In 2016, a higher education task force of St. Louis Graduates (STLG), a collaborative network whose mission is to increase degree completion for low-income students, first-generation students, and students of color1 from St. Louis, commissioned this study from the Illinois Education Research Council (IERC). Through discussion, the following goals were established for this project: (a) identify those higher education institutions that are more successful in supporting and graduating underrepresented students from the St. Louis region, and (b) determine the strategies that institutions are using to graduate underrepresented students with less debt.

The higher education landscape is becoming increasingly more adverse for students of color, first-generation students, and low-income students. Postsecondary enrollment and completion rates for traditionally underrepresented populations continue to be disproportionately lower than for their more advantaged peers (Chen & Carroll, 2005; Nunez & Cuccaro-Alamin, 1998; Yeado, 2013). Overall, completion rates have stagnated with 39% of 4-year and 31% of 2-year students graduating on-time (Institute of Education Sciences, 2015). College affordability, or lack thereof, is cited as the primary reason students are not able to complete their degrees (Davenport, 2013).

In this context, we undertook this study to determine successful college completion strategies for low-income students, first-generation students, and students of color. Our ultimate aim was to identify practices for graduating underrepresented students with less debt and to share those strategies and practices with other institutions. This could ultimately create a network of colleges and universities using evidence-based strategies for affordable college completion for underrepresented students.

Methods

With feedback from the STLG Task Force, we developed a success metric based on the median student debt at graduation and 6-year actual versus predicted graduation rates for institutions with similar contexts. This metric was used to rank twenty 4-year institutions where St. Louis high school graduates attend college in Missouri and Illinois.2 The STLG Task Force additionally created minimum thresholds for the percentage

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1 Low-income students, first-generation students and students of color together are referred to as underrepresented students.

2 The 20 institutions, identified by the STLG Task Force, are listed in the full report.
of low-income students served (i.e., at least 25% Pell recipients) and 6-year graduation rates (i.e., at least 50% overall). Some institutions were omitted for falling below the thresholds, most notably the percentage of students receiving Pell grants, even though they may be successfully awarding degrees to underrepresented students.

The five highest ranking institutions based on the Success Formula (see Appendix in full report) identified as graduating underrepresented students with less debt in alphabetical order were: Maryville University, Missouri State University – Springfield (MSU), Southeast Missouri State University (SEMO), University of Central Missouri (UCM), and Webster University.

In the second phase of the study, 3-5 administrators and a focus group of 4-8 underrepresented students from each of the five identified institutions were interviewed with the goal of determining successful practices and strategies to help underrepresented students graduate in six years or less with lower debt. All interviews were semi-structured, with follow-up questions determined during the interview to ascertain in-depth information on the administrators’ and students’ perspectives of those strategies and practices that were most helpful. Using a constant comparative method (Glaser, 1992), we developed a model of the strategies and practices these institutions employed and how they used them to achieve higher graduation rates with less debt. Two separate analyses were conducted. First, we developed a series of institutional profiles that described the practices and strategies employed within each of the institutions, limiting these to the top four to six themes that emerged (see Institutional Profiles in full report). Second, we compared a broader listing of practices and strategies used across the institutions, which were derived from researcher notes, transcripts, and additional documentation, to develop a set of converging themes across the institutions.

Converging Themes

Five themes emerged from the qualitative interview data that describe the practices or strategies that supported underrepresented minority students to graduation with less debt. Two of the five themes reflected the overall organizational culture of the university. One of these themes was University Leadership and it was apparent that much of the underlying programs/initiatives, aspirational goals, and emphases would not be possible without strong university leadership. Another overarching organizational theme was a Coordinated and Caring Community. As students leave home to go to college, many for the first time, they made connections with staff and faculty, which helped them transition to the university environment. Administrators were making intentional efforts to coordinate student support across departments to provide caring and coordinated support. The other three themes that emerged from the data were Early College Experiences, Flexible and Sufficient Financial Aid, and Just-in-Time Academic Supports.

University Leadership

Regarding university leadership, there were three sub-themes that helped explain how these institutions support successful degree attainment for underrepresented students: (a) university investment; (b) goal setting and strategy development; and (c) engagement with multicultural students.
University Investment

There are multiple ways universities can invest in efforts to recruit and then support underrepresented students. Types of investment which surfaced in our study were personnel investment, scholarship investment, initiative investment, and investments in facilities and physical resources.

Personnel investment. The identified universities were investing in higher-level positions to elevate minority hires and champion initiatives that showcased successful minority student experiences, such as a new position for an Associate Vice President of Diversity and Inclusion and Senior Director of Community Engagement at Webster University and a new position for an Assistant Vice Provost for Enrollment Management at UCM to coordinate efforts to increase student retention. Universities were also investing in more diverse faculty and professional staff. This commitment to developing a diverse faculty and staff workforce conveys the importance of diversity to the campus community.

Scholarship investment. In order to secure funds for multicultural and first-generation scholarships, universities prioritize this focus in their capital campaigns and development efforts. There were also two notable instances of personal presidential investment that surfaced in the interviews. President Smart at MSU donated $25,000 of his own funds to create the first-generation student scholarships program. Further, President Mark Lombardi at Maryville University impressively donated $500,000 of his own funds for diversity scholarships. These personal investments were sizeable and clearly signal the importance of these scholarship programs to the university community, as well as to incoming and potential students.

Initiative investment. There were multiple examples of universities investing in initiatives to benefit underrepresented students. Typically, these were investments to increase the size of a scholarship program or a mentoring program that was already successful - in terms of retention or graduation rates.

Facilities and physical resources investment. The University of Central Missouri recently invested in a new multicultural center that houses all diversity-related student organizations. An investment in space that students can use for their organizations and other activities is another way of showing support for underrepresented students.

Goal Setting and Strategy Development

Strategic plans. The mission, vision, and strategic plans set by leadership of the university are of paramount importance in signaling the institution’s direction for the next 5-10 years. Several of the interviewed administrators referred back to the university strategic plans and were aware of the plans’ references to access, diversity, equity, and inclusion. Additionally, university leaders set the tone to develop yearly action plans that elevated certain initiatives to support underrepresented students. Missouri State University adopted an inclusive excellence change model to “systematically leverage diversity for student learning and institutional excellence” (Williams, Berger, & McClendon, 2005, p. v). In another example, Maryville University has moved to create a more student-centered environment by easing the bureaucratic restrictions for students.

Task forces. Campus leaders also elevated certain topics through the establishment of task forces that regularly meet around a topic to make recommendations to enact certain policies or practices. At SEMO, the President’s Task Force on Diversity Education was created to address campus unrest following the shooting of Michael Brown in Ferguson, MO. Several preliminary recommendations were made by this task force for developing college-level diversity action plans and increasing the cultural competence of the campus community.

Professional development. Interviewees at the majority of the studied universities mentioned professional development for training faculty and staff on inclusion and equity issues. As the protests following the Ferguson shooting and subsequent campus unrest at the University of Missouri spilled over to other campuses, including MSU, some faculty felt underprepared to discuss these issues with students. Missouri State University offered
training to faculty to help them feel more equipped to discuss such sensitive topics.

**Engagement with Multicultural Students**

On most of the campuses we visited, students expressed a strong connection with their campus presidents. University presidents connected with students through student organization meetings or planned events with students, e.g., *Diversity Dialogues* at Maryville University or *Learning Walks* at UCM, as well as through informal conversations at sporting events or other campus activities. It appeared as though student interactions with their campus presidents led students to be more enthusiastic and promoted a stronger bond with their university.

**Coordinated and Caring Community**

Our study revealed that campuses are embracing research-based practices such as providing a welcoming atmosphere for underrepresented student populations. Sub-themes which emerged within this area include (a) a family approach; (b) caring means believing in students; (c) wrap-around supports; and (d) coordination of care.

**A Family Approach**

Students often referred to staff in the academic support centers (or Student Support Services and Diversity and Inclusion offices) as family. Students on these campuses also gave examples of how they had easy access to their professors and how professors supported their success outside of the classroom, such as helping an ESL student learn English better during her freshmen year at Maryville University.

**Caring Means Believing in Students**

It was clear from our interviews that students were motivated by the confidence that the staff and faculty had in them. Students at all studied institutions said that they appreciated the support from the Diversity and Inclusion, and TRIO office. Some students emphasized the impact of these offices on their lives.

Peer mentors were employed at several institutions to help meet the academic needs of students, but also to serve as role models and provide supportive assistance. Students seemed to appreciate having peer role models who understood their struggles first-hand.

**Wrap-Around Supports**

Staff at the studied institutions recognized the importance of providing holistic support to students and attending to their academic and emotional/psychological needs in real-time. Therefore, universities have instituted around the clock student supports. Examples include student academic resource coaches at UCM who are placed in the residence halls and are trained to direct students to needed resources at any time; and Maryville University’s new life coaches, who are responsive to students 24/7, to provide additional support to all students, particularly underrepresented minority students.

**Coordination of Care**

Universities house many student support offices and it can be difficult for students to navigate the university bureaucracy. For institutions striving to increase student engagement and learning, one of the key concepts that multiple universities employed was to create seamless integration among student service offices. At UCM, we found a strong effort to coordinate services and share data across offices, to minimize duplication, and to break down inter-office silos so that students receive consistent messages.

**Early College Experiences**

Supports provided during the summer after graduation and first year of college can have a positive impact on underrepresented students’ success. Our study identified three early college experiences that contributed to the success of underrepresented students: (a) summer bridge programs, (b) orientation programs, and (c) first-year programming. Strategies for providing early college support range from academic preparation to more

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3 The TRIO programs funded under the Higher Education Act include Upward Bound, the Upward Bound Math/Science, Student Support Services, Talent Search, Educational Opportunity Centers, and the McNair Scholars program.
psychosocial supports that create clear pathways for success, help students adjust to college, and develop appropriate habits (Engle & Tinto, 2008; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Venezia & Jaeger, 2013).

**Summer Bridge Programs**

Summer bridge programs between high school graduation and the beginning of college are often targeted toward students identified as needing additional support transitioning to college academically, financially, and socially (Kezar, 2000; Sablan, 2014). Webster University offers the Transitions & Academic Prep (TAP) program, an extensive summer bridge program designed to help conditionally admitted students learn to navigate campus. The latest data from this program show that retention for TAP students is higher (85%) than for regularly admitted students (79%; Stroble, 2015).

**Orientation Programs**

Orientation programs are widespread and generally geared toward all incoming freshmen to help prepare them to transition to college. However, some orientation programs, such as SEMO’s Academic Support Center Transition Camp, were specifically tailored for first-generation and low-income students, emphasizing skills these students need to be successful. Students at SEMO cited these early college experiences as some of the most important for transitioning to and assimilating into the university environment.

**First-Year Programming**

Many of the observed early college programs continued throughout the entire first year, offering additional counseling support, introduction to resources for students’ seeking assistance on campus, and social activities. In one example, MSU arranges special sections of their first-year General Education Program (GEP) seminar for first-generation students to introduce these students to “the vocabulary of college.” Focus group students from MSU reported that the guidance provided by GEP professors was especially helpful.

**Flexible and Sufficient Financial Aid**

Financial aid is more important than ever for students to successfully enroll and persist in college. Tuition at public 4-year colleges has more than doubled in the past three decades. Federal Pell grants only cover about 30% of the cost of a 4-year college education; and 68% of graduates from public, and nonprofit colleges in 2015 had student loan debt, averaging $30,100 per borrower (The Institute for College Access & Success, 2016; U.S. Department of Education, 2017). The importance of financial aid and in particular, need-based scholarships, came through very clearly in our interviews, particularly our student interviews. Students in this study often cited their overall financial package as a key determinant of where they attended college. The sub-themes that emerged are: (a) keeping unmet need low; (b) flexibility to adapt to changing circumstances; and (c) financial literacy and knowledge of financial resources.

**Keeping Unmet Need Low**

### Multicultural scholarships and institutional aid.

Recognizing the need both to diversify campuses to reflect the communities they serve and to provide financial support to make college affordable, we found that several college campuses were offering multicultural scholarships that were primarily, but not wholly, based on need. For instance, the Multicultural Scholars program at Maryville University provides students awardees with a half-price tuition waiver and eligibility for the program is based on a campus interview, an essay, and the student’s financial need. In addition, Webster University, Maryville University, and SEMO have grant programs that help address their students’ unmet financial need.

### Keeping tuition and fees modestly priced.

For the public 4-year institutions in the sample, unmet need is kept low in part because tuition is tied to the consumer price index, in accordance with Missouri’s Higher Education Student Funding Act (HESFA). The three public institutions in our sample had an average net tuition and fees growth of 22% from 2009 to 2015 (Galloway, 2016), largely due to the growth of supplementary fees. Nonetheless, a 4-year education in Missouri is still affordable; according to Galloway,
tuition growth rates in Missouri’s institutions are the lowest in the nation since the enactment of HESFA, and in-state undergraduate tuition levels in Missouri are less than the national average.

**Flexibility to Adapt to Changing Circumstances**

When students without secondary resources have family financial emergencies, they are more likely to stop out or drop out than students from more wealthy families. Research on emergency financial aid and persistence in community colleges found that emergency aid helped students remain in college (Geckeler, Beach, Pih, & Yan, 2008). In our study, we found evidence of financial aid nimbleness in the majority of the institutions we visited. Webster University has large-scale reconsiderations of aid awards on a case-by-case basis. Students and administrators in the majority of the studied institutions commented on the importance of flexibility in financial aid policy. In one example, SEMO staff provide emergency funds between $500 and $2,000 for students working closely with the Academic Support Center (ASC) office who have emergency financial need.

**Financial Literacy and Knowledge of Financial Resources**

Financial literacy is critical for students to make good decisions about college and how to finance college. Two of the more well-developed financial literacy programs in the studied institutions were the *Money Talks* program at Webster University, a financial literacy program funded by the Missouri Department of Higher Education, and the *Real L.I.F.E.* financial literacy program at MSU. Both of these institutions have lower average loan default rates than their comparable sector averages, which correlates with their implementation of the financial literacy programs.

**Just-in-Time Academic Supports**

Academic Support Centers and Divisions of Student Success that provide academic support as needed are an integral part of most college campuses. These academic supports are both institutionally- and TRIO-funded and are intended to “form a continuum of support for low-income, first-generation, and disabled students that extends from middle school through college” (Engle & Tinto, 2008, p. 7). In addition, the supports students most valued were easy-access supports that provided just-in-time assistance when students most needed help in their classes.

In our study, important topics that surfaced within *Just-in-Time Academic Supports* were: (a) tutoring, writing centers, and supplemental instruction, (b) data-informed supports, (c) game changers, and (d) mentoring programs.

**Tutoring, Supplemental Instruction, and Writing Centers**

In broad-access institutions, such as those investigated in this study, an estimated 30% of students enter college unprepared (Southern Regional Education Board, 2010). Besides taking remedial courses, other initiatives that help entering students get on a level playing field with their more college-ready peers include study skills courses, tutoring services, academic resource centers, and extra help within a lab setting.

Tutoring services was one of the academic supports students from our focus groups appreciated the most. Several institutions employed peer tutors who formerly utilized the tutoring services themselves. Utilizing trained students for tutors provided successful role models for tutees and allowed the institutions to increase their tutoring workforce. Tutees were especially excited that the services were free and were available for almost any class on demand. One particularly extensive program was the *Learning Assistance Program* at SEMO, in which students who request tutoring assistance receive a one-hour appointment that goes beyond tutoring and also helps students with study strategies, effective note-taking, and faculty communication.
Instead of focusing on students who are high risk, supplemental instruction focuses on high-risk courses in which students often struggle, such as college algebra. Also, writing centers provide students assistance with writing assignments from small homework projects to more extensive term papers. For example, Maryville University provides a writing lab where students can meet with peers for help with writing. The center also allows students to submit papers online for peer tutors to review. The interviewed students used and appreciated the support provided from both of these services.

**Data-Informed Supports**

**Learning analytics.** With advanced predictive modeling techniques and the availability of a wide array of student data, postsecondary institutions have moved toward using learning analytics to improve teaching and learning and student supports. Within our sample, the most commonly reported use of data was for early alert systems, in which faculty would contact advising or student support offices when students had early indicators of possible academic problems. This would trigger a meeting with student support staff or, in some cases, a more extensive response.

At the Office of Institutional Research at UCM, data are also being used to develop student pre-enrollment risk profiles and provide as-needed mentoring and outreach support. Their goal is to be proactive, rather than reactive so students get supports early on, before ending up on academic probation or suspension.

**Stratified supports.** Through the First-Generation Targeted Support initiative at SEMO, ASC staff use a multi-tier approach to provide support services based on the student’s GPA and overall academic performance. Such a tailored approach both equips students with needed services and is efficient, in that students are only provided with the services that will help them the most. At UCM, support staff are using data-based risk-profiles to target supports to students most in need.

**Game Changers**

Many of the student academic supports we described fall under the umbrella of Complete College America’s (CCA) Game Changers (CCA, 2013), a list of evidence-based best practices to enhance college completion rates. These include (a) performance funding (initiated at the state level), (b) corequisite remediation, (c) full-time is 15, (d) structured schedules, and (e) guided pathways to success. Our research demonstrates that the studied universities were using at least three of these strategies.

**Corequisite remediation.** Nationwide, 42% of all students and 55% of Pell recipients come to college unprepared in some subject, usually mathematics or English, and need to take non-credit bearing remedial courses. One alternative is corequisite remediation, in which the student enrolls both in the remedial course and in the associated gateway course in the same term. For the past two years, UCM has been using a corequisite program for math and MSU plans to launch a pilot math corequisite program in fall 2017. Students enrolled in the general education math will also be enrolled in a supplemental lab experience and tutoring. Both institutions plan to implement a similar program for English.

**15 to Finish.** Complete College America reports that only half of the students at 4-year institutions are taking 15 or more credits per term, the amount needed to be on-track to graduate in four years without summer session (CCA, 2013). The University of Central Missouri is awarding $1,000 to students who take 15 credit hours each term for four years to incentivize on-time completion. Both the number of hours attempted and completed have increased since the program’s inception.

**Guided Pathways to Success.** One of the most commonly used components of the Guided Pathways to Success model in the studied institutions was intrusive advising, a type of proactive advising in which the advisor monitors the student’s academic progress and holds them accountable. Three of the five universities in this study reported using intrusive advising practices for certain groups of students. At SEMO, students below a 2.75 GPA and receiving First-Generation Targeted Support also receive intrusive advising and academic coaching; at
Limitations

A limitation of this study is the quality and representativeness of publicly available data for identifying institutions that were graduating students with less debt. The primary concern is that the most accurate graduation rates were for cohorts of first-time, full-time entering students, which may have led to underreporting graduation rates, particularly for open-access institutions. Another data limitation is that the downloadable data were a few years old. Our interviews were conducted with administrators with different titles across the universities which may have led to overrepresentation of some administrative offices at some campuses. We recognize that our student focus groups may have not been representative of all the underrepresented students at each institution. Last, we did not do a comprehensive assessment of all of the initiatives/strategies at each university, which was beyond the scope of this study.

Implications for Institutional Practice

These implications highlight the strategies that we believe are applicable in a broad array of institutional settings and, if adopted, would further the persistence and completion of underrepresented students.

Engaged Leadership and Priority Setting

Institutional leadership from the president and other campus leaders can create a welcoming and engaging climate for diverse students, faculty, and staff. A university’s priorities around diversity, inclusion, and equity can be embedded in its strategic plan, and presidents can elevate these issues with action plans, the creation of panels and task forces focused on diversity issues, and investments in personnel, initiatives, and facilities.

Early College Experiences for Smooth Transitions

Many underrepresented students need additional academic preparation and navigational capital to successfully transition to the college environment and persist to graduation. Summer bridge programs and orientation events early in a student’s college experience can help them adjust more quickly and provide supports before they encounter challenges.

Mentoring Programs

Mentoring by faculty/staff was a common initiative within many of the institutions interviewed. Two examples were Webster University’s TAP program, in which staff provide mentoring support to conditionally admitted students, and SEMO's paid student-mentoring program, Academic Support Centers' Mentoring Program, in which students are employed by faculty/staff, who act as their mentors. Peer mentoring is also commonplace on college campuses. Maryville University implements a form of peer mentoring within its Multicultural Scholars program. The University of Central Missouri also has an extensive system of peer mentors known as Academic Resource Coaches.
Creating a Financial Aid System that Works for Students

Keeping college affordable is essential to attracting and retaining low-income students, and disbursing aid based on financial need rather than on merit can have a dramatic effect on retention and graduation rates (Rudick, 2016). The studied institutions helped bridge students’ unmet financial need and provided nimble systems that allowed students to receive additional aid in extenuating circumstances. To address concerns about defaulting on student loans, institutions can implement financial literacy programs that prepare students to make sound decisions about financing their college education.

Implementing Just-in-Time Academic Supports

A robust system of free and widely available academic supports, including tutoring, mentoring, supplemental instruction, and writing labs, can help first-generation students and students from low-income families move ahead. Intrusive advising, incentivizing a 15-credit-hours semester course load, and instituting corequisite remediation programs are “game changers” that can speed on-time completion rates and are gaining popularity on college campuses.

Creating a Coordinated and Caring Community

Investments in initiatives such as freshmen seminars for first-generation students, academic resource coaches in residence halls, and life coaches available for students around the clock could spur strong graduation growth, particularly among underrepresented student populations. Learning analytics is another promising and potentially scalable strategy that can provide tailored supports to benefit more students in need.

State and Federal Policy Implications

State and federal policy also play a large role in fostering the success of underrepresented students. Need-based financial aid can provide an important policy tool to propel completion for low-income students, as well as to promote access and equity. In times of shifting financial aid policies, it benefits higher education institutions to advocate for need-based aid programs.

Many of the practices that led to successful results were funded, at least in part, through federal TRIO programs. If federal funding for TRIO programs were to decrease, it would be worthwhile for states and/or institutions to determine a means to sustain this support, particularly some of the more successful programs (e.g., multi-year multicultural need-based scholarships, peer tutoring, and faculty/staff mentoring programs).

In the current budget context of both Missouri and Illinois, colleges and universities may be forced to scale back programs. We recommend that higher education institutions strongly advocate for full funding of those programs and personnel that are producing good returns for the most marginalized students and to protect these assets from further cuts.
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