THE SCHOOL DISTRICT OF PHILADELPHIA

Research BRIEF:
Anchor Goal 1

Summer Melt: College Intentions vs. College Enrollment of 2017 SDP Seniors

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Key Findings:

The summer melt rate for college-intending 2017 SDP high school seniors was 30.5%, which was lower than the summer melt rate for 2016 SDP high school seniors (38.6%).

Male students, African American students, Latino/Hispanic students, and students with LEP, IEP or Economic Disadvantaged Status* had higher summer melt rates than their peers.

Positive experiences with adults and guidance counselors in high school are associated with lower summer melt rates.

The Summer After High School Graduation

The summer after high school graduation is a critical transition time for high school graduates.

Research finds that many high school graduates who intend to enroll in post-secondary education do not follow through with their intentions following the summer after high school graduation.[1] This phenomenon is known as **summer melt**, and the national summer melt rate ranges 10-40%.[2]

Summer melt refers to high school seniors' intentions to attend college in the fall "melting away" during the summer.

The summer melt rate is the percentage of college-intending high school seniors who do not enroll in college in their first fall after graduation.

This brief summarizes findings from a study of the summer melt rates of the college-intending 2017 SDP high school seniors who completed the Senior Exit Survey in the spring of 2017.[3] The Senior Exit Survey is required by the Pennsylvania Department of Education to be given to all high school seniors in each district in the state. It asks students about their high school activities (including volunteering, internships and clubs); whether they are planning to pursue additional education, employment or other activities after high school; and what support they received in preparing for college and career, including who the most influential people were when helping them plan for life after high school.

*LEP = Limited English Proficiency, IEP = Individualized Education Plan, and Economic Disadvantaged is defined as being eligible for free meals from government assisted programs without verification.

[1] This group includes students that intended to matriculate to a post-secondary institution immediately, but also some that may plan to enroll after a delay.

[2] Castleman, B. L., Page, L. C., & Snowdon, A. L. (2013). Summer Melt Handbook: A Guide to Investigating and Responding to Summer Melt. Harvard University Center for Education Policy Research.

[3] For more information about the Senior Exit Survey, refer to Senior Exit Survey Results District Report.

Research Questions

Two main research questions were our focus:

1. What was the summer melt rate for college-intending 2017 SDP high school seniors? Does it vary among student demographic groups?
2. Based on students' responses on the Senior Exit Survey, what are some high school experiences associated with reduction in the odds of summer melt?

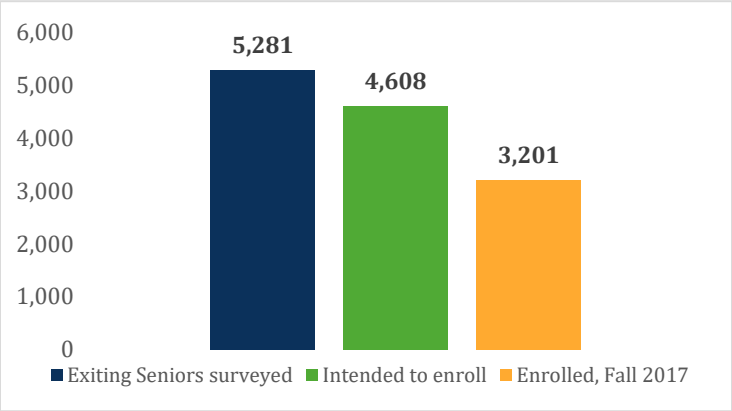
Methods

We used the Spring 2017 Senior Exit Survey to identify 2016-17 seniors who had the intention of pursuing post-secondary education upon graduating from high school. At the end of the Fall semester of 2017, we matched these students against the National Student Clearinghouse's (NSC) college matriculation data to identify which students followed through with their intention. Finally, we analyzed students' responses on the Senior Exit Survey to identify high school experiences associated with reduced summer melt.

What We Found

Nearly one in three seniors (30.5%) who intended to enroll in postsecondary education did not follow through with their intentions by the end of Fall 2017.

Figure 1. College Intention and Enrollment of 2017 Senior Exit Survey Respondents



The Senior Exit Survey was distributed to 7,544 seniors who were enrolled in the District in the Spring of 2017.

Of those students, 5,281 seniors completed the survey (70% response rate). Of the students who completed the survey, 4,608 students (87.3%) expressed intent to pursue postsecondary education after high school, which included 2 year colleges, 4 year colleges, as well as trade/technical schools (Figure 1).[4] In Fall 2017, 3,201 (69.5%) of students who intended to enroll actually enrolled, and 1,407 (30.5%) did not (including 41 students who did not fulfill high school graduation requirements by the end of the summer). The summer melt rate for 2017 high school seniors was lower than the summer melt rate of 2015-16 Senior Class (30.5% vs. 38.6%).[5]

[4] We defined college intending students as students who indicated intention for post-secondary education and specified the type of school they planned to attend on the Senior Exit Survey.

[5] We used the same methodology in calculating the summer melt rate for 2015-16 Senior Class. Of the 5,748 exiting seniors interviewed in the Senior Exit Survey (response rate=82.3%) in Spring of 2016, 4,899 students expressed intent to pursue postsecondary education. Of these students, only 3,008 enrolled in the fall of 2016, meaning that 38.6% did not follow through on their intentions.

Summer Melt Rates in 2017 Varied by Demographic Groups

Overall, the district summer melt rate in 2017 was 30.5%. However, this rate varied by demographic groups. For instance, college-intending male students had higher summer melt rates than female students (36.1% vs. 26.4%), college-intending Hispanic/Latino students had a summer melt rate of 41.5% compared to 34.8% for African-American students and 22.4% for White students, college-intending students with limited English proficiency (LEP) had higher summer melt rates than English proficient students (48.3% vs. 29.0%), and college-intending students with economically disadvantaged status had higher summer melt rates than students who were not economically disadvantaged (36.3% vs. 24.1%) (Table 1).

Table 1. District-wide Summer Melt rates by demographic groups

		Intended	Enrolled	Summer melt (%)
Overall		**4,608**	**3,201**	**30.5%**
Gender	Female	2,638	1,942	26.4%
	Male	1,970	1,259	36.1%
Race / Ethnicity	White	727	564	22.4%
	African-American	2,385	1,556	34.8%
	Latino/Hispanic	651	381	41.5%
	Asian	643	546	15.1%
	Other	202	154	23.8%
Limited English Proficiency	No	4,252	3,017	29.0%
	Yes	356	184	48.3%
Disability/IEP	No	4,384	3,121	28.8%
	Yes	224	80	64.3%
Economically Disadvantaged	No	2,188	1,660	24.1%
	Yes	2,420	1,541	36.3%

Positive high school experiences, such as having adults at school helping students with college applications and positive relationships with counselors, are associated with reduction in summer melt.

What can schools do to help reduce summer melt rates? To answer this question, we used students' responses on the Senior Exit Survey to identify high school experiences associated with reduced summer melt. The 41 college intending students who did not end up graduating from high school were excluded from the analysis, as were other students with one or more missing data points, which reduced our final analytic sample (n=4,335).

The results are reported in Table 2. An odds ratio greater than 1 indicates that students' characteristics specified in column 1 are associated with an increased likelihood of summer melt than students not in that group, while odds ratio less than 1 suggests a reduced likelihood of summer melt. Consistent with results in Table 1, we confirmed that male students, African

American students, Hispanic/Latino students, and students with LEP, IEP and economically disadvantaged status were associated with increased likelihood of summer melt.

We also found that positive high school experiences with adults during the college application process and with guidance counselors in planning for life after high school were associated with reduced summer melt, even after controlling for demographic variables (Table 2). Students who strongly agreed with the statement, "Adults at my school gave me help in applying for college" were less likely to experience summer melt than students who did not (OR=0.83). Similarly, students who identified a "Guidance Counselor" as one of the most important people in planning life after high school were less likely to experience summer melt than students who did not (OR=0.82).

Our findings suggest that efforts focused on building strong adult support in college application process and with guidance counselors in planning life after high school can reduce summer melt.

Table 2. Results of Logistic Regression: Likely to melt before matriculating into college.

	Odds Ratio (OR)[a]
Increase summer melt	
Male	1.66***
African American	1.87***
Hispanic/Latino	1.82***
Limited English Proficiency	2.83***
Disability/IEP	3.49***
Economically Disadvantaged	1.74***
Decreases summer melt	
Asian	0.47***
Adults at my school gave me help in applying for college (Answered: Strongly agree)	0.83**
Most important person in planning for life after high school (Selected: Guidance Counselor as one of the responses)	0.82***
n=4,335[b]	

Table Notes:
*** p<0.01, ** p<0.05
[a] The odds ratio reported in the second column estimates the change in the odds of experiencing summer melt for the group identified in the first column compared to students who are not in that group. For example, in this model, the odds ratio of 1.66 for male variable is interpreted as the following; the odds of experiencing summer melt is 1.66 times the odds of a female experiencing summer melt controlling for all the other variables included in the model.
[b] The analytic sample was the reduced subset of 4,608 students who expressed the intent to enroll in post-secondary education. Only the college-intending students who successfully graduated from high school and had no missing data in all the predictor and outcome variables were included in the logistic regression analysis (n=4,335).

Why is this Important to SDP?

Understanding summer melt in the District is an important part of supporting students in graduating from high school ready for college and career (Anchor Goal 1). Being ready for college not only entails high school success and being accepted to colleges but also successful completion of the tasks required for college matriculation, such as completion of time sensitive forms and making tuition payments. By assessing district-wide summer melt, we can identify high school students who may be at risk of not matriculating, despite having intended to do so during the last semester of high school. This information can also be useful for the District's multiple college readiness partners as they work to allocate resources and refine programing. Moreover, by connecting summer melt with student responses on the Senior Exit Survey, we can identify high school experiences that protect students from experiencing summer melt.