Executive Summary

Many studies have shown that immigration helps cities improve economically, socially and culturally. In 2012, St. Louis had the lowest immigration share of a top 20 US city. The other top 20 metros in the US averaged 40% faster economic growth compared to St. Louis during the past decade. (Strauss, Tranel, & Caddel, 2013) Saint Louis Mosaic’s goal is for St. Louis to be the fastest growing U.S. metropolitan area for immigration by the year 2020.

The scope of this project consists of determining the gap of unfilled STEM jobs in the St. Louis region, determining the number of STEM international students in the St. Louis Metropolitan area and Missouri S&T and make recommendations of top action items for STL Mosaic to take in order to close the STEM Gap.

Key Findings:

- There are 17,833 STEM job postings in the last 12 months.
- Most job openings are Math and Computer Related Fields, Mechanical Engineering and Electrical Engineering.
- Technical skills in most demand for the STEM job postings are SQL, Project Management, and Oracle.
- Non-technical “Soft” skills in most demand for the STEM job postings are communication, writing, and problem solving.
- There are 3000 STEM international students in the region, including Missouri S&T.
- The highest numbers of students are in the Electrical Engineering, Computer Engineering, Geophysics-Geological & Petroleum Engineering and Mechanical Engineering fields.
- Washington University and Missouri S&T have the largest population of international STEM students.
- In a survey that was sent to SLU to all undergraduate and graduate international students, 37% of the students were not familiar with the OPT hiring process and 51.5% were not familiar with the OPT process and not aware of the 24 month OPT extension. The graduate students were more informed than the undergraduate students. (9% response rate)

- Of the students surveyed, 35.7% indicted that they may consider switching majors had they known about the OPT extension earlier in their college career.

Recommendations:

- STL Mosaic should narrow their focus to STEM international students, who have two more opportunities to participate in the H-1B visa lottery via the OPT extension than the non-STEM international students, which makes it easier for employers who wish to hire international students.

- Early intervention with international students to provide information on CPT, OPT and STEM OPT extension.

- Coordinate seminars for international students focusing on career planning, networking, and communication skills.

- Host a STEM international student career fair to allow students more time with recruiters than they would have at traditional student career fairs held at their local universities.