

**Report 1: Economic Brief**  
**Regional Economic Growth Strategy for the Pennyriple Region**

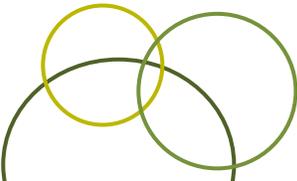
*Prepared for the:*  
**West Kentucky Workforce Investment Board and the  
Pennyriple Area Development District**



**June 2010**

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## INTRODUCTION

In April 2010, the Pennyriple Area Development District (PADD) and West Kentucky Workforce Investment Board (WKWIB) began a process to create a *Regional Economic Growth Strategy*, consisting of a workforce analysis and an emerging sector analysis and plan. National consultants Avalanche Consulting, Inc. and the Council for Adult and Experiential Learning (CAEL) were hired to complete this *Strategy*.

The focus of the project is to competitively position and sustainably grow the Pennyriple region's economy through the next 10 years and beyond. Working closely with PADD and the WKWIB, the consulting team will provide a fresh approach to job creation and prosperity by aligning workforce and economic development activities across the region.

The Pennyriple region consists of nine counties located in the western area of Kentucky: Caldwell, Christian, Crittenden, Hopkins, Livingston, Lyon, Muhlenberg, Todd and Trigg. Since a significant part of the region's economy is linked to the Clarksville-Hopkinsville metro, this *Economic Brief* also includes Montgomery County, TN in the regional analysis.



Significant research will be conducted as a part of the entire project's discovery process. Then, based on a solid foundation of analysis, the consulting team will identify new projects, strategies, and ideas that will generate new jobs and wealth across the region. The consulting team hopes and anticipates that new initiatives can be identified and begun immediately following, as well as during, the strategic planning process.

## ABOUT THE PROCESS

The *Regional Economic Growth Strategy* will consist of two major focus areas: workforce development and economic development. The *Strategy* will take five months to complete and include the following components:

REGIONAL ECONOMIC GROWTH STRATEGY FOR THE PENNYRILE AREA	
Phase One: Workforce Analysis and Talent Development Strategy	Phase Two: Emerging Sector Strategic Analysis and Action Plan
<i>Focus: Workforce Development</i>	<i>Focus: Economic Development</i>
<p>Assessment and Strategies:</p> <ul style="list-style-type: none"> <li>✓ Workforce skills and availability</li> <li>✓ Education and training infrastructure</li> <li>✓ Alignment with employer needs</li> <li>✓ Talent development vision</li> <li>✓ Talent strategy</li> </ul>	<p>Assessment and Strategies:</p> <ul style="list-style-type: none"> <li>✓ Existing and emerging industry sectors</li> <li>✓ Global economic opportunities</li> <li>✓ Assets/challenges to new sector development</li> <li>✓ Growth strategies and action plan</li> </ul>

### Phase One: Workforce Analysis

During Phase One, the consulting team will conduct an in-depth assessment of the Pennyrile region. The process will begin by updating statistical information about the region's economy and workforce conditions. The consulting team will conduct focus groups, interviews, and surveys to understand local perceptions and vision. Next, an evaluation of the region's educational infrastructure and assets will reveal strengths and gaps in the talent pipeline. Phase One will conclude with a series of strategic recommendations for enhancing skill sets and preparing the region for current and future employer needs.

### Phase Two: Emerging Sector Analysis and Plan

During Phase Two, the consulting team will evaluate the region's industry base and recommend targets for future business recruitment, expansion, and entrepreneurship initiatives. The process will conclude with strategic recommendations for aligning workforce, community, and economic development efforts to prepare the region for target industry growth.

### Project Timeline



As a result of this process, the nine-county Pennyrile region will be positioned for the next wave of economic growth and have the expertise, vision, and tools to succeed.

## ABOUT THIS REPORT

This *Economic Brief* is the first of several analytical reports that will be delivered as part of the *Regional Economic Growth Strategy*. This report is intended to provide a snapshot of the current economic and demographic situation in the Pennyrile region. Subsequent reports will evaluate the economy and its industry sectors in greater detail. Using this *Economic Brief* to kick-off the project, the consulting team, WKWIB, PADD, and Steering Committee will have the most current understanding of the composition of the area's economy and where stresses in the workforce system exist or will likely occur.

The *Economic Brief* showcases trends in population, employment, industries, commuting patterns, and many more topics. The analysis examines the Pennyrile, Kentucky, region and neighboring Montgomery County, Tennessee. This report provides data at the regional and county-level. In addition, a *County Chart Book* is the Appendix to this Brief. The *Chart Book* provides charts and data for each of the counties and the region. This *Chart Book* will be updated throughout the process so that the region, its leadership, and its citizens have the most complete profile available of their local economy to guide future efforts and internal planning.

For this report, we profile broad economic trends and examine trend data for the period leading up to the recent recession. Data is drawn from state and federal agencies, and many of them have yet to release complete data for 2009 due to the natural lag in reporting. Specifically, this report examines the time period 2003-2008, which represents the smoothest growth period of this decade and allows for a clearer examination of the internal dynamics of the region: which industries were growing faster than others and how counties have performed against each other. While the regional economy will look different after this recession is over, it is expected that many of the internal dynamics will remain in place. To the extent the economy returns to a "normal" state, this examination of "pre-recession" conditions should provide guidance for the future.

## TRACKING THE PROJECT

This project has its own website, [www.PennyrileFuture.com](http://www.PennyrileFuture.com), which contains information about the project, news, and reports as they are completed and approved. A Regional Summit will be held following the completion of the project to unveil the growth strategies and action plan to the regional leaders and stakeholders.



The Pennyriple community has numerous opportunities to share input and get involved in the strategic planning process. The consulting team is conducting focus groups and interviews throughout the region. A survey of employers has been initiated to solicit detailed occupation and skills requirements for the future to guide educational institutions and workforce training entities in the region. An online survey for citizens is available through the project website. The citizen survey allows all residents of the region to submit suggestions on how to improve the regional economy.

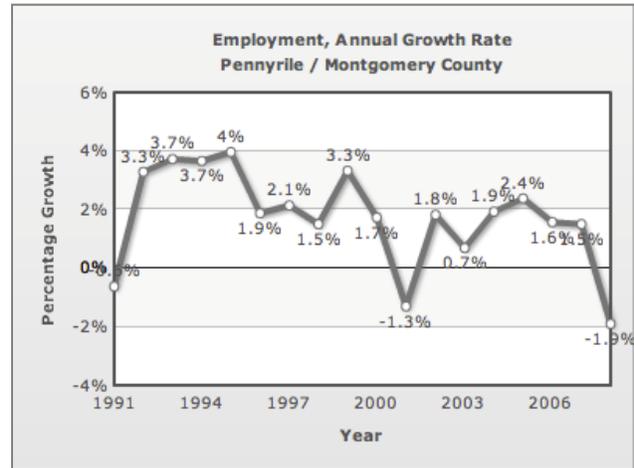
The WKWIB, PADD, and consulting team thank the U.S. Department of Commerce’s Economic Development Administration and the U.S. Department of Labor for providing funding for this project.



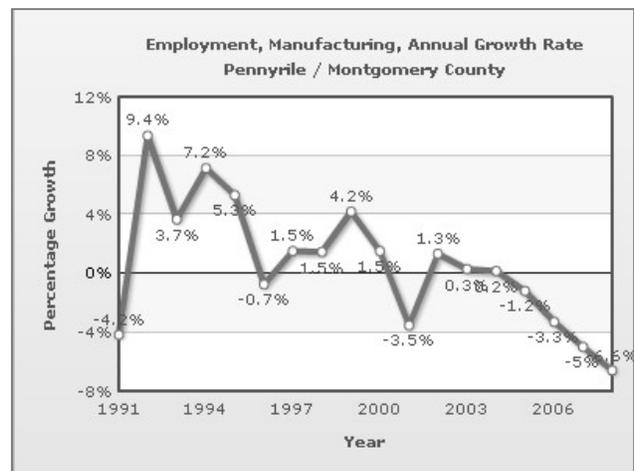
## EMPLOYMENT GROWTH TRENDS

Employment growth in the Pennyriple / Montgomery region turned negative in 2008 for the first time since 2001.

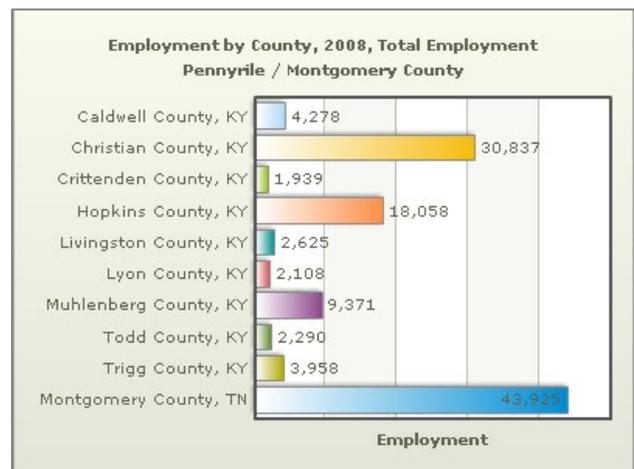
Employment growth has been trending downward for the past two decades, with each recession deeper than the previous one and each rebound smaller than before. The region has averaged 1.2% annual employment growth this decade, down from 2.5% in the 1990s.



The manufacturing industry has been the main culprit in the region’s economic decline, as high growth rates in the 1990s have been replaced by negative growth in the 2000s. Job losses reached 6.6% in 2008, when 2,300 jobs were shed from manufacturing employers. ***Supporting new product development and market promotion for the area’s existing companies will help the industry rebound from the current recession.***



The region has a high degree of size variation across its component counties, with Christian, Hopkins, and Montgomery counties providing a majority jobs. Christian County has the most jobs in the Kentucky Pennyriple region – 31,000 – followed by Hopkins County (18,100) and Muhlenberg County (9,400). South of the state line, Montgomery County in Tennessee is home to nearly 44,000 jobs. The total job base for the region is 119,000 wage and salary jobs.

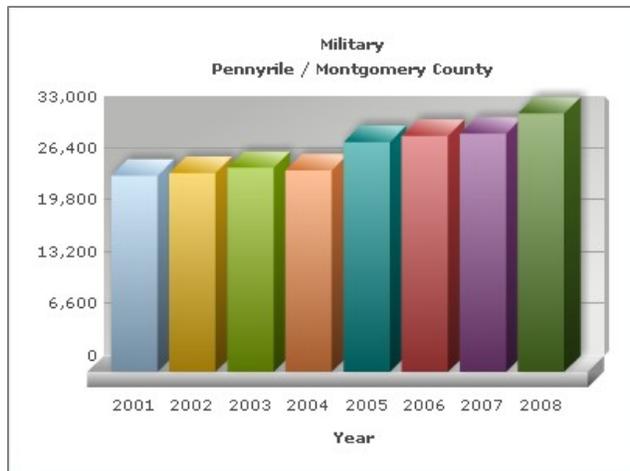
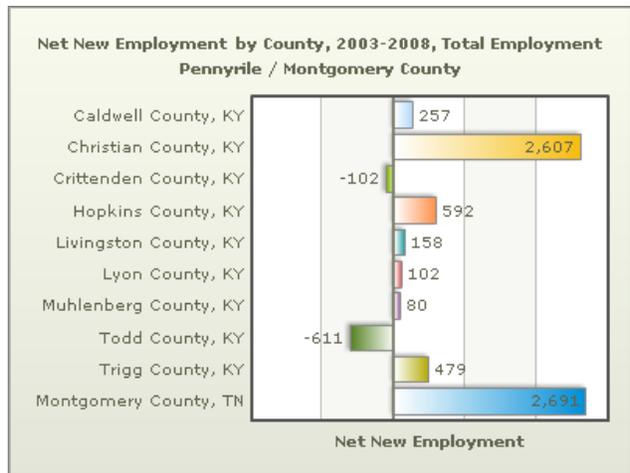
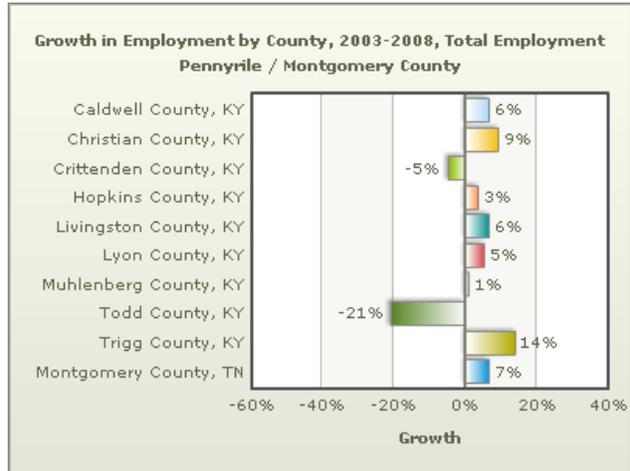


Note: Military jobs are not included.

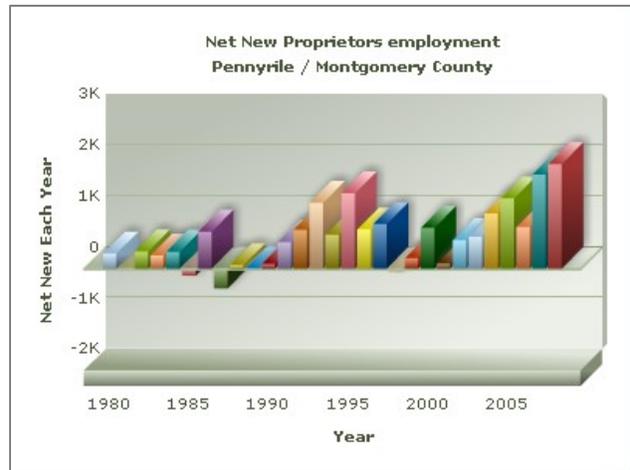
Within the region, employment growth has varied greatly. Smaller counties both lead and trail the regional average, with Trigg County growing 14% in the 5 years leading up to the recession, while Todd County lost 21% of its jobs due to the closure of several manufacturers. Christian County grew a healthy 9% over the period, faster than neighboring Montgomery County.

Christian County and Montgomery County created the most new jobs in the region from 2003-2008: Christian County created 2,600 net new jobs and Montgomery County created 2,700 jobs. Hopkins and Trigg counties combined to create another 1,000 jobs. The entire region created 6,250 net new jobs from 2003-2008.

The military plays a large and growing role in the regional economy. Today, about 33,000 people are employed by the military at Ft. Campbell. These jobs are above and beyond the “wage and salary” employment described above. The military has seen tremendous growth in recent years, **adding 6,900 net new jobs from 2003 to 2008 – more than all new “wage and salary” jobs combined and averaging 5.3% growth per year.**



While the region has struggled to maintain its employment base as large employers have laid-off workers, the **region's base of self-employed workers and small businesses has grown dramatically**. Today, 41,000 people are self-employed in the region or working for unincorporated sole-proprietors. These jobs are above and beyond the region's 119,000 wage and salary workers. In 2008, **2,100 jobs were created by sole proprietors**, while corporations shed 2,300 workers. ***Growing at 4-5% annually, the base of self-employment will be a key future source of new jobs for the region and will require entrepreneurial support services.*** One downside to this trend: While the growth in self-employment has outpaced the overall economy, average SE incomes are smaller and growing slower. However, this positive growth bucks the US trend of declining average SE income.



Combining all types of jobs – corporate (wage and salary), self-employed, and military – the region has a base of 173,000 jobs, created 20,400 jobs between 2003-2008, and grew 2.2% per year over the time period. Military jobs grew 4x faster than corporate jobs over the period; self-employment grew 3x faster.

Job Creation by Type	2003 Jobs	2008 Jobs	2003-2008		
			New Jobs	% Growth	Ann Growth
Corporate *	113,136	119,389	6,253	5.5%	1.1%
Self-employed	33,898	41,076	7,178	21.2%	3.9%
Military	25,964	32,882	6,918	26.6%	4.8%
<b>Total</b>	<b>172,998</b>	<b>193,347</b>	<b>20,349</b>	<b>11.8%</b>	<b>2.2%</b>

\*"wage and salary" jobs

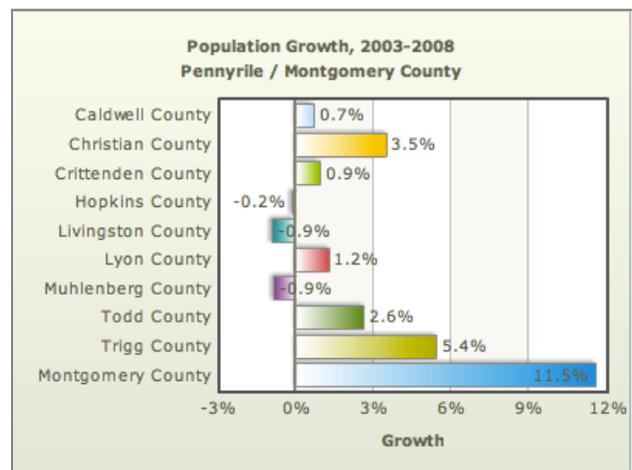
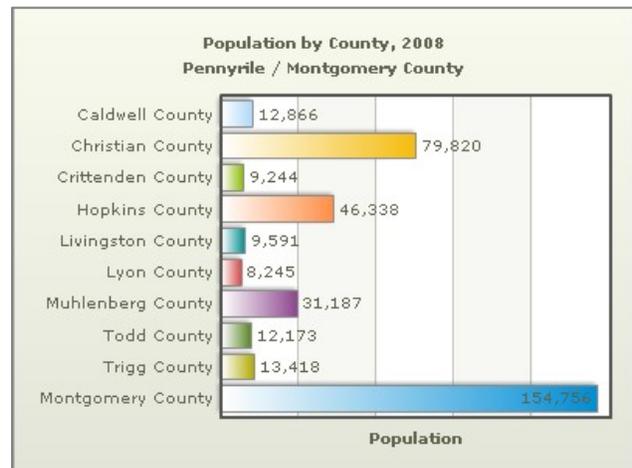
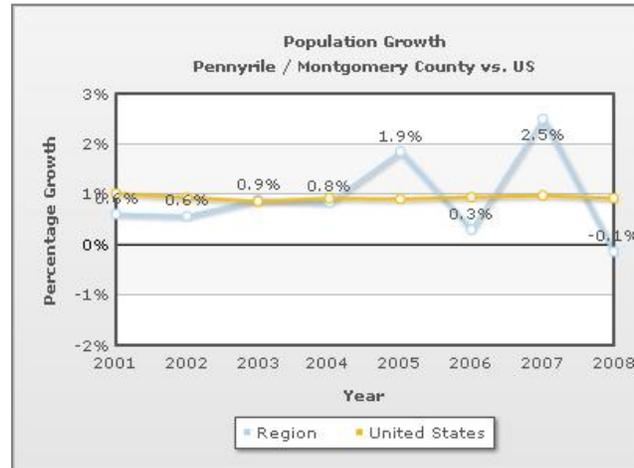
The high growth in military positions resulted in a growth rate for the region that was faster than U.S. growth over the time period. (The U.S. grew just 9.8% in total.)



## POPULATION GROWTH TRENDS

Population growth in the region has been more consistent this decade, with positive growth seen in every year. The region averaged 4,000 new persons each year from 2003-2008. About 3,000 people are added through natural increase (births over deaths). Most of the 1,000 newcomers to the region are domestic migrants – international migration is negligible. Year-to-year growth fluctuations are caused by large statistical variations in domestic in-migration into Montgomery County.

While employment is concentrated in a handful of counties, the region’s population growth is more evenly distributed, reflecting a high degree of commuter traffic between counties. Montgomery County leads population growth with 12% growth in the 5-year period leading up to the recession, while Trigg County leads growth in the Kentucky part of the region due in part to its lake amenities and retiree community. Surprisingly, Hopkins County registered a negative growth rate for the period despite its positive employment growth.



The region relies heavily on job availability in Hopkins and Christian counties. These two counties have 0.39 jobs per population in the county, while outer counties such as Crittenden and Todd have about 0.2. Commuting patterns further show the variation in jobs per population in the region. Christian County alone draws in 2,500 workers each day from neighboring Montgomery County, while just 1,000 make the opposite commute. Commuting patterns from Tennessee are affected heavily by the lack of a personal income tax in that state.

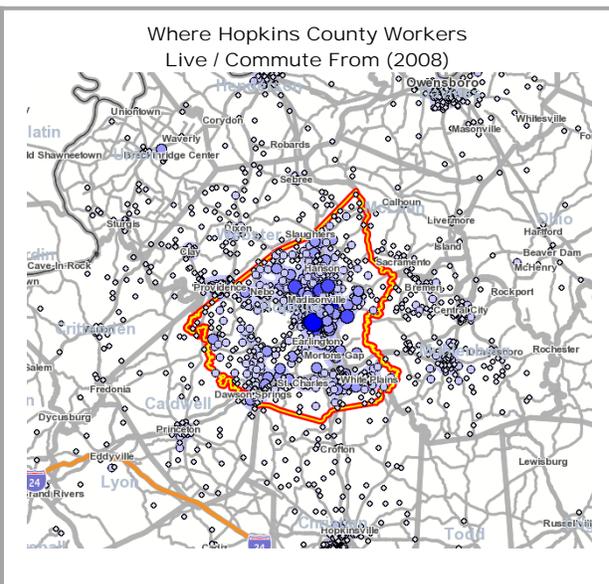
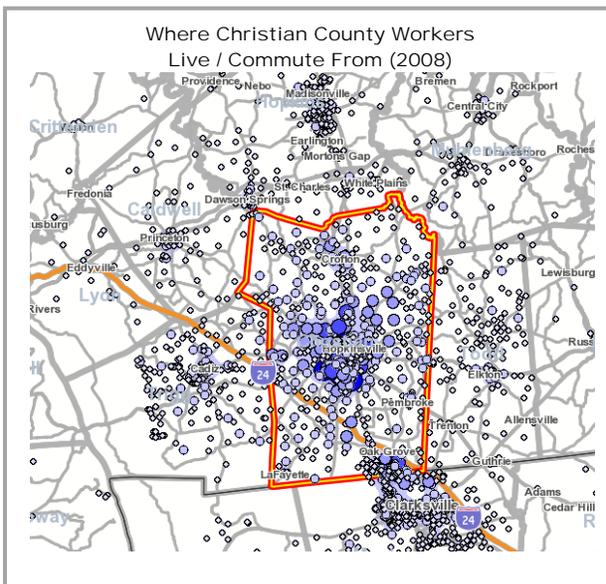
In addition, Christian County draws twice as many workers from Hopkins County (1,200) as its returns, and about 30% of workers from Trigg County commute into Christian County. Hopkins County commuters are pulled primarily from the north and east. ***Improving job opportunities to the rural counties will have positive effects and better balance the population-job ratio across the region.***

### Jobs Per Population, 2008

County	Jobs/Pop Ratio
Caldwell County, KY	0.33
Christian County, KY	0.39
Crittenden County, KY	0.21
Hopkins County, KY	0.39
Livingston County, KY	0.27
Lyon County, KY	0.26
Muhlenberg County, KY	0.30
Todd County, KY	0.19
Trigg County, KY	0.30
Montgomery County, KY	0.24
Regional Average	0.30

### Workers Commuting Into Christian County, 2008

County Commuting From	Workers	Share
Christian County, KY	14,157	55.9%
Montgomery County, TN	2,471	9.8%
Hopkins County, KY	1,169	4.6%
Trigg County, KY	1,133	4.5%
Todd County, KY	763	3.0%
Caldwell County, KY	495	2.0%
Warren County, KY	426	1.7%
Muhlenberg County, KY	416	1.6%
Jefferson County, KY	357	1.4%
Daviess County, KY	298	1.2%
All Other Locations	3,648	14.4%



\*\*See Appendix for maps for other Pennyrile counties



## INCOME TRENDS

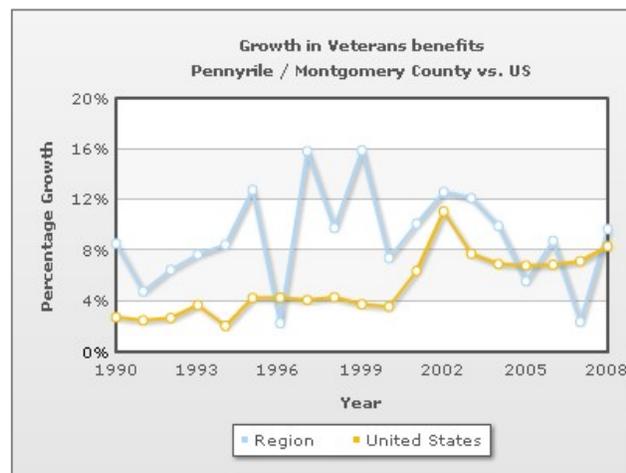
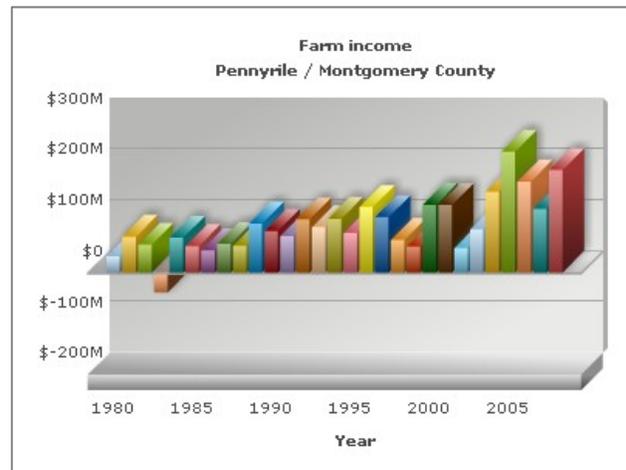
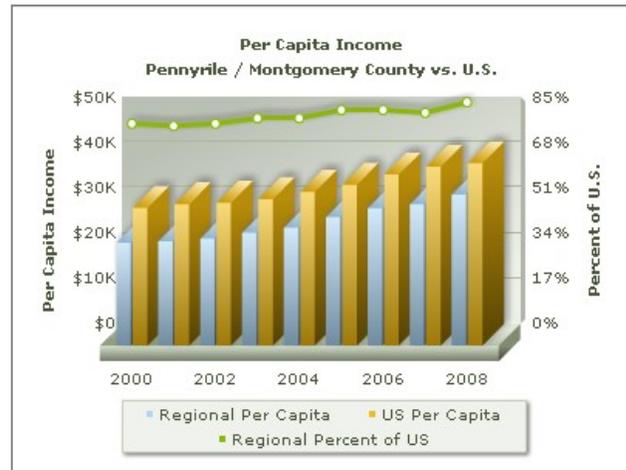
The per capita income for the region surpassed \$33,000 in 2008 and has been growing 50% faster than the U.S. average. The regional average is now 83% of the U.S. average – up from 75% in 2000. Total personal income in the region reached \$12.5 billion in 2008 after generating nearly \$800 million in new income that year.

Income statistics consist of three main categories: earned income, transfer payments (Medicare, unemployment, etc.), and retirement contributions (a worker's payments to social security and pensions).

While corporate salaries and wages contribute to the vast majority of income for local residents, farms have been an important source of income and economic multiplier effects. Farms generate more than \$200 million in income now, though this represents a shrinking share of regional income: 0.9% today, down from 2.7% thirty years ago. Farms employ 7,000 jobs in the region.

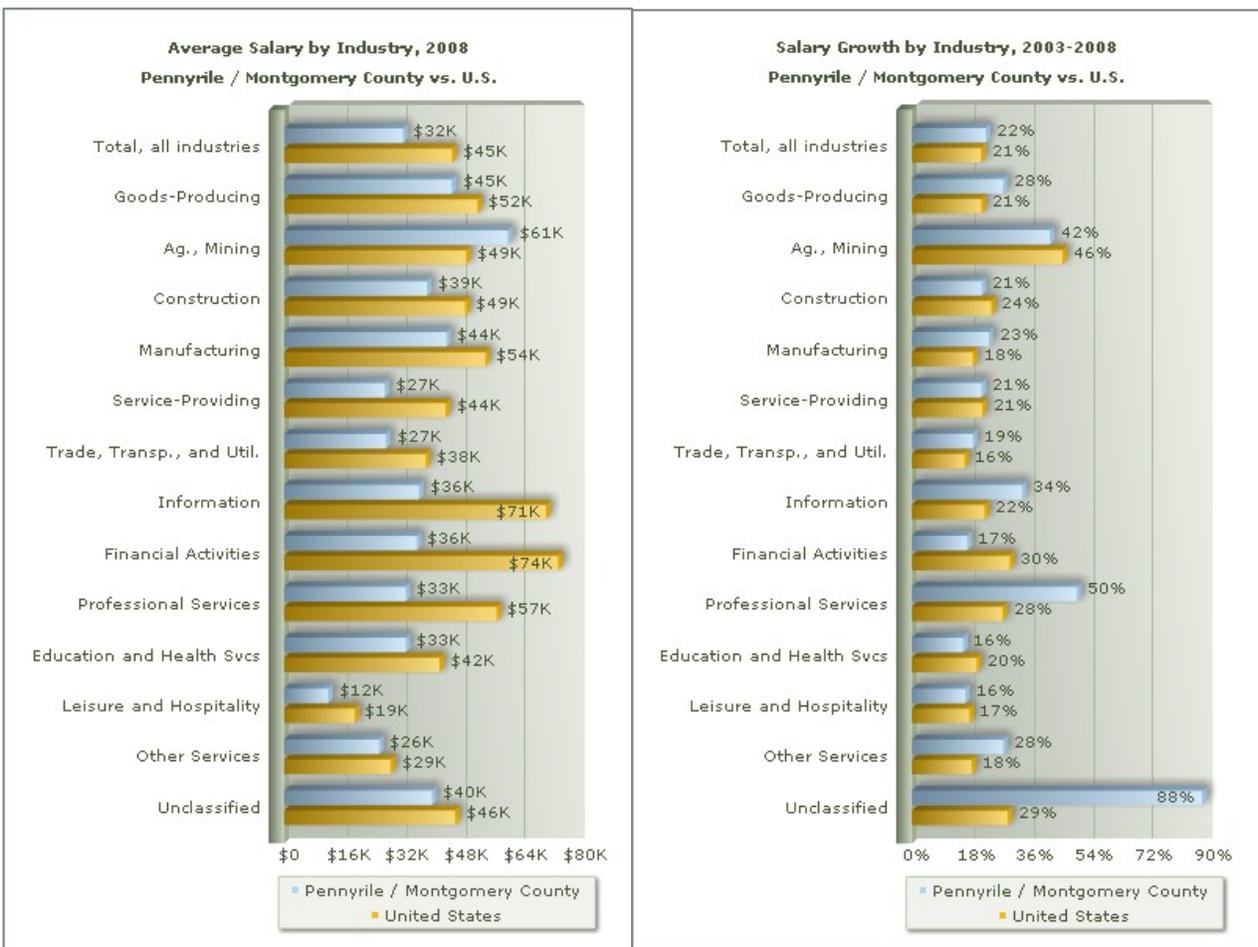
Veterans' benefits, also an important part of the economy due to the presence of Ft. Campbell, continue to grow. Today, \$150 million in veterans' benefits (primarily to retired military and their families) enters the region each year. However, while benefits were growing in the 1990s at 2-3 times the rate seen across the U.S., the pace of growth has fallen recently, likely complicated by the region's struggle to retain retired veterans.

***Connecting post-war veterans to skilled jobs in the local economy will become a growing opportunity for the region.***



Of the private sector wage and salaried positions in the region, the Mining sector pays the highest average salary: \$61,000. High wages in the industry have been a draw to many generations in the region and young adults continue to pursue training for jobs in the coal industry, which has rebounded dramatically in recent years, creating more than 2,300 jobs in the 5-year period leading up to the recession. The industry's average salary grew 42% of that same period. The Manufacturing industry pays the second-highest average salary in the region – \$44,000 per year – and has grown its wage level as well. The regional average salary, \$32,000, is growing faster than the U.S. average.

However, what is most striking about salaries in the region is the large salary gap for service industries – Professional Services, Information, and Financial Activities. These industries pay significantly lower salaries locally than the U.S. average, which is an indication of the lack of higher-end knowledge positions in services. ***Exploring new ways to promote a growing “knowledge worker” economy will be critical as the region seeks to diversify its economy.***



Note: Even though “Agriculture & Mining” is a supersector as defined by the U.S. Bureau and Labor Statistics, this dataset reflects just 5-10% of agriculture jobs. Most agriculture jobs are considered “proprietor” jobs, which are tabulated in another dataset. In the case with the Pennyrile region, 7,000 farm jobs exist, but only 500 jobs are captured as corporate employment in the above dataset.

Furthermore, income statistics show how dependent a county is on income generated outside its county. All counties in the region are net “importers” of income earned outside its borders, with the exception of Christian County and just recently Muhlenberg County (a very modest sum). The Pennyriple region, without including Montgomery County, leaked a net of \$2.4 billion in wages to workers living outside region, due in large part to the lack of a state income tax in neighboring Tennessee. Montgomery County alone brought in \$2.6 billion in 2008. As a result of Montgomery’s proximity to Nashville, the region as a whole brings in a net positive of over \$350 million into the region. ***While tax issues clearly play a role in where people choose to live, the region’s efforts to increase retail options, improve its downtowns, and expand entertainment will help counties keep more of the income that they generate from their job base.***

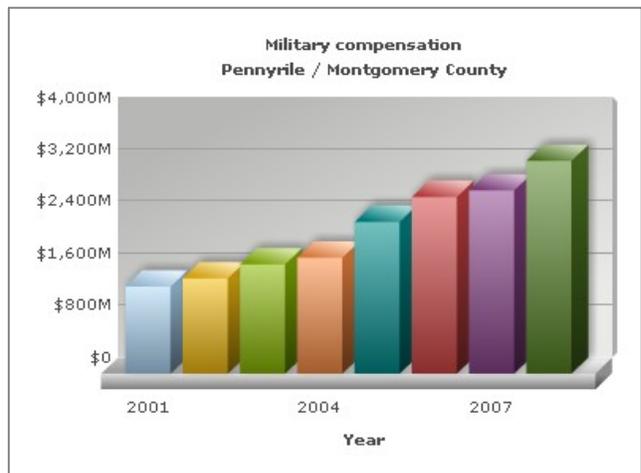
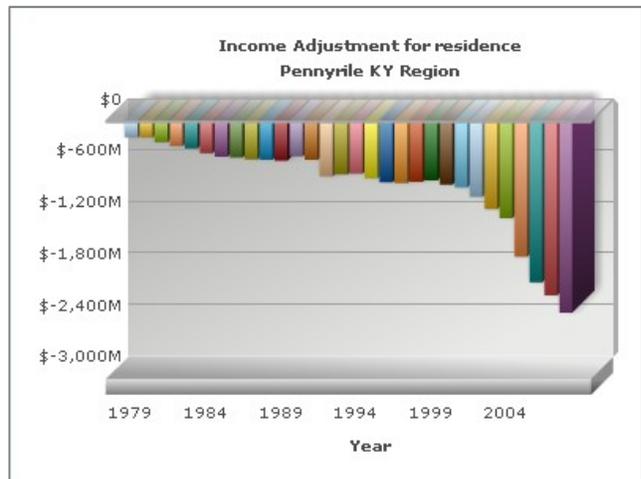
Active-duty military compensation has grown dramatically in recent years, reaching \$3.3 billion each year and doubling in just 5 years. Today, over 33,000 active duty military are stationed at Ft. Campbell\*. **Military compensation accounts for 26% of the region’s personal income.**

On a final note, “transfer payments” to individuals (unemployment, disability, medicare, veterans benefits, etc.) are on the rise and account for 18.3% of total regional personal income in 2008, up from 16.1% in 2000 and 15.6% in 1990. The U.S. trend is also increasing, but transfers accounted for just 15.3% in 2008.

### "Imported" Income

*Earned Outside the County  
as Percent of County Total, 2008*

County	Share of Total
Montgomery	43%
Trigg	30%
Crittenden	23%
Livingston	20%
Todd	20%
Lyon	19%
Caldwell	10%
Hopkins	3%
Muhlenberg	0%
Christian	Net exporter



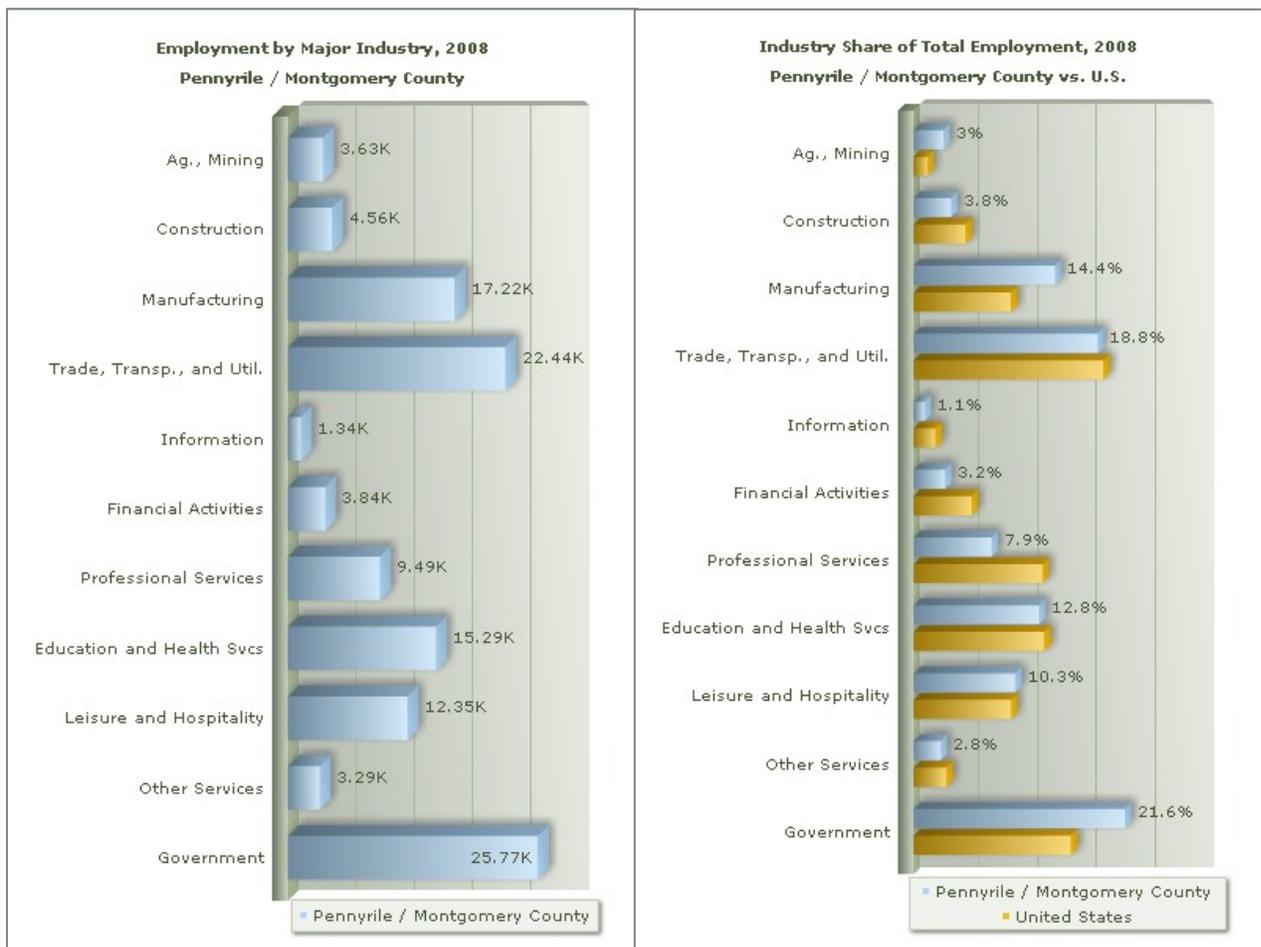
\*Note: Military jobs are in addition to the 119,000 “wage and salary” jobs discussed on page 5

## INDUSTRY TRENDS

The Pennyrile / Montgomery County industry base is heavily weighted toward the Manufacturing and Government sectors (due to the presence of Ft. Campbell). The Manufacturing sector employs 17,000 workers and accounts for over 14% of jobs, which is significantly higher than the 10% average share seen for the U.S. Government and Manufacturing account for one-third of all jobs, and their multiplier effects support many other industries.

Trade, Transportation, and Utilities is the third largest sector in the region, and is typically viewed as a supporting industry. Within this industry, only Warehousing/Distribution is considered to generate “primary jobs” that bring new wealth into a region. Health Care is the fourth largest sector in the region (note that government education jobs are the “Government” sector), followed by Leisure and Hospitality and Professional Services.

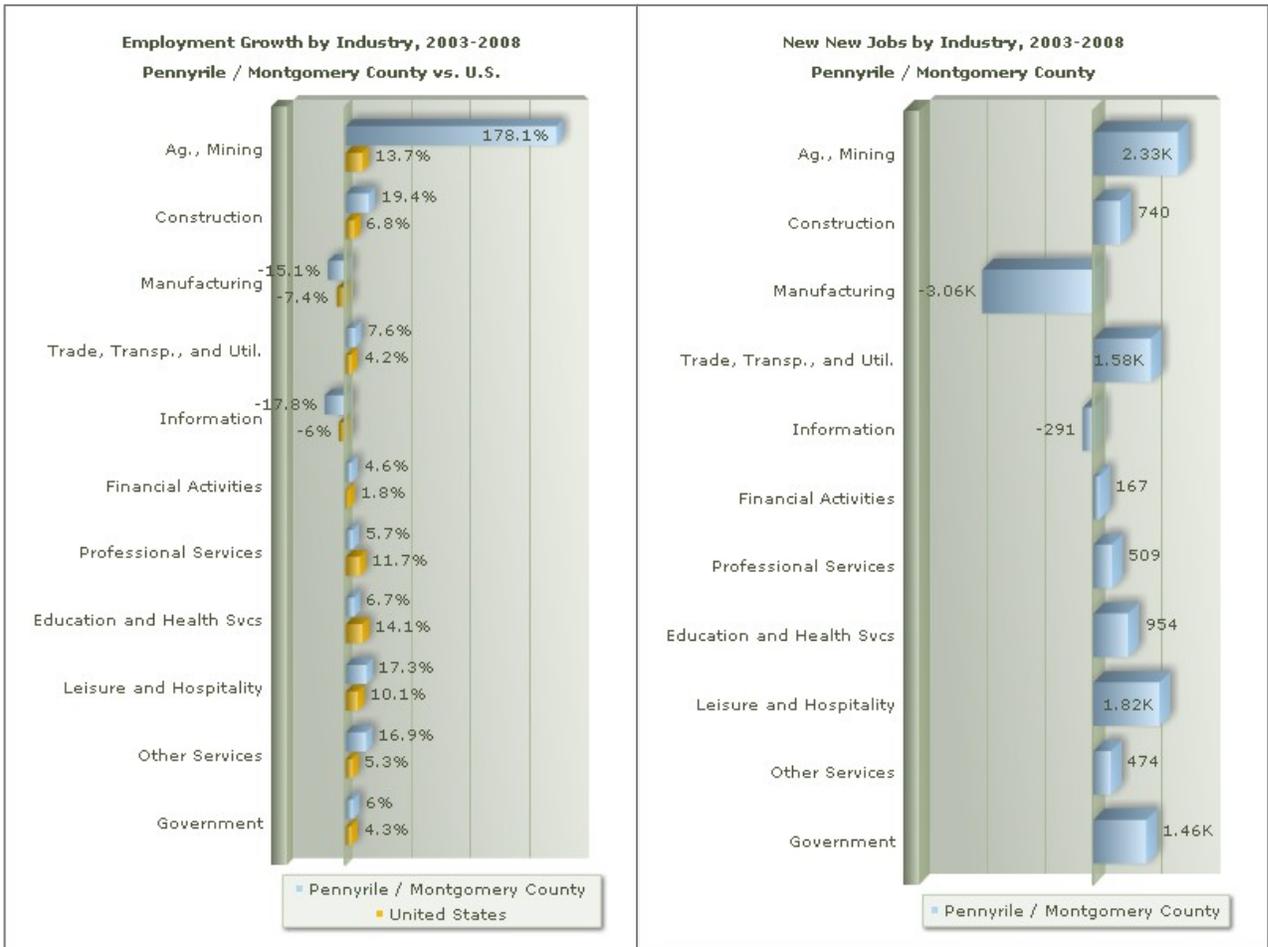
Sectors that are least represented in the region include the Professional Services sector (including accounting, legal, and advertising firms) and Financial Services.



Note: Military jobs are not included in the “Government” statistic. The military employs an additional 33,000 workers.

Job growth over the 5-year, pre-recession period was dominated by the creation of 2,300 new jobs in the Agriculture & Mining, primarily due to coal mining. This translates to an incredible 178% growth rate over the period. The year 2003 was the lowest point for the industry, but after billions of dollars of new investment in area mines, employment in the industry is at its highest in 20 years.

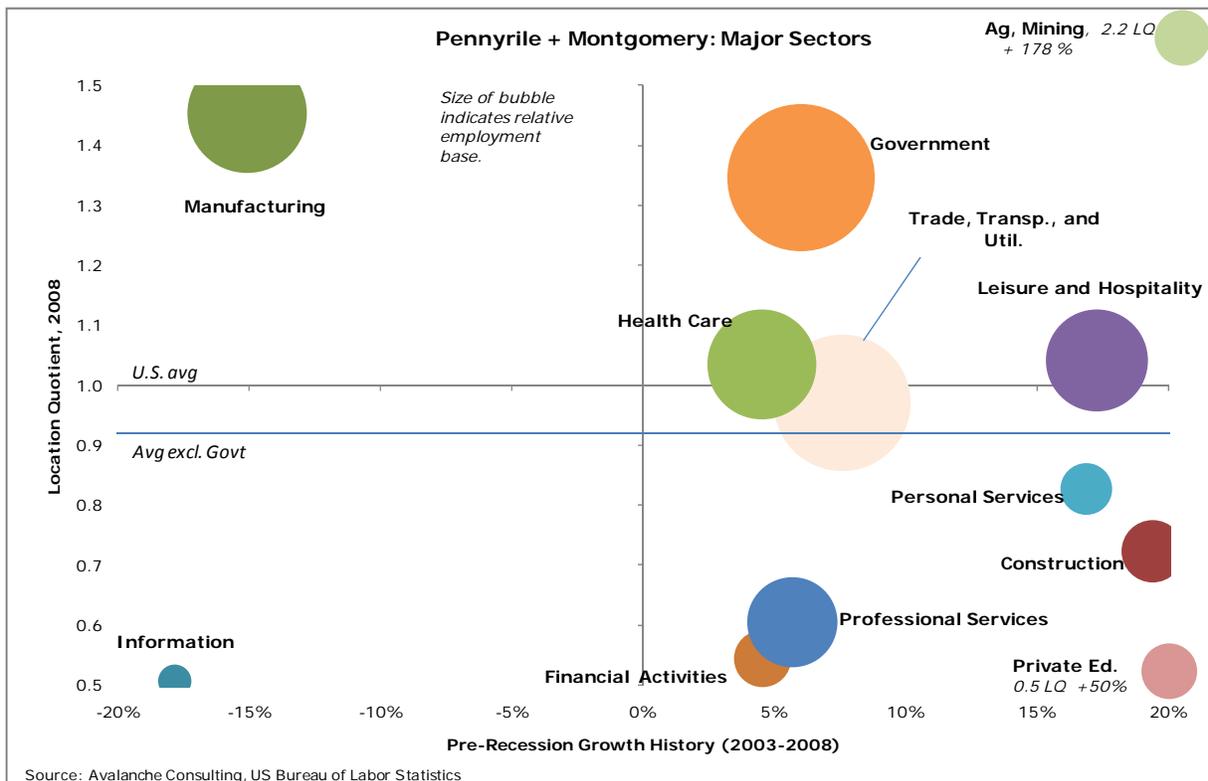
Consumer-related sectors such as Trade/Transportation/Utilities and Leisure/Hospital also created thousands of jobs. Manufacturing shed 3,000 jobs over the period. The Construction sector grew nearly 20%, but the housing bust will clearly put a damper on post-recession job creation in this industry. Health Care jobs grew 7% over the period.



While the above discussion focuses on percentage growth for each sector in the economy, another way to examine the competitiveness of sectors is by calculating “location quotients” for each sector. Location quotients (LQs) compare the relative concentration of a sector in a local economy with the average concentration seen at the national level. An “LQ” of 1.5 indicates that the local economy has 50% more jobs per capita in that industry than witnessed at the national level. An LQ of 1.0 indicates parity; an LQ below 1 indicates a below-average concentration. The following chart shows LQ on the vertical axis. The horizontal axis shows historic growth rates for the industry, and the size of the bubble indicates the employment base of the sector.

In the case of the Pennyryle / Montgomery County region, the Mining sector has the highest LQ (2.2), not surprisingly. Manufacturing also has a high LQ, indicating that it represents a large share of the local economy, but the sector has been losing jobs. Health Care, Trade/Transportation/Utilities, and Leisure/Hospitality all have above-average LQs, an indication that they draw customers and their dollars from outside the region (though new jobs in power generation have had a large impact as well).

While sectors in the top-right quadrant are viewed as competitive and should be priorities for talent development, sectors to the bottom-right (which are growing, but have below-average concentrations) are viewed as emerging sectors for the region. These sectors typically require special attention such as entrepreneurial assistance or new workforce training programs. Declining sectors like Manufacturing are the targets for retention efforts and retraining for dislocated workers.

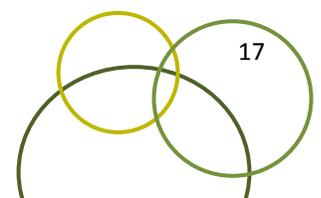


Shift-share analysis is another tool to evaluate industry performance. It involves the splitting of a growth rate into its component parts, and allows one to understand a sector’s competitiveness relative to the nation. For example, while an industry may be shrinking, the decline can be attributed to overall growth disparity between the region and the U.S. (National Share), decline of the industry at the national level (Industry Mix), or change at the local level (Regional Share). A shrinking local industry may actually be performing better than the national industry, and would have created jobs if not for effects occurring outside the region.

In the chart below, job creation is split out by sector for each of the three growth effects during the one-year period Q3 2008 to Q3 2009 (the latest quarter available). For this time period, most sectors lost jobs in the Pennyriple / Montgomery County region. However, looking only at the “Regional Effect” as shown in by green bars, several industries would have created jobs if not for national effects. Mining, Trade/Transportation/Utilities and Leisure/Hospitality again show their strength. To clarify, the Regional Effect (green bar) for Trade is to the right in positive territory – which says that the region would have created jobs but the National and Industry effects overcompensate with negative job creation. Also interesting is that the Education and Health Care sector, while growing locally, has not enjoyed the vast strength seen nationally. If it did, an additional 4,600 jobs would have been created locally.



Shift-share analysis is not intended to be a “what-if” discussion based on theoreticals. Instead, it offers another glimpse into the inner workings of the economy, telling us if opportunities are being missed in one sector (as in the case of Health Care) or if a sector is performing well despite a loss of jobs (in the case of Trade/Transportation/Utilities). A more comprehensive analysis of subsectors and their shift-share calculations will be presented in the forthcoming *Sector Analysis* report.

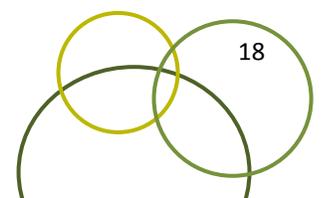


## CONCLUSION

While the regional economy's decline began several years before the recession, **many trends show promise:** The mining sector rebounded strongly, Ft. Campbell and its 33,000 jobs continue to make a major impact on the local economy, and the entrepreneurial sector has blossomed and now creates thousands of jobs each year. Per capita incomes continue their march upwards, shrinking the gap with the U.S. average, and farm incomes are at their highest levels in decades. The region still enjoys high wages in its traditional manufacturing and mining sectors, and professional services sectors are beginning to emerge. The region's health care and tourism sectors have enjoyed growth, though the recession has hit them hard and they have much more room for expansion.

The region has become even more inter-connected than in the past, as more people are choosing to commute into the large counties for work, and the north-south relationship between Kentucky and Tennessee will get a further boost from the future expansion of solar manufacturing jobs in Montgomery County. Furthermore, powerful connections to the U.S. economy through the region's existing interstates and the future I-69 expansion will continue to generate new opportunities for the region.

Yet, many challenges remain for future economic development: low educational attainment levels, an over-reliance on the struggling manufacturing sector, the lack of a four-year university, and a difficulty in retaining young, educated professionals. The region's assets and challenge will be researched further as the consulting identifies new growth opportunities for the region.



## NEXT STEPS

Future research efforts will examine the region's industry base in more detail to uncover growth opportunities in its existing base of companies, workforce, and assets. The consulting team's research includes additional data analysis, an extensive interview and focus group process, and a survey of regional employers.

Specifically, the following reports will be developed in the coming months:

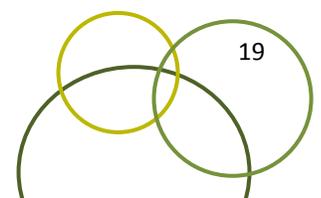
**Workforce Conditions Analysis:** This report will evaluate the regional workforce and serve as a marketing tool for economic development. This component of the research will define current workforce availability and skills, select the occupational clusters that will attract new jobs and companies to the region, and identify gaps that can be addressed by education and workforce institutions. A separate *InVENTORY of Education and Training Infrastructure* will accompany the *Workforce Conditions Analysis* report.

**Sector Analysis:** The consulting team will evaluate the region's industries at a more granular level to assess the competitiveness of individual industries and identify emerging opportunities. Research and interviews to-date have identified dozens of existing sectors in the region that have growth potential. In addition, the analysis will include a review of national and global forces, description of how these forces will impact the region's future, and recommendation of which national emerging sectors can be developed at the local level. The *Sector Analysis* will be accompanied by an *InVENTORY of Competitive Assets and Challenges*, which will document the region's assets in the areas of business climate, infrastructure, finance, and quality of life.

The consulting team's research will come together in the identification of *Target Opportunities* for the region to include a list of industries and projects that can be expanded, attracted, or initiated. Each opportunity will be described in its own profile, or "business plan."

Finally, the project will culminate with a workforce development and an economic development *Action Plan*, which will include strategies and recommendations on how to pursue target industries, to organize and collaborate, and to create or expand programs to support new growth. A *Best Practice Review* of other regions in the U.S. will provide additional support to the creation of these strategies.

**This project seeks to create a new economic trajectory for the region, one that balances the attraction of industry to the region, the expansion of existing businesses, and the formation of high-growth entrepreneurial ventures in new sectors.** Successful development hinges on two critical factors: (1) leaders identify and understand the region's growth opportunities and (2)



institutions and companies work collaboratively to seize opportunities. **At no time in history has collaboration been so critical for rural areas like the Pennyrile region.**

The consulting team looks forward to working with the Pennyrile region through the development of the *Regional Economic Growth Strategy*.

