Executive Summary

JUNE 2018

Understanding Community College Transfers' Early Academic Momentum and Its Association with Degree Attainment at a Texas Research University

Employing longitudinal transcript analysis, this current study focuses primarily on community college transfer students' degree completion at a 4-year research university in the Dallas-Fort Worth metroplex (pseudonym, UDFW). This study explored important variables that contribute to transfer students' early academic momentum and examined differences between students who enrolled in STEM fields of study and those who did not. It also investigated the extent to which early academic momentum is associated with students' likelihood of graduation with a bachelor's degree. The guiding research questions include "what are the differences between STEM and non-STEM majors regarding their socio-demographic characteristics, early academic momentum, and other academic experiences?" and "to what extent do socio-demographic characteristics, early academic momentum, and other academic experiences are associated with STEM and non-STEM students' degree attainment, respectively?"

To address the research questions, descriptive statistics, transcript analyses, and logistic regression analyses were performed. The dataset used in the study tracks a cohort of community college students who enrolled in UDFW in fall 2006 and follows them over a decade, from fall 2006 to summer 2016. The sample of the study includes 2,112 community college transfer students. The findings of the analyses highlight that students enrolled in STEM and non-STEM programs share common characteristics but differ in several key background and academic momentum

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variables. For instance, STEM majors are more likely to be male students, identified as Asian, and more likely to take at least one of the foundation math courses by the end of the first semester. Compared to their non-STEM counterparts, STEM students are less likely to receive an associate's degree prior to their transfer, and tend to have a lower completion ratio of courses and SCHs. The study results also suggest that, for both STEM and non-STEM transfers, being female, the number of SCHs completed, and the first-semester GPA are positively associated with their degree attainment. For non-STEM students, math preparedness and the number of transfer SCHs accepted are associated with the likelihood of obtaining a degree.

Although this study is still in the preliminary stage, it makes a unique contribution to the current literature, practice, and policy in the following ways: 1) The early academic momentum concept for transfer students can help faculty and practitioners better understand how the important factors at the early stage of the transfer impact students' long-term academic success. Thus, early intervention and prevention programs can be developed to best assist transfer students to achieve their educational goals. 2) The study results demonstrate that different patterns exist for male and female transfer students regarding their STEM interests and degree completion. This finding implies that male and female transfers may experience different challenges as they progress towards obtaining a bachelor's degree, and thus educational programs and activities need to be catered to respond to the specific needs of transfer students in both gender groups. 3) The study findings can help both 2- and 4-year academic advisors gain deeper understandings of academic experiences prior to transfer, as they may have a different impact on STEM and non-STEM students.

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