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## ABSTRACT

The Kentucky Adult Literacy Survey, which was based on the National Adult Literacy Survey (NALS), was conducted to determine the prose, document, and quantitative literacy levels of the state's adult population. Trained interviewers conducted hour-long interviews with 1,492 Kentucky citizens between the ages of 16 and 65 who had been selected through a random sample that was stratified by region to produce a statewide sample drawn from the state's five geographic regions. Respondents completed a literacy skills assessment instrument and answered questions regarding their background characteristics. Respondents' levels of prose, document, and quantitative literacy were rated from 0 to 500 (with scores of 0-225, 226-275, 276-325, 326-375, and 376-500 corresponding to levels 1-5 of literacy proficiency). The respective prose, document, and quantitative literacy proficiencies of all Kentucky adults averaged 286, 284, and 280 (versus average proficiency levels of 272, 267, and 271 measured by the NALS for the entire U.S. adult population, including senior citizens). Of those surveyed, approximately 14% had no or virtually no literacy skills. It was estimated that an additional 656,000 Kentucky adults have low literacy skill levels that are likely to impede their personal advancement. Literacy proficiencies were related to educational attainment, parental encouragement, and social background. (MN)

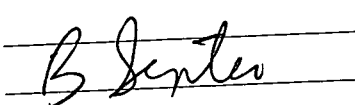
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# ADULT LITERACY IN KENTUCKY

## A Report on the Kentucky Adult Literacy Survey

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February 1997

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ADULT EDUCATION  CHANGING LIVES



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RODNEY S. CAIN  
SECRETARY

February 12, 1997

*Governor Paul E. Patton and Citizens of the Commonwealth:*

I am pleased to present to you the Kentucky Adult Literacy Survey, the first survey to gauge the levels of literacy of the people of this state. In the past, we have been able to measure how many people graduated from high school, or graduated from college, or reached some other benchmark. Unfortunately, a credential does not always translate into true literacy, so the Kentucky Adult Literacy Survey gives us our first accurate look at how literate we are.

This survey — funded and planned by the Department for Adult Education and Literacy, Cabinet for Workforce Development, and executed by the Martin School of Public Policy and Administration at the University of Kentucky — included interviews of approximately 1,500 residents of Kentucky. It follows the model of the National Adult Literacy Survey. Taken together, the two documents paint for us a picture of Kentuckians' literacy and how we compare with residents of the Southeast and with all Americans.

What does the Kentucky Adult Literacy Survey tell us? Literacy can be measured in several ways, and it involves more than simply the ability to read. Literacy, by definition, is the ability to use information to function in society, to achieve our goals, and to develop our knowledge and potential.

The Kentucky Adult Literacy Survey demonstrates that our state has the potential to compete with its sister states in the Southeast and across the nation. Nonetheless, too many Kentuckians function at literacy levels that make it difficult for them to hold good jobs or succeed in our increasingly complex society.

The survey also underscores some of the reasons that all of us should strive to be as literate as we can be. A person's earning power directly correlates to his or her degree of literacy. People who are literate are more likely to vote. People who are literate and involved in the educations of their children are more likely to see their children do well in school.

The Kentucky Adult Literacy Survey tells us where we are in terms of literacy in Kentucky, and it begins the public policy debate on where we should go from here. The Cabinet for Workforce Development looks forward to participating in that debate and helping to work toward solutions that will improve the literacy levels of all Kentuckians.

*Sincerely,*

Rodney "Biz" Cain, Secretary  
Cabinet for Workforce Development

## Executive Summary

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The Kentucky Department for Adult Education and Literacy, Cabinet for Workforce Development, commissioned the Kentucky Adult Literacy Survey to obtain accurate information about literacy levels of Kentucky's adult population. The survey was designed to determine literacy levels, provide information about their distribution in the population, and analyze the determinants and consequences of literacy. Information from the survey will be used to plan programs to improve the literacy levels of the population and foster the economic development of the Commonwealth.

*The literacy survey provides information about*

- literacy proficiencies of the population,
- the characteristics of those who lack literacy skills, and
- the distribution of literacy problems around the state.

*This information will facilitate decision making about*

- the level of funding required to raise the literacy levels of the population,
- segments of the population to target for services, and
- how to allocate funding to produce the greatest impact.

*Support for these literacy development activities will*

- allow citizens to improve their economic well-being,
- enhance Kentucky's appeal to enterprises seeking a highly skilled workforce,
- foster higher levels of active citizenship, and
- enable more Kentucky parents to properly support the education of their children.

## The Meaning of Literacy

The Kentucky Adult Literacy Survey is based on the National Adult Literacy Survey (NALS). Both surveys used this definition of literacy, which recognizes that literacy has several dimensions and varies in degree:

*Using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential.*

The literacy instrument employed in the study captures three dimensions of literacy: prose, document, and quantitative. Prose literacy involves the knowledge and skill to understand and use information that is contained in prose format, such as news stories, reports, books, and poems. Document literacy is the knowledge and skill to find and use information in documents like job applications, maps, schedules, and payroll forms. Quantitative literacy is the knowledge and skill to locate numbers contained in printed material and apply arithmetic operations either alone or sequentially to do things like balance a check book, complete an order form, figure the interest from a loan application, or similar activities.

Literacy is not an either/or proposition. People possess it in varying degrees, and the degree of an individual's literacy proficiency can change over time. Recognizing this, the Kentucky Adult Literacy Survey recognizes five general levels of literacy proficiency along each of the dimensions: prose, document, and quantitative.

Individuals at Level 1 have no or minimal literacy skills. They may not be able to read at all or they may be able to locate only a single piece of information in a simple text. As the complexity of tasks that the individual can complete increases, so does the level of literacy. At Level 5, the highest level of literacy proficiency, individuals are able to extract and use complex information for various purposes.

## The Literacy Survey

The Martin School of Public Policy and Administration at the University of Kentucky completed interviews with 1,492 citizens of Kentucky between the ages of 16 and 65 to determine literacy levels in the state. The respondents were selected through a

random sample stratified by region to produce a statewide sample drawn from five geographic regions of the state: Northern Kentucky, the Bluegrass region, Eastern Kentucky, the Louisville area, and Western Kentucky. The interviews were conducted by trained interviewers in the subjects' homes. The interviews lasted an hour each, on average. Each subject was asked to complete a literacy skills assessment instrument and respond to a series of questions about background characteristics.

The Kentucky Adult Literacy Survey provides useful information about the literacy skills of Kentucky's adult population. The survey provides detailed information about the literacy levels of the population and the distribution of literacy skills among population groups and across the state.

The Kentucky Adult Literacy Survey (KALS) is based on the same instruments that were used to measure literacy across the United States in the National Adult Literacy Survey. The instruments measure literacy along three dimensions: prose, document, and quantitative. The data were prepared by Educational Testing Service and analyzed by the Martin School.

The survey provides average literacy proficiencies along the three dimensions for the adult population, as well as for subgroups of the population. It also tells us what percentage of Kentuckians perform at each of five levels of literacy proficiency. Scores on the three dimensions range from 0 to 500. Level 1 encompasses scores from 0 to 225; Level 2 is 226 to 275; Level 3 is 276 to 325; Level 4 is 326 to 375; and Level 5 is 376 to 500.

## **The Literacy Skills of Kentucky Adults**

What do the numbers tell us? First of all, they tell us that the average literacy levels of Kentucky's population are competitive with literacy levels of all Americans and of residents of the Southeast United States.

According to the Kentucky Adult Literacy Survey and the National Adult Literacy Survey (which measured the Southeast as well as the nation), the average prose proficiency of Kentucky adults is 286, compared to 267 for the Southeast and 272 for the nation. The average document proficiency in Kentucky is 284, compared to 262 in the

Southeast and 267 in the nation. The average quantitative literacy proficiency is 280 in Kentucky, 265 in the Southeast, and 271 for the country as a whole.

This translates into more Kentuckians performing at high levels of proficiency compared to adults in the Southeast or the nation. Fifty-nine percent of Kentuckians perform at the three highest levels of prose proficiency, compared with 48 percent in the Southeast and 52 percent nationwide. Fifty-eight percent of Kentuckians perform at the three highest levels of document proficiency, compared to 45 percent in the Southeast and 49 percent nationwide. And 56 percent of Kentuckians score at the three highest levels in quantitative proficiency, compared to 48 percent in the Southeast and 52 percent nationwide.

Part of the reason that average literacy levels in Kentucky as measured by the KALS exceed those of the nation and Southeast as measured by the NALS is that the national survey included senior citizens, while the Kentucky survey did not. Kentucky surveyed only those ages 16-64 because it wanted to focus its survey on the population generally considered to be working age.

When only the population ages 16-64 is examined, Kentucky's average literacy proficiencies still exceed national averages, but by smaller margins. In prose proficiency, the national average for people ages 16-64 is 280, while the Kentucky average is 286. In document proficiency, the national average for people ages 16-64 is 276, and the state average is 285. In quantitative proficiency, the national average for people ages 16-64 is 279, and the Kentucky average is 280.

The numbers found in the Kentucky Adult Literacy Survey generally should be good news to those whose job it is to promote Kentucky and its work force to employers around the globe. But the numbers also mean that Kentucky faces significant challenges.

For example, even though Kentucky's average literacy proficiency is higher than that of the Southeast and of the nation, 14 percent of Kentucky adults have a prose literacy proficiency at Level 1. Another 26 percent of Kentucky adults are at Level 2. For document literacy, 13 percent of Kentucky adults are at Level 1, and 29 percent at Level 2. And 16 percent of Kentucky adults have a quantitative literacy proficiency at Level 1, with another 28 percent at Level 2.

Those numbers mean that about 14 percent of Kentucky adults on average have no or virtually no literacy skills. In other words, about 340,000 Kentuckians lack the minimal skills needed to function effectively in the marketplace, the workplace, the home and the community. Another 556,000 on average have low levels of skills that are likely to impede their personal advancement and the development of the state's economy.

Those numbers illustrate our challenges, and the Kentucky Adult Literacy Survey will help the Department for Adult Education and Literacy determine how best to meet those challenges. But it is encouraging to note that Kentucky has fewer residents performing at the lowest literacy levels than do the nation and the Southeast. For example, 14 percent of Kentuckians are at Level 1 of prose proficiency, compared to 23 percent in the Southeast and 21 percent nationally.

Just as literacy levels vary across the United States, they vary across the regions of Kentucky. Average proficiencies are highest in the Bluegrass region surrounding Lexington and lowest in Eastern Kentucky. Average prose proficiency, for example, is 303 in the Bluegrass and 264 in Eastern Kentucky. On that dimension, the Louisville area is at 294, Northern Kentucky is at 285, and Western Kentucky is at 282.

## **Educational Attainment, Parental Encouragement and Social Background**

The survey reveals that literacy proficiencies are related to educational attainment, parental encouragement and social background.

The effect of education is dramatic. Average prose proficiency ranges from 185 for those with zero to eight years of schooling to 284 for those with a high school diploma to 345 for those with a four-year college degree or more.

Studying for and attaining a general equivalency degree (GED) makes a significant difference. High school dropouts who have not studied for the GED have an average prose proficiency of 201; those who studied for it but did not receive it have an average proficiency of 241; the average for those who have received the GED is 273.

Parental influences are significant. Individuals who were read to by their parents as children, who had their parents' help with homework, and whose parents met with their



teachers and were members of the parent-teacher organization have higher proficiency scores. Children who grew up in homes where there were newspapers, books, magazines, dictionaries, and encyclopedias have higher literacy proficiencies.

Blacks scored lower than whites on the Kentucky survey, just as blacks scored lower than whites on the national survey. The average prose proficiency of whites on the Kentucky survey is 289, compared to 238 for blacks.

Individuals with disabilities, whether physical or mental, have lower proficiency levels than those without disabilities.

There are no differences by gender in the Kentucky survey.

### **Literacy and Economic Well-Being**

Literacy affects the economic well-being of Kentuckians. Individuals who have higher literacy levels experience less unemployment and are more likely to have full-time jobs. Literacy has a significant impact on wages. Kentucky adults who are at prose proficiency Level 1 have median weekly wages of \$248, compared to \$348 for those at Level 3 and \$583 for those at Level 5.

Lower levels of literacy proficiency are associated with higher levels of poverty and welfare dependency. Sixty-five percent of Kentucky adults who are at prose proficiency Level 1 are poor or near poor as defined by the U.S. Census Bureau. This is true for 16 percent at Level 3 and 4 percent at Level 5. In a similar manner, 46 percent of those at prose Level 1 receive public assistance in the form of food stamps, welfare, or Supplemental Security Income. Thirteen percent of those at Level 3 receive public assistance, as do 1 percent of those at Level 5.

### **Social Involvement, Information Use, and Helping Children Learn**

Literacy also affects social involvement, the ways people obtain information, and family relationships. For example, there is a strong relationship between literacy and voter participation. Forty-eight percent of those at prose proficiency Level 1 voted in the past five years, compared to 64 percent of those at Level 3 and 93 percent of those at Level 5.

Across a range of written materials, Kentucky adults with lower literacy

proficiencies make less use of most information resources: letters and memos, reports and articles, reference books, catalogs, directions, diagrams, spreadsheets, and forms. Those who read the newspaper frequently have higher scores than those who seldom or never read it. Those with higher scores read more magazines and books, and make greater use of libraries. They also watch less television.

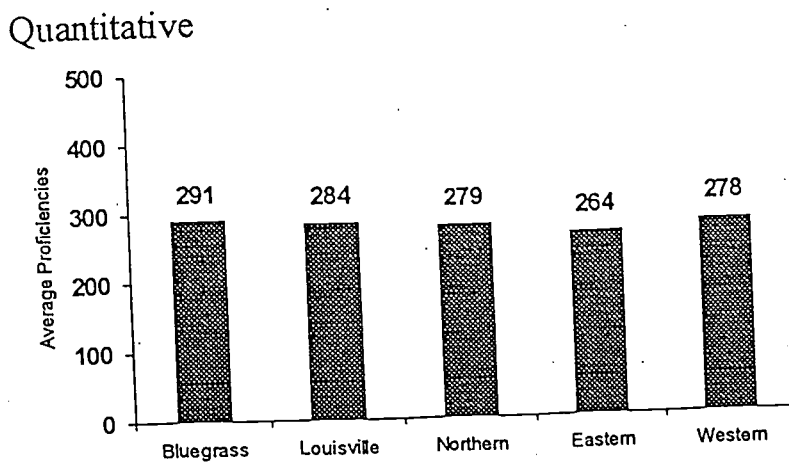
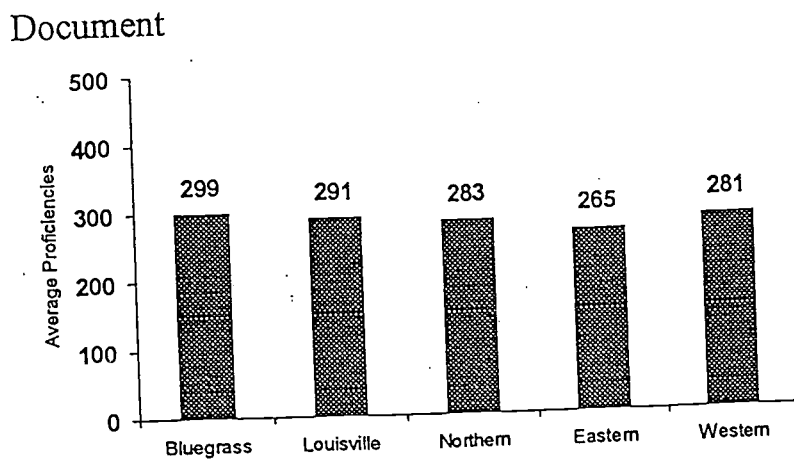
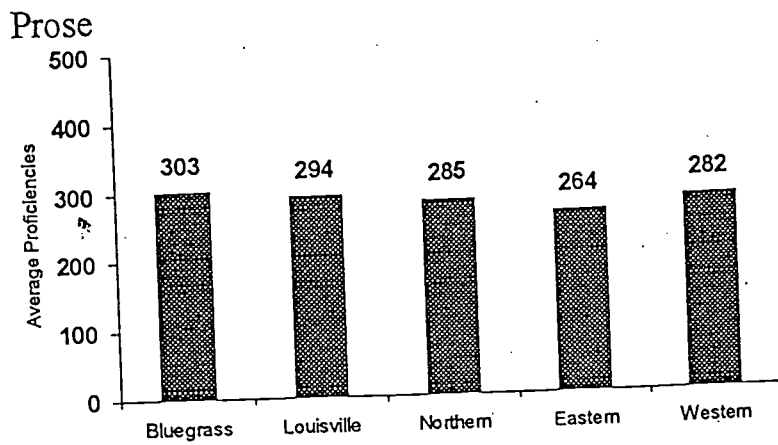
Eight percent of Kentucky adults never or almost never read to their children under the age of 6. In addition, those with lower literacy levels are less likely to keep newspapers, magazines or books in the home. Thus, they run the risk of discouraging literacy development in their own children.

## Distribution of Literacy Among Kentucky's Regions

For purposes of this study, the sample was stratified into five Kentucky regions: Northern Kentucky, the Lexington metropolitan area, the Louisville metropolitan area, Eastern Kentucky, and Western Kentucky. These regions were selected to reflect significant population concentrations and economic differences. The stratified sample allows us to make valid, reliable comparisons of literacy proficiency in these different areas of the state.

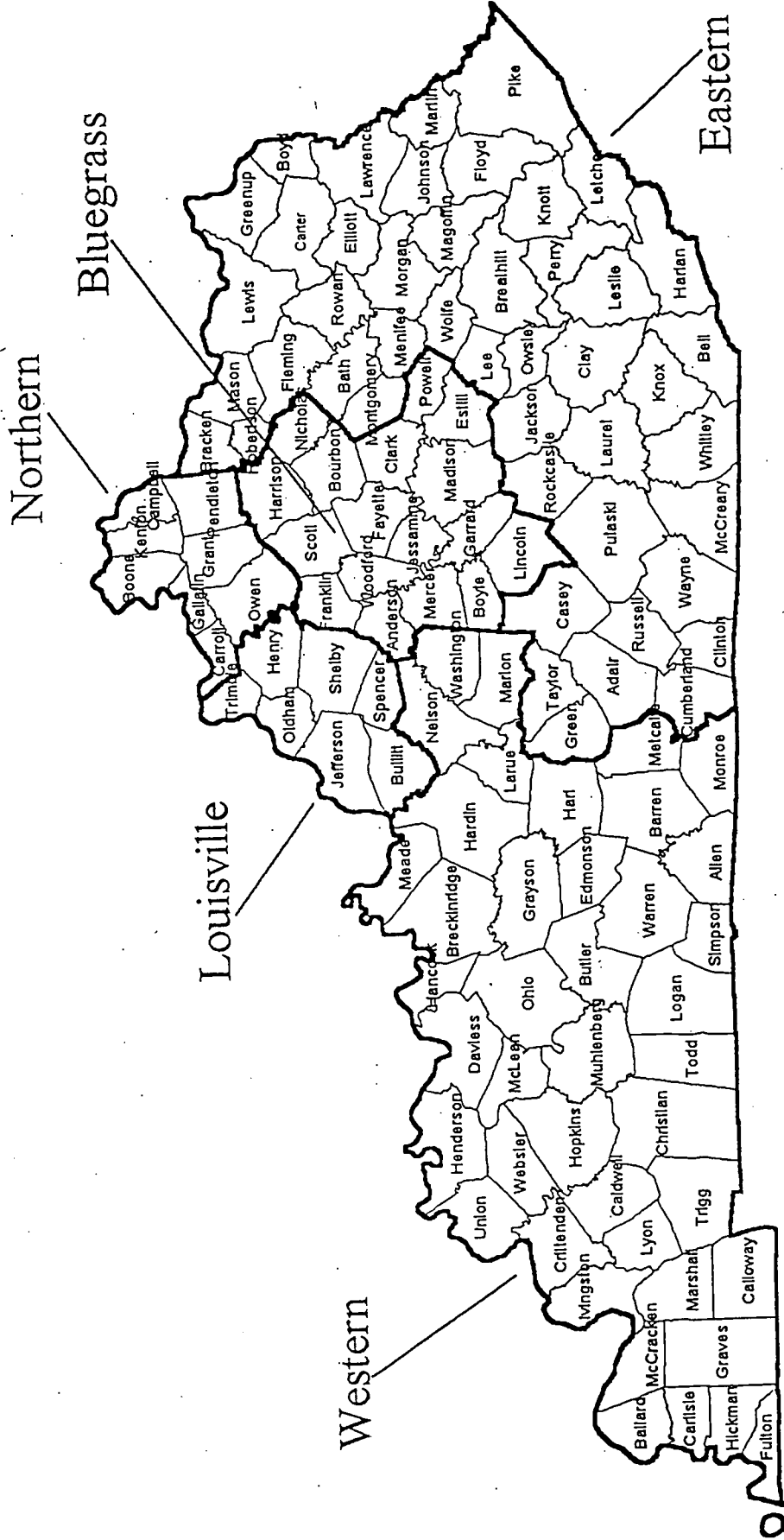
The differences in average proficiencies across the five regions seem to be consistent with economic and educational differences among the regions. As Figure 2 demonstrates, the population of the Bluegrass region around Lexington has the highest average proficiency among the five regions on each of the three measures. It is followed by Louisville and then northern Kentucky. The population of Eastern Kentucky has the lowest average proficiencies; the scores there are well below those of Western Kentucky. On prose literacy, for example, the averages are as follows: Bluegrass, 302; Louisville area, 294; Northern Kentucky, 285; Western Kentucky, 282; and Eastern Kentucky, 264.

# Figure 2: Average Kentucky Prose, Document, and Quantitative Proficiency by Region



Kentucky Adult Literacy Survey, 1995

# KENTUCKY REGIONS



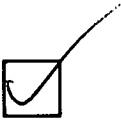


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