

WELCOME

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FROM **JAMIE DIMON**, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, JPMORGAN CHASE & CO.

JPMorgan Chase has been doing business in Detroit for more than 80 years, and we are going to be in Detroit for the long term. Last May, we committed to deploy \$100 million over five years to help the city regain its economic strength – doing our part to invest in community development and support nonprofits that are helping the city tackle some of its toughest challenges. One of these challenges is preparing Detroit’s workforce for the job opportunities in the sectors that are expanding as the economy begins to recover. Investing in training will give job seekers of all ages the skills they need to open doors to economic mobility at the same time that it builds the skilled workforce that Detroit will need to thrive.

In February, I visited Detroit to see first hand how the city’s training organizations are working with employers to create career pathways for the city’s residents. Focus: HOPE’s demand-driven training programs are preparing job seekers for opportunities in growing industries, such as advanced manufacturing and technology. While touring its Machinist Training Institute with a local employer, I had a chance to meet with students and hear about the skills they were learning – skills that employers such as Detroit Manufacturing Systems are looking for as they fill jobs.

It is the example of organizations such as Focus: HOPE and countless others across the globe that inspired us to launch *New Skills at Work*, JPMorgan Chase’s five-year \$250 million global workforce readiness and demand-driven training initiative. An important goal of *New Skills at Work* is to support and showcase models of effective workforce partnerships. A complementary goal is to provide communities with the data they need to understand and respond to the workforce challenges they are facing. This report is one in a series that is examining labor market conditions in metropolitan regions across the United States and Europe, showing both what jobs employers are struggling to fill and what types of training would provide job seekers with the skills needed for success.

As this report details, a critical part of the story of Detroit’s labor market is the importance of middle-skill jobs – jobs that require more education and training than a high school diploma but less than a four-year degree. Occupations such as medical laboratory technician or machine tool operator not only provide a pathway to the middle class, they also are an engine of competitiveness for the Detroit economy.

We are proud to be working with Detroit’s leaders to strengthen the city’s workforce system. We hope the data presented here will support the work underway to expand opportunity by strengthening Detroit’s workforce system and encourage additional efforts to build a pipeline of skilled workers for career-building jobs.



JAMIE DIMON

ACKNOWLEDGEMENTS

JPMorgan Chase & Co. is investing \$250 million over five years in a global initiative to build demand-driven workforce development systems and to prepare youth and adults for careers in high-demand, middle-skill occupations. To advance this work, we are supporting data analysis in domestic and international markets: Chicago, Columbus, Dallas-Fort Worth, Detroit, Houston, Los Angeles, Miami, New York City, San Francisco, France, Germany, Spain and the United Kingdom.



JOBS FOR THE FUTURE

JPMorgan Chase deeply appreciates the work of partners in producing this report. **Jobs for the Future** (www.jff.org), which is a national partner in the *New Skills at Work* initiative, is serving as the lead intermediary for the U.S. reports. Founded in 1983, Jobs for the Future works to ensure that all underprepared young people and workers have the skills and credentials needed to succeed in our economy, by creating solutions that catalyze change in our education and workforce delivery systems. We are especially thankful for the work of the writers of this report: Thomas J. Hilliard, Hilliard Policy Research Consulting, and Gloria Mwase, as well as data collection and analysis provided by Jeremy Kelley and research assistance by Deborah Kobes and Krista Ford. The report has been strengthened by insightful feedback from Lucretia Murphy, Maria Flynn and Steven Baker and by editing from Carol Gerwin, Sophie Besl and Sara Lamback.

Two national organizations provided the data and analysis for the U.S. reports: **Economic Modeling Specialists International**, a CareerBuilder company, turns labor market data into useful information that helps organizations understand the connection between economies, people and work (www.economicmodeling.com). **Burning Glass Technologies** develops leading technologies for matching people with jobs through pioneering solutions, and leverages a deep understanding of people and their careers in order to deliver superior workforce and marketplace insight (www.burning-glass.com).

Each report also relies on the insights and feedback of local stakeholders. We would like to express our appreciation to the employers and economic development and workforce development experts in Detroit who informed report findings and reviewed drafts: Pamela Moore, President and CEO, Detroit Employment Solutions Corporation; Gregory Pitoniak, Chief Executive Officer, Southeast Michigan Community Alliance; Lisa Katz, Executive Director, Workforce Intelligence Network; Karen Tyler-Ruiz, Director, Detroit Regional Workforce Fund; James Jacobs, President, Macomb Community College; Carmine Palombo, Deputy Executive Director, Southeast Michigan Council of Governments; Marcia Black-Watson, Industry Talent Director, Michigan Workforce Development Agency; Amy Cell, Senior Vice President, Talent Enhancement, Michigan Economic Development Corporation; and Jeannine LaPrad, President and CEO, and Taryn McFarlane, Vice President, Business and Community Innovation, Corporation for a Skilled Workforce.

In addition, we appreciate the stakeholders who provided valuable insights about the workforce development context, strengths, and challenges in the Detroit region: David Cherry, Program Director, City Connect Detroit; Tammy Coxen, Senior Project Manager, Nicole Sherard-Freeman, Adjunct Consultant, and Jordan Falby, Research Associate, Corporation for a Skilled Workforce; Jeff Bross, Project Manager, Data Driven Detroit; Jose Reyes, Chief Operating Officer, Detroit Employment Solutions Corporation; Malinda Jensen, Director of Business Development and Kenyatta Bridges, Associate Director, Business Development, Detroit Economic Growth Corporation; Christopher Dorle, Lead, City Systems Working Group, Detroit Future City; Marion K. McGhee, Executive Director, Detroit Public Schools, Office of College and Career Readiness; Marsha Cheeks, Program Supervisor and William Aaron, Workforce Readiness Coordinator, Detroit Public Schools, Department of Adult Education; Gregory Eason, Consultant, Detroit Regional Workforce Fund; Rashida Goudeaux, Director of Education and Workforce Development, Focus: HOPE; Scott Jedele, Corp-Industry Program Manager, Corporate Training Office, Henry Ford College; Christopher J. Webb, Counselor at Law, Mediator, Arbitrator, Trainer and Facilitator, Law and ADR Office of Christopher J. Webb, PLC; Domenic Morelli, Vice President and Mike Tenbusch, Community Catalyst, Life Remodeled; Bill Sleight, Director, Livingston County Michigan Works; Linda Chase, Director, Michigan Coalition for Advanced Manufacturing, Macomb Community College; Bernice Kerner, MIS Supervisor, Macomb/St. Clair Workforce Development Board; Leonidas Murembya, Regional Research, Michigan Department of Technology, Management and Budget, Labor Market Information and Strategic Initiatives; Erin Duckett, Industry Talent Specialist, Michigan Workforce Development Agency; Donald C. O'Connell, Executive Director, Operating Engineers Local #324 LMEC; Naheed Huq, Manager, Community and Economic Development, Southeast Michigan Council of Governments; Mary Freeman, Director, Workforce Development, Southwest Solutions; Marlowe Stoudamire, Principal, Vehicles for Change; George Swan III, District Vice Chancellor for External Affairs, Wayne County Community College District; Colby Cesaro, Research Director, Workforce Intelligence Network; Donna Lillian Givens, President, Youth Development Commission; and Melody Barnes, former Director of the White House Policy Council and Co-Chair of the Global Workforce Advisory Council.

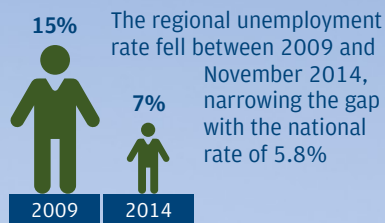
EXECUTIVE SUMMARY

THE DETROIT REGION IS RECOVERING

Detroit is coming back from one of the deepest economic downturns of any U.S. metro region. After suffering severe job losses from the decline of the auto industry, and reeling from the city of Detroit's recent bankruptcy, the regional economy is stabilizing and employment is growing again. Still, the region needs to expand its supply of middle-skill workers to support job growth, help attract new business and provide opportunity for struggling residents.¹

The region lost nearly
275,000
jobs between 2001
and 2013

Since 2009, the region has
added more than
173,000
net jobs²



Jobs in the region are
projected to grow at an
average rate of
0.4%
each year between 2013
and 2023, compared with a
national rate of 1.2%

(Source: EMSI³ and U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, November 2014)

GROWING ECONOMY NEEDS MIDDLE-SKILL WORKERS

The region's continued growth will depend heavily on the quality of its workforce. Manufacturing employment has stabilized and some sectors are expanding, notably healthcare and information technology. These industries will need a steady supply of middle-skill workers, who have a high school credential and some postsecondary training.

Middle-skill
occupations represent
17%
of all jobs in the region
and are growing

(Source: EMSI and Burning Glass⁵,
unless otherwise noted)

There were
more than
321,700
middle-skill positions
in the Detroit region
in 2013

Middle-skill positions
pay an average median
hourly wage of
\$23.37
significantly higher
than the region's living
wage of \$17.08⁴

About
9,800
middle-skill job
openings are
projected every
year through 2018

1 This report defines the Detroit or southeast Michigan region as the six-county Metropolitan Statistical Area that includes Lapeer, Livingston, Macomb, Oakland, St. Clair and Wayne counties.

2 EMSI Complete Employment 2014.2.

3 This report includes a proprietary EMSI analysis of middle-skill opportunities in the Detroit region for JPMorgan Chase; in subsequent citations, data from this analysis are cited as "EMSI."

4 EMSI, drawing upon data from the Massachusetts Institute of Technology's *Living Wage Calculator* for a family of three (two adults and one child) in the Detroit area. For additional information: <http://livingwage.mit.edu>.

5 This report includes proprietary analysis of the Detroit region conducted by Burning Glass Technologies for JPMorgan Chase; in subsequent citations, data from this analysis are cited as "Burning Glass."

STARK OPPORTUNITY GAPS CALL FOR RESPONSE

While people across the Detroit region face real challenges, African-American and Latino residents are faring significantly worse than white residents in employment, income and educational attainment. Detroit city residents also face lower employment, income and education levels than people who live in the suburbs.

- The unemployment rate in the city of Detroit is 13%, double the 6.7% rate in the suburban belt north and west of the city.
- Unemployment affects African-American (13.6%) and Latino (10.3%) workers at roughly twice the rate of white workers (5.9%) across the region. Unemployment is higher among all groups in the city of Detroit, but significantly higher for African-American (15.3%) and Latino (14.0%) residents than for white (8.9%) residents.
- Poverty is an even bigger barrier across the region for African-American (32%) and Latino (22%) individuals. But the rates of white (40%), African-American (38%) and Latino (36%) residents living in poverty in the city of Detroit are particularly discouraging.⁶

(Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, 2014 and U.S. Census Bureau, American Community Survey, 2013)

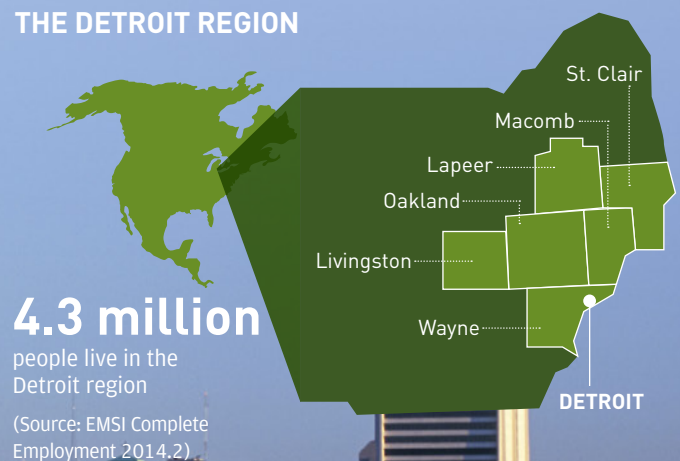
LOW-INCOME ADULTS NEED TRAINING FOR MIDDLE-SKILL WORK, MIDDLE-CLASS PAY

Helping to prepare low-income and low-skill individuals – particularly minorities and city residents – for middle-skill occupations must be a regional workforce development priority. While some job seekers require short-term specialized retraining, others lack basic academic, job readiness and technical skills, and will need more extensive education programs before they can begin career pathways.

- About 12% of regional residents (more than 340,000 people) age 25 and above lack a high school diploma or GED.
- Among Detroit city residents, 22% lack a high school diploma or GED.
- The situation is worse for Latino residents: 30% in the region lack a high school diploma or GED, and 55% in the city of Detroit.
- Fewer than one-third of city residents (32%) have earned only a high school diploma.

(Source: U.S. Census Bureau, American Community Survey, 2013)


THE DETROIT REGION



⁶ Poverty levels are for individuals 18–64 years old. American Community Survey data for Detroit MSA are from 2010 to 2012. Data for city of Detroit are from 2011 to 2013.

EXECUTIVE SUMMARY CONT.

HEALTHCARE AND MANUFACTURING LEAD MIDDLE-SKILL DEMAND



DETROIT

Healthcare and manufacturing are the Detroit region's largest industry sectors, with strong demand for middle-skill workers. Healthcare is an important driver of middle-skill job growth and an increased need for qualified applicants over the next few years creates opportunity for low-skill residents to access training and seek better jobs. Long the foundation of Michigan's economy, manufacturing continues to provide many middle-skill opportunities, despite its jarring job losses since 2000, and more skilled workers will be needed to replace retirees.

Demand for middle-skill jobs

Industry	Percentage of all middle-skill positions advertised online in Detroit region
HEALTHCARE	23%
MANUFACTURING	33%

(Source: Burning Glass)

In 2013, there were **more than 207,000** middle-skill jobs in healthcare and manufacturing

(Source: EMSI)

From 2013 to 2018

Industry	Projected annual average openings in middle-skill areas across Detroit region
HEALTHCARE	Over 2,600
MANUFACTURING	Over 3,100

(Source: EMSI Complete Employment 2014.2)

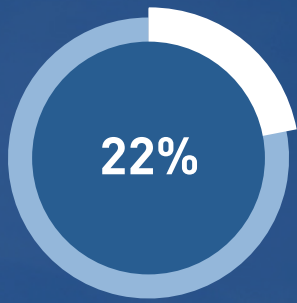
High wages for in-demand middle-skill jobs

HEALTHCARE	MANUFACTURING
\$27.77 median hourly wage	\$22.40 median hourly wage
\$17.08 regional living wage	

(Source: Burning Glass)

INCREASING NEED FOR MIDDLE-SKILL WORKERS, BUT LIMITED TALENT DEVELOPMENT CAPACITY

Projected retirees



Approximately 22% of all manufacturing employees are age 55 or older

Approximately 22% of all healthcare employees are age 55 or older

(Source: U.S. Census Bureau, Longitudinal Employer-Household Dynamics, Quarterly Workforce Indicators, 2014)

IN ADDITION TO HEALTHCARE AND MANUFACTURING, THE LEADING ECONOMIC DRIVERS WITH MIDDLE-SKILL WORKFORCE NEEDS ARE:



Financial and insurance services

(Source: EMSI)



Information technology



Marketing and advertising services

GROWING NEED FOR WORKFORCE DEVELOPMENT STRAINS SYSTEM CAPACITY

The Detroit region has enormous need for education and training services that can help struggling residents get back on track by preparing them for middle-skill, middle-wage jobs.

- Multiple talent development initiatives, particularly in the manufacturing industry, make it difficult to align across these efforts and expand services.
- Organizations leading these efforts face challenges in securing resources to expand data systems and delivery of services.
- Adult education providers estimate that each year fewer than 10% of adults who need basic literacy or English-language instruction are able to access these crucial services. Moreover, current adult basic education programs struggle to enable a smooth transition to postsecondary education and employment pathways.⁷
- Some community colleges lack critical resources to expand career pathway programs to meet the demand for technical training.
- Reduced funding for postsecondary occupational training is severely limiting the system's ability to produce the next generation of skilled workers.⁸

NEW SKILLS AT WORK

In December 2013, JPMorgan Chase launched its \$250 million global *New Skills at Work* initiative to help communities address workforce readiness challenges. In May 2014, the firm pledged \$100 million to support and accelerate Detroit's economic recovery. These commitments include \$12.5 million to help identify growing sectors and create collaborative programs to train residents and develop career pathways in the Detroit region. This report offers a framework for developing a demand-driven career pathways system in Detroit.

⁷ The Detroit Regional Workforce Fund. 2012. *Addressing Detroit's Basic Skills Crisis*, pp. 6-7.

⁸ Michigan Workforce Development Agency. 2012. *Skilled Trades in Michigan*, pp. 10, 12.

OPPORTUNITIES TO EARN HIGHER INCOMES WITH MORE EDUCATION AND TRAINING



HEALTHCARE PATHWAY



MANUFACTURING PATHWAY

	Occupation	Median Hourly Wage (Detroit MSA)	Occupation	Median Hourly Wage (Detroit MSA)
High-Skill	Registered Nurse Bachelor's degree or Associate's degree with five plus years of experience	\$32.87	Engineer Bachelor's degree	\$43.80
	Auditing and Compliance Specialist Bachelor's degree	\$29.21	Production and Operating Supervisor Bachelor's degree, or Associate's degree with five years of experience	\$29.75
Middle-Skill	Surgical Technologist Associate's degree	\$20.10	Programmer Associate's degree or Associate of Applied Science degree, apprenticeship experience	\$23.93
	Health Information Manager Associate's degree or postsecondary certificate	\$16.79	Machinist Advanced postsecondary certificate, plus apprenticeship or work experience	\$19.63
Entry-Level	Medical Assistant High school diploma with moderate on-the-job training	\$13.37	Operator Basic postsecondary certificate	\$17.85
	Medical Biller High school diploma with moderate on-the-job training	\$13.34 (entry-level wage)	Welder High school diploma plus moderate on-the-job training	\$17.72

(Source: Information for career pathways is drawn from Burning Glass Labor/Insight and EMSI Complete Employment 2014.2 and is informed by community college program descriptions from Wayne County and Macomb Community Colleges)

OUR RECOMMENDATIONS

Detroit is on the road to recovery following more than a decade of economic difficulties. Now it is essential to build on the region's assets and create a comprehensive career pathways system that will help refuel the economy and strengthen the middle class. By targeting healthcare, a high-growth sector, and manufacturing, an industry long linked with Detroit that still offers thousands of middle-skill jobs, the region can beat pessimistic recession-era forecasts to achieve strong and equitable economic growth.

CREATE A SYSTEMIC APPROACH TO CLUSTER-FOCUSED WORKFORCE DEVELOPMENT

Detroit stakeholders have been strengthening the regional workforce development system by organizing initiatives using a cluster-based approach. The recommendations below will advance stakeholders' efforts to build on their current successes.

Recommendation

1. **Develop a regional talent development "master plan" to align regional goals and outcomes for preparing Detroit residents for middle-skill occupations in high-demand sectors.**

Regional stakeholders should:

- Catalogue the local, regional and state-led talent development initiatives in the manufacturing and healthcare industries and disseminate this information to stakeholders across the region.
- Develop a regional cluster-based industry council that can help to develop and advance an overarching talent development strategy and accountability mechanisms to monitor progress toward goals.
- Identify an individual or an organization with the influence and capacity to champion the regional master plan and engage key regional stakeholders in its implementation.

Recommendation

2. **Build a system of career pathways aligned with industry cluster demand to prepare Detroit residents effectively to earn credentials and secure middle-skill occupations in the region.**

- Employers can collaborate with providers to expand career exploration strategies, develop employer-endorsed curriculum and strengthen capacity of all regional education and training providers.
- Education and training providers can strengthen pathways by expanding work-based learning and accelerated learning strategies, and by offering flexible course scheduling.
- Community-based organizations and other social service agencies can expand wraparound supports and programs to remove barriers to employment.

Recommendation

3. **Align public, private and philanthropic investment in talent development with industry-focused vision and goals.**

- Convene public agencies, philanthropies and private employers with common interests in talent development to identify and align resources to address "capacity gaps," develop an investment strategy to strengthen the capacity of the education and training delivery system, and increase access to middle-skill career pathways for all youth and adults.
- Develop criteria for investment to increase the scale of education and training programs that demonstrate effective results in achieving employer requirements around talent development by identifying best practices and developing strategies for benchmarking and measuring outcomes.
- Regional stakeholders should leverage federal and state funding opportunities to support implementation of industry cluster-based talent development efforts.

Through the *New Skills at Work* initiative, JPMorgan Chase will contribute resources and expertise to accelerate this work to help transform lives and help strengthen Detroit's economy.

INTRODUCTION

The near-collapse of the U.S. auto industry and the impact of the Great Recession dramatically shrank the region's job base over the past 15 years. Detroit's bankruptcy for more than a year publicized the city's economic woes. Proposing to boost the supply of workers qualified for middle-skill positions would have seemed absurd just a few years ago. Yet today, the regional economy has started to recover and employers are hiring again.

As growth resumes in the city of Detroit and the surrounding **region 1**, stakeholders will need to expand the skilled workforce in order to help existing businesses thrive and to attract new companies to the city of Detroit and the region. The Detroit area's economic trajectory will increasingly depend on the quality of its talent supply, and that will depend on the ability of stakeholders to prepare low-skilled residents for the region's high-demand, middle-skill careers.

This report highlights two industries essential to the emerging recovery - healthcare and manufacturing. Drawing on real-time and traditional labor market information and input from local stakeholders, the report identifies strategies to prepare more residents for middle-skill jobs so they can advance their careers and earnings potential and employers can sustain long-term economic growth. As the data show, and stakeholders often express, Detroit city residents do not consistently have equal access to all of the opportunities in the region. The report concludes with recommendations for developing a demand-driven **career pathways system 2** that can propel the Detroit region's economic resurgence and help more residents achieve financial stability and join the middle class.

1 Defining the Detroit Region

This report defines the Detroit region as the six-county Metropolitan Statistical Area (MSA) that includes Lapeer, Livingston, Macomb, Oakland, St. Clair and Wayne counties. All references to Detroit relate to this region, unless otherwise stated. This definition differs slightly from several other ways of describing the Detroit region. The Southeast Michigan Council of Governments area includes the counties above plus Washtenaw and Monroe counties and excludes Lapeer County. The nine-county region used by the Workforce Intelligence Network (WIN) in its labor market analyses also excludes Lapeer County and adds Genesee, Shiawassee, Washtenaw and Monroe counties. The Regional Prosperity Initiative defines the Detroit metro region as Wayne, Macomb and Oakland counties.

2 What are Career Pathways?

The term "career pathways," as used in this report, describes education and training programs that offer a well-articulated sequence of courses and work experiences that align with employer skill demands and lead to the completion of industry-valued "stackable credentials." Stackable credentials offer students multiple clear entry and exit points for education and training as they progress toward an Associate's degree or the highest industry credential required for a specific occupation. Stackable credentials enable people to find jobs with increasing responsibility, knowing they can access additional short-term training as needed to move ahead. Career pathways can be particularly effective for launching young people and low-skill adults into good jobs because they can be designed to serve a range of populations and skill levels.

A "career pathways system" aligns employers, workforce development agencies, education providers, funders and other partners to identify shared goals and drive changes in programs, institutions and policies to address employer demand through multiple career pathways in the targeted industry sectors.

RECOVERING FROM ADVERSITY

After suffering a steep employment plunge since the year 2000, the Detroit regional economy is stabilizing and experiencing long overdue job gains.

THE REGIONAL ECONOMY IS REBOUNDED

- From the beginning of the recession through early 2010, the collapsing automotive sector pushed the region's unemployment rate to a high of 15%. During the same time, more than 180,000 people dropped out of the labor force (they were not working or actively seeking work). But the region is recovering. By late 2014, the unemployment rate for the region had fallen to 7%.⁹
- In 2009, after trailing the nation for decades, economic growth in the Detroit region began to parallel U.S. employment growth. Over the next decade, the region is expected to grow at an average rate of 0.4% per year, less than the national rate, but greatly improved from the trend of 1% annual contraction during the 2000s.¹⁰
- Economists project 9,800 new middle-skill jobs annually through 2018 in the Detroit region.
- More jobs will be created in the suburbs than in the city. The Southeast Michigan Council of Governments projects that only 2% of new regional jobs by the year 2040 will be in the city of Detroit.¹¹

HIGH-DEMAND INDUSTRIES ARE FUELING THE RECOVERY

- Despite the decline of the automotive sector during the recession, Detroit remains one of America's leading manufacturing hubs, with a complex web of subsectors dominated by automotive and metals and machinery manufacturing. In addition, healthcare, financial and insurance services, marketing and advertising services, and computers and **information technology** **3** sectors are driving the region's economy. The imperative need to build and repair regional infrastructure could also fuel a comeback for the **construction sector** **4**.

3 Growing Opportunities in Information Technology

Information technology is expanding in the Detroit region, with more than 40,000 jobs in 2013 and an anticipated 5% growth over the next few years. As a multi-industry cluster, information technology encompasses core IT, manufacturing, healthcare, finance and other industries. Core IT includes design, development, support and management of hardware, software, multimedia and systems integration services. The concentration of core IT companies in the region is strong, with nearly 1,400 businesses accounting for 45% of firms statewide. Through the Opportunity Detroit Tech initiative, regional stakeholders such as the Workforce Intelligence Network (WIN) are working to ensure that core technology skills are embedded across industries, while expanding the number of core IT businesses and the talent pipeline to support them.¹²

4 Infrastructure: An Emerging Workforce Opportunity?

The construction industry in the Detroit region lost more than 9,000 jobs between 2008 and 2013. With more than \$4 billion in infrastructure projects in the pipeline, however, this sector is poised for a comeback.¹³ New projects include the M-1 Rail system along Woodward Avenue, the Detroit River International Crossing (expected to create 10,000 to 15,000 construction jobs in Michigan and Ontario) and District Detroit (expected to create more than 8,000 construction-related jobs). Replacement and enhancement of roads (e.g., Interstates 94 and 75), sewer systems, water supply and energy-generation infrastructure, as well as demolition of abandoned homes and industrial buildings, will increase demand. Construction training programs such as Access for All, launched by the Detroit Regional Workforce Fund in 2014, connect Detroit residents to construction opportunities while helping contractors fulfill local hiring requirements. Almost all of the graduates in the first two cohorts have transitioned into union-affiliated apprenticeships in six building trades. Investing in a homegrown middle-skill workforce that can complete durable infrastructure projects on time and under budget will pay for itself many times over.¹⁴

9 U.S. Department of Labor, Bureau of Labor Statistics. Annual data for 2007 and monthly data for November 2014. *Local Area Unemployment Statistics*. Retrieved from www.bls.gov/web/metro/taulrgma.htm.

10 All data on this page are from EMSI, unless otherwise noted.

11 Detroit Future City. 2012. *Detroit Strategic Framework Plan*, p. 89.

12 Opportunity Detroit Tech website. 2015. Retrieved at: www.opportunitydetroittech.com.

13 Interview with Carmine Palombo, Deputy Executive Director, Southeast Michigan Council of Governments, February 2015.

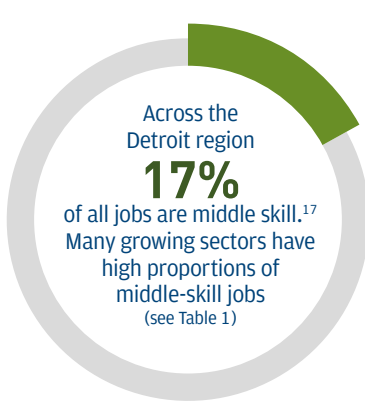
14 See Metropolitan Affairs Council and Southeast Michigan Council of Governments. 2013. *Infrastructure and Jobs: An Asset Map for Southeast Michigan* for an analysis of the types of jobs projected to be created by the major projects planned for Southeast Michigan.

- Manufacturing is the region’s largest industry, employing more than 235,000 workers, and provides nearly one-third of the middle-skill jobs across all subsectors.
- Healthcare is the Detroit region’s second-largest sector, employing more than 231,000 workers, and it is projected to be one of its fastest growing. Of the more than 19,000 jobs expected to be created by 2018, about 16% require middle skills.
- Given regional demand and current state investment priorities, a focus on the healthcare and manufacturing sectors can help **maximize middle-skill opportunities** **5** for Detroit city residents.

5 Strengthening Business Competitiveness through Industry Clusters

The Michigan State Legislature has capitalized a \$10 million per year Skilled Trades Training Fund to support workforce development.¹⁵ Brokered by local Michigan Works! agencies, since 2014 some 59 manufacturing, healthcare and related employers in the Detroit region have received \$2.8 million in grants to train 1,291 new hires and 5,158 incumbent workers. The training leads to transferable credentials and employment at regionally competitive wages.¹⁶

MIDDLE-SKILL JOBS ARE VITAL TO ECONOMIC GROWTH



The region also has a large and growing share of **“Baby Boomers”** many of whom are nearing retirement

The number of residents age 65 and over will continue to rise, reaching about **one-quarter** of the region’s total population by 2040¹⁸

The twin imperatives of meeting demand in growing industry sectors and replacing retiring workers drive the need to develop a middle-skill workforce pipeline in the region’s key industries

TABLE 1. PROPORTION OF MIDDLE-SKILL JOBS IN DETROIT MSA, 2013¹⁹

	2013 Total Jobs	% Middle-Skill Occupations
Healthcare	231,502	16%
Automotive Manufacturing	110,601	77%
Financial and Insurance Services	73,251	46%
Metals and Machinery Manufacturing	64,246	77%
All Other Manufacturing	60,181	60%
Computers and Information Technology	40,440	46%
Marketing and Advertising Services	25,040	36%

15 The priority industry clusters for the city of Detroit are healthcare, manufacturing and information technology. Detroit Employment Solutions Corporation. 2014. *Comprehensive Five-Year Local Plan: July 1, 2012–June 30, 2017*, p. 7.

16 Michigan Workforce Development Agency. 2014. *Skilled Trades Training Fund Frequently Asked Questions (FAQs)*.

17 EMSI.

18 Southeast Michigan Council of Governments. 2013. *Creating Success with Our Transportation Assets: 2040 Regional Transportation Plan for Southeastern Michigan*, p. 13.

19 EMSI.



OPPORTUNITIES IN HEALTHCARE

Healthcare delivery is an important driver of middle-skill job growth in the Detroit region, and an anticipated shortage of trained applicants over the next few years is creating a window of opportunity for Detroit area residents who want to enter the industry.

- Healthcare accounts for 20% of Michigan’s jobs, and more than half of all healthcare services statewide are offered in the Detroit region.²⁰ A University of Michigan economic analysis projects that the healthcare and private education industry will have the strongest long-term growth at 1.23% per year.²¹
- Major investments in healthcare facilities in the region are stoking demand for skilled workers, such as the recent \$129 million expansion of St. Joseph Mercy Oakland.²²
- Employer demand is strong in several healthcare areas, as indicated by projected average annual openings and job postings, notably for nurses, healthcare practitioners and administrative roles.²³ (See Appendix B for examples of in-demand middle-skill healthcare occupations.)

Long average job posting duration indicates a demand for middle-skill workers across the healthcare spectrum



Employers are struggling to hire qualified staff in these occupations

TABLE 2. EMPLOYER DEMAND IN HEALTHCARE PRIMARY SKILL AREAS IN DETROIT MSA, 2014

Primary Skill Areas ²⁴	Annual Openings 2013–2018 ²⁵	Total Job Postings 2014 ²⁶
Nursing	1,682	7,930
Sub-BA Practitioner	1,680	5,014
Healthcare Support	2,463	4,006
Administrative	1,912	2,544
Technical, Non-Patient Care	433	1,651
Health Information Management	273	502

20 Michigan Workforce Development Agency. 2013. *Health Care Cluster Workforce Analysis*, p. 2.

21 Grimes, Donald A. and Fulton, George A. 2012. *Retrenchment and Renewal: The Economic and Demographic Outlook for Southeast Michigan through 2040*, University of Michigan, Institute for Research on Labor, Employment, and the Economy, p. 24.

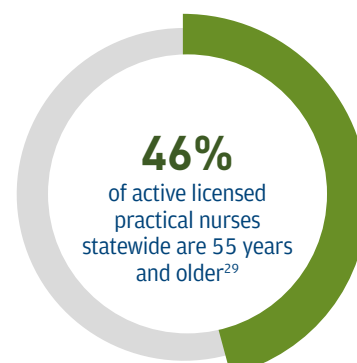
22 Detroit Regional Chamber website. 2015. Retrieved from: www.detroitchamber.com/industry-clusters/healthcare-innovation/.

23 Burning Glass.

24 Primary skill areas include middle-skill jobs, as well as entry-level occupations that are critical to the vitality of the sector and provide opportunity for continued career growth. These occupations also include fields that employed large numbers of workers, but may be declining or that pay below the living wage.

25 Annual openings are the combined number of projected job openings due to growth and the need to replace workers who change occupations or leave the labor force. EMSI Complete Employment 2014.2.

26 Job postings data are gathered from employer online job postings by private vendors and organized to provide current information on hiring trends and employer demand. Burning Glass.



Increasing pressure to expand the talent pipeline

- The aging of the region’s Baby Boomer population will increase the need for healthcare workers, ranging from physicians to geriatric specialists to home health aides.³⁰ Projected growth in middle-skill occupations ranges from 9% in technical, non-patient care roles to 47% among healthcare support staff.³¹
- Furthermore, statewide implementation of the national Patient Protection and Affordable Care Act (ACA) is expected to increase the number of residents who regularly access healthcare services and prompt the need to increase staff, especially in ambulatory care. Pending resolution of Supreme Court challenges to portions of the law, employers will also need to train existing employees to implement new models of service delivery, creating opportunities to strengthen career pathways within healthcare subsectors.³²
- In addition, national trends are raising skill requirements. While many healthcare employers still hire registered nurses with Associate’s degrees (67% regionally versus 60% nationally), some employers now prefer registered nurses with Bachelor’s degrees, in line with national trends.³³
- Similarly, federal legislation is making ICD-10 certification (an international diagnostic and coding standard) an essential credential for both current and future **medical coders** **6**. Detroit employers are scrambling to hire or train workers with these skills by the October 2015 deadline.

6 Upskilling Detroit’s Medical Coders

As the U.S. healthcare system moves to adopt the new international ICD-10 standard (an international diagnostic and coding standard), WIN has been working with eight healthcare systems and nine community colleges in the region to prepare for the transition. Community college partners are working collaboratively with employers to develop a joint curriculum for training workers in this certification. In addition, several employers in the region have partnered with their local Michigan Works! agency to access Skilled Trade Training Fund dollars to offer ICD-10 training to their workers.



27 U.S. Census Bureau. 2013 Q3–2014 Q2. *Longitudinal Employer-Household Dynamics: Quarterly Workforce Indicators*. Retrieved from: <http://qwexplorer.ces.census.gov>.

28 Michigan Center for Nursing. 2014. *Survey of Nurses 2014*, p. 4.

29 Michigan Center for Nursing. 2014. *Survey of Nurses 2014*, p. 4.

30 Wilson, Randall. 2014. *Healthcare Pathways for Opportunity Youth: A Framework for Practitioners and Policymakers*, Jobs for the Future, p. 6.

31 Burning Glass.

32 Wilson, Randall. 2014. *Implementing the Patient Protection and Affordable Care Act*, Jobs for the Future, p. viii.

33 Burning Glass.

CAREER PATHWAYS



HEALTH CAREER PATHWAY³⁴

Middle-skill occupations in healthcare provide opportunities for career advancement. Some occupations pay entry-level wages, but allow for workers to attain higher incomes as they acquire additional education and experience. Below are examples of career pathways in healthcare.

	Occupation	Median Hourly Wage (Detroit MSA)	Education Level	Industry-Valued Certifications	Skills and Competencies
High-Skill	Registered Nurse	\$32.87	Bachelor's degree or Associate's degree with five plus years of experience	Registered Nurse	<ul style="list-style-type: none"> - Acute and critical patient care - Treatment planning - Patient evaluation and monitoring - Case management and care plans
	Auditing and Compliance Specialist	\$29.21	Bachelor's degree	RHIA Certification, Certified HIPAA Administrator	<ul style="list-style-type: none"> - Advanced clinical billing - Accounting - Business administration - Auditing - Mentoring - Problem solving
Middle-Skill	Surgical Technologist	\$20.10	Associate's degree	Certified Surgical Technologist	<ul style="list-style-type: none"> - Surgical equipment and technology - Operating room experience - Patient preparation - Aseptic technique - Time management - Multitasking
	Health Information Manager	\$16.79	Associate's degree or postsecondary certificate	RHIT Certification	<ul style="list-style-type: none"> - ICD-10 - Electronic health records - Clinical procedure terminology - CPT - Microsoft Excel - Organizational skills - Research - Writing
Entry-Level	Medical Assistant	\$13.37	High school diploma with moderate on-the-job training	First Aid CPR AED Medical Assistant Certification	<ul style="list-style-type: none"> - Vital signs measurement - Patient preparation - Cleaning - Injections - Communication skills - Basic computer skills
	Medical Biller	\$13.34 (entry-level wage)	High school diploma with moderate on-the-job training		<ul style="list-style-type: none"> - Scheduling and appointment setting - Basic medical terminology - Basic billing systems - Data entry and word processing - Customer service - Communication skills

³⁴ Information for healthcare career pathway is drawn from Burning Glass Labor/Insight and EMSI Complete Employment 2014.2 and is informed by community college program descriptions from Wayne County and Macomb Community Colleges.



OPPORTUNITIES IN MANUFACTURING

Manufacturing has long been the foundation of Michigan's economy. Even after the sharp workforce declines of recent years, it continues to be a vibrant industry and a major source of middle-skill jobs.



Currently, the manufacturing sector employs more than

half a million

workers across the state³⁵



Long average posting durations -

more than 40 days

for automotive service technician and procurement clerk openings, for example - suggest that employers struggle to find workers with the right skills



A projected wave of retirements will open new employment opportunities, as employers seek to replace a large number of skilled workers in a relatively short time. Many employers will seek to upskill and promote their incumbent workers and hire new entry-level workers, creating greater opportunity across the skill continuum

TABLE 3. EMPLOYER DEMAND IN MANUFACTURING PRIMARY SKILL AREAS IN DETROIT MSA, 2014

Primary Skill Areas ³⁸	Annual Openings 2013-2018 ³⁹	Total Job Postings 2014
Installation, Maintenance, and Repair	1,336	4,986
Machining	1,037	4,559
Logistics and Transportation	625	4,462
Engineering and Manufacturing Technology	407	993
Testing and Inspection	199	511

35 Michigan Workforce Development Agency. 2013. *Manufacturing Cluster Workforce Analysis*, p. 2.

36 All data on this page are from Burning Glass unless otherwise noted.

37 U.S. Census Bureau. 2013 Q3-2014 Q2. *Longitudinal Employer-Household Dynamics: Quarterly Workforce Indicators*. Retrieved from: <http://qwiexplorer.ces.census.gov>.

38 Primary skill areas include middle-skill jobs, as well as entry-level occupations that are critical to the vitality of the sector and provide opportunity for continued career growth. These occupations also include fields that employed large numbers of workers, but may be declining or that pay below the living wage.

39 EMSI Complete Employment 2014.2.

- Some middle-skill occupations in manufacturing are expected to grow much faster in the Detroit region than in the nation as a whole. For example, employment of machinists is projected to rise 17% by 2020 in the Detroit region while remaining flat nationally.
- A key determinant of future growth will be the competitiveness of the domestic automotive industry, which dominates employment in installation, maintenance and repair occupations, as well as logistics and transportation. Employers also are looking for workers in occupations related to automotive design, such as mechanical drafters. In the Detroit region, automotive occupations account for 19% of advertised manufacturing demand and 9% of all middle-skill jobs.
- The technology skills required in manufacturing also are increasing, as manufacturing processes become more sophisticated. Mechatronics – the combination of mechanical, computer and electrical skills – is in strong demand in parts of the region.⁴⁰ Employers’ demand for workers with strong technology skills is especially intense in automotive manufacturing, where emerging technologies continue to gain traction – from new powertrains and electrified vehicles to “smart car” connected vehicles that can talk to other vehicles or infrastructure to fully automated, “self-driving” vehicles.⁴¹
- Middle-skill occupations in manufacturing pay good wages, although compensation varies sharply based on occupation, experience and credentials. All of the high-demand, middle-skill jobs analyzed for this report pay hourly wages that exceed the Detroit region’s living wage of \$17.08 per hour.⁴² Middle-skill positions such as tool and die makers (\$25.05) and industrial machining mechanics (\$24.05) earn considerably more than the living wage.⁴³ (See Appendix B for examples of in-demand middle-skill manufacturing occupations.)

Detroit region's living wage per hour
\$17.08

Middle-skill positions such as tool and die makers

\$25.05

Industrial machining mechanics

\$24.05

- Despite strong current demand and employer reports of growing demand for middle-skill workers, ongoing labor-market analysis and dialogue with employers will be essential to determine long-term demand and develop a regional cluster-wide plan for education and training investments in the long run.
- Efforts are underway to expand the **manufacturing sector** ⁷ and grow the number of jobs. Skilled manufacturing workers will also be in high demand in construction-related jobs as infrastructure expansion continues in the region.

7 Growing Manufacturing and Jobs in the Detroit Region

Detroit holds important competitive advantages in manufacturing: decades of experience; a sophisticated understanding of manufacturing’s many technologically complex frontiers; and an extensive educational, R&D and marketing infrastructure that other regions would find difficult to replicate. Initiatives are now underway to build on these assets, ranging from place-based strategies such as the **Detroit Future City Employment District Marketing Initiative** to supply-chain approaches such as **Innstate**, to research-based strategies such as the **Michigan Academy for Green Mobility Alliance (MAGMA)** to technology transfer strategies such as **Lightweight Innovations for Tomorrow (LIFT) Initiative**. **Advance Michigan** is pursuing an integrated strategy to grow a skilled manufacturing workforce, expand manufacturing businesses and strengthen production processes in Detroit and key regions across the state. The 13-county region covered by this initiative has received federal Investing in Manufacturing Communities Partnership designation, which increases access to funding to grow manufacturing jobs.⁴⁴ Finally, the **Center for Automotive Research** continues to deepen the knowledge base around transportation systems, evolving technologies and manufacturing engineering systems. These initiatives hold great promise to strengthen the Detroit region’s economic competitiveness and job base. As they develop, regional stakeholders should make more transparent the aggregate talent development goals they are pursuing and which skill levels (entry level, middle skill, or high skill) they are targeting.

40 Mwase, Gloria. Email correspondence with Macomb Community College President James Jacobs, February 15, 2015.

41 Hill, Kim et al. 2015. *Contribution of the Automotive Industry to the Economies of All Fifty States and the United States*. Center for Automotive Research.

42 EMSI, drawing upon data from the Massachusetts Institute of Technology’s *Living Wage Calculator* for a family of three (two adults and one child) in the Detroit area. For additional information: <http://livingwage.mit.edu>.

43 Burning Glass.

44 The White House. 2014. *Obama Administration Designates the First 13 Manufacturing Communities through the Investing in Manufacturing Communities Partnership to Spur Investment and Create Jobs*.

CAREER PATHWAYS



MANUFACTURING CAREER PATHWAY⁴⁵

Manufacturing occupations offer promising opportunities for workers to move up a career pathway as they gain more skills and obtain certifications and degrees. Below are examples of career pathways in manufacturing.

	Occupation	Median Hourly Wage (Detroit MSA)	Education Level	Industry-Valued Certifications	Skills and Competencies
High-Skill	Engineer	\$43.80	Bachelor's degree	- ASME (American Society of Mechanical Engineers) Certification - Capability Model Maturity Integration (CMMI) Certification	- Mechanical engineering and design - Manufacturing process knowledge - Product design and concept development - Advanced mathematics - Mentoring
	Production and Operating Supervisor	\$29.75	Bachelor's degree, or Associate's degree with five years of experience	Six Sigma Certification	- Production management - Inventory management - Process improvement - Scheduling and logistics - Material flow management - SAP - CATIA - ERP Systems
Middle-Skill	Programmer	\$23.93	Associate's degree or Associate of Applied Science degree, apprenticeship experience	Computer-Aided Design Certification	- G Code (CNC programming language) - Computer-aided drafting (AutoCAD) - Computer-aided manufacturing - SURFCAM - Microsoft Excel - Microsoft Office
	Machinist	\$19.63	Advanced postsecondary certificate, plus apprenticeship or work experience		- Grinding - Drill pressing - Mill cutting - Welding - Inspection - Repair - Data entry - Forklift operation
Entry-Level	Operator	\$17.85	Basic postsecondary certificate	CNC Machining	- Machine operation - Lathes - Blueprints - Micrometers - Calipers - Hand tools
	Welder	\$17.72	High school diploma plus moderate on-the-job training	Welding certification (e.g. AWS Certified Welder)	- Soldering - Metal Inert Gas (MIG) or Tungsten Inert Gas (TIG) welding - Schematic diagrams - Wiring

⁴⁵ Information for career pathway is drawn from Burning Glass Labor/Insight and EMSI Complete Employment 2014.2 and is informed by community college program descriptions from Wayne County and Macomb Community Colleges.

EXPANDING OPPORTUNITY

Expanding the middle-skill workforce and rebuilding the middle class are essential to the Detroit region's future. Low-income residents need better preparation for middle-skill jobs to improve their financial stability and help sustain the region's economic recovery. Successful efforts will narrow the gaps in employment, education and income between white and minority residents, and between those who live in the city and those who live in the suburbs.

ECONOMIC DISPARITIES ARE LEAVING MANY BEHIND – ESPECIALLY DETROIT CITY RESIDENTS AND PEOPLE OF COLOR

Post-recession unemployment in the Detroit area has dropped more rapidly than in the nation as a whole. Yet the region's 7% unemployment rate remains high among U.S. metro areas.

- People who live in the city of Detroit face particularly difficult circumstances. City residents face an unemployment rate of 13%, nearly double the 6.7% rate in the five-county suburban belt.⁴⁶
- City residents often seek work in the suburbs, only to find that long commutes and inadequate **public transportation** **8** make suburban jobs impractical.
- At the same time, the significant outmigration from the city also means that many low-skill adults seeking economic opportunity now reside in the surrounding suburbs.
- Across the region, 14% of African-American residents and 10% of Latino residents are unemployed, compared with 6% of white residents. In the city of Detroit, 15% of African-Americans and 14% of Latinos are unemployed, compared with 9% of white residents.
- In addition, fewer city residents participate in the labor force (people who are working or actively looking for work). In the city, 61% of Latinos are in the labor force, compared with 49% of white and 53% of African-American residents. Across the region, 67% of Latinos are in the labor force, compared with 64% of whites and 58% of African-Americans.

8 Getting There from Here: Detroit's Transportation Challenge

More than half of all working people who live in the city of Detroit leave the city to reach their jobs⁴⁷ and the number is expected to grow as more jobs are created in the suburbs. Unfortunately, jobs outside the city are often inaccessible, as one in four city residents lacks a car, and the public transit system does not adequately connect city residents to suburban job opportunities.

Yet changes are on the horizon. The Southeast Michigan Council of Governments established a Regional Transit Authority (RTA) with a mandate to develop regional solutions to southeast Michigan's transportation challenges, and it is preparing a transit plan to go before Michigan voters in November 2016. If voters approve the plan and the revenues to implement it, RTA will have the potential to become a transit powerhouse, with the resources, operations and infrastructure needed to help move Detroit residents much more efficiently to suburban jobs.⁴⁸

⁴⁶ The 6.7% regional unemployment rate excludes Wayne County. The unemployment rate for the six-county MSA is 7.0%. All data from Jeremy Kelly analysis of data from U.S. Department of Labor, Bureau of Labor Statistics. November 2014. *Local Area Unemployment Statistics*. Detroit MSA (by county) and Detroit City. Retrieved from www.bls.gov/web/metro/laurgma.htm.

⁴⁷ Southeast Michigan Council of Governments. 2014. *Improving Public Transit and Accessibility*, p. 3.

⁴⁸ Lawrence, E., "Detroit Area's Transit Head Must Sell Voters on Funding," *Detroit Free Press*, November 19, 2014. Accessed at <http://on.freep.com/1qW0m5Y>.

- Young people living in the city also face greater barriers to work than young people living in the suburbs. Some 42% of city residents age 16–24 were unemployed in 2012, compared with 24% of the same age group across the region.⁴⁹ Teens face more difficulty finding work than adults in their early 20s. In 2013, Detroit city **youth 9** age 16–19 had an unemployment rate of 58%; for 20–24 year-olds, the rate was 38%.
- **Adults unemployed for long periods 10** find jobs increasingly difficult to obtain.
- Employment gaps lead to income disparities: individuals in the city of Detroit face higher poverty rates than in the region overall, regardless of race: 38% of African-Americans in the city live in poverty, versus 32% of African-Americans regionwide; 36% versus 22% for Latinos; and 40% versus 11% for whites.⁵⁰

9 Creating Opportunity for Youth

Boosting economic opportunities for Detroit's young adults is an urgent public priority. With funding from JPMorgan Chase and others, City Connect launched the Grow Detroit's Young Talent initiative, a summer jobs campaign that placed nearly 1,900 Detroit youth in six-week paid summer work experiences and employment-focused workshops during summer and fall 2014.⁵¹ Detroit Mayor Mike Duggan is seeking to expand the program in 2015 by linking it with the 40-year, publicly funded summer jobs program led by the Detroit Employment Solutions Corporation and its year-round youth employment efforts.

In addition, BMe Detroit, a network of African-American male community builders, is working with young African-American men through mentorship and other programs to promote retention and completion for high school students, college access and success for high school graduates and employment opportunities for young ex-offenders.⁵²

10 From Economic Devastation to Economic Stability for the Long-Term Unemployed

Helping the long-term unemployed get back to work is a national priority. Through our *New Skills at Work* initiative, JPMorgan Chase is helping to address this challenge through better research and support of best practices to help job seekers become and stay employed.

In 2014, over one-third of the unemployed in Michigan (about 119,000 people) were out of work for 27 weeks or more. Over one-quarter of Michigan's unemployed were jobless for 52 weeks or more.⁵³ The Community Ventures program, convened by the Michigan Economic Development Corporation in four urban centers (Detroit, Flint, Pontiac and Saginaw), has become a nationally recognized model for helping long-term unemployed adults get back to work. Launched in 2012, the program supports job seekers who have limited education or literacy, have been unemployed for more than six months, or have high barriers to employment, such as a criminal record.

Participants are screened, selected and referred by Michigan Works! agencies. Community Ventures provides employers with a talent match and an on-the-job training grant, in return for which the employer is required to guarantee one-year minimum employment in a market rate, full-time, permanent position.⁵⁴ Several workforce and community partners provide supportive services (such as transportation, child care and financial literacy) to help participants stay on the job, including Detroit Employment Solutions Corporation, Detroit Centers for Working Families, Focus: HOPE, SER Metro, Jobs for Progress, Goodwill and Southwest Solutions. In Detroit, nearly 1,500 residents have been placed in jobs with 57 employers, and almost three-quarters were still employed a year later, at wages that compared favorably with entry-level wages in similar positions.⁵⁵ The model will be implemented across the state in 2015.

49 U.S. Census Bureau. 2012 estimates for Detroit MSA. *American Community Survey*. Retrieved from: <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>.

50 Unless otherwise noted, all data on this page are from U.S. Census Bureau. 2011–2013 estimates for Detroit MSA and City of Detroit. *American Community Survey*. Retrieved from: <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>.

51 See <http://gdyt.org/learn-more/>.

52 See www.bmecommunity.org/bme_detroit.

53 Information on the long-term unemployed is from unpublished data from the U.S. Department of Labor, Bureau of Labor Statistics provided by the Michigan Department of Technology, Management and Budget, Labor Market Information and Strategic Initiatives.

54 Michigan Economic Development Corporation. 2013. *Community Ventures Fact Sheet*.

55 Gerald R. Ford School of Public Policy. 2013. *Michigan Economic Development Corporation Community Ventures Program Outcomes Report*, p. 13.

MANY PEOPLE ARE UNPREPARED TO TAKE ADVANTAGE OF MIDDLE-SKILL JOB OPPORTUNITIES

- Postsecondary education or training is essential to obtaining middle-skill employment. Yet many adults in the region, especially minorities and Detroit city residents, have not even finished high school. About 12% of regional residents 25 years and older (more than 340,000 people) lack a high school diploma or GED, including 21% of Detroit city residents (93,000 people). Another third of city residents (more than 138,000 people) have earned only a high school diploma or GED.
- Behind the overall picture lurk major gaps in educational attainment by race and ethnicity. Regionally, 30% of Latinos age 25 and older lack a high school diploma or GED, as do a daunting 55% in the city of Detroit. Whites have high educational attainment rates regionally but lower rates in the city. (See Figures 1 and 2.)
- In a curious paradox, more than two-thirds of African-Americans in both the Detroit region and the city have middle-skill credentials (a high school credential and some college or an Associate's degree), more than white and Latino residents. Yet African-Americans have the highest unemployment rate of any race or ethnicity, suggesting that **educational attainment is not the sole factor** ¹¹ explaining employment in southeast Michigan.
- Detroit stakeholders have noted other factors affecting employment, including limited access to education advising and career counseling; lack of flexible and accelerated degree programs, tuition, transportation and/or housing assistance, or day-care subsidies; and employment barriers due to criminal records. In 2013, more than 11,000 residents were convicted of criminal offenses in Wayne County.⁵⁶

FIGURE 1. EDUCATIONAL ATTAINMENT BY RACE FOR POPULATION 25 YEARS AND OLDER IN DETROIT MSA, 2013

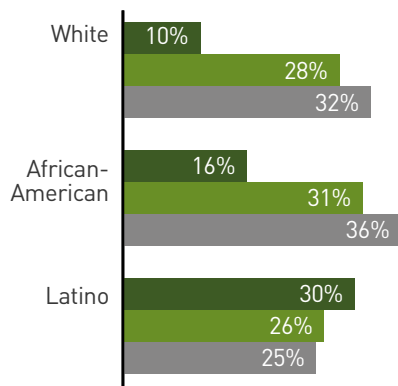
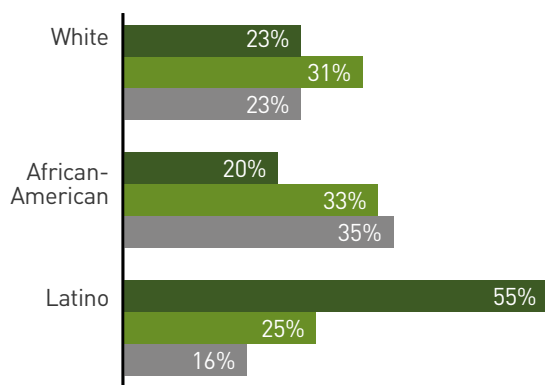


FIGURE 2. EDUCATIONAL ATTAINMENT BY RACE FOR POPULATION 25 YEARS AND OLDER IN DETROIT CITY, 2013



- Less than high school diploma
- High school graduate (includes equivalency)
- Some college or Associate's degree

(Source: U.S. Census Bureau, *American Community Survey*)

11 Employers Speak Out about Their Skilled Workforce Challenges

The Detroit Employment Solutions Corporation, in partnership with other Michigan Works! agencies in the region and the Michigan Economic Development Corporation, collected information on employer skills gap challenges through customer insight surveys administered in early 2015. For the Detroit metro region:

- More than 40% of employers who responded noted that they plan to hire entry-level or mid-level middle-skill positions (requiring more than a high school diploma but less than a Bachelor's degree) in the next three years.
- Work readiness skills, also known as "soft skills," are the most influential factor in hiring decisions by local employers, even above technical skills and credentials. Specific skills and attributes identified include teamwork, leadership skills, self-motivation, problem solving, strong basic academic skills, communications and customer service skills.
- Many employers are already involved or interested in regional talent development. More than one-third of the respondents reported their current participation or willingness to be involved in advising career and technical education programs, providing apprenticeships, mentoring high school students and offering summer youth employment opportunities.

56 Heyns, Daniel H. 2014. *Michigan Department of Corrections 2013 Statistical Report*, p. A-4.

STAKEHOLDERS HAVE MADE IMPORTANT STRIDES IN TALENT DEVELOPMENT

- Groups of employers within the manufacturing industry cluster have worked to develop goals and plans for segments of this sector.
- The seven workforce boards in the region have developed collaborative goals through the Southeast Michigan Works! Agency Council.
- The region's nine community colleges are striving to cooperate through the Southeast Michigan Community College Consortium.
- WIN helps to foster collaboration among the seven workforce boards and the nine colleges in the region to build a talent pipeline for employers in key industry sectors.
- The Detroit Jobs Alliance, convened by the Detroit Regional Workforce Fund, has created a forum to foster information sharing, capacity building, and collaboration for all of the city's stakeholders focused on education and training, supportive services and employment in the city of Detroit.

Yet stakeholders report that significant challenges remain. Community colleges, community-based organizations, adult education programs and other training partners struggle to find overarching alignment at the industry cluster level across multiple talent development initiatives that can identify common employer needs and guide their work with job seekers. The result has been siloed and duplicated services; an inability to leverage shared information, activities, or resources; and challenges in demonstrating systemic results in connecting disadvantaged residents to employment.

OVERWHELMING NEEDS STRAIN PROVIDER CAPACITY

- As collaborative initiatives scale up to meet the growing needs of the region, particularly the need to connect Detroit residents to opportunities in surrounding communities, the organizations leading these efforts face challenges in expanding the infrastructure necessary for collective action.
- Adult education providers estimate that fewer than 10% of adults who need these services each year are able to access them, especially those with low literacy or **English-language 12** proficiency. The content and delivery of these programs often do not align well with the transition to postsecondary education and employment pathways.⁵⁷
- Community colleges in some parts of the region lack important resources, such as college preparatory programs and clinical sites, preventing them from expanding technical training programs to meet employer and student demand.
- Reduced funding to support the engagement of adults in postsecondary occupational training is constricting the pipeline to produce the next generation of skilled workers.⁵⁸

12 Engaging Detroit's Immigrant Talent

Immigrants – whether from Latino, Asian, Middle Eastern or other nationalities – are a growing presence in the city of Detroit and in the region. These residents have a strong drive to succeed, often helping to revitalize distressed communities through their entrepreneurial spirit. While English-language proficiency is a barrier for many immigrants, they also bring diverse skills that can be leveraged to support regional competitiveness.

Organized by Global Detroit, ACCESS and the International Institute of Metropolitan Detroit, a network of more than a dozen organizations is collaborating to help connect immigrants to growing economic opportunity through workforce-related services such as employment training, job search assistance and access to employers.⁵⁹



57 The Detroit Regional Workforce Fund. 2012. *Addressing Detroit's Basic Skills Crisis*, pp. 6–7.

58 Michigan Workforce Development Agency. 2012. *Skilled Trades in Michigan*, pp. 10, 12. One innovative resource is the Michigan New Jobs Training Fund, which allows employers to partner with colleges to train new workers and reimburse them through new employee payroll tax diversions.

59 Global Detroit website. 2015. Retrieved at: www.globaldetroit.com/partner-initiatives/welcome-mat-detroit/.

RECOMMENDATIONS

Detroit has impressive strengths in healthcare, manufacturing and other vital sectors that offer well-paying jobs with the opportunity for career mobility. Stakeholders can build on these strengths by developing a demand-driven career pathways system.

Recommendation

1. Develop a regional talent development “master plan,” advanced by a prominent champion, to align regional goals and outcomes for preparing Detroit residents to enter middle-skill occupations in high-demand sectors.

Regional stakeholders should:

- Catalogue the local, regional and state-led talent development initiatives in the manufacturing and healthcare industries, including the initiative partners, outcome goals, geographical and population focus, skill-level targets and results to date. Develop or leverage mechanisms to disseminate this information across the region, specifically to education and training providers and community-based organizations serving the targeted populations.
- Create a regional cluster-based industry council that can help to develop and advance an overarching strategic talent development vision and goals, along with data tracking and accountability mechanisms to ensure that employment goals for Detroit residents are met.
- Use labor market information (such as quarterly analysis from WIN) and direct engagement with employers to build on existing efforts⁶⁰ and align various state and regional initiatives with the cluster-based goals around training and placing residents in middle-skill occupations in Detroit and the region.
- Identify an individual or an organization with the influence and capacity to champion the regional master plan and engage key regional stakeholders in its implementation.

Recommendation

2. Build a system of career pathways aligned with industry cluster demand to prepare Detroit residents effectively to earn credentials and secure middle-skill occupations in the region.

Employers can:

- Collaborate to expand career exploration strategies, develop structured career pathways and increase work experience opportunities (summer youth employment, internships, apprenticeships and on-the-job training).
- Work with education and training providers to develop a portable, employer-endorsed curriculum for employability/work readiness skills.
- Leverage existing employer-provider partnerships to strengthen capacity of all regional education and training providers. This work should include identifying common standards for middle-skill jobs, **sharing business intelligence** ¹³ across talent development initiatives and expanding partnership opportunities with new providers in order to scale programs and increase the number of people served.

13 Aligning Business Intelligence to Strengthen the Talent Pipeline

WIN is working with the Southeast Michigan Health System HR Executives Council, a collaboration of eight healthcare systems, to understand their workforce needs better and support short- and long-term planning around talent development.⁶¹ The employers are providing information about their current workforce in 12 nursing specialties and 14 other critical healthcare occupations so that each employer can benchmark its own workforce against the aggregate. The database will also provide valuable information to education and training providers on existing skills gaps and anticipated healthcare workforce shortages by occupation and skill level.⁶²

⁶⁰ The industry cluster council can build on Governor Rick Snyder’s efforts to establish a new cabinet-level Department of Talent and Economic Development and the Regional Prosperity Initiative to align state resources to promote economic prosperity.

⁶¹ The systems are Beaumont Health System, Detroit Medical Center, Henry Ford Health System, McLaren Health, Oakwood Health, St. John Providence Health System, CHE Trinity Health and University of Michigan Health System.

⁶² Workforce Intelligence Network. *Executive Summary: Southeast Michigan Regional Healthcare Workforce Database*, p. 6.

Community colleges, community-based training providers and adult education programs can:

- Strengthen **apprenticeships 14** and other work-based learning strategies, with an emphasis on efficient pre-apprenticeship pathways and competency-based education approaches that increase access and reduce the time and expense of completing a program of study.
- Increase integration of **accelerated learning strategies 15** that build the skills of underprepared youth and adults more quickly, structure pathways with stackable credentials that offer relevant exit and re-entry points for employment so workers can advance their credentials and careers and offer flexible course scheduling that accommodates students' work schedules.
- Build seamless career pathways between training programs offered by **community-based organizations and community colleges' 16** non-credit and credit-bearing programs of study.
- Expand adult education bridge programs (incorporating literacy, numeracy, computer technology and workforce readiness) and integrate occupational content from middle-skill careers to strengthen connections to postsecondary education and employment and improve student retention.

Community-based organizations and other social service agencies can:

- Expand "wraparound" supports, such as child care and streamlined public benefit eligibility, to help residents persist in education and training programs within a career pathway.
- Expand programs and policy initiatives to remove criminal backgrounds as a barrier to employment, including identification and support of employers willing to hire ex-offenders.

All partners can:

- Expand career-matching services and develop a consistent set of career exploration materials that education and training providers and other innovative programs can utilize to educate youth and adults about middle-skill opportunities.
- Work with employers and regional planning agencies to build regional transportation systems that can bring Detroit city residents to jobs outside the city.

14 Detroit Registered Apprenticeship Program

The Detroit Registered Apprenticeship Program (D-RAP) was developed by the Detroit Employment Solutions Corporation (DESC), the local workforce agency, in collaboration with employers and unions. D-RAP places participants in pre-apprenticeship readiness programs that provide occupational training, support services and training supports for employers, and paid full-time unsubsidized work experiences. Participants enter apprenticeships in diverse fields, including healthcare, IT and skilled trades, with ongoing support from DESC to improve employee retention. Since the program's inception 139 participants have been placed in apprenticeships or jobs. Other programs like D-RAP are being expanded throughout the state through the Michigan Apprenticeship, Internship, and Mentoring Initiative.

15 Collaborating to Address Employer Needs: Michigan Coalition for Advanced Manufacturing

The Michigan Coalition for Advanced Manufacturing (M-CAM), led by Macomb Community College and supported by a \$25 million federal grant, is retooling its member colleges' capacity to provide aspiring professionals with the technology, educational offerings and cutting-edge delivery strategies they need to launch middle-skill careers in advanced manufacturing. M-CAM colleges are adding new courses and purchasing new robotic technology to keep up with what employers actually use on the shop floor. Even more important is the work each college is carrying out to align their courses with career pathways that begin with certificates and lead smoothly to Associate and Bachelor degree programs. In many courses, students move forward as they achieve workplace and vocational competencies.

16 Focus on Opportunity

Focus: HOPE has developed a nationally recognized workforce program that provides GED preparation followed by training in manufacturing or information technology. The program benefits from strong employer demand and clear career pathways. After completing training and earning professional certifications, participants are ready to apply for entry-level positions through the organization's extensive employer network, including more than a dozen employers who serve on Focus: HOPE's training advisory committee. Focus: HOPE's Machinists Training Institute has a 90% job placement rate for the nearly 2,000 students it has trained over the past three decades. Students are also connected to college degree programs in manufacturing and information technology so that they can continue to advance in their professional fields.

Recommendation

3. Align public, private and philanthropic investment in talent development with industry-focused vision and goals.

Federal, state and local public and private funders, in collaboration with employers, should:

- Identify and address education and training “capacity gaps” related to target industry sectors to maximize the use of available resources and increase the scale of programs to address employer needs.
- Leverage and align federal funding (e.g., through the Workforce Innovation and Opportunity Act) and state funding (e.g., the Skilled Trades Training Fund and the Regional Prosperity Initiative) to support the implementation of industry cluster-based talent development efforts.
- Develop criteria for investment to increase the scale of education and training programs that demonstrate effective results in achieving employers’ talent development goals by identifying best practices and developing strategies for benchmarking and measuring outcomes.
- Identify gaps in education and training service delivery and develop an investment strategy to **strengthen the systems’ capacity** ¹⁷. Leverage existing infrastructure such as the Detroit Regional Workforce Fund to convene public agencies, funders and private employers with common interests in talent development.

17 Understanding the Strengths and Gaps in the Workforce System

JPMorgan Chase is partnering with the Corporation for a Skilled Workforce to undertake a mapping project to identify the strengths and gaps of the Detroit workforce system. The project will paint a picture of the city of Detroit’s current and potential workforce (including demographics, educational attainment and skills gaps). It will also identify the network of educational institutions, public sector entities and nonprofits that serve this workforce, including existing capacity, service delivery mix and outcomes. The workforce system map that results from this process will inform investment decisions by public, private and philanthropic funders seeking to expand economic opportunity for Detroit city residents.

CONCLUSION

The Detroit region is entering a pivotal phase. With the city of Detroit emerging from bankruptcy and the broader regional labor market climbing out of a brutal multi-year downturn, attention now shifts to the private employers on whom a sustained recovery will depend. These employers are already experiencing difficulty in finding qualified middle-skill workers, and their challenge will intensify as Baby Boomers retire from key industry sectors over the next several years. Simultaneously, many residents of southeast Michigan are watching the economic recovery from the outside because they lack employer-valued skills. Leaders in the city of Detroit and the region have kicked off initiatives to address this dual dilemma. But the challenge will be to coordinate and align these initiatives regionally so that they add up to more than the sum of their parts.

Through our *New Skills at Work* initiative, JPMorgan Chase proposes to offer guidance on the development of a demand-driven career pathways system that can launch young people and low-skill adults into good jobs with advancement potential. Middle-skill occupations in the healthcare and manufacturing industries represent a powerful opportunity to implement this strategy in the Detroit region, thereby fortifying the regional economy and helping residents gain the opportunity to obtain jobs that will support themselves and their families.

APPENDIX A – Methodology

All data in this report are provided for the Detroit region, defined as the Detroit-Warren-Livonia Metropolitan Statistical Area (and referred to in this report as the Detroit MSA), unless otherwise noted. The Detroit MSA includes Lapeer, Livingston, Macomb, Oakland, St. Clair and Wayne counties.

Methodology to Identify “Middle-skill” Occupations

Four criteria were used to identify middle-skill occupations, as follows:

1. Selected occupations must pass a minimum requirement for the percentage of their workforce that possesses a high school diploma and less than a four-year degree.
2. 25% or more of the workforce for each target occupation must surpass the living wage for families with two adults and one child.
3. Each occupation must surpass a minimum growth rate over the past three years.
4. Occupations with limited annual openings are filtered out. The term “middle-skill” typically refers to the level of education required by a job. This study expands the common definition by adding three additional criteria (wage, growth rate and number of annual openings). This expanded approach will make sure selected occupations not only are middle-skill but also provide a living wage and are growing.

To provide a picture of the economy (e.g., a description of employment, unemployment, productivity, workforce and education), the report uses EMSI’s data aggregated from more than 90 federal, state and private sources. EMSI applies proprietary methods to remove suppressions and include data for proprietors to yield a comprehensive representation of the regional workforce.

The report also includes analytical information from Burning Glass Technologies, which provides real-time labor market information (RT LMI) from online job postings. Burning Glass’ patented parsing and data extraction capabilities can extract, derive, and infer more than 70 data elements from any online job posting, providing in-depth insights into employers’ demand for skills and credentials.

Limitations

When assessing a phenomenon as complex as a local economy, gaps in our analysis and understanding remain. While traditional labor market information (LMI) offers the best data available to capture historical industry and occupational trends, it is infrequently updated and does not adequately account for future macro- or micro-economic shifts in supply or demand. Some of the federal and state data sources EMSI uses contain non-disclosed or “suppressed” data points, created by the government organizations that publish the data products in order for them to comply with laws and regulations that are in place to help protect the privacy of the businesses that report to them. In some cases, EMSI utilizes proprietary algorithms to replace suppressions with mathematically educated estimates.

RT LMI complements the traditional LMI with more recent information on employer skills, education and credential demand. However, a common limitation of job postings data is that it can only access information that is indeed posted online. To control for duplicate job listings Burning Glass employs an advanced parsing engine that considers the actual job functions and skills described by the employer rather than just the text. Burning Glass focuses on the content of the posting, not simply the words or basic fields.

Some of the limitations from both traditional and RT LMI will be ameliorated through qualitative interviews with employers, educators, policymakers and workforce intermediaries whose on-the-ground experience can fill in gaps about both future employer skill demand and participant supply. Overall, data can be a useful starting point, but the intricacies of talent shortages and job openings will need to be verified locally.

APPENDIX B – Selected Middle-Skill Occupations in Healthcare and Manufacturing Sectors in Detroit MSA⁶³

(referred to in Tables 2 and 3 in text)

Middle-Skill Occupations by Primary Skill Area	Average Annual Openings (2013–2018) ⁶⁴	Job Postings (2014)	Median Hourly Wage
Nursing			
Registered Nurse	1,374	6,462	\$32.91
Licensed Practical/Vocational Nurse	408	778	\$22.53
Sub-BA Practitioner			
Medical Assistant	375	1,146	\$13.37
EMT/Paramedic	156	327	\$15.24
Healthcare Support			
Nursing Assistant	863	1,824	\$10.03
Caregiver/Personal Aide	1,027	1,212	\$12.97
Administrative			
Registrar/Patient Service Representative	N/A	674	\$12.61
Medical Secretary	182	609	\$15.66
Technical Non-Patient Care			
Medical Laboratory Technician	141	849	\$15.57
Pharmacy Technician	109	556	\$13.48
Health Information Management			
Medical Coder	N/A	336	\$16.79
Machining⁶⁵			
First Line Supervisors of Production and Operating Workers	220	1,820	\$29.60
Computer-Controlled Machine Tool Operators, Metal and Plastic	157	1,265	\$17.85
Installation, Maintenance and Repair			
Automotive Service Technicians and Mechanics	377	1,242	\$18.50
First-Line Supervisors of Mechanics, Installers and Repairers	160	928	\$29.32
Logistics and Transportation			
Production, Planning and Expediting Clerks	111	984	\$22.05
Shipping, Receiving and Traffic Clerks	245	550	\$15.10
Engineering Manufacturing Technology			
Mechanical Drafters	38	399	\$24.97
Testing and Inspection			
Quality Control Analysts	39	326	\$17.32

⁶³ All data in these tables are from Burning Glass and EMSI, unless otherwise noted.

⁶⁴ EMSI and EMSI Complete Employment 2014.2.

⁶⁵ Occupations in the machining category correspond to the skilled trades and technicians manufacturing subsector defined by the Detroit Workforce Intelligence Network. Occupations in the engineering manufacturing technology category correspond to the engineers and designers manufacturing subsector defined by the Detroit Workforce Intelligence Network.

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