

Responding to Displacement in Appalachian Kentucky Harlan and Bell Counties¹

I. Introduction

Appalachian Kentucky was selected for a site visit to better understand issues of displacement in central Appalachia and to gather information on the strategic role played by Kentucky's community colleges in increasing workplace skills and economic opportunities. To understand issues and responses to displacement in the region, interviews were conducted in Harlan and Bell Counties as well as at the state office of the Kentucky community and technical college system.

Displacement problems in Appalachian Kentucky are long-term and primarily related to changes in the coal industry. Local interviewees describe Appalachian Kentucky as a region shaped, in the past, by an over-dependence on the coal industry, civic leadership unresponsive to community needs, a paternalistic culture that discouraged entrepreneurial development, low levels of educational attainment, and limited labor market participation by women. Observers also pointed to other factors making economic development more difficult in the region – isolation (Appalachian Kentucky is separated from the rest of the state by two mountain ranges), poor infrastructure, and few flat areas for building industrial sites.

There have been efforts to diversify the economy within Appalachian Kentucky, but some efforts such as recruitment of call center jobs floundered when these jobs were sent offshore. Some newly emerging efforts based on building on local entrepreneurship appear to hold some promise, but are still nascent. Increases in the costs of other fuels have helped to revive the coal industry. While this industry is hiring again, long-term job loss has been severe. Jobs within the industry have also changed and now require higher levels of education and technical skills.

Similar to other states, Kentucky Rapid Response Teams and One Stop Career Centers help cope with the immediate impacts of worker dislocation. Public officials also recognize that displacement in Appalachian Kentucky is a long-term problem because of a lack of job opportunities and a high share of discouraged workers. Therefore, they have also sought approaches broader than immediate responses to individual plant closings and layoffs.

The economic development approach for the last decade has been a human capital strategy of increasing the education levels and the skills of the workforce. This

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strategy has included reforms to the kindergarten through 12th grade school system and the community and technical college system. Within Appalachian Kentucky, the community and technical colleges are also playing a critical role in economic as well as workforce development. Critically, and with national foundation support, these institutions are supporting efforts to build on local assets to create a more diverse economy and stronger civic leadership.

II. Summary of Key Findings

- Worker displacement problems within Appalachian Kentucky are primarily caused by long-term changes within the coal industry. With few local employment opportunities, many displaced coal workers have left the state or resorted to subsistence strategies to earn at least some income.
- While labor participation rates of women in Appalachian Kentucky remain low, women represent 70 percent of all community college students in the region and are increasingly accepted in local leadership roles.
- A major economic development strategy within Kentucky has been increasing human capital as a means of retaining and attracting employers. The state's community and technical college system has been a major and critical factor in this effort, which builds on prior, court-ordered improvements to the K-12 school system.
- The local community and technical colleges in Appalachian Kentucky have acted as a catalyst in stimulating economic and workforce development in their communities.
- Both the community and technical colleges system, and the Southeastern Kentucky Community and Technical College have played an important role in bringing new information and knowledge into the state and region.
- The combination of a state budget squeeze and current and proposed cuts in federal funding endanger both the accessibility of education at the college and many of the innovative programs that have been created.

III. Regional Economic and Demographic Context

Both Harlan and Bell Counties are classified as distressed counties by the Appalachian Regional Commission and exhibit the classic characteristics of such counties. Per capita market income is less than 40 percent of the U.S. average and more than 30 percent of the each county's population was below the poverty line, compared to 12.4 percent of the U.S. population (Table 1). Labor force participation is two thirds or less of the U.S. average, although, in the 1980s, there was a nearly 50 percent increase in labor force participation of women in Bell County. Unemployment as of 1999-2001 was roughly twice the U.S. average in both counties combined. Moreover, those interviewed claimed that the real jobless rate is far above the official unemployment rate of around 8 percent.

Table 1. A Profile of the Kentucky Field Visit Counties and Comparison Regions Indexed to U.S. = 100

County / Region	ARC County Classification	Three Year Average Unemployment Rate (1999-2001)	Per Capita Market Income (2000)	Poverty Rate (2000)	Labor Force Participation Rate	Labor Force Participation Rate (Women)	Percent Change in Participation of Women (1980-1990)	Percent Population Change (1990-2000)	Percent of Adults with High School Diploma	Percent of Adults with College Degree	Population (2000) - not indexed
United States		4.3	25,676	12.4	64%	58%	27%	13%	80%	24%	281,421,906
Variables Below Are All Indexed to U.S. = 100											
Appalachian United States		109	77	110							
Kentucky		109	78	127	95	95	87	73	92	70	4,041,769
Appalachian Kentucky		147	51	197							
All 2 Counties in FV Region			38	257				-54			63262
Counties											
Bell	Distressed	160	39	251	67	66	77	-35	70	37	30,060
Harlan	Distressed	237	37	262	62	61	9	-70	73	36	33,202

Source: Keystone Research Center (KRC) based on Census data and other data downloaded from www.ARC.gov.

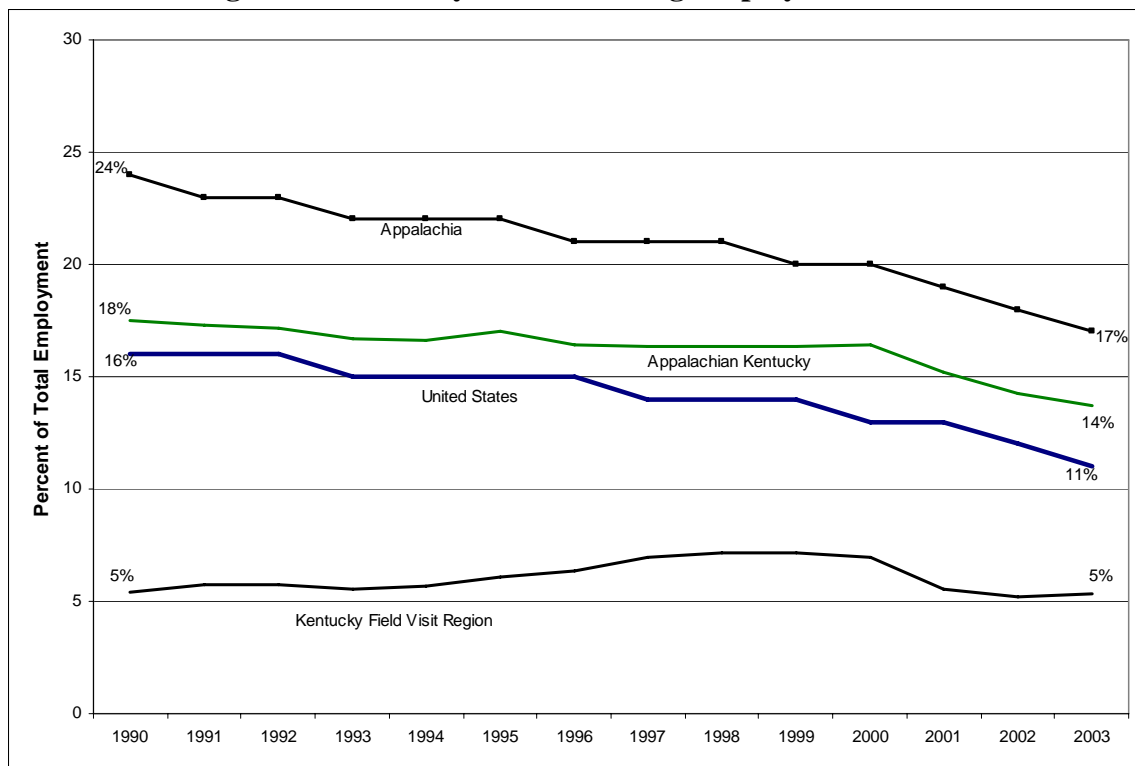
Education levels in both counties are also low with over 40 percent of the population lacking a high school degree, compared to 20 percent of the overall U.S. population. Like other distressed counties in Appalachia, Harlan and Bell County have experienced population loss. Forty years ago Harlan County, with 70,000 people, was the third most populous county in Kentucky. Today, its population is a little over 33,000 with projections of continuing declines.

Economic Structure

In Kentucky as a whole, manufacturing is the dominant industrial sector representing 25 percent of the state’s economy as recently as 2001 (compared to 14 percent of the U.S. economy in the same period). However, manufacturing is less dominant in Appalachian Kentucky, an area long dominated by coal, and is only 5 percent of jobs in the two field site counties.

Figure 1 shows how the manufacturing employment share in the Kentucky field visit region lags behind the United States, Appalachian Kentucky, and Appalachia as a whole.

Figure 1. Kentucky Manufacturing Employment Share



Source: Keystone Research Center (KRC) analysis of Quarterly Census of Employment and Wages (QCEW) 1990-2003.

Kentucky is one of the nation’s top three coal producing states and produced 138 million tons of coal in 2001 accounting for \$1.8 billion in gross state product. In Bell and Harlan counties the coal industry remains a major industry in the region and provides

significantly higher wages than manufacturing (Table 2). The community college president in this region said that a majority of all jobs in the area are coal-related.

Table 2. Location Quotients and Wages for Manufacturing and Mining, 2000

	Bell County		Harlan County	
	Location Quotient	Average Wage	Location Quotient	Average Wage
Manufacturing	0.75	\$22,699	0.3	\$17,194
Mining	15.0	\$41,231	35.4	\$40,411

Source: KRC based on the QCEW.

Changes in the Economy

Government statistics reveal similar changes in the industry composition of jobs in the two counties from 1998 to 2003. Especially noteworthy is a decline of almost 1,000 jobs in health care and social assistance between 1998 and 2003, an area that has been targeted for the development of training programs by the community colleges. The reported number of manufacturing jobs declined by about 350 in the same period, while mining lost 120 jobs. (A cautionary note: disclosure rules lead to the suppression of some industry data at the county level, which can lead to spurious changes in reported employment levels by industry.)

Table 3. Dislocations in Appalachian Kentucky

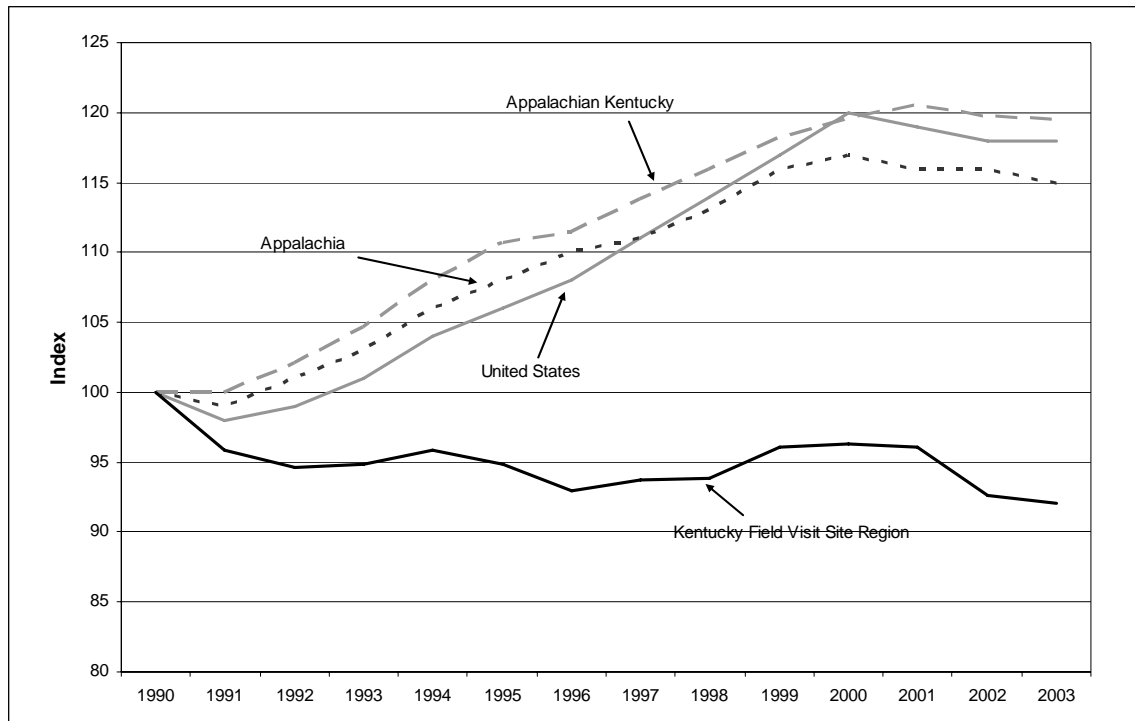
County and Company	Date of Notice	# Laid-off	SIC
<i>Bell</i>			
K-Mart	03/13/2002	80	5311
Texstyle	10/18/2002	Unknown	2391
<i>Harlan</i>			
Manalapan Mining Company	07/11/2002	86	1222
<i>Knox</i>			
Datatrak Informational Services	03/27/2002	300	7374
<i>Perry</i>			
Pine Branch Coal Sales, Inc.	11/12/2002	150	1221
Sykes Enterprises, Inc.	11/18/2003	187	7389
Sykes Enterprises, Inc.	06/16/2003	393	7389
Star Fire Mining	07/07/04	106	1241
<i>Pike</i>			
Pittson Coal Management	05/06/02	2	8741
Addington's Inc. Pond Creek Mine	04/22/2002	75	1222
Holston Preparation Plant	04/22/2002	17	1222
Kmart	03/11/2002	70	5311
Chisholm Coal Company	02/05/2002	57	1222
American Electric Power Coal, Inc.	12/12/2003	523	1221
Sykes Enterprises, Inc.	02/10/2004	341	7389

Source: state of Kentucky.

In a larger five-county region of Appalachian Kentucky, many major layoffs from 2002 to 2004 were in the coal industry (Table 3), with an estimated 43 percent of all workers in major layoffs in the coal industry. A single firm, Sykes Enterprises, Inc., which formerly operated call centers throughout the region, was responsible for 45 percent of the layoffs. The attraction of these call centers was a part of a failed effort to diversify the region's economy away from its dependence on coal. Unfortunately, most of the work done at these centers has now been relocated outside the U.S.

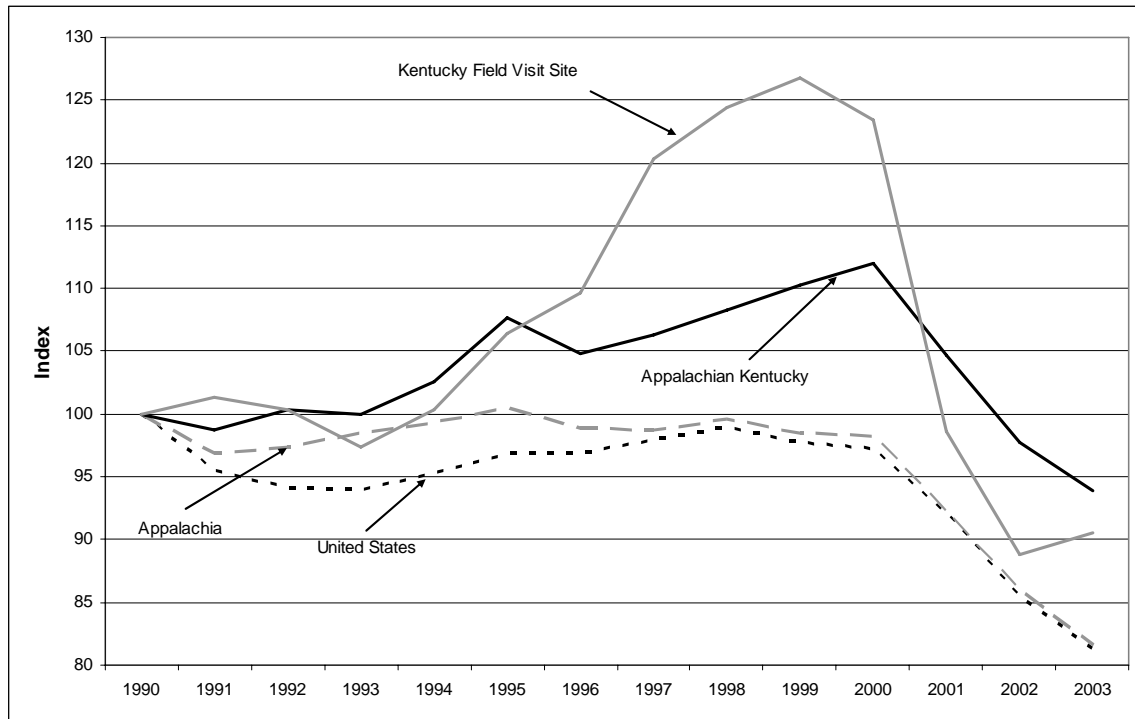
From Figures 2 and 3 it can be seen how the field visit region has fallen behind in terms of total covered employment, and how manufacturing employment has fallen off drastically since the year 2000. This follows in accordance with the layoffs documented in Table 4.

**Figure 2. Total Employment in Kentucky
(Indexed to 1990 Employment = 100)**



Source: Derived by KRC from Table A2.

**Figure 3. Kentucky Manufacturing Employment
(Indexed to 1990 Employment = 100)**



Source: Table A3.

Population Characteristics

Both counties have continued to lose population through time, with the share of young persons in the population below the same share in the state.

Observers claimed that two of the major methods used to cope with displacement were outmigration and seeking income support from disability programs. Many of those who were healthy and able to relocate to areas with mining opportunities did so. Others not able to find other employment and having work related injuries, sought longer-term disability payments. The table below indicates that around 40 percent of the population 21 to 64 in both Harlan and Bell Counties is considered to be disabled.

Table 5. Disability Status

Area	Percent of Population 21 to 64 with a Disability	Percent of Adult Disabled Population Employed
Bell County	39.9%	28.2%
Harlan County	40.4%	22.6%
Kentucky	24.0%	46.9%

Source: State of Kentucky.

IV. Overview of Responses to Displacement

Over the last six years there have been persistent effort in Kentucky to strengthen the state's educational and workforce systems. Recently some of this push to increase skill levels has come from the coal industry. This industry in Kentucky is currently doing well and seeking new employees. However, the workers previously displaced from this industry are not easily able to fill this new labor demand. The coal industry has an aging workforce and has incorporated new technology into production. Recently, the Governor's budget established a \$3 million mining initiative to train workers to meet the new demands in the coal industry. This fund is targeted to training new entrants to the industry as well as retraining the existing workforce. The community colleges in the region are working together to develop curricula for the industry and provide job profiling to make sure that the training prepares students for the new jobs within the industry. The \$3 million will also support scholarships for those interested in mining.

There has been an effort to improve the kindergarten through grade 12 educational system, the initial impetus for which was a court decision that uneven expenditures by school districts in Kentucky were unfair and violated citizens' civil rights. The state took control of the oversight of local schools and the first cohort of students completely educated under this state control has just graduated from high school.

Further reforms in kindergarten through high school and systemic changes in the post-secondary system have been driven by economic development considerations. Policymakers believe there is a strong correlation between the low income levels in the state and the low levels of educational attainment. The hope is that increasing the education levels of the workforce as a whole – and of current or potential future discouraged workers – will be critical to attracting and retaining employment opportunities. Today, almost 40 percent of Kentucky's population is categorized as having literacy levels of 1 and 2, the lowest levels of literacy; that percentage increases to almost 50 percent of the population in Bell and Harlan County.

Kentucky Community and Technical College System

The Kentucky Community and Technical College System (KCTCS) is the major institution for strengthening the skills and education levels of adults within the state. The KCTCS is a relatively new system. In 1997 state legislation created KCTCS by merging the community college system (previously a part of the University of Kentucky system) and the state's technical schools. In addition, the responsibility for adult basic education was placed within KCTCS. This legislation also established three goals for the system:

- Proving access throughout the Commonwealth to two-year courses of study designed for transfer to baccalaureate programs;
- Training to develop a workforce with the skills to meet the needs of new and existing industries; and
- Remedial and continuing education to improve the employability of citizens.

In addition to transfer education, workforce training, and preparatory education, KCTCS leaders consider community development an important responsibility. The system has community/economic development staff housed at each community and technical college in the state. A critical role for this staff has been to engage the community in identifying and implementing workforce development efforts that help support economic growth. According to the system's Chancellor, Kentucky's economic development effort over the last 10 years has been challenged by the question of where new jobs will emerge. As described more below, the state has now established a training fund to provide training for new companies coming into the state and develop career paths in industries (such as health) to meet future skill shortages.

There are now 16 comprehensive community and technical colleges with 65 campuses throughout the state. This structure was established to create greater coordination through consolidated institutions, but also improve access with multiple campus sites. Additionally, policy makers believe that a consolidated system better supports a students' educational movement across different educational programs and institutions. The postsecondary institutions have a common course curriculum which means that when a student earns a credit in one program, including adult basic education, that credit is recognized by all of the other campuses. This allows the student to more easily move between different educational levels as well as across different campuses.

Since the consolidation, the enrollment throughout the system has grown almost 60 percent from 51,647 in 1998 to 81,990 in 2004. Some of the major goals have been improving the accessibility and availability of training, increasing the skills of the existing workforce, improving the basic skills education of adults, and strengthening educational opportunities for youth. Additionally, KCTCS has established an impressive system of setting goals and tracking progress. These efforts are described more below.

Improving the accessibility, availability and demand-driven nature of training. A part of the effort to make training more accessible has been to break longer courses into individual groups of shorter, but connected certificate programs. This "chunking" better accommodates adults who may have more difficulty remaining in a degree program for two to four years. An individual can return to school for a certificate program that comes with college credit, utilize that certificate to obtain a related job, and then return to school at a later point to gain additional credits resulting in additional certificates or a terminal degree.

The KCTCS colleges use WorkKeys® and the Kentucky Employment Certification systems to assess and measure skills attainment. The Kentucky Employability Certificate is a portable credential that uses a common language and objective metrics to convey the level of skills that a person has compared to the level of skills that a position/job requires. This allows business and educational organizations to speak the same "language," helping to ensure that the workers being trained have the skills that employers require for hiring and promotion. The Kentucky Employability Certificate also utilizes the WorkKeys® assessment tests.

Educating the existing workforce. KY WINS (Workforce Investment Network System) is a statewide funding pool for workplace training. Many of the grants from this fund are used for basic skills often coupled with technical skills. Since its creation there have been 108 completed KY WINS projects training 18,213 workers, and 61 active projects estimated to train over 11,500 workers. The average wage of the trainees with benefits is \$19.63 an hour. The training curricula vary depending on the site assessment and needs.

Improving basic education skills throughout the population. Three years ago the state Adult Education office launched a basic skills marketing effort aimed at working adults. This campaign began with a “Go GED”² campaign in late 2000 and 2001. A “Go Higher” campaign was launched after this first campaign with on-going radio and TV ads. This campaign included media spots for a variety of audiences. With this campaign, educators sought to encourage young people to stay in high school and adults to go on to post secondary education. This marketing has helped the system sustain a continued enrollment growth in basic education courses and the post-secondary system.

The Kentucky Adult Education system supports adult basic education learning centers in each of Kentucky’s 120 counties. Typically these Centers offer basic skills learning opportunities including instruction for non-readers, GED, English as a Second Language (ESL), and family literacy programs. The Centers are also encouraged to provide workforce training at the local work sites. Generally this includes basic skills and computer skills. In FY 2004, over 900 companies and over 51,000 workers took part in these workplace education projects. The system has two Skills-Mobiles that can go on the road to bring services to more rural parts of the state. In some cases they locate the mobile unit in the parking lot of the company to be able to do training there. Workers are able to take time off work to use these services. To receive state workforce training funding, employers must provide release time to workers for training. Employers are also required to provide space for the training, if needed. In addition, Kentucky has created an on-line website that anyone can use to study on-line.

While Kentucky is helping many earn their GED, the real purpose of encouraging this attainment is to enable students to reach other goals such as further education or obtaining a good job. Adult Basic Education educators are working to align the curriculum with the post-secondary system curriculum to better enable students to go beyond the GED. They are also asking their four- year and two-year institutions to supply them with data to track those who got their GED and then continued with additional education. In 1998 12 percent of GED graduates in Kentucky went on to college. By 2003, this percentage had increased to 21.7 percent.

The Basic Education system also provides developmental education courses for those students who have enrolled in post-secondary education, but have limited basic skills. According to the Vice President for Adult Basic Education, many of the students who

² GED is the acronym for General Equivalency Degree. This is a credential awarded to individuals who dropped out of high school before obtaining a degree, but who are able to demonstrate the expected knowledge level of a high school graduate by passing the GED test.

have enrolled in secondary education are woefully unprepared for the course work, especially in mathematics. Approximately 17 percent of all KCTCS students take at least one remedial class and 44 percent of Kentucky's first time freshmen need remedial math. Many of these students drop out of college within their freshman year.

The Learning Centers are held accountable for their results, particularly around enrollments. If the Centers don't meet these goals, the contract is terminated. The perspective is that the Adult Education system is not funding an agency but instead the residents of the county. Therefore, if an agency can't perform the state identifies one that can. The employees of the Learning Centers are not state employees but instead employees of local agencies including Technical Colleges, the local Board of Education, four-year institutions, and community based organizations. Since 2000 the state office has terminated 10 or 12 contracts and another four to six agencies have voluntarily given up the contracts.

Setting and tracking system goals. Community colleges are frequently criticized for failing to track significant workforce development outcomes. In contrast the KCTCS has created an extensive system of performance goals that are carefully tracked. The major indicators tracked by the Kentucky Council on Post Secondary Education are:

- Are more Kentuckians ready for postsecondary education?
- Are more students enrolling?
- Are more students advancing through the system?
- Are Kentuckians prepared for life and work?
- Are Kentucky's communities and economy benefiting?

Kentucky policymakers believe that attention is paid to that which is measured. Establishing clear system goals, tracking them, and providing incentives and disincentives for how well programs meet goals has clearly had an impact on the system. Most measures have shown clear improvements with progress made in the numbers enrolling in college as well as the number of awarded certificates and two- and four-year degrees. However, there continue to be problems with the retention of students in college.

The tracking of performance is also used to conduct research to better understand the causes of outcomes and performance. For instance, KCTCS is tracking the rapidly growing number of dual enrollments of high school students taking college level courses. The assumption behind dual enrollments is that it will increase the college enrollment rate of high school students and help improve retention rates. The trends in college enrollment rates and retention for students formerly enrolled in dual programs will be tracked to see if this assumption holds. This research may also yield important information on problems of enrolling and retaining male students. While the overall community college student body is 55 percent female, the majority of the dual enrollments are males enrolled in technical programs. This may be caused by high school males previously enrolled in technical schools now showing up as dual enrollees.

If these male students now become more likely to attend college, this may help to confirm the importance of the current emphasis on dual enrollments.

Senior staff in charge of statistical analysis and tracking has been hired in the Provost's office. The statistical office will carry out many reporting functions required by the state and federal government. Research projects are being identified and are expected to assist in future program development. Outcome metrics are considered very important and there is significant interest in determining how training improves the income earning capacity of graduates. There also is interest in discerning how state-level literacy mandates are affecting the behavior of students, and whether and how these programs affect labor market outcomes of citizens.

Integrating initiatives. One current project that builds on many of the above KCTCS strategies is the Ford Foundation-funded Career Pathways project. This is a multi-state project that creates education and training systems that move low-income adults into high wage careers. To achieve this goal, KCTCS is seeking to transform its instruction by developing the following:

- A seamless system of career exploration and preparation
- Multiple entry/exit points
- “Chunking” curriculum
- Alternative delivery systems
- Adaptive expertise (reducing cycle time of learning)
- Learner-centered approach

One of the biggest challenges within the initiative has been to engage academic faculty in the work. A KCTCS staff member said that they could have simply centered the work within the workforce development section of the system. However, staff believed that it was important to connect the pathway to the academic track and the provision of a truly portable credential. The purpose of this is to enable individuals to not just have skills, but to also earn academic credentials as a base for better jobs and future education.

Each community and technical college has submitted a proposal to the KCTCS office on a sustainable career pathway. Twelve of these proposals are in health services, three in manufacturing, and one in the construction trades.

Southeastern Kentucky Community and Technical College

At the local level, the community colleges are playing an active role in both workforce and economic development. Southeastern Kentucky Community and Technical College (SKCTC) serves Bell, Lechter, and Harlan Counties. Its student body includes 4,300 students, is 70 percent women,³ and has an average age of 27. Seventy-five percent of the student body receives some type of financial aid.

³ System wide women represent 55 percent of the student body.

Programs at the college lead to four kinds of degrees – associates in arts, science, applied science, and applied technology. The college has also partnered with four-year institutions to be able to offer access to eight different Bachelor’s Degrees on campus. In some fields like Health Administration, the two-year programs lead to a four-year degree.

The emphasis on life sciences and a strong welfare-to-work program help to explain the large number of women enrolled in the college. In addition, college staff speculated that two other trends may be at work: men are more discouraged about the prospects for work even with additional education, and women are, by necessity, having to become more active in the workforce, and need skills and education to land good jobs.

SKCTC has played an active role in stimulating economic development efforts within its community. One early motivation to take on this role was participation in the Ford Funded *Rural Community College Initiative (RCCI)*. The community college president said that being part of the initiative had a profound impact on the college and caused its staff to understand more deeply the role it needs to play in the community.

Each site in the RCCI initiative creates a local team that includes a diverse group of representatives from local government, businesses, and citizens and is led by community college staff. The team is responsible for creating a shared vision for the community’s economic future, and a strategic plan based on data and self-assessment to achieve that plan. The team then leads efforts to implement the plan, track progress, and adapt strategies as needed. An important aspect of the work done in this effort to create prosperity in a distressed community is to balance workforce and economic development. The assumption is that if a community with a weak economy only focuses on workforce development, it exacerbates outmigration. On the other hand if the team concentrates on attracting new industry, but ignores improving skills and education, it is unlikely to achieve higher wages or improvements in economic opportunity.

The RCCI team led by SETCC labeled themselves a “think tank” and made team learning a priority. They took multiple site visit trips to learn about promising programs in other rural areas and sought to bring the largest group of team members possible to facilitate broad exposure to new information. A number of projects have been inspired by that project including the following:

Leadership Harlan County United. One early emphasis in the RCCI project was the development of local leadership. The team believed that within a coal-dominated economy, community leadership had previously come from the company. As one observer said, when anybody wanted anything, including getting a stream dredged they’d go to the coal company, not public officials. The coal companies previously owned the hospitals, the schools, and much of the land. Harlan County United is a collaborative effort with Harlan Appalachian Regional Hospital, Harlan County Fiscal Court, Harlan County Industrial Development Authority, Social Services, and Southeast Community and Technical College. The eight month leadership academy facilitates the training of new leadership for Harlan County. In addition to general leadership skills students learn about education, government, economic development, environment, social services, and

health care. To date this project has 150 graduates and will be starting its fourth class later this year. A large portion of the graduates are women. Some of the graduates have become local mayors, city council members, and Chamber of Commerce leaders; others have returned to school for additional education. SECTC has also expanded this local leadership program into Bell and Pike County. The program is also the forerunner of Leadership Eastern Kentucky.

Pine Mountain Community Development Corporation. One of the RCCI team goals for the region was to increase financial capital and support services for small businesses. SKCTC created a small loan fund with seed funding of \$105,000. This original fund has grown and also leveraged four or five times its original value through financing agreements. Currently the fund is seeking an additional \$1.75 million in capitalization. Additionally, the RCCI sought to leverage funds from local banks. SECTC oversees the loan fund, assists applicants in developing a business plan for applying for financing, and provides continuing technical assistance to loan clients. The fund has made a series of small micro-loans to entrepreneurs averaging \$15,000. It has also completed larger financing packages to help expand a local dental firm, a medical transcription company, and a software company that employs 55 workers in jobs paying \$40,000 to \$80,000. Overall, the administrator of the loan fund estimates that it has been responsible for creating 125 to 150 new jobs in the area. As a part of this effort a banker on the RCCI team educated other area bankers about the need for small business lending and new models for loan programs. The result was a multi-bank loan fund for new and expanding small businesses.

Trout Farm. The RCCI team was responsible for converting an abandoned coal mine into a community asset. They tapped cold water runoff from the abandoned mine to provide a constant supply of 54 degree-cooled water for a demonstration fish farm.

Beyond its economic development role, SKCTC has worked hard to make its programs accessible to the community. A recent study by the Kentucky Community and Technical College system revealed that eastern Kentucky postsecondary schools including SKCTC are providing more access to a wider group of the population than the rest of the state. Like the statewide system, SKCTC has dramatically changed its instructional methods to make it more possible for adults to obtain skills and education. For instance SKCTC was the first community college in the state to create an integrated LPN/RN program that breaks the course work into a number of certificate programs. Previously, many students studying to be Registered Nurses (RN) dropped out within their sophomore year with nothing to show for their efforts. Now this student can earn a Licensed Practical Nursing certificate within one year. This certificate can be later built upon for an RN degree.

Programs for Youth. SKCTC leaders believe that the role of the college includes supporting the educational and personal development of youth. The programs providing this support include: Explore College, an opportunity for high school students to earn college credits during their last two years of high school; Upward Bound, a program providing fundamental support to participants in preparation for college; and Southeast

Scholars program, scholarships and mentoring to at-risk sixth grade students upon their graduation from high school.

Ready to Work is the welfare-to-work program within the KCTCS. SKCTC has played an active role in this effort and now has about 150 students enrolled. All of these students are women and almost all have children. Through Ready to Work, the College creates a full network of services for these students including transportation, daycare, vehicle repair, free computers, and money for clothing. The purpose is to assist the student enroll and remain in education. The president of SKCTC said that these students outperform the rest of the student body and have a higher graduation rate than any other group.

V. Conclusion

As described above, Kentucky has actively sought to increase human capital as a means of stimulating economic development, and improving the life of those residing in the state. At the state level this has included reform of the kindergarten through high school system, a restructuring of the post-secondary system, and strong efforts to address the lack of educational attainment and basic skills among the existing workforce. There are also measures being taken to continually strengthen these efforts by collecting and analyzing information on on-going work, and engaging in national consortia built to share knowledge and experiences.

In Appalachian Kentucky the community/technical colleges have gone beyond their explicit role in workforce development to the challenge of helping to develop civic capacity and stimulate improved local opportunities. College leadership expressed a philosophy of building on local assets – with an emphasis on the talents of those who live in the region. Additionally, local leaders are operating within a framework that stresses balance. There is recognition that a lopsided strategy of only increasing skills and education can lead to outmigration, while an economic development strategy that ignores skills and education needs can result in low wage, less stable employment.

These efforts, while promising, face difficult challenges. Despite efforts to train for expressed employer demands, the expected jobs are not always there for trainees. Earlier efforts to attract call center jobs had initial success, but ultimately resulted in job loss. The loan fund has stimulated job creation, but it is still too early to tell if this will replace the large number of jobs lost through coal industry layoffs. The training provided for employers – even when jobs don't materialize or eventually disappear -- still results in a more educated, skilled population. The more difficult question for policymakers is to identify the sources of enough new, middle class jobs to entice young workers to stay in the area, and discouraged workers to re-engage in meaningful work.

Furthermore, the combination of a state budget squeeze and current and proposed cuts in federal funding endanger both the accessibility of education at the college level and many of the innovative programs that have been created. Student tuition is now \$92 a semester

hour and is projected to increase to \$100 a semester hour this year. It is projected that KCTSC will lose \$1 million in funding and the state post-secondary system will lose \$18 million if federal budget cuts are passed.

Appalachian Kentucky has and remains a region of deep poverty and the issues of displacement in this region are embedded within that reality. The new efforts to reverse decades of low educational attainment, high poverty rates, and limited economic opportunities are too young to judge success. However, there are clearly signs of progress – increased numbers enrolling in post-secondary education and new jobs being created in smaller enterprises. The creativity, energy, and commitment of local and state leaders in tackling difficult challenges are the factors that are harder to quantify, but clearly present. Ultimately, these factors may be what begin to make a real difference in the region.

Table A1. Total Employment in Kentucky Field Visit Counties and Comparison Regions (Indexed to 1990)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
United States	100	98	99	101	104	106	108	111	114	117	120	119	118	118
Appalachia	100	99	101	103	106	108	110	111	113	116	117	116	116	115
Non-Appalachian Kentucky	100	100	103	106	110	113	115	118	121	123	125	126	124	124
Appalachian Kentucky	100	100	102	105	108	111	112	114	116	118	120	121	120	120
All 2 Counties in Field Visit Region	100	96	95	95	96	95	93	94	94	96	96	96	93	92
Individual Counties														
Bell	100	98	97	100	100	103	102	103	103	107	109	108	101	101
Harlan	100	94	93	90	92	87	84	85	85	85	84	85	84	84

Source: KRC analysis of the Quarterly Census of Employment and Wages (QCEW) 1990-2003.

Table A2. Manufacturing Employment (1000s), Kentucky Field Visit Counties and Comparison Groups

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
United States	17797	17007	16756	16725	16950	17235	17245	17448	17617	17391	17314	16386	15209	14460
Appalachia	1826	1769	1778	1798	1814	1835	1805	1804	1818	1799	1794	1682	1569	1491
Non-Appalachian Kentucky	214	211	215	223	234	240	241	245	248	250	251	238	224	217
Appalachian Kentucky	50	50	50	50	52	54	53	53	54	55	56	53	49	47
All 2 Counties in Field Visit Region	1.1	1.1	1.1	1.0	1.1	1.1	1.2	1.3	1.3	1.3	1.3	1.0	0.9	1.0
Individual Counties														
Bell	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.8	0.7	0.8
Harlan	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2

Source: KRC analysis of the QCEW.

Table A3. Manufacturing Employment Indexed to 1998=100, Kentucky Field Visit Counties and Comparison Groups

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
United States	101	97	95	95	96	98	98	99	100	99	98	93	86	82
Appalachia	100	97	98	99	100	101	99	99	100	99	99	93	86	82
Non-Appalachian Kentucky	86	85	87	90	94	97	97	99	100	101	101	96	90	87
Appalachian Kentucky	92	91	93	92	95	99	97	98	100	102	103	97	90	87
All 2 Counties in Field Visit Region	80	81	81	78	81	85	88	97	100	102	99	79	71	73
Individual Counties														
Bell	92	95	94	90	92	92	92	95	100	107	105	81	74	79
Harlan	46	43	41	44	46	68	78	101	100	87	82	73	63	56

Source: KRC analysis of the QCEW.

Table A4. Manufacturing Employment Share, Kentucky Field Visit Counties and Comparison Groups

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
United States	16	16	16	15	15	15	15	14	14	14	13	13	12	11
Appalachia	24	23	23	22	22	22	21	21	21	20	20	19	18	17
Non-Appalachian Kentucky	19	19	19	19	19	19	19	19	19	18	18	17	16	16
Appalachian Kentucky	18	17	17	17	17	17	16	16	16	16	16	15	14	14
All 2 Counties in Field Visit Region	5	6	6	6	6	6	6	7	7	7	7	6	5	5
Individual Counties														
Bell	9	10	10	9	10	9	9	9	10	10	10	8	8	8
Harlan	2	2	2	2	2	3	3	4	4	3	3	3	3	2

Source: KRC analysis of the QCEW.