

Research Brief

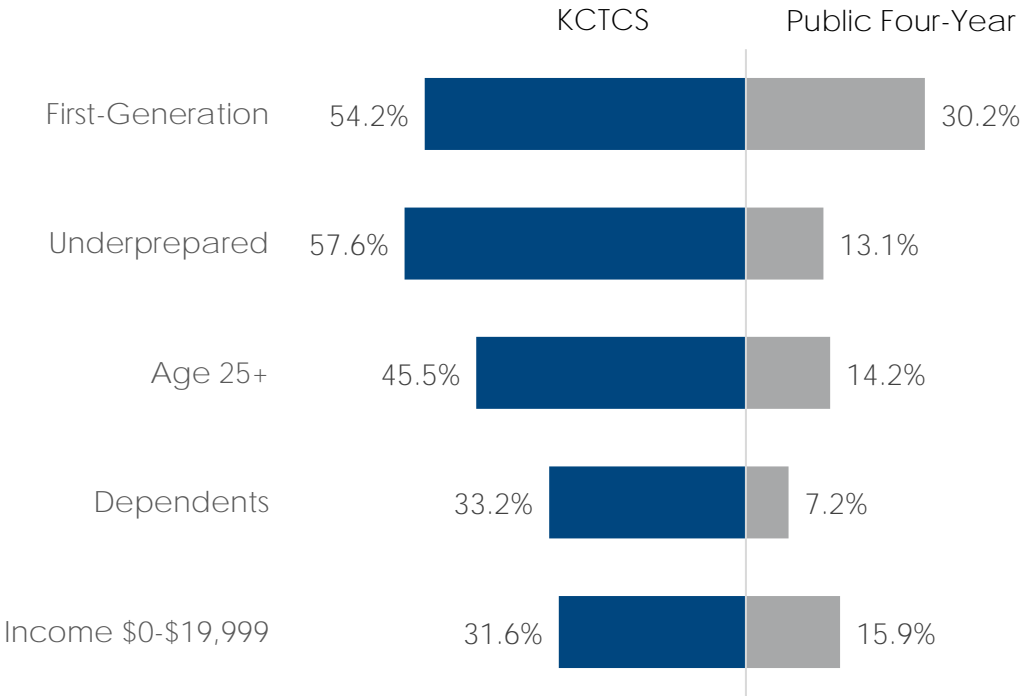
KCTCS Research Study on Starfish Reveals Positive Impact on Student Success and Retention

Introduction:

In a 2019 report from the Kentucky General Assembly's p challenged to conduct research to better understand five prominent nonacademic (to

he first in their family to attend college, academically underprepared, older, care for dependents, and from low-income households than are students at the state's public four-year institutions. Figure 1 shows a comparison between KCTCS and the state's public four-year institutions on key social and demographic characteristics. Because of these characteristics, KCTCS students face nonacademic barriers at a higher frequency and intensity than other postsecondary education students in Kentucky.

Figure 1
KCTCS and Public Four-Year Student Characteristics
Fall 2019



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Investigating Starfish Impact on Students:

influence the relationships between the key variables of interest. Controlling for demographic and academic differences in students increases the ability to form causal inferences between the variables of interest by removing other possible explanations for findings. In other words, this adds confidence to the accuracy of the results obtained. Further, institutional differences (local practices, structure, geography, etc.) were addressed through standard error adjustments, which decreases the chances that the models would produce a significant effect when they should not. However, it should be noted that ORPA was not able to control for every potential factor. For example, KCTCS does not currently possess data on many nonacademic barriers that may impact student success and retention. Table 1 summarizes the dependent, independent, and control variables used to evaluate student success outcomes.

Table 1: Dependent and Independent Variables

4. Significant findings between Starfish interactions and student success and retention were often more pronounced for specific subgroups. These results can help inform ongoing efforts to reduce achievement gaps for target populations.

a. Part-time students:

- i. Compared to full-time students who received a kudo, part-time students who received a kudo saw larger lifts in credits earned each semester.
- ii. Part-time students who received one or more kudoes were 21.6% more likely to be retained the following fall than part-time students that did not receive at least one kudo. Further, part-time students saw their odds of retention increase at higher rates than full-time students with each successive kudo received.
- iii. Part-time students that received a flag saw significantly larger decreases in their likelihood of being retained than did full-time students that received a flag. Odds continue to decrease at more substantial rates for part-time students with each additional flag received.

b. URM students (American Indian or Alaska Native, Black/African American, Native Hawaiian or Other Pacific Islander, Hispanic/Latinx, Two or More Races):

- i. Compared to non-URM students who received a kudo, URM students who received a kudo saw larger lifts in credits earned each semester.
- ii. For every additional kudo received, the odds of completion increased for URM students at a rate that was twice as high as the rate for non-URM students.
- iii. URM students that received one or more flags earned significantly fewer

Conclusions and Recommendations:

The results presented in this research brief indicate clear benefits of Starfish. Even when accounting for differences in student characteristics, college, and academic performance, the analysis of specific interactions within Starfish revealed findings with significant implications for student success and retention. The results of the study showed that Starfish can be used to identify which students are struggling academically, which can lead to earlier interventions using real-time data. Colleges should explore approaches for utilizing real-time data from Starfish to better identify and support students who may need additional resources to succeed. This may allow institutions to be more proactive, and less reactive, in supporting students who need assistance meeting the demands of their classes.

Results from this research also indicate that colleges