens as they pertain to land use, community facilities, utilities, transportation and environment.

**Goal No. 8 – Entrepreneurship**

Support the development of entrepreneurship initiatives in the District, especially for the development of small businesses in the District's downtowns.

### **Goal No. 9 – Housing**

Support the expansion of the range of housing opportunities for all District citizens.

### **Goal No. 10 – Health & Substance Abuse**

Support the development and expansion of medical facilities and programs to address the unique health and substance abuse needs of the region's citizens and its workforce.

## **B. Objectives**

### **Short-Term**

- 1. Work with regional and local entities to create one large mega-site for industrial growth in the Virginia Coalfields region.**
- 2. Work to create and/or maintain a minimum of one thousand (1,000) jobs over the next five (5) year period.**
- 3. Develop new and/or promote existing business and technology parks of at least one hundred acres in Buchanan, Dickenson, Russell, and Tazewell Counties.**
- 4. Continue to work with Federal and State Agencies to plan and develop water and sewer projects that are essential to future economic growth. The availability of water and sewer should increase by a minimum of ten percent over the next five (5) years.**
- 5. Work with Appalachian Sustainable Development and other private organizations to develop sustainable development programs in the**

areas of wood products, organic agriculture (produce and livestock), and nature tourism.

6. Encourage the completion of the Coalfields Expressway which links the District to I-77 and U.S. 23. Work to improve State Route 80 to the Breaks Interstate Park, as well as Rt. 83 at Lover's Gap and Rt. 460. Also other secondary highways in the Six-Year Plan. These projects will substantially improve the District's ability to foster tourism and industrial development.
7. Work to support the efforts of the Southwest Virginia Cultural Heritage Foundation, The Crooked Road, 'Round the Mountain, Heartwood, Appalachian Spring, the Coal Heritage Trail, Spearhead Trails, and other trails to make Southwest Virginia a world-class destination for cultural heritage and outdoor recreational tourism.
8. Effectively use the WIB and other training programs to upgrade and expand the work-force available to industry by providing customized training to meet the needs of individual industries. Support the development of a workforce training facilities in the District and Southwest Virginia as part of the Centers of Excellence effort in advanced manufacturing.
9. Develop expanded business and industrial marketing programs. This will be accomplished in association with the Virginia Economic Development Partnership, the Virginia Coalfield Economic Development Authority, Southwest Virginia Alliance for Manufacturing, local

**IDA's and other development partners.**

- 10. Complete Regional Broadband and Wireless Projects to bring Broadband infrastructure to the entire District using fiber and wireless technologies.**
- 11. Develop a downtown revitalization program for the Towns of Lebanon and Tazewell.**
- 12. Work with LENOWISCO and Appalachian Prosperity Project to develop and/or expand regional entrepreneurship, health and wellness/outdoor recreation blueprints.**
- 13. Work to support the creation of a Clinch River State Park and a collaborative community development strategy for the towns along the Clinch River.**
- 14. Work to support the creation of a municipal natural gas utility in the Towns of Richlands and Tazewell and Tazewell County, and the entire region.**
- 15. Support continued improvements at the Breaks Interstate Park, The Pinnacle and The Channels Parks.**

**Long-Term**

- 1. Create three thousand (3,000) new non-coal related jobs over the next ten (10) years.**

#### **4. COMMUNITY & PRIVATE SECTOR PARTICIPATION**

Over the years of its existence, the CPPDC has nurtured a strong relationship with the private sector through the involvement of private sector leaders in the development of its CEDS, the marketing of its Revolving Loan Fund, and through membership of District staff on the Board of Directors of several regional economic development agencies and organizations. The District's Executive Director is a member of the Board of Directors of the Virginia Coalfield Economic Development Authority, the Southwest Virginia Cultural Heritage Foundation, Friends of Southwest Virginia, The Crooked Road; Virginia's Heritage Music Trail, 'Round the Mountain: Southwest Virginia's Artisan Network, Appalachian Spring, Appalachian Sustainable Development and other boards with significant private sector membership.

Through the creation of the Virginia Coalfield Coalition, the CPPDC has been involved in a wireless 4G initiative in partnership with Verizon Wireless. This initiative will bring 4G coverage to the coalfields region of Virginia, making it one of the first rural areas in the nation with 4G service. This \$26 million project will greatly enhance the quality of life in the region and increase industrial retention and recruitment in the area.

Through the District's broadband infrastructure project, over 1,000 private businesses and institutions, public and private, now have access to high speed, redundant broadband services. The District's relationship with the private sector has never been stronger.

## **5. STRATEGIC PROJECTS, PROGRAMS & ACTIVITIES**

Based on the basic needs identified in the Regional Analysis, the following vital projects were identified by the staff and CEDS Committee and were prioritized to meet the goals previously set forth. There are two priority categories. Priority 1 projects are those construction projects which are in advanced stages of planning and/or development. Priority 2 projects are construction projects in the formative stage or early planning stages of development. Priority 3 projects which involve non-construction planning and technical assistance, are not listed. These are on going from year to year.

**COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY--PRIORITY PROJECTS**  
**Cumberland Plateau Planning District Commission**  
**January 1, 2016 – December 31, 2016**

<u>PROJECT</u>	<u>PRIORITY</u>	<u>DESCRIPTION</u>	<u>FUNDING SOURCE</u>	<u>AMOUNT</u>	<u>Goal#</u>
Southern Gap Industrial Park/ Multit-Use Development Project (Buchanan County)	1	Development of 3200-acre Industrial/Commercial/Housing Site and supporting Infrastructure and road development	ARC	\$4,000,000	1
			CDBG	1,000,000	
			EDA	2,000,000	
			Tob. Comm.	400,000	
			CEDA	5,700,000	
Local	3,000,000				
Dickenson Center for Education and Research Phase 2 (Dickenson County)	1	A workforce training & technology center for clean energy, IT development, & other R&D buisnesses	EDA	\$1,000,000	1
			CEDA	1,800,000	
			CDBG	700,000	
Bluestone Business and Technology Center (Tazewell Co.)	1	Development of sites and infrastructure in Bus Tech Center	EDA	\$2,000,000	1
			ARC	500,000	
			CDBG	700,000	
			RD	1,000,000	
			Tob. Comm.	2,000,000	
Local	2,000,000				
Bluestone Workforce Training Center (Tazewell Co.)	2	A workforce training facility for IT, AM, and energy development	EDA	\$2,000,000	1
			Tob. Comm.	2,000,000	
			RD	4,000,000	
			Local	1,000,000	
Doe Branch Business Park 1 (Dickenson Co.)	1	Development of a large business and industrial park near Haysi	EDA	\$2,000,000	1
			ARC	500,000	
			CDBG	700,000	
			CEDA	4,000,000	
Local	500,000				
Red Onion Industrial Park (Dickenson County)	2	Development of large regional industrial park on Dickenson/Wise Co. Border	EDA	\$2,000,000	1
			ARC	500,000	
			CDBG	2,000,000	
			CEDA	3,000,000	
Local	500,000				
Russell Co. Regional Business and Technology Park- Phase 2 (Russell Co.)	2	Development of 150-acre business and technology park	EDA	\$2,000,000	1
			Tob. Comm.	2,000,000	
			Local	1,000,000	
Castlewood Sewer - Phase 1b (Russell County)	1	Sewer Ext to serve Castlewood Community	CDBG	\$ 850,000	2
			Local	32,000	
			RD	2,203,064	
Hurley Community Water Project - Phase 6 (Buchanan County)	1	Extension of public water to households	AML	\$4,799,845	2
			CDBG	1,000,000	
			SWVW/WW	200,000	
			CWDF	200,000	
Local	1,058,890				
Spearhead Trail (District)	1	Multi-Use Trail System	TC	\$1,000,000	8
			CEDA	1,000,000	
			Local	500,000	

<u>PROJECT</u>	<u>PRIORITY</u>	<u>DESCRIPTION</u>	<u>FUNDING SOURCE</u>	<u>AMOUNT</u>	<u>Goal#</u>
TCR/RTM/ Heartwood (District)	1	Regional Cultural heritage initiatives	TC	\$1,000,000	8
			CEDA.	500,000	
			CDBG	1,000,000	
			ARC	500,000	
			Local	200,000	
Ramey/460 Sewer Project (Tazewell County)	1	Sewer extension to support business expansion	DEQ	\$1,531,385	1
Richlands Natural Gas Utility Project	1	Development of a natural gas distribution system	DOE	\$10,000,000	1
			DMME	1,000,000	
			CEDA	1,000,000	
			Local	2,000,000	
Regional Wireless Project	1	Expansion of a regional 4G network project	TC	\$ 1,000,000	1
			ARC	200,000	
			RD	1,500,000	
Clinchco/Centennial Heights Sewer Replacement Project (Dickenson County)	1	Sewerline improvements to support growth in Haysi and Clinchco	CDBG	\$ 300,000	2
			DEQ	200,000	
Falls Mills Adult Daycare (Tazewell County)	1	Renovation of vacant school building into an adult daycare facility	CDBG	\$ 1,000,000	11
			HRSS	1,000,000	
			Thompson Foundation	1,300,000	
			Shott Foundation	200,000	
			Bill Skews Foundation	1,500,000	
Project Jonah (Tazewell County)	1	Large aquaculture project in Richlands	EDA	\$ 2,000,000	3
			Private	104,187,300	
			VCEDA	10,000,000	
			Other	33,000,000	
			CPPDC RLF	125,000	

Priority 1 - Project can be implemented in one to two years.

Priority 2 - Project will take two or more years to implement.

Note: The environmental impact of each project has not been analyzed in any detail. An environmental assessment will be completed on each project during the application stage. Based on EDD staff knowledge, none of these projects are expected to have a significant environmental impact.

Note: The primary responsibility for implementing these projects rests with CPPDC staff. Coordination with the various local, state, federal, and private agencies will be carried out by the CPPDC.



## **6. ACTION PLAN**

### **A. Development Strategy**

The Cumberland Plateau Planning District is a victim of economic dislocations in the coal mining industry. Since the turn of the century the District economy has relied on the coal industry to provide jobs for its people. The nature of the coal industry has always been one of "boom" and "bust", thus, creating an unstable economic base. It is essential that the CEDS Committee and the Planning District staff understand the structure of the economy and the factors which have led to economic distress if the District is to develop economically in the future.

The District action plan will focus, as it has for most of its existence, on diversification. Most of the District's effort in the past has been on development of the infrastructure that is a prerequisite for industrial development. Highways, water and sewer, and industrial site development have been the main elements in the District's development program. The District's Regional Broadband and Wireless projects, as well as sustainable development and cultural heritage initiatives, have recently been added to this Program. In the last three (3) years, a regional outdoor recreation initiative, Appalachian Spring, has been added. There remains much work to be done in these areas, but the primary thrust in the future will be on recruiting new or expanding businesses and industries in telecommunications and advanced manufacturing to the area and to insuring that local workforce and K-12 education improvements are made. Industrial parks and sites will be prepared to meet the needs of both small and large industries. A major effort is now underway to create a mega-site in the coalfields region. The District

**will continue to work with the Virginia Economic Development Partnership, Virginia Coalfield Economic Development Authority, the Virginia Tourism Corporation, Friends of Southwest Virginia and local IDA's and others to market the area to businesses and industries seeking to expand.**

**In this spirit, the District CEDS Committee has identified the opportunity to obtain funding from the recent POWER Initiative created by the federal government and the proposed POWER Plus Program to support the advanced manufacturing and outdoor recreation sectors of the regional economy. A consortium of PDCs, Community Colleges, workforce training organizations, private industry groups and others received a POWER grant to support entrepreneurial and infrastructure needs to address some of the obstacles to economic growth in the district.**

**The action plan has many facets, including the following:**

- 1. Increase availability and utilization of financial and other industrial location incentives.**
- 2. Enhance skill training programs and their linkages with industry and access to these facilities.**
- 3. Increase inventory of industrial buildings and developed land.**
- 4. Improve entrepreneurial opportunities, especially for unemployed workers and managers.**
- 5. Improve financing and other support mechanisms and provide a better climate for small business entrepreneurship and expansion, especially tourism-related businesses that might locate in revitalized**

**downtown districts.**

- 6. Develop facilities and special support programs suitable for small and medium-sized firms which will help diversify the economy.**
- 7. Improve area highway network and other transportation access, especially the Coalfields Expressway.**
- 8. Increase the number and improve the quality of area water and sewer systems.**
- 9. Develop programs to add value to coal before it is shipped elsewhere (e.g., clean coal technologies).**
- 10. Improve tourism facilities and access to park areas as well as other commercial infrastructure.**
- 11. Strengthen economic development planning capabilities.**
- 12. Improve public and private attitudes and support for development plans.**
- 13. Develop and implement improved area - specific industrial and business marketing and recruitment programs.**
- 14. Provide the region with a ubiquitous state-of-the-art telecommunications system.**
- 15. Support improvements in K-12 and higher education to address educational attainment challenges.**
- 16. Support the improvement and development of the District's health care facilities, especially in the area of substance abuse.**

**B. Implementation Plan/Work Plan**

**1. Update the Comprehensive Economic Development Strategy (CEDS)**

The Cumberland Plateau Planning District Commission will undertake a thorough planning process, known as the Comprehensive Economic Development Strategy (CEDS), that examines in detail the local conditions of the region and develops a guide for economic growth within the region. The purpose of the CEDS is to establish a process that will create jobs, foster a more stable and diversified economy, and improve the quality of life in the district. It will provide a mechanism for coordinating the efforts of individuals, organizations, and local governments and private industry concerned with economic development. The updated CEDS that the Commission will develop during the process will include sections on the following: description of the problems, needs, potentials, and resources of the District; the District's visions and goals; the strategic direction for an action plan; established priority programs and projects for implementation; and outline of the performance standards for the annual evaluation and update of the process. The submission of this annual document is a prerequisite for designation of the Cumberland Plateau Planning District as an Economic Development District under the U. S. Department of Commerce's Economic Development Administration and to qualify for EDA assistance under its public works, economic adjustment and planning programs.

**2. Conduct CEDS Committee Meetings**

The Cumberland Plateau Planning District Commission conducts four CEDS Committee meetings each year or as needed.

**3. Update Economic Development Priority Project Profiles for CEDS**

An important aspect of the Commission's work is long range planning for economic development projects. Part of this effort is the updating of priority project profiles on potential economic development projects. Localities will be asked during the CEDS process to submit a project profile of their top priority projects. The ranking for each project within the CEDS will be determined based upon such factors as economic need of the locality, feasibility, degree of planning, cost effectiveness, and environmental concerns.

As always, conditions may change within a locality and the readiness of the project may change during the year. Therefore, the ranking of the projects may also change during the course of the year.

**4. Assist in the Management and Implementation of Current VCDBG Projects**

The Commission has been very successful in the past several years in assisting Cumberland Plateau Planning District localities in securing Virginia Community Development Block Grant (VCDBG) assistance for new development projects. Presently, the Commission is assisting eight (8) localities in the planning, implementation and/or management of 10 (ten) VCDBG construction projects. These localities include the Towns of Lebanon, Tazewell, Cleveland, Honaker and Haysi, and Dickenson, Tazewell and Buchanan Counties. All of these projects are helping to develop needed community infrastructure improving the quality of life for the project's area residents. The Commission contracts to assist and advise these localities on matters relating to the implementation and management of these projects.

**5. Assist in the Development of New VCDBG Projects**

Presently, the Commission is assisting the Towns of Lebanon and Tazewell in planning for downtown revitalization projects, the Town of Pocahontas in developing a major water system project, Tazewell County with an adult daycare facility project, and Buchanan County in developing one 2016 CDBG water project.

The Commission is also assisting several localities in the development of other much needed projects that may be more suited to other funding programs such as ARC, VDH, DEQ, VDOT, RD, VCEDA and the Tobacco Commission. Most successful CDBG projects require funding from other sources. These include: VCEDA – Coalfields Regional Mega-Site Project; Buchanan County – Hurley Phase 7 Water Project and Southern Gap Development Project; Tazewell County – Bluestone Business and Technology Park; Dickenson County-Red Onion Industrial Park and George’s Fork Sewer Project; Russell County-Tunnel Road Water Project; Town of Honaker Heritage Center Project, Town of Haysi Trails Center Project, Cleveland Water System Equipment Project, Cleveland Campground and River Trail Project and Haysi Riverfront Trail Project.

The Commission will continue to assist localities in the development of new CDBG projects under this program.

**6. Assist in the Development of New EDA Projects**

The Commission continues to encourage localities in possible use of Economic Development Administration programs for their projects which are listed within the CEDS Priority Project Listing. The Commission will continue to work with localities to develop projects to successfully compete for EDA funding.

The Commission is also working on five (5) major economic development initiatives: Coalfields Regional Mega-Site Project; Tazewell County/Richlands Aquaculture Project; Southern Gap Industrial Park and Multi-Use Development Project in Buchanan County; the Dickenson County Red Onion Industrial Park Project in Dickenson County; and The Bluestone Regional Business and Technology Center in Tazewell County.

7. **Coordinate and Assist in the Cumberland Plateau Planning District Rural Transportation Planning Program**

The Intermodal Surface Efficiency Act of 1991 made it possible for the rural localities of the Cumberland Plateau Planning District to develop a regional transportation planning program. Through funding made available from the State of Virginia, the Cumberland Plateau Planning District Commission continues to participate in a statewide program to assist the rural localities with their transportation programs and needs. A Rural Transportation Task Force Committee was developed to identify areas of concern within the District relating to transportation. Each task force representative brings to the group their field of expertise as a transportation service provider, consumer, planner, and/or implementer. A rural Transportation Planning Program Scope of Work is developed annually for the Cumberland Plateau Planning District. The Commission will coordinate and assist in the implementation of this program and the scope of work.

8. **Assist in the Development, Management, and/or Implementation of Projects Through Additional Programs**

The Commission is always interested in the development of projects through other programs that are related to issues of concern by member jurisdictions. This work element will/may include related programs to housing and community development (i.e., Rural Development, ARC, DCR and Abandoned Mined Land Water Program), and regional planning (Enterprise Zones, Solid Waste, Workforce, and the Cumberland Plateau Revolving Loan Fund). This work element will/may also include the development and management of projects funded through individual localities of the District (Comprehensive Plans, Zoning Plans and redistricting).

9. **Coordinate and Support Agencies in the Implementation of Various Strategic Planning Initiatives**

During the 1995 session of the Virginia General Assembly, legislative reform of the Virginia Area Development Act was passed under the title of the “Regional Cooperation Act” (RCA). The goal of RCA is to strengthen the Virginia Planning District Commission system. The Cumberland Plateau Planning District Commission will coordinate and support State agencies in the implementation of the RCA and other programs approved in the future.

10. **Provide Economic and Demographic Information and/or Technical Assistance to Public and Private Sector**

The Commission will continue to serve as State Data Center and Collect and maintain a significant body of statistical data on economics and demographics,



**assorted technical information on land use and development, and mapping products of various description. Specific types of material available from the Commission will include U.S. Bureau of the Census statistics, U.S. Geological Survey map products, and U.S. Emergency Management Flood Hazard Maps.**

## **7. PERFORMANCE MEASURES**

The Cumberland Plateau Planning District Commission staff, in collaboration with the CEDS Committee, local governments and agencies, has developed an on-going monitoring process that will result in a periodic evaluation of the District's economy, as well as a status report on the Planning District's programs and activities as set forth in its annual Scope of Work and the CEDS Action Plan. This monitoring program will quantify progress toward achieving the goals outlined in the Comprehensive Economic Development Strategy based on number of jobs created, number of business locations and investments, numbers of jobs retained, amount of private sector investment, and significant changes in the region's economy.

This process will rely on the Virginia Coalfield Economic Development Authority, the Virginia Economic Development Partnership, the Virginia Employment Commission, our local governments and IDA's and other agencies and organizations that track the effects of existing as well as new economic activities, and determine which area of our economy and development program might require additional attention.

Updates on progress being made on the Action Plan's top priority projects will be given at CEDS Committee meetings and PDC Board of Directors by staff. Updates on the lower ranked priority one projects will be given every six (6) months, and priority two projects will be updated annually. Should progress on any project be behind schedule, staff assignments will be given to identify problems and determine any alternative actions required to get the project back on schedule. In

**some cases, dramatic changes in project activities may require major project schedule modification.**