CREATING REGIONAL ADVANTAGE IN APPALACHIA: *TOWARDS A STRATEGIC RESPONSE TO GLOBAL ECONOMIC RESTRUCTURING*

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ASSESSMENT OF WORKFORCE DISPLACEMENT AND ADJUSTMENT POLICIES IN APPALACHIA'S LABOR MARKETS

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I. Executive Summary

This report documents the findings of field research in seven Appalachian states on responses to worker displacement and economic restructuring. (The seven states are New York, Pennsylvania, Ohio, West Virginia, Kentucky, North Carolina, and Georgia.) This field research complements quantitative analysis of worker displacement in Appalachia from 1993-2003 that is detailed in a earlier report (and summarized below).[1] Overall, we found that Appalachia has experienced significant economic distress especially beginning in 2001 (earlier in some places) and that worse may be yet to come, especially in Southern Appalachia. Other major findings include the following.

- The Appalachian region is highly vulnerable to economic changes now occurring as a result of the concentration of low-wage manufacturing in Southern Appalachia, incomplete adjustments from earlier manufacturing job losses in the "rust-belt" regions of Northern Appalachia, and longstanding underdevelopment in the coal-dependent regions of Central Appalachia.

- In Appalachia as a whole, manufacturing still accounts for one out of every six jobs, and one out of five in Southern Appalachia, compared to one out of nine nationally.

- In January 2004, among workers displaced in the 2001-03 period, lower shares of Appalachian than non-Appalachian workers were re-employed, in the labor force, and enjoying wage gains compared to their previous job. Appalachian workers' difficulty bouncing back from displacement likely stems from the higher share of older, less educated, and long-tenured workers displaced in the region as well as a high share of jobs lost due to plant closings. Plant closings in some rural areas wiped out a substantial share of employment in regional labor markets.

- Appalachian wages have lost ground since 2001 at virtually every point in the wage distribution, including a drop in the median wage from $12.74 to $12.58 (in inflation-adjusted 2004 dollars). This compares with a wage gain over the same period in the non-Appalachian U.S. from $13.80 to $14.07.

- A wide variety of responses to worker displacement and economic restructuring can be observed in Appalachia. Most field research regions had developed systems of responding to layoffs and connecting dislocated workers to services. In many regions, however, the overall response to restructuring has been reactive, with more energy and activity focused on coping with the direct impact of displacement than on developing a comprehensive and strategic long-term response.

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[1] Readers can find more detail on the experience of displacement in Appalachia, including bar graphs summarizing key findings, in a stand-alone report. See Stephen Herzenberg, Mark Price, and Howard Wial, *Displacement in Appalachia and the Non-Appalachian United States, 1993-2003: Findings Based on Five Displaced Worker Surveys*, report prepared for the Appalachian Regional Commission, 2005, available online at www.arc.gov.

- The areas with the most potentially effective workforce and economic development practices have effective leadership and base local practices on a regional vision and strategy developed with input from diverse stakeholders; an emphasis on building on local economic assets; strong stakeholder partnerships; explicit goals that are measured and tracked; and an awareness and use of external "knowledge."

- Virtually all of the case study sites described a shift in emphasis away from industrial recruitment strategies and towards industrial retention, growing new businesses, and human capital strategies. In the distribution of business subsidies, some attention to job quality and accountability (e.g., clawbacks that require incentives to be partly or completely returned if promised job or wage targets are not met) were becoming standard economic development practice in these regions and in many cases these features are built into state subsidy programs.

- Several interviewees observed that, while listening to business is pivotal, that business does not always know what it needs. Their observations underscore a need to go beyond simply being industry driven; sophisticated economic and workforce developers also need to assist business with identifying collective needs important to regional industries and bolstering these industries' capacity to anticipate future market trends and threats.

- Although not currently recognized as part of the standard economic development toolbox, technical assistance that supports organizational change within firms emerged as a practice for retaining and/or improving jobs at several of the case study sites.

- In all field sites, a lack of confidence was evident, especially but not only among displaced workers, regarding whether there is any approach that could create enough middle-class jobs in the context of global economic pressures.

- Implicit in the best practices evident across all of these seven regions is a new Appalachian economic development strategy with the potential to replace the previous emphasis on industrial recruitment. So far, no economic or workforce developer has articulated the new strategy in a comprehensive way, which could advance its refinement and implementation.

- Further developing the emerging strategy, in part by pooling the most advanced approaches across all regions, is likely to be critical to enabling Appalachia to prosper in the face of the economic pressures of the next decade. To foster more developed "next generation" economic development strategies for rural Appalachia, this report recommends the following:

    - Inclusive strategic planning that creates and tracks efforts to improve middle-class well-being for the whole community. Improving job quality, for example, is difficult enough in the current environment that it is not likely to happen without tactics aimed explicitly at that goal.

- More recognition of and support for human capital and learning institutions that cut across multiple companies – such as industry workforce partnerships or intermediaries, collaborative networks of small companies, and industrial extension services that go beyond routine "lean production" to include technical assistance on strategic planning, marketing, and organizational change.
- Experimentation with diverse approaches to giving local industries forward-looking strategic knowledge and the ability to anticipate the next competitive threat and opportunity. Such capacity might be housed in industry centers of excellence, community colleges, higher-level academic institutions, or industry associations. Without such capacity, more segments of Appalachian industry will find themselves unable to cope with the pressures of the next decade.

Over the past decades, the Appalachian region has used infrastructure development coupled with industrial recruitment and some improvements in human capital to close the economic gap with the rest of the United States. This has been an important achievement and in many cases creates a strong foundation for coping with new challenges. But while improved infrastructure and education levels are necessary, they are not sufficient. The overall message of this report is that past economic development approaches are inadequate to cope with the pressures confronting Appalachia today. Building on the most creative economic and workforce ideas and practices in the region, however, many of the region's relatively accessible rural regions retain opportunities to flourish in the 21st Century.

II. Introduction

This report is based on field visits to seven different regions within Appalachia including counties within the southern tier of New York, the Athens metropolitan region of Ohio, North Central Pennsylvania, Southeast Kentucky, South Central West Virginia, Northwestern Georgia, and the Asheville metropolitan region of North Carolina.[2] The field work for this report was undertaken for two major purposes: to deepen the understanding of the character and impact of dislocations within Appalachia and to understand and describe current responses to the impact of job/worker displacement with an emphasis on promising approaches that:

- expand opportunity for individual dislocated workers; and
- bolster longer-term regional economic viability including via "next generation" economic development strategies.

The context for this report is the unprecedented economic challenge from the expansion of Mexico and China as manufacturing export platforms serving the U.S. market. This challenge is more daunting in Appalachia than the United States as a whole because of the region's dependence on manufacturing for 17 percent of all jobs, as compared with 11 percent in the United States as a whole. Appalachia also has a concentration in labor-intensive manufacturing, such as textiles and food processing, in which imports have

[2] Case studies providing more detail on each field visit are included as appendices.

grown and are projected to continue growing rapidly. The high poverty rates in Appalachia make residents of the region even more vulnerable to economic downturns and the low education levels make efforts to diversity the economy more challenging.

While the field visits confirmed the impacts of manufacturing job loss related to trade, the experience of displacement within Appalachia also varied by region. Sites in Southern Appalachia reflected the loss of manufacturing jobs throughout the south; sites in northern Appalachia were shaped by earlier waves of "rust belt" manufacturing job loss and the responses that had been made to that earlier restructuring; sites in central Appalachia, in which manufacturing was much less important, continued to be affected by a combination of longstanding underdevelopment and displacements caused by long-term changes in the coal industry.

There were a wide variety of responses to economic restructuring among the site visit regions. In general these practices can be grouped as follows:

- **Reactive**: energy and activity were focused on coping with the direct impact of displacement, but there was little emphasis on developing comprehensive and strategic long-term responses.
- **Dispersed**: effective practices that went beyond simply coping with dislocations existed in one or several local agencies, but these practices were not closely connected or coordinated into an overall strategic response.
- **Comprehensive**: a shared vision and strategy existed and was being implemented across multiple workforce and economic development agencies.

Most hopefully, there were an emerging set of new practices that hold promise for readjustment strategies in rural Appalachia. No region fully articulated or implemented a new economic development vision, but each offered examples of innovative programs and several appeared to be moving towards a newer, more comprehensive approach.

III. **Historical Context for Contemporary Restructuring**

In Appalachia, the current displacements – and those that appear to be looming -- are shaped not only by the region's economic history and industrial structure, but also by differences within Appalachia. The last 30 years have seen overall improvements in many economic and social indicators in Appalachia, but varied changes within different parts of the region. Southern Appalachia has become less poor and more educated, but has a larger concentration of manufacturing making it more vulnerable to pending swings in manufacturing employment. Northern Appalachia weathered significant manufacturing losses in the 1980s and 1990s, but has retained pockets of high-wage manufacturing jobs. Northern Appalachia has also gone from a poverty rate lower than the national average to one higher. It may have fewer manufacturing jobs to lose than Southern Appalachia, but has not fully recovered from previous restructuring. Central Appalachia remains the region with the highest poverty levels and the lowest levels of

education. Appendix A provides additional background on economic and social progress in Appalachia from 1970 to 2000.

IV. Recent Restructuring in Appalachia

This section examines recent economic restructuring using three sources.

- Employment data from an establishment data based maintained by the Bureau of Labor Statistics (BLS).
- A displaced worker survey (DWS) conducted by the Census Bureau and BLS as a supplement to the Current Population Survey (CPS) in one of the first two months of 1996, 1998, 2000, 2002, and 2004. Each DWS asks workers about displacement experience in the previous three years.
- The CPS itself, a monthly survey of 60,000 households that is the standard source for wage and demographic information in non-Census years. Although Appalachia per se is not identified in the CPS (or, therefore, the DWS), we constructed a sub-sample that approximates Appalachia using the metropolitan and state geographic identifiers that are available.

Table 1 shows manufacturing employment trends in the United States, Appalachia, the Appalachian portion of 13 states, and the seven field site regions studied for this project. The table shows that manufacturing employment in Appalachia and the United States was flat from 1990 to 1998 but declined 18 percent between 1998 and 2003. Since manufacturing accounts for a larger share of employment in Appalachia, the same percentage loss of employment in manufacturing from 1998 to 2003 amounts to 3.9 percent of total employment in Appalachia versus 2.5 percent nationally. (The second-to-last column of numbers in the Table 1 shows manufacturing job loss from 1998 to 2003 as a percent of total employment. This is a better measure of the regional impact of manufacturing job loss than percent decline in manufacturing employment.) In southern Appalachia, manufacturing job loss from 1998-2003 varied from 3.9 percent of total employment in Appalachian Virginia to 8.6 percent in Appalachian Mississippi. In the Appalachian portions of the three most northern states in the region, New York, Pennsylvania, and Ohio, manufacturing job loss from 1998 to 2003 ranged from 3 to 4 percent of total employment. In the five field site regions in Southern and Northern Appalachia, manufacturing job loss from 1998-2003 amounted to between 4.3 and 6.8 percent of total employment.

Our second data source is our constructed Appalachian displaced worker survey sub-sample from 1993 to 2003.[3] Over the entire period, Appalachia experienced the same displacement rate among long-tenure workers (who have at least three years of experience) as the rest of the United States. Displacement rates escalated in both the United States and Appalachia in the most recent three-year period, 2000-03 – to about 4

[3] Readers can find more detail on the experience of displacement in Appalachia, including bar graphs summarizing key findings, Herzenberg, Price, and Wial, *Displacement in Appalachia and the Non-Appalachian United States, 1993-2003*.

percent overall and to nearly 10 percent in manufacturing. Displacement rates were higher in rural Appalachia than in the rural parts of the rest of the United States. Especially towards the end of the 1993-2003 period, workers without a high-school education experienced higher rates of displacement in Appalachia than outside it. College educated workers experienced lower rates of displacement in Appalachia.

Table 1. Manufacturing Employment, the United States, Appalachia and the Appalachian Portion of Thirteen Appalachian States

	Manufacturing Employment			Percent Change in Manufacturing Employment		Manufacturing Employment Change As a Share of Total Employment, 1998-2003	Manufacturing Employment as a Share of Total Employment, 2003
	1990	1998	2003	1990-1998	1998-2003		
United States	17,797,353	17,616,672	14,459,712	-1%	-18%	-2.5%	11%
Appalachia	1,826,312	1,818,196	1,491,316	0%	-18%	-3.9%	17%
App. Georgia	160,002	185,959	165,081	16%	-11%	-3.0%	19%
GA Field Visit	40,123	38,134	32,992	-5%	-13%	-4.6%	28%
App. Kentucky	50,263	54,457	47,194	8%	-13%	-2.3%	14%
KY Field Visit	1,051	1,308	952	24%	-27%	-1.9%	5%
App. Maryland	15,516	15,125	13,477	-3%	-11%	-1.7%	13%
App. Mississippi	85,931	81,974	63,967	-5%	-22%	-8.6%	30%
App. New York	89,611	78,796	66,175	-12%	-16%	-3.0%	16%
NY Field Visit	17,511	18,860	13,411	8%	-29%	-6.8%	17%
App. North Carolina	173,688	168,203	124,928	-3%	-26%	-7.2%	20%
NC Field Visit	35,752	32,909	24,097	-8%	-27%	-5.7%	14%
App. Ohio	85,474	96,638	79,423	13%	-18%	-4.0%	17%
OH Field Visit	14,661	13,960	10,887	-5%	-22%	-4.3%	15%
App. Pennsylvania	424,786	404,271	333,260	-5%	-18%	-3.1%	14%
PA Field Visit	23,891	25,794	21,283	8%	-17%	-5.4%	24%
App. South Carolina	131,379	126,552	103,778	-4%	-18%	-5.1%	22%
App. Tennessee	245,035	237,975	194,843	-3%	-18%	-4.6%	19%
App. Virginia	44,075	42,602	35,460	-3%	-17%	-3.9%	18%
West Virginia	79,495	76,217	63,963	-4%	-16%	-1.9%	9%
WV Field Visit	6,770	6,350	5,909	-6%	-7%	-0.4%	6%

Source: Keystone Research Center (KRC) based on the Quarterly Census of Employment and Wages (QCEW).

Throughout the 1993-2003 period, Appalachian displaced workers experienced more difficult post-displacement labor market experiences, with lower shares of Appalachian workers re-employed, in the labor force or enjoying wage gains compared to their previous job. The gap between Appalachia and the rest of the United States in the share of workers re-employed at the time of the DWS peaked in the most recent DWS survey, covering displacement in the 2001-03 period.

Two factors that may have contributed to the low resilience of Appalachian workers in the face of displacement were the prevalence of plant closings and the high share of high-tenure displaced workers.

- From 1999-2003, 55 percent of displaced Appalachian workers lost jobs due to plant closings, compared to 42-47 percent outside the region.
- Nearly one out of five displaced workers in Appalachia had more than 20 years experience on their previous job compared to just under one in 10 in the rest of the United States.

Table 2 and Figure 1 report the results of wage analysis using the CPS. Table 2 shows that the median hourly wage in Appalachia roughly tracked the U.S. median (albeit with some variation in year-to-year changes) over the 1996-2001 period. In these five years, the Appalachian and the non-Appalachian U.S. median each rose by almost exactly 10 percent. (For men and women separately, the increases in median wages were also similar in this five-year time span.) Since 2001, however, the Appalachian median has fallen by 1.2 percent while the Non-Appalachian median has increased by 1.9 percent. Figure 1 shows that a gap in the growth of Appalachian and non-Appalachian wages since 2001 exists throughout most of the wage distribution. The gap is largest at the two highest wage percentiles shown, the 80th and 90th percentile, as well as the 20th percentile.

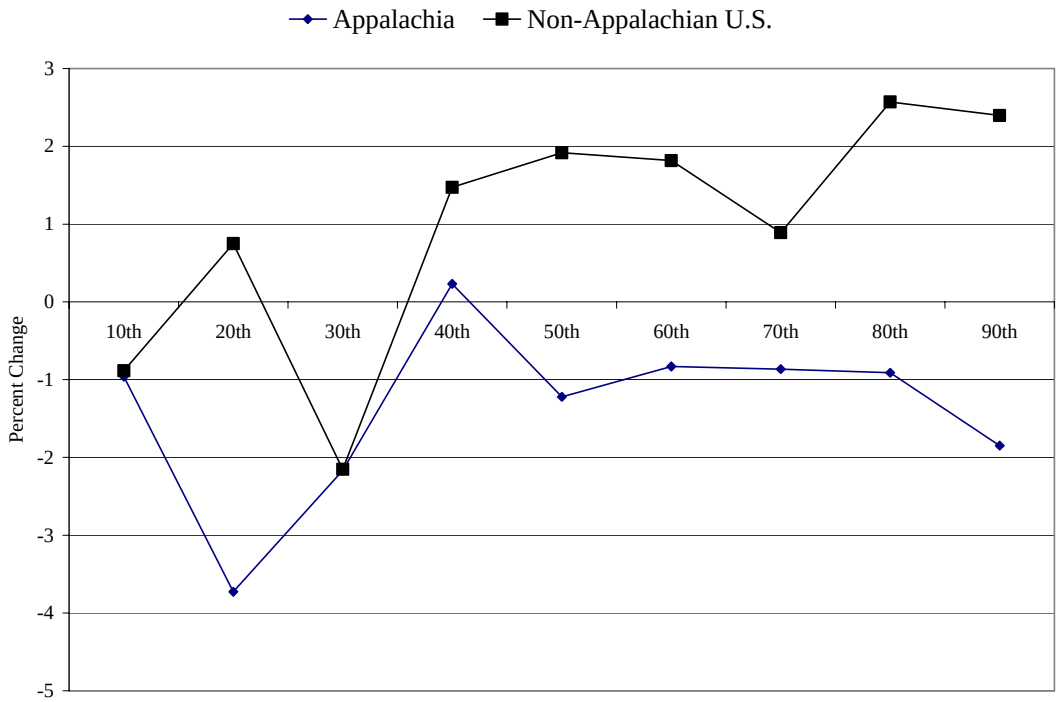
Table 2. Inflation Adjusted Median Hourly Wages at Each Wage Percentile in Appalachia and the Non-Appalachian United States, 1996-2004

	All Workers		*Men*		*Women*	
	Appalachia	*Non-Appalachian U.S.*	*Appalachia*	*Non-Appalachian U.S.*	*Appalachia*	*Non-Appalachian U.S.*
1996	$11.58	$12.53	$13.19	$14.29	$9.92	$11.14
1997	$11.72	$12.79	$13.58	$14.36	$10.00	$11.44
1998	$11.86	$13.20	$13.78	$14.91	$10.37	$11.65
1999	$12.33	$13.53	$14.13	$15.32	$10.52	$11.83
2000	$12.29	$13.54	$14.08	$15.40	$10.79	$12.02
2001	$12.74	$13.80	$14.53	$15.61	$11.05	$12.32
2002	$12.77	$13.93	$14.60	$15.64	$11.17	$12.57
2003	$12.80	$14.13	$14.32	$15.51	$11.30	$12.59
2004	$12.58	$14.07	$14.30	$15.37	$11.09	$12.59
% Change 1996-04	8.6	12.2	8.4	7.6	11.8	13.0
% Change 1996-01	10.0	10.1	10.2	9.3	11.3	10.6
% Change 2001-04	-1.2	1.9	-1.6	-1.5	0.4	2.2

Note: Inflation adjusted hourly wages were calculated using the CPI-U-RS, 2004 dollars.

Source: KRC analysis of the CPS.

Figure 1. Inflation-Adjusted Wage Change at Each Wage Decile, Appalachia vs. Non-Appalachian United States, 2001-04



Source: KRC based on the CPS.

Table 3 provides a longer-term regional perspective on the disjuncture in economic performance represented by the past few years based on CPS data for each of the 13 Appalachian states and for the United States. (Since we cannot approximate Appalachia in the CPS prior to 1996, Table 8 provides statistics for the entire Appalachian state in each case not just for the Appalachian portion of the state.)

For Tennessee and for all of the six southern Appalachian states, 1995-2000 was a time of considerable progress. In Tennessee and four of the Southern states (Virginia, North Carolina, South Carolina, and Georgia), 1995-2000 capped two decades of wage gains that increased the median wage by at least 21 percentage points. In Tennessee, Virginia, North Carolina, and South Carolina, the 2000-03 period was a time of economic stagnation, especially relative to the previous five years, with median wages climbing by 3 percent or less and declining in South Carolina.

Except for Tennessee and to a lesser extent New York, in northern and central Appalachian states (Pennsylvania, Ohio, West Virginia, and Kentucky), the 1979-2003 period as a whole was one of economic stagnation, with 1995-2000 the one brief reprieve. If it were possible to extract data for just the Appalachian portions of New

York and Pennsylvania, the story of economic stagnation since 1979 would likely be more pronounced.[4]

Table 3. Inflation Adjusted Median Hourly Wages in Appalachian States *(including Non-Appalachian Portions)* **and the United States, 1979-2003**

							Percent Change					
		1979	1989	1995	2000	2003	1979-89	1989-1995	1995-2000	2000-03	1979-2003	%age Point Difference, 2000-03 minus 1995-2000
	U.S.	12.36	12.36	12.14	13.07	13.62	0.0	-1.8	7.7	4.2	10.2	-3.5
	NY	12.93	14.21	13.82	13.91	14.54	9.9	-2.7	0.7	4.5	12.5	3.9
	PA	12.84	12.35	12.35	13.15	13.59	-3.8	0.0	6.5	3.3	5.8	-3.1
North	OHIO	13.44	12.43	12.08	13.51	13.14	-7.5	-2.8	11.8	-2.7	-2.2	-14.6
	WVA	13.12	10.47	10.92	11.56	12.01	-20.2	4.3	5.9	3.9	-8.5	-2.0
	KY	11.96	11.08	11.17	11.98	12.26	-7.4	0.8	7.3	2.3	2.5	-4.9
	TN	10.81	10.30	10.85	12.26	12.48	-4.7	5.3	13.0	1.8	15.4	-11.2
Central	MD	13.63	14.10	14.41	14.87	16.07	3.4	2.2	3.2	8.1	17.9	4.9
	VA	11.95	12.99	12.39	14.13	14.55	8.7	-4.6	14.0	3.0	21.8	-11.1
	NC	10.31	10.80	11.17	12.31	12.48	4.8	3.4	10.2	1.4	21.0	-8.8
	SC	9.97	10.75	10.86	12.77	12.53	7.8	1.0	17.6	-1.9	25.7	-19.5
	GA	11.11	11.59	11.52	12.29	13.45	4.3	-0.6	6.7	9.4	21.1	2.8
South	AL	11.32	10.65	10.23	11.59	12.84	-5.9	-3.9	13.3	10.8	13.4	-2.5
	MISS.	9.58	9.22	9.87	11.08	11.63	-3.8	7.0	12.3	5.0	21.4	-7.3

Source: KRC based on Economic Policy Institute analysis of Current Population Survey data.

V. Responses to Worker Displacement and Economic Restructuring

A. Overview of Field Research Site Selection

In selecting field research region within Appalachia we sought a combination of locations that met the following criteria.

- Site diversity with respect to states and sub-regions within Appalachia, county economic status (i.e., distressed, transitional, competitive), economic base (highlighting manufacturing-dependent regions but with some variation), and demographics (i.e., we included one area, Dalton Georgia, with a recent substantial influx of Hispanics).
- State diversity with respect to measures of how well workers bounce back from dislocation based on our analysis with the displaced worker survey (Table 4 below summarizes how the field sites vary on this dimension).

[4] For evidence on this for Pennsylvania, see *The State of Working Pennsylvania*, various years, accessible online at www.stateofworkingpa.org.

- Diverse experiences prior to the displacements of the last few years. In practice, this variable overlaps the regional one, requiring inclusion of northern areas with extended experience with manufacturing job loss, central regions with extended experience with economic stagnation and mining job loss, and southern regions that had flourished until the end of the 1990s.

Table 4. Displacement Experience in Field Site States Based on Displaced Worker Survey (DWS) Analysis

Displacement experience	*State*
High displacement rate, low resilience (measured by share of displaced workers who are employed and full-time employed at time of DWS)	New York, Pennsylvania, Ohio*
High displacement rate, some resilience (as indicated by share of displaced workers employed and full-time employed at time of DWS survey and the share with wage gains)	West Virginia, North Carolina
Resilience (measured by share of displaced workers employed at the time of the DWS and by re-employed workers' weekly earnings relative to prior earnings)	Georgia
Resilience (measured by share of displaced workers employed at time of DWS) through low-wage job creation (measured by share of employed with wage loss of 20 percent or more)	Kentucky

*While Ohio had a moderate displacement rate based on the full 1993-2003 period, it has had a high displacement rate in the latter part of the period.

Source: Based on Stephen Herzenberg, Mark Price, and Howard Wial, *Displacement in Appalachia and the Non-Appalachian United States, 1993-2003: Findings Based on Five Displaced Worker Surveys*, report prepared for the Appalachian Regional Commission, 2005, available online at www.arc.gov, see especially Tables 9 and 10.

- Richness with respect to policy and institutional responses. (Table 5 summarizes some characteristics of the site regions that led us to include them). Since one purpose of this report is to provide information on effective practices to those within Appalachia and others coping with job loss, several sites were selected because of a reputation for effective economic or workforce development practice.

Table 5. Policy and Institutional Responses in the Site Regions

	Southern Region	*Central Region*	*Northern Region*
Possible cluster-based approaches	Dalton, GA (carpets) Asheville, NC (furniture and textiles)	West Virginia WIA Region 1 (health)	North Central PA (powdered metals)
Community audit/asset and workforce development sector approaches	North Carolina	West Virginia	North Central PA/Other PA; New York
Entrepreneurial strategies	North Carolina	West Virginia	Athens, Ohio, Pennsylvania, NY,
Capacity building and finance strategies		Kentucky Highlands* Region1	Athens, Ohio
Best practice rapid response	North Carolina Georgia		Southern Alleghenies PA,
Industry-linked community college programs	North Carolina	Kentucky Highlands* Region1	Athens, Ohio

- A final consideration that emerged more strongly during the field work itself (and shaped the choice of counties to emphasize in New York, Kentucky, and Georgia) was the desire to include locations that had experienced the impact of displacements within a rural region. The rural nature of most of Appalachia creates a distinctive set of challenges for developing effective displacement response including problems caused by the lack of accessibility, limited financial resources, and the presence of older, and labor intensive industries that are vulnerable to off-shoring. All of the selected sites were in rural regions or regions that have a small metropolitan hub but are primarily rural.

Table 6 characterizes the site visit regions based on the displacement now shaping the regional economy. As shown in this table the observed displacements follow regional patterns. Sites in southern Appalachia reflected the substantial loss of manufacturing jobs now occurring throughout the South; sites in central Appalachia and, to a lesser extent, Appalachian Ohio, continued to be affected by the displacements caused by long-term changes in the coal industry. Sites in northern Appalachia are shaped by earlier waves of "rust belt" manufacturing job loss (some of which are continuing) and the effectiveness of regional responses to that loss.

Table 6. Summary of Site Visit Regions

State and Region	*Counties*	*Form of Displacement*
Northern Appalachia		
New York Southern Tier	Chemung, Schuyler and Steuben	Earlier and substantial recent manufacturing job loss
Ohio Athens region	Athens, Hocking, Perry, Meigs, and Vinton	Earlier manufacturing job loss, long-term displacements from the coal industry, and recent manufacturing job loss
Pennsylvania North Central	Cameron, Clearfield, Elk, Jefferson, McKean, and Potter	Some earlier and substantial recent manufacturing job loss
Central Appalachia		
Kentucky Southeast	Harlan and Bell	Long term displacements impacts from the coal industry
West Virginia South Central	Fayette, Greenbrier, McDowell, Mercer, Monroe, Nicholas, Pocahontas, Raleigh, Summers, Webster, and Wyoming,	Long term displacements impacts from the coal industry
Southern Appalachia		
Georgia Northwestern	Bartow, Catoosa, Chattooga, Dade, Floyd, Gordon, Haralson, Paulding, Polk, Walker, Fannin, Gilmer, Murray, Pickens and Whitfield	Substantial recent loss of manufacturing jobs except in counties with concentration of the carpet industry
North Carolina Asheville area	Buncombe, Haywood, Henderson, Madison, and Transylvania.	Substantial recent loss of manufacturing jobs

The two sections below provide more detail on the responses to displacement practices within the seven site visit regions. We have organized these practices into two categories: *responses to worker dislocation* and *economic readjustment*, the latter

referring to development of longer-term regional responses to economic restructuring. Appendix B contains a stand-alone summary of effective practices in each of these two categories. Within the text below, tables describe individual effective practices and cite examples of the practice within field site regions.

The description of practices is divided into responses to dislocation and economic readjustment for both conceptual and practical reasons. By necessity dislocation responses and economic readjustment utilize distinct albeit overlapping tools-kits and are driven by different time frames. The response to workers losing their jobs and incomes needs to be immediate – prior to a layoff, if possible. Workers losing their jobs cannot wait years for new opportunities. On the other hand, community economic readjustment strategies require time to plan, implement, and take effect. That said, response and readjustment strategies can be most effective when linked and aligned with one another.

B. ***Responses to Worker Dislocation***

Effective practices in responding to layoffs and plant closings include systems for identifying and potentially helping to prevent layoffs; early, comprehensive assistance to workers who will be laid-off; and strong connections between early response and continuing worker adjustment assistance. The benefits of effective practices in these areas are to prevent layoffs, where possible and to assist workers more easily in connecting to new, good job opportunities, when layoffs are inevitable. Each site visited had some system – and in some cases exemplary systems -- for responding to layoffs and connecting laid-off workers to on-going assistance at One-Stop Career Centers. However, no site had established formal early warning systems. Only a few had informal early warning systems that enabled workforce developers to plan rapid response efforts well in advance of the actual layoffs.

Proactive Response

- ***Early Warning and Layoff Prevention***. There are established practices and procedures that anticipate, seek to prevent, and quickly respond to potential layoffs and plant closings.
- ***Rapid Response***. There are practices and procedures to provide information and resources to potential dislocated workers prior to layoff and as soon after notification as possible.
- ***Rapid Response Follow Through*.** There are practices and procedures to ensure on-going outreach contact with displaced workers after initial information on services has been provided.

Early Warning and Layoff Prevention is a multi-stakeholder approach to identifying companies at risk that seeks to:

- Identify individual firms that may be at-risk to inform response strategies that prevent layoffs and support the firms in remaining viable;
- Identify potential layoffs of workers that can not be prevented to be able to provide adjustment services as quickly as possible; and

- Identify labor market trends to inform economic/workforce development strategies.

Although the field visits did not find examples of early warning systems, the Steel Valley Authority's Strategic Early Warning Network (SEWN) in southwestern Pennsylvania illustrates such a system and is currently being evaluated for replication in the North Central Pennsylvania field site. The system as described in more detail in the accompanying box, both tracks potential firms at risk and has tools to assist in those situations where jobs can be saved. In North Carolina, one of the sites visited in the state had also undertaken work to prevent layoffs. In the late 1980s the economic development agencies in the area provided significant financial support to local workers to assess the feasibility of an employee buyout at Champion Paper, a large local employer being closed by its parent firm. Renamed Blue Ridge Paper, this plant is now the largest employee owned paper company in the world and is working with the local Workforce Investment Board to train its incumbent workforce.

Early Warning and Retention

The Steel Valley Authority's Strategic Early Warning Network (SEWN) provides business retention and development services to troubled manufacturing companies in 21 counties in Western Pennsylvania. SEWN was established by a broad coalition of business, labor, and community leaders and is funded primarily by the Pennsylvania Department of Labor and Industry. It has created a process for identifying small and medium-sized manufacturing firms that are at risk. Once at-risk firms are identified, SEWN can provide assistance with financial restructuring, buyouts, labor-management relations, and operations and cost

Rapid Response and Rapid Response Follow-Through. In almost all the sites visited, the local rapid response teams held meetings informing those workers facing layoff of the services and resources available to them. However, several areas were able to go far beyond the simple provision of information on services. In Georgia and North Carolina local workforce staffs were able to deliver services on the site of some plant closings far in advance of the closing. Additionally, the programs created for these layoff situations effectively integrated a range of services crafted to meet the needs of the workforce. Theses sites accessed resources from multiple federal and state programs as well as the companies conducting the layoffs.

Policy and Process

- ***Demand-driven Workforce Programs Targeting Good Jobs***. Employment, training and education efforts are informed by income goals and real labor market demand.
- ***Access and Leverage Resources.*** Available resources for dislocated workers are aggressively sought, coordinated, and accessed.

Another set of effective practices identified in some of the site visit were policy and process efforts established to target and guide support services. In West Virginia the Region 1 WIB commissioned several reports to help inform its workforce policies. One report helped to identify local demand occupations and another established the self-

sufficiency wage standard for the region. Using this information the WIB put policies in place to ensure all of its approved training and employer services guaranteed both a job *and* a self-sufficient wage. Training providers in the region confirmed that the information from the reports and the WIB's policies had transformed the types and methods of training programs that were being offered.

In Pennsylvania, the North Central region has long utilized its strong connections with employers to identify priority training options. In Pennsylvania there is a new state-level process that aims to identify high-demand occupations that meet self-sufficiency wage and skill shortage criteria and ensure that all WIB regions target their scarce training resources to these occupations. The Pennsylvania process began with the mapping of targeted industry clusters in the state using a combination of detailed industry statistics and input from leading WIB directors with knowledge of the industries in their region. The next step was to use all available official government data to screen which occupations pass a wage threshold (200 percent of the poverty line for a family of three or $26,364) and thresholds related to whether there is excess demand for the occupation (e.g., occupational unemployment rates, recent growth in occupational employment and wages, and the ratio of "training completers" graduating from courses that qualify them for the occupation to job openings in the occupation). The third stage of the Pennsylvania process provides for "local knowledge" from industry experts, WIBs, industry training consortia, educators, or economic development practitioners to modify the list of high priority occupations that emerges from analysis of the most recent data (some of which are two years out of date). In the future, state support for training and education will be targeted at high priority occupations and thus at skill needs of regional economies that also provide good job opportunities.

The Three Components of
Determining High Priority Occupations in Pennsylvania

- **Cluster analysis** to determine the industry sectors that have the potential for growth or in which strategic investments are likely to improve outcomes for businesses and Pennsylvania's workforce.
- **Occupational data analysis** to determine based on official statistics what are likely high priority -- high demand, higher wage -- occupations within each of the targeted clusters.
- **Input from local workforce practitioners, educators, and other stakeholders** to identify additional high priority occupations demand for which is not captured by government data.

North Carolina, as described in other sections of this report, has required each of its economic development regions to identify critical industry clusters and create strategies for supporting them. This process led by Advantage West, the regional economic development organization for the Asheville metro region, identified a tension between support for emerging clusters and current systems of demand-driven training. In North Carolina, the community college system has a well-earned reputation for providing quick

turnaround of high quality workforce training for employers. However, these institutions are now also being asked to anticipate the "demands" of the future. Advantage West, has worked with the educational institutions within its region first to identify key future industry clusters and, now, to begin creating education and training offerings that support future jobs within these clusters. This requires the post-secondary educational system to not only to be responsive, but to also be pro-active in creating new economic futures.

Public funding for workforce development has been declining and the lack of resources presented challenges for almost all the sites. In some areas cutbacks in public funds were reducing the accessibility of services and threatened to undermine promising innovations. Even with this challenge, some sites were creative in identifying and accessing resources from multiple sources. North Carolina, for instance, has been aggressive in seeking federal discretionary grants and assisting companies to become certified as trade-impacted, which expands available resources for workers laid-off from these firms. Additionally, the state has provided funding to subsidize workers' health insurance payments and negotiated with insurance providers to lower rates. West Virginia has received funding from a multiple federal sources including a grant from the Small Business Administration to establish a Women's Business Center. Representatives from sites in North Carolina, West Virginia, and Kentucky had also sought and received foundation grants and contributions from employers.

Operations

- ***High Quality Individualized Employment Services***. Programs are designed to meet the needs of individual displaced workers
- ***Multiple Options for Workers***. A wide variety of needed services and resources are available for displaced workers.
- ***Family and Community Supports***. Practices are in place to respond to the wider impacts of displacement.

A challenge in dislocated worker programs has been the "hand-off" from the rapid response to on-going assistance of One-Stop Career Centers. Even when the Rapid Response teams meet with workers prior to the layoff, the stress of the situation may mean that follow-up is needed to ensure that these workers connect to a Career Center. West Virginia, North Carolina, and Georgia had all integrated rapid response efforts with the One-Stop Career Centers helping to maximize the chances of workers connecting to services. In

Creating an Effective Response

Steelcase, a wood office manufacturing facility in Henderson County, North Carolina closed in January 2005. Prior to this closing the company had employed almost 500 workers with an average hourly wage of $14.76 and an average age of 47. The local Rapid Response team organized local partners to provide on-site services at the company for almost one year prior to this closing. The partners included company production and human resources management, two local JobLink Centers, United Way, Consumer Credit Counseling, Blue Ridge Community College, and the local Chamber of Commerce. The first step was to gather information from the company and workers on needs. The rapid response team then worked with managers and representatives from the workforce to craft a plan. Services included small business counseling, financial counseling, career counseling, job search skills, training and placement support. Workshops were provided during work hours. This plant was certified for Trade Adjustment Assistance allowing workers access to longer-term training, subsidized health insurance, and

addition, the Centers tracked the services provided to workers from designated layoff situations, so that they know which workers had not yet come in for each type of assistance. In contrast, following a transfer of the oversight of all workforce development programs to the state's welfare department, staff from the One Stop Career Center in Athens, Ohio generally learned of layoffs through the newspapers. There was little follow-up to ensure workers came in for services and the state reportedly was not drawing down available resources for dislocated workers.[5]

In West Virginia, staffers from the United Mine Workers union local were directly involved in service provision and were dogged in their efforts to assist those they had worked with for decades. The United Mine Workers in West Virginia operated a One-Stop Career Center for laid-off union and non-union mineworkers, workers affected by layoffs in the mines, and the spouses and family members of miners. The peer counselors at this Center were particularly talented at identifying miners' skills that could be transferred to related occupations. A similar Center had been located at a community based organization in Ohio before the state reorganization of its workforce systems.

Even in areas with well functioning workforce development programs, there were still long-term, devastating impacts on many laid-off workers. Displaced workers who remained in the area frequently did so by eking out an existence based on the underground economy, being forced into long commutes, going on disability insurance, using pension payments from previous jobs to supplement low earnings on current jobs, and/or relying on friends, family, and wives who previously had not worked outside the home taking jobs. Some of the ways in which displaced workers have cushioned the effects of re-employment in low-wage jobs are unsustainable if the gap between pre-displacement wages and the wages paid by available jobs widens, the numbers of those able to access pension income from previous employment shrinks, and the ability to increase labor force participation by women is lessened. Recognizing this problem, the rapid response efforts in North Carolina have been broadened to include more active involvement from local community groups like the United Way and community action agencies. This involvement helps to sustain support for dislocated workers after some of the specialized services established for particular layoffs have been completed. Ultimately, however, to avoid laid-off workers forced into poverty or relocation, local areas must be able to create new, good work opportunities. Efforts to do that are described in more detail in the section on responses to economic restructuring.

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[5] Based on the DWS over the entire 1993-2003 period, workers in Appalachian Ohio experienced one of the lower rates of reemployment – "percent worked since lost job" – of any of the Appalachian states, 71 percent versus 76 percent for all of Appalachia. This figure, however, covers two periods in which Ohio grew economically and, at least in the field site region, reportedly had effective dislocated worker services and a second period in which Ohio lost a lot of jobs and reportedly had ineffective services. (Using all of Ohio for sample size reasons, we are currently analyzing whether there is a change in Ohio workers' resilience in the face of dislocation between 1993-98 and 1999-2003.)

Measuring and Tracking

Performance Management - Goals are established and measured for responding to displacement.

Although performance management systems can appear to be the unglamorous plumbing of program management, effective systems not only track but also can improve services and outcomes. As representatives at several sites stated, attention must be paid to what measured. The Workforce Investment Act (WIA) has established an extensive performance management system to track information on placements, wages, and job retention for dislocated worker programs. Therefore, all the sites operating federally funded dislocated worker programs had some systems for tracking performance outcomes. However, under this system outcomes are only tracked for those dislocated workers actually enrolled in WIA and program operators are not required to identify whether all workers affected by layoffs and needing services are reached. In cases where discretionary federal emergency grants are provided for specific layoff events, program operators are required to track outcomes for those layoffs being served including comparing the number of dislocated workers proposed to be served to those who actually received services. This tracking of outcomes helps to identify whether those needing services are being reached and what the results of those services are.

The site visits identified three types of effective practices in performance management for responding to dislocated workers. The first was to go beyond federal requirements to track whether the dislocated workers needing services were being reached. The second was to use performance information in an active way to analyze and improve program performance. Finally, the most extensive performance outcomes system observed in the site visits was not directly related to dislocated worker outcomes but instead to tracking workforce and educational attainments within the Kentucky Community and Technical College System (KCTCS).

Community colleges are frequently criticized for failing to track significant workforce development outcomes. Addressing this criticism, the KCTCS has created an extensive system of performance goals and measures that are carefully tracked and utilized for improving performance. The major indicators tracked by the Kentucky Council on Post Secondary Education include:

- 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?

Objectives and measures are set for each goal and tracked. Program operators have incentives and disincentives for how well programs meet goals. In some instances funds are moved to another operator, if performance goals are not met. Over the last few years, most measures have shown clear improvements. There has been progress in the number

of people enrolling in college as wells as in the numbers of certificates, two-year and four-year degrees granted. The tracking of performance is also used to conduct research to better understand the causes of outcomes and performance.

C. Economic Readjustment

The section above discusses the direct responses to worker dislocation within the seven case site areas. Additionally, there were efforts in each to assist local communities adjust or prepare for economic changes. These efforts were undertaken by the traditional economic development agencies and, in some areas, local workforce investment boards and community colleges also played an active or leading role. In all the case study regions there was a perceived need to respond to worker displacement with economic development activity that would create and/or retain jobs. Some regions also responded to displacement with long-term workforce development activities that went beyond reactive responses. Observed practices included both traditional economic development techniques and newer strategies that appeared better adapted to rural regions and economic challenges. We divide this section into a discussion of strategy and planning following by a discussion of policy and implementation.

1. Strategy and Planning

As revealed in our field research, strategy and planning for economic readjustment includes the four components in the Box.

Strategy and Planning

- ***Analysis and Planning*.** There are practices and procedures to analyze and understand local economic conditions and possibilities.
- ***Strategy*.** The analysis leads to the creation of strategic plans to respond to identified needs and opportunities.
- ***Inclusive Process – "More Voices, Better Choices."*** There are practices in place to create comprehensive regional development strategies that include key regional stakeholders in the process of strategy development and implementation.
- ***Measuring What Matters***. Goals are established and measured for overall regional economic health.

Analysis and Planning. The use of basic economic data to track regional economic progress and identify economic and workforce development needs is common in the case study regions. Some regions have used these data to develop industry cluster strategies

for both economic and workforce development. Some have combined data with stakeholder surveys or dialogues that led to policy changes.

The state of Pennsylvania has used Census economic data to identify statewide industry clusters of special importance to the state's economy and has created a workforce development strategy to support job growth, retention, and improvement in these clusters. As described earlier, the state of North Carolina requires regional workforce and economic development agencies to identify industry clusters that are expected to drive future job growth and to develop a plan to prepare the region's workers to work in those clusters. In the Asheville area, Advantage West, the regional economic development agency identified 10 key industry clusters based on a combination of regional economic advantage, expected job growth, and community values. Workforce and economic development strategies were then identified to support those clusters.

In West Virginia the local Workforce Investment Board brought together representatives of business, community colleges, four-year public and private colleges, the public schools, training vendors, labor unions and other workforce development stakeholders to oversee the creation of a State of the Workforce report and a self-sufficiency wage standard report. These reports, based on surveys of employers, educational institutions, and training providers as well as on publicly available data, influenced the Workforce Investment Board policies to leverage more demand-driven training and to target better jobs.

Georgia uses economic information in several ways. The state conducts one of the few sophisticated state-level manufacturing surveys, which concludes that manufacturers assisted by Georgia Tech have better performance than comparison groups of companies.[6] In Rome, Georgia, a consultant facilitated a process of regional analysis and stakeholder consultation that led to the creation of a "Rome 2020" report, which included 20 recommendations to be implemented over a 20-year period. The Chamber of Commerce and other stakeholders are attempting to implement the recommendations.

Strategy Development. The case study regions vary greatly in the extent to which they have been able to formulate a unified regional economic and workforce development strategy. Organizational separation between economic and workforce development agencies, the existence within a region of multiple economic or workforce development agencies, and in some cases a lack of cooperation between separate agencies can make it difficult to formulate such a strategy. Some regions – most notably West Virginia and North Carolina – had created ties across agencies and regions.

The Athens region of Ohio, where many separate organizations have their own strategies, illustrates a situation in which there is no unified strategy. County-level public economic development agencies often have little history of cooperation across county lines, several nonprofit organizations and a university have their own independent economic

[6] We did not hear about the manufacturing survey in our field work and therefore questions exist about how deeply or at least widely it has penetrated providers of workforce and economic development assistance in the state.

development strategies, workforce and economic development activities are organizationally separated, and there is no person or institution that coordinates the activities of the separate organizations. New York, which also lacks a unified regional strategy, likewise has competing geographically based economic development agencies and a separation between workforce and economic development organizations. However, there appear to be more links between the economic and workforce functions. The director of the Workforce Investment Board works closely with the economic development organizations and sits on the governing board of at least one.

West Virginia, which has a high degree of strategic coordination within and between workforce and economic development activities. There, staff from the regional Workforce Investment Board led a process to analyze and create the base of a regional strategic plan. The process and resulting plan helps to frame a shared perspective and joint implementation of strategies among the economic development agencies, post-secondary institutions, and workforce agencies.

North Carolina has organized its state and regional structures to support greater coordination while allowing local entities to take the lead in defining needs and crafting responses. There are regional economic development organizations that provide local assistance to local economic development agencies. Campuses of the community colleges are also organized into regional districts aligned with the economic development districts. This alignment supports greater planning and cooperation between economic development and the education system. Recently, the state provided funding for the local economic development agencies to partner with educational institutions to identify priority clusters. As a result, the regional educational institutions have invited Advantage West into their curriculum development sessions to help them develop trainings for these clusters.

Inclusive Strategic Planning For the most part, displaced workers' interests influence economic development activities only in indirect ways. Representatives of labor unions and community organizations do sit on the governing boards of Workforce Investment Boards. But, generally, these interests are not formally represented in the governance of economic development organizations nor do they appear to exercise much informal influence over the decisions these organizations make.

Southeastern Kentucky Community and Technical College's participation in the Ford Foundation-funded Rural Community College Initiative illustrates broad public participation in the development of an economic development strategy. This Rural Community College Initiative site created a governing team led by community college staff and including representatives of business, local government, and citizens. The team created a shared vision of the region's economic future, developed a strategic plan, and led the implementation of that plan. Such broad participation can provide opportunities for displaced workers' concerns to influence economic development strategy.

In several regions workforce development activities are integrated to some degree with economic development activities. In these regions both workforce and economic

developers see strengthening the economic resilience of the region as a means of helping displaced workers and reducing the magnitude of displacement over the long run. For instance in West Virginia the WIB has created an economic development subcommittee on its Board that includes economic development agencies and planning commissions in the region. The integration of workforce concerns into economic development activities has led economic development agencies to de-emphasize industrial recruitment and has changed the types of industries that receive economic development assistance.

On the other hand, in New York the staff director of the Workforce Investment Board is a member of the governing boards of several local economic development agencies and works closely with economic developers to ensure that businesses understand the characteristics of the local workforce and are able to access training programs as needed. In this region the integration of workforce and economic development takes the form of workforce development being responsive to economic development policies, but the needs of the workforce do not influence economic development policies in any substantial way.

In some of the case site regions community colleges have gone beyond their role in workforce development to play a more direct role in economic development. For instance, in Kentucky every community college in the state has community and economic development staff onsite. This staff helps engage the community in identifying and implementing workforce development efforts that support economic growth. In New York and Ohio local colleges provide technical assistance to small startup businesses. Also in Ohio, Hocking College, in cooperation with the nonprofit AceNet, offers classes for new entrepreneurs. The Community Colleges in North Carolina have also recently implemented entrepreneurial training in conjunction with technical assistance to the new businesses owned by entrepreneurs receiving training.

Measuring What Matters. For the most part the economic development agencies in the case study regions view job growth, either in the region as a whole or in firms receiving economic development assistance from the agency, as the major indicator of the effectiveness of their work. Job quality is usually secondary, although it is a major concern of economic developers in West Virginia, North Carolina, and Ohio. For instance, in West Virginia the economic developer evaluates development efforts on the basis of increases in educational attainment, labor force participation, and wages in the region as a whole. Poverty reduction is a major concern of all economic development agencies in Ohio. The economic developer for the Chamber of Commerce in Athens, Ohio, says pulling people out of poverty is her primary goal.

While the regions generally had “goals” for their work, these goals were not always translated into specific measures that were tracked and reported. The issue of measuring and tracking goals was even more complicated in those areas that had created strategic plans that went across institutional boundaries. With new regional strategies in place, North Carolina and West Virginia were both beginning to determine how to measure the effectiveness of the work being implemented. Those interviewed said that the next steps will be to define what “success” (i.e., what is the goal for reducing the poverty rate in one

year, in five years, in ten?), determine what measures best capture the goals that have been set, and create systems for collecting data.

2. Policy and Implementation

This section of the report moves from issues of planning and strategy to actual practice, highlighting five basic operating principles.

Policy and Implementation

- ***Strategies Are Operationalized***. There are practices in place to support regional growth and sustainability
- ***Accessing and Leverage Resources***. Additional resources to support regional growth and sustainability are aggressively sought, coordinated, and accessed.
- ***Community and Worker Benefits***. Development efforts are structured to leverage benefits to the community and its residents.
- ***Regional Response to Dislocation***. Practices are in place to respond to wider impacts of displacement
- ***Network Globally, Apply Locally***. Structures are in place to learn from practice and improve on-going efforts.

As described in the Box below, the idea of "waves" of economic development strategy has been formulated to describe economic development practice at the state level. As it stands, this literature was developed without any special attention to rural areas in general and Appalachia in particular.

Our case studies reinforce one important observation about the existing wave literature that is made at the end of the Box below. In Appalachia, economic developers use various combinations of practices associated with the "waves" as tools with which to pursue objectives and/or strategies. They may be pursuing a traditional first wave strategy (use of subsidies for business attraction) while also implementing second wave strategies of retention and third wave strategies of stimulating entrepreneurship. The relative importance of first wave and later wave practices has changed and economic developers use some of these methods differently than they did a generation ago or even a decade ago.

The outlines of a rural “third wave” economic development strategy are beginning to emerge. As suggested, this strategy is pragmatic in that it uses the tools that are at hand. Emerging elements of the strategy also appear to include identifying local assets and building on regional strengths, diversifying the regional economy, strengthening the quality of jobs in non-tradable sectors, and supporting the movement from a low-wage to

Three Waves of State Economic Development Strategy

Each generation or wave of state economic development strategies emphasizes a core set of ideas about how state and local officials could and should stimulate economic growth and job creation, along with an accompanying set of public policies. Explicit policies intended to attract manufacturing plants, seems to have begun in Mississippi in the late 1930s.[7] Other states have chased tourists, retirees, and federal government facilities, including defense plants, prisons and military bases. Southern states, in particular, continue to chase manufacturing, with considerable success in recent years as illustrated by new auto and auto parts plants built in Kentucky, Alabama, South Carolina, and elsewhere.

The objective of "chasing" is to attract outsiders to the state — employers who will create new jobs for local residents, or new residents who will spend their paychecks at Opryland or casinos, their pension checks at Wal-Mart. The objective of second-wave strategies is to "grow your own." Instead of relying solely on recruitment of firms from the outside, practitioners seek to spur development by encouraging the formation of new firms and the growth and retention of existing firms. Second-generation strategies often focus on technology-based sectors, such as computers and telecommunications (Austin, Texas in the 1980s) or biotechnology (San Diego in the 1990s). Policies may begin with chasing — Austin put together an attractive package of incentives to land the microelectronics R&D consortium Sematech — but extend to support for business incubators, state venture capital funds, export assistance, technical assistance and technology transfer, and firm-specific training. Efforts to improve public education at all levels can also be considered second-wave policies, especially efforts to link higher education with high-technology in ways that emulate some of the features of Silicon Valley or North Carolina's research triangle, which have derived much of their entrepreneurial vitality from world-class research universities.

The still-emergent third generation of economic development practice began to take shape during and after the recession of the early 1990s. The third generation is in part a process-oriented or capacity-building refinement of the second wave. Because it is still somewhat inchoate, third-generation practices can be difficult to distinguish from the second-wave approach. Among the newer ideas have been policies to strengthen industry clusters and flexible manufacturing networks, viewed in terms of self-reinforcing economic agglomerations that will trigger "virtuous circles." Thus policies to support industry clusters have sometimes been rationalized in terms of industry-specific "public goods," such as joint marketing (e.g., furniture fairs), workforce training partnerships, and enabling structures for technology diffusion and technological learning.[8] Industry-specific institutions and networks have the potential to achieve economies of scale and scope for participating firms. Potentially more significant, they may have the ability to accelerate through peer interaction the development of creative new ideas and the diffusion of existing best practices — in other words, to foster innovation.

One caveat with respect to waves is that practitioners who embrace ideas of the second and third wave do not necessary abandon the tactics associated with earlier waves. What takes place instead is an expansion of the repertoire of economic development practitioners and policymakers along with a shift in emphasis towards newer directions.

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[7] The typology in this box is a modification of that in Andrew W. Isserman, "State Economic Development Policy and Practice in the United States: A Survey Article," *International Regional Science Review*, Vol. 16, 1994, pp. 49-100.

[8] Howard Wial, "Rethinking the Microeconomic Foundations of Worker Representation and Its Regulation," *Proceedings of the 47th Annual Meeting, Industrial Relations Research Association* (Madison, WI: IRRA, 1995), pp. 414-421.

a higher-wage manufacturing sector. Below we describe both the traditional and emerging economic development practices observed in the case study sites.

Traditional Practices

Historically, the isolation and hilly terrain in Appalachia have been major barriers to economic development. Therefore, investments in highway construction have been a major development tool. With the exception of individuals interviewed in Kentucky, representative in the case study sites stated that their regions had or were in the process of building highways that economic and workforce developers regarded as adequate for business and long-distance commuting. Much of the highway construction was financed with the assistance of the Appalachian Regional Commission. Public water and sewer service remain inadequate or nonexistent in many rural areas in every case study region, according to economic developers, who see this as a major obstacle to attracting new businesses or expanding existing ones.

The literature on economic development policy identifies industrial recruitment, accomplished using various kinds of subsidies (such as tax credits, low-interest loans, and subsidized training) for firms that move to a region, as the hallmark of the "first wave" of economic development policy. Many rural areas, including those in Appalachia, relied on industrial recruitment incentives as their primary development strategy from the 1930s through perhaps the mid-1990s. Economic developers hoped that locational incentives would attract manufacturing branch plants, which would bring jobs that paid high wages by local standards. Portions of rural Appalachia, especially rural southern Appalachia, used this strategy successfully. But with the decline in U.S. manufacturing employment since the late 1990s now hitting rural and Southern Appalachia, economic developers have reconsidered the roles of both industrial recruitment and locational incentives in economic development practice. In the case study regions their current view of these practices may be summarized as follows.

- Industrial recruitment is no longer used as the primary development strategy but as one among several methods of achieving development goals. Economic developers in the case study regions regard business retention, business expansion, human capital formation, and entrepreneurship promotion as more important than recruitment. Several of them stated that it is difficult to attract out-of town companies to their regions because of a lack of water and sewer infrastructure, a lack of business-ready development sites, low-quality public schools, and/or a lack of amenities that are attractive to executives of large corporations. For this reason they saw recruitment as less important than other methods of increasing employment.

- Economic developers do not believe that they can abandon recruitment efforts entirely. In part this may be because they feel that they cannot avoid participating in a competition in which all their professional peers engage, and which some sometimes win. In part it may be because recruitment, despite its low perceived likelihood of success, is still a means of increasing regional employment quickly. In

regions, such as many of those in the case studies, where the closure of large manufacturing plants causes large-scale job loss, economic developers may perceive a need to replace the lost jobs quickly. For example, an economic developer in Ohio wanted to replace the 360 jobs that the region lost because of a plant closing. Although she did not think recruitment in general was the most important economic development tool for the region, she saw it as the most likely tool to use to replace the lost jobs.

- Locational incentives are no longer used solely for recruitment but also for business retention and expansion. In New York, for example, economic developers stated that a major manufacturer with a preference for remaining and expanding production in the region nevertheless expected them to offer the company a package of incentives that was competitive with those offered by economic developers in other potential locations. If the incentive packages were comparable, then the firm would open a new plant or expand an existing facility in the region.

- State laws or policies, rather than local ordinances or local economic developers, set the rules for the most important locational incentive programs. In some states, such as West Virginia and Ohio, companies receiving these subsidies must create the number of jobs they promise to create; if they do not do so then they are required to repay part or the entire subsidy. In some subsidy programs recipients are required to meet legally mandated minimum job creation targets (as in New York's Empire Zone program) or wage targets (as in Athens, Ohio's, requirement that companies pay at least $10 per hour on all jobs created within state enterprise zones). Economic developers in the case study regions accept these constraints on locational incentives and, in some cases, see them as important. For example, one economic developer saw more enforceable job-creation requirements as means of ensuring that public money will not be wasted on firms that are not committed to the region. Another saw wage requirements as means of ensuring that that new businesses will not cost local governments more (in subsidy payments to firms and public assistance payments to low-wage workers) than the economic benefits they bring to the region. In one case an economic developer believed strongly that a firm should not accept public subsidies and then leave the area. She was investigating whether the firm could be required to repay a training subsidy that it had received.

Technical assistance to businesses to help them adopt new technologies, reorganize work, or find new markets is an economic development practice that became prominent in the 1980s, when many economic developers in urban areas began to emphasize the retention and expansion of existing firms over the attraction of new ones. If firms that are at risk for mass layoffs or plant closings can be identified before these events occur, then technical assistance can also be a means of avoiding worker displacement. Economic developers in several case study regions, including New York and Ohio, offer technical assistance as part of their package of services to businesses. However, with the exception of assistance to startups and early-stage small businesses in these regions, technical assistance is not a major part of economic development activity.

New Approaches

A new economic development strategy is beginning to emerge in the case study regions to replace the previous emphasis on industrial recruitment. No economic or workforce developer has articulated the new strategy in a comprehensive way but the main ingredients of the strategy are apparent in some of the economic and workforce development practices that are being used in the regions.

Building on regional strengths. Perhaps the most prominent feature of the emerging new strategy is building on a region's existing strengths. Even traditional workforce and economic development methods, such as business attraction and customized job training, are often used to promote the growth of firms and industries in which a region already has a competitive advantage. In building on regional strengths economic and workforce developers in rural and small-city Appalachia are using a version of Michael Porter's theory of regional advantage, according to which a region can best promote its growth by assisting and building on industry clusters in which the region is already specialized.[9] The purpose of building on regional strengths is not simply to "grow your own" industries but to enable the region to participate in the national and world economies in ways that give the region a durable competitive advantage in those economies. With such an advantage the region can develop a base of jobs that, at least in the short to medium term, is not vulnerable to competition from low-wage countries or regions. In this way, building on regional strengths offers the possibility that large-scale worker displacement will become less frequent in the future. Interviewees in several of the case study sites – West Virginia, North Carolina, Pennsylvania, and Ohio – were well versed in the literature on cluster strategies. The consciously saw their role to be "importing" new knowledge and practice into their regions.

In some of the case study regions the strengths on which economic and workforce developers are trying to build are in particular industries or industry clusters and the goal of economic and workforce developers is to retain, expand, or attract new firms in those industries or clusters or improve job quality in them.

The state of Pennsylvania has built a workforce development strategy around industry clusters in which the state has a competitive advantage. In the case study region the dominant cluster is manufacturing, especially powdered metals. The regional economic and workforce development agency works closely with employers in this cluster. It established a training institute to provide short-term training that employers need. It also organized geographically based business consortia to help employers, both within and outside the cluster, cooperate to meet their common needs for training and technical assistance.

Similarly, Advantage West in Asheville, North Carolina, responding to a state requirement to identify industry clusters that are expected to drive future economic growth in the region, designated ten key clusters: advanced manufacturing,

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[9] Michael Porter, *The Competitive Advantage of Nations* [FULL CITATION]

arts/crafts/design, communications and information technology, environment, food, health care, life sciences and agribusiness, recreation and tourism, retirement, and security. Business attraction and support efforts, including customized job training, are directed at these clusters.

In New York, where economic developers do not have an explicit industry cluster strategy, there is nevertheless some emphasis on retaining, growing, and attracting firms that have economic ties to the region's major employer, Corning, Inc. There is a small business incubator for firms with a business relationship to Corning, Inc. Ceramics firms started by former Corning, Inc. employees are among the firms in which economic developers are especially interested. One local economic development agency is surveying businesses in the region to learn about their customers and suppliers, potentially leading to an understanding of industry clusters, including those of which Corning, Inc. is a part.

The local Workforce Investment Board in West Virginia helped employers in the hospitality, health care, and manufacturing industries form industry-specific regional consortia to enable them to solve problems common to all employers in the industry. The health care consortium decided that training licensed practical nurses to become registered nurses was a desirable way of addressing the region's shortage of registered nurses. The Workforce Investment Board arranged this training and the health care employers pay for it. The hospitality consortium saw a need to stabilize employment in a largely seasonal, resort-based industry with distinct summer and winter resort employers. The consortium created a staffing firm that employs workers full-time and year-round, shifting them among hospitality employers according to seasonal demand, and provides employee benefits. It expects this arrangement to reduce labor turnover as well as increase the income and access to health and pension benefits of hospitality workers. The manufacturing consortium has just been started. However, it appears that it will take on the task of helping those manufacturers dependent on the coal industry to diversify into new markets.

In some regions perceived strengths exist in certain small business sectors and the development goal is to enable these firms to grow by helping them obtain better access to capital or by reducing costs through shared economies of scale. Ohio's AceNet supports small businesses in industry clusters that use locally produced raw materials to make products that can be sold at a premium in the local area or nearby metropolitan areas. The price premium exists because consumers value the use of local raw materials (such as locally grown ingredients in food products). The jobs in these clusters are not likely to leave the area because the industries need to produce locally and/or use raw materials that are perishable or expensive to transport. The jobs are potentially high-wage (relative to others in the same industry in the local area) because of the price premium that firms may be able to receive. AceNet helps small businesses take advantage of scale economies from shared facilities and joint purchasing and marketing arrangements. In the food cluster, AceNet's oldest and largest, the organization operates an incubator that enables businesses to rent kitchen, storage, and/or retail sales space through a time-sharing arrangement. It also created a regional food brand for small, independent food businesses

and a local independent restaurant association that buys from local food suppliers. Advantage West in North Carolina has also just established a certified kitchen that local food producers can access to develop value-added products using local inputs. It based its plan for the kitchen on comparative research of 15 existing incubators of local food producers nationally, including the one operated by AceNet. Longer-term Advantage West hopes that some producers may warrant venture capital investment to expand marketing of local branded products with demonstrated potential. But first products must be developed and sold on a smaller scale.

The One-Stop Career Center in Haywood County, North Carolina, provides human resource information for employers that are too small to obtain this information easily on their own. It created an Employer Resource Room stocked with information on human resource management and labor and employment law issues. It also brought together about 15 local employers to create a Human Resources Association that enables employers to share information and resources.

Adena Ventures, a venture capital fund that invests in start, early- and growth-stage small businesses in Appalachian Ohio, West Virginia, Kentucky, and Maryland, its portion of Appalachia as having a population and small business base comparable to those of some large metropolitan areas but as having a shortage of venture capital. It tries to fill capital gaps that it can identify using local knowledge that venture capitalists outside the region do not have. It also provides technical assistance to firms in which it does not invest as well as to those in which it does invest.

As part of its work under the Rural Community College Initiative, Southeastern Kentucky Community and Technical College created a loan fund to help small businesses in its region fill capital gaps and worked with area bankers to create a multi-bank loan fund for new and expanding small businesses.

Diversifying the industrial base. Somewhat in tension with the emphasis on regional advantage is the desire of economic and workforce developers in some manufacturing- or mining-dependent regions to diversify the industrial base. The desire to diversify may be a response to past dependence on and job losses in mining and manufacturing industries. It may also reflect a desire to avoid the cyclical swings in employment that exist in those industries. Yet the possibilities for diversification may be inherently limited in rural and small metropolitan areas. Regions that want to reduce their dependence on single industries may need the ability and desire to grow into larger metropolitan areas (or become part of larger metropolitan areas that already exist) to achieve much of the benefit of diversification.

Although the mining industry is currently expanding, economic and workforce developers in the case study regions of West Virginia and Kentucky would nonetheless like to reduce the region's historic dependence on coal mining. Economic developers have focused their efforts on assisting other industries that have a major presence in the area and industries that use technology in a manner that enables the region to compete in the world economy.

In Georgia economic developers expect future losses of manufacturing jobs. They would like to diversify away from manufacturing, in which their region has long specialized. (In 1970, 60 percent of regional employment was in manufacturing.) Therefore, rather than developing a strategy to retain the region's key manufacturing industries (such as carpets), they have emphasized strategies connected to health care, tourism, and retirement.

Movement toward higher value-added manufacturing. Some economic developers who expected or wanted their regions to retain or expand manufacturing employment recognized that the region's manufacturing jobs would continue to pay high wages only if they were based on higher value-added production. Although not all regions can successfully adopt this strategy some may be able to retain, expand, or even attract high-wage employers by emphasizing high value-added manufacturing. In North Carolina, economic and workforce developers expect that the furniture and textile industries, longtime mainstays of the regional economy, will be much smaller and, if they remain in the region, aimed at high-end markets. Therefore, the regional economic developers target their work to high value-added segments of manufacturing. Community colleges offer a manufacturing certification program that covers the basic skills needed in advanced manufacturing, including safety, quality, teamwork, communication, basic math and measurement, and problem-solving methods.

Economic developers in New York characterize the region's recent losses of manufacturing jobs as having been mainly in low value-added production. They expect that high value-added manufacturing, anchored by Corning, Inc. and other major manufacturers, will remain in the region.

Improvements in job quality, including in services. In addition to promoting the growth of firms and industries that give their regions a competitive advantage in the national and international economies, some economic and workforce developers in the case study regions are also trying to improve the quality of jobs, including in service industries. Nationally, over 80 percent of employment is now in service industries (defined as non-goods production). Much of this employment is inherently tied to local areas because service delivery must take place in close proximity to the consumer. For this reason, meeting job quality goals in any regional strategic plan is likely to require some tactics directly aimed at improving job quality in services. (In some cases, services must take place near the consumer but some of the consumer base is mobile. In these cases, improving job quality can also improve regional competitiveness by attracting more consumers to the area.)

One example of an effort to improve job quality in services, described above, is the creation of a staffing agency by a consortium of West Virginia hospitality employers so that part-time and seasonal jobs might become more full-time and year-round. Employers expect that turnover will decline, and service quality improve, because workers will have the opportunity for more stable employment throughout the year. The local Workforce Investment Board played a critical role supporting the hospitality

industry to come together and conditioning use of public resources to help on development of an approach that would improve jobs.

In Athens, Ohio a prominent worker-owned restaurant founded two decades ago was an early venture supported by the non-profit organization AceNet. The restaurant pays wages above the local standard and relies on its use of local ingredients as a source of competitive advantage. Some former worker-owners at this restaurant have left to found other local restaurants which also tend to have advanced employment practices and better paying jobs than typical for this sector. The founding worker-owners have also considered the idea of a local living wage law which would require the University and its service contractors or a broader range of businesses in Athens to pay above the national minimum wage. (Many U.S. cities have passed living-wage laws since 1994 when Baltimore passed one.) While increasing prices somewhat, a living wage requirement might also increase the income spent in Appalachian regions by visitors to tourism-related businesses, including restaurants and hotels. Income retained by the region would increase especially if consumer demand is inelastic – i.e., demand declines little in response to small increases in price. Rather than reflexively assuming that a carefully designed living-wage law would impede growth, strategic economic developers would be well advised to commission economic analyses to see if a higher wage floor might benefit their region.

A third example that seeks to improve the quality of service sector jobs is taking place in Appalachian Pennsylvania. The Southwestern Pennsylvania Partnership on Aging (SWPPA), a 10-county 398-member coalition of health care providers, government, educational institutions and older adults and caregivers, has been overseeing a project to spread "culture change" in the regional long-term care industry. Culture change reorients the delivery of long-term care around the wants and needs of the consumer rather than the provider. A central part of this shift is to improve job quality so that consumers are assisted by more skilled caregivers who quit less frequently. In 10 participating faith-based nursing facilities, the SWPAA culture change project began with efforts to gain CEO and board buy-in; training for nursing supervisors and direct care workers and supervisors; and the creation of internal working groups in each provider to oversee implementation of culture change. Many facilities have replaced sterile corridors with small residential neighborhoods. "Resident aides" (formerly "nurse aides") are assigned permanently to the same consumers. Several facilities have introduced more choice for consumers regarding what they eat and when they eat and wake. (It speaks volumes about the need for culture change that traditional nursing homes strip adults of such elemental choices as when they eat and wake.) Some facilities have also adopted non-invasive approaches to bathing residents.[10] One County Commissioner on a walk through a facility commented "Aren't they bathing anybody today, no one's yelling?" Residents in some culture change facilities regained weight, and food spoilage and use of medication has declined.

[10] Anne Louise, Joanne Rader, Beverly Hoeffer, Philip D. Sloane, Bathing without a Battle: Personal Care of Individuals with Dementia (New York: Springer Publishing, 2002).

In communities within Appalachia and beyond it, some efforts are also beginning to improve job quality in acute health care jobs, a larger employment pool than in long-term care. Many of these efforts have their origins in earlier regional initiatives that addressed shortages of nurses and other allied health professionals through recruitment and expansion of training capacity. In northwestern Georgia, for example, training capacity was expanded for licensed practical nurses (LPN) so that dislocated Levi's workers could get training, including at a new training facility in an abandoned strip mall close to the plant that closed. Job quality or "retention" initiatives recognize that part of the reason for staff shortages in health care is low retention of experienced workers. Retention initiatives include attempts to improve human resource practices. For example, with assistance from the Jewish Health Care Foundation, 20 hospitals in Southwestern Pennsylvania are now attempting to attain "magnet" certification for implementing a systemic set of organizational changes that research shows lower nursing staff turnover and improve health care outcomes. Other retention initiatives seek to strengthen career ladders as an incentive for lower-wage workers to stay in the industry and work their way up.

Workforce and economic development agencies may see it as beyond their mandate to catalyze or support regional industry collaborations that lead to organizational improvements, higher performance, and better jobs. Indeed, one WIB director at a field research site volunteered that she could convene regional hospitals to discuss retention issues but then questioned whether that was her role. The argument here is that these types of industry initiatives are a strategic opportunity for WIBs and economic development agencies. In these cases, agencies are not telling industry what to do or suggesting that they know more about an industry than business leaders, managers, or workers. They are recognizing that individual employers, acting alone, are not always going to identify or address industry-wide human resource challenges and opportunities for collaboration. Creating a forum for dialogue and encouraging approaches that benefit employers, workers, and the regional economy can thus be an extremely valuable intervention – as in the case of the West Virginia hospitality industry.

Elevating discussion of job quality in service industries is particularly important in the many Appalachian regions looking at tourism and services for the aging as components of a regional economic development strategy. While these are important job growth sectors for many regions, stimulating this growth ordinarily takes place without any discussion of the quality of jobs created. It is important to change this because many jobs in aging services and tourism are low wage and part-time or part-year. Public dollars shouldn't stimulate the growth of these sectors unless there is a strategy in place to improve jobs.

VI. Conclusion

Two summary impressions, in tension with one another, emerge at the end of our analysis of worker displacement and economic readjustment in Appalachia.

- In all field sites, uncertainty -- and a palpable lack of confidence among less educated workers -- exists regarding whether, even if current economic readjustment strategies and tactics were effectively implemented, this will be sufficient to deliver prosperity and enough good jobs in the context of global economic pressures.
- At the same time, while no single area has "the answer" to how smaller metropolitan and rural areas of Appalachia can survive the global onslaught, a great deal of creative new thinking and practice is evident across the seven regions. Taken together, all of the creative strategy development and practice evident across the seven regions provides the basis for guarded optimism that it should be possible for many parts of the region to find a basis for regional advantage that benefits community members in general.

It perhaps goes without saying – but we'll say it anyway – that any successful new approach is likely to require a great deal more self-conscious strategy development and sustained and collaborative regional and community action than did the economic development that raised living standards in North Appalachia from the 1950s to the 1970s and in Southern Appalachia from the 1970s to the 1990s. The environment within which most of the region operates over the next two decades, especially labor-intensive manufacturing regions, simply has less room for error. There is less guarantee that the tide as a whole will be rising in the United States – or in the southern Appalachian states – as in earlier periods of prosperity. There is also less guarantee that a rising national or regional tide will lift all communities or demographic groups. The bottom line is that best economic and workforce development practice will likely be a prerequisite for regional success in the future. Regions must act together to create strong institutions that develop a high quality workforce, inspired entrepreneurs, learning business organizations, and innovative economic clusters.

What would a more developed "next generation" economic development strategy for rural Appalachia? Below we suggest some of the critical characteristics of such a strategy that pools the insights gained across our field sites.

- *Inclusive planning and strategy focused on broad community benefits.* One key tool for achieving more fully developed strategies is inclusive processes of economic development planning. As it stands, none of the field research sites visited exhibited the classically unresponsive political structures depicted by Cynthia Mill Duncan and John Gaventa.[11] At the same, displaced workers, and workers generally, tend to be weakly represented in strategic planning processes

[11] Cynthia Mill Duncan, *Worlds Apart*; John Gaventa, *Power and Powerlessness*.

with one consequence being that job quality and poverty reduction receive muted attention as key indicators of success. Improving job quality is difficult enough in the current environment that it is not likely to happen without tactics aimed explicitly at that goal and benchmarks to indicate progress. No industry strategy should be advanced – retirement, long-term care, tourism, hospitality, restaurants and so on – without serious consideration of whether the cluster can be supported in a way that creates good jobs.

- *Alignment of implementation and resources.* Just as the planning and strategy development needs to be inclusive of broad community interests, the implementation of strategy needs to broadly aligned across multiple actors and resources. The challenges faced in the case site regions were complex and rooted in long-term economic and cultural patterns. The most promising responses to those types of challenges appeared to be within those sites where a shared vision of a desired future established the framework for the actions and resource investments of multiple institutions across both the private and public sector. Individual organizations had different expertise and, therefore, different roles. However, the actions taken within these different roles were components of a complementary strategy. In an era of tight budgets and declining public resources, coordination of resources and concerted action towards shared goals is a necessity.

- *Investment emphasis on public goods.* A third characteristic of more developed strategies would be more explicit recognition that economic development should focus on "public goods" – investments that benefit multiple firms (e.g., in an industry), but more importantly provide a lasting benefit to a community -- not subsidies or tax breaks to individual companies. This means a more significant abandonment of first-wave industrial recruitment, which has a less certain return for lower-wage U.S. regions than in the environment of the 1950s through 1990s. More often than not, critical public goods for the region will exist at the industry or the occupation level and be tools for strengthening specific regional advantages. Work at this level mostly seems difficult or mystifying because it has not been at the center of U.S. economic development practice. It will not seem that way once more practitioners follow in the footsteps of Advantage West in North Carolina, the Workforce Investment Board in North Central Pennsylvania, or AceNet in Ohio.

- In the area of industry- or cluster-level public goods, human capital infrastructure must take pride of place. There is a huge need not just to respond to businesses immediate needs – whether for welders or industrial maintenance technicians – but to create a strategic learning infrastructure that continuously helps otherwise isolated businesses identify and adopt better organizational practices, understand their markets, and innovate to create new sources of regional advantage. Studies of the performance of U.S. industries today reveal huge gaps between the performance of the best companies and standard ones. Without the creation of a more powerful learning infrastructure tightly linked with industry, Appalachia is

> likely to have less of its share of the best companies and more of its share of the standard ones. That is a recipe for economic disaster. Institutionally, no one yet knows whether community colleges or higher levels of education or chambers of commerce or industry-specific associations or sectoral workforce partnerships or manufacturing extension partnerships – or any category of institution – can rise above immediate narrow self-interest and a trained deference to immediate business demand to provide industry-level learning infrastructure "at scale." A key role for government is to create the conditions that support the emergence of a practice that fills this gap.

Over the past decades, the Appalachian region has used infrastructure development coupled with industrial recruitment and some improvements in human capital to close the economic gap with the rest of the United States. This has been an important achievement and in many cases helps to create a base for coping with new challenges. But, while this base of improved infrastructures and education levels is necessary, it is not sufficient. The overall message of this report is that this past approach is inadequate to cope with the economic pressures confronting the region today. Building on the most creative economic and workforce ideas and practices in the region, however, many of the region's relatively accessible rural regions retain opportunities to flourish in the 21st Century.

Appendix A. Appalachian Economic and Social Indicators, 1970-2000.

The tables below compare key variables in Appalachian counties and in U.S. counties based on the 1970, 1980, 1990, and 2000 Census. Maps based on county-level data over this period can be found on line at http://www.stratamodel.com/Appalachia.htm.

Poverty Rates: Appalachia approached the national median rate of poverty between 1970 and 1980 but the rate of change slowed after 1980 (Table A1). Both the proportion of people in poverty and the numbers of people in poverty declined over the decades between the 1970 and 2000 Census. Moreover, while poverty rates are higher in Appalachia, Appalachia outperformed the Nation as a whole in the rate of poverty reduction.

The differences in poverty rates among the Appalachian regions are striking. The median poverty rate in Southern Appalachia counties declined over 40 percent since 1970 and is now lower than the national average. In contrast, the median county poverty rate in Northern Appalachia was over 3 percentage points lower than the national average in 1970, but is now slightly higher. The percentage change in the median county poverty rate between 1970 and 2000 was largest in Central Appalachia, but this region still has a median county poverty rate almost twice that of the national average.

Table A1. Poverty in Appalachia and the United States, 1970-2000
(median refers to the poverty rate in the median county for each region)

	Percent in Poverty 1970	Percent in Poverty 1980	Percent in Poverty 1990	Percent in Poverty 2000	% Change Poverty 1970-2000	Change in % Population in Poverty 1970-2000
National Median	17.5	14.2	15.2	13.0	-5.0	-20.4
Appalachian Median	22.8	16.2	17.2	14.7	-7.6	-26.6
North Appalachian Median	14.6	13.1	14.8	13.3	-2.0	-13.9
Central Appalachian Median	38.0	25.4	27.0	22.9	-14.5	-39.0
Southern Appalachian Median	23.3	16.5	13.6	12.0	-9.7	-41.5

Source: Amy Glasmeier for KRC based on the 1970-2000 Census.

Labor Market Participation. The median county labor force participation rate and labor force participation growth for all of Appalachia is 3.6 percentage points below the equivalent national figure (Table A2). Central Appalachia is consistently 15 to 20 percent below the national mean. However, the growth in labor force participation in this region has been slightly greater than the rest of Appalachia and the nation since 1970. It is likely that the increased labor force participation of women in the region accounts for this increase.

Table A2. Labor Force Participation in Appalachia and the United States, 1970-2000 (median refers to labor force participation in the median county for each region)					
	Percent in Labor Force Participation 1970	Percent in Labor Force Participation 1980	Percent in Labor Force Participation 1990	Percent in Labor Force Participation 2000	% Change Labor Force Participation 1970-2000
National Median	54.1	58.1	61.0	61.6	13.5
Appalachian Median	52.2	55.5	58.4	58.0	11.7
North Appalachian Median	51.7	54.8	56.9	58.2	13.1
Central Appalachian Median	43.1	49.1	51.9	51.5	17.6
Southern Appalachian Median	54.5	58.0	60.9	59.2	8.0

Source: Amy Glasmeier for KRC based on the 1970-2000 Census.

Manufacturing Employment: Nationally and in all three Appalachian regions, manufacturing as a proportion of employment fell from 1970 to 2000 (Table A3). Northern and southern Appalachia with a higher percentage of employment in manufacturing experienced the greatest declines. Appalachia experienced slower growth in the number of manufacturing jobs than the Nation. Northern Appalachia saw a significant loss of manufacturing jobs dragging this formerly important manufacturing area down toward the National median. Central and southern Appalachia saw growth in manufacturing jobs.

Table A3. Manufacturing Jobs in Appalachia and the United States, 1970-2000 (median refers to the manufacturing share of employment in the median county for each region)						
	Manu-facturing as a Percent of Total Employment 1970	Manu-facturing as a Percent of Total Employment 1980	Manu-facturing as a Percent of Total Employment 1990	Manu-facturing as a Percent of Total Employment 2000	Change in Percent Manu-facturing as a Percent of Total Employment 1970-2000	Percent Change in Manu-facturing Employment, 1970-2000
National Median	15.0	14.3	13.4	11.6	-23.2	34.0
Appalachian Median	25.1	23.0	20.4	16.0	-34.0	11.2
North Appalachian Median	24.2	20.4	16.7	14.2	-42.3	-16.1
Central Appalachian Median	12.8	13.1	14.9	12.2	-9.7	57.3
Southern Appalachian Median	32.3	29.8	26.5	20.3	-34.9	18.3

Source: Amy Glasmeier for KRC based on the 1970-2000 Census.

Education Levels: The fraction of the adult population in the median county in both the nation and Appalachia that never finished high school has fallen sharply since 1970 (Table A4). Appalachian adults, however, have fallen farther behind the nation each decade. Central Appalachia continues to have the largest percentage of adults without a high school education. In this median county, this percentage has decreased from 75

percent of adults without a high school education in 1970 to 35.9 percent in 2000. Northern Appalachia most closely mirrors the national average.

Table A4. Percent of Adults With Less than Four Years of High School in Appalachia and the United States, 1970-2000
(median refers to the % of adults with < four years of high school in the median county for each region)

	% of Adults with Less than Four Years HS 1970	% of Adults with Less than Four Years HS 1980	% of Adults with Less than Four Years HS 1990	% of Adults with Less than Four Years HS 2000	Change in Adults with Less than Four Years HS 1970-2000	Change in % of Adults with Less than Four Years HS 1970-2000
National Median	52.5	38.9	28.4	17.7	52.3	-65.9
Appalachian Median	62.4	52.0	39.1	25.1	65.4	-59.3
North Appalachian Median	49.2	38.9	28.8	17.5	49.2	-63.6
Central Appalachian Median	75.0	62.6	51.0	35.9	74.1	-51.7
Southern Appalachian Median	63.3	54.0	40.9	26.3	71.5	-58.4

Source: Amy Glasmeier for KRC based on the 1970-2000 Census.

Numbers on Disability: SSI payments in the median Appalachian country have consistently been higher than in the national median county (Table A5). The rate of increase in 2003 dollars and in per capita terms is also substantially greater than that for the Nation as a whole. Internal trends tell a more complex story. Southern Appalachia saw a real decline in SSI payments on an inflation-adjusted basis while some of the northern ARC counties gained over 278 percent. National geographic trends are equally dramatic. The per capita SSI rate in Central Appalachia is over three times the rate of the nation.

Table A5. Supplemental Security Insurance Payments in Appalachia and the United States, 1970-2000
(median refers to the median number of SSI payments in the median county for each region)

	Per Capita SSI 1970	Per Capita SSI 1980	Per Capita SSI 1990	Per Capita SSI 2000	Percent Change in Per Capita SSI 1970-2000	Percent Change in SSI 1970-2000
National Median	64.1	63.2	68.9	89	38.5	82.0
Appalachian Median	82.2	102	116.5	142.2	104.8	170.5
North Appalachian Median	52.9	64.1	83.7	132.3	200.5	183.1
Central Appalachian Median	122.2	161.4	226.5	323	148.2	221.0
Southern Appalachian Median	102.8	115.5	116.9	126.5	29.8	82.1

Source: Amy Glasmeier for KRC based on the 1970-2000 Census.

Appendix B. Summary of Best Practices in Two Areas

Effective Practices in Providing Assistance to Dislocated Workers

Practice	Potential Indicators	Examples Described in Case Studies
Proactive Response		
Early Warning and Layoff Prevention. There are established practices and procedures that anticipate, seek to prevent, and quickly respond to potential layoffs and plant closings.	• Formal early warning systems • Informal procedures to anticipate potential layoffs.. • Efforts to prevent closings and/or layoffs (incumbent worker training. targeted loan programs, etc.) • Incentives for responsible employer behavior in conducting layoffs. • Pro-active efforts to strengthen and stabilize key sectors • Efforts to increase employee ownership	• SEWN in Pennsylvania provides an example of a more formal early warning system; system is now being considered for extension to North Central PA • Use of employee ownership in the North Carolina • NY layoff aversion services
Rapid Response. There are practices and procedures to provide information and resources to potential dislocated workers prior to layoff or as soon after notification as possible.	• Policies with defined timeframes for conducting rapid response meetings. • Evidence of timely on-site rapid response meetings • Rapid response meetings provide information on benefits and services available including near term assistance, e.g., financial and stress counseling • Efforts to coordinate employee benefits (severance, unemployment insurance) with services	• North Carolina provides an example of the early delivery of good services on site; also provides supplements for health insurance. • Other examples of early intervention include services to laid-off workers from Levi's in Georgia; Ohio mine workers through the Community Action Agency and the union)
Rapid Response Follow Through. There are practices and procedures to ensure on-going outreach contact with displaced workers after initial information on services has been provided.	• Effective hand-off between the rapid response team and Career Centers. • Continuing outreach efforts to bring displaced workers into programs, including work with union leadership and community- and faith-based organizations • WIB policies that encourage aggressive outreach to individual dislocation events. • Case management for individual workers.	• North Carolina, West Virginia and Georgia provide good examples of connections between rapid response and career centers with good coordination across one-stop partners/worker assessment and training providers.

Policy and Process		
Access and Leverage Resources. Available resources for dislocated workers are aggressively sought, coordinated, and accessed.	• The area has sought and/or received state and national emergency grants. • Information is provided to firms and workers on applying for trade certification. • Resource contributions from firms conducting layoffs • Accessing of state and community resources for dislocated workers	• North Carolina has been aggressive in seeking trade funds and discretionary grants for big layoffs, and has used state funds to fill in gaps in services. Also, has had contributions from employers • West Virginia has accessed discretionary funds.
Demand-driven Workforce Programs Targeting Good Jobs. Employment, training and education efforts are informed by income goals and real labor market demand.	• Policies for maintaining or improving income • Information on available jobs and occupations • Training options designed for demand occupations and industries. • Strong and strategic connections with economic development efforts (MEPs, other) • Connections to business community and/or key regional industries	• West Virginia created policies and procedures to leverage demand driven training and stronger wage outcomes. • Pennsylvania has strong state level guidance/practice for training in high-demand occupations. • North Carolina regional economic development works with community colleges to identify critical current and emerging clusters.
Operations		
High Quality Individualized Employment Services. Programs are designed to meet the needs of individual displaced workers	• Active involvement of displaced workers in program design and implementation. • Services provided in a timely manner • Emphasis on assessment of skills and interests. • Programs developed based on needs assessment • Efforts to strengthen supporting systems (unemployment insurance, health insurance)	• West Virginia example of active involvement of mine workers in designing and implementing dislocated worker services. • North Carolina formed plant committees to design and oversee re-employment efforts; also does detailed needs assessments of workers before designing services.
Multiple Options for Workers. A wide variety of needed services and resources are available for displaced workers	• Multiple employment, training, and education choices (soft skills, career information, workshops, support services, basic skills, training, education, etc.) • Other options (entrepreneurial training, IDAs, etc.) • Customized employment and training options for	• Examples of broad services in West Virginia and North Carolina • Examples of entrepreneurial training in Ohio

	workers from large-scale dislocations	
Family and Community Supports. Practices are in place to respond to wider impacts of displacement	• Family members also are provided training, education and employment services • Services available to workers affected by ripple effects of larger layoffs • Efforts made to assist overall community affected by the loss of key firms/industries • Efforts made to support new enterprise development.	• Ohio and West Virginia programs for mine workers has training available to family members • North Carolina organizes broad community involvement in response to dislocation which improves follow through and sustained support for workers • West Virginia has opened a Women's Career Development Center to support women beginning their own businesses.
Measuring and Tracking		
Performance Management. Goals are established and measured for responding to displacement.	• Policies for setting goals, tracking progress, and making changes when necessary. • Systems for tracking overall efforts and results of responses to specific layoff events. • Strategies for measuring long-term impact of dislocations within industry sectors, occupational clusters	• North Carolina and West Virginia tracked results of large layoffs • Rome, Georgia set goals • Kentucky Community Colleges sophisticated tracking of workforce development outcomes.

Effective Practice in Regional Strategies Readjusting to Economic Restructuring

Practice	Potential Indicators	Examples
Strategy and Planning		
Planning and Analysis. There are practices and procedures to analyze and understand local economic conditions and possibilities.	• Collection of comprehensive information on regional economic and industry trends • Connections of workforce and economic development practitioners to key regional industries • Audits and analysis of supply side factors (skills, education) • Mapping and understanding of economic conditions of residents (incomes, poverty levels, etc.) • Analysis of community/regional assets	• Pennsylvania targeted industry clusters/occupational analyses – effort to begin to institutionalized ongoing regional economic analyses and support for industry partnerships
Strategy. The analysis leads to the creation of strategic plans to respond to identified needs and opportunities.	• Creation of regional strategic plans	• West Virginia did State of the Workforce reports • Advantage West strategy document in North Carolina
Inclusive Process – "More Voices, Better Choices." There are practices in place to create comprehensive regional development strategies that include key regional stakeholders in the process of strategy development and implementation.	• Planning processes • Stakeholder involvement in analysis and development of strategy, including representatives of low-income communities, minorities, and working people • Multi-constituency fields trips used to gather information and cement relationships that cut across stakeholder and class divisions	• Rural Community College initiative in Kentucky created broad community involvement in strategy and implementation. • West Virginia had broad process of involvement in creation of State of the Workforce Report. • North Carolina deliberate connection of economic development and education in creation of economic development strategy document.
Measuring What Matters. Goals are established and measured for overall regional economic health.	• Policies for setting goals, tracking progress, and making necessary changes. • Measuring long-term impact of displacement within industry sectors, occupational clusters	• Broad goals across agencies in the region set in North Carolina; beginning efforts to measure and track.

Policy and Implementation		
Accessing and Leverage Resources. Additional resources to support regional growth and sustainability are aggressively sought, coordinated, and accessed.	• The area has sought and/or received state and national discretionary grants that support overall economic strategies. • Information and support is provided to firms on accessing and applying for potential public resources. • There is evidence of coordinating available community resources.	• North Carolina, Kentucky, and Ohio broad sources of public and private funding. • North Carolina has aligned its economic development and post-secondary regions to support better alignment of resources.
Community and Worker Benefits. Development efforts are structured to leverage benefits to the community and its residents.	• Policies for targeting economic growth that maintains or improves incomes of residents. • Policies that create linkages between private development and public benefits. • Evidence of strong connections with workforce development and education efforts	• West Virginia public programs targeted to higher-waged firms. • North Carolina example of debate on subsidies in recruitment • Strong connections seen in West Virginia and North Carolina
Regional Response to Dislocation. Practices are in place to respond to wider impacts of displacement	• Efforts made to assist overall community affected by the loss of key firms/industries • Efforts made to support new enterprise development. • Efforts to coordinate community resources to assist residents affected by displacement	• Examples in Appalachian Kentucky and West Virginia to diversify economies. • Examples in Athens Ohio, Asheville North Carolina, and West Virginia in supporting new enterprise development.
Network Globally, Apply Locally. Structures are in place to learn from practice and improve on-going efforts.	• Business and civic leaders, workforce and economic development practitioners, customarily networked with peer groups across the country and beyond. • Customer/stakeholder feedback sought on a continuous basis for programs. • Evaluations used routinely. • Feedback used to improve strategies and programs	• Kentucky, North Carolina, Ohio, West Virginia examples of strong national peer learning networks.
Strategies Are Operationalized. There are practices in place to support regional growth and sustainability	*Strengthen Industry Clusters*	• North Central PA powdered metals • Support for industry networks in hospitality, health and manufacturing in West Virginia • North Carolina targeting of key clusters

	Boost Local Small Business Networks	• AceNet, Athens, Ohio • North Carolina development of community kitchen to work with local farmers
	Venture Capital	• Adena in Athens, Ohio • Pine Mountain Community Development in Kentucky
	Improve Job Quality, including in Services	• West Virginia staffing agency established to make hospitality jobs more full-time and year round. • North Carolina Career Center provision of human resource support for small business • Employee ownership strategies in Athens, Ohio and North Carolina • Technical assistance to locally owned business in North Georgia • Southwestern Pennsylvania Partnership on Aging promotion of "culture change" (quality job-quality care) in long-term care • Living wage standards used to allocate West Virginia training dollars and under discussion in Athens Ohio
	Human Capital Strategies	• Incumbent worker training in North Carolina; acting as the human resource and learning function for small employers • Kentucky campaign to increase educational attainment