Workforce Development in Michigan

SARAH ESTELLE





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Mackinac Center for Public Policy 140 West Main Street P.O. Box 568 Midland, Michigan 48640 989-631-0900 Fax: 989-631-0964 Mackinac.org mcpp@mackinac.org

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The Mackinac Center for Public Policy Workforce Development in Michigan By Sarah Estelle

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Introduction

"Today, too few workers have the skills needed to meet the demands of employers in the new economy. [...] Michigan companies report feeling the effects of a talent disconnect. The widespread retirement of baby boomers is leading to a loss of talent in the workplace and an increasingly technology-driven economy requires advanced skills that many of our workers do not have."

-Gov. Rick Snyder, Dec. 1, 2011

"The skills gap poses a serious economic challenge for us. And part of the problem is we have failed to prioritize talent and ensure everyone has a path to skills. The vast majority of today's jobs require some form of postsecondary education, whether it's a degree or a skills certification. But, as of 2016, only 44 percent of our workforce has such a credential. Simply put, that's not good enough for Michigan to compete."

-Gov. Gretchen Whitmer, Feb. 12, 2019

As Gov. Rick Snyder rounded out his first year in office, unemployment in Michigan was 10.6%, according to the Bureau of Labor Statistics. When unemployment is high, as it was following the Great Recession, the productivity loss has clear, negative implications for individuals and families and also affects the state budget — decreasing tax revenue and increasing state benefit liabilities. But unemployment is not the most pressing workforce related issue in Michigan today. When Gov. Gretchen Whitmer took office, state unemployment was 4.0% (where it remains at the time of this writing), which is at the low-end of economists' estimates for the natural rate of unemployment. In her first "State of the State" address, she made no mention of unemployment but emphasized the need for skills, especially those resulting in credentials.¹ While state involvement in workforce development is by no means new, calls for more and better workforce development, including job training and connecting jobs and workers, have intensified.

As indicated in the quote above from Gov. Snyder, demographic changes — particularly the aging baby boomer population — and rapidly changing market dynamics are sources of concern for employers. Bearing this out, a fall 2018 survey of corporate real estate executives indicates that first among the "most important location criteria" is workforce skills and third is workforce development, up from seventh in 2017.² This uncertainty about the future provides an impetus for retooling the skills of Michigan workers and leaves some advocating for advanced coordination efforts facilitated by the state.

Basic economics, however, should temper these concerns and raise some skepticism about the general tenor of calls for a significant political response. In a labor market where multiple firms compete for a supply of workers, wages will increase and potential employees will respond accordingly by investing in the skills needed to qualify for those higher-paying jobs. Moreover, even among those who support a political response to the perceived labor shortages, the general consensus is that many of the open jobs require much less than a four-year degree, even as little as

a six-month certificate. In a competitive labor market, labor shortages should be short-run phenomena that dissipate through common, self-interested responses by employers and workers.

Where labor markets are not competitive, it behooves citizens and policymakers to consider the detrimental effects of licensing requirements and other artificial restrictions on labor supply. But where labor markets are functioning normally — firms offer higher wages where labor markets are tight, skilled employees respond and unskilled workers seek training — we should allow them to work, even if this process takes more time than some would prefer. Market mechanisms, such as prices and wages, have a distinct advantage over top-down efforts by state-run talent boards or workforce development agencies in gauging and adjusting to changing conditions.

This report, though largely a survey of existing workforce development efforts in Michigan, concludes with a general skepticism about the ability of state actors, or even a collection of business interests, to foresee future labor market changes and intervene in such a way as to make everyone better off. This skepticism is largely rooted in a number of observations suggesting that government efforts and influence in training and education actually may contribute to the current challenges in the skilled labor market. In other words, government-led efforts to mitigate perceived labor market problems may be more of a hindrance than a help.

This report will not attempt to predict where skill gaps might appear or even argue whether or not shortages, in a persistent form, are a current problem in need of government action.^{*} The political reality is that workforce development policy is a popular issue, and so this report aims to increase the understanding of the main efforts toward job training in Michigan.

Current Initiatives and Funding

Federal Programs

The majority of federal employment and training efforts are not training or even direct employment service provision.³ Since passing the Area Redevelopment Act in 1961, the federal government has been actively involved in employment and training policy. In more recent decades, and consistent with the trend toward devolution to the states of other federal-mandated activities, the federal government has largely been a funder of state-facilitated programming.

Perhaps the two most influential acts in this space are the Workforce Innovation and Opportunity Act and the Carl D. Perkins Career and Technical Education Act. Federal programs under the WIOA, managed by the Department of Labor's Employment and Training Administration, support employment and training services through formula grants to states. The ETA's total budget request for training and employment services, much of which is authorized by WIOA, included \$490 million for adult training programs and \$666 million for training displaced workers. But the overall budget of the program fell by more than one-third between 2018 and 2019, from \$3.3 to \$2 billion.⁴

^{*} For a solid understanding of the doubts about a real, persistent skills gap, see: Peter H. Cappelli, "Skill Gaps, Skill Shortages, and Skill Mismatches: Evidence and Arguments for the United States," *ILR Review* 68, no. 2 (2015): 251–290, https://perma.cc/DG22-CZHM.

Perkins, managed by the U.S. Department of Education, also provides grants to states. This money is awarded to educational institutions — at the high school and postsecondary levels — to support programs of study within the broader designation of career and technical education, or CTE, also known as vocational training. Over \$1.2 billion dollars was appropriated for Perkins in 2019.⁵

There are other federal programs, aimed at the most recent perceived skills training needs, but these programs are much smaller than the WIOA or Perkins. They include programs implemented through the U.S. Department of Labor, such as the Scaling Apprenticeship Through Sector-Based Strategies and the Trade Adjustment Assistance program. The former incentivizes public-private apprenticeship programs in select industries, while the latter assists U.S. workers who lose their jobs due to foreign competition.⁶

Other training-oriented grants emanate from the federal level but are designed only for lowincome program participants.^{*} While these are more modest in scale than WIOA or Perkins, they supplement the other public programs discussed below. Though WIOA is not limited strictly to low-income people, it requires states to prioritize those with barriers to employment, including those with disability, recipients of public assistance and other low-income groups.⁷

State Programs

With the notable exceptions of funding CTE in public high schools and occupational programs in state-funded community colleges, the state of Michigan does not directly operate any major skills training programs. But state funding for training and employment services, including job "connecting" services, have become more important due to federal devolution and one-stop career center requirements of federal WIOA grants.

Despite a new emphasis on the need for modern workforce development, most of Michigan's efforts toward workforce development are rather traditional, that is, facilitated by conventional high schools and community colleges, as they have been for decades. What is relatively new in Michigan are workforce development initiatives that appear only indirectly related to training. Most of these efforts issue from the authority of Michigan's Department of Talent and Economic Development and largely consist of connecting jobseekers with general employment services, such as job openings, training programs and broad career services and guidance.

For example, the Michigan Economic Development Corporation is the state's marketing department for workforce development efforts. Its Going PRO in Michigan campaign aims to elevate the reputation and exposure of skilled trades through its own publicity efforts and making electronic publicity tools available free online. The MEDC also provides an online interface, Pure

^{*} For example, the U.S. Department of Housing and Urban Development's Jobs-Plus program awards grants to public housing agencies for employment-related programming including training. The Department of Labor emphasizes occupational skills training in its selection criteria for nonprofit and public entities that would target low-income youth with the assistance of a federal YouthBuild grant. "JPI Jobs Plus Initiative Program" (U.S. Department of Housing and Urban Development, 2019), https://perma.cc/FDS3-RAAQ; "U.S. Department of Labor YouthBuild" (YouthBuild USA, Inc., 2019), https://perma.cc/4H6W-XCBN.

Michigan Talent Connect, that facilitates matching jobseekers with employers as well as training opportunities, mostly offered by community colleges, private companies or private nonprofits.⁸

The state also operates Michigan Works!, which functions through 16 independent regional centers and receives local, state and federal support.⁹ State statute defines it as a "coordinated system for delivery of workforce development programs and services," but, like the MEDC's programs, Michigan Works! does not provide its own skill training programs.¹⁰ Rather, it seems to primarily focus on providing jobseekers with consultation and job-search assistance.

The state does provide grants for some training programs, however. The Going PRO Talent Fund has since 2014 provided grants to employers that train and retain workers. Firms can be reimbursed up to \$3,000 per employee for the cost of providing training through classroom instruction, on-the-job or through an apprenticeship, if the employee is retained for at least 90 days.¹¹ In June 2018, this was codified into state statute.¹² According to the state, this fund has supported the training efforts of 2,234 companies from 2014-2018, with the average size grant to employers of about \$32,000.¹³

The Marshall Plan for Talent also offers \$59 million in "innovation grants" to so-called "talent consortia," made up of some combination of businesses, industry associations, educational institutions and community organizations that support "curriculum creation, project-based certification programs, equipment, full-time staff, industry mentors, professional development, competency-based pilot programs, cybersecurity incentives, career navigators and teacher shortage relief programs."¹⁴

While direct provision of training by the state occurs largely through high school CTE programs and community colleges, traditional funding of these can be supplemented at different intervals with special funding efforts. For example, in December 2017 the Michigan Department of Education announced \$12.5 million in grants for CTE centers around the state, \$5 million of which would be allocated through a competitive grant process resulting in multiple grants ranging from \$100,000 to \$1 million each.¹⁵

Survey of Current Training Provision

This section is a thorough sampling of current direct training programs in Michigan. This survey is unavoidably incomplete; particularly with regards to private and localized efforts, an exhaustive listing of programs is impossible. Still, a systematic search process uncovers interesting patterns of what types of skills training are offered in Michigan. For the purposes of this section, as throughout the report, training should be understood to be quite different from employment search, career counseling, general employability training, soft-skill development, and general or basic education.

To further refine our scope, this report focuses on specific skills training — sometimes called "technical training" — in areas related to technology and computer-based services, construction and skilled manufacturing trades and health care, including home health care, nursing, medical technology and other health care services. These industries are at the center of the skills gap

discussion and are frequently listed as providing career opportunities in fields that are predicted by many to grow in demand in the future. Training and retraining of manufacturing workers is also particularly relevant in Michigan in light of the state's long history with automobile manufacturing and related industries. Within all these sectors, this survey aims to include training programs that serve young adults, displaced workers, or both.

Federally Provided Training

As mentioned above, little training is actually provided by the federal government. There is one notable exception: Job Corps. This program began in 1964 and operates in 120 locations around the country with a total operating budget in 2019 of nearly \$1.2 billion.¹⁶ It is an intensive residential program that provides academic classes, training in a trade, and food and housing, free of charge, to over 60,000 youth and young adults between ages 16 and 24.¹⁷ In 2016, 1,059 Job Corps participants were Michigan residents.¹⁸ The three Michigan locations — Detroit, Flint and Grand Rapids — offer training in different trades, but all programs fall within construction, health care, security, hospitality or information technology. Programs focus on "work-based learning," with the goal of linking classroom training with on-the-job learning. Capacity of these centers differ: Detroit serves 298, Grand Rapids 212, and Flint 307, with the latter also providing daycare and single-parent dormitories that the others do not.¹⁹

Secondary CTE

Despite many creatively named initiatives, Michigan provides the bulk of its workforce training through traditional methods: CTE at the high school level within the existing public school system and at the postsecondary level through community colleges and select four-year institutions. Available data do not make clear the factors that determine which programs, certifications and degrees are offered at these institutions, but, presumably, the funding sources described above — especially federal Perkins grants — have some influence by tying funds to approved uses within certain programs of study.

The Michigan Department of Education publishes data on the use of CTE programs offered at the high school level.^{*} More than 200 Michigan school districts in over 500 schools offer CTE and cumulatively enrolled nearly 128,000 students during the 2016-2017 academic year. In that year, CTE programs in Michigan provided training in 45 different subject areas, known as Classification of Instructional Programs, or CIPs. Some CIPs are widely offered across the state and have large enrollments, while others are more localized and have small enrollments.

In 2016-2017, the top five CIP programs by statewide enrollment were, in descending order: marketing sales and service; business administration, management, and operations; therapeutic services (i.e., nursing and other health fields); finance and financial management services; and agriculture. Unsurprisingly, all but one of these CIPs were among the top five most common ones

^{*} The analysis that follows is based on data available from the Michigan Department of Education at http://67.227.242.156/home/index/PECR.

offered by school districts in 2016-17. The exception was agriculture — automobile technician training was a more commonly offered program.

Program	# offered	Program	% of total enrollment
Business Admin Mgt & Operations	193	Marketing Sales and Services	13%
Finance & Financial Mgt Services	170	Business Admin Mgt & Operations	12%
Marketing Sales and Services	162	Therapeutic Services	9%
Therapeutic Services	126	Finance & Financial Mgt Services	7%
Automobile Technician	108	Agriculture	7%
Construction Trades	97	Automobile Technician	5%
Agriculture	91	Cooking & Related Culinary Arts	5%
Digital/Multimedia & Information Resources Design	89	Digital/Multimedia & Information Resources Design	5%
Cooking & Related Culinary Arts	76	Construction Trades	4%
Mechanical Drafting	71	Graphics Communications	3%

Graphic 1: Top 10 CTE Programs Offered and Top 10 Enrollment, 2016-17

Source: Michigan Department of Education, http://www.cteisreports.com

There are other valuable measures of the usage of different CIPs offered by school districts. "Concentration" counts students who have completed at least seven segments of a CTE program with a 2.0 GPA or higher. "Completers" are students who finished all 12 segments of a program with at least a 2.0 GPA and passed a technical exam, when applicable.²⁰ Graphic 2 shows the top 10 CIP areas by rates of concentration and completion, and the number of programs statewide for each. The top three highest concentration rates were in diagnostic services (94%), insurance (94%) and biotechnology (91%). The programs with the top three completion rates were biotechnology (86%), diagnostic services (75%) and plumbing technology (74%).

Program	Concentrator	# of programs	Program	Completer	# of programs
Diagnostic Services	94.35%	5	Biotechnology	85.96%	2
Insurance	93.86%	5	Diagnostic Services	75.14%	5
Biotechnology	91.23%	2	Plumbing Technology	74.47%	1
Plumbing Technology	85.11%	1	Elec/Power Tran Installer	70.29%	5
Elec/Power Tran Installer	83.43%	5	Aero/Av/Aerospace Sci & Tech	63.84%	6
Systems Administration/Administrator	82.54%	15	Therapeutic Services	62.87%	126
Health Informatics	78.95%	2	Systems Administration/Administrator	61.09%	15
Therapeutic Services	78.56%	126	Lineworker	60.00%	1
Welding/Brazing/Soldering	78.37%	68	Public Safety/Protect Services	58.88%	41
Public Safety/Protect Services	76.92%	41	Health Informatics	57.89%	2

Graphic 2: Top CTE Programs by Concentrators and Completers, 2016-17

Source: Michigan Department of Education, http://www.cteisreports.com

Interestingly, only one CIP area, therapeutic services, ranks in the top 10 by all four measures in Graphics 1 and 2. That is, it is offered by many institutions around the state, serves almost a tenth of CTE students in the state, and has above-average yields for its students, measured by concentration and completion. More generally, notice that programs that are offered most widely and experience the most enrollment are not those that result in the highest completion rates. Still, many of the other CIP areas that do experience high rates of concentration or completion represent industries in high-growth areas.

The Bureau of Labor Statistics estimates that the health care and social assistance industry will experience the highest 10-year (2016-2026) growth rate, increasing by a projected 1.9% annually to become the largest industry sector by 2026. Construction is projected to be the fourth-highest growth industry, increasing by 1.2% annually.²¹

That CIP areas associated with careers thought to be in high demand also feature high yields could suggest at least two things. First, conditional on enrollment, perhaps students are more likely to complete or concentrate when the perceived benefits are greater, e.g., when employment prospects are more obviously promising. Second, high-demand fields may attract a different composition of students. If students of higher innate ability or intrinsic motivation are attracted to these fields, then their enrollment and concentration and completion rates may both reflect student quality, rather than the attributes of the program itself. Without additional data and significant econometric research, it is not possible to identify which theory, or if some combination of both, explains some of this phenomenon.

Postsecondary CTE

Postsecondary occupational training is provided through 29 community colleges around the state and three universities — Ferris State, Northern Michigan and Lake Superior State — that serve some community college functions.²² Enrollment and tuition for these programs varies greatly by school. Total enrollment, including academic and occupational programs, in 2016-2017 ranged from as few as 543 at Bay Mills Community College to 24,089 at Macomb Community College.²³ Per-credit-hour tuition, around the state, ranged from \$88 to \$135 in district and \$145.50 to \$238 out of district.²⁴

The Michigan Community College NETwork provides detailed data about community college enrollments in Michigan.^{*} Programming at community colleges around Michigan varies by discipline and field but, in general, stands apart from traditional four-year colleges by offering primarily (or only) associate degrees and certificates. As an example, among the community colleges reporting data on occupational training programming, 81% of the programs they provided were occupational in nature.[†]

Still, the most-enrolled program at nearly every community college in 2016-2017 was general studies, liberal arts or some other program indicating the student's intent to transfer to a four-year institution. Among Michigan's community colleges, 16 of 29 reported that nursing was the most popular among their occupational programs in 2016-2017. For 12 community colleges, the most-enrolled occupational program was related to business education — e.g., business administration, business management, etc. Indeed, nursing and business dominated in terms of popularity: 28 of 29 community colleges' most-enrolled program was nursing or business, and 17 of these same institutions reported nursing or business as their second-highest enrolling occupational program. One college reported early childhood education as its most popular occupational training program. Graphic 3 reports the statewide aggregate enrollment for the top 20 occupational programs at community colleges in 2016-2017.

^{*} The analysis that follows is based on data from the Michigan Community College NETwork, available at: http://michigancc.net/ccdata/sd/yearendall.aspx.

⁺ For each specific program discussed below, its status as an occupational program is determined by its CIP code. There are different CIP codes for nonoccupational programs with business relevance, for example, than there are for business programs that are occupational in nature.

Business Management	9,103
Nursing-Registered Nurse	5,603
General Business-Global Supply Chain/International Business	3,127
Criminal Justice Pre-service	2,179
Software Developer	1,655
Health Care Foundations	1,615
Industrial Welding	1,601
Industrial Pipefitting	1,547
Accounting	1,534
Automotive Technology	1,218
Networking Specialist	1,081
Early Childhood Education	1,073
Child Care Management and Support	1,007
Pre-nursing	994
Graphic Design	822
Computer Aided Drafting & Design Technology	815
Medical Assistant	699
Culinary Arts & Sustainable Food Systems	687
Correction	677
Paramedic	663
Computer Programming Specialist	651

Graphic 3: Top 20 Postsecondary Occupational Programs by Enrollment, 2016-17*

Source: Michigan Community College NETwork.

For many Michigan students, community college degrees do not represent their terminal degree aspirations. In fact, 39% of program enrollments were in general studies, associate of arts programs or liberal arts programs, which are typically courses of study used to transfer to a fouryear college or program.

Still, for many, and perhaps especially those in occupational programs, the terminal degree or certification for their intended career is within the scope of a community college curriculum and receiving a degree or certificate represents the ultimate purpose of their enrollment. In 2016-2017, community colleges in Michigan awarded a variety of degrees and certifications, in academic and occupational programs, including associate degrees (67%), degrees requiring more than one but less than two years (17%), degrees requiring less than one academic year (11%), and workforce certifications (4%). Graphic 4 shows the percentage of awards at each Michigan community college resulting from an occupational program. While there is variation across schools, ranging from 38% to 85% across traditional community colleges, the statewide percentage of occupational awards among all awards in 2016-17 was 58%.[†]

^{*} Some of the source data available at the Michigan Community College NETwork appear to conflict with the numbers reported here, which were taken from a prepared report published by the MCCN. We were not able to reconcile these differences at the time of this publishing.

[†] Author's calculation based on data provided by the Michigan Community College NETwork, available at

http://michigancc.net/ccdata/sd/certdegall.aspx. Note: Some of the data provided in prepared reports by the Michigan Community College NETwork appears to conflict with these results, but yet other data provided by MCCN confirm it.

Gogebic Community College	84.78%
Henry Ford College	83.98%
Kirtland Community College	73.85%
Alpena Community College	72.65%
Jackson College	72.15%
Bay College	70.97%
Kellogg Community College	69.04%
Schoolcraft College	65.72%
Lansing Community College	64.15%
Glen Oaks Community College	63.77%
Monroe County Community College	60.00%
Bay Mills Community College	59.38%
Delta College	58.06%
West Shore Community College	57.43%
Montcalm Community College	56.27%
Mid Michigan Community College	55.04%
Northwestern Michigan College	54.81%
Macomb Community College	53.64%
Lake Michigan College	53.36%
Washtenaw Community College	53.03%
Grand Rapids Community College	52.35%
Kalamazoo Valley Community College	49.50%
Muskegon Community College	48.24%
Wayne County Community College	46.55%
Oakland Community College	46.41%
North Central Michigan College	45.56%
Southwestern Michigan College	45.39%
St. Clair County Community College	41.76%
Mott Community College	38.19%

Graphic 4: Share of Occupational Awards Granted as a Portion of All Awards, 2016-17

Source: Michigan Community College NETwork

As with high school CTE participation, enrollment does not guarantee completion. Graphic 5 reports the number of occupational awards earned for the top 20 occupational fields in rank order. In comparison to Graphic 3, it is clear that business and nursing remain at the top but some of the lower enrolling programs shift position when ranking them by completed awards. Without additional data, including what track, certification, or degree a program participant is attempting, it is not possible to say if annual yield reflects individual "success," let alone efficiency or effectiveness at the program level.

Business Administration	1,174
Registered Nursing	1,045
Industrial Trades	914
CAD/CAM Technology	607
Long-Term Care Nurse Aide	604
Automotive Service and Repair Certificate	335
General Business-Global Supply Chain/International Business	319
Welding Fabrication Certificate	317
Criminal Justice	280
Science Technologies/Technicians	229
Paramedic	213
Licensed Practical Nursing Certificate	211
Industrial HVAC	200
Early Childhood Education	175
Culinary Arts Sustainable Food	167
Accounting	167
Health Care Foundations	162
Computer Programming Specialist	161
Networking Specialist	156
Phlebotomy Technician Skill Set	148
Medical Assistant	146

Graphic 5: Occupational Awards Granted by 20 Most Enrolled Programs, 2016-17*

Source: Michigan Community College NETwork

Technical Institutes

Many private technical institutes offer substantial skills training at various locations around the state, often resulting in certification. These schools or training centers differ in the array of programs they offer and, to some extent, in their training and educational methodology. Not unlike apprenticeships, career-oriented training generally requires hands-on or on-the-job experience in addition to significant classroom work.

Since the Proprietary Schools Act of 1943, private postsecondary schools that offer training in a specific occupation or trade must obtain a state license.²⁵ As of this printing, there are 42 such proprietary schools in Michigan that are licensed and accredited by an national organization formally recognized by the state and another 325 licensed proprietary schools that are not accredited.⁺ Since the state requires a separate license for each operating location, many of these schools hold more than one license.²⁶

^{*} Some of the source data available at the Michigan Community College NETwork appear to conflict with the numbers reported here, which were taken from a prepared report published by the MCCN. We were not able to reconcile these differences at the time of this publishing.

⁺ A relative handful of proprietary schools are licensed by the state but have no presence in Michigan. "LARA - Bureau of Commercial Licensing License Types & Counts as of 5/1/2019" (Michigan Department of Licensing and Regulatory Affairs, May 1, 2019), https://perma.cc/NY6L-C9QS.

It is not immediately clear how many of these programs are targeted at both high-skill and highdemand fields upon which this report focuses. For this reason, the 367 proprietary school licenses provide an upper bound on the total number of distinct proprietary schools in Michigan that are active in relevant skill-based training. Ignoring institutional size and scope, these programs outnumber Michigan community colleges ten-fold. Still, there is only one licensed proprietary school for about every 17,000 Michiganders between 18 and 65 years of age.

Additionally, there is no publicly available and objective evidence of effectiveness other than the market sustainability of these programs and longevity. To varying degrees, state and federal funding of training and workforce development efforts described above confound the evidence. Since many of these programs rely on public financing in one form or another, they may be designed specifically to qualify for this funding rather than to actually meet the market-based demand for skilled workers. Consequently, for the purposes of this research, the array of offerings will be characterized, but not the actual outcomes of these programs, though the latter would be helpful.

Not unlike community colleges, some private training academies offer a variety of programs across different industries. For example, Career Essentials Learning Center in the Detroit area offers 10 different programs, in addition to basic education (targeted at adults with less than a high school education level) and GED preparation.²⁷ These include certified nursing assistant, phlebotomy, computer technologies, customer service and hospitality, and construction trades. According to the Better Business Bureau, CELC has been in business since 2004, and its parent company dates its founding to 1990. Despite its apparent longevity, the information that is readily available online is spotty, suggesting that information for registration and enrollment is best obtained in person.

This observation is not unique to CELC, as many of the institutions described below have little or outdated information about enrollment, program content and outcomes available online. DRM International Learning Center, with locations in Flint and Lansing, offers training programs across health and construction fields, including certified nursing assistant and phlebotomy certification, and prelicensure training for residential builders. Initially founded as a mentoring program for atrisk youth, DRM was licensed in 2006 to begin offering training in health care fields.²⁸

Dorsey Schools operates programs in several locations, with one in Saginaw and eight more in the Detroit area including a main campus in Madison Heights. Some of their programs are in the highdemand areas of medical and skilled trades while others are in the more traditional vocational training areas of beauty and culinary skills.²⁹ Ross Medical Education Center has 17 Michigan locations. In operation since 1969, programs offered are mostly in medical fields, but some locations also train for veterinary assistant, insurance and billing, or general business management.³⁰

Some training centers in Michigan specialize more, including many in private health care programs. For example, Detroit's Health Care Solutions and Career Group provides training for many health occupations that require, in some cases, just a couple weeks of training and less than \$1,000 in tuition. Specific programs include certified nursing assistant (2 weeks, \$575), Patient Care Tech Combo (8 weeks, \$1,575), Phlebotomy Technician (4 weeks, \$600), EKG Technician (2 weeks, \$400), Dialysis Technician (15 weeks, \$2,500), Direct Care Worker (3 weeks, \$500),

and Home Health Aide (1 week, \$300).³¹ According to their website, students who complete these short programs are then eligible for related certification exams. After completing the certified nursing assistant program, for example, students are able to sit for the exams required by the state of Michigan Licensing and Regulatory Affairs for Nursing Aids.³² A review of other Detroit-area programs — Hazy Institute, Serenity Health Training Institute, and Abcott Institute — with weeks-long programs in similar areas shows similar price points.³³

Some centers, like Muskegon-area Stepping Stones Educational System, Inc., are even more specialized. Stepping Stones offers only a three-week certified nursing assistant program for tuition of approximately \$1,000.³⁴ Because many health occupation training programs must be state licensed, a complete listing of currently licensed programs may be accessed online.³⁵

Many training centers emphasize technology skill development — some train in general computer system maintenance and administration, others train students for IT-related work in traditional construction and manufacturing trades. New Horizons, with four Michigan locations, does both — facilitating programs in IT security, network systems administration, and information technology, but also emphasizing technical skill training in more traditional business careers. Programs may be as short as four weeks (for the first level of IT specialist) or as long as 30 weeks (for network systems administration).³⁶ Michigan Institute of Aviation and Technology emphasizes technical trades through their for-profit trade school in Canton, Mich. It offers training in aviation maintenance, energy technology, wind energy, electro-mechanical technology, and heating, ventilation, air-conditioning and refrigeration.³⁷

Finally, other training centers narrow in on one technical trade, such as the Great Lakes Boat Building School in Cedarville. Both the Merrill Institute, part of Merrill Fabricators business in Alma, and the Industrial Arts Institute, a nonprofit in Onaway, focus exclusively on training welders and machinists — trades frequently cited in skills gap discussions.³⁸

Industry Associations and Unions

Voluntary associations, organized across firms within an industry or among workers in a trade, offer skills training and apprenticeships as well. While it is perhaps better known that labor unions frequently operate apprenticeships for their new members, it is also possible for the demand side of the labor market to coordinate and provide formal training. Two of the larger such groups in Michigan are the Associated Builders and Contractors for construction trades and the Jackson Area Manufacturers Association for manufacturing skills.

ABC is a national nonprofit construction trade association with three chapters in Michigan, each operating its own training programs. The Greater Michigan Chapter of ABC facilitates apprenticeships — a combination of work and academics — and "craft training" — requiring no work participation — in a variety of construction trades.³⁹ The West Michigan ABC chapter offers training in a smaller set of construction trades, but offers additional training in leadership roles in construction. Some of their programs were designed in cooperation with and are currently offered on the campus of Grand Rapids Community College.⁴⁰ The Southeastern Michigan Chapter runs

a construction academy that provides training in similar trades, emphasizing apprenticeships.⁴¹ Students in all three ABC programs are responsible for tuition on a semester basis, but receive a lower tuition rate if employed by an ABC-member company.

JAMA runs the Academy for Manufacturing Careers, offering 12 apprenticeship tracks related to manufacturing trades and additional certifications in five of those areas.⁴² AMC also reportedly offers customized programs and can locate at businesses within its network to provide training "designed by manufacturers to meet the needs of manufacturers."⁴³

Organized labor also provides apprenticeships in many trades, often with different raining locations around the state. But among the 11 largest unions by membership in Michigan, only three offer apprenticeships in their trade.^{*} The largest union in Michigan, the United Auto Workers, has over 400,000 members. The UAW has training partnerships with each of Michigan's Big Three auto manufacturers — Ford Motor Company, General Motors and Fiat Chrysler — but it appears that apprenticeships are not a ready on-ramp to jobs in those firms.

For example, candidates for the joint apprenticeship program offered through the UAW and Ford face some delays in moving toward apprenticeship and employment. Each candidate must complete an Industrial Readiness Certificate Program at an approved college — Henry Ford College, Macomb Community College or Schoolcraft College. After that, they can register for the waitlist for available apprenticeships.⁴⁴ The Fiat Chrysler-UAW Apprentice Program is not currently accepting applications, and the UAW-GM Center for Human Resources appears to only list short-term training classes.⁴⁵

The Operating Engineers 324 union, the eighth largest in Michigan by membership, offers apprenticeship programs in either heavy equipment repair or stationary engineering, with classes for each in Howell and Detroit, respectively.⁴⁶ The ninth largest union, the United Brotherhood of Carpenters, also provides a four-year apprenticeship program and conducts training at seven locations around the state.⁴⁷

Some smaller unions offer regular, in-depth apprenticing around the state as well. For example, the International Brotherhood of Electrical Workers offers 13 apprenticeship programs to Michiganders, 11 in Michigan and two in local unions that straddle the borders with Ohio and Indiana (in Toledo and South Bend, respectively.) Local affiliates of the United Association of Plumbers, Fitters, Welders, and Service Techs offer 11 training programs.⁴⁸ In addition, the International Association of Sheet Metal Workers has three local affiliates that provide workforce training, some operating multiple training facilities.⁴⁹

The statewide chapter of the Iron Workers Union also provides similar services and focuses its training efforts in the Ann Arbor area.⁵⁰ Would-be apprentices can enroll in a pre-apprenticeship

^{*} A fourth, the Service Employees International Union does not offer training in a trade but has in the past offered a 90-day apprenticeship to become a union organizer. The largest labor unions in the state are reported here: Jarrett Skorup, "A Look at Unions in Michigan, Five Years After Right-to-Work, Michigan," *Michigan Capitol Confidential* (Mackinac Center for Public Policy, April 20, 2018), https://perma.cc/K9T5-64Y7.

program that jump starts the work toward a construction supervision certificate or associate's degree, obtained through Washtenaw Community College.⁵¹

Outside of trade associations and labor unions, apprenticeships may be supported within a particular business. One of the most formal and larger scale apprenticeship programs identified through this research (and not associated with one of the above programs or a community college) is facilitated by electrical contractor Feyen Zylstra, which facilitates multiyear electrical apprenticeships after which their students may continue working for the contractor or move to another employer.⁵²

Still, the most established apprenticeships are through formal collaborations or partnerships, including some incentivized by state government efforts. Since 2014, the state of Michigan has incentivized and supported employers in providing apprenticeships through the Michigan Advanced Technician Training Program, or MAT². Employers select apprentices whom they will train on the job but send them to one of four approved community colleges for coursework in either mechatronics or computer numerically controlled manufacturing. Employers pay an apprentice's wages, a stipend for schooling and cover the cost of the college tuition over the course of a three-year program.⁵³ Michigan Works! assists MAT² employers in applying to the U.S. Department of Labor Office of Apprenticeship for a "training grant" of up to \$5,000 for the first year of the three-year commitment to an apprentice and smaller amounts in subsequent years.⁵⁴

Nonprofit Training Organizations

Identifying nonprofit training organizations, especially those that do not pursue accreditation or confer degrees, is challenging both in defining the relevant set of skills-based programs and locating them. Additionally, many organizations that consider their mission to be workforce development fit more accurately under the label of employment services or job-readiness training. To better understand the pervasiveness of training programs in this sector, this research accessed two nonprofit directories. In both listings, participating organizations ranged from new, single-employee consulting or career-counseling businesses to large and long-lasting union apprenticeships. Whereas none of the former met the criteria for "skills training" and all of the latter had been previously identified, only a small number of relevant programs within each directory contribute to this portion of our survey of nonprofit skills training.

GuideStar's database includes 103 Michigan nonprofits who report "employment training" as their "primary cause area." Of these, 54 are associated with one of the union apprenticeships, industry associations or with a state program, all of which have been discussed above. Among the remaining 49 nonprofits, only two met our criteria for specific skills training, both focusing on construction trades.* In sum, a list of over 100 nonprofits with a self-identified job training mission netted just two independent nonprofits with a skills training emphasis.

^{*} North End Skilled Trade trains people in the Detroit area in general construction. The Welding Artisan Center Inc., also in Detroit, has a narrower scope for training welders, and according to its website was set to open late in 2018. For more information, see: https://www.detroitnest.org and http://www.weldingartisancenter.com.

The directory of the Michigan Nonprofit Association, made up of 977 members, unfortunately, does not provide as convenient of an identifier for training-oriented nonprofits as Guidestar. MNA member organizations can specify multiple "organization types," but only 20 specify "employment/job related." Among those is one state-funded program and the MNA itself. Of the remaining, 10 list "education" as a second type. Still, only one of these 20 organizations offers skills training.^{*} Of the hundreds of other organizations in MNA's directory that list "education" as their focus, the type of education varies from nutritional awareness, grant writing, literacy, public health, social advocacy and formal, degree-granting postsecondary schools. In short, a list of 977 member organizations nets only one skills-training program not identified in one of the categories of formal training surveyed above.

Though neither of these directories bear fruit in the form of many unique training opportunities, the observation that a combined list of more than 1,000 nonprofit organizations in Michigan net so few actual skills training programs, is valuable. These data should not be interpreted as suggesting that, say, small church-based mentoring, local community center work readiness courses, career exposure or counseling efforts are not common or not important. Nevertheless, they should temper any impressions that there are an abundance of private, nonprofit programs for workforce development training.

Recommendations to Improve Workforce Development in Michigan

Having surveyed the landscape of skills training in Michigan, this report will consider what these survey results might suggest for potentially improving and expanding access to workforce development programs, should this be needed. The following analysis is organized as if following a potential skilled worker through the pipeline of available skills training starting in high school, through to college or other postsecondary training options, and then finally to the labor market. Where there are missed opportunities earlier in the pipeline, it might be most effective and resource efficient to address those rather than their later-stage consequences.

The basic intuition used to identify labor market or skills gap challenges in Michigan is rooted in economic first principles. Again, basic economic theory and a large body of empirical evidence indicate that in competitive labor markets, labor shortages of any type should be relatively short-lived and self-correcting. Markets that operate based on profit and loss and that facilitate exchange through prices determined by the forces of supply and demand will tend toward market-clearing, i.e., no persistent shortage or surplus. Where skilled labor shortages or skill mismatches exist, wages would increase for occupations with excess demand or deficient supply, attracting appropriately skilled workers to move to the area or local workers to obtain the requisite skills.

If a firm is struggling to find trained welders, for example, an immediate and impactful response to this problem would be for the firm to increase the wage of trained welders. This will draw greater interest in the job from a wider selection of potential employees, and should, if this type of skill shortage persists throughout an entire market or industry, encourage more people to get

^{*} West Michigan Center for Arts and Technology offers career training in medical coding, medical billing, and pharmacy technician. For more information, see: https://work.wmcat.org.

trained as a welder, because their prospects of getting a good-paying job by completing this training will be increased.

To the extent that labor markets in Michigan today are not moving toward market-clearing, two possibilities should be considered. First, what is undermining the competitive forces in the labor market? For example, are there rationing mechanisms being applied to labor instead of or on top of wages, and thereby, artificially limiting supply? Are businesses not competing in usual ways for the workers they need because they see a more effective and profit-maximizing political solution? Second, are the markets for skilled labor, education and training actually well-functioning markets? In other words, are prices informative, providing both insight and incentives to potential workers, trainers and employers, or are they not effective in this way for some reason or another?

This section considers these questions and outlines some of the obstacles to workforce development in Michigan. Specific policy recommendations follow from these analyses and these also are discussed below.

Obstacles in Secondary Education and Training

Lack of information and incentives for CTE

Secondary education is not allocated through markets. Over 90% of Michigan students in grades nine through 12 attend public schools, and the training services these schools provide are generally not influenced by market signals, such as labor supply and demand and wage prices. Further, there are few, in any, external incentives for school officials to provide the type of skills training that will be of most value to students and their future employers. School districts receive funding based on how many students they enroll, not on how many land high-skill or rewarding occupations.

A specific concern is that high school graduation and diploma requirements are set at the state level through a political process influenced the most by interest groups and politicians, not students, families or the full array of potential employers. If the requirements are inflexible to labor market changes and incentivize more classroom-based or academic learning, high schools will underprovide technical and occupational skills training relative to market demands. This imbalance in the incentive structure toward the academic and away from CTE is exacerbated by the high-stakes testing environment of secondary schools and the general pressure in the education community toward college enrollment for everyone. For example, every high school student in Michigan, no matter their propensity for or interest in furthering their education at a postsecondary school, is required to take the SAT, a college admissions test. Though a universal requirement for similar skills-based or training-focused aptitude test or program would be an analogously blunt tool, that such a requirement does not exist reflects a notable imbalance in emphases.

While academic coursework and general skills are useful to all students — especially in a healthy economy with dynamic labor markets — citizens and policymakers should consider whether the quantity, quality and flexibility of curriculum and graduation requirements are conducive to each student pursuing her or his best career path. One practical solution might include more flexible

course scheduling so that CTE-interested students can meet the academic requirements of a high school diploma while pursuing their interest in technical skills training.

Another systematic consideration should be whether Michigan's school funding structure, including the existing system of categorical grants, can be used to provide incentives for public schools to offer more CTE. Recent state budgets have included something akin to this, but the miniscule amount of funds devoted to it — especially relative to the total amount spent on K-12 schools — is not sufficient to have a meaningful impact on any more than a tiny portion of students.^{*} Even considering all the limitations of relying on government-run secondary schools to provide timely skills training, this is worth considering as an incentive for schools to offer more skill-training opportunities to students. To the extent that undue preference is given to academic programming, policymakers should at least consider a better balance in academic and CTE funding initiatives.

One-size-fits-all career planning

High school diploma requirements and the environment in the public school system regarding college readiness have an effect not only on the supply of CTE programming but also on the demand for it by students and families. A key objective of the Marshall Plan for Talent initiative created by Gov. Snyder is to "increase career awareness and exploration," starting in high schools.⁵⁵ Policymakers, but also businesspeople and families, should work to increase awareness of CTE programming and ultimate employment opportunities while decreasing any stigma that may be associated with "blue-collar work" or "failing" to go to college.

This is more easily said than done, and it is difficult to conceive of a top-down, coordinated effort that would make an immediate impact. But perhaps market prices will have an influence here: enrollment in traditional, degree-granting colleges in Michigan has been on the decline in recent years, likely due in part to the rising cost of tuition.⁵⁶ So students who might have enrolled in one of these general education programs may be seeking alternative, and more affordable, career training in other programs, such as CTE.

It is increasingly true that wage mobility and lifetime earnings are strongly related to skills, and so it is critical that young people understand the opportunities in skilled trades. But, ultimately, the demand for these programs will need to come from the "consumers" of this training — students and their parents. One strategy to allow for this demand to develop organically is to provide a wider variety of educational opportunities to students. This may include opening up options for students to get state support to enroll in programs that are not directly run or controlled by Michigan's conventional public school system. Making more options available to students and to incentivize programming that aligns to the same. One strength of existing Michigan law in this regard is the requirement that school districts must admit interested nonpublic school students to their CTE programs in order to qualify for state grants.⁵⁷

^{*} Gross state appropriations in FY 2017-18 for K-12 schools was \$14.6 billion, of which less than \$30 million appears devoted to CTE programming. "FY 2018-19 School Aid Budget" (Michigan Senate Fiscal Agency, June 28, 2018), https://perma.cc/CEX9-FA44.

Improving the skills training opportunities at the secondary level is a good place to start, because it has important downstream ramifications. If fewer students are prepared at the secondary level, it reduces their interest and chances for success at the postsecondary level, e.g., union apprenticeships, community colleges, private training programs.

Obstacles in Postsecondary Education and Training

Lack of information and incentives among community colleges

Similar to public high schools, community colleges suffer from a dearth of real market indicators. Tuition rates, degree offerings, curricula and even faculty salaries are determined without the benefit of the same broad assessment of the value to students (and ultimately employers) or of true costs that actual prices and market exchange would provide. Taxpayer resources provided to these institutions primarily come from general state appropriations and local property taxes, meaning these schools will get funded regardless of whether or not they provide real value to students seeking occupational training. These institutions do face other constraints, of course, including political pressure and budgetary restrictions to keep tuition rates and costs low. And these pressures can restrict community colleges' ability to respond to students' needs, for example, by expanding programs offered, adding to existing program capacity or hiring faculty to train students in high-demand fields.

Ideally, where skills gaps exist, schools and training programs would initiate or expand training in the excess-demand fields and attract trainers and instructors away from practicing in those fields to educate others. Community colleges should be encouraged to invest more in offering courses, certificates and degrees that are in high demand, including offering competitive wages to top-quality trainers and instructors. This emphasis will have costs — it will likely mean that community colleges will have to invest less in other programs, and there may be union contracts and other bureaucratic processes that hinder or even prohibit these schools from swiftly and dynamically responding to labor market signals.

Nonmarket incentives for private training

Other postsecondary training, including for-profit training centers and schools, often are eligible for grants directly or indirectly via student aid, typically provided by the state or federal government. These grants that make training accessible to students who could otherwise not afford it act as subsidies, incentivizing the supply side of the market to provide training that meets the eligibility requirements of the funding. Most recently, Michigan's approach to workforce training has been influenced and shaped by the Michigan Future Talent Council, comprised of business, public school and college leaders plus some state bureaucrats, and charged with advising the Michigan Talent Investment Agency "on building a strong workforce system aligned with state education policies and economic development goals," including areas of the labor market where skilled labor is lacking.⁵⁸ Similarly, other state and federal policy select certain types of apprenticeships and training or particular demographics of trainees.

The advisability of such incentive-shifting bureaucracies and policies largely depends on the extent to which the political actors can ascertain the correct ends and means, in order to benefit Michigan's workers, businesses and taxpayers. Based on basic economic principles, it is highly unlikely that policymakers and these types of boards are able to allocate scarce resources in programs that will produce the optimal results. A better solution would be to give students and local communities the ability to use flexibly state funds to pursue skills training that they deem to be the most valuable to them.^{*}

Affordability

One perennial and popular concern about education and career preparedness is affordability. Even if a prospective student perceives a positive return on investment to obtaining a particular set of skills, credit constraints can be uniquely binding where educational investments are involved. As with many investments, tuition and fees — not to mention implicit costs of foregone current wages — are incurred up front, while the payoff of higher wages and stable employment is received at a later date.

Unlike many investments, though, human capital is hard to borrow against in private credit markets since it does not represent its own collateral. Consequently, if a student cannot cover the costs of her training, whether or not she considers it an economical investment, she cannot make the choice to invest. Nevertheless, in light of the variety of funding programs available, credit constraints seem an unlikely cause for "underenrollment" in postsecondary training.⁺ Another potential explanation is that students are making accurate assessments of the costs and benefits associated with a skill investment and determine that the wage premium for skills do not compensate fully for the investment required. This leads us to discuss the functioning of the labor market, first starting with wages.

Obstacles in the Labor Market

Compensation

In a 2015 paper, labor economist Peter H. Cappelli of the Wharton School of Business argues that "very little evidence is consistent with the complaints about a skills shortage, and a wide range of evidence suggests the complaints are not warranted."⁵⁹ Among many data points he references are figures from a 2013 study reflecting that, while many employers recognized that the chief challenge to meeting their skilled labor needs is that workers would not accept work at the pay rate being offered, only 5% of employers among those struggling to find skilled workers were responding by offering higher salaries to attract higher skilled labor. The analogous report from the ManPower group in 2018 shows some improvement, however, as 29% of employers in the

^{*} This is based on the assumption that access and affordability are binding constraints on student enrollment. It is likely that there are other factors that impact how many students seek out these training opportunities.

For more related economic theory and a thorough discussion of postsecondary educational investments in light of credit constraints, see: Pedro Carneiro and James J. Heckman, "The Evidence on Credit Constraints in Post-Secondary Schooling," Economic Journal 112, no. 482 (2002): 705–734, https://perma.cc/UQD8-G8AF.

same scenario are now offering "higher salary packages" and 32% report "offering additional perks and benefits."⁶⁰ As with geographically mismatched markets and worker mobility, the most direct way to increase the supply of skilled workers and incentivize skill investment is the credible promise of higher pay and better working conditions. While this is a key suggestion of this report, it is not necessary or desirable for this strategy to involve public policy, except to the extent that policymakers can take a step back and avoid crowding out private businesses' natural market responses to labor shortages.

Licensing and certification

One source of labor market rigidity that mechanically restricts the supply of skilled labor is occupational licensure, certification and other barriers to job entry. The main effect of this is direct and intended. Existing licensed workers within a field face less competition for jobs and receive higher wages, other things held constant, when the state imposes licensing requirements on would-be workers. From the employer's perspective, though, they have to increase wages even further to incentivize would-be workers to undertake the state-mandated training and testing required for licensing or certification, which may not necessarily even provide them with the skills needed to perform the job they are seeking.

But there are indirect effects, as well. Those who choose to become licensed or certified by the state — undertaking more coursework, on the job training, or test preparation — increase demand for those services. This increases the prices of these services and reduces program capacity where the services are provided through the public sector. Another indirect effect of licensure that also slows the closing of any skills gap involves migration. Where reciprocal licensing agreements between states do not exist, migration is disincentivized, further insulating existing in-state license holders by reducing interstate competition and further hampering businesses' ability to find skilled labor.

A 2017 report by Jarrett Skorup of the Mackinac Center for Public Policy makes many recommendations of alternatives to licensing, in addition to allowing interstate transfers where licensing exists, all of which would be beneficial in reducing the perceived challenges in skilled labor markets. Michigan's entire licensing regime should be reviewed systematically, and licensing requirements that do not clearly protect public health and safety should be eliminated.⁶¹

Workforce development politics

If it is less costly for a business or industry to convince policymakers to help them overcome the challenge of meeting the skills gap than it is to train workers themselves or pay them sufficiently to invest in their own skills, businesses will pursue political solutions rather than market solutions. This cronyism, though logically coherent, is not good for the state of Michigan and taxpayers. It is clearly beneficial for the businesses who are successful in these efforts. Not only do they benefit because taxpayers end up footing the bill for training their employees, it also would boost these firms' labor supply, putting downward pressure on the wages they would need to offer to attract workers.⁶² While the beneficiaries and benefits are easily identifiable — businesses get the skilled

workers they need — the costs are diffuse and often unseen. All of us pay a little more in taxes or forego other services that are genuine public goods that government can provide, such as public infrastructure, policing and the courts.

Alternatively, market solutions would assign the costs of employing skilled labor on the entities who benefit from it: the businesses that profit from labor productivity. Such market solutions are not revolutionary and certainly not technocratic; they include allowing each business to determine what combination of the following is appropriate for their operation: increasing wages for skilled labor, improving work conditions, increasing skilled workers' benefits or providing the training for otherwise qualified employees.

If skilled labor is more productive, as the argument goes and reality bears out, firms should be willing and able to pay more in the form of salary or nonpecuniary benefits. They might also incur the training costs themselves, sending employees to off-site training facilities, hiring external trainers or providing intentional on-the-job training. When skills obtained are specific to the firm, the business will not need to worry about the worker leaving with his skill for another firm. But even where the skills needed are general and thus valuable to other firms, as argued by Nobel Laureate Gary Becker, a given firm can still provide the training such that employees "pay" for it by accepting lower wages.⁶³ (Notice how this also addresses employees' credit constraints without public subsidies.)

Both employers and employees have the incentive to pay for what is valuable to them, so no central directing agency need organize it. This is more complex only where wages cannot adjust downward, like in unionized industries where labor leaders set artificial floors on wages. In this case, general skills can be provided by an industry organization in order to eliminate the possibility of free riding by firms that provide no training to their employees.⁶⁴

Conclusion

With as much buzz as there is in Michigan and nationwide about workforce development, one might assume there were unprecedented problems afoot and that public budgets are being grown or diverted to innovative solutions. As seen above, it is unclear that either is true, despite the political attention devoted to the issue. Nevertheless, it behooves Michiganders to be aware of the landscape of skills training in our state. To review, the report argues that:

- Federal and state programs offer little by way of direct skills training.
- The notable exception to this finding is state-funded education through public high school CTE programs and community colleges. But neither of these institutions have strong incentives to meet current labor demands with the workforce training they provide.
- There is an array of for-profit training centers, union and industry-supported apprenticeship programs, and a few nonprofit efforts targeted at skill-based technical training.

Taken altogether, this report finds that, despite all the rhetoric and rebranding for new state programs and initiatives, not much new is going on, at least not yet, and at least not with regards to specific skills training.

This report is not aimed at ascertaining the prevalence or effectiveness of other employmentrelated programs for basic skills, job preparedness or career exploration or guidance. If there is a lack in any of these areas, secondary public schools seem best positioned to address these for youth and local nonprofits can fill the gap for adult workers, as they appear to be doing already, to some extent.^{*}

In fact, basic economic principles would suggest that local knowledge and action could be key. State-level data on labor needs, skilled labor supply, up-and-coming industries, not to mention housing availability, transportation opportunities and other local amenities — all of interest to employees — simply cannot replace the cost-benefit assessment of a would-be skilled worker. Local knowledge of these conditions matter, and this is why seemingly small community initiatives in church basements, rec centers, even town and city halls might prove the missing link between citizens who lack basic skills or awareness of career options and the multitude of existing skills training opportunities, many short in duration and low in cost.

On net, this report concludes that it is less important what the state does to meet the demand for skills that may be insufficiently available in the state workforce and more important what they do not do. For instance, the state should not continue to encourage a one-size-fits-all career path for high school students, but instead open up the opportunities students can pursue while still meeting the diploma requirements from the state.

Government-provided skills training, the limited amount that does exist, does not appear to have changed much, even in light of this perceived skilled labor shortage. Most of the training programs operated by the state are through decades-old, traditional means: via public school districts and community colleges. There's little reason to believe that these existing bureaucracies can respond in a way that would meet the perceived skill gap in a timely fashion. Private training centers, unions and industry associations have better aligned incentives and could better respond to changes in related industries using local knowledge on supply and demand of skilled labor if prices were less influenced by state subsidies.

This, of course, pushes back against the politically popular view that the state needs to step in to help businesses get the skilled workers they apparently need. In the end, state support for workforce development is an indirect form of business subsidies. It would make much more economic sense and be more efficient if businesses pay for training they require of their own workers, or, more simply, raise wages for their high-demand needs. They are the primary beneficiaries of the increased productivity this training could provide, the newly-trained, skilled employee the second beneficiary and taxpayers a distant third.

^{*} Note that, if these general skills are sufficiently obtained, businesses will face a lower-cost of specific skill training and potentially higher benefit, if it results in higher retention as well, increasing their willingness to train workers.

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Dr. Sarah Estelle is associate professor of economics at Hope College in Holland, Michigan. Dr. Estelle earned her B.A. in economics from Hillsdale College and Ph.D. from the University of Virginia. Before joining Hope's faculty in 2012, she taught at Rhodes College in Memphis, Tennessee.



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