

66%: THE SOURCE OF THE STATISTIC

Prepared by Dr. Carmine Stewart
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The Source of the Statistic

The question posed was, “What was the source of the statistic that 66% of Cleveland’s adults are functionally illiterate?”

The initial statistic came from the the *Case Western Reserve University Report, Literacy Needs Assessment Technical Report for Cuyahoga County* (Mikelbank, Nelson, Lickfelt, & Coulton, 2004). This report, commissioned by the Literacy Collaborative of Greater Cleveland, was designed to provide updated information on literacy levels in Cuyahoga County based on an initial study conducted by Stephen Reder in 1997.

When Mikelbank et al. analyzed data at the neighborhood level,

- 13 out of 36 Cleveland neighborhoods had mean literacy proficiency estimates in the Level 1 range, and 20 were in the Level 2 range; so 33 out of 36 neighborhoods had mean proficiency estimates below Level 2.
- Three neighborhoods were in the Level 3 range.
- No neighborhoods had mean literacy proficiency estimates in the upper levels (Levels 4 and 5).
- The percent of the population ages 16 and over within the two lowest levels of literacy proficiency was 69%, but looking at the 3-year estimate for the years 2005-2007, the estimate was 66%.

About the Source Study

In 1992 the United States Department of Education commissioned the *National Adult Literacy Survey* (NALS), which used a nationally representative sample of 13,600 adults ages 16 years and older. They also used a *State Adult Literacy Survey*, (SALS-identical to the national survey) which included surveys of 1,000 adults ages 16 and older from 12 states, including Ohio. In 1997 Dr. Stephen Reder (Portland State University) developed a mathematical model using national level data to provide estimates of literacy levels at the state and county levels using the aggregate characteristics (race, educational attainment, English proficiency, immigration status, etc.) of individuals in each county or state, the NALS data, SALS data, and Census data. Mikelbank et al. sought to update Dr. Reder’s derived estimates for Cuyahoga County using US Census data from 2000.

About the Model

Dr. Reder’s model was developed in 1997. Applying that model in 2004 assumes that the impact of each of the variables used in the model have the same impact on literacy in 2004 as they did in years prior. The authors note that the reliability of predictions for areas with populations less than 5,000 (like specific neighborhoods) are less reliable. These analyses

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provide more information about the factors that predict literacy, than it does about individuals' literacy levels, but barring conducting a citywide, countywide, or statewide survey, it provides the best estimate of literacy levels in the City, County, and State. In 2003 the United States Department of Education created a revised NALS assessment, the National Assessment of Adult Literacy (NAAL), to evaluate adult literacy rates. **These more recent data were not available for use in this analysis. This underscores the need for more funding for studies of adult literacy levels.**

About the NALS & Literacy Levels

The NALS analyzed proficiency in each participant's ability to locate information in texts (prose i.e. newspaper article, documents i.e. bill or bus schedule, and quantitative i.e. tasks requiring respondents to perform arithmetic), eliminate irrelevant information, integrate information located in different areas of the source texts, and write new information related to the text. Each area (prose, document, and quantitative literacy) was measured on separate scales based on scores from 0-500, and the scores were separated into 5 performance levels, developed retroactively (after test items were developed).

Definitions of Levels 1 and 2

The U.S. Department of Education provided the following descriptions of Literacy Levels 1 and 2:

Level 1

- Prose Literacy- Read short text to locate a single piece of easily identifiable information.
- Document Literacy-Locate a piece of information based on a literal match; enter personal information into a document.
- Quantitative Literacy- Perform single, simple arithmetic operations such as addition, using provided numbers and specific operations.

Level 2

- Prose Literacy- Locate a single piece of information with distractors present; make low-level inferences; compare and contrast easily identifiable information.
- Document Literacy-Match a single piece of information with a distractor present; make low-level inferences; cycle through information or integrate data from parts of a document.
- Quantitative Literacy- Perform a single operation using numbers provided or easily located; determine the operation to be performed from the format of the material.

These are very basic skills that do not require comprehension of text, or deep understanding of mathematical concepts. Level 3 proficiency is what postsecondary institutions and employers consider to be a minimum requirement for admission and employment.

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Level 2 and the High School Diploma

It is important to note that the intention of the NALS was to describe the “functional literacy” skills of adults (skills that they might encounter in their daily lives), not to determine an “adequate,” or “minimum” proficiency level. The “test development process did not involve identifying the level of skills adults need to function adequately in society. (National Research Council, 2005).” The purpose of the NALS was simply to describe the skills of adults, to provide a way to describe those skills, and to communicate the percentage of adults who were within each performance level.

The statement from the *Executive Summary of the Literacy Needs Assessment Technical Report for Cuyahoga County* that “a high school diploma is associated with Level 2” is derived from correlation analyses based on the highest education level attained by respondents in the 1992 NALS survey, where the mean proficiency scores were 271, 275, and 276 for document, quantitative, and prose literacy respectively based on a nationally representative sample. This correlation assumes that the skills associated with attaining a high school diploma are standard nationally.

Research studies documenting the achievement gap in racially and socioeconomically diverse neighborhoods demonstrate that this is not the case. Even if this was true in 2004, it is not true now that the Common Core was adopted in 2010, increasing the rigor of the high school curriculum to promote a national standard that is internationally competitive, with a similar update to high school equivalency standards in 2014. The designers of the NALS do not make the correlation that Level 2 is correlated with a high school diploma in 1992, and a careful read of the level descriptors themselves do not support this correlation. There are many adults who come to adult literacy programs who are able to read a passage, locate key words in the questions, locate those same key words in the passage, and answer questions correctly without comprehending any of the passage that they have read. These are adults who are functioning at a Level 2; adults who function well below what we would expect from a high school graduate.

Literacy, Illiteracy, and Functional Illiteracy

Section 3 of the National Literacy Act of 1991 (P.L. 102-73) defines literacy as an individual's ability to read, write, and speak in English, and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goals, and develop one's knowledge and potential. Conversely the inability to do these things is illiteracy.

Functional Illiteracy was defined by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in 1978 as follows:

A person is functionally literate who can engage in all those activities in which literacy is required for effective functioning of his group and community and also for enabling him

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to continue to use reading, writing, and calculation for his own and the community's development.

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The definitions of level 1 and 2 are exactly the same as functionally illiterate. These are the adults who manage to navigate through life without the ability to comprehend prose. Sometimes this means managing to make sense out of information because they can identify key words or locate single pieces of information, and sometimes this means finding surrogate readers to provide them with the information that they need but are unable to glean from connected text on their own. **These are people who are incredibly intelligent, but lack the skills to apply that intelligence to achieve their personal and professional goals.** They are not able to read, write, and speak well enough for their own development or the development of the community. Some of these adults do hold high school diplomas, but most of these adults experience real consequences from not being truly literate.

From the students at Seeds of Literacy alone we can provide examples of students who test at an "tenth or eleventh grade level" on the Test of Adult Basic Education (TABE) who cannot understand passages that they have read, cannot put those passages in their own words, and who lack foundational reading skills like word attack, using context clues, or even using phonics to sound out unfamiliar words.

The Bottom Line

The 66% estimate is the absolute best estimate that is available, and the higher neighborhood estimates seem to hold true for the students who are coming through our doors, particularly in the Mt. Pleasant neighborhood.

Best estimates are all we have to work with; we hope that increased awareness of adult literacy's data desert leads to funding current research on adult literacy levels.

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