Established in 2006 to address the complexities of literacy issues through a common agenda, shared measurement, and mutually reinforcing activities.

• Increase awareness of the implications of low literacy

• Sponsor evidence-based pilots and demonstration projects as a joint approach to prove effectiveness.

• Became a 501 (C) 3 nonprofit entity in the summer of 2009.
The Literacy Dashboard:

- Annual assessment to provide accurate, relevant and compelling data
  
  - Children
    - Track Kindergarten Readiness
    - Analyze high quality pre-school enrollment
  
  - Adults
    - Track the number without a high school diploma or equivalent
    - Analyze trends in Aspire program enrollment and progression
Our goals:

• Clearly convey costs and consequences of the status quo

• Highlight strategies and programs that are producing measurable results

• Inform agencies that provide literacy services

• Strengthen public policies that result in increased literacy

• Increase funder support of effective strategies and programs
The Literacy Cycle

**Adult Literacy**
- 435,000 or 44% of adults in Cuyahoga County are below an 8th grade reading level. 101,226 do not have a high school diploma.

**Kindergarten Readiness**
- 3,876 or 42% of children in the county are not adequately prepared for kindergarten.

**The Literacy Cycle in Cuyahoga County**

**High School Graduation**
- 1,393 or 12% of High School students in the county failed to graduate within 4 years in 2019.

**3rd Grade Reading**
- 3,600 or 36% of 3rd graders in the county are not considered proficient in reading, however 93% met the 3rd grade reading promotion threshold.

Source: Ohio Department of Education 2018-19 school year and CWRU Center on Urban Poverty and Community Development
Children
Kindergarten Readiness (2018-2019)

• 42% of incoming kindergarten students in Cuyahoga County are “not on track”
Number of incoming kindergarten students who are "not on track"

Cleveland Metropolitan School District: 1,779
Inner Ring Suburb Districts: 1,504
Outer Ring Districts in Cuyahoga: 511

Cleveland Metropolitan School District: 61%
Inner Ring Suburb School Districts: 39%
Outer Ring School Districts: 20%

Percent of incoming kindergarten students who are “not on track”
• Children enrolled in Dolly Parton’s Imagination Library receive a free, brand new, high quality, age-appropriate book mailed to them at home every month until they turn 5.

• Currently, more than 28,000 children in Cuyahoga County are enrolled, fostering a love of books, reading and learning.

• Imagination Library provides a connection to a family
The Center for Community Solutions compiled the results of a participant survey of Imagination Library families conducted fall 2020.

- 62% read to their children more often. 71% in higher poverty zip codes

- 67% of parents said their children have been asking to be read to more often since starting the Imagination Library program. 74% in higher poverty zip codes

- 91% believe DPIL is helping their child better prepare for kindergarten. 93% in higher poverty zips.

- 54% in high poverty zips report that DPIL books make-up 50% or more of home library.

- 93% report their child is sometimes or often using new words learned through books. 94% in higher poverty zip codes.
Adults
Change in Percent of Adults Without a High School Diploma, 2012 to 2017

- **Age 18-24**: 20.8% (2012) vs. 14.0% (2017)
- **Age 35-44**: 8.4% (2012) vs. 9.1% (2017)
- **Total**: 13.6% (2012) vs. 10.0% (2017)

Source: Educational Attainment 2012, 2017 American Community Survey 1-year estimate for Cuyahoga County
As Educational Attainment Rises, So Does Income

Source: 2019 American Community Survey 5-year estimates
The Program for the International Assessment of Adult Competencies (PIAAC)

- Cyclical, large-scale study
- Developed through the Organization for Economic Cooperation and Development (OECD).
- Focuses on workplace skills needed for 21st-century society and the global economy.
State and County Indicators of Literacy and Numeracy


- Using small area estimation models, indirect estimates of literacy and numeracy proficiency were produced (U.S. Skills Map)

- Skills Map data uses PIAAC survey data combined with American Community Survey data.
U.S. Skills Map: State and County Indicators of Adult Literacy and Numeracy

Map of Percentage At or Below Level 1 Literacy

MAP FILTER
County
- Find counties
State
- Literacy
- Numeracy

Percentages
Select options below to filter data on the map. Hover or tap on info icons to learn more.
- At or Below Level 1
- At Level 2
- At or Above Level 3
- Average Scale Score

Compare Counties
- Download Data

Percentage at proficiency level
0% - 77%

https://nces.ed.gov/surveys/piaac/skillmap/
Adults at the upper end of this range can read and understand short texts in print or online well enough to complete simple tasks like filling out forms. These adults can add, subtract, multiply, and divide to do basic, one-step calculations. Adults at this level can have difficulties using or comprehending print material and may only be able to count, sort, and do basic mathematical operations. Adults at the lower end of this range may be considered functionally illiterate or innumerate.

Adults in this range can read print and digital texts, relate multiple pieces of information within or across a couple documents, compare and contrast, and draw simple inferences. They can navigate in a digital environment to access information. These adults can successfully perform tasks requiring calculations with decimals, fractions, and percentages. They can do simple measurements and interpret simple data in texts, tables, and graphs. Adults at this level may still struggle to perform tasks with text-based information or with more complicated mathematical problem solving.

Adults in this range can work with information and ideas in text. They can understand, interpret, and synthesize information across multiple, complex texts and can assess the reliability of information and the meaning of complex ideas. These adults can recognize mathematical relationships and apply proportions. They can understand abstract representations of mathematical concepts and can engage in complex reasoning about data. Adults at this level have a higher range of literacy and mathematical problem-solving skills.

The applicability of these levels to any specific occupation is based upon the skill levels required for that occupation and anyone using these scores for occupational coaching should carefully consider the competencies outlined at each level compared to those articulated for the job.

Source: U.S. PIAAC Skills Map, estimates rely on data from 2012, 2014, and 2017; data analysis and compilation by The Center for Community Solutions
More than half of adults in Cuyahoga County are less than proficient in literacy and/or numeracy.

How does Cuyahoga County Compare?

**Literacy Levels**

- **Cuyahoga**: 21%, 33%, 45%
- **Ohio**: 18%, 37%, 46%
- **National**: 22%, 32%, 46%

**Numeracy Levels**

- **Cuyahoga**: 34%, 30%, 36%
- **Ohio**: 29%, 36%, 35%
- **National**: 32%, 32%, 36%

Note: Percentages may not total to 100% due to rounding.
Literacy and Numeracy Levels in Northeast Ohio Counties

### Literacy Levels

<table>
<thead>
<tr>
<th>County</th>
<th>10%</th>
<th>35%</th>
<th>55%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuyahoga</td>
<td>21%</td>
<td>33%</td>
<td>45%</td>
</tr>
<tr>
<td>Lorain</td>
<td>18%</td>
<td>35%</td>
<td>47%</td>
</tr>
<tr>
<td>Summit</td>
<td>16%</td>
<td>35%</td>
<td>49%</td>
</tr>
<tr>
<td>Portage</td>
<td>15%</td>
<td>39%</td>
<td>46%</td>
</tr>
<tr>
<td>Lake</td>
<td>13%</td>
<td>36%</td>
<td>51%</td>
</tr>
<tr>
<td>Geauga</td>
<td>12%</td>
<td>32%</td>
<td>56%</td>
</tr>
<tr>
<td>Medina</td>
<td>10%</td>
<td>35%</td>
<td>55%</td>
</tr>
</tbody>
</table>

### Numeracy Levels

<table>
<thead>
<tr>
<th>County</th>
<th>10%</th>
<th>35%</th>
<th>43%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuyahoga</td>
<td>34%</td>
<td>30%</td>
<td>36%</td>
</tr>
<tr>
<td>Lorain</td>
<td>28%</td>
<td>35%</td>
<td>37%</td>
</tr>
<tr>
<td>Summit</td>
<td>27%</td>
<td>35%</td>
<td>38%</td>
</tr>
<tr>
<td>Portage</td>
<td>26%</td>
<td>40%</td>
<td>34%</td>
</tr>
<tr>
<td>Lake</td>
<td>22%</td>
<td>38%</td>
<td>40%</td>
</tr>
<tr>
<td>Geauga</td>
<td>19%</td>
<td>35%</td>
<td>46%</td>
</tr>
<tr>
<td>Medina</td>
<td>18%</td>
<td>39%</td>
<td>43%</td>
</tr>
</tbody>
</table>

Note: Percentages may not total to 100% due to rounding.
Average Literacy and Numeracy

Literacy and Numeracy – Level 2

• Cuyahoga County (including surrounding counties)
• Ohio
• Nation
Literacy Levels by Educational Attainment

<table>
<thead>
<tr>
<th>Literacy Level</th>
<th>Below high school</th>
<th>Associate's degree</th>
<th>High school credential</th>
<th>Bachelor's degree</th>
<th>Graduate or professional degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;=1</td>
<td>26%</td>
<td>59%</td>
<td>7%</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>2</td>
<td>12%</td>
<td>56%</td>
<td>12%</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>&gt;=3</td>
<td>5%</td>
<td>36%</td>
<td>12%</td>
<td>28%</td>
<td>19%</td>
</tr>
</tbody>
</table>
Racial Demographics by Literacy Level

Literacy Levels by Employment Status

<table>
<thead>
<tr>
<th>Literacy Level</th>
<th>Employed (%)</th>
<th>Unemployed (%)</th>
<th>Out of the labor force (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;=3</td>
<td>79%</td>
<td>4%</td>
<td>17%</td>
</tr>
<tr>
<td>2</td>
<td>69%</td>
<td>4%</td>
<td>27%</td>
</tr>
<tr>
<td>&lt;=1</td>
<td>62%</td>
<td>3%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Occupational Skills Category

- Skilled Occupations
  - Managers
  - Professionals
  - Technicians and Associate Professionals
- Semi-Skilled White Collar
  - Clerical Support Workers
  - Services and Sales Workers
- Semi-Skilled Blue Collar
  - Skills Agricultural Workers
  - Craft and Related Trade Workers
  - Plant and Machine Operators and Assemblers
- Elementary Occupations
  - Cleaners, Helpers, Laborers, Assistants
Literacy Level by Occupational Skill Classification

<table>
<thead>
<tr>
<th>Literacy Level</th>
<th>Skilled</th>
<th>Semi-Skilled White Collar</th>
<th>Semi-Skilled Blue Collar</th>
<th>Elementary</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;=3</td>
<td>66%</td>
<td>22%</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>2</td>
<td>43%</td>
<td>29%</td>
<td>15%</td>
<td>13%</td>
</tr>
<tr>
<td>&lt;=1</td>
<td>27%</td>
<td>30%</td>
<td>20%</td>
<td>23%</td>
</tr>
</tbody>
</table>

How do workers feel about their skills?

How do workers feel about their skills?

Percentage of Workers Who Have Skills to Cope With More Demanding Duties Than Required in Job, By Occupational Skill Level

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>91%</td>
<td>9%</td>
</tr>
<tr>
<td>Semi-skilled blue-collar</td>
<td>92%</td>
<td>8%</td>
</tr>
<tr>
<td>Semi-skilled white-collar</td>
<td>92%</td>
<td>8%</td>
</tr>
<tr>
<td>Skilled</td>
<td>93%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Percentage of Workers Who Need Further Training For Present Duties, By Occupational Skill Level

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>15%</td>
<td>85%</td>
</tr>
<tr>
<td>Semi-skilled blue-collar</td>
<td>24%</td>
<td>76%</td>
</tr>
<tr>
<td>Semi-skilled white-collar</td>
<td>18%</td>
<td>82%</td>
</tr>
<tr>
<td>Skilled</td>
<td>26%</td>
<td>74%</td>
</tr>
</tbody>
</table>

What does this mean?

• Most of the adults in the United States are at a level 2
• Age, educational attainment, and occupation do not necessarily equate to certain literacy levels
• There is a disparity based on race, especially with black adults
• Although Level 2 is common, is should not be the status quo
How do the literacy levels compare to the skills needed for in-demand jobs?

Is there a way to better understand how we can prepare adults for in-demand jobs using this data?
Job Requirement Approach (JRA)

- PIAAC questionnaires were based on JRA
  - workers are asked to indicate the level of skills required in their current work in several skill domains

- PIAAC unit of analysis is the person to the job

- O*NET is based on JRA
- O*NET is an occupational database of worker attributes and job characteristics.
- O*NET data comes from job incumbents, occupational analysts and occupational experts and is collected for nearly 1,000 occupations
- Unit of analysis is the occupation
Skill-Based Approach to Hiring and Training

Connecting Jobseekers and Employers through a Common Language – Skills - Talent NEO

- Used an objective tool, WorkKeys, to open access to quality career paths for individuals while increasing the pool of qualified applicants for business
- Results from the pilot demonstrated NEO residents have the scores needed for jobs in our community

https://www.towardsemployment.org/talentneo-update-skill-assessments/
Exploring a Skills-Based Approach to Occupational Mobility

Federal Reserve Bank of Philadelphia & Federal Reserve Bank of Cleveland

“Fed research shows that defining occupations by the skills required to do them could expand opportunities for economic mobility.”

- Opportunity Occupations – occupations that pay above the median wage and are generally accessible without a four-year college degree
- Used several sources, including O*NET to determine skill sets for occupations
- Uses the skills similarity scores to pinpoint training needs for advancing skills of lower skilled workers to opportunity occupations
- Creates opportunities to customize training to advance incumbent workers or to work with schools to prepare new workers

Build Your Path
See which occupations require similar skills and represent at least a 10% increase in wages

Compare Skills
Compare the 25 most in-demand skills for any pair of occupations in a metro

View Top Transitions
View, sort, and download data for pairs of occupations considered most similar

2021 Opportunities to Advance Literacy and Increase Employment

- Occupational Mobility Explorer release by Federal Reserve Bank
- Explore Internal and External Career Pathways
- Connect Skill-Based Approach to the Healthcare, IT, and Manufacturing Sector Partnerships
- Use Contextualized Literacy and Numeracy with Skills Training
- Connect Adult Literacy to Workforce and Economic Development
Questions?
Contact Us

• Robert Paponetti: rpaponetti@literacycooperative.org
• Laurie Atkins: latkins@literacycooperative.org

• Website: literacycooperative.org
• @literacycoop on all social media