MICHIGAN LEAGUE FOR PUBLIC POLICY

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Willing to Work and Ready to Learn:
More Adult Education Would Strengthen Michigan's Economy

Michigan depends on its skilled workers, and much has been written and said about the need to build up our state's workforce. Yet year after year in the state budget, state policymakers neglect to adequately fund adult education, making it less accessible for low-skilled workers who want to build their skills, become financially self-sufficient and contribute to Michigan's economy. Adult education is the key to preparing these workers for occupational training and skilled employment, and better funding and an expanded role will enable it to meet the demand more effectively.

In the past, high school graduates could enter the middle class by getting jobs in the manufacturing sector immediately after graduation and moving eventually into skilled, higher-paying positions. Today, however, technological advances and offshore production have greatly decreased the need for unskilled, entry-level labor. A high school diploma by itself has far less value in the job market as a result, and employers increasingly prefer to hire skilled workers with a postsecondary credential such as a degree, certificate or license. With 9% of working age Michigan adults lacking a high school diploma, 1 out of 10 low-income working families having a parent that does not speak English well, and 6 out of 10 community college students needing remediation, it is clear that too many workers have basic skill deficiencies that make it difficult to attain such credentials.

Expanding adult education services to help more low-skilled but highly motivated individuals succeed in post-secondary training will benefit Michigan. Skilled workers help attract and keep businesses in the state, spend more in their local communities, pay more in taxes, and are less likely to become unemployed or need public assistance. On the other hand, continuing to neglect adult education keeps a segment of the population out of the skilled labor pool, which in turns keeps the need for public assistance high, slows the revitalization of struggling communities and wastes an opportunity to increase state revenues.

THE NEED FOR MORE ADULT EDUCATION SERVICES IS GREAT

Adult education serves the segment of the population that does not have the basic skills necessary to gain secure, family-supporting employment, or to succeed in occupational training that leads to such employment. The term "basic skills" refers to the levels of reading, writing and mathematics that are associated with the attainment of a high school diploma and the ability to speak English proficiently. These skills are the foundation for building career-specific occupational skills that are in demand by the job market. While many adults without a high school diploma have deficiencies in one or more of these skill areas, some high school graduates also lose these skills over time or may not have completely mastered them

Skilling Up Michigan *is a series of policy briefs from the Michigan League for Public Policy that addresses the access and affordability of postsecondary skill building in Michigan and urges the state to prioritize public investment in occupational skill building as a strategy for fighting poverty, reducing unemployment and building communities. This is the fourth paper in the series and is published with the support of the Working Poor Families Project .*

while in high school. Adult education serves both sets of individuals.

Several indicators show that the number of working age adults needing adult education far surpasses those receiving it:

- Over 210,000 Michigan adults age 25-44 lack a high school diploma or GED, yet fewer than 7% have enrolled in adult education in any year since 2004.[1]
- More than 234,000 Michigan adults speak English less than "very well," but fewer than 4% enroll in English as a Second Language adult education programs.[2]
- Around 60% of community college students per year need to take developmental (remedial) education classes due to having not mastered one or more skill areas needed for postsecondary education or training.[3]

It is clear that too few students are getting the basic skills education they need to be able to succeed in occupational training and ultimately, to find a pathway out of low-wage, dead-end jobs and into a skilled career that enables them to support their families and prosper. As Michigan's workforce development efforts attempt to move an increasing number of low-skilled workers into postsecondary credential programs, the demand for adult education will become even greater and so will the need for funding. (For more detailed statewide and county indicators of need, please see Appendices 1-2.)

ADULT EDUCATION IS A CRUCIAL LINK TO POSTSECONDARY EDUCATION AND GAINFUL EMPLOYMENT

Because workers and job seekers without postsecondary occupational skills and credentials will have an increasingly difficult time finding family-supporting employment in coming years, the goal for adult education must not be merely to acquire a GED, but to transition workers into postsecondary training leading to a degree or certificate.

According to a recent report by the Georgetown University Center on Education and the Workforce, 70% of jobs in Michigan will require some level of postsecondary education by 2020, including 37% requiring a "middle skills" credential such as an associate degree (which

FIGURE 1

Too Many Low-Skilled Michigan Adults Are Left Out of Adult Education

		Adults Age 25-44 Without a High School Diploma or GED			Adults Age 18-64 Who Speak English "Less Than Very Well"		
Program Year	Total State/Federal Funding	Total Number	Number in Adult Education	Percent in Adult Education	Total Number	Number in ESL Adult Education	Percent in ESL Adult Education
2005-06	$37,107,871	271,383	15,687	5.8%	230,687	10,642	4.6%
2006-07	$39,959,444	280,860	16,345	5.8%	234,875	10,985	4.7%
2007-08	$39,976,065	263,501	15,295	5.8%	241,180	9,080	3.8%
2008-09	$39,645,243	263,793	14,363	5.4%	229,065	9,276	4.0%
2009-10	$36,215,280	256,316	15,299	6.0%	229,435	8,929	3.9%
2010-11	$36,380,063	237,752	12,676	5.3%	209,665	8,392	4.0%
2011-12	$36,771,835	236,705	14,063	5.9%	219,700	8,582	3.9%
2012-13	$35,965,116	226,918	14,100	6.2%	225,035	8,282	3.7%
2013-14	$35,188,316	228,485	14,044	6.1%	219,825	8,302	3.8%
2014-15	$34,125,274	208,266	13,566	6.5%	231,633	8,564	3.7%
2015-16	$37,374,263	210,368	13,796	6.6%	234,253	8,543	3.6%

*The number of adults enrolled in ESL may include adults over age 64. Approximately 6-8% of adults in ESL programs each year are over 60 years of age.
Sources: U.S. Department of Education and Michigan House Fiscal Agency (Funding); Michigan Workforce Development Agency National Reporting System tables (Adult education participation); American Community Survey 1-year estimates, 2015 (High school and English speaking status)

typically takes two years) or a vocational certificate (which usually takes less than two years).[4] The sector with the highest number of projected middle skills job openings in Michigan is sales and office support, (43,000 openings for workers with an associate degree and 104,000 openings for workers with a credential that takes less than two years). Other sectors with a large number of projected middle skills openings are food and personal services and what the report terms "blue collar" occupations such as agriculture, construction and production.[5] (For the complete Michigan employment and education forecast in the Georgetown University report, see Appendix 3.)

Helping low-skilled workers acquire postsecondary credentials that are in demand benefits not only those workers and their families, but also employers and the state as a whole. A skilled workforce will encourage businesses to stay, move to or expand in Michigan. Skilled workers earn and spend more money in their communities, which in turn helps other businesses and increases state revenues from income and sales taxes. Skilled workers are less likely to become unemployed or to need public assistance. Preparing more low-skilled workers for postsecondary training, therefore, needs to be a key component of Michigan's workforce development strategy.

As seen in Figure 2, Michigan residents with "some college" or an associate degree have significantly higher earnings ($31,460) than those with only a high school diploma ($26,347) and are less likely to be in poverty. The combined percentage of Michigan residents in the former category (32.7%), however, is barely higher than the percentage with only a high school diploma (29.9%), and well below the percentage without postsecondary education when those with less than a high school diploma (10.4%) are factored in. It is clear that many Michigan workers and their families would benefit from training leading to a postsecondary credential, and a significant number of those will need adult education to prepare them for such training. (Note: the "some college" category, in addition to including those who attained a certificate or license, includes those who took at least one postsecondary course but did not complete requirements for a credential. The earnings figures would likely be significantly higher if only credentialed workers are included.)

FIGURE 2

Educational Attainment, Earnings and Poverty Rates of Michigan Residents Age 25 and Over

Educational Attainment

	Total	Male	Female
Less than 9th grade	3.2%	3.3%	3.1%
9th to 12th grade, no diploma	7.2%	7.8%	6.7%
High school graduate (includes GED)	29.9%	30.4%	29.4%
Some college, no degree	23.8%	23.7%	23.9%
Associate's degree	8.9%	7.7%	10.1%
Bachelor's degree	16.5%	16.4%	16.6%
Graduate or professional degree	10.5%	10.6%	10.3%

Median Earnings by Educational Level

	Total	Male	Female
Less than high school graduate	$18,714	$22,227	$13,971
High school graduate (includes GED)	$26,347	$32,067	$20,588
Some college or associate's degree	$31,460	$40,754	$25,426
Bachelor's degree	$48,622	$61,377	$39,162
Graduate or professional degree	$66,721	$81,446	$56,663

Poverty Rate by Educational Level

	Total	Male	Female
Less than high school graduate	29.6%	26.4%	33.0%
High school graduate (includes GED)	15.2%	13.8%	16.4%
Some college or associate's degree	11.7%	9.3%	13.8%
Bachelor's degree or higher	4.5%	4.1%	5.0%

Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015

One population that Michigan should actively target for adult education is its residents with

limited English proficiency. A recent Working Poor Families Project report cites data showing that between 2010 and 2030, immigrant workers will account for more than 90% of the nation's workforce growth and that by 2030, one in five workers will be an immigrant. Despite this, 70% of limited-English adults in the United States do not have education beyond high school and 44% do not have the equivalent of a high school diploma. Of foreign-born workers with a high school diploma but no postsecondary credential, those who are proficient in English earn 39% more than those who are not.[6]

In Michigan, 23% of adults 25 years and over who speak a language other than English at home (and 35% who speak Spanish at home) do not have a high school diploma, compared with 10% who speak only English at home (Fig. 3). The poverty level is much higher for those who speak a language other than English (23%), especially for Spanish speakers (27%), than for those who speak only English (15%). With more than 234,000 adults in the state with limited English proficiency, Michigan should ensure that this population is targeted for adult education outreach and that there are adequate English as a Second Language programs—with adequate funding—in the areas of the state with the highest need.

FIGURE 3

Nativity, Poverty and Education of Michigan Residents by Language

	Speak English Only At Home	Speak a Language Other Than English at Home	
		TOTAL	SPANISH OR SPANISH CREOLE
NATIVITY STATUS (5 years and over)			
Native	98%	44%	64%
Foreign-born	2%	56%	36%
POVERTY STATUS (5 years and over)			
Below poverty level	15%	23%	27%
EDUCATIONAL ATTAINMENT (25 years+)			
Less than high school graduate	9%	23%	35%
High school graduate (includes equivalency)	31%	20%	24%
Some college or associates degree	34%	21%	22%
Bachelor's degree or higher	26%	36%	20%

Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2015

TO BE MORE EFFECTIVE, ADULT EDUCATION MUST FIT FAMILY AND WORK SCHEDULES

Adult education is primarily taught in school buildings, literacy centers, Michigan Works! one-stop centers, and public libraries. In some counties, it is provided at county jails, Head Start buildings or Community Action Agencies. Because instruction is usually provided at a central location rather than in the context of family, school and/or work, adult learners often must make child care arrangements or even adjust work schedules in order to attend adult education classes.

For some adult learners, this "traditional" way of receiving adult education instruction works. For others, however, the time needed to complete an adult education program conflicts with family or work needs and prolongs the time before entering into postsecondary training—increasing the likelihood that some students will drop out before completion. If the student lives or works a long distance from the school building, transportation can be an additional barrier.

Conversely, integrating adult education instruction into other aspects of students' lives, such as work, occupational training and family, can make their experience more relevant, their coursework easier, and the time to complete a program shorter. All of this will increase the likelihood of student success, and in turn help the adult education system better meet the needs of employers.

There are several ways to contextualize the delivery of adult learning:

1) **Use adult education as a two-generation strategy to improve the lives of both parents and children.** A two-generation approach to fighting poverty devises programs and policies that seek to enhance

FIGURE 4

Single Parents and Public Assistance Recipients Can Benefit from a Two-Generation Approach to Adult Education

Program Year	Total Enrolled	AE Students on Public Assistance		AE Students Who Are Single Parent (Optional)	
		Number	Percent	Number	Percent
2000-01	56,001	2,953	5.3%	1,327	2.4%
2001-02	75,988	6,163	8.1%	5,452	7.2%
2002-03	70,893	6,027	8.5%	5,197	7.3%
2003-04	48,273	3,794	7.9%	3,495	7.2%
2004-05	34,768	2,310	6.6%	2,024	5.8%
2005-06	32,024	3,778	11.8%	2,611	8.2%
2006-07	32,856	4,833	14.7%	3,229	9.8%
2007-08	30,571	4,769	15.6%	3,258	10.7%
2008-09	28,243	5,706	20.2%	3,570	12.6%
2009-10	31,106	6,945	22.3%	3,635	11.7%
2010-11	25,745	6,931	26.9%	3,059	11.9%
2011-12	28,614	6,173	21.6%	2,465	8.6%
2012-13	29,533	6,434	21.8%	2,611	8.8%
2013-14	28,625	5,167	18.1%	2,004	7.0%
2014-15	27,443	4,856	17.7%	1,740	6.3%
2015-16	27,483	5,094	18.5%	1,857	6.8%

Source: Workforce Development Agency Adult Education National Reporting System tables

children's intellectual development in tandem with increasing their parents' skills and ability to earn higher wages. As seen in Figure 4, roughly 17% to 22% of adult education participants in recent years are public assistance recipients and 6% to 9% report that they are single parents.[7] Yet we see from Figure 5 that public assistance recipients, parents of pre-school and school age children, and rural students have very poor program completion rates. All of these categories have declined since 2013.

Addressing the needs of these at-risk categories should be a top priority for both local program design and state policy. Examples of two-generation strategies on the program level include:

- Providing child care and enrichment activities at adult education sites.
- Offering adult education in programs such as Head Start that serve children (a very small number of counties in Michigan do this).
- Making sure that individuals who enroll in adult education are made aware of public assistance for which they may be eligible.

On the state level, Michigan can implement two-generation polices that make it easier for parents to access child care or be involved with their children's education while receiving basic skills instruction, examples of which include:

- Making low-income adult education students categorically eligible for subsidized child care or raising the income eligibility level. Currently, a single parent with two children can get a subsidy only if her or his annual income is at or below 121% of the federal poverty guidelines ($24,708 in 2017).
- Raising the child care subsidy level to a higher percentage of the market rate in order to cover

FIGURE 5

Parents, Public Assistance Recipients and Rural Students in Adult Education

Demographic	PY 2012-13 Total	PY 2012-13 Completed Program		PY 2013-14 Total	PY 2013-14 Completed Program		PY 2014-15 Total	PY 2014-15 Completed Program		PY 2015-16 Total	PY 2015-16 Completed Program	
Receives Public Assistance	**7,224**	2,635	36%	**5,782**	2,073	36%	**5,537**	2,007	36%	**5,856**	1,829	31%
Has Pre-School Age Child	**6,402**	2,364	37%	**6,130**	2,148	35%	**5,912**	2,036	34%	**6,047**	1,800	30%
Has School Age Child	**10,322**	4,070	39%	**9,972**	3,636	36%	**9,487**	3,682	39%	**9,607**	3,236	34%
Is a Single Parent	**3,071**	961	31%	**2,339**	720	31%	**2,106**	536	25%	**2,215**	509	23%
Lives in Rural Area	**2,882**	1183	41%	**2,290**	752	33%	**2,236**	683	31%	**2,348**	659	28%

Source: Workforce Development Agency Adult Education Participant Characteristics tables

more of the actual child care costs, and removing the paperwork barriers that discourage or prevent this population from making use of the subsidy even when eligible.[8]

- Making adult education services an integral part of all Pathways to Potential school programs.[9]

There are also steps Michigan can take to make it easier for parents on cash assistance to complete their GED. Unfortunately, federal rules do not let GED completion count toward recipient work requirements unless the recipient is also working 20 hours per week in another work activity such as paid employment or community service. Because success in GED completion may be hampered by the need to juggle classes, homework, family needs and 20 hours of work, Michigan should consider waiving the 20-hour work requirement. This would enable cash assistance recipients to take adult education classes full-time and attain their GEDs more quickly, or to tend to their children's needs and intellectual development while completing their GED. Even though Michigan would not be able to count such recipients toward its work participation rate, the state has a high enough percentage (over 60%) of recipients meeting the requirements and so can afford to be flexible in this area.[10]

In addition, the Working Poor Families Project recommends two curriculum-based steps for states to consider as part of a two-generation strategy: 1) Expand and contextualize state-approved adult education curriculum to cover family financial literacy and asset-building instruction, and 2) Incentivize local providers of Adult Basic Education Literacy and English as a Second Language services to include opportunities for child-parent learning, such as family literacy and numeracy activities.[11] Both of these strategies can be undertaken in Michigan, provided there is additional funding.

2) **Provide adult education in the community colleges as an alternative to costly developmental education.** Many community college students must take developmental education classes due to having not mastered one or more basic skill areas. Each year, around 60% of community college students in Michigan are required to take at least one developmental education course (Fig. 6). Such classes cost the same as for-credit classes leading to a degree or credential, costing the student money and/or using up some of the student's financial aid resources. Providing developmental education to large numbers of students also can create difficulty for community colleges due to staff costs.

One way to solve this problem is for Michigan to allow (and provide funding for) community colleges and school districts to enter into cooperative agreements whereby students needing remediation can take adult education courses on the college campus that fulfill developmental education requirements. Because adult education is free, this will save the student money and underscore adult education's important role as a transition program to postsecondary education.

3) **Provide adult education in the workplace as a part of on-the-job training.** Until 2004, when adult education received a large funding cut, programs were sometimes offered in automobile and other manufacturing worksites. This enabled employees

FIGURE 6

Developmental Education and Student Success in Michigan Community Colleges

School Year	Students Who Required Developmental Courses	Retention Rate	Completion/ Graduation/Transfer Rate
2007-08	58%	71%	44%
2008-09	57%	72%	48%
2009-10	62%	74%	48%
2010-11	63%	73%	50%
2011-12	62%	72%	52%
2012-13	60%	71%	52%
2013-14	61%	72%	53%
2014-15	59%	70%	54%

Source: State of Michigan Dashboard using data from the Michigan Community College Association (https://midashboard.michigan.gov/education, accessed on April 15, 2016)

who were held back from advancing in their jobs by reading, language or mathematics deficiencies to receive basic skills training at the workplace. Following the cuts, many counties and school districts discontinued the practice and there are now fewer than 50 adults who participate in workplace literacy programs in most years (Fig. 7). Providing funding for on-site adult education serving low-skilled workers in their workplace (before or after work) can help workers avoid transportation barriers and save driving time, thus incentivizing them to participate.

4) **Develop career pathway systems**. Career pathways are ideally the best vehicle to deliver adult education. A career pathway is defined as "a well-articulated sequence of quality education and training offerings and supportive services that enable educationally underprepared youth and adults to advance over time to successively higher levels of education and employment in a given industry sector or occupation."[12] By linking basic skills training, career-specific occupational training, wraparound services (such as child care, transportation and/or financial services) and employment, they combine the three contextualized learning strategies discussed above.

FIGURE 7

Adult Education Students in Workplace Literacy Programs

Program Year	Total Enrolled	In Workplace Literacy	
		Number	Percent
2000-01	56,001	453	0.8%
2001-02	75,988	734	1.0%
2002-03	70,893	473	0.7%
2003-04	48,273	234	0.5%
2004-05	34,768	51	0.1%
2005-06	32,024	26	0.1%
2006-07	32,856	33	0.1%
2007-08	30,571	36	0.1%
2008-09	28,243	62	0.2%
2009-10	31,106	17	0.1%
2010-11	25,745	9	0.0%
2011-12	28,614	2	0.0%
2012-13	29,533	48	0.2%
2013-14	28,625	33	0.1%
2014-15	27,443	45	0.2%
2015-16	27,483	44	0.2%

Source: Workforce Development Agency Adult Education National Reporting System tables

Presently, if a low-skilled adult wants to acquire a credential and a skilled job, the required educational steps are usually sequential and mutually exclusive: first, the individual must participate in adult education to acquire a GED, then he or she must enroll in postsecondary education to acquire an occupational credential, and finally, he or she uses the newly gained credential to look for a job. Services are often provided in isolation, i.e. adult education is not used at community colleges in place of developmental education or integrated into on-the-job training.

By integrating the steps in the training sequence, career pathways enable low-skilled adults to learn basic skills in the context of occupational training leading to a credential; for example, English as a Second Language or high school mathematics is taught in a robotics or electrician training program leading to a certificate or license. Such programs shorten the time needed to obtain a postsecondary credential, because basic skills remediation is taught alongside of (or integrated into) occupational training rather than as a prerequisite. This is very important for adult learners with jobs and families, because the longer the time needed, the greater the likelihood of individuals dropping out prior to completion. Some career pathways programs provide supportive services such as child care, and some are directly connected to employment, with a guarantee of job placement upon successful completion.

Each of these expansions of adult education delivery will help adult learners persist in and complete their programs and will enable a larger number of individuals to participate. However, serving more people and serving them differently will require additional funding.

MICHIGAN'S SHORTSIGHTED NEGLECT OF ADULT EDUCATION

Although the need for adult education is obvious, Michigan has undercut its accessibility in several ways, most notably in its drastic reduction of funding in 2004. This reduction was included in the then-governor's budget and passed by the Legislature not due to a perceived decrease in need, but to reduce state spending during an especially tight budget period. Neither the current administration nor the Legislature has made an effort to restore the lost funding, even though the state has been in a generally stronger fiscal position for several years.

Following are the three ways Michigan has disinvested in this important workforce development tool:

State Appropriations: Michigan appropriated $80 million per year for adult education in budget years 1997 to 2001, decreased funding slightly in the following years, and then slashed funding to $20 million in budget year 2004. Adult education appropriations remained flat at $22 million for several years before being increased to $23.8 million beginning in 2016—a 70% reduction from 2001. Federal funding has not increased significantly to make up for the loss in state funding, so total funding for adult education in Michigan has dropped 60% since 2001, not accounting for inflation (Fig. 8).

FIGURE 8

History of Funding for Michigan's Adult Education Programs

	FEDERAL FUNDING					
Program Year	**Base Grant**	**English Literacy & Civics Grant**	**Total**	**State Funding***	**Total Funding**	**State Portion of Funding**
1995-96	NA	NA	NA	$185,000,000	NA	NA
1996-97	$8,287,819	$0	$8,287,819	$80,000,000	$88,287,819	90.6%
1997-98	$11,482,416	$0	$11,482,416	$80,000,000	$91,482,416	87.4%
1998-99	$11,654,356	$0	$11,654,356	$80,000,000	$91,654,356	87.3%
1999-00	$11,973,584	$0	$11,973,584	$80,000,000	$91,973,584	87.0%
2000-01	$13,691,487	$437,129	$14,128,616	$80,000,000	$94,128,616	85.0%
2001-02	$15,159,503	$1,160,594	$16,320,097	$75,000,000	$91,320,097	82.1%
2002-03	$16,310,508	$1,251,632	$17,562,140	$74,569,800	$92,131,940	80.9%
2003-04	$14,679,457	$1,332,464	$16,011,921	$20,000,000	$36,011,921	55.5%
2004-05	$14,871,841	$1,355,222	$16,227,063	$20,000,000	$36,227,063	55.2%
2005-06	$14,755,635	$1,352,236	$16,107,871	$21,000,000	$37,107,871	56.6%
2006-07	$14,606,756	$1,352,688	$15,959,444	$24,000,000	$39,959,444	60.1%
2007-08	$14,606,750	$1,369,315	$15,976,065	$24,000,000	$39,976,065	60.0%
2008-09	$14,349,799	$1,295,444	$15,645,243	$24,000,000	$39,645,243	60.5%
2009-10	$12,914,820	$1,300,460	$14,215,280	$22,000,000	$36,215,280	60.7%
2010-11	$13,003,714	$1,376,349	$14,380,063	$22,000,000	$36,380,063	60.5%
2011-12	$13,419,141	$1,352,694	$14,771,835	$22,000,000	$36,771,835	59.8%
2012-13	$12,623,242	$1,341,874	$13,965,116	$22,000,000	$35,965,116	61.2%
2013-14	$11,935,152	$1,253,164	$13,188,316	$22,000,000	$35,188,316	62.5%
2014-15	$11,972,115	$1,253,159	$13,225,274	$20,900,000	$34,125,274	61.2%
2015-16	$12,373,128	$1,251,135	$13,624,263	$23,750,000	$37,374,263	63.5%
2016-17	$12,235,393	$1,220,708	$13,456,101	$23,750,000	$37,206,101	63.8%
Change FY 2001>2017	**-10%**	**186%**	**-4%**	**-70%**	**-60%**	**—**

*The two most recent figures for state funding take into account a new 5% administrative set-aside deducted from the $22 million and $25 million appropriations, respectively. | Source: U.S. Department of Education and Michigan House Fiscal Agency

Administrative Set-Aside: Although the Legislature increased the adult education appropriation from $22 million to $25 million for budget year 2016, it continued the practice begun in budget year 2015 of cutting funds to providers by 5%, bringing the amount to $23.75 million. This is because adult education is now allocated through regional fiduciaries rather than directly to providers, and 5% of the existing base funding for adult education is now set aside for regional administration of the grant dollars. While it may make sense to provide administrative funding to fiduciaries, the state should appropriate additional funds for this purpose rather than take it from adult education providers.

Erosion: When adjusted for inflation, the $23.75 million appropriated for 2016-17 was equal to only $17.4 million in 2001 dollars.[13] In inflation-adjusted dollars, Michigan reduced its state funding by 78% between 2001 and 2017, causing total funding for adult education to drop by 70% (Fig. 9).

CONSEQUENCES OF ADULT EDUCATION CUTS

The funding cuts over the years have caused a drop in the number of students enrolling in, completing and advancing in adult education programs. Following the large funding reduction in the 2004 budget, student enrollment fell from more than 70,000 to less than 50,000, and has been below 30,000 for the past several years. The number completing an academic level dropped from more than 15,000 (and nearly 24,000 in one year) to between 9,000 and 12,000 most years.[14] The percentage

FIGURE 9

Reduction of Adult Education Funding 2001 to 2017, in Inflation-Adjusted Dollars

Fiscal Year	State Funding	Total Funding	State Funding (2001 dollars)	Total Funding (2001 dollars)
2000-01	$80,000,000	$94,128,616	$80,000,000	$94,128,616
2016-17	$23,750,000	$37,206,101	$17,427,270	$27,454,200
Decrease	**-70%**	**-60%**	**-78%**	**-71%**

Source: Calculated using the Bureau of Labor Statistics Consumer Price Index Inflation Calculator

FIGURE 10

As Adult Education Funding Has Dropped, so Have Enrollments and Completions

Program Year	Total Funding	Amount Spent per Student	Students Enrolled	Students Completed Level		Students Completed Level and Advanced One or More levels	
				Number	Percent	Number	Percent
2000-01	$94,128,616	$1,681	56,001	15,471	28%	7,760	14%
2001-02	$91,320,097	$1,202	75,988	23,922	31%	936	1%
2002-03	$92,131,940	$1,300	70,893	17,496	25%	7,038	10%
2003-04	$36,011,921	$746	48,273	15,280	32%	6,588	14%
2004-05	$36,227,063	$1,042	34,768	11,210	32%	3,536	10%
2005-06	$37,107,871	$1,159	32,024	10,229	32%	3,139	10%
2006-07	$39,959,444	$1,216	32,856	12,293	37%	4,256	13%
2007-08	$39,976,065	$1,308	30,571	11,866	39%	3,587	12%
2008-09	$39,645,243	$1,404	28,243	11,265	40%	3,470	12%
2009-10	$36,215,280	$1,164	31,106	11,076	36%	3,320	11%
2010-11	$36,380,063	$1,413	25,745	10,289	40%	3,115	12%
2011-12	$36,771,835	$1,285	28,614	9,823	34%	2,754	10%
2012-13	$35,965,116	$1,218	29,533	10,779	37%	3,071	10%
2013-14	$35,188,316	$1,229	28,625	9,393	33%	2,762	10%
2014-15	$34,125,274	$1,243	27,443	9,951	36%	2,771	10%
2015-16	$37,374,263	$1,360	27,483	10,455	38%	2,980	11%
Change 2000-01 > 2015-16	**-60%**	**—**	**-51%**	**-32%**	**—**	**-62%**	**—**

Sources: U.S. Department of Education and Michigan House Fiscal Agency (Funding); Michigan Workforce Development Agency National Reporting System tables (Adult education participation)

of enrollees completing a level has been between 30% and 40% most years, so there appears to be a direct correlation between the amount of funding and the number of students enrolling and completing (Fig. 10).

In addition to serving fewer students than in the past, Michigan does not compare well with other Midwest states on student participation or success measures. It ranks close to the bottom of states nationwide in the percent of students enrolled in adult education relative to those without a high school diploma or GED. It also ranks in the bottom half of states in the percent of students who improve in beginning literacy skills and who have a goal of postsecondary training, though of the students with that goal, the percentage who successfully transition to postsecondary is somewhat higher relative to other states.

Michigan needs to expand the number of programs available to adults who have not completed high school, and facilitate student success by providing adult education in contextualized contexts as discussed previously. Likewise, because beginning literacy students are among the least skilled and most economically vulnerable of adult education students, providing literacy instruction in the context of the workplace or as a two-generation strategy can help those participants succeed at higher rates.

HOW MUCH ADULT EDUCATION FUNDING IS NEEDED?

Dividing the total funding appropriated each fiscal year from FY 2012 through 2016 by the number of students served each of those years shows that the state pays approximately $1,266 per individual adult education student. Because most students attend adult education part time, this works out to roughly the same amount that school districts are supposed to receive per adult education full-time equivalent student ($2,850).[15] Unfortunately, because funding levels to districts are based on the previous year's enrollments, districts that have more registrations than the prior year have to work with much less than $2,850 per FTE. This puts them in the position of having to either turn students away or to be constrained in the type of instruction they can offer or the materials they can use.

From Program Years 2011-12 to 2015-16, when adult education received state and federal funds totaling between $35 million and $38 million per year, the state served an average of 28,340 adult education students per year. Assuming a cost of $1,266 per student, if total funding were to be increased by $10 million, then the state could serve approximately 7,900 more students—a 28% increase to 36,237 students. If the 7,900 additional students were between the ages of 25 and 44, then the

FIGURE 11

How Many More Low-Skilled Adults Could Be Served by Increasing Adult Education Funding?

	Annual Funding Level	Number of Students Served	Increase in Students Served	If Entire Increase Serves Adults Age 25-44 Without HS diploma	
				# Served	% Served
Five-Year Average*	**$35,884,961**	**28,340**	**—**	**13,914**	**6%**
If Increased by $10 M	$45,884,961	36,237	7,897	21,811	10%
If Increased by $15 M	$50,884,961	40,186	11,846	25,760	12%
If Increased by $20 M	$55,884,961	44,134	15,794	29,708	13%
If Increased by $25 M	$60,884,961	48,083	19,743	33,657	15%
If Increased by $30 M	$65,884,961	52,032	23,692	37,606	17%

*Five-year average is for Program Years 2011-12 through 2015-16

percentage of individuals that age without a high school diploma or GED who are enrolled in adult education would go from 6% to 10%.

Figure 11 shows approximately how many more students the adult education system could serve if funding is increased. (The table does not account for inflation.) While the Michigan League for Public Policy does not necessarily recommend that only adults age 25-44 without a high school diploma be targeted for additional money, the percent of this population that would be served with increased funding serves as a useful benchmark for measuring the degree that adult education meets the need in Michigan.

RECOMMENDATIONS

Increase Adult Education Funding

To ensure an adequate adult education funding base that will enable Michigan to meet the needs of its low-skilled workers and help them transition into postsecondary training, Michigan needs to:

1) Increase adult education annual appropriations by $10 million to $30 million.
2) Develop a formula for increasing adult education funding each year to keep up with inflation, rather than maintaining it at a flat level that will erode in value over time.
3) Monitor developments in federal adult education funding and be prepared for any federal funding cuts in the future.

Provide Adult Education in Contextualized Environments

Low-skilled adults often have barriers that prevent them from participating or successfully completing adult education programs, and Michigan needs to try new ways to facilitate success for these learners. To connect adult education instruction with other aspects of students' lives, Michigan should:

1) Encourage and fund local adult education programs to offer classes in nontraditional settings such as community colleges, workplaces and sites in which parents can bring their children.
2) Provide incentives for community colleges and school districts to enter into cooperative agreements in which adult education classes fulfill students' developmental (remedial) education requirements, and remove any institutional barriers that prevent such cooperative agreements.
3) Encourage employers to provide match funding for the provision of adult education instruction in the workplace.
4) Encourage local adult education programs to become part of occupation-specific career pathway systems and provide funding for additional instructors.

Ensure that Adult Education is Part of the Pathway to Economic Security for Public Assistance Recipients

Public assistance recipients are among those with the greatest need for skill-building, which provides economic benefit to their families and positively affects their children's skill development. To eliminate barriers that prevent members of this population from participating and successfully completing adult education programs, Michigan should:

1) Allow adult education to satisfy Family Independence Program work requirements without imposing the federal requirement of 20 hours per week of other work activities. Michigan's high work participation rate allows for some level of flexibility in this area.
2) Build on the approach, begun under Governor Granholm with the Jobs, Education and Training (JET) program and expanded under Governor Snyder with the Partnership, Accountability, Training, Hope (PATH) program, of facilitating skill building for cash assistance recipients, while continuing to reject the "work first" philosophy that prioritizes short-term employment goals over long-term skill building and economic self-sufficiency.

ENDNOTES

1. American Community Survey 1-year estimate, 2015. (The previous version of this paper used the 3-year estimate but that is no longer available.)
2. Ibid.
3. State of Michigan Dashboard using data from the Michigan Community College Association. (https://midashboard.michigan.gov/education, accessed on February 1, 2017.)
4. Carnevale, Anthony P., Nicole Smith and Jeff Strohl, *Recovery: Job Growth and Education Requirements through 2020*, Georgetown University Center on Education and the Workforce, June 2013.
5. Ibid.
6. Shaffer, Barry, *Strengthening State Adult Education Policies for English as a Second Language Populations*, Working Poor Families Project, Fall 2014.
7. A student is counted as receiving public assistance if he or she is receiving financial assistance from federal, state or local government agencies. (Note: Social Security benefits, unemployment insurance, and employment-funded disability are not included under this definition.)
8. For more information on the subsidy level and on the barriers preventing low-income parents from accessing Michigan's child care subsidy, see Sorenson, Pat, *Failure to Invest in High-Quality Child Care Hurts Children and State's Economy*, Michigan League for Public Policy, September 2014. (http://www.mlpp.org/failure-to-invest-in-high-quality-child-care-hurts-children-and-states-economy)
9. Pathways to Potential, a Michigan Department of Health and Human Services program, uses the school environment to assist parents and children in attendance, education, health, safety and self-sufficiency. For more information on this program, go to http://www.michigan.gov/dhs.
10. For more information on the federal work requirements in the Temporary Assistance for Needy Families program, see Schott, Liz and Donna Pavetti, *Changes in TANF Work Requirements Could Make Them More Effective in Promoting Employment*, Center on Budget and Policy Priorities, February 26, 2013. (http://www.cbpp.org/files/2-26-13tanf.pdf)
11. Bassett, Meegan Dugan, *Considering Two-Generation Strategies in the States*, Working Poor Families Project, Summer 2014.
12. Center for Law and Social Policy, *The Alliance for Quality Career Pathways Approach: Developing Criteria and Metrics for Quality Career Pathways*, February 2013.
13. Figures are calculated using the Bureau of Labor Statistics' Consumer Price Index inflation calculator (http://data.bls.gov/cgi-bin/cpicalc.pl, accessed April 13, 2016).
14. An academic level comprises two school grade levels.
15. Michigan Workforce Development Agency, 2013-14 Section 107 Individual District Reports. (http://www.michigan.gov/documents/wda/Section_107_Requirements_503134_7.pdf, accessed on April 13,2016)

Appendix 1

Educational Level of Michigan Residents Age 25 and Over, by County

County	Population 25+	Less Than 9th Grade	9th to 12th Grade No Diploma	HS Graduate (Includes GED)	Some College No Degree	Associate Degree	Bachelor's Degree	Graduate Degree
Alcona	8,594	3.0%	8.5%	39.9%	26.0%	8.4%	9.0%	5.3%
Alger	7,330	3.3%	7.9%	43.2%	19.7%	7.4%	13.1%	5.3%
Allegan	75,605	3.2%	6.9%	38.3%	21.7%	8.3%	14.5%	7.0%
Alpena	21,197	3.6%	6.7%	33.4%	26.7%	13.1%	10.1%	6.4%
Antrim	17,297	3.2%	6.7%	33.7%	23.0%	8.1%	15.8%	9.5%
Arenac	11,417	4.5%	10.4%	42.8%	22.0%	8.6%	7.3%	4.4%
Baraga	6,593	5.0%	12.6%	44.1%	18.8%	6.4%	8.8%	4.3%
Barry	40,874	2.4%	6.3%	36.6%	24.8%	10.7%	12.4%	6.8%
Bay	75,039	3.0%	7.7%	35.6%	24.2%	11.3%	12.5%	5.8%
Benzie	12,931	2.3%	6.3%	34.2%	23.6%	9.4%	13.6%	10.5%
Berrien	106,841	3.6%	7.8%	30.6%	22.3%	9.7%	15.5%	10.5%
Branch	29,832	4.1%	7.9%	40.8%	24.8%	9.0%	9.0%	4.5%
Calhoun	90,820	2.9%	7.0%	35.7%	25.0%	9.3%	13.6%	6.5%
Cass	36,366	2.9%	9.0%	36.2%	25.1%	10.0%	11.5%	5.5%
Charlevoix	18,916	1.6%	6.1%	31.8%	23.1%	9.4%	16.9%	11.0%
Cheboygan	19,200	2.2%	8.7%	39.4%	23.5%	8.0%	11.8%	6.4%
Chippewa	26,283	2.9%	8.1%	37.8%	24.6%	7.5%	11.8%	7.3%
Clare	22,184	4.7%	11.1%	39.3%	25.6%	7.7%	7.7%	3.9%
Clinton	51,430	2.0%	4.8%	27.9%	24.9%	10.6%	19.1%	10.7%
Crawford	10,349	2.6%	9.9%	35.4%	24.7%	10.2%	11.1%	6.0%
Delta	26,538	2.5%	5.3%	35.3%	25.9%	12.1%	13.6%	5.2%
Dickinson	18,835	1.5%	5.4%	39.9%	21.0%	9.9%	15.0%	7.3%
Eaton	74,682	1.6%	4.8%	29.7%	28.1%	11.1%	16.1%	8.6%
Emmet	23,485	1.4%	4.9%	26.2%	24.0%	10.3%	20.2%	13.1%
Genesee	278,937	2.6%	8.1%	32.8%	27.1%	10.0%	12.1%	7.2%
Gladwin	18,818	5.1%	9.9%	40.2%	23.2%	9.3%	7.6%	4.8%
Gogebic	12,033	2.0%	5.6%	38.4%	25.9%	9.8%	12.3%	6.0%
Gr. Traverse	63,727	1.8%	4.5%	26.9%	25.1%	10.3%	18.9%	12.6%
Gratiot	28,340	3.6%	7.4%	41.1%	25.3%	8.5%	8.6%	5.5%
Hillsdale	31,182	4.1%	9.1%	40.2%	23.1%	7.9%	9.6%	6.0%
Houghton	21,481	2.2%	5.7%	33.8%	19.3%	7.9%	19.2%	11.8%
Huron	23,671	4.5%	7.7%	44.3%	20.8%	8.6%	9.5%	4.6%
Ingham	169,257	2.7%	5.5%	21.6%	24.0%	8.9%	20.4%	16.8%
Ionia	43,017	3.4%	8.5%	38.1%	26.1%	9.1%	10.6%	4.3%
Iosco	19,516	2.4%	9.5%	40.0%	24.2%	7.7%	10.0%	6.1%
Iron	8,980	2.3%	6.4%	45.0%	18.5%	8.5%	13.6%	5.6%
Isabella	36,821	2.2%	6.7%	31.8%	24.1%	7.9%	15.5%	11.8%
Jackson	109,316	2.3%	7.8%	34.8%	25.9%	9.1%	13.7%	6.4%
Kalamazoo	158,739	1.9%	4.9%	23.1%	25.4%	9.7%	21.0%	14.1%
Kalkaska	12,324	3.0%	10.4%	42.4%	23.4%	8.0%	8.2%	4.6%
Kent	401,985	4.1%	6.4%	25.5%	22.2%	8.6%	21.8%	11.5%
Keweenaw	1,724	2.1%	5.5%	32.6%	23.7%	13.3%	13.5%	9.3%

Appendix 1 (continued)

Educational Level of Michigan Residents Age 25 and Over, by County

County	Population 25+	Less Than 9th Grade	9th to 12th Grade No Diploma	HS Graduate (Includes GED)	Some College No Degree	Associate Degree	Bachelor's Degree	Graduate Degree
Lake	8,798	5.8%	12.3%	41.5%	23.6%	7.4%	5.6%	3.8%
Lapeer	61,029	2.6%	6.6%	37.1%	26.1%	10.1%	11.2%	6.3%
Leelanau	16,572	1.5%	3.5%	22.4%	23.0%	9.7%	22.3%	17.7%
Lenawee	67,319	3.2%	7.0%	36.7%	25.0%	8.8%	12.7%	6.5%
Livingston	126,354	1.0%	3.9%	25.6%	26.2%	9.7%	22.2%	11.4%
Luce	4,866	3.6%	8.1%	45.0%	22.6%	8.4%	8.6%	3.7%
Mackinac	8,412	2.8%	8.8%	36.5%	25.8%	7.8%	11.9%	6.5%
Macomb	592,575	3.8%	7.3%	30.6%	24.7%	10.3%	15.2%	8.1%
Manistee	18,127	2.5%	7.9%	37.3%	23.4%	9.3%	12.3%	7.4%
Marquette	44,640	1.7%	3.8%	33.1%	23.6%	9.0%	19.1%	9.7%
Mason	20,531	2.5%	5.8%	34.4%	26.2%	10.9%	12.6%	7.6%
Mecosta	26,471	3.1%	7.5%	34.4%	22.8%	9.4%	13.6%	9.1%
Menominee	17,343	2.7%	7.1%	42.2%	22.6%	10.3%	11.3%	3.9%
Midland	57,296	1.9%	4.7%	29.6%	21.3%	10.2%	19.4%	13.1%
Missaukee	10,373	3.3%	10.1%	42.8%	21.6%	9.1%	8.8%	4.3%
Monroe	103,337	2.5%	7.4%	36.2%	25.2%	10.3%	12.2%	6.4%
Montcalm	43,161	3.7%	9.0%	39.0%	25.7%	9.5%	8.7%	4.4%
Montmorency	7,465	4.4%	10.0%	41.9%	24.1%	8.8%	6.8%	4.0%
Muskegon	114,891	2.9%	8.3%	34.8%	25.6%	10.3%	12.6%	5.6%
Newaygo	32,890	4.1%	9.9%	41.1%	22.7%	8.3%	9.3%	4.5%
Oakland	854,509	2.2%	4.6%	20.1%	21.1%	7.7%	25.4%	19.0%
Oceana	17,791	5.5%	9.2%	34.7%	24.1%	9.6%	10.6%	6.2%
Ogemaw	15,701	3.4%	11.6%	40.9%	24.2%	8.3%	7.5%	4.1%
Ontonagon	5,140	2.5%	6.2%	40.6%	25.4%	10.3%	10.8%	4.3%
Osceola	15,947	4.0%	8.0%	44.7%	21.8%	8.4%	8.7%	4.5%
Oscoda	6,277	6.0%	10.3%	40.6%	27.1%	6.3%	6.7%	3.0%
Otsego	16,985	2.0%	6.1%	36.6%	23.9%	10.9%	13.5%	7.0%
Ottawa	167,263	3.3%	5.3%	28.9%	21.9%	9.4%	20.9%	10.2%
Presque Isle	10,127	3.8%	8.1%	40.6%	21.9%	8.7%	10.6%	6.3%
Roscommon	18,994	2.8%	9.1%	38.9%	26.1%	8.7%	9.1%	5.3%
Saginaw	132,135	3.4%	8.6%	34.2%	24.2%	9.4%	13.6%	6.6%
Saint Clair	111,510	2.7%	7.7%	35.3%	26.2%	10.7%	11.0%	6.4%
Saint Joseph	40,598	5.4%	9.4%	38.9%	23.8%	7.8%	9.0%	5.7%
Sanilac	29,344	3.5%	8.7%	45.1%	21.4%	9.1%	7.8%	4.4%
Schoolcraft	6,184	4.7%	7.9%	46.8%	20.9%	6.4%	9.3%	4.0%
Shiawassee	47,399	2.2%	6.9%	36.6%	27.9%	10.7%	10.3%	5.4%
Tuscola	38,134	3.4%	7.8%	42.0%	23.5%	9.4%	9.4%	4.5%
Van Buren	50,855	5.6%	8.0%	34.0%	24.4%	8.4%	12.6%	6.9%
Washtenaw	219,618	1.8%	3.7%	15.7%	19.2%	6.9%	25.4%	27.3%
Wayne	1,170,589	4.7%	10.6%	30.3%	24.5%	7.9%	13.4%	8.6%
Wexford	22,609	3.0%	8.2%	38.8%	22.9%	10.3%	11.4%	5.4%

Source: U.S. Census Bureau, 2015 American Community Survey 5-Year Estimates

Earnings and Poverty by Educational Level of Michigan Residents Age 25 and Over, by County

	Median Earnings				Poverty Rate			
County	Less Than HS	HS Graduate (Includes GED)	Some College or Associate Degree	Bachelor's Degree	Less Than HS	HS Graduate (Includes GED)	Some College or Associate Degree	Bachelor's Degree or Higher
Alcona	$20,125	$21,549	$23,581	$38,636	27.7%	14.6%	10.6%	4.2%
Alger	$19,391	$21,417	$26,996	$44,118	30.8%	16.6%	9.4%	5.8%
Allegan	$23,397	$30,019	$33,990	$49,196	27.0%	11.5%	8.4%	3.2%
Alpena	$15,982	$21,019	$27,269	$37,941	28.3%	14.1%	13.7%	3.7%
Antrim	$14,953	$23,657	$25,947	$37,113	26.5%	13.0%	10.6%	4.9%
Arenac	$12,969	$23,279	$26,182	$42,337	27.5%	18.6%	12.2%	5.1%
Baraga	$20,972	$25,701	$22,408	$36,548	23.4%	12.0%	13.2%	5.6%
Barry	$23,797	$30,913	$36,044	$47,352	20.6%	10.1%	7.4%	2.2%
Bay	$15,484	$26,899	$30,156	$46,206	24.0%	14.0%	12.3%	2.9%
Benzie	$18,015	$22,868	$27,135	$41,948	19.9%	11.4%	9.2%	5.0%
Berrien	$17,021	$26,419	$30,518	$42,799	34.4%	14.9%	11.5%	4.8%
Branch	$18,722	$27,030	$30,958	$42,500	30.8%	14.9%	9.3%	4.7%
Calhoun	$16,747	$25,257	$30,800	$45,885	30.6%	16.8%	12.3%	3.2%
Cass	$25,496	$28,280	$30,945	$44,089	23.9%	12.1%	9.2%	2.7%
Charlevoix	$18,583	$22,325	$28,285	$37,455	26.3%	14.5%	8.3%	3.1%
Cheboygan	$17,917	$20,288	$24,488	$34,738	23.6%	16.1%	13.1%	7.6%
Chippewa	$11,089	$20,576	$26,112	$40,460	31.4%	14.1%	11.9%	3.8%
Clare	$18,354	$20,664	$23,279	$43,902	27.7%	22.3%	20.6%	7.0%
Clinton	$21,362	$30,302	$36,835	$54,299	23.9%	8.8%	7.0%	2.3%
Crawford	$20,081	$21,500	$27,070	$34,522	25.8%	16.1%	7.6%	5.0%
Delta	$19,922	$23,506	$27,072	$40,830	21.4%	17.2%	14.1%	7.1%
Dickinson	$18,260	$25,674	$29,820	$40,147	26.1%	14.7%	10.4%	7.0%
Eaton	$18,246	$27,132	$36,238	$50,981	21.7%	11.6%	6.9%	2.6%
Emmet	$15,230	$22,155	$27,463	$35,980	27.8%	11.3%	7.3%	4.5%
Genesee	$15,229	$24,711	$29,127	$45,397	33.1%	17.5%	15.0%	5.2%
Gladwin	$16,111	$22,001	$29,724	$37,297	29.7%	16.1%	12.8%	5.4%
Gogebic	(X)	(X)	(X)	(X)	33.7%	19.1%	14.9%	5.7%
Grand Traverse	$16,220	$25,063	$28,300	$41,615	24.3%	12.6%	9.1%	4.1%
Gratiot	$19,902	$24,915	$29,758	$45,296	28.8%	16.4%	13.5%	5.0%
Hillsdale	$16,385	$26,851	$29,513	$41,710	33.4%	15.1%	10.7%	4.7%
Houghton	$20,197	$23,921	$26,782	$37,006	33.7%	15.6%	11.4%	8.6%
Huron	$21,071	$26,272	$28,548	$38,059	24.7%	11.0%	11.0%	3.7%
Ingham	$18,331	$24,113	$30,665	$42,125	30.6%	18.7%	14.1%	7.1%
Ionia	$20,434	$25,619	$31,936	$45,836	31.8%	14.4%	8.6%	3.7%
Iosco	$16,545	$19,786	$25,230	$37,442	24.8%	15.5%	12.1%	4.2%
Iron	$19,074	$21,725	$27,396	$34,773	22.3%	15.8%	12.4%	4.5%
Isabella	$17,633	$24,375	$26,527	$37,493	28.0%	15.6%	14.9%	8.1%
Jackson	$16,096	$26,543	$32,274	$50,246	27.9%	14.9%	10.9%	3.8%
Kalamazoo	$16,302	$25,795	$30,910	$43,482	33.4%	16.1%	13.0%	4.8%
Kalkaska	$20,817	$25,972	$25,731	$32,201	23.3%	16.6%	14.4%	6.2%
Kent	$18,687	$26,700	$31,050	$43,780	30.2%	13.6%	10.9%	4.1%
Keweenaw	(X)	(X)	(X)	(X)	31.3%	15.3%	11.7%	5.1%

Earnings and Poverty by Educational Level of Michigan Residents Age 25 and Over, by County

	Median Earnings				Poverty Rate			
County	Less Than HS	HS Graduate (Includes GED)	Some College or Associate Degree	Bachelor's Degree	Less Than HS	HS Graduate (Includes GED)	Some College or Associate Degree	Bachelor's Degree or Higher
Lake	(X)	(X)	(X)	(X)	36.2%	19.5%	22.6%	9.8%
Lapeer	$20,786	$27,067	$33,631	$46,359	15.4%	9.2%	8.6%	3.5%
Leelanau	$16,875	$23,924	$28,039	$35,028	20.3%	15.1%	5.9%	4.3%
Lenawee	$15,141	$25,806	$31,596	$43,054	23.6%	11.8%	9.0%	5.2%
Livingston	$20,927	$31,951	$37,628	$61,718	15.6%	6.8%	4.7%	2.3%
Luce	(X)	(X)	(X)	(X)	18.8%	20.8%	13.5%	0.7%
Mackinac	$17,258	$20,012	$26,279	$35,433	21.3%	13.7%	10.2%	6.7%
Macomb	$21,484	$28,964	$35,535	$52,122	22.8%	11.7%	8.4%	4.4%
Manistee	$14,614	$22,540	$28,867	$35,455	22.8%	15.3%	10.6%	5.9%
Marquette	$12,552	$24,161	$27,159	$39,007	24.5%	16.2%	10.6%	5.7%
Mason	$21,324	$21,469	$25,841	$43,963	20.1%	14.7%	11.5%	4.6%
Mecosta	$17,371	$24,951	$26,967	$39,418	27.8%	14.6%	12.5%	7.0%
Menominee	$15,086	$26,822	$30,852	$36,868	25.9%	11.5%	13.2%	5.1%
Midland	$15,975	$24,171	$31,313	$54,034	27.9%	14.8%	10.5%	3.7%
Missaukee	$21,066	$25,590	$25,962	$42,298	23.1%	14.3%	10.8%	4.1%
Monroe	$19,471	$30,777	$36,615	$54,361	23.9%	10.8%	7.0%	2.6%
Montcalm	$22,026	$25,112	$28,742	$41,860	25.9%	16.4%	11.8%	4.3%
Montmorency	(X)	(X)	(X)	(X)	22.5%	14.8%	13.6%	5.9%
Muskegon	$19,312	$25,499	$30,599	$44,252	29.5%	16.6%	14.1%	4.5%
Newaygo	$19,946	$25,919	$31,346	$41,060	28.7%	15.6%	12.8%	4.8%
Oakland	$19,576	$27,482	$34,718	$58,632	24.0%	12.4%	9.0%	3.5%
Oceana	$16,819	$24,748	$28,097	$35,170	31.5%	16.1%	11.1%	4.9%
Ogemaw	$16,836	$23,036	$24,518	$47,717	27.8%	16.5%	16.3%	5.8%
Ontonagon	$16,696	$22,098	$25,671	$31,458	25.2%	15.9%	10.3%	6.1%
Osceola	$24,063	$24,852	$27,368	$36,134	28.2%	18.1%	15.2%	9.1%
Oscoda	(X)	(X)	(X)	(X)	30.3%	16.3%	15.7%	6.8%
Otsego	$19,718	$26,125	$29,563	$44,551	26.7%	13.9%	9.5%	1.7%
Ottawa	$22,090	$30,189	$33,673	$46,002	17.4%	7.9%	6.5%	2.7%
Presque Isle	$19,306	$21,588	$27,157	$43,902	20.7%	12.7%	11.1%	4.6%
Roscommon	$10,038	$21,037	$24,006	$41,711	29.3%	16.9%	15.3%	8.6%
Saginaw	$14,524	$24,218	$27,268	$46,107	29.0%	15.3%	12.7%	4.2%
Saint Clair	$19,247	$28,191	$31,753	$45,612	25.1%	11.7%	11.4%	4.4%
Saint Joseph	$23,471	$27,920	$30,238	$41,356	26.5%	12.6%	10.1%	2.8%
Sanilac	$19,125	$25,971	$27,206	$39,500	22.4%	13.5%	11.4%	5.0%
Schoolcraft	(X)	(X)	(X)	(X)	32.4%	21.7%	11.0%	2.9%
Shiawassee	$22,700	$29,100	$31,322	$44,130	22.9%	11.8%	10.4%	4.1%
Tuscola	$19,543	$25,159	$29,021	$42,179	25.0%	12.6%	10.0%	4.2%
Van Buren	$20,663	$25,845	$31,925	$47,119	30.6%	16.3%	12.2%	5.1%
Washtenaw	$17,486	$25,869	$31,567	$47,168	25.4%	13.1%	11.5%	5.4%
Wayne	$17,887	$25,884	$30,919	$48,034	38.6%	22.2%	17.4%	6.3%
Wexford	(X)	(X)	(X)	(X)	26.3%	15.3%	11.7%	5.7%

Source: U.S. Census Bureau, 2015 American Community Survey 5-Year Estimates

Appendix 3

2020 Total Jobs in Michigan by Occupation and Education Level

	Less Than High School	High School Diploma	Some College/No Degree	Associate Degree	Bachelor's Degree	Master's Degree or Higher
Managerial and Professional Office						
Management	5,930	47,960	67,410	28,580	120,630	73,760
Business operations	740	14,920	27,380	11,810	58,740	18,490
Financial services	490	6,140	13,590	9,530	72,520	30,250
Legal	—	2,560	2,970	1,420	4,160	25,150
STEM						
Computers and mathematical sciences	1,310	3,870	15,330	10,770	46,000	18,370
Architecture	—	1,500	1,430	3,830	3,420	1,160
Engineering	240	3,880	10,420	8,390	50,250	26,560
Life and physical sciences	40	850	3,180	1,790	7,140	9,610
Social Sciences	—	—	—	—	1,760	20,250
Community Services and Arts						
Community and social services	170	4,000	7,240	4,320	27,630	31,540
Arts, design, entertainment, sports and media	540	12,590	25,820	15,140	60,320	20,250
Education, Training and Library	500	8,240	14,830	5,390	83,160	138,260
Healthcare Professional and Technical	480	14,690	35,270	60,800	69,890	79,620
Healthcare Support	10,310	56,500	69,510	21,220	6,930	3,940
Food and Personal Services						
Food preparation and serving related	10,310	56,500	69,510	21,220	6,930	3,940
Building and grounds	42,440	116,980	97,760	24,010	30,750	830
cleaning and maintenance	26,050	81,100	60,710	7,970	6,660	1,210
Personal care and services	20,950	64,180	73,100	22,340	20,730	2,960
Protective services	1,050	10,610	19,860	13,840	18,230	2,320
Sales and Office Support						
Sales and related	21,010	161,420	181,670	50,210	162,750	25,760
Office and administrative support	15,390	175,630	222,160	77,760	102,610	13,860
Blue Collar						
Farming, fishing and forestry	4,180	8,760	3,520	750	1,020	300
Construction and extraction	14,700	76,120	58,270	16,960	11,880	930
Installation, maintenance and repair	14,710	64,440	53,050	20,350	10,640	1,630
Production	39,530	159,140	108,780	22,730	24,160	3,670
Transportation and material moving	35,710	129,780	66,480	11,810	17,300	620

Source: Carnevale, Anthony P., Nicole Smith and Jeff Strohl, *Recovery: Job Growth and Education Requirements through 2020 (State Tables),* Georgetown University Center on Education and the Workforce, June 2013