COLLEGE AND WORKFORCE TRAINING READINESS

The Future Workforce of Michigan

Michigan's labor force and economy are strengthened when the state's high school graduates are prepared for college and are interested in pursuing available jobs in Michigan. Academic preparation is critical, given that many of the projected high growth job openings in Michigan will require a 2-year college degree or more. In Michigan, five of the expected highest growth career fields will be management, education, engineering, health care, and computer specialties. Do Michigan's future workers have the necessary skills to fill positions in these high-growth careers? Are Michigan's future workers interested in jobs in these fields?

Using 2008 ACT results for 84,452 Michigan high school graduates with career interest information, and 2004-2014 Michigan state long-term occupational projections (based on job growth and job replacement), here is what we know so far.

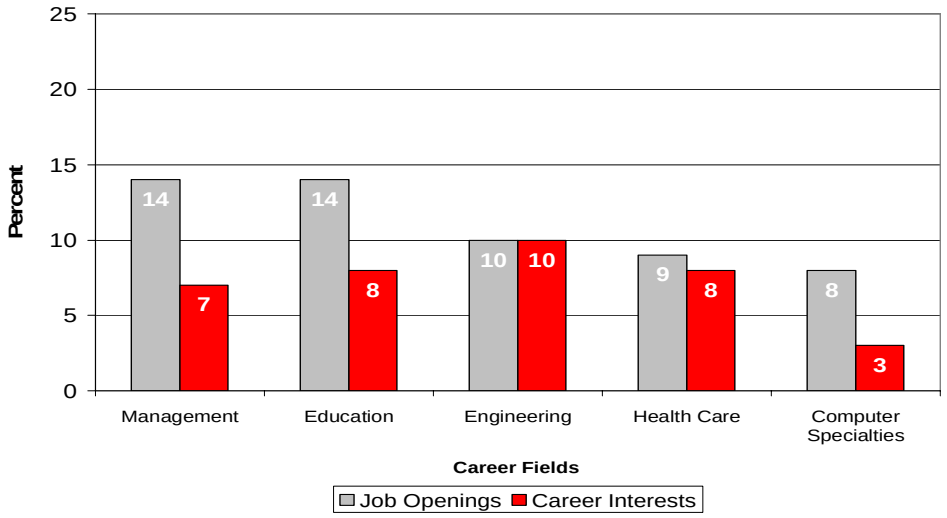
- There is some interest among Michigan high school students in pursuing these high-growth career fields, but not enough to meet the demand.
- Of Michigan students expressing interest in many of these high-growth career fields, more than one-half are ready for first-year college English courses, while less than one-half are prepared for college-level social science courses.
- Of Michigan students expressing interest in many of these high-growth career fields, less than one-third are ready for college-level math or science courses.

Michigan educators should continue to encourage their students to pursue high-growth Michigan career fields.

Students' Interests

- Gaps between expected jobs and interested students are apparent for careers in management (convention planners, hotel/restaurant managers, etc.), education (secondary teachers, administrators, etc.), health care (nurses, occupational therapists, etc.), and computer specialties (computer programmers, database administrators, etc.), with more jobs expected than students interested in jobs in these fields (Figure 1). Michigan may be faced with potential labor shortfalls in fields where skilled individuals are most needed.

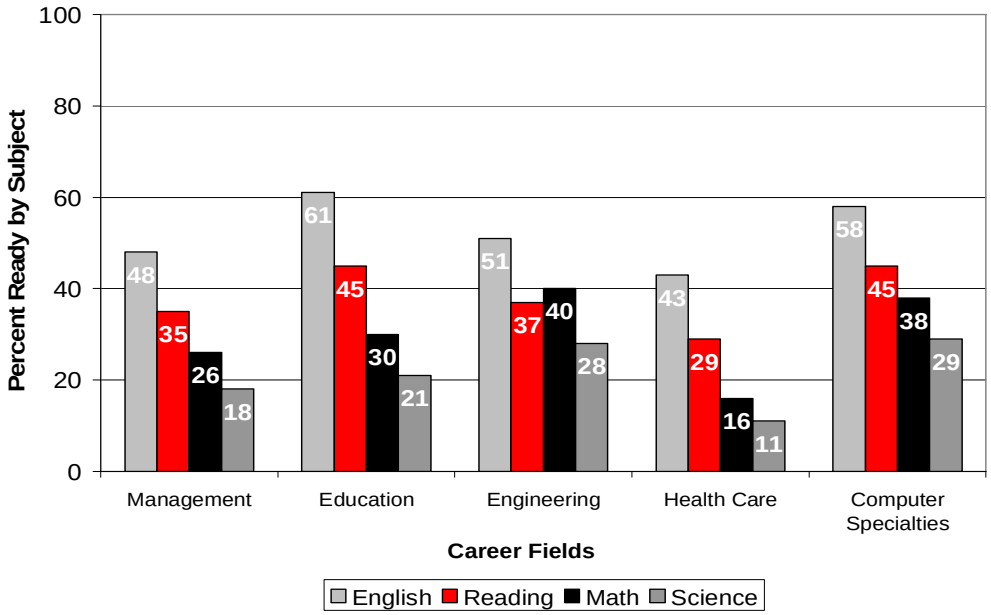
Figure 1: Projected Annual Job Openings and Michigan High School Students' Interests in High Growth Michigan Career Fields[1, 2]



[1]State projections 2004-2014 provided by Michigan Department of Labor and Economic Growth.
[2]Based on 2008 ACT-tested Michigan students (*n* = 84,452) with valid career information.

- It appears that there is no gap between students interested in the engineering field (architects, mechanical engineers, etc.), and the jobs that will be available in this field, but many of these students are not ready to meet or exceed one or more of ACT's College Readiness Benchmarks in English, reading, mathematics, or science, as shown in Figure 2. Students who are interested and college ready are more likely to be successful in the coursework needed to enter this high-growth career field.

Figure 2: ACT College Readiness Benchmark Performance of Michigan High School Students Interested in High Growth Michigan Career Fields by Subject[3]



[3]Based on 2008 ACT-tested Michigan students (*n* = 84,452) with valid subject scores and career information.

Michigan educators should continue to encourage their students to achieve the highest level of preparation for college, in order to meet Michigan Workforce demands.

Students' Skills

- Students are ready to succeed in entry-level college courses if they meet ACT's College Readiness Benchmarks. In Michigan, more than one-half of students are prepared for first-year college coursework in English for three of the five high-growth career fields. Fewer students interested in these high-growth fields are prepared to succeed in college-level social science courses (indicated by ACT Reading Benchmark), with students pursuing health care careers being the least prepared and students pursuing education and computer specialties careers being the most prepared.
- Less than one-half of students wanting to enter computer specialties and engineering are ready for college-level math courses, while less than one-third of these students are ready for college-level science. Less than one-third of students pursuing careers in management, education, and health care are ready for college-level math or science.
- Overall, the pattern of readiness for college coursework is similar across the five high-growth career fields: Student preparation is highest for English and social sciences, and much lower for math and science. The lower levels of preparation among graduating high school students is alarming, given the high demand for science- and math-intensive careers such as nursing, pharmacy, and teaching.