

Characteristics of First-Generation College Students Following the Initiation of the Tennessee Promise

This brief explores differences in first-generation and non-first-generation students' characteristics following the initiation of the Tennessee Promise in 2014-2015. The initiation of the program created a constellation of supports for students transitioning to postsecondary institutions. In addition to providing financial aid, these supports include assistance and encouragement in filing the FAFSA, informational resources, and mentoring. The program also changed the conversation around the culture of college going, promoting how postsecondary education can be accessed by a diverse population of students.^{1,2}



FAFSA

Support in filing forms and accessing federal financial aid.



Informational Resources

Outreach to high schools, workshops, and informational meetings and materials.



Mentoring

1:1 mentoring on Promise, college, FAFSA applications, and navigating enrollment process.



Change in Conversation...

Around who college is for due to statewide mobilization of resources and stakeholders.

There is strong evidence that almost all students eligible to apply engaged with Promise. As of 2018, over 80 percent of eligible students applied for the program in any given year, 90 percent of applicants completed their FAFSA¹, and the state's FAFSA filing rate increased to a high of 82 percent following Promise initiation.³

First-generation students may particularly benefit from supports created by the Tennessee Promise

First-generation students are less likely to have sufficient access to key resources about college-going from parents to support their transition to college.⁴ The Tennessee Promise created several supports. Assistance and encouragement in filing the FAFSA may have helped first-generation students access federal and state financial aid. Improved access to information and guidance may have helped first-generation students better navigate the complex application process. Finally, the mobilization of stakeholders across the state promoting access to free college may have created additional community supports for first-generation students. As students who face numerous challenges accessing college, added support from a guidance counselor, teacher, parent, or mentor may have encouraged first-generation students to pursue higher education opportunities they could not previously afford or access.

Defining First-Generation Students

Using data on parental education from the Free Application for Federal Student Aid (FAFSA), the study identified first-generation students as students with at least one parent without a college degree. Note this definition is different from that used by TDOE (see Appendix for more information).



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Summary of Findings

Results from the analysis show that, following the initiation of Tennessee Promise, first-generation students were more likely to be female, Black, or Hispanic, and had lower ACT scores, while non-first-generation students were more likely to be White or Hispanic. These descriptive findings suggest that the initiation of Promise may have helped improve college access for students from historically underserved populations.

Prior Research

Prominent scholars have identified the role college access programs such as Tennessee Promise may play in improving access for students from historically underserved populations.^{5,6} While a growing body of work examines the impact of Promise programs, their role with respect to improving first-generation students access and outcomes remains to be understood.⁷

Data

This analysis uses Tennessee administrative data obtained through the Tennessee Postsecondary Evaluation and Analysis Research Lab (TN-PEARL), a research-practice partnership between Vanderbilt University's Peabody College of Education, University of Tennessee's Boyd Center for Business and Economic Research, and the Tennessee Higher Education Commission (THEC). The data are col-

lected by THEC and the Tennessee Student Assistance Corporation (TSAC) and maintained by the state's P-20 data repository. The sample includes eight cohorts of first-time, first-year students enrolled in state community or four-year colleges in the 2010-11 through the 2017-18 school years. The sample contains 187,117 students in their first term of enrollment who have filed for federal financial aid, are Tennessee residents, U.S. citizens, and dependents between ages 17-24, and have complete information on the variables in the larger study (Joshi, 2020).⁸ See Appendix for complete list of variables in study, including variables for students' demographic characteristics, academic preparedness, and financial resources.

Analysis

Students' (1) demographic characteristics, (2) academic preparedness, (3) access to financial resources, and (4) institution of enrollment play a role in students' college access and success, especially for first-generation college students.⁹ Post-Promise differences were estimated for students in high school cohorts eligible to apply for and participate in the Tennessee Promise program. These students enrolled between the 2015-16 through the 2017-18 school years. First, differences were calculated for all students pre- and post-Promise. Next, pre- and post-Promise differences were calculated for first-generation and non-first-generation students. Finally, difference in first-generation and non-first-generation students based on whether or not they completed the Promise requirements were examined (see Appendix for details).



Findings - Differences Across all Students, Pre- and Post-Promise

Table 1: First-time, First-year College Student Characteristics, Pre- and Post-Promise

	Pre-Promise	Post-Promise
<i>Demographics</i>		
Female	55.3%	55.9% ↑
White	70.3%	68.6% ↓
Black	19.3%	19.1%
Hispanic	2.9%	4.4% ↑
Asian	1.5%	1.7% ↑
Other	6.0%	6.2% ↑
First-Generation	62.4%	68.6% ↑
<i>Academic Preparedness</i>		
ACT Composite	20.81	20.52 ↓
<i>Financial Resources</i>		
Parental AGI	\$ 69,000	\$ 74,800 ↑
Pell Eligible [†]	52.9%	52.4% ↓
TSAA Eligible	22.1%	38.0% ↑
<i>Institution of Enrollment</i>		
TN Community College	41.8%	54.3% ↑
TN Public Four-Year College	58.2%	45.7% ↓
Total Observations	113,520	73,597

Note: AGI is Adjusted Gross Income. TSAA is the Tennessee Student Assistant Award. Values in red represent a significantly lower value in the post-Promise period than in the pre-Promise period. Values in green represent a significantly greater value in the post-Promise period. Percentages rounded to the nearest tenth and AGI rounded to the nearest hundred. AGI not adjusted for inflation. [†]According to a [report](#) from the College Board, Pell grant recipients declined nationwide by 29%, or 2.7 million borrowers, between 2011-12 and 2019-20.

In the pre-Promise period (N=113,520), the sample was approximately 55 percent female and 70 percent White (Table 1). 62 percent of students were first-generation college students who had at least one non-degree-holding parent. Students had an ACT composite score of 20.81. Students had parents with an average AGI of \$69,000. Just over half the students were eligible for the Pell Grant, and 22 percent were eligible for the need-based Tennessee Student Assistant Award (TSAA). About 40 percent of students were enrolled in public Tennessee community colleges, while 60 percent were enrolled in public Tennessee four-year colleges.

As seen in column 2, almost all student characteristics were significantly different in the post-Promise period (N=73,597). Students in the post-Promise period were more likely to be

female, Hispanic, Asian, or other race/ethnicity, or first-generation, and were less likely to be White. Students had lower average ACT composite scores. On average, parental AGI was also higher in the post-Promise period. This growth in family resources could be due to inflation and economic expansion. Students were also less likely to be Pell-eligible, but more likely to be eligible for the state need-based aid grant (TSAA). In other words, following Promise, there were more students who were lower income (TSAA's EFC cutoff is \$2,100), but also more who had an income too high to qualify for the Pell. The increase in TSAA-eligibility and decrease in Pell-eligibility may be partly explained by the increase in appropriations to TSAA as well as the 28 percent decrease in Pell-eligibility nationwide. Finally, a greater percentage of students enrolled in community colleges post-Promise.

Findings - Differences Across First-Generation Students, Pre- and Post-Promise

Table 2: Student Characteristics Pre- and Post-Promise, by Students' First-Generation Status

	Pre-Promise			Post-Promise		
<i>Demographics</i>						
Female	56.8%	58.3%	↑	52.9%	50.7%	↓
White	69.1%	65.4%	↓	72.4%	75.5%	↑
Black	19.9%	21.4%	↑	18.2%	14.1%	↓
Hispanic	3.4%	5.2%	↑	2.1%	2.6%	↑
Asian	1.6%	1.5%		1.4%	1.9%	↑
Other	6.0%	6.4%	↑	6.0%	5.9%	
<i>Academic Preparedness</i>						
ACT Composite	20.17	19.92	↓	21.87	21.85	
<i>Financial Resources</i>						
Parental AGI	\$52,400	\$56,400	↑	\$96,600	\$115,000	↑
Pell Eligible [†]	62.3%	62.4%		37.1%	30.4%	↓
TSAA Eligible	27.2%	46.5%	↑	13.6%	19.4%	
<i>Institution of Enrollment</i>						
TN Community College	48.0%	59.2%	↑	31.55%	43.8%	↑
TN Public Four-Year College	52.0%	40.8%	↓	68.45%	56.3%	↓
Total Observations	70,835	50,501		42,685	23,096	

Note: AGI is Adjusted Gross Income. TSAA is the Tennessee Student Assistant Award. Values in red represent a significantly lower value in the post-Promise period than in the pre-Promise period. Values in green represent a significantly greater value in the post-Promise period. Percentages rounded to the nearest tenth and AGI rounded to the nearest hundred. AGI not adjusted for inflation. [†]According to a [report](#) from the College Board, Pell grant recipients declined nationwide by 29%, or 2.7 million borrowers, between 2011-12 and 2019-20.

Since the composition of first-generation and non-first-generation students may have been differently affected by the introduction of the Tennessee Promise, their pre- and post-Promise differences were separately examined, as shown in Table 2. Following the initiation of Promise, first-generation students were more likely to be female, Black, Hispanic, or other race/ethnicity, and less likely to be White. In contrast, non-first-generation students enrolling following Promise were more likely to be White, Hispanic, or Asian. There was a post-Promise increase in students who were Hispanic, regardless of their first-generation status. While the proportion of Hispanic students amongst first-generation and non-first-generation increased in the post-Promise period, the proportion of first-generation students who identified as Hispanic was greater than those who identified as Hispanic and who were non-first-generation.

Notably, first-generation students had significantly lower average ACT composite scores in the years following Promise initiation, while there was no such change for non-first-generation

students. Additionally, though there was a significant increase in the parental AGI for both groups in the post-Promise period, the increase is much higher for non-first-generation students (increase of about \$18,400) than for first-generation students (increase of \$4,000). Again, this could partly be due to inflation and economic expansion. Moreover, there was a decrease in the percent of non-first-generation students who were eligible for the Pell Grant, but there was no change in the percentage of Pell-eligible first-generation students. Instead, there was an increase in the percentage of first-generation students who were eligible for the TSAA, though there was no change in the percentage of non-first-generation students eligible for the TSAA. As above, these changes may partly be explained by other changes in TSAA and Pell funding.

Finally, though both first-generation and non-first-generation students were 12 percentage points more likely to enroll in a community college after Promise was initiated, a greater percentage of first-generation students were enrolling in community colleges in the post-Promise period.

Findings - Differences Across First-Generation Students, by Tennessee Promise Student Status in the Post-Promise Period

Table 3: Student Characteristics Post-Promise, by First-Generation and Tennessee Promise Student (TPS) Status

	Pre-Promise			Post-Promise		
<i>Demographics</i>						
Female	57.9%	59.2%	↑	50.8%	50.2%	
White	61.2%	74.5%	↑	74.1%	79.6%	↑
Black	24.9%	13.9%	↓	15.1%	11.9%	↓
Hispanic	5.5%	4.7%	↓	2.6%	2.8%	
Asian	1.9%	0.9%	↓	2.2%	1.1%	↓
Other	6.6%	6.0%	↓	6.1%	5.4%	
<i>Academic Preparedness</i>						
ACT Composite	20.33	19.03	↓	22.48	19.94	↓
<i>Financial Resources</i>						
Parental AGI	\$55,700	\$58,100	↑	\$122,000	\$94,000	↓
Pell Eligible [†]	65.5%	55.5%	↓	30.8%	29.4%	↓
TSAA Eligible	48.6%	42.1%	↓	19.5%	18.8%	
<i>Institution of Enrollment</i>						
TN Community College	41.9%	96.6%	↑	26.3%	96.6%	↑
TN Public Four-Year College	58.1%	3.4%	↓	73.7%	3.4%	↓
Total Observations	34,569	15,932		17,362	5,734	

Note: Tennessee Promise Student (TPS) are defined as students who completed all eligibility requirements to receive Promise funding, though after other federal and state aid is applied, TPS students may not necessarily have received Promise funds. AGI is Adjusted Gross Income. TSAA is the Tennessee Student Assistant Award. Values in red represent a significantly lower value amongst TPS students compared to non-TPS students. Values in green represent a significantly greater value amongst TPS students compared to non-TPS students. Percentages rounded to the nearest tenth and AGI rounded to the nearest hundred. AGI not adjusted for inflation. [†]According to a [report](#) from the College Board, Pell grant recipients declined nationwide by 29%, or 2.7 million borrowers, between 2011-12 and 2019-20.

Finally, differences in first-generation students were examined based on students who did and did not complete the Promise requirements in the years following Promise initiation. These “Tennessee Promise Students” (TPS) are defined in this study as students who were eligible for the Tennessee Promise; these students completed all requirements of the Tennessee Promise program and enrolled full-time in the fall in a Tennessee public two- or four-year institution (see Appendix for details). Of the 73,597 student observations in the post-Promise period, 30 percent, or 21,666 students, were Tennessee Promise Students. Table 3 shows differences in first-generation and non-first-generation students in the sample based on their status as TPS.

Amongst both first-generation and non-first-generation students, TPS were more likely to be White and less likely to be Black or Asian. First-generation TPS were more likely to be female and less likely to be Hispanic or other race/ethnicity. Both first-generation and non-first-generation TPS had lower ACT Composite scores. First-generation TPS had parents with greater AGI than their non-TPS, first-generation peers.

In contrast, non-first-generation TPS had parents with lower AGI than their non-TPS, non-first-generation peers. Both first-generation and non-first-generation TPS were less likely to be Pell-eligible and first-generation TPS were also less likely to be TSAA-eligible.

Importantly, almost all TPS students observed in the study (96 percent) enrolled in community colleges rather than public four-year institutions, which may help explain some of the differences in characteristics in the two groups, such as TPS students’ lower ACT score.

Conclusion: Overall, there was a change in the demographic characteristics, academic preparedness, and financial resources of students enrolling following the initiation of Promise. These changes were concentrated amongst first-generation students enrolling post-Promise. Specifically, students who enrolled following Promise initiation were more likely to be first-generation, Black, Hispanic, Asian, or other race/ethnicity, had lower ACT scores and fewer financial resources.

As a program seeking to improve students' access to higher education attainment, it is beneficial that such a change in the composition of first-generation students was observed as it indicates an increase in enrollment amongst students who may not previously have enrolled in Tennessee public community or four-year colleges. The change in composition of students who enrolled suggests that the initiation of Promise may have helped improve access to college for historically underserved students.

However, given that many first-generation students who enrolled following the initiation of Tennessee Promise

were also academically less prepared and less resourced than their non-first-generation peers, it is vital that universities and policymakers consider offering additional supports to help students succeed after the transition. Potential supports may include wraparound services such as peer and faculty networks, tutoring services, and academic guidance, which may be offered independently, or through programs like [Nashville GRAD](#) and [Knox Promise](#). In the next brief, we examine how the initiation of Promise related to changes in students' first-term outcomes.¹⁰

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Appendix – Data Definitions

First-Generation College Students: The Free Application for Federal Student Aid (FAFSA) asks families to provide the highest level of schooling completed by parents. Families select from the following: (1) Middle school/Jr. High, (2) High School, (3) College or beyond, or (4) Other/unknown (treated as non-college-going). A degree-holding parent was defined as one whose highest level of schooling was “college or beyond”. First-generation students were defined as students with exactly one degree-holding parent or students without a degree-holding parent. Since a goal of this study was to examine the difference students from historically underserved populations, a broader definition of first-generation was used. TDOE defines first-generation students as students without a degree-holding parent.

Tennessee Promise Students (TPS): TPS are students who are eligible for Promise; these are students who completed all requirements of the Tennessee Promise program, including applying for the program, filing the FAFSA by the required deadline, attending workshops, engaging with their assigned mentor, completing community service hours, and enrolling full-time in a Promise-eligible institution between the 2015-16 through the 2017-18 school years. Data on TPS were provided by THEC as a binary indicator of eligibility.

Demographic Characteristics: Student race is a categorical variable describing whether a student is recorded as Black, White, Hispanic, Asian, or other race/ethnicity. Student sex is a binary indicator equaling 1 when a student is female and 0 if male.

Academic Preparedness: Students’ academic preparedness describes the academic skills students may have had when

navigating college and completing collegiate work. ACT composite score is a continuous variable ranging from 1 to 36.

Financial Resources: Students’ access to financial resources was measured using data from the FAFSA form, which provides information about students’ access to family resources and their eligibility for various federal and state awards and scholarships. Parental adjusted gross income (AGI) is reported using information from federal tax forms and includes wages, alimony, Social Security, and business income. Binary indicators for students’ eligibility for frequently accessed federal- and state-level scholarships and grants were also examined. These include student eligibility for the Pell grant and the Tennessee Student Assistance Award (TSAA). These indicators denote eligibility, and not necessarily take-up, of the award. For information on grants and awards, visit the following sites: [Pell](#), [TSAA](#).

Institutional Characteristics: Students’ institution is the public institution of enrollment in their first term, excluding terms when they were dual enrolled in college and high school. Students in the sample attended one of 22 Tennessee public two- or four-year institutions in their first term. Students’ major is a categorical variable of students’ major in their first term of enrollment. This variable was created by categorizing over 280 major codes into 7 common areas of study using CIP codes.

Analytic Approach: Pre- and post-Promise differences were calculated using independent two-sided t-tests of mean equivalence. The mean difference was considered significantly different if the p-value for the t-statistic was less than 0.05.