Chapter Summary

Keeping Illinois competitive requires a highly-skilled STEM workforce with higher levels of education. The enrollment rate of Illinois high school graduates entering directly into college is 57%, the same as for the U.S. Over the next 6 years, slightly more Illinois students (58%) will complete 4-year degrees than found nationally (55%).

In 2004, Illinois colleges and universities granted over 10,000 bachelor and higher degrees in computer and information science, engineering, and mathematics. Over half of the master and doctoral degrees were granted to non-residents. Although data is not yet available, contemporary anecdotal evidence suggests that the non-resident graduate students are more likely than formerly to look for jobs in their home countries as economic opportunities increase, especially in India and China.

From 1994 to 2004, the number of students in Illinois colleges and universities increased with a significant increase in the Hispanic population and a decrease in the black population. Even though the proportion of black and Hispanic students who select a STEM major is similar to their white and Asian peers, fewer complete degrees within six years. The black and Hispanic students, compared to their white and Asian peers, have a high dropout rate after the third year of college. The factors linked to not completing degrees are often related to the low-income status of many of the black and Hispanic students: inadequate preparation because of less rigorous high school curricula, parents without college degrees, and a need to work to support themselves and their families.

The challenges for Illinois are to find ways to overcome the barriers faced by low-income students and prevent a brain drain of the STEM workers.

Only slightly more than one-fourth of all college degrees awarded in Illinois is in a STEM field.

Over 60% of the graduate engineering degrees and half of the computer science and mathematics degrees are earned by non-residents.