A group of approximately 15 diverse young adults, including men and women of various ethnicities, are arranged in a circle, looking towards the camera. They are dressed in a mix of casual and business-casual attire. The background is a plain, light color.

Youth and Young Adults and the Michigan Labor Market

April 2014

Prepared by:

State of Michigan

Department of Technology, Management, and Budget

Bureau of Labor Market Information and Strategic Initiatives

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April 2014

Dear Colleagues:

As Michigan's economy and labor market continue to show signs of recovery, we find ourselves looking at a great need for a skilled workforce. The loss of jobs, citizens, and skills, on top of an aging population, tells us that we need to understand the pipeline of talent now and in the upcoming years.

One important component of that pipeline is our youth. Yet many teens and young adults are still suffering from the aftershocks of the economic recessions of the past decade. This age group has been among the hardest hit by those downturns, seeing the highest levels of unemployment and the lowest levels of labor force participation. How can we better serve this population?

For me, the place to start is understanding the landscape with which we have to work and making sure we are putting strategies and activities in place that will build the skills base we need and that will educate Michiganders about the opportunities we have to offer our future workers. This report provides a much-needed survey of youth and young adults and the Michigan labor market. The information in this report should be used by workforce developers, educators, parents, and students, to learn more about current and future demand, helping to drive educated decisions by our youth and drive Michigan's future.

I hope you find this information and data useful. I want to thank DTMB, Bureau of Labor Market Information and Strategic Initiatives for their work on this report that will assist us in planning and strategizing.

Respectfully,

A handwritten signature in purple ink, appearing to read 'Christine Quinn', with a large, sweeping flourish extending to the right.

Christine Quinn, Director

Workforce Development Agency

Executive Summary

- Today, 1 in 3 Michigan residents are under the age of 25. Conversely, those aged 45 or older represent over 40 percent of the state’s population. With economic and labor market indicators improving and with a population steadily aging, older workers are eyeing retirement and will need to be replaced by younger workers.
- Labor force participation rates for youth and young adults have been falling for decades. Yet, the downward trajectory in participation has accelerated in recent years due to increased competition in labor markets and competing priorities, including education / training and social activities.
- Jobless rates for youth are typically higher than the all-age jobless rate, but the youth jobless rate was especially high during the recent recession and has recovered little since.
- While one in three Michigan residents are under 25, workers aged 14 to 24 held about one in seven paid positions (payroll jobs) in 2012. This translates to around 510,000 jobs.
- Youth are most typically employed in lower-paying occupations that require less education and training. This is not necessarily negative, however; these occupations are typically accompanied by flexible schedules that allow youth time to invest in education or training.
- In Michigan, 29 percent of young adults 25 to 34 hold a bachelor’s degree or higher, under the US level of 32 percent.
- More youth having been leaving Michigan than entering it since 2005, but this trend is slowly reversing. In 2012, the latest data available, net migration was within one percent of a positive rate.
- Through 2020, there will be an estimated 135,000 job openings annually, one in four of which will be for new positions. Youth will benefit from newly created positions as well as openings created by individuals leaving existing positions, such as retirees.
- Seven in ten new jobs created by 2020 will require soft skills such as active listening, social perceptiveness, and service orientation. Eight in ten new jobs will require STEM-related knowledge such as medicine, mathematics, and engineering.

Youth Dashboard			
	2013	2012	Change
Population (Michigan)			
16 to 19 (2012)	-	561,878	↓
20 to 24	-	713,992	↑
16 to 24	-	1,275,870	↑
All Ages (2013)	9,895,622	9,882,519	↑
Labor Force Participation Rates (Michigan)			
16 to 19	37.7	39.1	↓
20 to 24	70.9	69.8	↑
16 to 24	56.8	55.1	↑
All Ages	60.5	60.0	↑
Unemployment Rates			
16 to 19	23.8	21.5	↑
20 to 24	15.3	14.5	↑
16 to 24	17.7	16.9	↑
All Ages	8.6	9.1	↓
Employment to Population Ratio			
16 to 19	28.7	30.7	↓
20 to 24	60.1	59.7	↑
16 to 24	46.7	45.8	↑
All Ages	55.3	54.5	↑
Youth Time Use (hours per day, 16 to 24)			
Education and Related	-	3.4	↑
Work and Related	-	1.6	↓
Part-Time Employment			
16 to 19	72.2	N/A	N/A
20 to 24	45.5	N/A	N/A
16 to 24	52.6	N/A	N/A
25+	21.4	N/A	N/A
Share of Total Payroll Jobs			
14 to 21	-	8.3 %	=
22 to 24	-	7.0 %	↑
14 to 24	-	15.3 %	↑
Educational Attainment in Michigan (25 to 34 Year Olds)			
Bachelor's or Higher	-	29%	=
College / Associate's	-	36%	=
High School Diploma	-	25%	=
Less than High School	-	10%	=
Domestic Migration of 22 to 34 Year Olds in Michigan			
Domestic Inflow	-	40,200	↓
Domestic Outflow	-	-53,700	↓
Net Domestic Migration	-	-13,500	↓

Demographics, Labor Force, and Unemployment

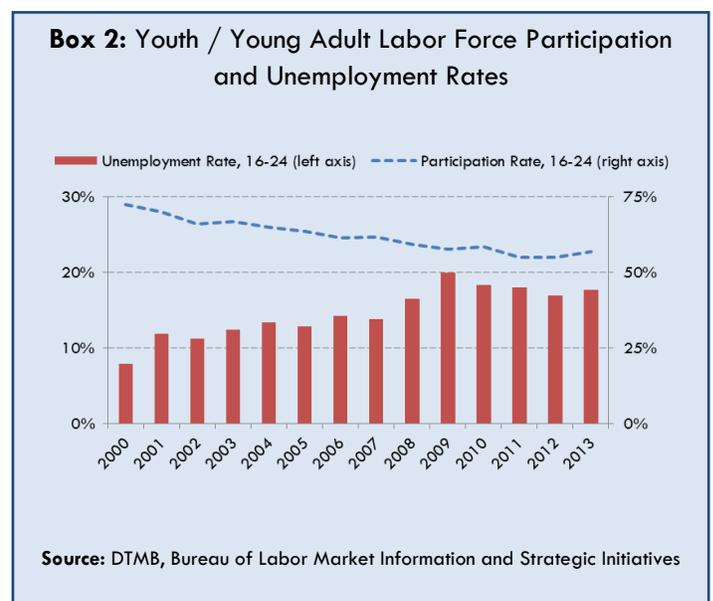
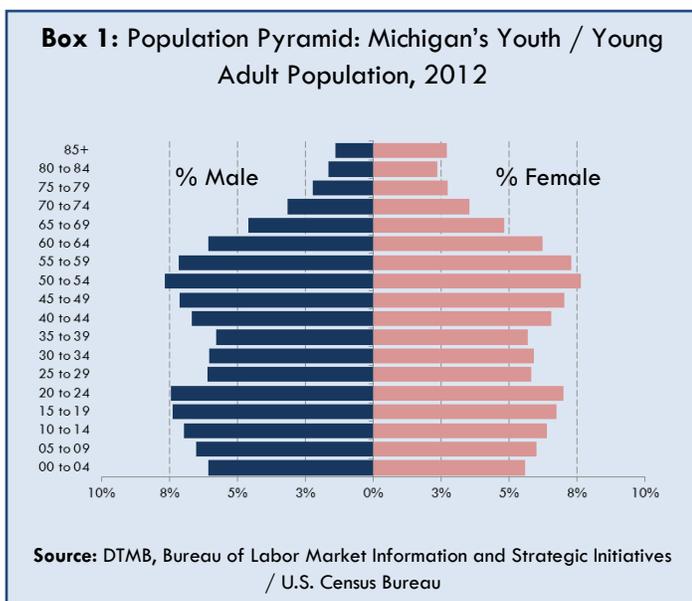
Demographic information is critical for understanding youth and young adults in Michigan. This section analyzes demographic trends in the state’s population using information from the U.S. Census Bureau. Information from the Bureau of Labor Statistics and the Bureau of Labor Market Information and Strategic Initiatives is introduced to discuss the important topics of labor force participation, unemployment, and time use for teens and young adults throughout the state.

Population

- In 2013, Michigan recorded its second consecutive year of population growth as the number of residents inched upward to 9,895,622. After several years of population decline, the back-to-back gains are welcome news for the state. Despite overall population growth, the state continued to lose some residents to out-migration.
- Notwithstanding overall population growth, recent trends have seen the size of Michigan’s young population falling. In 2012, the number of youth aged 16 to 19 and young adults aged 20 to 24 continued to decline, inching lower by 2.1 percent and 3.6 percent, respectively. While there has been some migration of youth out of Michigan, the shrinking youth populations have more to do with age demographics as more young adults are marching up the population pyramid into older cohorts. **(Box 1)**
- Today, 1 in 3 Michigan residents are under the age of 25. Interestingly, nearly half of those in this age group had not been born when the national economy slipped into the transformative 2001 recession. Moreover, 20 percent were not born by the time of the global financial crisis or the economic downturn that followed. Indeed, many youth and young adults have not seen the national or state economy in a period of sustained economic growth, but that may now be changing. With economic and labor market indicators turning positive and with a population steadily aging, older workers are eyeing retirement (whether already delayed or fast approaching), and will need to be replaced by younger workers.

Labor Force and Participation

- Just over half (55.3 percent) of residents aged 16 to 24, are active in the state’s labor force, working or actively looking for work. This is remarkably lower than in 2000, when nearly 3 in 4 youth were participating in the labor market. **(Box 2)**
- Lower participation rates are most pronounced among teens, with participation rates for 16 to 19 year olds dipping from 60 percent in 2000 to below 40 percent in recent years. Yet, the trend is visible in young adults as well, with participation for 20 to 24 year olds falling from 83 percent in 2000 to its current level of 68 percent. **(Box 4)**



- Behind lower labor force participation rates for youth are at least two trends: first, youth are spending their time in different ways than they were a decade ago. Second, due to widespread job losses and high long-term and structural unemployment, youth face increased competition from older workers in *Sales* and *Service* jobs as well as in part-time and seasonal jobs. Because these are the only employment opportunities some youth can pursue, they may be sidelined due to actual or perceived competition.

Time Use

- Many priorities compete for the time of our youth. The Bureau of Labor Statistics (BLS) American Time Use Survey (ATUS) reveals some interesting trends in how youth aged 16-24 are spending their time today and in the recent past. **(Box 3)**
- According to this survey, Michigan youth spent less time on work and work-related activities in 2012 than they did in 2003. Conversely, our youth saw an increase in the time they devoted toward education and related activities.
- While within the margin of error, Michigan youth may also be spending more time on social activities in 2012 than in 2003. Social activities include watching television, attending social events, hobbies, personal reading, and going to see movies, in addition to many other things.
- These trends reflect broader economic realities. Fewer employment opportunities could be one reason for youth to spend less time working and more time on other activities. These trends are especially strong in Michigan, with youth spending less time working and more on education than their peers nationally.
- Michigan youth spent more time on education in 2012 than in 2003, while time spent on education was unchanged nationally. In addition to slack economic conditions, another possible explanation for this shift may be the 2006 change in the state’s high school curriculum (the Michigan Merit Curriculum), which has been assumed to place added demands on our high school students.

Box 3: Time Use Survey and Youth in Michigan

The Bureau of Labor Statistics’s American Time Use Survey (ATUS) is a nationwide survey first given in 2003 that strives to provide estimates of “how, where, and with whom Americans spend their time.” It is the only federal source of data on the “full range of nonmarket activities, from childcare to volunteering.” Results from this survey can be used to estimate how Michigan youth spend their time, and how their nonmarket use of time has evolved over the past decade.

2012 Highlights: Michigan Youth Time Use

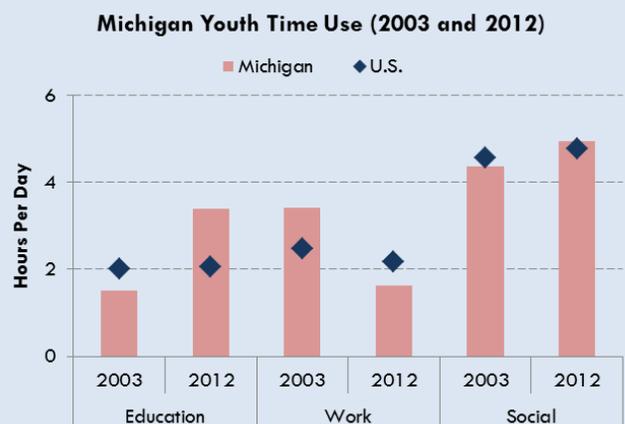
4.9 Average hours spent on socializing, relaxing, and leisure each day

3.4 Average hours spent on education each day, including attending class and doing homework

1.6 Average hours spent on work-related activities each day, including formal work, job searching, and other income-generating activities

Source: American Time Use Survey, Bureau of Labor Statistics

Michigan youth spend more time on education-related activities than the US average. Michigan youth appear to spend less time on work than all US youth, but the difference is within the margin of error. The difference in time spent on social activities between Michigan youth and all US youth is also within the margin of error. Our state’s youth spend less time working and more time on education than they did in 2003, as seen below.



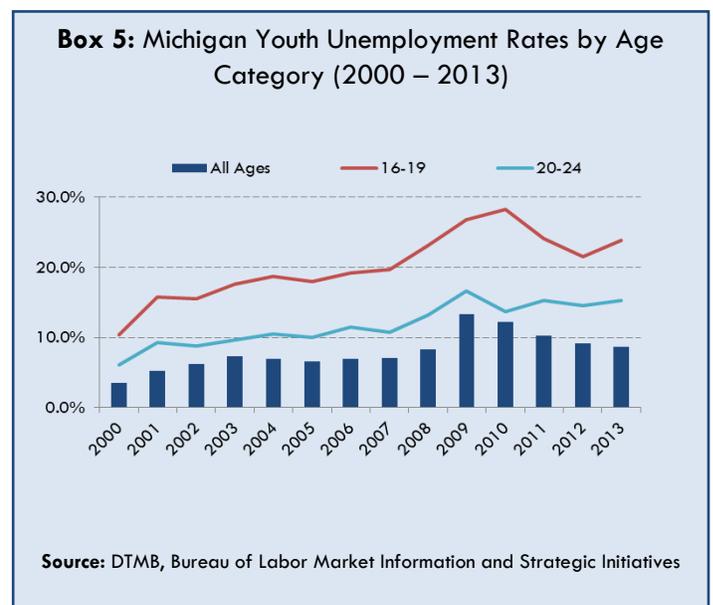
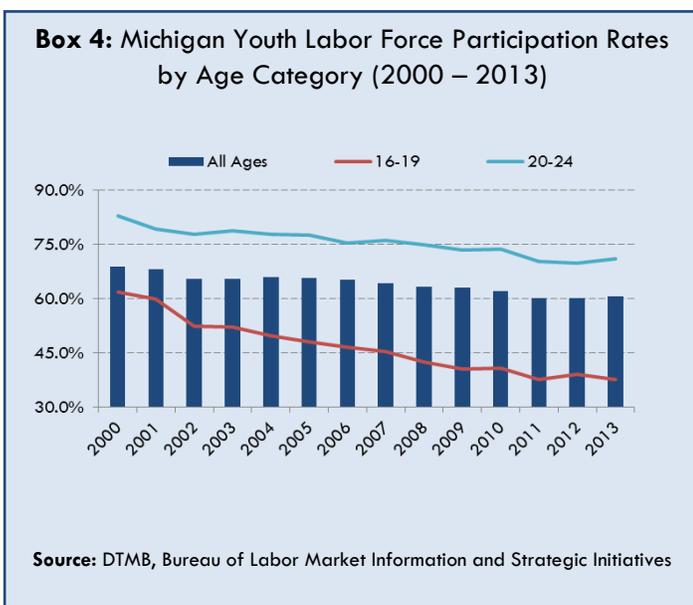
Source: American Time Use Survey, Bureau of Labor Statistics

Unemployment

- A troubling trend has been the major jump in joblessness for those youth and young adults who remain active in the labor market. Between 2000 and 2013, the unemployment rate for youth and young adults more than doubled from an already elevated 7.9 percent in 2000 to 17.7 percent in 2013. Before inching lower in recent years, unemployment for this cohort reached a record 20 percent in 2009. (Box 2)
- Rates are highest among youth aged 16 to 19, with nearly 1 in 4 of those active in the labor market unable to find work. The jobless situation for young adults aged 20 to 24 is slightly brighter. Unemployment rates for young adults have been hovering around 15 percent in recent years, up dramatically from 6.1 percent in 2000. (Box 5)
- Compared to older cohorts, young adults are much more likely to be unemployed as they enter the workforce for the first time or after reentering the labor market after a period of absence. This may be especially frustrating for young adults who are searching for work after completing education or training programs. Conversely, young adults are less likely than older groups to be out of work due to losing a job or because of a layoff. Additionally, teens and young adults report shorter periods of joblessness when compared to older jobseekers.

National and International Comparisons

- Lower participation rates and higher joblessness for youth is hardly a problem unique to Michigan. Since 2000, nearly all states have seen a sizable increase in youth joblessness, with a median increase of 5.4 percentage points. At the same time, all states have seen youth participation drop, falling by a median 9.3 percentage points. In both measures, Michigan was harder hit, seeing joblessness for youth rise by 9.8 percentage points and youth participation fall by 16 percentage points over the period.
- With unemployment for young people aged 16 to 24 measuring 17.7 percent statewide, Michigan’s youth joblessness ranks 43rd nationwide. Youth unemployment in the United States ranges from a significant 24.4 percent in Mississippi to near full employment of 4.5 percent in North Dakota. Nevertheless, Michigan and other states compare quite favorably in a global context, with youth joblessness significantly below other developed economies, in particular Spain, France, and the United Kingdom. (Box 6)



Box 6: Youth Unemployment: A Global Perspective

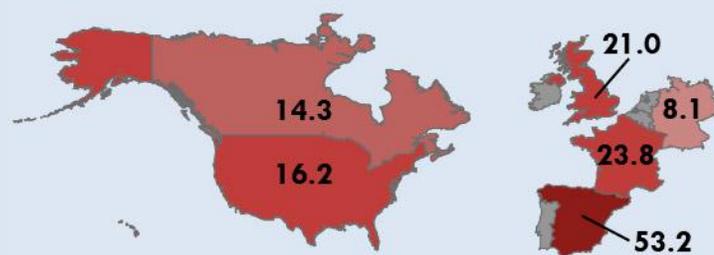
While Michigan and the United States as a whole are struggling with youth employment, many other developed countries are also experiencing difficulties, sometimes much more acute than our own. For example, the International Labour Organization (ILO) estimates United States youth¹ unemployment at 16.2 percent for 2012, while the United Kingdom has an estimated youth unemployment rate of 21 percent, and the Spanish youth unemployment rate stands at a staggering 53.2 percent. Although there are bright spots among other developed countries, such as Germany’s 8.1 percent youth unemployment, the rate exceeds 15 percent in two thirds of all developed countries.²

Germany’s low youth unemployment rate is sometimes attributed to its system of vocational training that pairs apprenticeships at private employers with classes at vocational colleges. About 60 percent of German youth choose the vocational training programs, where youth workers exchange training for reduced wages, over academic pursuits. Spain’s high youth unemployment, on the other hand, seems to have a less clear-cut reason to it. The country’s economic hardships certainly hold much of the blame, but many reasons have been pointed to for exacerbating the youth unemployment crisis. These include government austerity measures, past economic trends which discouraged educational attainment, and the difficulty of firing workers.

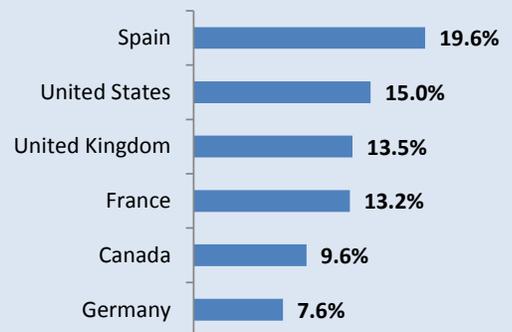
In addition to the rate of unemployment, the duration of unemployment is a problem in developed countries. According to the ILO, more than one in every three unemployed youth living in a developed nation has been out of a job for more than six months. While the average duration of unemployment for youth stood at 6.0 months in the United States, youth in Europe saw an average duration of unemployment of 10.6 months.³ Long-term unemployment presents its own risks, such as atrophy of skills and unattractiveness to employers.²

While many of the unemployed youth in developed economies may attempt to weather their bouts of unemployment by staying in school or pursuing training, those who are counted as NEET – Not in Employment, Education, or Training – are increasingly becoming a concern in developed countries. Studies of youth employment and wages show that delaying entrance into the labor market can cause wages to become depressed in the long term.⁴ While the NEET rate within OECD countries decreased from 2000 to 2008, the rate rose to 15.8 percent by 2010.² These young adults who are simply not participating in the labor market in any capacity contribute to concerns about a “lost generation” of youth.

Youth Unemployment Rates, 2012



Not in Employment, Education, or Training (NEET) Rates, Q4 2012



¹The ILO begins employment estimates at age 15 rather than age 16, as is the practice of the U.S. BLS.

²International Labour Organization. *Global Employment Trends for Youth 2013: A Generation at Risk*. 2013

³Organization for Economic Cooperation and Development. OECD StatExtracts, Average Duration of Unemployment (Ages 15 to 24).

⁴ Kahn, Lisa. "The Long-Term Labor Market Consequences of Graduating From College in a Bad Economy." *Labour Economics* 17, no. 2 (2010).

Bell, David, and David Blanchflower. "Young People and the Great Recession." *Oxford Review of Economic Policy* 27, no. 2 (2011).

Damaging Effects of Youth Joblessness and Inactivity

- High unemployment and falling labor force participation rates have a negative impact on both Michigan’s labor market and economy and the youth and young adults themselves. First, with more youth and young adults out of work or out of the labor force as a whole, the state’s workforce is unable to reach its full potential. This may be especially problematic as many of the jobless or inactive youth are new or recent college graduates, ready to enter the labor market with their newly acquired skills, but face unfavorable labor market conditions delaying their employment.
- Additionally, persistently high joblessness for youth and young adults has well-documented long-term consequences. First among these impacts is skill erosion, which is the gradual loss of important professional skills that accompanies long periods of unemployment. This erosion can cause workers to be less productive than their more-recently employed counterparts. This negative effect could be especially damaging in the case of youth who have not had as much time as older workers to hone their professional skills before the onset of unemployment.
- Other consequences of periods of unemployment early in life include the risk of future unemployment and unstable employment. Future employment effects can be a result of skill erosion itself, but could also result from negative perceptions, or stigma, related to past periods of unemployment.
- Youth joblessness can also lead to multi-decade wage “scars” that can follow youth throughout their career. These same bouts of unemployment in older workers are said to cause wage “blemishes,” but it has been shown that negative wage effects resulting from long durations of unemployment are more persistent for younger workers. These negative effects are especially strong for youth who are not pursuing post-secondary education.

Box 7: Employment to Population Ratios

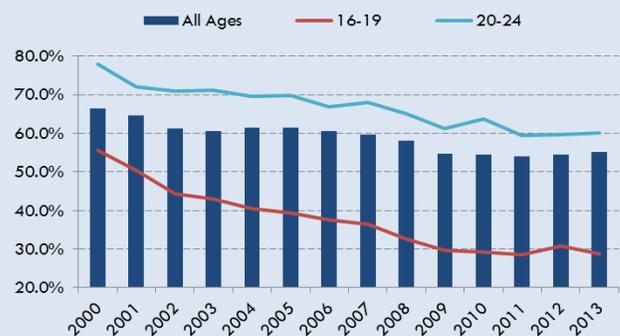
When studying youth and young adults in the labor market, one important measure is the employment to population ratio. This variable is the number of employed individuals in a particular group divided by that group’s civilian, non-institutional population. This measure helps to control for fluctuations in the labor force participation rate, which can be quite dramatic for certain cohorts, particularly youth aged 16 to 19.

In 2013, Michigan’s age neutral employment to population ratio measured 55.3. The state’s ratio is at the lower bound of what some economists consider desirable, suggesting that a larger share of the population that could be working is not for a variety of reasons, including school, lack of proper training, or the inability to locate a job.

As expected, the employment to population ratio for youth 16 to 19 at 28.7 percent is lower than the all age average, reflecting this age group’s smaller share of employment activity due to, among other things, participation in education and training programs. In contrast, the indicator is higher for young adults 20 to 24 (60.1 percent), reflecting that population’s relative high proportion of employed.

Somewhat troubling, however, is the ratio’s stubborn level, remaining relatively flat even during the recession recovery, which began in 2009.

Employment to Population Ratio (2000-2013)



Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives

Box 8: Youth Focus Group – April 15, 2014

The Michigan Bureau of Labor Market Information and Strategic Initiatives conducted a youth focus group while performing the research for this study that consisted of 12 West Michigan high school students participating in Kent Career Technical Center programs. These teens, who will be exiting high school into a still-recovering economy, had interesting experiences with the Michigan labor market and an optimistic outlook on their future in it. Their participation allowed the study to have a group of youth speak for themselves rather than leaving collections of data to speak for them.

Focus group participants shared that they were largely active in the labor market. Many of them were already looking for work that could serve as a stepping stone to the careers they hope to hold after completing their education. Included in the group were teens who were participating in internships designed to give them experience while also growing talent for employers. Others had gained skills and contacts from extracurricular activities that led to jobs related to their desired career path, such as one student's involvement in his school robotics club that led him to a position that will be a first step in his career path towards a career in engineering.

Youth focus group participants shared stories of their work histories in everything from retail to law enforcement, with each placing high value on the skills they attained in their various experiences. Many stated gaining interpersonal skills, public speaking skills, networking skills, and even money management skills as some of the most valuable lessons they took away from their jobs, internships, or volunteer experiences. Many also expressed that being able to get a head start on acquiring gainful employment meant that they would have a competitive edge in the labor market, a belief one participant emphasized by stating, "I'll be getting that little bit of experience that others don't have, and that experience is invaluable."

It is typical to hear about youth who are leaving or planning to leave Michigan after completing their education, as the data in this report even suggest, but many in this group of forward-looking youth had no such plans. Having lived most of their lives in Michigan, few were eager to leave the state because of such factors as family, community, and existing ties to work. This was not the case for all group members, however. At least two youth thought moving out of Michigan could be necessary for them, wanting to pursue careers in their chosen field's geographic centers – capitals of finance or fashion. While a few believed that larger cities would offer more opportunities, many believed that the advantage of existing networks in Michigan outweighed the benefits of moving elsewhere.

These young adults' positive experiences in the labor market can be partially attributed to the many opportunities offered to them through their educational institutions. Participants often referred to various programs they had participated in or were currently participating in, such as field trips to banking institutions to learn more about careers in the banking industry or mentors brought in by instructors to talk to youth about working in different career fields. The youth in our focus group often cited these opportunities as ways they were learning about careers they were interested in and the types of training and education that were required for positions in those fields.

The views of these youth that are dispersed throughout this report are a unique opportunity for readers to hear the voice of one group of teens and their personal opinions on the Michigan labor market. These voices provide a fresh, forward-looking perspective to our data that would have been otherwise unheard. The real life experiences and stories of what youth in Michigan are now experiencing as newcomers to the labor market give an objective look into what the Michigan youth labor market looks like today.

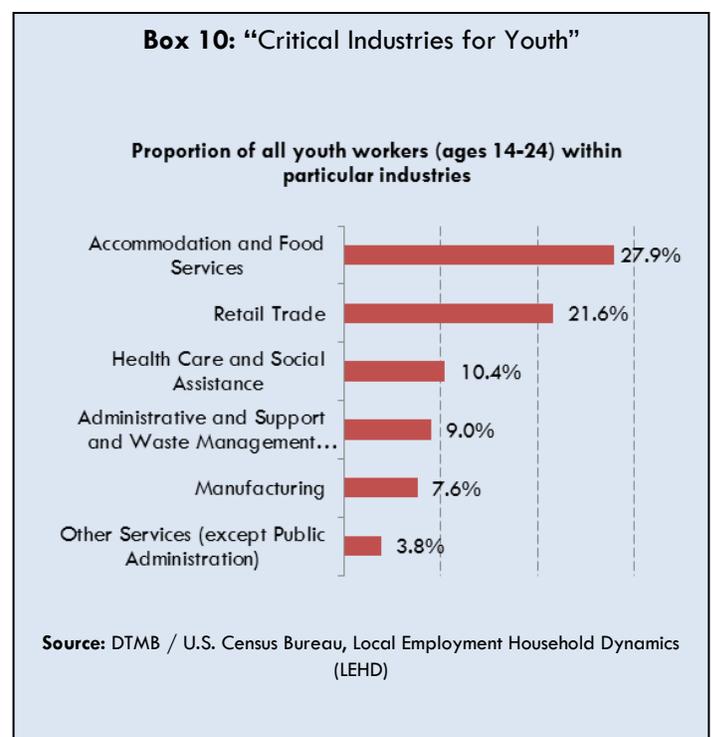
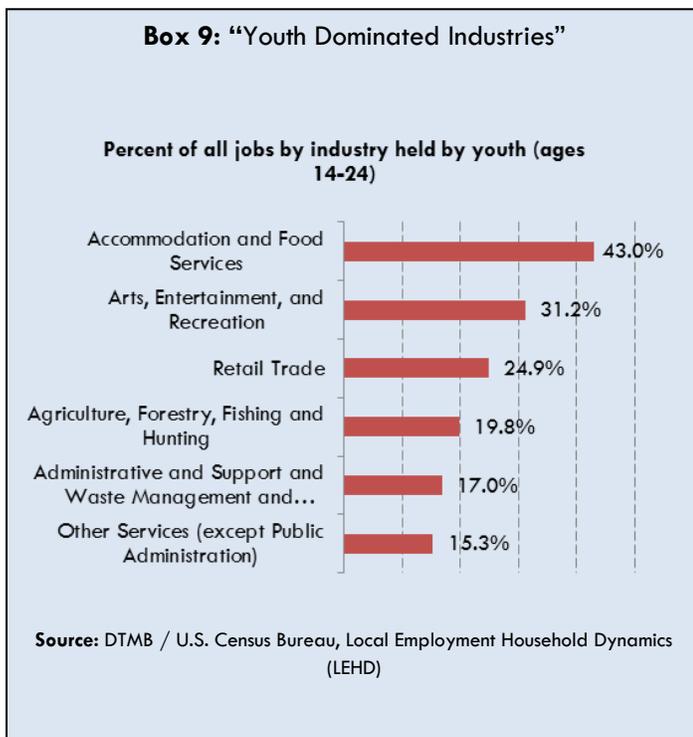
Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives

Youth Employment: Industries and Occupations

Despite lower labor force participation rates and higher unemployment rates for Michigan’s youth, those teens and young adults who are working can give us critical insights about labor market conditions generally, and for youth in particular. This section uses data from the Bureau of Labor Market Information and Strategic Initiatives, the Bureau of Labor Statistics, and the U.S. Census Bureau to highlight industry and occupational employment trends for Michigan’s youth and young adults.

Industry Employment: Youth Dominated and Youth Critical Industries

- Of Michigan’s 3.3 million payroll jobs, approximately 510,000 jobs, or 15.3 percent, were held by workers between the ages of 14 and 24 in 2012. While over half of these jobs were held by youth aged 14 to 21, a sizable 233,000 jobs went to young adults in the tight age band of 22 to 24. As expected, older youth are more active in the labor market, many of whom have completed education or training and have entered the full-time workforce.
- At just over 15 percent, the share of total payroll jobs held by young people has declined since 2001, when workers aged 14 to 24 held 17.5 percent of jobs in all industries. Over this same period, the share of all jobs held by those over 45 years old has increased dramatically from 33.2 percent to 43.0 percent. A struggling economy is a major reason for both trends: while many teens and young adults are unemployed or discouraged, many older workers have postponed retirement.
- There are two important ways to measure the concentration of youth employment. The first method is to calculate the share of all jobs in a particular industry held by youth, giving us “Youth Dominated Industries.” The second is to calculate the proportion of young workers in a particular industry out of all working youth, giving us “Critical Industries for Youth.”
- Using the first measure, six industries had an equal or higher proportion of 14 to 24 year olds holding jobs than the all-industry average for this age cohort (15.3 percent): *Accommodation and food services* (43.0 percent), *Arts, entertainment, and recreation* (31.2 percent), *Retail trade* (24.9 percent), *Agriculture, forestry, fishing, and hunting* (19.8 percent), *Administrative and support and waste management and remediation services* (17.0 percent), and *Other services (except public administration)* (15.3 percent). (Box 9)



- *Accommodation and food services* has long been a youth dominated industry. Those under 24 held over two fifths of jobs in the sector in 2012, with the majority of the employment in the *Food services and drinking places* subsector. In 2012, over 134,000 jobs in this subsector were held by workers aged 14 to 24, with over 35,000 of them by workers less than 18 years old.
- The sub-industry most dominated by youth is *Motion picture and sound recording industries*, a subset of the *Information* sector. Almost a third of all jobs in this sub-industry are held by workers 14 to 24 years old. While this category does include media employers that fall into categories such as *Record production* and *Music publishers*, the majority of this employment comes in *Motion picture theaters*, which tend to hire younger workers.
- Among industries critical to youth, *Accommodation and food services* is chief, with 27.9 percent of all young workers falling within that industry, holding over 142,000 jobs. The industry is especially important to the youngest youth cohort, as almost 45 percent of all 14 to 18 year olds work in *Food services and drinking places*. (Box 10)
- *Retail trade* follows in this metric of critical industries for youth, with an employment of over 110,000, or 21.6 percent of all jobs held by young workers. The industry, which is especially critical to workers in the youngest cohort, is made up of several key subsectors. Over 65 percent of total employment of 14 to 18 year olds within the industry falls in the subsectors *General merchandise stores*, *Food and beverage stores*, and *Clothing and clothing accessories stores*.

Recent Employment Trends for Youth and Young Adults

- Youth payroll employment has been susceptible to the hardships felt economy-wide, and this has been reflected in their employment levels since the recession in 2001. Since 2001, the number of youth aged 14 to 24 on private payrolls in Michigan has dropped over 23 percent, from over 663,000 to fewer than 510,000.
- Only two industries have higher youth employment levels now than in 2001, with the rest either remaining relatively flat or having recorded large drops in payroll employment. Industries registering youth payroll job growth in Michigan were *Health care and social assistance* (+4,700 jobs or +9.7 percent) and *Educational services* (+400 jobs or +6.4 percent). (Box 12)

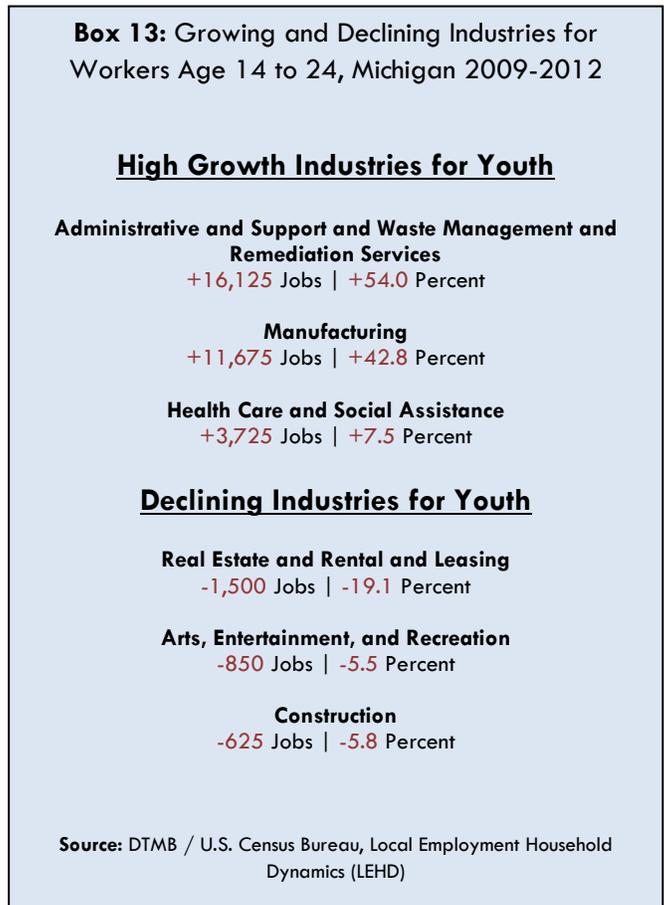
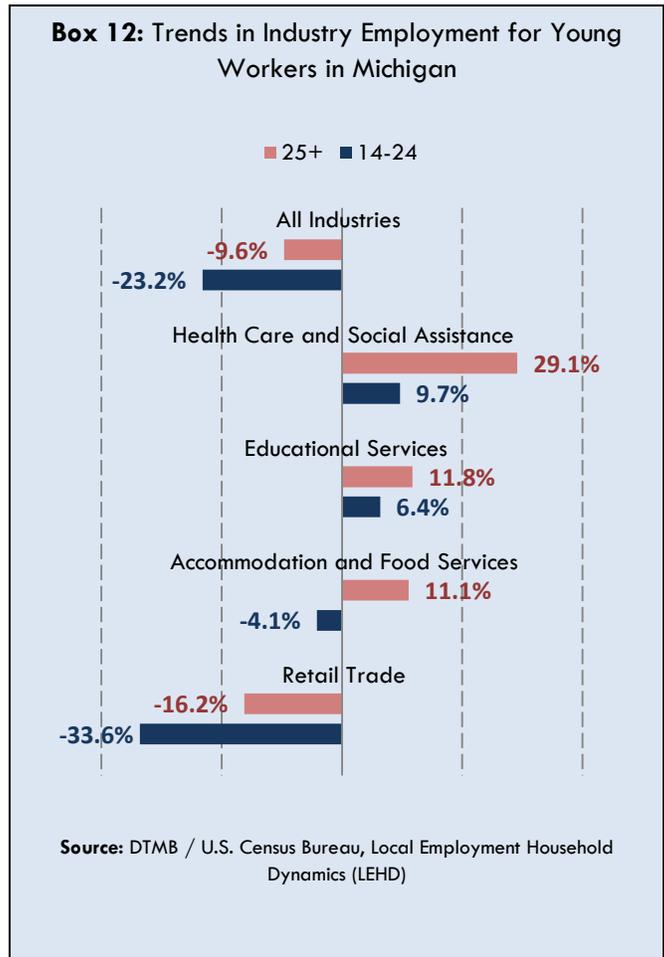
Box 11: Key Youth Industries in Michigan			
“Youth-Dominated” Sub-Sectors		Sub-Sectors “Critical for Youth”	
Motion Picture and Sound Recording Industries	3,025 Jobs	31.9 Percent	Food Services and Drinking Places
			134,150 Jobs
			26.3 Percent
Food Services and Drinking Places	134,150 Jobs	31.5 Percent	Administrative and Support Services
			45,175 Jobs
			8.9 Percent
Clothing and Clothing Accessories Stores	15,225 Jobs	31.3 Percent	General Merchandise Stores
			27,025 Jobs
			5.3 Percent
Amusement, Gambling, and Recreation Industries	12,175 Jobs	26.2 Percent	Food and Beverage Stores
			20,900 Jobs
			4.1 Percent
Sporting Goods, Hobby, Book, and Music Stores	9,475 Jobs	22.6 Percent	Professional, Scientific, and Technical Services
			17,750 Jobs
			3.5 Percent

Source: DTMB / U.S. Census Bureau, Local Employment Household Dynamics (LEHD)

- Youth have posted notable job losses in recent years, even within key youth industries and sub-sectors. For example, employment for 14 to 24 year olds on *Accommodation and food services* payrolls has fallen from 148,000 in 2001 to under 143,000 in 2012, receding by 4.1 percent. While this is not the most significant dip in jobs seen by the 14 to 24 age group, the drop was especially felt by the 14 to 18 cohort, which saw their job levels in this industry tumble from almost 65,000 to around 36,000 from 2001 to 2012.
- Positions for youth in the *Retail trade* sector appear to have been especially vulnerable to the recent recessions. The industry, usually dominated by younger age groups, recorded an employment drop of 33.6 percent for 14 to 24 year olds since 2001, outpacing the declines for workers over 25.
- Trends from 2009 to 2012 for 14 to 24 year olds generally track with those older than 25 but are much more pronounced. For example, *Manufacturing* jobs held by younger workers grew by 42.8 percent as opposed to 10.9 percent for those older than 25. Following this trend, jobs held by younger workers in *Real estate and rental and leasing* declined by 19.1 percent compared to the 3.9 percent dip for workers over 25. **(Box 13)**

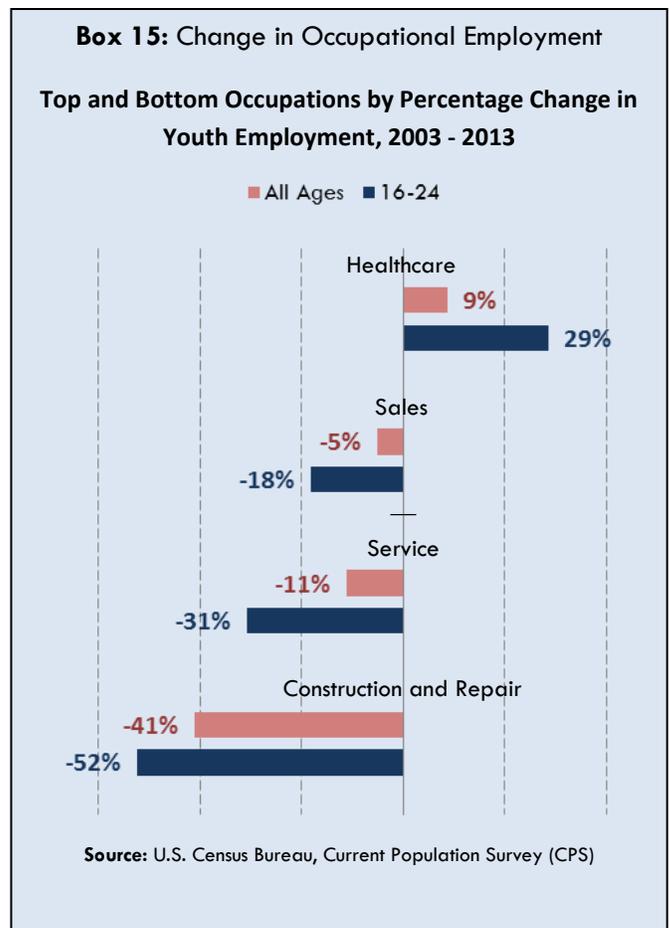
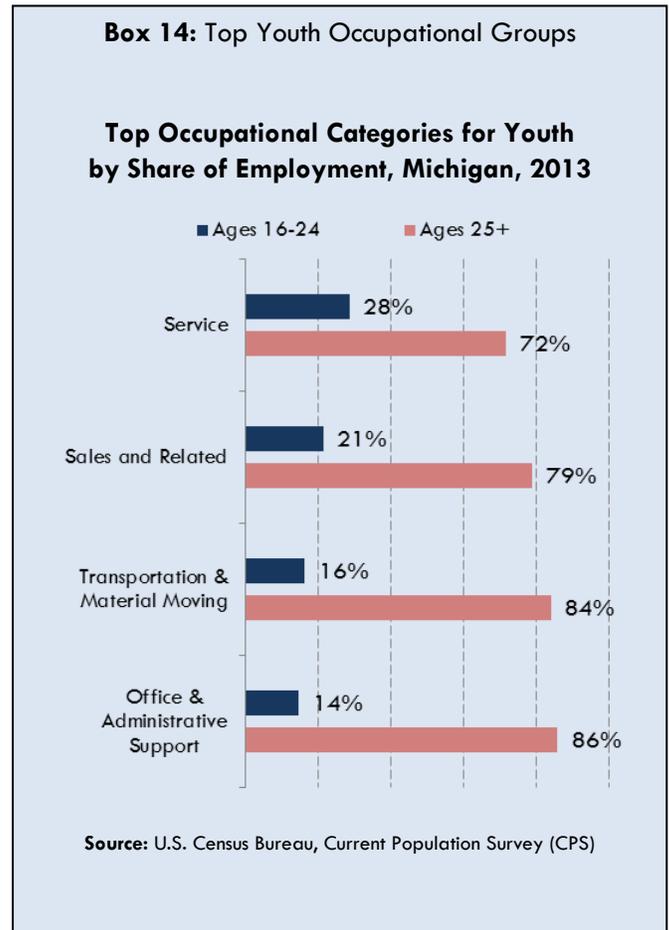
Summary of Industry Trends

- Youth workers are found in many of the industries typically associated with the young adult labor force, including restaurants, retail stores, and movie theaters.
- While these types of employment opportunities are some of the most common for youth, workers 16 to 24 are also becoming increasingly employed in areas such as *Administrative and support services* and *Health care and social assistance*, a nod to trends in the overall economy.
- Jobs for youth workers are in many industries, but they are still the most volatile and fragile age group with regards to industry employment. Youth employment losses across most industries tended to be much more severe in the wake of the recent recession than in most other age groups.



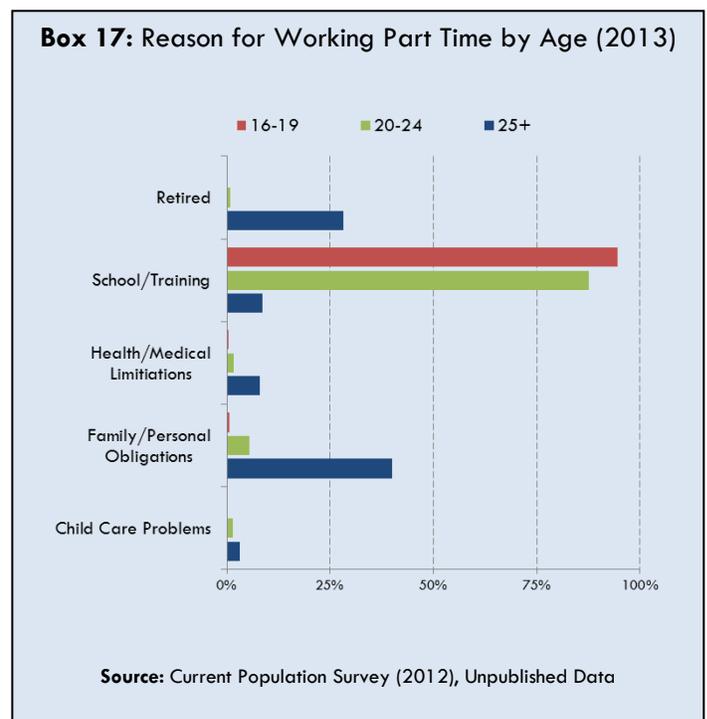
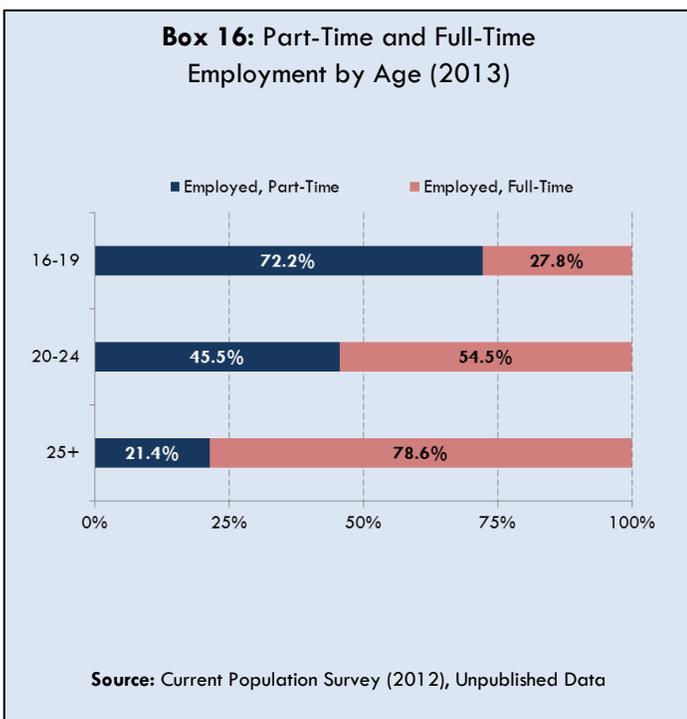
Occupational Employment

- Occupations in which youth work are highly associated with the industries in which they work. For example, *Food service* and *Retail sales* are two of the most common job titles for youth, mirroring the importance of *Accommodation and food services* and *Retail trade* for youth. (Box 14)
- Since 2003, most occupational categories saw a net loss in youth employment. The occupations which lost the greatest number of youth employees were *Service* occupations, followed by *Construction and repair*, and *Professional* occupations. (Box 15)
- The losses seen in the *Service* category were driven by decreases in youth employment in *Food preparation and serving* occupations. The number of youth employed in these occupations fell by nearly one third since 2003. Despite the steep decline in the category, it remains the largest occupational group for Michigan youth. The second largest occupational category after *Service* for Michigan youth is *Sales*. The *Sales* category lost fewer youth than *Service* over the period.
- *Healthcare* occupations were the only category to see a gain in the number of youth workers over the period. The number of 16 to 24 year-olds employed in these job titles increased by about 29 percent since 2003, reflecting payroll growth for youth in the *Healthcare* industry. As expected, most youth in *Healthcare* occupations are employed in the *Healthcare support* group, rather than in the *Healthcare practitioners and technical* group.
- Youth employment and labor force participation rise during the summer work season. Michigan youth are more frequently employed in most occupational categories during the summer than in the winter, but are especially likely to find employment in a *Service* or *Production* occupation.
- Youth typically work in occupations which pay lower wages. High employment in *Food preparation and serving*, with a median hourly wage of \$9.02, and *Sales*, with a median hourly wage of \$11.98, are notable examples. Low hourly wages are a reflection of the less developed skill set of youth workers. However, these low-wage jobs are often part-time, allowing youth to invest more time into school or training.



Part-Time Employment

- Flexibility is often important to youth and young adults in the labor market. Accordingly, a higher share of youth and young adults tend to work in industries and occupations where part-time work is available. As noted above, youth are overrepresented in the *Retail trade* and *Leisure and hospitality* industries and in *Sales* and *Service* occupations. These positions typically offer youth the flexibility necessary for many of them to work part time schedules, often during the evening or weekends while attending school or other training.
- However, employment prospects for youth are not limited to traditional *Service* and *Sales* job titles. Some businesses leverage young talent by offering employment in *Professional* occupations to high school and college students, accommodating their nontraditional schedules and allowing them to work part time or evenings. This provides valuable work experience for youth while building and developing talent for employers.
- In 2013, 72 percent of youth aged 16 to 19 report their employment status as part time, largely owing to many still being high school students and therefore not available for full time work. For those aged 20 to 24, that number falls to 45 percent, capturing some that remain in school as well as many that have recently entered the labor force full time. As expected, the share of people aged 25 or older working part time falls to just 1 in 5. **(Box 16)**
- Unsurprisingly, 95 percent of those in the 16 to 19 age group and 90 percent of those in the 20 to 24 age group cite school or training as the reason for not working full time, making school or training the dominant reasons for working part time for both the teen and young adult age cohorts. In contrast, just 8.7 percent of those over 25 listed school or training as the reason for not working full time. **(Box 17)**
- Other possible reasons for youth working part time include family obligations or health issues. Yet, less than one percent of 16 to 19 year olds list family obligations or health issues as the reason for working part time. That number rises slightly for 20 to 24 year olds, with about 7 percent citing family or personal obligations or health issues.
- For those over 25, reasons for working part time change dramatically: 40 percent cited family or personal obligations, followed by 28 percent who cited retirement. Only 9 percent list education or training as the reason for working part time.



Educational Attainment and Job Market Success

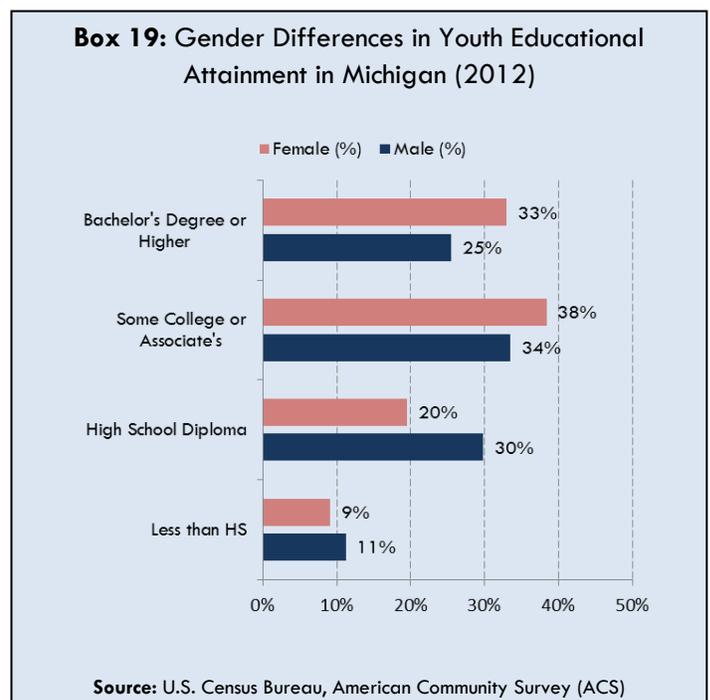
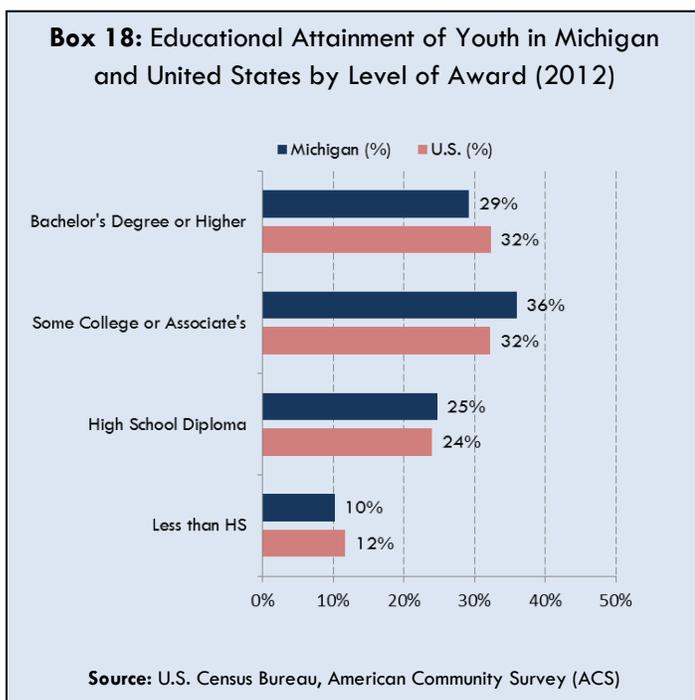
This section uses data from the U.S. Census Bureau and the National Center for Education Statistics to analyze the educational attainment of Michigan young adults 25 to 34. This section provides insights into how educational attainment in Michigan compares to national averages, what degrees young adults are earning, and the relationship between education and labor markets.

Educational Attainment of the Young Adult Population

- With most teens 16 to 19 still in high school and with many young adults 20 to 24 still enrolled in college or other training programs, examining the educational attainment of a slightly older cohort (young adults aged 25 to 34) provides an important barometer of the current and future workforce.
- While educational attainment levels for young adults aged 25 to 34 are similar in Michigan and the U.S., two important differences should be noted: the share of residents with some college or an associate’s degree is higher in Michigan than in the nation and the share of residents with a bachelor’s degree or higher is lower in the state than in the nation. Young adults in this age group with a high school diploma (or equivalent) mirrors national trends, as do those without a high school education.

(Box 18)

- Those in the some college education or associate’s degree group, which also includes postsecondary non-degree awards and certificates, are among the largest educational attainment categories in both Michigan (36 percent) and in the United States (32 percent). This group is slightly larger in Michigan likely due to the presence of diverse *Manufacturing* and *Construction* industries, both employing many technical and skilled trades workers who are often educated and trained through postsecondary vocational training or an associate’s degree.
- As is the case nationally, females 25 to 34 in Michigan are more educated than their male peers. In Michigan, 1 in 3 females received a bachelor’s degree or higher compared to just 25 percent of males. Males and females in Michigan lag behind their national counterparts, as 36 percent of women and 28 percent of men nationally hold a bachelor’s degree or higher. (Box 19)
- Women also compare favorably to men in the some college or associate’s degree category. This is due to many female dominated *Healthcare* and *Service* job titles requiring education and training typically achieved through an associate’s degree, postsecondary award, or certificate.



- About 30 percent of males and 20 percent of females fall in the high school degree (or equivalent) category. Importantly, jobseekers with little or no education beyond high school will have an increasingly difficult time competing for jobs, even in industries and occupations that have historically required no education or training beyond a high school diploma. This is especially true in *Construction* and *Manufacturing*, where employers today report difficulty finding workers with the right education and training, particularly for skilled production, maintenance, and trades positions.

Aligning Education / Training with Demand

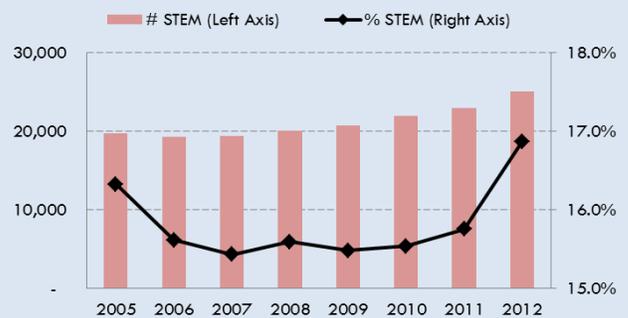
- While completing a degree or training program is a great start, it is not necessarily an automatic ticket to job market success. Today, a lot of emphasis is placed on the *type* of degree or training job candidates have completed. On the one hand, degrees in Science, Technology, Engineering, and Math (STEM) are cited as being extremely important for those seeking to enter hotly demanded professional, scientific, and technical careers. On the other hand, postsecondary vocational training and associate’s degrees are critical for those looking for work in *Manufacturing* and *Construction* and in key skilled trades occupations.
- There is evidence that enrollments and completions in Science, Technology, Engineering, and Math (STEM) degree programs are on the rise. While careers in STEM fields may be especially attractive to Michigan youth, they often require significant education and training. (Box 20)
- Interestingly, males continue to be overrepresented in STEM programs, earning over two-thirds of STEM degrees while taking only 40 percent of all degrees. In contrast, women earn just over 30 percent of STEM degrees but 60 percent of total degrees.
- Focus has also been placed on technical and vocational training programs, particularly in areas associated with the skilled trades. In recent years, increased demand for skilled trades workers, coupled with relatively high earnings in these occupations have been met with more enrollments and completions in training programs and apprenticeships.

Box 20: Science, Technology, Engineering, and Math (STEM) Degrees and Employment

During the 2011-2012 academic year, 25,051 degrees were granted in STEM programs in Michigan. The number of STEM completions continued to trend upward as did STEM completions as a share of total degrees granted, which inched up from 15.8 percent in 2010-2011 to 16.9 percent in 2011-2012.

More completions in STEM programs reflects increased enrollment, generally, which has climbed each year since the beginning of the economic downturn. However, with STEM completions growing at a faster rate than overall completions, it is likely that increased attention and focus on the importance of STEM fields can share some credit for more enrollments and completion in the STEM category.

STEM Program Completers in Michigan 2011-2012



Data Source: National Center for Education Statistics (NCES)

One group that may be especially interested in STEM degree programs are youth. Why? First, jobs in the STEM fields are associated with higher earnings. In 2012, the median wage for STEM occupations measured \$31.50, comparing favorably to the \$17.80 for all other occupations. Second, jobs in the STEM fields are expected to grow, meaning promising employment opportunities for qualified workers. By 2020, STEM occupations will grow by 8.7 percent, slightly above the 8.0 percent growth expected for other titles.

Meeting this future demand will require Michigan to have an adequate supply of workers trained in these critical STEM areas. Therefore, encouraging youth to pursue education in science, technology, engineering, and mathematics is one critical area of attention for educators, workforce developers, and economic developers.

- For youth and young adults eyeing the future job market, there is expected to be a shortage of trained workers in the skilled trades, in part due to the aging of the current workforce. In Michigan, the Skilled Trades Training Fund (STTF) was designed to address some of this shortage. According to Christine Quinn, Director of Michigan’s Workforce Development Agency, “The Skilled Trades Training Fund program bridges the gap between in-demand jobs and a niche pool of talent, enabling Michigan businesses to compete and expand. Customized training, as identified by employers, provides career opportunities for workers and statewide growth. The more data directly from our employers that we can gather, the better we can share this with our education and training partners for them to then better prepare our young workers.”
- Internships are another important way education and training is more closely crafted to labor demand, providing students with the necessary skills to satisfy the hiring needs of future employers in their field while providing employers the opportunity to develop incoming talent. The National Survey of Student Engagement (NSSE) provides excellent insights into the number of college students who have participated in an internship or field experience as well as details about the student’s activity while participating. (Box 21)

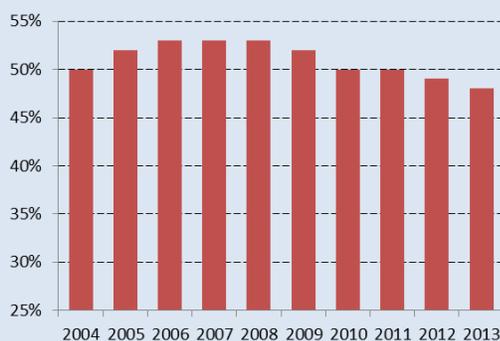
Box 21: Internships

According to the National Survey of Student Engagement (NSSE), which surveys 586 U.S. and 27 Canadian universities, nearly half of all students participated in an internship or field experience (including co-ops, practicums and clinical assignments) by the time they graduated as seniors in 2013. For most students, an internship experience is an essential part of their college career, allowing them to develop insight and hands-on knowledge in their chosen field, as well as find prospective post-graduate employment opportunities. In another report by Michigan State University’s Collegiate Employment Research Institute and Career Services, nearly 2,300 employers were asked to identify their primary purpose for awarding internships and co-ops. Around 60 percent of respondents used internships to identify and develop talent for full-time employment, further emphasizing the importance of internship participation.

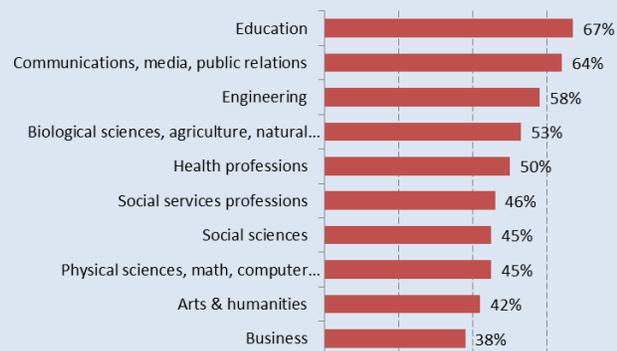
Over the last nine years, the number of those participating in internships has been consistently strong with a slight downward trend since the end of the Great Recession in 2009. This minor decrease in internship participation could be attributed to weak economic conditions, in addition to students’ financial inability to accept internships that are unpaid. Despite this trend, about 1 in 2 students have consistently completed an internship or some type of field experience by graduation since 2004.

Education majors have the highest rates of internship participation (67%). This is likely due to education programs that require spending time in the classroom before graduation. Closely following are communications majors (64%), which include media and public relations in addition to all other communications majors. Engineering students also have a higher than average internship participation rate at 58%. Business majors have the smallest internship participation rates (38%), which could be attributed to a recent decline in hiring in the finance industry. Arts & humanities majors also experienced less internship participation than most in 2013, at a rate of 42%.

Percentage of College Seniors That Have Participated in an Internship Or Field Experience, 2004-2013



Percentage of College Seniors That Have Participated in an Internship Experiences by Major Category, 2013



Source: National Survey of Student Engagement, (NSSE) 2004-2013
Michigan State University Collegiate Employment Research Institute and Career Services. *Recruiting Trends 43rd Edition*

Migration of Youth

The migration of youth and young adults out of Michigan has been a major topic in recent years. This section uses data from the American Community Survey from the U.S. Census Bureau to analyze the movement of youth into and out of Michigan.

- The migration of youth is an important measure of labor market health for a state. Being able to attract and retain young people is an important workforce development and economic development tool. Unfortunately, Michigan has had a net negative migration of young people aged 22 to 34 for some time, and the data continues to show that many in this group are having more success in the labor market elsewhere in the United States.
- In 2012, domestic migration of Michigan's 22 to 34 year old population stood at a net loss of 13,500, a combination of 53,700 young adults leaving Michigan while the state attracted about 40,200. This net out-migration accounted for under 1 percent of Michigan's total population in this age bracket. Those youth choosing to remain in the state may do so for reasons similar to those cited by the youth focus group participants: family, community, and existing work ties.
- This net migration of -0.8 percent was a 0.3 percentage point loss from the previous year, due to 6,000 fewer young people relocating to Michigan along with a similar number of young people leaving the state. **(Box 22)**
- This measure moved in a negative direction for Michigan since 2005, after having held near or above zero net migration between 2001 and 2004. This change in migration is sometimes tied to a more optimistic perception of other states' job markets. By two measures of labor market success, the unemployment rate and the labor force participation rate, those that left Michigan have statistically fared better over the last twelve years than those who move into Michigan, but particularly since 2008.

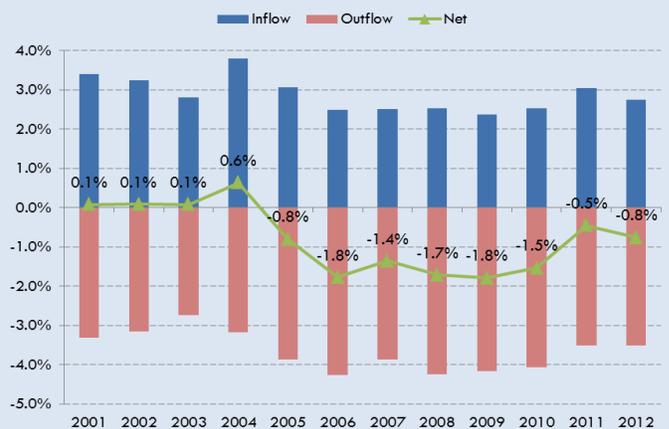
Box 22: Domestic Migration of 22 to 34 Year Olds

The domestic migration of young adults in Michigan's population has been tracked by the U.S. Census Bureau using their American Community Survey since 2001. This data can provide a better understanding of the recent history of our state in terms of talent attraction and retention, and the movements of Michigan's young professionals.

At the start of the century, Michigan's net migration of young people was near zero, with around 3 percent of our base population in this age cohort leaving and coming to Michigan each year. In 2004, entrants to Michigan numbered over 60,000 as the net migration rate ran up to 0.6 percent.

Since then, our net domestic migration rate has dropped below zero, wavering within a band of -1.4 to -1.8 percent from 2006 to 2010 before improving more recently to within a percentage point of a balanced migration rate.

Michigan's Domestic Migration of 22-34 year olds



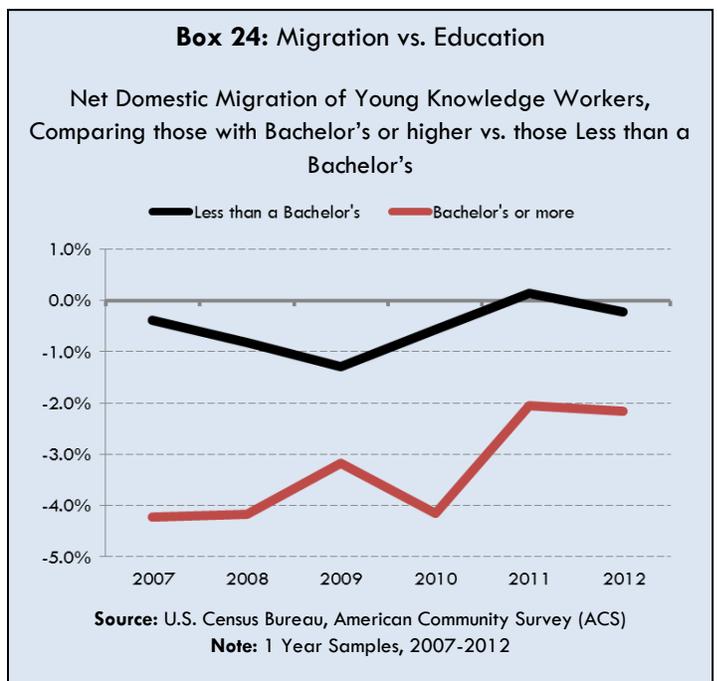
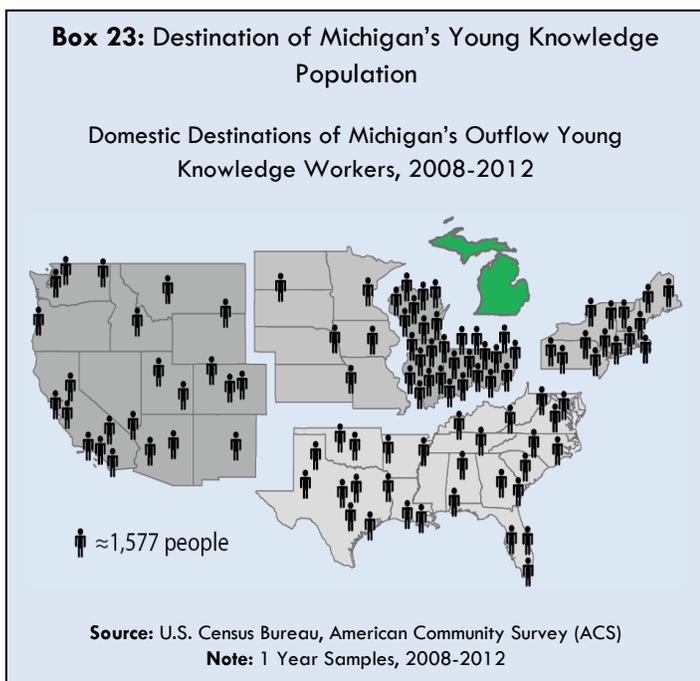
Survey data show that our largest raw inflow occurred in 2004 when around 63,000 young people in this age cohort entered Michigan from another U.S. state. Michigan's largest raw outflow occurred two years later in 2006 when over 68,000 22 to 34 year olds left Michigan.

As the bar chart suggests, Michigan's recent problems with the migration of our young population stems from both attraction and retention.

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

Note: 1 Year Samples, 2001-2012

- Since 2001, young migrants exiting Michigan who are not in school have a lower unemployment rate by approximately 3.8 percentage points when compared to those young migrants coming to Michigan who are not in school. They also participate more in the labor market, seeing a rate 2.4 percentage points higher. This is an indication of both successes in finding employment elsewhere in the United States, as well as an indication of a weaker youth labor market in Michigan.
- The geographic distribution of Michigan’s domestic outward-bound migrants is interesting, albeit not altogether surprising. The top destination by region is the south, where approximately 29 percent of domestic outflow migration has moved to. The East North Central region (which includes Wisconsin, Illinois, Indiana, and Ohio) was the destination for approximately 28 percent of outward bound domestic migrants, or around 45,000 migrants over the five years from 2008 to 2012. Beyond these top two regional destinations, just under a quarter of former Michigan residents leave to states in the western United States (23 percent), followed by the Northeast (14 percent) and finally the West North Central states, which include the Dakotas, Nebraska, Kansas, Missouri, Iowa, and Minnesota (5 percent). **(Box 23)**
- These trends for domestic outflow vary slightly when compared to the former residencies of domestic inflow migrants. Over a third of those young people moving to Michigan from 2008 to 2012 came from the East North Central region (35 percent of total domestic inflow migration), followed by the South (26 percent), the Northeast (19 percent), the West (15 percent), and the West North Central (5 percent).
- A particular focus of some researchers has been the impact of education on mobility, specifically for younger adult workers. Most studies have shown that higher education is correlated with a higher cross-state migration rate. For Michigan specifically, these highly educated and more mobile young adults tend to leave Michigan at faster rates than their less educated counterparts. In 2011 and 2012, this was led by young adults with advanced degrees (beyond a bachelor’s) with 2.9 and 4.7 percent of their base population in Michigan (around 100,000) leaving the state for somewhere else in the US. Young adults with less than a bachelor’s degree have had near a zero net migration rate for at least the last decade, staying within +/- 1.5 percent net migration. **(Box 24)**



Employment and Skill Outlook

This section uses long-term occupational projections to forecast employment opportunities and skills, knowledge, and activities that may be a benefit to youth and young adults.

Occupational Outlook 2020

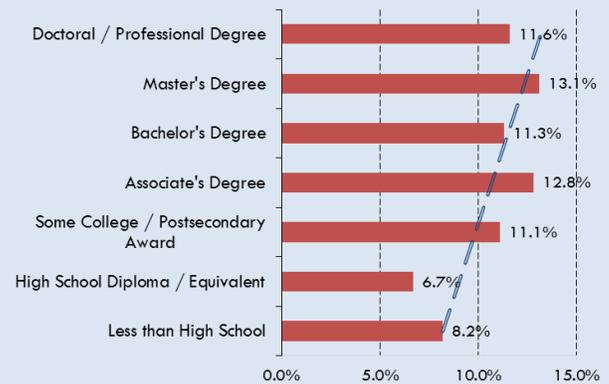
- Between 2010 and 2020, employment in Michigan is expected to grow by 352,000 or 8.5 percent. Of the 135,000 estimated annual openings, about 1 in 4 will be in new positions while 75 percent will come from the need to replace the incumbent workforce. This is good news for youth in the state’s labor market, a group that stands to see opportunities in new and emerging occupations and from the need to replace older workers in existing positions.
- Among the occupational categories expected to see the most employment growth and create the most new jobs are *Healthcare, Computer and mathematical, and Business and financial operations*. Generally, opportunities in these categories will require some investment in education or training but are rewarded with above-average earnings.
- Despite below-average growth rates, occupations requiring a high school diploma or less will still generate 210,000 new positions, more than all other categories combined. Many of these will be in lower paying occupations sometimes associated with high turnover. However, these opportunities may be ideal for some youth, particularly those trying to strike a balance between work and educational activities.
- Occupational categories expected to generate the most openings from the need to replace existing workers include *Office and administrative support, Sales and related, Food preparation and serving, and Retail sales*. Combined, jobs titles in these categories will generate over 45,000 replacement openings annually. Many openings in these groups will be entry level positions, ideal for youth and young adults getting their start in the labor market.
- There is a strong correlation between an occupation’s required education and training and that occupation’s anticipated growth and its median wages. (Box 25)

Box 25: Educational Attainment and Labor Market Success

There is a strong correlation between an occupation’s required education and training and that occupation’s anticipated growth and its median wages.

For instance, occupations requiring some college and beyond report anticipated growth between 11 and 13 percent, compared to more modest growth for those requiring less education and training.

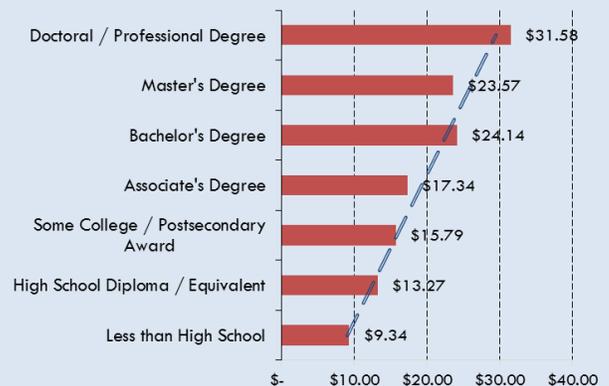
Educational Attainment and Occupational Outlook, 2010-2020



Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives

Similarly, occupations requiring more education and training earn increased median wages. According to data from the Bureau of Labor Market Information and Strategic Initiatives, occupations requiring just a high school diploma report a median wage around \$13 / hour, considerably lower than the \$24 / hour reported for those requiring a bachelor’s degree. Our teachers were not lying; the more you learn the more you earn.

Educational Attainment and Median Wages, 2010-2020



Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives

- While fewer new positions will be generated in the *Production* and *Construction* categories, there will be many job openings due to replacement needs, providing meaningful opportunities to youth, especially in higher skilled, higher paying skilled trades job titles.

Outlook 2020: Skills, Knowledge, and Work Activities

- While long-term occupational projections are critical in identifying job titles that are forecasted for growth, additional insights can be gained by analyzing the key skills associated with the occupations poised for significant growth. Specifically, insights about what knowledge, skills, and work activities will be associated with high demand careers allow us to better meet tomorrow’s demand. Below are some highlights from these skills-based projections, which merge long-term occupational projections with information on skills, knowledge, and work activities from O*Net. (Box 26)
- Reflecting strong demand for professional, business, healthcare, and management careers as well as for various service job titles is the predicted need for communication and interpersonal skills including active listening, speaking, social perceptiveness, and service orientation. Many participants in our youth focus group cited development of these skills as some of the most valuable aspects of their job experiences, and felt that possessing these skills would give them an edge on the competition.
- Consistent with anticipated demand for qualified workers in Science, Technology, Engineering, and Math (STEM) careers is the strong demand for workers with knowledge in the hard sciences, including medicine and dentistry, mathematics, engineering, and biology, among others. Typically, this knowledge can be gained through rigorous education and training programs, often requiring a significant commitment. In addition, opportunities in STEM fields along with many other categories will require candidates to have strong critical thinking and complex problem solving skills.

Box 26: Demand Forecasts for Knowledge, Skills, and Work Activity 2020		
Knowledge <i>80% of new opportunities will require ...</i>	Skills <i>70% of new opportunities will require ...</i>	Work Activity <i>55% of new opportunities will require ...</i>
Customer and Personal Service	Active Listening	Communicating with Supervisors, Peers, or Subordinates
English Language	Speaking	Getting Information
Medicine and Dentistry	Reading Comprehension	Making Decisions and Solving Problems
Education and Training	Critical Thinking	Documenting/Recording Information
Psychology	Social Perceptiveness	Identifying Objects, Actions, and Events
Computers and Electronics	Monitoring	Interacting With Computers
Mathematics	Complex Problem Solving	Updating and Using Relevant Knowledge
Administration and Management	Judgment and Decision Making	Establishing and Maintaining Interpersonal Relationships
Engineering and Technology	Writing	Organizing, Planning, and Prioritizing Work
Biology	Service Orientation	Assisting and Caring for Others

Source: DTMB, Bureau of Labor Market Information and Strategic Initiatives

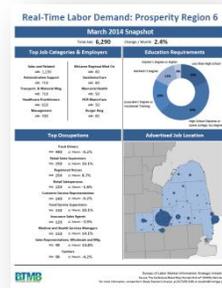
What's New from the Bureau of Labor Market Information and Strategic Initiatives?

Youth and Young Adults and the Michigan Labor Market is just one of the many publications by the Bureau of Labor Market Information and Strategic Initiatives. Serving a diverse group of customers, our products range from workforce data to customized products and publications. Highlighted below are some of our more recent projects. These and more can be found on our website at: www.michigan.gov/lmi.



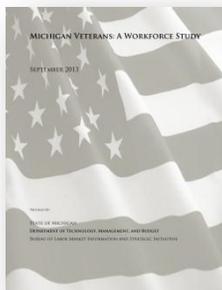
Regional Prosperity Initiative: Labor Market Information Supplement

These profiles provide labor market information to support the Regional Prosperity Initiative. Included is information and analysis on the topics of population and demographics, labor force, employment, and unemployment, commuting patterns, industry employment and job trends, occupational employment and wages, and occupational demand, both real-time and forecasted.



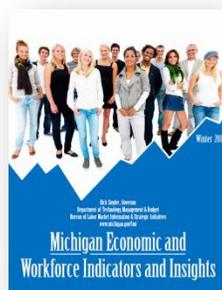
Regional Prosperity Initiative: Real-Time Labor Demand Snapshots

Published for the State's 10 Prosperity Regions, these monthly reports use The Conference Board Help Wanted OnLine® (HWOL) Data Series to provide a high-level overview of in-demand occupations, top advertising employers, education and training requirements, and the location of advertised vacancies for each of Michigan's 10 Prosperity Regions.



Michigan Veterans: A Workforce Study

This report draws on information from the Census Bureau and the Bureau of Labor Market Information and Strategic Initiatives to provide those interested in workforce issues with some general information about veterans in the state's labor market. The study includes sections on population and demographics, labor force and labor force participation, unemployment, and employment.



Michigan Economic and Workforce Indicators and Insights

This biannual report tracks Michigan labor market and economic trends on a series of indicators related to the workforce, knowledge-based jobs, innovation, education, and the economy. Written for an executive audience, this report provides a concise analysis of recent trends in these indicators as well as national and regional comparisons.