low literacy is costly to individuals, employers and society. It means higher hurdles and lower wealth for this generation and generations to come. A highly literate population, on the other hand, contributes to economic growth and regional prosperity. Higher literacy improves access to family-sustaining wages and equips parents with the tools they need to fully participate in their children's development.

Literacy is “an individual's ability to read, write, speak, in English, [and] compute and solve problems at levels of proficiency necessary to function on the job, in the family of the individual, and in society.” In the past, a high school diploma was a good enough education to meet the workforce needs of an industrializing economy. It may also have been a reasonable measure of literacy. In today's economy, however, a high school diploma does not sufficiently equip people to meet the changing requirements of the employment market. Educational attainment, particularly postsecondary education, continues to be one of the most important contributors to getting a good job and advancing in the workforce.

Among residents of Cuyahoga County, 270,000 adults have a high school diploma but no postsecondary credentials. Within this population, 117,000 people (17%) of adults ages 25 to 64 have graduated from high school or attained a General Educational Development (GED) certificate but earn less than $13 per hour. This population presents a compelling investment opportunity, as these individuals are on the cusp of increased economic productivity.

According to the Organization for Economic Cooperation and Development (OECD), even one year of post secondary education leads – on average and in the long run – to increases of 4 to 7% in per-capita output. Within a typical manufacturing company, an additional year of average total schooling among employees results in an 8.5% increase in productivity. In other business sectors, productivity increases by 12.7%. Despite substantial investments, Cuyahoga County has yet to successfully transform the 270,000 adults who have a high school diploma but no postsecondary credentials into a more economically productive workforce.

A high school diploma is rapidly decreasing in value. Sustainable employment now and in the future requires at least some postsecondary education.

Like the rest of the nation, Northeast Ohio is transitioning to a knowledge-based economy. The fastest growing industries in the region -- healthcare, civil engineering, financial services and information technology -- require postsecondary education for career-track positions. At the same time, in Northeast Ohio's traditional manufacturing and construction industries, demand for higher-skilled workers is increasing. This is especially true in manufacturing, where there is a shortage of employees proficient in advanced technology and robotics.

**Fast Facts:**

**In Cuyahoga County**

- Among Cuyahoga County residents, 270,000 adults hold high school diplomas or GED certificates; an additional 127,000 adults have no high school diploma or GED.

![Population Size of Low Income Secondary Credential Holders in Cuyahoga County](image)

- Earn <$13/hour
- Earn > $13/hour

**In Ohio**

- In Ohio 30 of 40 occupations with significant projected turnover require at least one year of on-the-job training or formal schooling beyond high school. Completion of college coursework and career-readiness training share important elements, including basic literacy, critical thinking, self-management and other social and cognitive skills.

- Only 22% of ninth graders who graduate from high school on time, go directly to college and graduate within 150% of program time.

**In the Nation**

- While 65% of successful GED test takers said they took the test in order to qualify for further education:
  - Only one out of three enroll in any sort of postsecondary education
  - Only 10% complete one year of postsecondary education
  - Only 3% acquire an associate degree

- 97% of the total increase in employment openings from 2008 - 2018 will require some college or better.

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1) Workforce Investment Act of 1987
2) Beyond Basic Skills: Some Strategies to Connect Low-Skilled Students to an Employer-Skilled Postsecondary Education, Center for Postsecondary and Economic Success
3) Ohio Department of Development, Ohio County Profile for Cuyahoga County (2010)
4) Skills4Cities Report – www.skills4citiesatlanta.org
5) Passing the Work Race and Strengthening America’s Middle Class: An Action Agenda for Community Colleges January 2008
6) Ohio Department of Development, Ohio County Profile for Cuyahoga County (2010)
7) Nilles Group Labor Force, Ohio Department of Development
8) www.engageohio.org
9) Transitioning Adults to College: Adult Basic Education Program Model 4 NAGEL:2008 Moosehead region
10) Perspectives of Jobs and Education Requirements Through 2016, Georgetown University Center on Education and the Workplace
The return on investment for literacy comes in the form of earnings growth and reductions in public costs. Improved literacy levels increase individuals' earnings by expanding their access to sustainable-wage jobs and stimulate business growth by increasing workforce productivity. Both broaden the region's tax base. Improved literacy also reduces the individual and public costs associated with low literacy.

Most research focuses on the economic impact of improved literacy through the lens of employment. In 2010, while overall unemployment rates were hovering around 10%, only 4.7% of college graduates were unemployed. As educational attainment increases, so does access to jobs with benefits and employment stability.11

Increases in earnings

Literacy-level improvements are associated with substantially higher individual earnings and tax revenues. Employers rely on access to a skilled workforce in order to remain economically competitive. Additionally, higher literacy levels in the workforce improve economic productivity, thereby increasing business growth.

The income differential between a person who dropped out of high school or who holds only a high school diploma or GED versus someone with an associate or bachelor's degree is significant. A 2002 Census Bureau study estimated that, in 1999, on average, the lifetime earnings of a bachelor's degree holder exceeded the lifetime earnings of a high school graduate by 75%. The earnings gap between college graduates and high school diploma holders continues to grow and is now estimated to be as wide as 84%.

Compared to previous decades, people today require more sophisticated skills to cope with advanced technology and to meet the demands of increasingly high-skilled jobs. Improved literacy in Cuyahoga County means a skilled, college-educated workforce that attracts and retains enterprises that offer higher-wage jobs that include benefits. Higher wages for individuals translate into increased tax revenues for municipalities and counties.

Earnings and tax revenue impact of raising literacy levels in Cuyahoga County

<table>
<thead>
<tr>
<th></th>
<th>Improving one level to achieve a high school diploma or GED (127,000 adults)</th>
<th>Improving one level to achieve some postsecondary education (270,000 adults)</th>
<th>Total impact potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact on individual earnings</td>
<td>$1.3 billion</td>
<td>$1.6 billion</td>
<td>$2.9 billion</td>
</tr>
<tr>
<td>Impact on total tax revenues (federal, State, local)</td>
<td>$288 million</td>
<td>$349 million</td>
<td>$637 million</td>
</tr>
</tbody>
</table>

In addition to the increase in individual earnings and the broader tax that results, employers rely on access to a skilled workforce in order to remain economically competitive. Between 1980 and 1998, the most educated regions of the country had productivity growth five times as high as the regions with the lowest education levels.


avoidance and reductions in public costs

Low literacy levels among Cuyahoga County’s 397,000 adults who have, at best, a high school diploma translate into greater costs for society and government across a range of areas. Estimates based on nationally recognized studies suggest that low literacy in Cuyahoga County results in a total of more than $706 million per year in expenses for healthcare, public assistance, corrections and education. (See table on public costs associated with low literacy.) While these statistics are not comprehensive, they illustrate the substantial financial implications of low literacy.

<table>
<thead>
<tr>
<th>Estimated annual public costs in Cuyahoga County</th>
<th>Estimates based on:</th>
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<tbody>
<tr>
<td>Healthcare $514 million</td>
<td>Individuals with low literacy have healthcare costs four times higher than those with proficient literacy skills</td>
</tr>
<tr>
<td>Public Assistance $134 million</td>
<td>Public assistance costs for individuals with only a high school diploma or no diploma are 14% and 45% higher, respectively, than for individuals with some postsecondary education</td>
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<tr>
<td>Corrections $38 million</td>
<td>Taxpayer costs due to recidivism among the ~6,000 individuals who return from prison to Cuyahoga County each year. Improved literacy has been shown to be directly correlated to lower rates of recidivism</td>
</tr>
<tr>
<td>Education $20 million</td>
<td>Children of parents with low literacy skills who do not receive intensive academic intervention in pre-kindergarten are 60% more likely to require special and remedial education, at a cost of 2.3 times more than regular education</td>
</tr>
</tbody>
</table>

See reference below

personal benefits of higher literacy

- Workers who attended some college or hold an associate degree earned 26% more than high school graduates
- Students with at least some postsecondary education earned about $473,000 more than their less-educated peers over the course of a lifetime
- 85% of children whose parents had less than a high school education and 60% of children whose parents had a high school diploma but no college lived in poverty, compared to 25% of children whose parents had some college

Source: CLASP Center for Postsecondary and Economic Success. FAST FACTS

additional investment may not be required

Substantial increases in investment are not necessarily required to improve literacy levels in Northeast Ohio. Reevaluating and possibly redirecting current available resources could prove quite effective. Investments in literacy benefit the area’s economy. Productivity will improve, and public costs will decline. An investment made in each adult learner can reduce the recurring public costs associated with low literacy.
literacy cooperative issue papers are intended to express a point of view, challenge public thinking, and -- we hope -- change institutional practices. They are released as part of the literacy cooperative’s Public Education and Advocacy Initiative, which seeks to bring broad attention to issues of learner access, transitions, progression and program quality; spur policy and institutional innovations and collaboration; and promote policies to sustain effective practices. Current advocacy efforts focus on addressing systemic and institutional barriers that impact secondary-school credential holders who have earned a high school diploma or a GED -- but are not prepared for postsecondary education or workforce success -- and are unemployed or underemployed.

The Economic Case for Literacy is one in a series of briefs The Literacy Cooperative releases periodically. the literacy cooperative is a nonprofit intermediary organization working to improve literacy levels in Cuyahoga County.

Fostering learning to build a thriving community