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# ATTRACTING & RETAINING THE BEST TALENT TO MICHIGAN

An Overview of College Migration Patterns  
at Michigan Public Universities



*The Partnership for Economic Progress, a collaborative initiative of  
the Michigan Economic Development Corporation and the Presidents Council, State Universities of Michigan*

■ ■ ■ FOREWORD

Michigan's economy continues to diversify as more and more information technology, life science and advanced manufacturing firms expand or locate in our great state. Traditional industry sectors are also diversifying the work they do and employ more engineers, scientists and information technology workers than ever before. From 1991 to 1999, the metropolitan Detroit area had one of the fastest growing high-tech employment growth rates in the U.S.

### Cities Ranked by Absolute Job Growth

MSA/PMSA	High Tech Jobs, 1997 (000)	Absolute Job Growth, 1991-99
Atlanta	151.1	642.4
Chicago	347.1	528.0
Phoenix	116.0	515.5
Dallas	197.9	484.5
Houston	162.5	392.9
Washington, DC	321.6	337.3
Minneapolis-St. Paul	162.6	318.5
Tampa-St. Petersburg	73.2	299.0
<b>Detroit</b>	<b>138.8</b>	<b>295.7</b>
Las Vegas	23.1	292.1
Denver	94.5	286.3
Orlando	43.6	280.4
New York	250.3	277.6
Boston	281.5	262.6
Seattle	174.9	257.8
Austin	75.7	230.5
Portland, OR	77.7	218.8
Philadelphia	222.5	216.0
Riverside-San Bernardino	32.7	214.8
Orange County	152.4	201.5
Charlotte	61.3	200.0
Salt Lake City	60.6	196.7
Raleigh-Durham	69.0	195.4
San Diego	112.7	187.6
Kansas City	61.8	183.4
Fort Worth	54.6	171.1
San Antonio	28.1	170.4
Nashville	27.4	164.7
San Jose	289.1	163.0
Columbus, OH	53.7	157.6

Source: Computed by Dai Yamamoto and Greg Schrock, Project on Regional and Industrial Economics, from 1997 Economic Census, BLS Current Employment Statistics

FIG. 1

## National High-Tech Industry Employment Trends, 1991-2001

Industry	Empl.Growth (%)
Total Non-farm Employment	22.1
Computer and Data Processing Services	156.7
Management and PR Services	87.8
Engineering, Architecture, Surveying Svcs	36.0
Other Services	35.9
Drugs	29.4
Communications	27.3
Electronic Components and Accessories	21.6
Research and Testing Services	15.4
Surgical and Medical Instruments	13.9
Special Industrial Machinery	8.0
Communications Equipment	6.2
Holding Offices	0.5
Measuring and Controlling Devices	-5.0
Engines and Turbines	-5.0
Life Insurance	-15.4
Computer and Office Machinery	-15.5
Plastics Materials and Synthetics	-20.0
Combination Utility Services	-22.3
Industrial Inorganic Chemicals	-22.8
Photographic Equipment	-29.8
Cigarettes	-32.3
Aircraft	-33.1
Petroleum/Natural Gas	-34.6
Search Detection Navigation Equipment	-40.8
Ordinance and Accessories	-47.2
Guided Missiles	-50.1

Source: BLS, Current Employment Statistics. Figures based on March data.

FIG. 2

As the 21ST century unfolds, the importance of expanding Michigan's technically talented workforce has risen exponentially. Thousands of new technical jobs have been created as documented by the Bureau of Labor Statistics (see Figure 1 and Figure 2). To sustain this growth, Michigan's ability to retain and attract talented workers must continue to be improved. While the dot.com fallout and corresponding economic slowdown has eased many of the workforce pressures facing Michigan companies, the problem of attracting skilled workers to the state remains a key long-term competitiveness issue—one that will only intensify as the economy continues to rebound.

■ ■ ■ BACKGROUND / SUMMARY

In the past decade, the general population of the state has risen by roughly 7%—currently standing at approximately 10 million Michigan residents. Not surprisingly, the population for those aged 15 to 19 also rose during this period. However, the population for those between the ages of 20 and 24 fell by nearly 9%. For those 25 to 34, population actually fell by some 14%. These trends are, in part, a reflection of birth rates during the late 60’s and 70’s. But regardless of cause, the state’s overall work-aged population is aging and there is a long-term worker shortage problem percolating.

### 1990 vs 2000 Michigan Demographics

	1990	2000	% Change
General Population	9,295,297	9,938,444	6.92
15 to 19 years	696,803	719,667	3.28
20 to 24 years	705,318	643,639	-8.74
25 to 34 years	1,574,553	1,362,171	-13.49
35 to 44 years	1,406,149	1,598,373	13.67
45 to 54 years	948,119	1,367,939	44.28
55-over	1,903,184	2,082,057	9.40
15 to 54 years	5,330,942	5,691,789	6.77

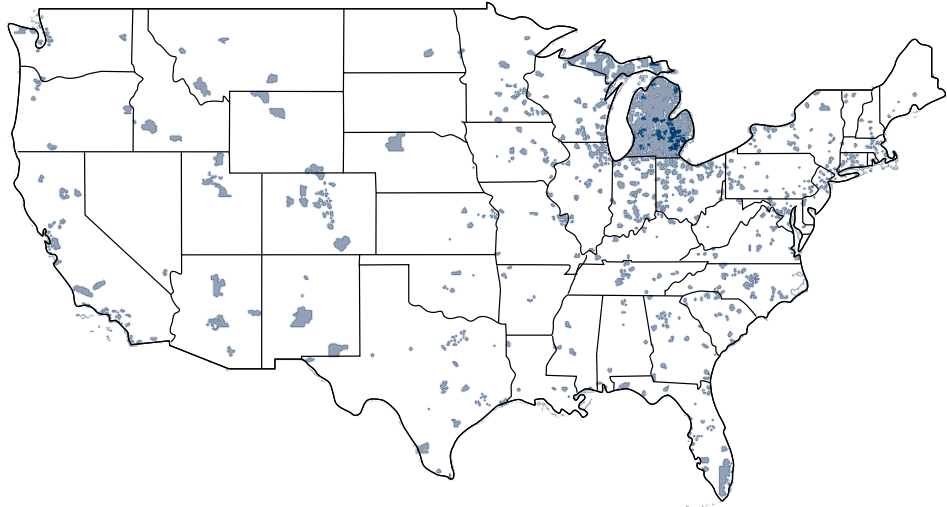
Source: U.S. Census

Over the past several years, businesses reported that they were having difficulty in finding skilled workers for high-tech positions. Anecdotal stories indicated that our college graduates in high-tech fields have been leaving Michigan in significant numbers, taking jobs in other states.

In an attempt to better understand some of the factors behind these shifts and to better focus state marketing efforts targeted at technically skilled young people, the Michigan Economic Development Corporation (MEDC) and the Presidents Council, State Universities of Michigan conducted a survey and charted the migration patterns of recent Michigan graduates. The study tracked the patterns of some 30,000, life science, information technology and engineering graduates from 1997 through 2000. A corresponding 800 person random survey of students of those fields was also conducted.

■ TECHNICAL SKILLED GRADUATE MIGRATION

(Michigan Universities' Graduates from 1997-2000)



Source: Michigan Economic Development Corporation

■ SUMMARY OF MIGRATION PATTERNS & SURVEY RESULTS

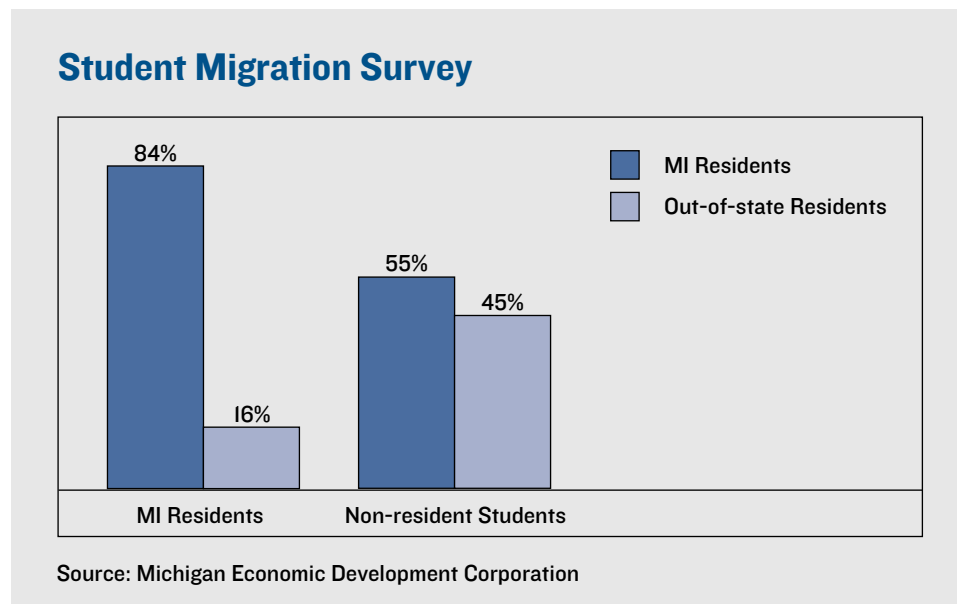
Results of the survey indicate that in the fields of life sciences, information technology, and engineering, Michigan does well in retaining 79% of those graduates who have gone on to work in high-tech jobs. Even more noteworthy is data showing that 55% of students in these fields who come to a Michigan public university from out-of-state remain here to work after graduation.

Almost half of all survey respondents live within a 30-mile radius of the communities of Detroit and Ann Arbor.

Graduates that choose to accept an out-of-state job do so primarily because of better job opportunities and better salaries — not a dislike of Michigan. 53% left because of a “better job or better opportunity.” 11% moved out-of-state to be closer to friends and family. 7% left to get away from the cold/bad weather and 4% cited the lack of social/cultural life. In fact, nearly half of those choosing to live elsewhere are open to relocating back to the state.

## ■ ■ ■ SUMMARY / CONCLUSION

Little data on college graduate migration has been collected over time. However, our findings are supported by a report conducted by the Southern Technology Council. This 1998 study utilized National Science Foundation data from the entire country, measuring patterns for all students. The study indicated that Michigan retains between 67% – 84% of its technical graduates. Based on anecdotal evidence noted above, there was some belief that technically skilled graduate out-migration might be higher in Michigan. Both the Southern Technology Council report and our findings demonstrate that this is not, in fact, the case. Michigan is successful in keeping its highly skilled graduates. Michigan is one of only eleven states (including California, Texas, Illinois, Minnesota, New Jersey, North Carolina and South Carolina) that can claim this high of a retention rate. At the same time, Michigan ranks near the bottom nationally in terms of the number of out-of-state graduates that migrate into the state. (Those states previously mentioned all attract higher rates of graduates from other states in addition to the high percentages of graduates they retain.)



## ■ CONCLUSION

The fact that Michigan retains a high percentage of technically skilled Michigan college graduates — whether they begin as residents of the state or come from another place — is very good news. This finding also holds implications for strategies to attract skilled workers.

<sup>1</sup> *Where Have All the Students Gone? Interstate Migration of Recent Science and Engineering Graduates, A Benchmarking Report of the Southern Technology Council, a Division of the Southern Growth Policy Board, February 1998.*

## ■ R E C O M M E N D A T I O N S

■ As our economy continues to diversify, Michigan must continue to connect to students in other states in life sciences, information technology and engineering to educate them about the opportunities available in Michigan.

The Michigan Economic Development Corporation has begun a recruitment program, visiting selected university job fairs in Michigan and other Midwest states, to encourage graduating students in high-tech disciplines to seek employment in Michigan. Report findings validate continuing in-state presence at Michigan universities to retain technical talent and shifting resources toward out-of-state marketing efforts to students graduating in technical fields.

■ Michigan must track these migration patterns regularly and structure its attraction strategy based on any shifts in the patterns.

The Partnership for Economic Progress will implement a process to monitor migration patterns for high-tech graduates on a regular basis.

■ In order to encourage our own students to pursue highly skilled careers, Michigan must continue its work with pre-college and college students to educate them about both educational opportunities in the state, as well as job opportunities in Michigan's economy.

The Michigan Department of Career Development should continue its work with pre-college and college students on choosing career paths.

■ To improve the in-migration of younger people into the state (given the high 55% retention rate of out-of-state students), Michigan should build a strategy to attract more out-of-state students to attend universities in Michigan.

The Partnership for Economic Progress will develop and implement a strategy to attract students from out of the state.

■ Michigan should build a "State of Michigan Alumni" strategy to attract those workers who would consider returning to the state.

The Michigan Economic Development Corporation is currently in process of developing this concept.

■ Michigan should continue its national efforts to communicate Michigan's role as a high-tech state and the opportunities for employment here.

As part of its operational plan, the Michigan Economic Development Corporation has designed and implemented major national marketing plans that brand Michigan as an attractive location for both people and businesses to live, and advertise Michigan's advantages to high-tech businesses.



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