

# Migration and Retention of Recent Science and Engineering Graduates

Michigan's total labor force has grown by over 13% since 1990, ranking it in the middle of the benchmark states and 23<sup>RD</sup> among all fifty states. However, Michigan's younger population (aged 25–34) fell by over 13% during the same decade (ranking Michigan 30<sup>TH</sup>). This reflects the national trend of low birth rates during the late-1960s and 1970s, as well as the national trend of young adults moving to southern and western states. The following chart, taken from a recent MEDC study, shows how dramatic this effect is in the urban centers of the Midwest, compared to urban centers in some of the benchmark states.

SRI data show Michigan performs better in retaining its recent science and engineering graduates than in attracting science and engineering graduates from out-of-state. Michigan retains 67% to 84% of its recent science and engineering graduates. However, it ranks in the bottom half among its competitive peers (and among the third quartile nationwide) in interstate migration of recent science and engineering graduates. Results from an MEDC survey of Michigan's recent graduates indicated that in the fields of life sciences, information technology and engineering, Michigan retains 79% of those graduates who have gone on to work in high-tech jobs. More importantly, the survey also found that 55% of students in these fields who originated from out-of-state stayed in Michigan to work after

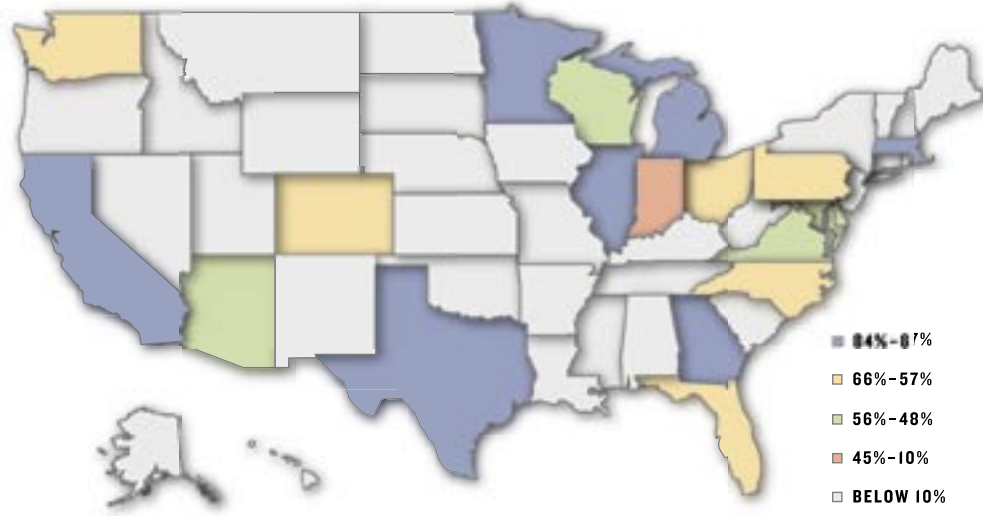
graduation. The majority of students who leave the state primarily do so because of better job opportunities and better salaries. Since Michigan does a good job of retaining its out-of-state college graduates, but has difficulty attracting out-of-state workers, a strategy of focusing on drawing more out-of-state students to attend college in Michigan may help in strengthening the state's science and engineering workforce.

Students and parents have misperceptions regarding the skill needs of today's economy. A way to combat these misperceptions is to have available current, up-to-date, customer friendly information about the new economy and the changing nature of the labor force. Students and parents are interested in information that is local rather than global. Current and accurate labor market information is critical to support efforts to recruit students to programs.

Improving urban communities and making them more vibrant, can help attract graduates and young professionals. MEDC recruiters, promoting Michigan to college students, know that graduates are drawn by jobs and secondly by lifestyle issues.

**RETENTION INDEX: PERCENT OF S&E GRADUATES WORKING IN STATE**

1998



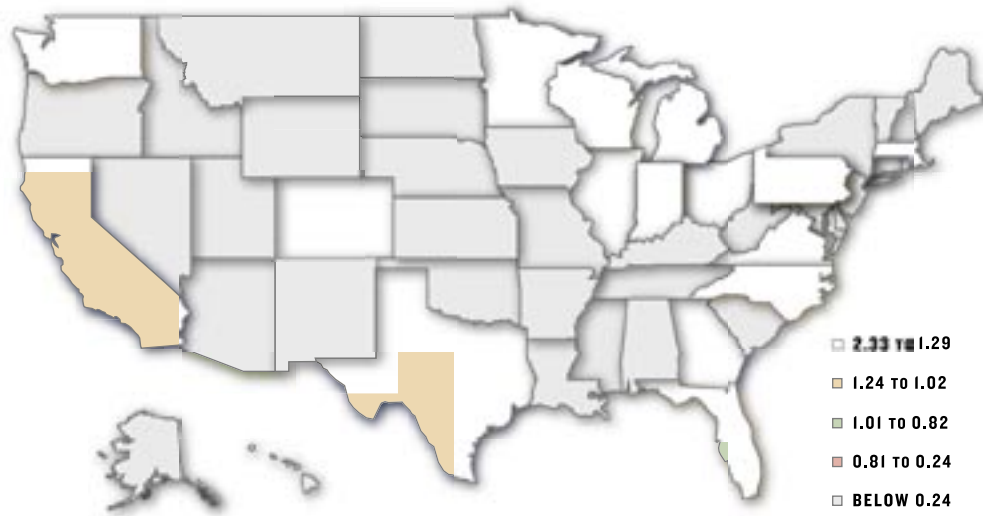
ALASKA

HAWAII

SOURCE: SOUTHERN TECHNOLOGY COUNCIL AND NATIONAL SCIENCE FOUNDATION

**MIGRATION INDEX: RATIO OF S&E GRADUATES WORKING IN STATE TO S&E GRADUATES PRODUCED IN STATE**

1998



ALASKA

HAWAII

SOURCE: SOUTHERN TECHNOLOGY COUNCIL AND NATIONAL SCIENCE FOUNDATION

## RECOMMENDATIONS

- Continue efforts to retain in-state and enhance efforts to attract out-of-state students and graduates in the following ways:
  - Focus on attracting students to high-tech programs in order to fill the worker shortage in high-tech fields. Structure a connection between student recruitment and current labor market information in order to improve our ability to forecast future labor market needs. Explore a possible role for businesses.
  - Benchmark the current capacity of Michigan community college and university technical programs and explore ways to expand capacity if needed.
  - Encourage and cooperate with Michigan's universities on the development and implementation of an initiative to recruit out-of-state students for technical degree programs while maintaining the current level of in-state students.
- Analyze the cost and availability of admission to Michigan universities for both in-state and out-of-state students as compared to other states to determine if there are abnormal disincentives in attracting out-of-state students.
- Implement the recommendations outlined in the MEDC's Michigan Urban Agenda for livable cities to attract recent graduates/young professionals to Michigan's cities and urban areas.
- In order to attract in-state and out-of-state college graduates to Michigan, continue marketing and public relation activities to promote Michigan universities, companies and available jobs. Marketing efforts for recruiting should also include better coordination between MEDC, MDCD, and Michigan colleges and universities. Campaigns should be coordinated to ensure consistent message and brand. Resources should be combined to ensure maximum impact and exposure and research results should be shared.