# Rural Adult Basic Education in Pennsylvania: Exactly What Do We Know?

Christopher M. Coro

#### Abstract

This article explores the significance of understanding rural adult basic education in Pennsylvania. Following a synthesis of 20 relevant studies are recommendations for further exploration by practitioners, policy makers, and researchers.

#### Introduction

This article presents a synthesis of relevant literature pertaining to the provision of adult basic education in rural Pennsylvania. First, the significance of the topic is discussed. Next, a summary of the methodology is provided. Then findings are presented along with discussion and recommendations.

#### Background

Although some might think it counter-intuitive, there are compelling reasons for investigating rural education in the 21<sup>st</sup> century. Indeed, more than 14% of the more than 46 million students enrolled in nearly 96,000 public schools in the United States attend rural schools (Rural Assistance Center, 2005). The case of Pennsylvania is even more pressing.

In Pennsylvania the percentage of students attending rural schools is nearly double the national figure. According to the Center for Rural

**Christopher M. Coro** is director of adult literacy at Northampton Community College in Bethelehem, PA.

Pennsylvania (2003b), "During the 2000 school year, there were nearly 2.2 million school students in Pennsylvania. Approximately 27 percent [sic] of these students, or 584,000, were enrolled in a rural school" (p. 1). In fact, the Center for Rural Pennsylvania (2005) reports that, between 1990 and 2000, the overall number of students attending rural schools in Pennsylvania had increased by 2%. Yan (2002) reports that Pennsylvania has the largest rural population in the country.

In terms of adult basic education in Pennsylvania, based upon the Office of Management and Budget (OMB) concept of metropolitan and non-metropolitan areas—a measure based upon county rather than school district—34 out of 67 Pennsylvania counties are classified as rural (Pennsylvania Department of Education, 2005). Using 2000 Census data provided by the Pennsylvania Bureau of Adult Basic and Literacy Education (ABLE), this means that nearly 260,000 (17%) of the nearly 1.5 million adults without a high school diploma in Pennsylvania live in rural counties.

While the OMB measure of what constitutes rurality has been debated (Center for Rural Pennsylvania, 2003a; Economic Research Service, 2003), the concept is relevant nonetheless, given ABLE's use of county allocation as a means of monitoring program funding levels. Consequently, when 2000 Census data are disaggregated by counties and then grouped by rural and non-rural counties (based upon the OMB list of non-metropolitan and metropolitan counties), there are additional reasons to believe that the rural/urban distinction may be significant for adult basic education in Pennsylvania.

This study used the 2000 Census data provided by ABLE and combined these data with program performance measures obtained from the 2003-2004 e-Data system that is used for federal reporting purposes. The goal was to explore potentially significant differences between rural and urban areas by analyzing the geographic distribution of ABLE students, the rate at which those in need were being served by ABLE programs, and the rate at which those served dropped out.

In order to accomplish this goal, program performance data for this study were limited to the number of adult learners served—in other words, the number who walked through the door and signed up in each county—and the subsequent number of adult learners who were enrolled for federal reporting purposes—that is, those who stayed at least 12 hours or more. Each of these two performance measures—the total number served and the total number enrolled—had been disaggregated

by county from the 2003-2004 e-Data dataset and provided to the researcher by ABLE staff.

From these two measures the researcher calculated two additional measures: learner attrition rate and market penetration rate. The attrition rate was defined as the difference between the total number of students served and the total number enrolled. This difference was then divided by the total number served in order to obtain a percentage rate for learner attrition.

Market penetration is the percentage of those in need of ABLE services who were actually served by ABLE programs. The purpose for calculating this percentage was to determine the extent to which ABLE-funded programs were meeting the needs of local counties. Market penetration was calculated by dividing the total number of adults served by the total number of adults without a high school diploma in each county as reported in the 2000 Census data.

Using formulae plugged into an MS-Excel spreadsheet, the researcher calculated the market penetration and subsequent attrition rate for each of Pennsylvania's 67 counties. Counties were then coded as rural or urban, split into two groups by rural/urban status, and then ordered from highest to lowest. The range, mean, and median for both market penetration and attrition for both rural and urban Pennsylvania counties were then calculated. A summary of these findings is reported in Table 1 below:

Table 1.	Comparison	of Rural/Urban	ABLE Service Levels	3

Region	Size of Total PA ABLE Market	ABLE Market Penetration Rate	Learner Attrition Rate
Rural (4 Counties)	17.0%		
Median		3.9%	21.5%
Mean		3.8%	23.2%
Urban (33 Counties)	83.0		
Median		4.4%	18.3%
Mean		5.0%	18.5%

Table 1 presents a summary of differences in ABLE services provided to Pennsylvania rural and urban counties. While 34 out or 67 counties are classified rural according to OMB measures, only 17% of

Pennsylvania's adults without a high school diploma live in those counties. Nevertheless, this number represents nearly one fifth the total "ABLE market." In terms of market penetration—that is, how many of those in need of ABLE services have been reached—the data above suggest that urban counties outperform rural counties. Likewise, in terms of holding on to adult learners once they register, urban counties, with a nearly 5% lower attrition rate, appear to do a better job of keeping learners for at least the 12 hours required for federal reporting purposes. There are numerous additional performance measures that could have been explored. However, these two measures—market penetration rate and attrition rate—are adequate to underline the point that, even in adult basic education, there are significant challenges to providing quality educational services to rural areas.

#### **Previous Studies**

Researchers have found that there are important differences between rural and urban educational systems and results (Brasington, 2002; Bruce, 2003; Martin & Yin, 1999; Yan. 2002). The Rural Assistance Center (2005) cited the following challenges to rural education: procuring adequate stable financing, recruiting and retaining quality staff, and offering a broad enough spectrum of educational programs to meet the educational needs of local students. The Delmarva Education Foundation (2003) also cited an achievement gap between rural and urban students, differences in student aspirations for learning, differences in accessibility of higher education, stagnating rural economies, and an often unclear role of the school within the community. Student diversity—particularly special educational needs (Artesani & Brown, 1998) and multicultural needs (Bushway, 2001; Phillips, 2003)—also pose particular challenges in some rural areas.

Focusing specifically on Pennsylvania, Shields (2004) reports "an increased economic disparity between rural and urban Pennsylvania" (p. 5). In fact, when compared to the rest of the United States between 1990 and 2000, Shields found that rural Pennsylvanians were among those struggling most economically. The lack of adequate education was among the most significant factors resulting in disappointing economic growth in rural Pennsylvania counties (Center for Rural Pennsylvania, 2004a; Shields, 2004).

Despite the potential for increased earnings, fewer rural residents in Pennsylvania continue on to complete college degrees than do their suburban or urban counterparts (Center for Rural Pennsylvania, 2004b). Yan (2002) compared the postsecondary persistence of students living in rural settings compared with students living in urban or suburban areas and found that, "compared to urban and suburban Pennsylvania students, rural students were more likely not to attend college. Among rural students in the study group, 48 percent [sic] did not attend college, compared to only 28 percent [sic] of urban students and 36 [sic] percent of suburban students" (p. 5). Moreover, rural students who did not attend college were "less likely to report their fathers expected them to attend college or graduate school than their urban or suburban counterparts" and were "more than twice as likely to be expected by their mothers to end their education with high school" (Yan, 2002, p. 9).

A problem, however, is that none of the studies mentioned above focus specifically on adult basic education. Thus, for the sake of both improved program performance and enhanced learner impacts—whether they be economic advancement, advancement to post-secondary education, and/or effective parenting to support children's education—an understanding of the practices that characterize successful rural adult basic education is important particularly for practitioners and policy makers in Pennsylvania.

# Research Question and Methodology

In order to promote such an understanding, this study sought to conduct a literature review of relevant research in rural adult basic education, synthesize those findings, and make recommendations for practitioners, policy makers, and researchers. The central research questions included the following: What is known about rural adult education in Pennsylvania? What is the nature of this knowledge base? What else do practitioners and policy makers need to know about rural adult basic education in Pennsylvania?

In order to yield the greatest number of potentially useful results, as well as provide a context for comparison, a literature search was conducted that included not only Pennsylvania, but also the United States and Canada. Keyword searches were performed in the following online databases: UMI Proquest, EbscoHost, and ERIC. Due to the unavailability of a keyword search feature, a title search was conducted

for each of the following: the proceedings of the Adult Education Research Conference (AERC); the proceedings of the Pennsylvania Adult Education Research Conference; the proceedings of the Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education; and the Pennsylvania Bureau of Adult Basic and Literacy Education's Learning from Practice website. The results of these searches were then analyzed for relevance to the topic. Those articles that were found to provide the requisite information are synthesized in the section that follows.

# **Findings**

Despite interest in understanding adult basic education students and their needs (American Council on Education, 2001; Baldwin, 1995; Dean, 1997; Tyler, 2002), relatively few studies have focused specifically on rural adult basic education. While some studies (for example, Kallenback & Viens, 2001) have acknowledged a rural context, the findings reported did not address rural adult basic education explicitly. In fact, a relatively small number of studies (n = 20) were found that focused specifically on the provision of adult basic education in rural settings. Methodologically speaking, these studies can be categorized in two groups: (a) those that were conducted by more experienced researchers and are qualitative in nature and (b) those that were conducted by practitioners and followed a practitioner inquiry or action research model.

In terms of content, these studies provide useful considerations for practitioners and policy makers concerned with rural adult basic education, and they have relevance for practitioners, policy makers, and researchers in Pennsylvania. Essentially, these studies have focused on one or more of the following four key themes: (a) the significance of rural adult basic education for rural economic development, (b) the lack of adequate supports for adults attempting to engage in education, (c) recruitment and retention of adult basic education learners in rural areas, and (d) learner expectations and program practices. Each of these themes will now be discussed based upon the results of the literature review undertaken for this study.

# Significance for Workforce Development

Education has been found to be integral to economic advancement (Center for Rural Pennsylvania, 2004a; Shields, 2004), yet Findeis et

al. (2001) observed that the timing and effects of business cycles are likely to differ between rural and urban labor markets. Periods of economic expansion are often less beneficial to many rural poor. Moreover, the Literacy Field Research Group (1995) found that the seasonal nature of rural farming work often precluded rural adults from obtaining necessary education. As a result, many rural adults lack the job-related motivation for participation in adult educational programs that may be more common among adults living and working in non-rural areas (Literacy Field Research Group, 1995; Sena, 1997).

### Lack of Adequate Supports

One of the most documented aspects of rural adult basic education is the lack of such support services as transportation and childcare. Researchers who have studied adult basic education programs have found significant distinctions between client needs and available support services (Pindus, 2001; Sexauer & Paul, 1989). King (2002) found that family constraints affected participation rates of younger rural GED program participants more than their urban counter-parts. The Literacy Field Research Group (1995) and the New England Literacy Resource Center (2005) both maintain that families not accessing adult or family literacy services often live in outlying areas where the lack of such services posed barriers to participation.

# Recruitment and Retention Challenges

Hibbard (2003) analyzed student recruitment patterns at a literacy council in Susquehanna County, Pennsylvania, and observed that "the overwhelming majority of learners that [sic] walk through the door live in the center of the county[,] leaving a void in the corners of the county" (p. 2). Sena (1997) described the relatively low percentage of those in a rural Pennsylvania county who accessed the agency's literacy services compared to those who needed such services (based on census data). Leto (1996) described challenges unique to rural areas when multiple agencies attempt to collaborate in order to address the adult basic educational needs of area residents.

Frankenburger (1999) investigated how teacher follow up on the absences of students might improve student retention in rural Clinton County, Pennsylvania. Kelly (1997) explored cooperative learning as a means of raising retention rates in GED classes in rural Pennsylvania. Webster (2000) researched whether offering scheduled group instruction

would result in increased student satisfaction, improved attendance, and higher test scores for students in a rural Pennsylvania program. Each of these latter three researchers found evidence supporting the use of strategies that seemed at least somewhat effective with rural adult basic education students in Pennsylvania.

### Learners' Expectations and Program Practices

Lucas (1985) carried out a literature review and conducted interviews with GED testing staff at both the state and national level. Lucas found that adults in rural Pennsylvania want to play a role in both planning and directing adult educational programs. They seek educational opportunities that would enable them to become change agents within their respective communities. Similarly, Capagrossi, Ewert, Deshler, and Greene (1994) report that effective rural literacy programs need to focus on more than building basic skills. Programs also needed to include activities that reduce stigma and promote leadership within local communities.

Bingman and White (1994) looked at three adult education programs in Appalachia. Using ethnographic research methods, they found that "organizations may be a powerful voice for community development and social change, but [they] still have very conventional literacy and adult education classes" (p. 281). Describing what they found to be a missed opportunity for adult basic education providers to tap into the connection of rural adults to their communities, Bingman and White (1994) conclude:

When adult education is practiced in a traditional, teacher-centered way and the people are involved only in education classes, they don't benefit from all the other kinds of learning resulting from active membership of the organization. People in these organizations have not had much experience being in situations where they are respected, thought of as leaders, share power. Democratically structured, student-centered classes focusing on community issues could be a place to gain such experiences. (p. 296)

Campbell (1996) studied five programs (four rural and one urban) in Alberta, Canada. Campbell found that social identity and relationships were often developed within the context of adult education programs although the programs in this study often neglected to live up to their potential to do so. Perez (2001) recounts how the needs of residents of a rural, poverty-stricken region of south Texas were not being met by traditional school offerings. Residents organized to create a community

center that would enable a "school without walls" to better meet their adult education needs. Finally, Vautrot (2004) also used ethnographic interviewing and observation to describe and analyze the perceptions of low literate adults living in an Appalachian mountain region regarding their nonparticipation in adult literacy programs. Vautrot found that individuals must have the expectation that the adult education program will provide certain skills and that these skills will affect the individual's ability to function successfully in current social roles and contexts. Additionally, the individual must have at least a margin of resources available that are relevant to the new learning task.

#### Discussion and Recommendations

Overall, the studies referenced above represent a relatively small research base: A total of 20 studies were examined. Most were qualitative in nature and, consequently, offer little generalizability beyond the immediate context in which they were conducted. Six of the 20 studies were conducted by Pennsylvania practitioners participating in the Learning from Practice initiative. Although their findings constitute professional wisdom—an integral component of evidence-based practice (Comings, Beder, Bingman, Reder, & Smith, 2003)—they were found to lack the rigor of studies conducted by more experienced researchers.

Thus, it is fair to say that there is a good deal of inconclusiveness surrounding what is actually known regarding adult basic education in rural settings. For instance, the "typical economic significance of adult education" (Tyler, 2002) appears to be experienced differently for adults in rural areas. This difference appears to be related to local economic conditions. The same appears to hold true for higher education (Center for Rural Pennsylvania, 2004b; Yan, 2002), although no research has yet explored this difference within the specific context of rural adult basic education. Practitioners then have little more than their own experience and the demands of policy makers to guide them in designing programs that will appeal to rural adult learners. The relatively few studies reviewed above suggest that the guidance of experience and policy may not be enough.

Six of these studies present evidence that practitioners have devoted time and effort to exploring ways to improve learner recruitment and retention in rural areas of Pennsylvania. While research bears out the fact that, in general, adults in rural areas experience a lack of supports

that might otherwise enable them to participate more fully in adult basic education activities, there is also evidence that adults may simply choose not to participate. The simple fact of the matter is that there is little empirical evidence to substantiate whether or not rural adults are deliberately opting not to participate. Nor is there even evidence that retention of adult learners is necessarily significantly better or worse in rural areas of Pennsylvania—or anywhere for that matter.

There does appear to be some localized evidence to support a hypothesis that rural learners appear to have very clear ideas about what constitutes relevant adult education programming. These ideas may have more of a local or community focus than is perhaps the case in less rural settings. At the same time, the same body of evidence suggests that adult education programs may minimize or ignore these ideas in the actual program activities they choose to provide.

Nevertheless, there have been no large scale studies of rural populations to discern what their adult education interests may or may not be. Thus, one has to wonder: to what extent are the needs and demands of rural learners distinct? To what extent do programs who provide more traditional types of adult basic education contribute to their own recruitment and retention challenges?

The rudimentary performance data analysis that was presented at the beginning of this study suggests that there may be performance gaps in the areas of market penetration and learner attrition between rural and non-rural counties. Do such gaps, in fact, exist? If so, to what can these performance gaps be attributed? Additionally, is there a performance gap between rural and non-rural adult learners in adult basic education?

While these questions may be of limited importance nationwide, in Pennsylvania, where 34 out of 67 counties are classified rural—and nearly one fifth of the residents of these counties lack a high school diploma—the issues are significant. At the same time, as the literature reviewed in this article suggests, there exists little scholarly research or documented professional wisdom to guide efforts and energies.

Clearly a natural recommendation to emerge from this study is that researchers need to provide the field with empirical evidence to guide program design as well as the expenditure of human and fiscal resources. In an era of increased accountability and threatening budget cuts, practitioners—and policy makers—are flying blind without such

research. In addition to the myriad of questions posed above, there are ample census and program performance data available for analysis.

Another area for investigation—not only by researchers, but also by practitioners and policy makers—is to look for the best practices in rural adult basic education. The literature review for this study found little evidence of published research on best practices, yet the question remains: What can be done to improve services under existing constraints of, and challenges to, rural adult basic education? The New England Literacy Resource Center website (http://www.nelrc.org) provides some indication that information is available. What else may be "out there" beyond the pages of scholarly journals, research conference proceedings, and learning-from-practice monographs?

While policy makers and practitioners in Pennsylvania (and, no doubt, in other rural areas) need the guidance that can emerge from an empirical research base, they also need to act now. The scope of rural adult basic education is broad. Where researchers have yet to fill in the void, professional wisdom will have to suffice. Thus, practitioners on the front line are called upon to seek out evidence of best practices in rural adult basic education and to put those practices to the test within the context of local programs. These experiences in rural adult basic education need to be added to the bank of professional wisdom available through Learning from Practice monographs. So, exactly what do we know about rural adult basic education in Pennsylvania? Clearly, not enough.

#### References

- American Council on Education. (2001). Who took the GED? GED 2000 statistical report. Washington, DC: American Council on Education.
- Artesani, A. J., & Brown, D. W. (1998). Special Education: Challenges for rural schools. *Journal of Research in Rural Education*, 14, 116-124.
- Baldwin, J. (1995). Who took the GED? GED 1994 Statistical report. Washington, DC: American Council on Education.
- Bingman, M. B., & White, C. (1994). Appalachian communities: Working to survive [Electronic version]. In J.P. Hautecoeur (Ed.), *Alpha 94: Literacy and cultural development strategies in rural areas* (pp. 281-298). Toronto, CA: Culture Concepts. (ERIC Document Reproduction Service No. ED386356).

Brasington, D.M. (2002). Differences in the production of education across regions and urban and rural areas. *Regional studies*, *36*, 137-145.

- Bruce, D. (2003). Good news, bad news on education attainment levels for rural Canada. Montreal, Canada: Concordia University, The New Rural Economy Project, Phase 2. Retrieve August 28, 2005, from http://nre.concordia.ca/\_ftp2004/in\_sites\_flyers/NRE InSites 27 David%20Bruce 10.PDF.
- Bushway, D. (2001). The *vitality of Latinos in rural communities in Minnesota*. Mankato, MN: University of Minnesota, Center for Rural Policy and Development.
- Campbell, P. (1996). Participatory literacy practice: Exploring social identity and relations. *Adult Basic Education*, *6*, 127-143.
- Capagrossi, D., Ewert, D. M., Deshler, D., & Greene, J. (1994). Literacy and community development. Community Development Reports: *Research Briefs & Case Studies* (Cornell Community and Rural Development Institute), 2(3), 1-11.
- Center for Rural Pennsylvania. (2003a, September/October). OMB's alternative definition for rural America. *Newsletter*, Article 5. Retrieved September 25, 2005 from http://www.ruralpa.org/news0903.html#5
- Center for Rural Pennsylvania. (2003b, July/August). *Education progress* report (Trends in Rural Pennsylvania Fact Sheet No. 4). Harrisburg, PA: Author. Retrieved August 25, 2005, from http://www.ruralpa.org/Trends\_in\_education.pdf
- Center for Rural Pennsylvania. (2004a, July/August). Former TANF recipients earning more, but still below poverty thresholds. *Newsletter*, Article 1. Retrieved September 26, 2005, from http://www.ruralpa.org/news0804.html#1
- Center for Rural Pennsylvania. (2004b, July/August). Rural Colleges and universities bring more to communities than just football. *Newsletter*, Article 5. Retrieved September 26, 2005, from http://www.ruralpa.org/news0804.html#5
- Center for Rural Pennsylvania. (2005). Trends in rural school enrollment: A 20 year perspective. Harrisburg, PA: Author. Retrieved August 25, 2005 from http://www.ruralpa.org/school enrollment projections.pdf

Comings, J.P., Beder, H., Bingman, B., Reder, S., & Smith, C. (2003). Establishing an evidence-based adult education system (NCSALL Occasional Paper). Cambridge, MA: National Center for the Study of Adult Literacy and Learning.

- Dean, G.J. (1997). Commonwealth of Pennsylvania's GED graduates' progress [Electronic version]. In R.E. Nolan & H. Chelesvig (Eds.), 38th Annual Adult Education Research Conference Proceedings. Stillwater, OK: Oklahoma State University. Retrieved August 31, 2005, from http://www.educ.ubc.ca/aerc/1997/97dean.htm
- Delmarva Education Foundation. (2003). A symposium on rural education: Proceedings. Salisbury, MD: Author.
- Economic Research Service. (2003). *Measuring rurality: What is rural?* Washington, DC: United States Department of Agriculture. Retrieved August 17, 2005, from http://www.ers.usda.gov/Briefings/Rurality/WhatisRural/
- Findeis, J. L., Henry, M., Hirschl, T. A., Lewis, W., Ortega-Sanchez, I., Peine, E. & Zimmerman, J. N. (2001). Welfare reform in rural America: A review of the current research. Columbia, MO: Rural Policy Research Institute.
- Frankenburger, L. (1999). Contacting students to raise retention rates: A 1998-99 PAARN monograph. Harrisburg, PA: Pennsylvania Department of Education, Bureau of Adult Basic and Literacy Education. Retrieved September 5, 2005, from http://www.able.state.pa.us/able/lib/able/lfp/lfp99frankenburger.pdf
- Hibbard, P. (2003). Using coffee hour presentations to spread literacy awareness throughout a rural county: A PALPIN inquiry project. Harrisburg, PA: Pennsylvania Department of Education, Bureau of Adult Basic and Literacy Education. Retrieved September 5, 2005, from http://www.able.state.pa.us/able/lib/able/lfp/lfp03hibbard.pdf
- Kallenback, S., & Viens, J. (Eds.). (2001). Multiple intelligences in practice: *Teacher research reports from the Multiple Intelligences Project* (NCSALL Occasional Paper). Boston, MA: National Center for the Study of Adult Literacy Learning.
- Kelly, M. J. (1997). Will cooperative learning affect GED retention? A 1996-97 PAARN monograph. Harrisburg, PA: Pennsylvania Department of Education, Bureau of Adult Basic and Literacy Education. Retrieved September 5, 2005, from http://www.able.state.ps.us/able/lib/able/lfp/lfp97kelly.pdf

King, C. (2002). Barriers affecting GED participation among recent high school dropouts. *Adult Basic Education*, 12, 145-156.

- Literacy Field Research Group. (1995). *Rural reflections* (Occasional Paper No. 2). Ottawa, Ontario, Canada: National Literacy Secretariat.
- Leto, L. (1996). Rural co-options for life long learning: A 353 final report. Harrisburg, PA: Pennsylvania Department of Education, Bureau of Adult Basic and Literacy Education.
- Lucas, G. (1985). Non-traditional community-based rural GED programming outreach efforts. Harrisburg, PA: Pennsylvania Department of Education. (ERIC Document Reproduction Service No. ED254678)
- Martin, N. K., & Yin, Z. (1999). Beliefs regarding classroom management style: Differences between urban and rural secondary level teachers. *Journal of Research in Rural Education*, 15, 101-105.
- New England Literacy Resource Center. (2005). *Promising practices:* A collaborative approach to adult and family literacy in a rural area. Boston, MA: Author. Retrieved September 25, 2005, from http://www.nelrc.org/practice/rural.html
- Pennsylvania Department of Education. (2005). *Urban/rural* classification of schools and local education agencies (*LEAs*). Harrisburg, PA: Author. Retrieved September 9, 2005, from http://www.pde.state.pa.us/k12statistics/cwp/view.asp?a=3&p=108125
- Perez, R. (2001). Northwest Edinburg Community Resource Center: A successful model for colonial resident empowerment. In L. Berry (Ed.), Proceedings of the International Conference of the National Association of African American Studies, the National Association of Hispanic and Latino American Studies, the national Association of Native American Studies, and the International Association of Asian Studies (pp.352-376). Biddeford, ME: NAAAS, NAHLS, NANAS, IAAS. (ERIC Document Reproduction Service No. ED475912)
- Phillips, S. K. (2003). Racial Identity and rural schools: A qualitative study of white teachers' multicultural perceptions, understandings, and teaching practices. Unpublished doctoral dissertation, Indiana University of Pennsylvania, Indiana, PA.

Pindus, M. N. (2001). *Implementing welfare reform in rural communities*. Washington, DC: The Urban Institute.

- Rural Assistance Center. (2005). *Rural education at a glance*. Grand Folks, ND: Author. Retrieved September 24, 2005, from http://www.raconline.org/info\_guides/schools/#docs
- Sena, L. (1997). How to recruit students in a rural area: A PALPIN inquiry project. Harrisburg, PA: Pennsylvania Department of Education, Bureau of Adult Basic and Literacy Education. Retrieved August 27, 2005, from http://www.able.state.pa.us/able/lib/able/lfp/lfp97sena.pdf
- Sexauer, C. B., & Paul, T. (1989). Designing delivery systems for adult education in rural areas. Harrisburg, PA: Pennsylvania Department of Education. (ERIC Document Reproduction Service No. ED324438)
- Shields, M. (2004). Rural Pennsylvania in the new economy: Identifying the causes of growth and developing new opportunities. Harrisburg, PA: Center for Rural Pennsylvania. Retrieved August 25, 2005, from http://www.ruralpa.org/new\_economy.pdf
- Tyler, J. (2002). *The economic benefits of the GED: A research synthesis* (A NCSALL Research Brief). Cambridge, MA: National Center for the Study of Adult Literacy and Learning.
- Vautrot, L. D. (2004). Why don't they come? Perceptions of illiterate adults in an Appalachian Mountain region regarding nonparticipation in adult literacy programs. Unpublished doctoral dissertations, University of New Orleans, Louisiana.
- Webster, S. (2000). Will offering a six-week English mechanics class to rural ABE/GED students increase student satisfaction and improve test scores on the grammar portion of the pre-GED writing skills test? A 1999-2000 PAARN Monograph. Harrisburg, PA: Pennsylvania Department of Education, Bureau of Adult Basic and Literacy Education. Retrieved August 27, 2005, from http://www.able.state.pa.us/able/lib/able/lfp/lfp00webster.pdf
- Yan, W. (2002). Postsecondary enrollment and persistence of students from rural Pennsylvania. Harrisburg, PA: Center for Rural Pennsylvania. Retrieved August 25, 2005, from http://www.ruralpa.org/Postsecondary\_Ed.pdf