



## Economic Life in Michigan

Michigan's Cloudy Jobs Outlook - Hurdles to Prosperity

# JOBS OF THE FUTURE: WHERE THEY'LL BE IN MICHIGAN

By Ron French, Bridge Magazine

Jim Danielski tells horror stories, but not the kind shared with toasted marshmallows around a campfire. Danielski's horror stories are the kind that should keep Gov. Rick Snyder awake at night.

At his career counseling center in Plymouth, Danielski sees a steady stream of people who aren't ready for Michigan's new economy. Some have no education. Others have the wrong education. Most have no clue how to find work in world shifting beneath their feet.

"Stop talking about a recovery," said Danielski, of Career Planning Specialists. "There isn't going to be a recovery. The world is not the same. We're going through a transition."

## 25 Occupations with most job openings through 2018

Occupation	Total Openings	Avg. Hourly Wage
Retail salesperson	41,385	\$11.73
Cashier	40,105	\$9.42
Writers and waitresses	36,680	\$9.00
Home health aids	30,548	\$11.38
Laborers and material movers	28,814	\$12.47
Financial analysts and advisors	28,506	\$21.60
Fast food and counter workers	26,581	\$9.03
Real estate brokers and sales agents	26,086	\$10.43
Registered nurses	25,479	\$30.66
First-line supervisors/retail managers	24,501	\$18.61
Driver/sales workers and truck drivers	24,251	\$17.70
Building cleaning workers	23,660	\$10.93
Miscellaneous assemblers and fabricators	23,205	\$17.50
Managers, all other	23,085	\$21.45
Customer service representatives	23,067	\$16.47
Child care workers	22,458	\$8.46
Securities, commodities and financial service sales	20,722	\$22.42
Office clerks, general	19,645	\$13.24
Executive secretaries and administrative assistants	19,128	\$16.99
Cooks	18,625	\$10.21
Sales reps, wholesale and manufacturing	16,246	\$31.17
Elementary and middle school teachers	15,868	\$32.91
Miscellaneous production workers	14,736	\$15.90
Stock clerks and order fillers	14,206	\$11.81
Property and community association managers	14,198	\$12.42

## For Michigan: New jobs and annual openings

OCCUPATION TYPE	2010 JOBS	2018 JOBS	2010-18 CHANGE	% CHANGE	TOTAL OPENINGS	ANNUAL OPENINGS	AVE SALARY
Healthcare support occupations	153,339	185,949	32,610	21%	46,955	5,869	\$26,083
Business and financial operations occupations	266,998	313,460	46,462	17%	89,207	11,151	\$53,768
Legal occupations	34,810	40,636	5,826	17%	10,804	1,350	\$74,422
Healthcare practitioners and technical occupations	257,201	293,692	36,491	14%	79,823	9,978	\$68,286
Personal care and service occupations	203,942	232,217	28,275	14%	72,629	9,079	\$22,880
Arts, design, entertainment, sports, and media occupations	134,335	150,713	16,378	12%	44,048	5,506	\$34,549
Life, physical, and social science occupations	45,722	51,291	5,569	12%	17,568	2,196	\$53,664
Computer and mathematical science occupations	95,230	105,436	10,206	11%	25,935	3,242	\$64,584
Community and social services occupations	76,651	84,219	7,568	10%	21,862	2,733	\$37,939
Building and grounds cleaning and maintenance occupations	184,708	200,490	15,782	9%	42,459	5,307	\$23,067
Management occupations	365,789	394,244	28,455	8%	96,550	12,069	\$59,051
Construction and extraction occupations	191,582	205,332	13,750	7%	47,512	5,939	\$45,490
Sales and related occupations	651,369	692,765	41,396	6%	198,771	24,846	\$31,866
Education, training, and library occupations	264,306	279,526	15,220	6%	64,984	8,123	\$57,720
Installation, maintenance, and repair occupations	172,302	182,944	10,642	6%	42,865	5,358	\$42,058
Office and administrative support occupations	651,804	686,209	34,405	5%	155,739	19,467	\$32,469
Food preparation and serving related occupations	339,793	357,012	17,219	5%	118,731	14,841	\$20,592
Transportation and material moving occupations	283,747	292,779	9,032	3%	74,573	9,322	\$33,904
Architecture and engineering occupations	119,428	121,269	1,841	2%	31,753	3,969	\$70,762
Farming, fishing, and forestry occupations	23,243	23,815	572	2%	6,632	829	\$24,835
Protective service occupations	74,104	74,501	397	1%	20,146	2,518	\$40,123
Production occupations	393,414	395,047	1,633	0%	105,844	13,231	\$37,107
Military Occupations	20,601	19,359	(1,242)	(6%)	3,632	454	\$32,344
<b>Total</b>	<b>5,004,417</b>	<b>5,382,904</b>	<b>378,487</b>	<b>8%</b>	<b>1,419,021</b>	<b>177,378</b>	<b>\$19.43</b>

Source: Bridge analysis of federal jobs data

Harnessing that transition is the challenge facing Gov. Snyder as he prepares a November special address on jobs and talent development.

It won't be easy. Job growth will be slow and uneven through 2018, with new positions paying no more than the jobs they are replacing, according to a Bridge Magazine analysis of federal data. That analysis projects the state's bread-and-butter occupations in factories will stagnate, while two-thirds of new jobs will require post-high school training. And among college graduates, there are troubling signs that far too many will have diplomas in fields more likely to land them in the unemployment office than the country club.

Today and Sept. 15, Bridge will examine the state's rapidly changing work force, and how Michigan families, colleges and government leaders will need to scramble to keep pace.

For families, clinging to the middle-class lifestyle Michigan residents took for granted during the auto industry's heyday, the new economy will require workers to not only work smart, but train smart – carefully selecting fields that improve their odds of earning a good paycheck.

For colleges, the new economy likely will mean more partnerships with industries looking for specific skills and increased pressure to steer students to growing fields.

And for Snyder and other state leaders, it means facing some uncomfortable truths about Michigan's future, and taking steps to address the mismatch between jobs and education.

## Data shows slow job growth

To conduct the analysis, Bridge combined long-range occupational projections from the U.S.

Bureau of Labor Statistics, 2011 wage data from the BLS and educational attainment data by occupation from the American Community Survey. The data was adjusted using economic data and projections from Economic Modeling Specialists Inc., in Idaho., and the Center on Education and the Workforce at Georgetown University.

The projections paint a troubling portrait of a state in the throes of transformation. An estimated 378,500 jobs will be added to the Michigan economy between 2010 and 2018, for a total of 5.382 million (a figure that includes self-employed, farm workers and those working in family businesses, along with traditional payroll jobs). That's an annualized growth of 1 percent.

That level of growth would leave Michigan burdened with high unemployment for most of the decade. Consider this: There are more unemployed Michigan residents (496,000, as of July) than jobs projected to be added to the economy 2010-2018 (378,500). Traditional payroll jobs, the kind that more often include benefits such as health insurance and paid vacation, will grow even more slowly – about 0.7 percent a year.

Those new jobs won't be the only openings – in fact, jobs added to the economy are less than a third of total openings, with the rest being the result of “churn” – existing jobs in which workers retire, die or leave the work force and others are hired to replace them. About 1.4 million total openings are projected through 2018, or about 177,000 per year.

But even that number isn't enough to get Michigan rolling again. If the projections prove correct, “there will be vast long-term unemployment,” said Larry Good, chairman of the Corporation for a Skilled Workforce in Ann Arbor. “People will continue to move (out of the state) or leave the work force, families will go one income instead of two, all things that continue the decline in median family income.”

Median household income in Michigan dropped from \$54,651 in 2000 to \$45,254 in 2009 (in 2009 dollars), says the Census Bureau, a decline in spending power equivalent to a year's tuition at Central Michigan University.

In 1990, Michigan ranked 14th in the nation in median household income; by 2009, the state had plummeted to 34th. That precipitous drop not only has implications for the buying power of families, but for businesses where those families are buying less, and for state government, collecting less in income tax.

Of the 25 occupations with the most total job openings through 2018, 19 offer current wages below the state average of \$19.43 an hour. The top three occupations for openings – retail clerks, cashiers and waiters/waitresses — earn between \$9 an hour and \$11.73 an hour.

Meanwhile, 38 occupations that earn above-average wages are projected to employ fewer people. Leading the losses are jobs that have traditionally been viewed as safe: postal workers (projected to shrink by 1,314); tool and die makers (minus 833); even the number of mechanical engineers, who earn an average of \$40.27 an hour, is projected to drop by 521.

The numbers are sobering for freshly minted graduates, as well as parents, who, by choice or by necessity, are scrambling anew for paychecks. “You have to keep in mind that it's not just kids (looking for a career),” said Good. “You have a lot of re-skilling, where adults are trying to figure out their next move.”

## **Want work? Seek blood, oil, dollars**

So where are the jobs of the future? According to Bridge's projections, the health-care industry holds the promise of the most new jobs, while the fastest-growing field will be oil and gas extraction.

Nearly one in five jobs added to the Michigan economy will be in health care, a result of the state's aging population. The largest chunk of new health-care jobs will be in support positions – health-care aides. That field will add 32,000 jobs by 2018, the equivalent of two busloads of new workers every week. Those jobs pay below average (\$22,000 to \$26,000 a year), but usually include health-care benefits and are often used as stepping stones to better jobs.

There are a projected 3,185 openings per year for registered nurses, who earn an average of \$63,000 a year, and 985 openings annually for doctors.

Four of the five fastest-growing occupations by percentage growth, and eight of the top 13, are in the petroleum industry. All pay wages far above the state average.

More than four out of 10 new jobs created through 2018 are projected to be non-payroll jobs, primarily people who are self-employed and contract workers. Those jobs usually do not include benefits such as health insurance and paid vacation.

Lou Glazer, president of Michigan Future, Inc., doesn't trust jobs projections, which are based primarily on job creation from the past decade. "If you had job projections for software engineers in Seattle, Washington, the year before Microsoft opened, they'd be low," Glazer said. "I wouldn't put a lot of stock in projections (for specific jobs)." Glazer does, though, believe one trend will continue: Jobs of the future will require more and more education.

## **Education means more money — generally**

The big story in the projections, believes Michigan State University economist Charles Ballard, is the "decrease of middle class jobs going to people with moderate to low skills. Michigan was successful at that (building a middle class from high school graduates) for decades."

Not anymore. Your chances of finding a job rise dramatically with education. If Michigan's jobless pattern is similar to that of the nation's, almost 20 percent of high school dropouts were unemployed in June, compared to 13.8 percent of high school grads, 9.9 percent of Michiganians with some post-high school education (certifications, associate degrees or some college credits), and 4.6 percent of those with a bachelor's degree or higher.

The jobs being added to the economy accelerate the pattern. Among jobs projected to be added in Michigan by 2018, seven out of 10 will require some post-high school education. More than 37 percent will require a bachelor's degree or more, compared to 29 percent today.

"If you want the Michigan economy to be strong in 2020, the skills of the population are the big story," Ballard said. And with current spending on education, "it will be difficult to maintain even the mediocre level of educational attainment we have now."

Only one in 20 new jobs will be available for high school dropouts; about one in four will be open to high school graduates.

The differences are just as stark in paychecks.

Drop out of high school and you doom yourself to a life of small paychecks. The professions which employ the highest percentage of high school dropouts all pay well below the average. Half of the workers in agriculture are high school dropouts – they earn, on average, \$10 an hour. A quarter of the workers in ground maintenance are high school dropouts – they earn, on average, \$11 an hour.

High school grads have more options, but still typically earn 78 percent of the state's average salary. Two professions that employ among the highest percentages of high school grads – construction trades and motor vehicle operators – pay slightly better than average wages. Both of those occupations are projected to grow by 6 percent by 2018 and have a few thousand annual job openings. Other likely occupations for high school grads, such as funeral service workers and loggers, pay below average wages.

An associate's degree, certification or completion of some college classes will become the minimum needed to earn an average paycheck of \$19.43 an hour, the data show. Holders of bachelor's degrees earn 142 percent of the state average (almost double that of high school grads); master's, 167 percent; and holders of doctorates or professional degrees, such as law and medicine, earn more than double the average (210 percent).

But is all education equal? In a tight job market, economic winners and losers may be chosen as much by career path as by the letters on a diploma. About 23 percent of Americans holding a bachelor's degree earn the same or less than high school graduates, according to The Center on Education and the Workforce, based at Georgetown University.

For example, in Michigan:

- 3,700 people with an associate's degree or higher will work in ground maintenance, where the current average wage is \$11.36 per hour.
- 4,700 with a bachelor's or higher are projected to work in building cleaning and pest control, taking home an average of \$10.93 per hour.
- 164 people with a master's degree will work in food preparation/service, with an average pay rate of \$9.15 per hour.

Former Gov. Jennifer Granholm long pushed to increase the percentage of Michigan residents earning college degrees, believing education was the key to reinventing the state economy. But thousands took those sheepskins and left the state for jobs. Meanwhile, some Michigan employers can't find enough skilled workers.

To break that trend Snyder must match education with opportunity, tailoring talent to improve the odds of residents finding work and earning a decent paycheck.

"The trend is, the more educated your work force, the more ready you are for changes," Good said.

In a state that thrived for a century by not changing, the decade ahead looks most unsettling.

# MICHIGAN CAN'T FIT COLLEGE GRADS INTO JOB SLOTS

By Ron French, Bridge Magazine

If Amy Dobson is a rock and Gentex is a hard place, Gov. Rick Snyder is stuck between them.

Dobson, an effervescent 23-year-old from Okemos, finished a five-year degree program in education from Michigan State University last spring. Despite holding a bachelor's degree from a top-ranked education school, Dobson couldn't find a job in her home state. Then she received three job offers in quick succession – all in Utah.

"I would have loved to stay (near her home and family)," said Dobson, who teaches fourth grade in a suburban classroom near Salt Lake City. "I have (teacher) friends who moved to Chicago and one to South Carolina. One is working in Mexico."

Gentex has the opposite problem. Located in a state with double-digit unemployment, the Zeeland automotive supplier has 60 job openings listed on its website, 31 for various types of engineers.

"We've gone from three software engineers to probably 50," said Bruce Los, Gentex vice president for human resources. "We'd take 30 more tomorrow if we could find them."

As Snyder prepares a special address on jobs and talent development this fall, he'd be well served to keep the young teacher and the West Michigan company in mind. Michigan workers — and state policy-makers — will have a slim margin of error in coming years, according to a Bridge Magazine analysis of federal data.

There are 55,000 bachelor's degrees granted from Michigan's public universities and private colleges annually, with about 45,000 of those degrees given to Michigan residents. Yet there are projected to be only 28,000 annual job openings in which a bachelor's degree is the primary level of education. There are a projected 68,000 job openings per year that pay better than average wages, and those freshly minted college grads will be competing for those openings with thousands of more experienced, yet unemployed or underemployed, workers, according to a Bridge Magazine analysis of federal jobs data and college graduation statistics.

"We're going to become an export state," said Jack Litzenberg, senior program officer for the Charles Stewart Mott Foundation's "Pathways out of Poverty" initiative. "We're going to be educating people who will go elsewhere for their employment. We've got good schools ... but not jobs."

Bridge found clear evidence of Litzenberg's assertion when we combined the most recent and in-depth statewide job projections with graduation trends at the state's public universities and private colleges.

That analysis found a troubling mismatch between degrees and jobs in many fields. For example, there are 15 percent more teachers currently produced at Michigan colleges and universities than there are annual job openings through 2018. There are twice as many communications/public relations/journalism bachelor's degrees currently handed out as

projected openings in the state; and 133 percent more new lawyers than jobs. Meanwhile, companies face a shortage of 5,000 college grads in business, management and financial operations. Only four out of five computer and math profession jobs can be filled with the number of students graduating with a bachelor's or master's. There is a 14 percent annual shortfall of doctors, nurses and other health care professionals.

The Center for Education and the Workforce at Georgetown University reached the same conclusion in a report released Tuesday. [That report](#) suggests that the challenge facing Michigan and other Midwestern states is finding ways to match education with job opportunities.

“Are we graduating too many of the wrong kind of college graduates? I wouldn’t argue with that,” said Jim Danielski, of Career Planning Specialists in Plymouth. “It’s not uncommon for people with a four-year degree to come to me and say I had no idea I would have trouble getting a job.”

## Building the better worker

The solution seems deceptively simple: If students in over-supply degree programs switch to under-supplied fields, they’d get jobs and businesses would have workers. Michigan schools currently produce 1,100 more new attorneys than job openings for lawyers, while the state currently produces about 1,300 fewer degreed health care professionals than it can employ. Grab a backpack and move from the law quad to the medical school and Michigan’s job mismatch problem is solved.

Other states have tried just that. Under names such as differential funding and performance-based funding, states have offered financial incentives to colleges and universities. Such a system would shift a portion of state higher education funding to an outcome-based model, based on outcomes as defined by state priorities. ([Other states tie public aid to college results](#))

“There’s a lot of opportunity to do things to incentivize institutions to behave in ways that help the economy,” said Keith Bird, senior policy fellow for workforce and postsecondary education at the Corporation for a Skilled Workforce in Ann Arbor. Bird was chancellor of the Kentucky Community and Technical College System when performance-based funding was introduced, and is considered an expert on state higher education funding.

“If we’re trying to recover, we ought to put a premium on creating jobs,” Bird said. “(The colleges) have to acknowledge they are over-producing (some degrees), ... or admit they are creating an export. But it’s a negative export — it’s bad policy.”

Some states have based a portion of funding on degree completion rates. Students who complete degrees earn significantly more than those who don’t. The average holder of a bachelor’s degree earned \$27.59 per hour in 2011, compared to \$18.85 per hour for those who have “some college” but not a degree, according to the Bridge analysis of federal data.

Even in jobs that don’t require a four-year college degree, those with a diploma earn more. Nationally, secretaries with a four-year degree earn an average of 13 percent more than their less-educated co-workers, according to the Center on Education and the Workforce. Firefighters with degrees get a 25 percent bump; social workers, 36 percent; dental hygienists, 76 percent.

Some states have gone a step further and offered more money for in-demand degrees such as engineering. Bridge’s analysis projects a need for 3,820 engineers annually in Michigan, with

state and private universities falling short of that figure by 3 percent.

“Give (funding) to them in a way that modifies behavior,” Bird said. “There’s got to be a more direct connection between funding and outcomes.”

Michael Boulus — executive director of the Presidents Council of Michigan, the universities’ lobbying arm — said it’s not the role of universities to push one career over another. “We can counsel, but ... we’re not going to shut the door on a student” who wants to study in a field without great job prospects, Boulus said.

Lou Glazer, president of Michigan Future Inc., scoffs at the idea of Lansing politicians looking into a crystal ball and deciding what jobs will be in demand years from now. Even if they could, “public universities are not agencies of the state government,” he said. “Michigan’s higher education system is in the business of preparing people for life and preparing people for careers in the global economy. That may be in Michigan. It may be in Sri Lanka. That’s not U-M’s responsibility.”

That may be true when the economy is humming along, Bird said. But when the state is counting every dollar, policy-makers must make sure that taxpayers are getting a good return on their investment.

“There’s tremendous resistance to associating knowledge with finances,” Bird said. “(But) colleges have a responsibility to make wise use of public funds.”

## **Few prepare for their careers**

One area of agreement is that students are getting inadequate information about career choices. High school counselors are overworked, and college counselors seldom talk about the job outlook and pay scales of various professions.

“(Michigan State) didn’t talk about (job prospects for teachers),” Dobson recalls.

In Dobson’s case, it didn’t matter – she knew the job market was tight for teachers in Michigan, but she chose to get an education degree anyway. “If I would have tried engineering just because that’s where the money is, I would have failed at it,” Dobson said. “You have to follow your heart.”

But for others, “the students are totally unaware of the choices they are making,” Bird said. “If they were getting career coaching, they may be making choices to make themselves more employable.”

Bird suggests the state create a career information model that is easily accessible by students and parents. In terms Snyder uses, a “career dashboard” could include projections for new jobs and total openings by occupation, as well as average salary, the educational attainment of those in the field and how many are graduating each year with the training required for the job. The dashboard also could include up-to-date statistics on unemployment and average salary by education level.

“If we don’t work upstream, we’re going to have a huge skill mismatch,” said Amy Cell, senior vice president for talent development at the Michigan Economic Development Corp. “There needs to be a better matching of education and opportunities. How do you communicate that to people so they can make good choices?”

Those good choices need to be made not just by students, but by universities and businesses. As an example, Cell notes a projected shortage of chemical engineers in Michigan. “How do we create a discussion (with Michigan colleges) so we don’t end up with 20 new chemical engineering programs and create an oversupply? Universities need to work collectively on curriculum.”

Meanwhile, businesses such as Gentex aren’t waiting for applicants to come to them, even in an employer’s market. The high-tech auto supplier has partnerships with 14 universities around the Midwest, with Gentex offering input on curriculum and the schools sending graduates to Zeeland.

“We probably do 80 percent of our recruiting in Michigan,” Los said. “We have strong relationships with professors. We see this as a competitive advantage.”

The MEDC is building a “talent map,” a database listing openings by occupation in 44 industries, in hopes of helping connect talent with jobs. “If welding skill is needed in 18 of the 44 industries, for someone who was laid off in one industry, this can help them find a position in another industry using the same skill.”

It’ll probably take all those efforts and more to create the number of jobs, and the kind of jobs, needed to turn Michigan’s economy around to the point that people like Amy Dobson can come home.

“I’d love to come back to Michigan some day,” she said, before hanging up her cell phone and walking into her job in Utah.

## Michigan’s Biggest College Mismatches

Job projections from federal data show Michigan public universities and private colleges producing surpluses and deficits when it comes to graduates’ skill sets. The largest such mismatches are shown below.

Field	Projected Annual Openings 2009-10	University Degrees	2009-10 Private Degrees	2009-10 Total Degrees	Deficit/ Surplus
Business, Mgmt, & Financial Operations	23,200	10,691	7,262	17,953	-23%
Computer & Math Professionals	3,242	1,783	795	2,578	-20%
Health Care Professionals	9,978	6,918	1,686	8,604	-14%
Engineers	3,820	2,984	709	3,693	-3%
Elementary/Secondary Teachers	3,441	3,261	689	3,950	15%
Communications/Journalism/PR	1,591	2,866	310	3,176	100%
Lawyers	852	538	1,446	1,984	133%

# FIVE FIELDS THAT WILL STILL PAY WELL

By Ron French, Bridge Magazine

Michigianians looking to increase their odds of landing a full-time job with above-average pay should head directly to a hospital.

Can't stand the sight of blood? Maybe you would prefer being a financial analyst. Not good with numbers? Think about oil and gas.

The job outlook in Michigan is projected to remain tight through 2018, according to a Bridge Magazine analysis of federal data. But among the dark economic clouds are occupations expected to add thousands of jobs, many of which pay salaries above the state average.

There are overall trends, such as the most new jobs are in health care and financial services, and the fastest growth is in the oil industry. The biggest trend, though is how much education those new jobs will require.

The top 11 highest-paying jobs projected to add at least 100 slots annually through 2018 all require a college degree, according to Bridge's analysis. By contrast, among occupations projected to shrink, only one (police officers) requires post-high school education.

Hot jobs include:

**Financial analysts and advisers:** Projected to add 3,563 jobs per year through 2018, a 49 percent increase. These jobs pay an average of \$44,928. Securities, commodities and financial service agents will add more than 2,500 jobs per year, with average pay of \$46,000 a year.

**Health-care practitioners and technicians:** Go into health care and you'll find a job. The workers who perform x-rays and ultrasounds, for example, are expected to grow by almost 9,000 a year, with an average hourly pay of \$32.83. Registered nurses are another of numerous health occupations expected to grow rapidly as baby boomers' bodies begin to give out. Registered nurses take home an average of \$63,773 per year. The number of personal and home health care aides is expected to grow by 29 percent (average pay = \$19,781), and physician assistants (\$86,528) will increase 26 percent.

**Engineers and architects:** This field is expected to grow only 2 percent overall, but because of retirements and people leaving the occupation, there will be a projected 4,000 job openings per year, with an average pay of \$70,762.

**Petroleum industry jobs:** Petroleum is a relatively small industry, but oil and gas extraction occupations are projected to be the fastest-growing in Michigan. And with job earnings above the state average, it's good work — if you can get it. ([Job prospects take on oily sheen](#))

**Paralegals and legal assistants:** Spend \$100,000 going to law school and you may not find a job, Spend less than a third of that, and you can make almost \$50,000 a year as a paralegal. Jobs for legal assistants and paralegals are projected to grow by 28 percent over the period.

## WHERE THE 'GOOD' JOBS ARE

Between 2010 and 2018, the Michigan economy is projected to have 68,000 annual openings in fields that pay well above the average statewide salary of \$40,414 in 2001. The top 10 fields projected to have the most such openings are:

OCCUPATION	AVERAGE ANNUAL OPENINGS	AVERAGE SALARY*
Financial analysts and advisers	3,563	\$44,928
Registered nurses	3,185	\$63,773
Managers, all others	2,886	\$44,616
Securities, commodities and financial service agents	2,590	\$46,634
Sales rep, wholesale and manufacturing, technical and scientific products	2,031	\$64,834
Elementary and middle school teachers	1,983	\$68,453
Accountants and auditors	1,600	\$54,205
Postsecondary teachers	1,263	\$88,650
Designers	1,248	\$41,517
General and operations managers	1,187	\$96,720

\*2011 figures. Source: Bridge Magazine analysis of federal data

# OTHER STATES HAVE TRIED TO BUY COLLEGE RESULTS

By Ron French, Bridge Magazine

Tying higher education funding to graduation rates, or even to certain types of degrees, may sound radical to Michigan policy-makers, but it's been discussed and tried for years in other places. Here are some examples:

**Indiana:** In 2007, our southern neighbor tied a portion of its higher education funding to degree completion, on-time graduation and two- and four-year transfer activity. For example, each institution gets an extra \$5,000 for each additional bachelor's degree over a base level and an extra \$3,500 for each associate's degree.

**Ohio:** The Buckeye State rewards institutions with public money for course and degree completion, with bonus bucks for at-risk students. The outcome-based funding structure has a future goal of encouraging a 2-plus-2 program in which students attend low-cost community colleges for two years and then transfer to a public university, such as Ohio State, for the completion of a bachelor's degree. Nearly 10 percent of Ohio's higher education funding is in performance-based subsidies – a larger proportion than in most other states.

**Texas:** Earlier this year, Texas implemented a funding system that rewards universities for graduating students, not just enrolling them. To meet the state's goals, Texas public universities must graduate 46,000 more students per year by 2015.

**Oklahoma:** There's only \$2.2 million a year handed out in performance-based funding, distributed by the Oklahoma State Regents for Higher Education. The emphasis is on student retention and degree completion.

**Tennessee:** The state ties about 5 percent of its higher education budget to student performance, including money for students who took remedial classes who completed college-level courses a year later.

**Washington:** Two-year colleges compete against each other for money based on student achievement.

**Missouri and South Carolina:** These states abandoned performance-based funding. Missouri did so as a cost-saving measure, while frustration with the complexity of the funding system derailed the work in South Carolina.

**Norway:** Funding for higher education factors in Norway include the number of credits accumulated by students, foreign student exchanges and research indicators.

**Spain:** Funding in Spain is based on first-year students, total enrollment, cost per student and fields of study, among other factors.

*Sources: Midwestern Higher Education Compact/Texas Tribune/University System of Ohio Board of Regents*

# CERTIFICATES CAN BUY MIDDLE-CLASS LIFESTYLE

By Ron French, Bridge Magazine

While the path to the Michigan middle class will wind almost exclusively through college campuses, the journey will have some shortcuts, according to an analysis of job projections by Bridge Magazine.

Some careers projected to have high demand require only a vocational certification – usually taking less than two years of schooling – and offer salaries comparable to those holding associate’s degrees or bachelor’s degrees.

““I have an Ivy League education, and I have friends from the Ivy League having work difficulties.” said George Berghorn, dean of technical careers at Lansing Community College. “A student can finish a network Cisco certification in two semesters, and, nationally, the median wage is about \$75,000 a year. And our placement rate is 80 percent to 90 percent.”

Bridge’s analysis found that, on average, more education leads to bigger paychecks. Typically, a bachelor’s degree means a larger house and a nicer car than can be acquired with an associate’s degree or a certification. But those who lack either the time or money for a four-year degree can still earn a good living.

Career and tech programs are still not viewed by teachers, counselors and parents as acceptable places for their child to land,” Berghorn said. “They’d rather have their child be an electrical engineer than an electrician, even though electricians can earn almost as much.

The question is, how do we transition society to look at these jobs differently?”

More vocational certifications are earned each year in the United States than associate’s degrees, according to the U.S. Census Bureau. Some jobs held by certification holders pay little. Home health care aides earn an average of \$11.38 in Michigan, less than retail sales clerks. But other certifications open doors to middle-class careers.

Nationally, entry-level workers with certificates in industrial arts construction and electrical engineering both earned more than \$40,000 in 2009, according to the U.S. Census Bureau.

Paralegals, pharmacy technicians, surgical technologists and sonographers all earn wages above the state average, said Margie Clark, dean of health and human services at LCC.

“In North Carolina, they’re offering signing bonuses for surgical technologists,” Clark said. “For that kind of job, in our area, starting wages are \$18 an hour and go as high as \$30 an hour, and even more with an orthopedic or cardiac surgery group.”

Jeannette Watkins, 56, of Grand Ledge, recently earned a certificate in aging studies after losing the job she’d held for 22 years in a downsizing. Today, she earns \$15 an hour at a part-time job at the Michigan Council on Aging in Lansing – a stepping-stone job Watkins believes will lead to a career in social service.

“It’s valuable training I can use on my resume,” Watkins said. “Doors were really opened by following this route.”

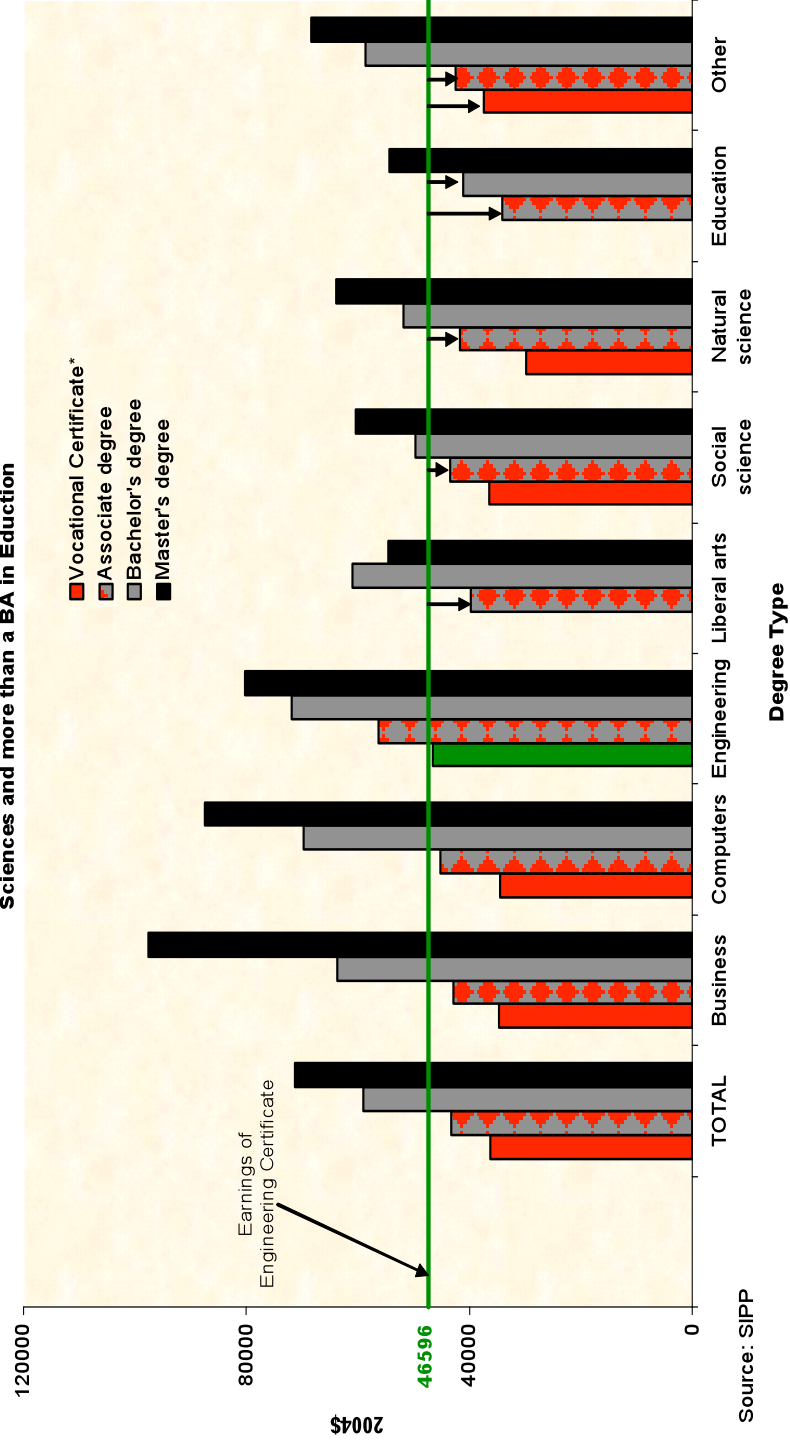
It's a route more and more Michigianians will need to follow. Two out of three jobs in the state will require some post-high school education by 2018, according to the Center on Education and the Workforce at Georgetown University in Washington, D.C.

A study conducted for the Charles Stewart Mott Foundation found that workers with a vocational certificate earned an average of 18 percent more than those with a high school diploma; were more likely to be employed and stay employed; and more likely to hold jobs that include benefits such as health insurance.

"People with a high school diploma won't necessarily make a living wage," said Jack Litzenberg, senior program officer for the Flint-based Mott Foundation. "If people can walk away with a credential, that's workforce development."

# Certificates can lead to family-sustaining earnings

Sometimes Certificates are more valuable than AAs or even BAs  
 a Certificate in Engineering earns more than an AA in the Liberal Arts, Education and Social and Natural Sciences and more than a BA in Education



# LAW DEGREE PROVES COSTLY BARGAIN

By Ron French, Bridge Magazine

It's been six years since Andrew Rockafellow earned a law degree from Cooley Law School in Lansing. He'll be lucky to earn \$20,000 this year, with no health-care benefits. For those doing the math, Rockafellow's \$100,000 law degree is the equivalent of five years' pay. By comparison, those graduating with a one-year Cisco certification at Lansing Community College can earn more than \$75,000 a year on an approximately \$10,000 investment – the equivalent of seven *weeks'* pay.

"In retrospect, I should have done a physician's assistant class, instead," Rockafellow said.

A Bridge Magazine analysis of job projections through 2018 suggests that not all education has the same return on investment. The state produces more teachers than it needs, as well as too many communications majors. But the biggest mismatch is in the legal profession. State universities produce more than double the number of lawyers each year to fill the expected openings.

Some students come to Michigan's schools to obtain law degrees and never intend to look for work here. But the 38-year-old's experience indicates that there are more lawyers than lawsuits to keep them busy.

Rockafellow left a comfortable job with the state making \$60,000 a year to pursue a law career. He hasn't started paying back the \$100,000 in student loans he took out to go to law school, and he owes another \$20,000 for his bachelor's degree. Next February, Rockafellow must start making payments on his student loans. The payments: \$850 a month – about half of his total earnings.

Without health-care coverage through his work as an attorney, Rockafellow must buy insurance on the private market. "I spend more on health insurance per month than my mortgage," he said.

Not everyone who gets a law degree plans to work as an attorney, said Ann Vrooman, director of research and development for the State Bar of Michigan. Some work in government, academia or for nonprofits. Still, Vrooman said the Bar's own surveys show an increase in unemployed lawyers, more casualties of the state's lackluster economy.

Rockafellow is sticking with law for now, believing that hard work for little money today will pay off in the end.

"My return on investment is not what I expected when I left law school," said Rockafellow. "I graduated with honors and I couldn't buy an interview in the state. The legal field is so saturated."