Free Application for Federal Student Aid (FAFSA) verification and its role in summer melt is examined in this brief. Summer melt is when high school seniors who appear ready to go to college the fall following graduation do not enroll. The study revealed one-third of Houston Independent School District (HISD) college-intending students were flagged for FAFSA verification, and racial and ethnic minorities were especially at risk of verification. The study also found one-in-four college-intending students experienced summer melt and did not attend college by November 1st of the fall semester after completing high school. In line with prior research, FAFSA verification increased the likelihood of summer melt by six percentage points.

The brief also showed 26 percent of students who experienced summer melt enrolled in college during a later term but still within two years of high school graduation. Students flagged for FAFSA verification were five percentage points more likely to delay their college enrollment than students who were not flagged for verification. Overall, results suggested reducing FAFSA verification and/or providing support to students and families managing the process might be a way to improve college enrollment rates and reduce summer melt. Moreover, some students who experienced summer melt did attend college; they just did so at a later date.

Key Findings

Predictors of FAFSA Verification

- One-third of college-intending students were flagged for FAFSA verification.
- Racial and ethnic minorities were more likely to be flagged for FAFSA verification than white students, net of other factors.

Predictors of Summer Melt

- One-in-four college-intending students experienced summer melt and did not attend college by November 1 of the fall semester after high school graduation.
- FAFSA verification strongly predicted summer melt, increasing the likelihood of summer melt by six percentage points, after accounting for other factors.

Predictors of Delayed College Enrollment

- One-in-four students who experienced summer melt delayed their college enrollment and enrolled in a postsecondary institution within two years of high school graduation.
- FAFSA verification positively predicted delayed college enrollment, increasing the likelihood of delayed college enrollment by five percentage points, after accounting for other factors.
“Summer melt” may be defined as when “high school graduates who have been accepted to and intend to enroll in college fail to matriculate anywhere in the fall semester as a result of unforeseen challenges they encounter during the summer” (Castleman & Page, 2014b, p. 2). Although it is challenging to produce a national statistic on summer melt, research shows students from lower socioeconomic backgrounds are more likely to experience summer melt than students from higher socioeconomic backgrounds (Castleman & Page, 2014a). One key factor Castleman and Page (2014b) identify as a barrier is FAFSA verification. Many students who apply for need-based financial aid using the FAFSA are later asked to provide additional details on their financial circumstances. This additional task may impede enrollment as students may lack adequate knowledge or support to provide required information. Therefore, FAFSA verification may lead students to abandon their college plans and trigger summer melt.¹

Although there are many reasons why students experience summer melt, it is important to understand whether summer melt is a short- or long-term phenomenon. It is possible some students who experience summer melt decide to attend college at a later date. This type of enrollment is called delayed college enrollment in this brief, and is defined as when students who experience summer melt enroll in college during a later term (e.g., spring, summer, or sometime thereafter) but still within two years of high school graduation. Delayed college enrollment may be useful to schools and districts, especially as state education agencies incorporate measures of college readiness into accountability systems (Texas Education Agency, 2018).

FAFSA verification may play a unique role in delayed college enrollment among students who experience summer melt. If verification is positively associated with delayed college enrollment, then it may function as a temporary shock to a student’s college plans. If, however, verification shows a negative association with delayed enrollment, then it may be a more permanent shock. Such a finding may suggest FAFSA verification not only affects students’ immediate college plans, but potentially their lifetime educational goals.

Research Questions

Summer melt appears to contribute to socioeconomic gaps in college enrollment rates. Since FAFSA verification is considered a contributing element to summer melt, this study tested this relationship and further examined whether this relationship served as a temporary or permanent shock to students’ college enrollment. Using HISD administrative data, this study addressed the following:

1. What types of students were more likely to be flagged for FAFSA verification?
2. Did FAFSA verification predict summer melt?
3. Did students who experienced summer melt attend college at a later date? If so, was FAFSA verification related to those decisions?

To address these questions, two cohorts of high school graduates during the 2015-2016 and 2016-2017 school years were tracked through the fall semester following high school graduation. The study focused on college-intending students, which were defined as high school graduates who applied to at least one postsecondary institution and who filed the FAFSA (N = 9,682). For Research Question 3, the analysis of delayed college enrollment, the sample was limited to students who experienced summer melt (N = 2,496). Details on the data, sample, and analytic strategy are available in Appendix B.

¹ FAFSA verification may also delay student enrollment. Students may not have enough time to resubmit their FAFSA application before the fall semester and decide to postpone their enrollment to a later term.
Research Question 1: What types of students were more likely to be flagged for FAFSA verification?

First, the analysis found FAFSA verification was a relatively common event. Among the 9,682 college-intending students in the study sample, approximately one-third (N = 3,154) were flagged for FAFSA verification.

Second, logistic regression models were used to determine what types of students were more or less likely to be flagged for FAFSA verification. Of the background characteristics examined, differences by race and ethnicity were extensive. Figure 1 illustrates the probability of FAFSA verification by race and ethnicity. Black students (34%), Hispanic students (33%), Asian or Pacific Islander students (28%) students, and students from other racial and ethnic backgrounds\(^2\) (36%) had higher rates of FAFSA verification than white students (21%), net of other factors. What the graph shows is that the FAFSA verification rates of black, Hispanic, and Asian or Pacific Islander students, as well as students from other racial and ethnic backgrounds, were statistically different from the verification rates of white students.

Aside from race and ethnicity, few other background characteristics predicted FAFSA verification. However, the results revealed students with higher Scholastic Aptitude Test (SAT) scores were less likely to be flagged for FAFSA verification. Full regression results are available in Appendix D.

Note: The lines near the top of each bar in the graph are error bars. If the error bar from one bar overlaps the error bar from another bar, then the difference between the two bars is not statistically significant.

\(^2\) This category included students who identified as Native American or multiracial.

\(^3\) The statistics used to produce this graph come from Appendix D, Model 1.
Research Question 2: Did FASFA verification predict summer melt?

Among the students in the study sample, 26 percent experienced summer melt — they did not enroll by November 1st of the fall semester after completing high school.

Logistic regression models were then used to determine how FAFSA verification, net of other background characteristics, predicted summer melt. (Full regression results are available in Appendix E.) Being flagged for FAFSA verification increased the likelihood of summer melt, net of other factors. Figure 2 shows 25 percent of students flagged for FAFSA verification experienced summer melt. In contrast, 19 percent of students not flagged for verification experienced summer melt. This six-percentage point gap was statistically significant.

Figure 2. Summer Melt by FAFSA Verification

Note: The lines near the top of each bar in the graph are error bars. If the error bar from one bar overlaps the error bar from another bar, then the difference between the two bars is not statistically significant.

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4 The statistics used to produce this graph come from Appendix E, Model 2.
Research Question 3: Did students who experienced summer melt attended college at a later date? If so, was FASFA verification related to those decisions?

Of the 2,496 students who experienced summer melt, 655 students (26 percent) delayed their college enrollment. Although these students did not enroll in college during the summer or fall semesters after completing high school, they did enroll later and within two years of graduation.

<table>
<thead>
<tr>
<th>High School Graduation</th>
<th>Delayed College Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class of 2016</td>
<td>Spring 2017, Summer 2017, Fall 2017, Spring 2018, Summer 2018</td>
</tr>
<tr>
<td>Class of 2017</td>
<td>Spring 2018, Summer 2018, Fall 2018, Spring 2019, Summer 2019</td>
</tr>
</tbody>
</table>

Logistic regression models were used to understand how FAFSA verification predicted delayed college enrollment among students who experienced summer melt. These statistical models accounted for background characteristics, which are described in Appendix A. (The full regression results are shown in Appendix F.) Findings indicated students flagged for FAFSA verification were more likely than students not flagged for verification to enroll in college within two years of high school graduation, net of other factors. Figure 3 shows 29 percent of students flagged for FAFSA verification and 24 percent of students not flagged for verification delayed their college enrollment. This five-percentage point gap was statistically significant.

![Figure 3. Delayed College Enrollment by FAFSA Verification](image)

Note: The lines near the top of each bar in the graph are error bars. If the error bar from one bar overlaps the error bar from another bar, then the difference between the two bars is not statistically significant.

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5 The statistics used to produce this graph come from Appendix F, Model 2.
Implications for Immediate College Enrollment

FAFSA verification appeared to be a key barrier to college enrollment among college-intending students in HISD. About one-third of the students in the study sample were flagged for verification. This was close to the national average; in 2017, 27 percent of U.S. students were selected for verification (Smith, 2018). Moreover, since verification was more common among racial and ethnic minorities, it might contribute to racial and ethnic gaps in college enrollment. Districts like HISD may try to identify strategies that can reduce FAFSA verification issues and/or provide support to students and families working through the verification process. Schools can embed strategies within existing structures like ongoing college advising initiatives. College advisors may consider assisting students and families as they fill out FAFSA applications and give additional guidance if they are flagged for verification.

One-in-four students in the study sample experienced summer melt. Prior research showed text message campaigns which reminded students of the tasks required for college enrollment and potential support opportunities had positive effects on college attendance (Castleman & Page, 2015). In the summer of 2016, HISD began sending students text message reminders as a strategy to reduce summer melt. During the program’s initial two years, students from 15 participating high schools received 10 text messages communicating a variety of topics, including but not limited to dealing with tuition gaps, setting up payment plans, and signing up for work-study programs. Beginning in 2018, students from all 46 HISD high schools received summer text message reminders. It might be possible in the absence of this text message campaign, summer melt rates would be higher. Even so, summertime text messaging may be another way to reduce the potential consequences of FAFSA verification. The school district may consider integrating messages about FAFSA verification into its texting outreach program and offer students guidance if they encounter it as a barrier.

The analyses could not distinguish why FAFSA verification was positively associated with summer melt. It might be possible students perceived verification as a sign they would not receive financial aid or should not attend college. If this was the mechanism explaining the relationship between FAFSA verification and summer melt, then the district should consider efforts to reduce students’ likelihood of verification. It also might be possible students who were flagged for verification experienced challenges providing additional information on their financial circumstances. They might have feared the financial-related consequences for their families. If these were the mechanisms behind the relationship between FAFSA verification and summer melt, then the school district should continue to find effective ways to help students and families understand and navigate the verification process.

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6 Details on the summer text-messaging program, including how it has evolved over time, are available from HISD.
Conclusion

Implications for Long-Term Educational Attainment

Among the students who experienced summer melt, one-in-four students delayed their college enrollment and enrolled in a postsecondary institution within two years of high school graduation. In addition, FAFSA verification increased the likelihood of delayed college enrollment by five percentage points. While FAFSA verification reduced students’ immediate college enrollment, the negative role verification played in long-term educational attainment might be momentary. Although there might be myriad reasons why students experienced summer melt, the students who experienced summer melt because they were flagged for verification might have reconsidered their initial intentions to attend college (in a way that non-verified students did not) and decided to apply to again.

The positive association between delayed college enrollment and FAFSA verification could be clarified through comparison to hypothetical alternatives:

- If the analyses showed FAFSA verification negatively predicted delayed enrollment, then verification might be interpreted as a permanent shock to a student’s college plans. Students might have gotten so frustrated from being flagged for verification and the complexities that entailed that they opted not to apply to college again, or the verification process might have simply led them to reconsider their initial intentions.

- No association might have meant FAFSA verification bore no long-term role in educational attainment for students who experienced summer melt.

However, the findings showed verification increased the likelihood of enrollment. Although this brief offered potential explanations, the data could not determine why this pattern existed. Understanding what drove this result might require speaking to students directly.

Although HISD annually tracks its high school graduates’ college outcomes, it ought to consider expanding the time window during which it follows students. In this study, many students enrolled in college several semesters after completing high school. Some students who experienced summer melt and FAFSA verification did pursue a postsecondary education. Tracking students for a longer period after high school will not only show higher rates of postsecondary enrollment, but also reflect the reality that many students ultimately choose to pursue a degree.


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**About HERC.** Focusing on the most pressing challenges facing the region, the Houston Education Research Consortium (HERC) is a research-practice partnership between Rice University and 11 Houston-area school districts. HERC research is developed directly alongside district leaders with findings shared with decision makers – culminating in long-term, equity-minded solutions, opportunities and growth for Houston and beyond.