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FULL REPORT:

Postsecondary Enrollment Trends Among Male High School Graduates in Pennsylvania

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Abstract

In recent years there has been a noticeable decline in postsecondary enrollment among students from all demographic backgrounds. Unfortunately, these declines have not been evenly felt, particularly with regards to gender, as national data suggests male students are enrolling in postsecondary at much lower rates than their female counterparts. To gain more perspective on postsecondary enrollment for Pennsylvania, this report investigated student demographic characteristics and organizational factors to gain a better understanding of postsecondary pathways among male and female high school graduates in the Commonwealth. Using Fall 2019, Fall 2020, and Fall 2021 data from the Pennsylvania Information Management System (PIMS) and the National Student Clearinghouse (NSC), analyses from this study suggests male Pennsylvania high school graduates enrolled in postsecondary institutions at lower rates than female high school graduates, regardless of other demographic characteristics. Looking at within group differences among male students, White and Asian males were enrolled in 4-year institutions at higher rates than students from other racial/ethnic groups. Results also revealed that a smaller proportion of male students from historically underperforming groups (economically disadvantaged, students with an IEP, EL status) enrolled in postsecondary institutions. Similarly, male students from historically underperforming groups enrolled in 4-year institutions and held full-time status at lower rates than their peers who were not part of a historically underperforming group. Overall, this research suggests there is a gender disparity in postsecondary enrollment in Pennsylvania, but this disparity is exaggerated for some demographic groups.



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Introduction

Postsecondary enrollment has decreased steadily over the past decade. While the COVID-19 pandemic exacerbated the decline in enrollment, previous data suggests the downward trend in enrollment began in 2011 and has continued since. Between Fall 2019 and Fall 2021 there was close to an eight percent decline in postsecondary enrollment for undergraduate students overall (National Student Clearinghouse, 2022). However, the decrease in enrollment was not evenly felt. For male students there was just over a six-percent decline in postsecondary enrollment at public 4-year institutions, but just a 3.3% decline for female students at public 4-year institutions. A similar pattern occurred at public 2-year institutions. Between Fall 2019 and Fall 2021 male enrollment declined 18.6%, but only 13.1% among females. The statistics are similar for new high school graduates. Between 2018 and 2020 the proportion of male high school graduates to immediately enroll in postsecondary declined by eight percent, compared to a five percent decrease in enrollment for female high school graduates (NCES, 2021). More broadly, data also indicates a higher proportion of female high school graduates in the Class of 2020 (66%) enrolled in postsecondary compared to male high school graduates (59%) (2021). It is unclear why male postsecondary enrollment lags behind female enrollment. Riegle-Crumb (2010) contend that female students have access to more social capital, providing more opportunities for enrollment. Specifically, the authors found that females had more access to academic friendship groups, school counselors, and other professionals in high school, which was linked to a higher likelihood of postsecondary enrollment, even when academic performance was accounted for. This relationship was not found for male students.

Taken together, the findings discussed above suggest males are experiencing postsecondary enrollment declines to a greater extent than females. While these changes in the postsecondary enrollment landscape deserve attention, it is important to note that the postsecondary trajectory involves more than enrollment. It is also critical to understand how male and female students may engage in postsecondary differently. Specifically, are there also disparities in institution type or enrollment status? Exploring these questions is key to developing a more complete understanding of how students, Pennsylvania students specifically, are navigating postsecondary education during a transitional time in the country.

Nationally, for male students there was just over a 6% decline in postsecondary enrollment at public 4-year institutions, but just a 3.3% decline for female students at public 4-year institutions.

The Current Study

In light of recent research highlighting gender disparities in postsecondary enrollment nationally, the current study examines the extent to which these disparities exist in the Commonwealth. This research examines student precollege characteristics (gender, race/ethnicity, socioeconomic status, IEP status, English Learner (EL) status) and organizational factors (2-year/4-year, private/public, in-state/out-of-state) as critical to understanding enrollment trends in Pennsylvania. In conducting this research, the current study addresses a central question from the *Access to Postsecondary Education* section from [the PDE Research Agenda](#):

Research Question from the PDE Research Agenda:

Higher education is becoming predominantly female. What are the post high school pathways for males? For students enrolled in a postsecondary institution, did male students leave higher education and not return at a higher rate than female students, or are male students entering postsecondary opportunities at a lower rate (Fall 2019 v. Fall 2020 v. Fall 2021)?

This research report focuses exclusively on male enrollment trends in Pennsylvania between Fall 2019 through Fall 2021.

Method and Sample

Three cohorts of data were acquired to examine the postsecondary enrollment trends of male and female high school graduates in Pennsylvania. Demographic information for high school graduates was acquired using secondary data from PDE's PIMS Student data files for the 2018/2019, 2019/2020 and 2020/2021 school years. These data were merged with NSC data from Fall 2019 through Fall 2021 using secure student identification numbers. See Table 1. The NSC data contained information about student's enrollment begin and end dates, enrollment status, institution type and other postsecondary information. This research classified high school graduates as enrolled in postsecondary if they enrolled in an institution for at least two weeks of the fall semester immediately following their high school graduation. Across all cohorts there were slightly more male high school graduates than female graduates and about 70.0% of the students identified their race as White. Combined, Black and Hispanic students represented approximately 23.0% of high school graduates in each cohort while American Indian/Alaskan Native, Multiracial, Asian and Native Hawaiian/Pacific Islander students represented roughly 7.0% of Pennsylvania high school graduates. The proportion of students who were identified as economically disadvantaged, students with an IEP and students who held EL status was stable across all cohorts. A majority of graduates did not identify as economically disadvantaged, have an IEP or hold EL status. Refer to Table 2.

TABLE 1. High School Graduation Cohorts by Postsecondary Enrollment Year

Cohort	High School Graduation Year	Postsecondary Enrollment Year		
		Fall 2019	Fall 2020	Fall 2021
1	2018/2019	X		
2	2019/2020		X	
3	2020/2021			X

TABLE 2. Demographic Characteristics for High School Graduates by Cohort

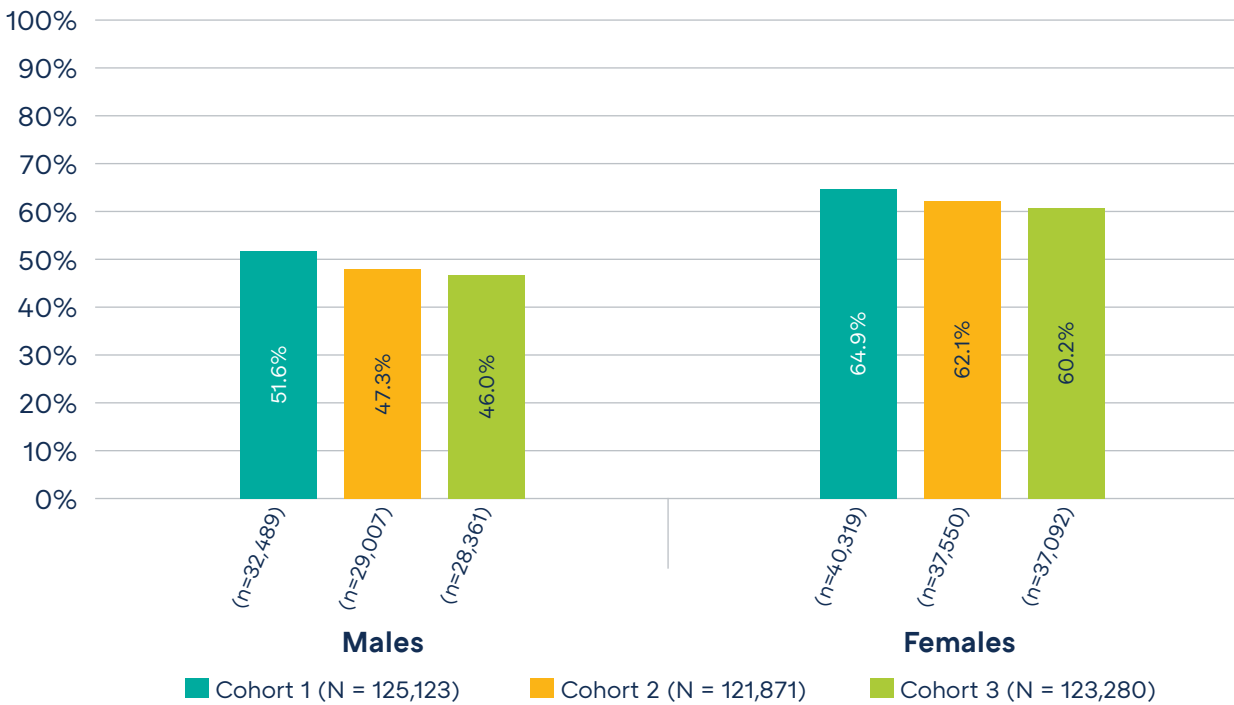
		Cohort 1	Cohort 2	Cohort 3
		% (n)	% (n)	% (n)
Postsecondary Enrollment				
	Enrolled	58.2 (72,808)	54.6 (66,557)	53.1 (65,453)
	Not Enrolled	41.8 (52,315)	45.4 (55,314)	46.9 (57,827)
Gender				
	Male	50.3 (62,990)	50.3 (61,357)	50.0 (61,648)
	Female	49.7 (62,133)	49.7 (60,514)	50.0 (61,632)
Race				
	Am. Indian/Alaskan Native	.2 (189)	.1 (178)	.2 (188)
	Black/African American	13.1 (16,394)	12.9 (15,750)	12.9 (15,961)
	Hispanic	9.8 (12,278)	10.3 (12,557)	10.3 (12,723)
	White/Caucasian	70.5 (88,176)	69.8 (85,090)	69.3 (85,472)
	Multiracial	2.3 (2,837)	2.5 (3,009)	2.8 (3,440)
	Asian	4.1 (5,147)	4.3 (5,184)	4.4 (5,390)
	Native Hawaiian/Pac. Islander	.1 (102)	.1 (103)	.1 (106)
Economic Disadvantage				
	No	62.6 (78,326)	62.7 (76,472)	62.9 (77,563)
	Yes	37.4 (46,797)	37.3 (45,399)	37.1 (45,717)
IEP				
	No	84.3 (105,490)	84.4 (102,916)	83.3 (102,667)
	Yes	15.7 (19,633)	15.6 (18,955)	16.7 (20,613)
EL Status				
	No	97.1 (121,475)	96.9 (118,126)	97.1 (119,713)
	Yes	2.9 (3,648)	3.1 (3,745)	2.9 (3,567)

Results

■ **Research Question 1:** Are male students entering postsecondary opportunities at a lower rate than females (Fall 2019 v. Fall 2020 v. Fall 2021)? To what extent are there demographic differences in postsecondary enrollment among male and female students between Fall 2019 through Fall 2021?

Crosstab analyses were conducted to assess enrollment trends for male and female students in Pennsylvania between Fall 2019 through Fall 2021. Figure 1 shows that a smaller proportion of male students enrolled in postsecondary institutions than female students. This trend was consistent across cohorts. The proportion of male students to enroll in postsecondary between Fall 2019 and Fall 2021 ranged from 46.0% to 51.6%, compared to a significantly higher proportion of female students, 60.2% to 64.9% across the same time period.

FIGURE 1. Percentage of Students Enrolled in Postsecondary by Gender for Cohort 1 through Cohort 3



To examine demographic differences in postsecondary enrollment between Pennsylvania male and female high school graduates, crosstab analyses were run to examine enrollment patterns between Fall 2019 through Fall 2021. After analyzing between-group demographic differences for male and female high school graduates, we examined demographic variation in enrollment among male graduates. Analyses focused on differences in racial/ethnic background, as well as economic disadvantage, IEP status and EL status.

Postsecondary Enrollment Differences in Enrollment by Racial/Ethnic Background among Pennsylvania High School Male and Female Graduates

Across all racial/ethnic groups female postsecondary enrollment outpaced male postsecondary enrollment. Overall, the greatest gender disparities in enrollment were identified for Black/African American and White students. Averaging across all cohorts, the difference in enrollment between White male and female students was 15.1%, slightly more than the average difference of 14.6% noted between Black/African American male and female students. While postsecondary enrollment was higher among Asian females than Asian males for all cohorts, the gender differences were less pronounced compared to other racial/ethnic groups (5.6%).

Comparing racial/ethnic differences in postsecondary enrollment for male students only, a smaller percentage of Black (33.0% – 39.4%) and Hispanic (29.0% – 36.5%) male students enrolled in postsecondary institutions compared to White (49.3% – 54.4%) and Native Hawaiian/Pacific Islander (52.7% – 65.1%) male students. Asian male students had the highest level of postsecondary enrollment across all years (76.5% – 78.4%). See Table 3.

Gender Differences in Postsecondary Enrollment for Historically Underperforming Student Groups

Female students enrolled in postsecondary at higher rates than their male counterparts regardless of economic background. Specifically, the proportion of economically disadvantaged male students (28.9% – 35.7%) to enroll in postsecondary institutions was lower than the proportion of female economically disadvantaged students (42.8% – 49.4%) to enroll. Among students who did not experience economic disadvantage, the percentage of female students (70.6% – 74.3%) to enroll in postsecondary institutions was higher than the percentage of male students (55.9% – 60.9%). Focusing exclusively on enrollment for male students, males who experienced economic disadvantage enrolled at noticeably lower rates (28.9% – 35.7%) than male students who were not economically disadvantaged (55.9% – 60.9%).

With regards to students with an IEP, the proportion of female IEP students (27.6% – 31.8%) to enroll in postsecondary was higher than the proportion of male IEP students (20.0% – 24.0%) to enroll across all cohorts. There was a similar pattern among students who did not have an IEP, ranging from 52.8% – 58.3% for male students and 64.9% – 69.3% for female students. Examining enrollment patterns for male students only, male students with an IEP (20.0% – 24.0%) were enrolled in postsecondary at lower rates than their male counterparts who did not have an IEP (52.8% – 58.3%).

Lastly, female students with EL status enrolled in postsecondary institutions at higher rates than male students with EL status (females: 30.4% – 37.4%; males: 22.2% – 30.3%). This trend also held for students who were not EL status, but the gender gap was larger (61.0% – 65.7% versus 46.7% – 52.2%). Examining male enrollment exclusively, a significantly smaller proportion of male students with EL status enrolled in postsecondary (22.2% – 30.3%) compared to male students who were not EL (46.7% – 52.2%). See Table 3.

Female economically disadvantaged, special education and EL students enrolled in postsecondary at higher rates than their male counterparts with similar backgrounds.

TABLE 3. Percentage of Male and Female Students Enrolled in Postsecondary by Demographic Characteristic and Cohort

	Overall		Cohort 1		Cohort 2		Cohort 3	
	% (n)		% (n)		% (n)		% (n)	
	Males	Females	Males	Females	Males	Females	Males	Females
Race								
Am. Indian/ Alaskan Native	39.5 (107)	49.6 (141)	46.5 (46)	48.9 (44)	38.6 (32)	57.9 (55)	32.6 (29)	42.4 (42)
Black/African American	35.9 (8,426)	50.4 (12,422)	39.4 (3,181)	53.5 (4,448)	35.1 (2,694)	51.0 (4,120)	33.0 (2,551)	46.9 (3,854)
Hispanic	31.5 (5,797)	44.2 (8,840)	36.5 (2,159)	47.7 (3,039)	29.4 (1,830)	43.8 (2,768)	29.0 (1,808)	41.2 (2,673)
White/Caucasian	51.4 (67,671)	66.5 (84,500)	54.4 (24,478)	68.7 (29,631)	50.5 (21,877)	66.1 (27,599)	49.3 (21,316)	64.6 (27,270)
Multiracial	41.6 (1,865)	54.5 (2,622)	47.1 (626)	57.6 (868)	40.0 (587)	52.2 (805)	38.8 (652)	53.9 (949)
Asian	77.3 (5,903)	82.8 (6,692)	78.4 (1,971)	85.2 (2,245)	76.9 (1,958)	82.4 (2,175)	76.5 (1,974)	80.9 (2,272)
Native Hawaiian/ Pac. Islander	57.5 (88)	65.8 (104)	65.1 (28)	74.6 (44)	52.7 (29)	58.3 (28)	56.4 (31)	62.7 (32)
Economic Disadvantage								
No	58.0 (68,173)	72.3 (82,992)	60.9 (24,191)	74.3 (28,679)	57.2 (22,174)	71.9 (27,090)	55.9 (21,808)	70.6 (27,223)
Yes	31.7 (21,684)	46.0 (31,969)	35.7 (8,298)	49.4 (11,460)	30.3 (6,833)	45.8 (10,460)	28.9 (6,553)	42.8 (9,869)
IEP								
No	55.0 (81,929)	66.9 (108,336)	58.3 (29,520)	69.3 (38,009)	53.6 (26,614)	66.4 (35,382)	52.8 (25,795)	64.9 (34,945)
Yes	21.5 (7,928)	29.7 (6,625)	24.0 (2,969)	31.8 (2,310)	20.4 (2,393)	29.9 (2,168)	20.0 (2,566)	27.6 (2,147)
EL Status								
No	49.0 (88,417)	63.3 (113,217)	52.2 (31,920)	65.7 (39,658)	48.1 (28,582)	63.0 (36,993)	46.7 (27,915)	61.0 (36,566)
Yes	25.5 (1,440)	32.9 (1,744)	30.3 (569)	37.4 (661)	22.2 (425)	30.4 (557)	23.9 (446)	30.9 (526)

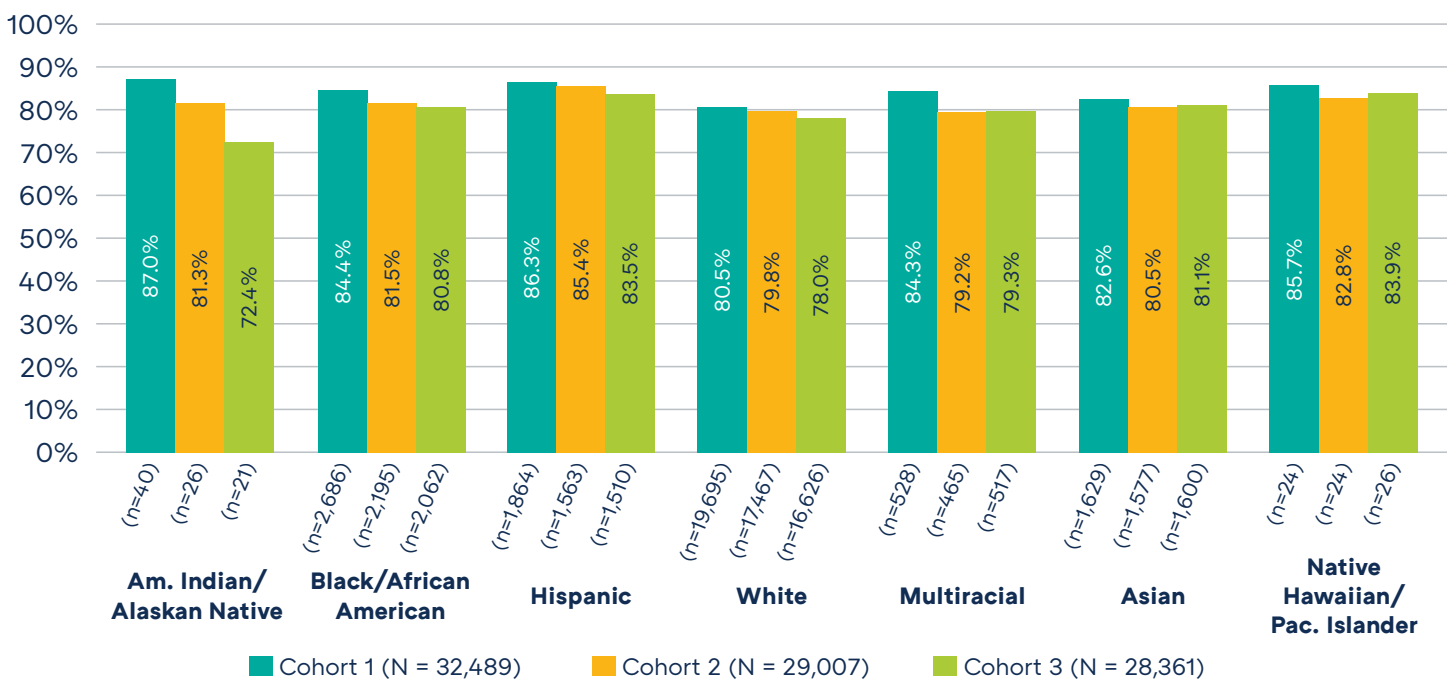
■ **Research Question 2:** To what extent are there demographic differences in postsecondary in-state attendance, enrollment status, and institution type among male high school graduates from Classes 2019, 2020 and 2021?

While the primary focus of this report was to examine differences in postsecondary enrollment between male and female high school graduates, we also wanted to explore male postsecondary engagement in greater detail to understand *how they participate* in postsecondary institutions. Among male high school graduates that enrolled in postsecondary by the fall of the year following high school graduation, we sought to examine variations in their attendance at in-state institutions, enrollment status (part-time versus full-time) and institution type (public versus private) by demographic characteristics. Hence, additional crosstab analyses were conducted to assess these differences between Fall 2019 through Fall 2021. Only findings where differences were observed are discussed below.

Postsecondary Enrollment Differences in Residency Status among Male High School Graduates by Race/Ethnicity

Between Fall 2019 through Fall 2021 postsecondary enrollment in in-state institutions was consistent across racial/ethnic groups. As Figure 2 shows, enrollment in in-state postsecondary institutions fluctuated between 78.0% – 87.1% across all racial/ethnic groups for all cohorts, with one exception. Although there was a marked decrease in in-state attendance for American Indian/Alaskan Native students in Cohort 3 (72.4%), compared to Cohorts 1 and 2 (81.3% – 87.0%), the sample of students reflected is very small with any fluctuation contributing to significant differences in the percentage.

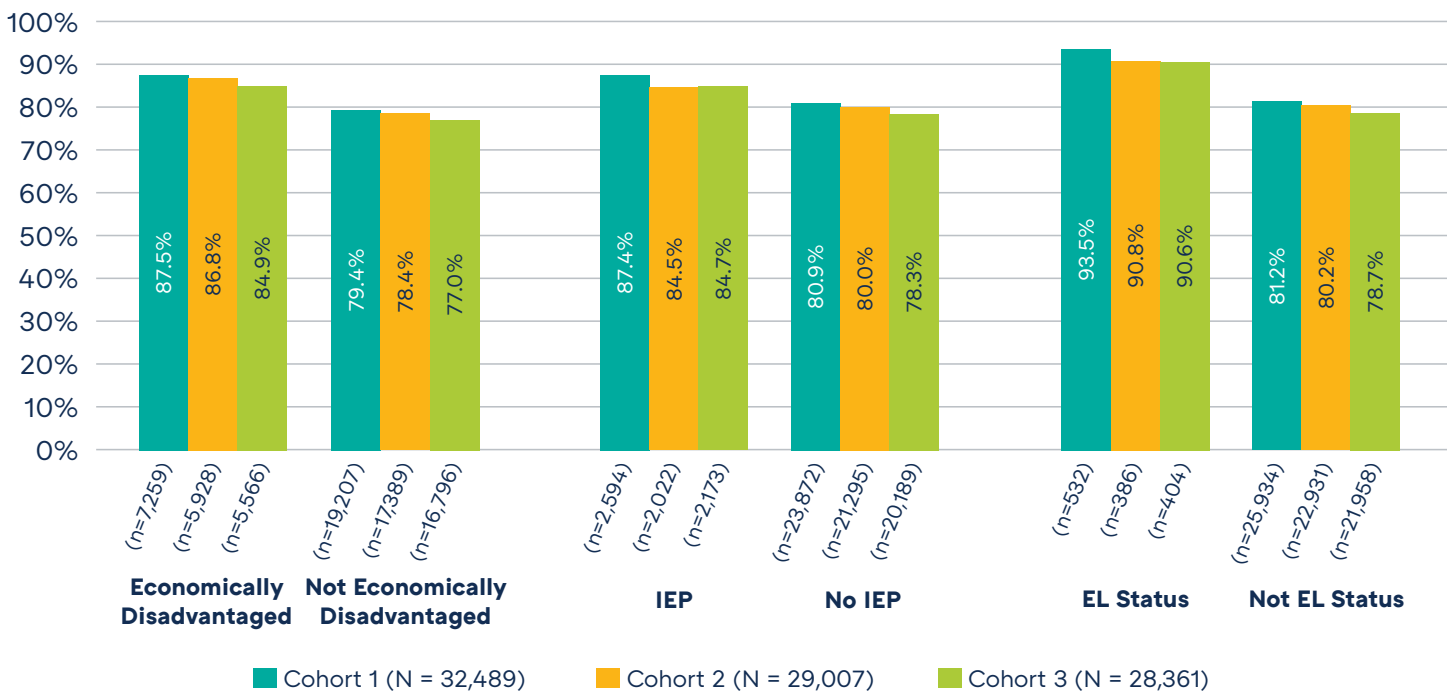
FIGURE 2. Percentage of Male Students Enrolled in an In-State Postsecondary Institution by Race for Cohort 1 through Cohort 3



Postsecondary Enrollment Differences in Residency Status among Male High School Graduates by Membership in a Historically Underperforming Groups

Crosstab analyses examining postsecondary enrollment by economic disadvantage, IEP status and EL status revealed that students in Historically Underperforming Groups enrolled in in-state institutions at a higher rate than other students. Figure 3 shows that with regards to economic disadvantage, attendance at in-state postsecondary institutions was higher for economically disadvantaged students (84.9% – 87.5%) than those who were not disadvantaged (77.0% – 79.4%). Similarly, a higher proportion of students with an IEP (84.5% – 87.4%) attended Pennsylvania postsecondary institutions compared to students who did not have an IEP (78.3% – 80.9%). A similar pattern was present among EL Graduates, such that a slightly higher proportion of EL Graduates (90.6% – 93.5%) attended in-state institutions compared to non-EL Graduates (78.7% – 81.2%). The differences in in-state attendance were consistent across all cohorts.

FIGURE 3. Percentage of Male Students Enrolled in an In-State Postsecondary Institution by Membership in a Historically Underperforming Group for Cohort 1 through Cohort 3

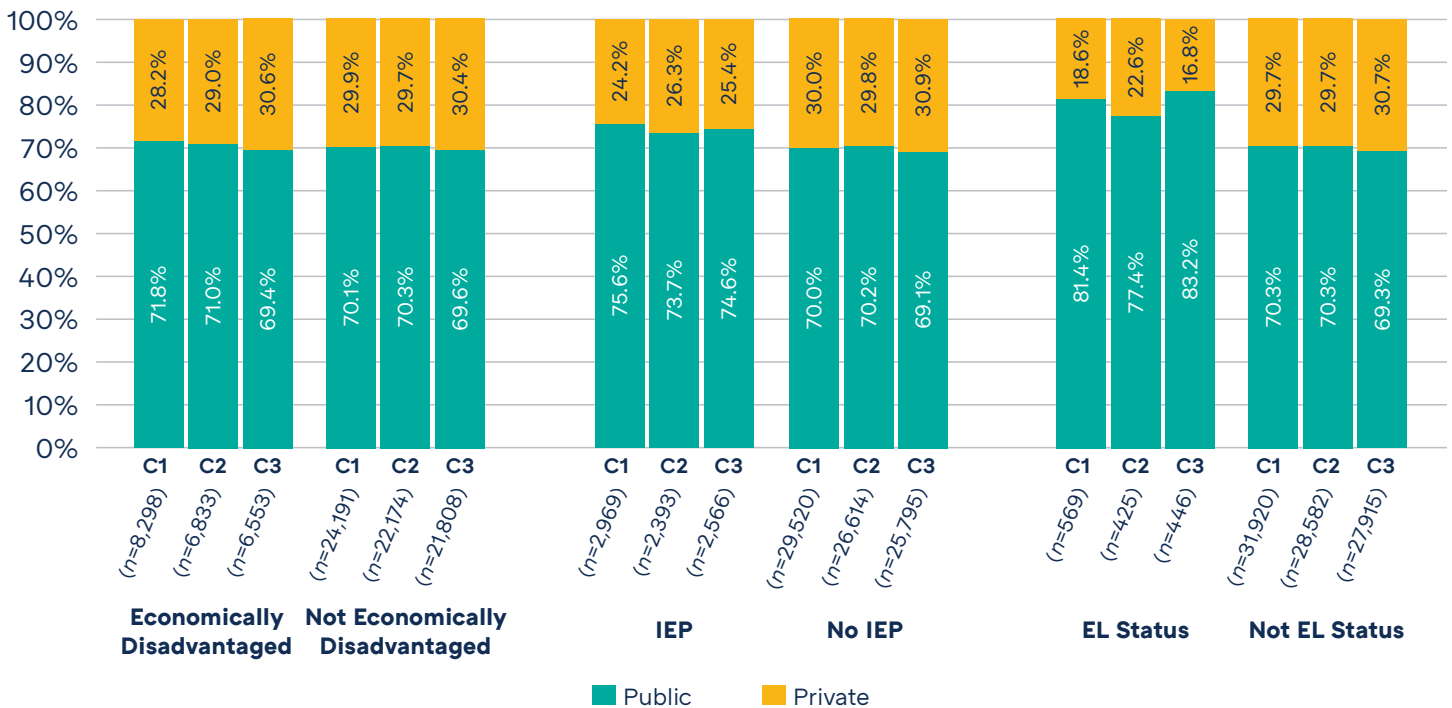


Postsecondary Enrollment Differences in Institution Type among Male High School Graduates by Membership in a Historically Underperforming Group

Crosstab analyses were conducted to examine rates of enrollment in public and private institutions for male students who were part of historically underperforming groups (economically disadvantaged, IEP status, EL status) and students who were not. See Figure 4. Rates of enrollment in public and private institutions were comparable between economically disadvantaged students and students who were not economically disadvantaged. Postsecondary enrollment in public institutions hovered around 70% across all cohorts, regardless of economic disadvantage status. Conversely, enrollment in private institutions was between 28.2% – 30.6% for economically disadvantaged students and students who were not economically disadvantaged.

There were noticeable differences in public and private enrollment based on IEP status. Enrollment in public institutions was somewhat higher for students with an IEP (73.7% – 75.6%) compared to students who did not have an IEP (69.1% – 70.2%). Conversely, enrollment in private institutions was higher among students who did not have an IEP. EL students were enrolled in public institutions at a significantly higher rate (77.4% – 83.2%) than students who were not EL (69.3% - 70.3%). As expected, enrollment at private institutions was noticeably higher for students who were not EL status. Refer to Figure 4.

FIGURE 4. Percentage of Male Students Enrolled in Public and Private Postsecondary Institutions by Membership in a Historically Underperforming Group for Cohort 1 through Cohort 3



Postsecondary Enrollment Differences in Enrollment Status among Male High School Graduates by Race/Ethnicity

Differences in enrollment status were found based on race/ethnicity, as a higher proportion of White (89.1% – 89.8%) and Asian (90.1% – 91.6%) students enrolled in postsecondary as full-time students. Rates of full-time enrollment were lowest for Black (74.7% – 76.6%) and Hispanic (76.0% – 78.8%) students. Conversely, Black and Hispanic students were enrolled in postsecondary institutions at less than full-time status at higher rates than any other racial/ethnic group. A larger proportion of Black/African American (4.6% – 6.5%) and Hispanic (4.4% – 5.1%) students also withdrew or took a leave of absence, though the percentage of students with this enrollment status was low overall. Among Asian students between 1.3% (Cohort 1) to 1.9% (Cohort 3) withdrew or took a leave of absence from their postsecondary institution. See Table 4.

Differences in enrollment status were found based on race/ethnicity, as a higher proportion of White and Asian students enrolled in postsecondary as full-time students.

TABLE 4. Enrollment Status for Male Students Enrolled in Postsecondary Institutions by Race for Cohort 1 through Cohort 3

	Full-Time			Less Than Full-Time			Withdrawn/Leave of Absence		
	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
	Cohort 1	Cohort 2	Cohort 3	Cohort 1	Cohort 2	Cohort 3	Cohort 1	Cohort 2	Cohort 3
American Indian/ Alaskan Native	86.4 (38)	83.3 (25)	72.4 (21)	*	*	*	*	*	*
Black/African American	76.6 (2,388)	74.7 (1,950)	76.5 (1,913)	18.7 (584)	18.8 (491)	17.7 (442)	4.6 (144)	6.5 (170)	5.8 (146)
Hispanic	76.0 (1,606)	76.2 (1,352)	78.8 (1,388)	19.6 (415)	19.0 (338)	16.1 (283)	4.4 (93)	4.8 (85)	5.1 (90)
White/ Caucasian	89.6 (21,412)	89.1 (19,103)	89.8 (18,742)	7.5 (1,793)	7.6 (1,626)	7.2 (1,505)	2.9 (684)	3.3 (709)	3.0 (619)
Multiracial	83.0 (507)	82.0 (470)	85.7 (550)	12.9 (79)	11.2 (64)	10.7 (69)	4.1 (25)	6.8 (39)	3.6 (23)
Asian	90.1 (1,750)	91.6 (1,772)	90.2 (1,755)	8.6 (167)	6.6 (128)	7.9 (153)	1.3 (25)	1.8 (35)	1.9 (37)
Native Hawaiian/ Pacific Islander	100.0 (27)	75.9 (22)	83.3 (25)	*	*	*	*	*	*

*Counts too low to report.

Postsecondary Enrollment Differences in Enrollment Status among Male High School Graduates by Membership in a Historically Underperforming Group

Separate crosstab analyses were run to examine potential differences in enrollment status based on economic disadvantage, IEP status, and EL status. Although a majority of male students enrolled in postsecondary full-time, regardless of group membership, results show that a smaller proportion of male students from historically underperforming groups were enrolled in postsecondary institutions full-time compared to male students who were not part of a historically underperforming group. Economically disadvantaged male students' full-time enrollment (78.5% – 80.8%) was noticeably lower than students who were not economically disadvantaged (89.6% – 89.9%). The proportion of economically disadvantaged students that were enrolled less than full-time (13.9% – 14.9%) or withdrew/took a leave of absence (4.6% – 6.6%) was higher compared to students who were not economically disadvantaged (less than full-time: 7.3% – 7.8%; withdrawn/leave of absence: 2.5% – 2.8%).

The disparity in full-time enrollment among male students with an IEP (69.3% – 72.1%) was even more pronounced, as full-time enrollment lagged behind the enrollment of students who did not have an IEP (88.6% – 89.4%). This trend continued for less than full-time status and withdrawn/leave of absence status. Refer to Figure 5. Regarding EL status, full-time enrollment among male students who were not identified as EL students (87.3% – 88.2%) was much higher than full-time enrollment among EL status students (64.5% – 64.6%). However, a larger proportion of male EL status students were enrolled less than full-time (EL status: 29.8% – 32.1%; Not EL status: 8.5% – 9.2%). Overall, male students from historically underperforming groups enrolled full-time at a much lower rate than their peers who were not members of historically underperforming groups. See Figure 5.

FIGURE 5. Enrollment Status of Male Students Enrolled in Postsecondary Institutions by Membership in a Historically Underperforming Group for Cohort 1 through Cohort 3



Postsecondary Enrollment Differences in Institution Type among Male High School Graduates by Race/Ethnicity

A majority of male students enrolled in 4-year institutions regardless of race/ethnicity. However, White, Multiracial, and Asian male students enrolled in 4-year institutions at higher rates than their Black and Hispanic male counterparts. For White, Multiracial and Asian students the proportion of students to enroll in 4-year postsecondary ranged from 71.9% – 84.9%, yet the rate of postsecondary enrollment in 4-year institutions among Black and Hispanic students was lower at 54.2% – 71.1%. Hispanic males had the smallest proportion of students to enroll in 4-year institutions (54.2% – 61.9%) followed by Black males (63.8% – 71.1%). Conversely, enrollment in 2-year institutions was highest for these groups. Refer to Table 5.

TABLE 5. Institution Type for Male Students Enrolled in Postsecondary Institutions by Race for Cohorts 1 through Cohort 3

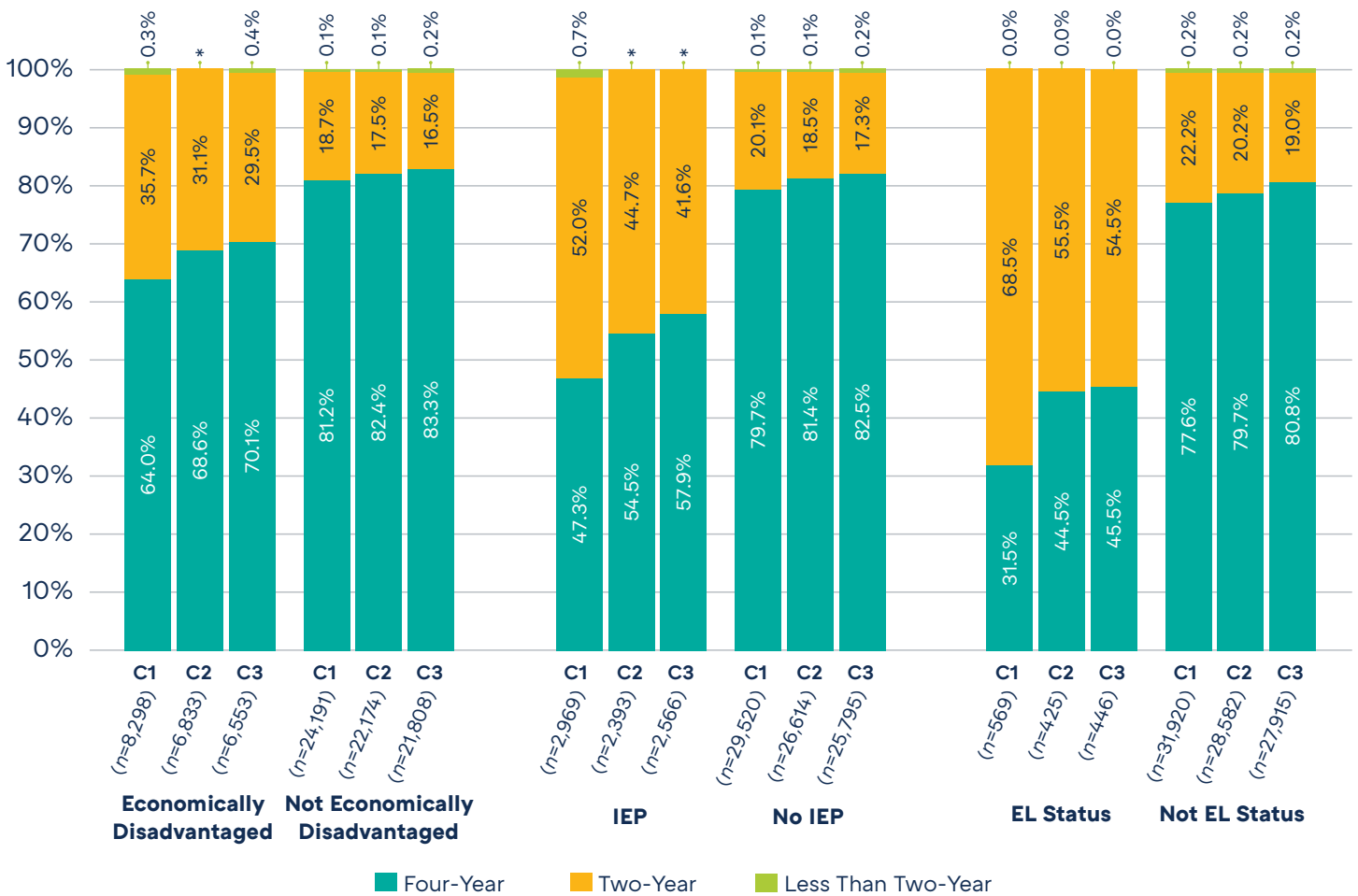
	Four-Year			Two-Year			Less Than 2-Years		
	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
	Cohort 1	Cohort 2	Cohort 3	Cohort 1	Cohort 2	Cohort 3	Cohort 1	Cohort 2	Cohort 3
American Indian/ Alaskan Native	67.4 (31)	71.9 (23)	82.8 (24)	*	*	*	*	*	*
Black/ African American	63.8 (2,030)	68.7 (1,850)	71.1 (1,814)	36.1 (1,149)	31.3 (843)	28.8 (734)	*	*	*
Hispanic	54.2 (1,170)	61.9 (1,133)	63.3 (1,145)	45.8 (988)	38.0 (696)	36.6 (662)	*	*	*
White/ Caucasian	80.2 (19,629)	81.6 (17,842)	82.4 (17,562)	19.6 (4,791)	18.2 (3,992)	17.3 (3,694)	.2 (58)	.2 (43)	.3 (60)
Multiracial	71.9 (450)	74.1 (435)	79.1 (516)	28.1 (176)	25.9 (152)	20.7 (135)	*	*	*
Asian	81.6 (1,609)	84.5 (1,655)	84.9 (1,675)	18.4 (362)	15.4 (302)	15.1 (298)	*	*	*
Native Hawaiian/ Pacific Islander	85.7 (24)	79.3 (23)	71.0 (22)	*	*	*	*	*	*

*Counts too low to report.

Postsecondary Enrollment Differences in Institution Type among Male High School Graduates by Membership in a Historically Underperforming Group

Crosstab analyses revealed that males who were economically disadvantaged, had an IEP or held EL status were enrolled in 4-year postsecondary institutions at lower rates than their peers who were not part of a historically underperforming group. Economically disadvantaged students (64.0% – 70.1%) were enrolled in 4-year postsecondary institutions at slightly lower levels than students who were not economically disadvantaged (81.2% – 83.3%). Refer to Figure 6. The disparity between students with an IEP and students who did not have an IEP was more noticeable. Between 47.3% – 57.9% of students with an IEP enrolled in 4-year institutions, compared to 79.7% – 82.5% of students who did not have an IEP. There was a noticeable difference in postsecondary enrollment in 4-year institutions between EL students and students who were not EL, as enrollment for EL students (31.5% – 45.5%) was close to half the enrollment rate of students who were not EL (77.6% – 80.8%). Despite the disparity in 4-year enrollment among male students in historically underperforming groups, it is worth mentioning that enrollment in 4-year institutions increased steadily from cohort 1 to cohort 3 for all male students.

FIGURE 6. Institution Type for Male Students Enrolled in Postsecondary Institutions by Membership in a Historically Underperforming Group for Cohort 1 through Cohort 3



*Counts too low to report.

While the disparate enrollment rates between male and female students deserves attention, centering male students allowed for a more nuanced understanding of their postsecondary engagement.

Discussion

Consistent with national data the proportion of male students to enroll in a postsecondary institution upon receiving a high school credential was noticeably lower than the proportion of female students to enroll in postsecondary. While the disparity in enrollment was quite large, it was also consistent in that female postsecondary enrollment outpaced male enrollment across all cohorts and regardless of other demographic characteristics (race/ethnicity, economic disadvantage, EL status). It is not clear why males are enrolling in postsecondary at lower rates than their female counterparts. The research that has been conducted in this area suggests female students perform at higher levels than their male peers in high school and engage in academic-related activities inside and outside of school at higher rates (Buchmann & DiPrete, 2006; Jacob, 2002), which makes them more desirable candidates and more prepared for postsecondary enrollment. Furthermore, empirical research suggests female students are more engaged, prioritize academic work and embrace the role of a “good student” more than male students while in high school (Downey & Yuan, 2005). There is also a growing body of work that highlights the benefits of social capital for female students entering postsecondary. Riegle-Crumb (2010) concluded that female students who had access to more social capital (academic friendship groups, high school counselors, etc.) in high school were more likely to enroll in a four-year postsecondary institution, even when academic performance was accounted for. This relationship was not found for male students. However, other research suggests academic performance, in addition to social capital, also explains higher rates of postsecondary enrollment for female students (Klevan et al., 2015). Put another way, while social capital explains disparate levels of postsecondary enrollment to some extent, female students generally outperform male students academically which facilitates higher levels of educational attainment (2015).

In addition to comparing postsecondary enrollment behavior between male and female students, the current study also examined postsecondary engagement for male students exclusively. While the disparate enrollment rates between male and female students deserves attention, centering male students allowed for a more nuanced understanding of their postsecondary engagement. Demographic differences in postsecondary enrollment were evident among male high school graduates in this study. In line with previous research, Black, Hispanic and American Indian/Alaskan Native male students enrolled in postsecondary at lower rates than their Asian, White and Native Hawaiian/Pacific Islander counterparts. In addition to lower levels of enrollment, a

markedly smaller proportion of Black male and Hispanic male students were enrolled as full-time students or in 4-year institutions. Similarly, the proportion of male graduates to enroll in postsecondary who were economically disadvantaged, had an IEP or held EL status was lower compared to male students who did not hold membership in these groups. In line with this trend a much smaller proportion of male students from historically underperforming groups were enrolled full-time and in 4-year institutions. Overall, these findings are consistent with postsecondary enrollment literature that suggests marginalized and historically underperforming groups enroll in postsecondary institutions at lower rates than other groups (Harper, 2014; Orr & Looby, 2020; Wagner et al., 2006).

Studies suggest disparate rates of postsecondary enrollment have persisted over the course of several years. In fact, data from this study suggests there was a decline in enrollment among all students from marginalized and historically underperforming groups between Cohort 1 (Fall 2019) to Cohort 3 (Fall 2021), suggesting continued challenges may lay ahead for these groups.

There is a clear need to understand why Black and Hispanic males and male students from historically underperforming groups enroll in postsecondary at lower rates and are less engaged than their peers from other demographic backgrounds. There are likely a host of reasons postsecondary enrollment and engagement trends are lower for these groups. Deficit frameworks are often used to frame disparate postsecondary enrollment and attainment for marginalized groups (Harklau, 2000; Hines et al., 2022), yet there is some data that suggests other factors may be at play. Previous research suggests males from these groups are not exposed to the full breath of postsecondary options and that they are less likely to receive encouragement and the practical support needed to pursue a postsecondary career (Hines et al., 2022). Male students, particularly male students from marginalized backgrounds, may lack the social capital many of their female counterparts enjoy. The knowledge and support that often comes as a result of valued peer and student relationships, becomes particularly useful as high school students begin to make decisions about their plans post-high school graduation. It is also possible that students from marginalized backgrounds are not given the same exposure to advanced college-prep courses, which likely reinforces ideas about who should (and should not) enroll in postsecondary. As an example, research by Callahan and colleagues found that students whose first language was not English, but were not enrolled in formal EL programs, had more access to college preparatory courses and higher cumulative GPAs than students who were enrolled in formal EL programs, regardless of English proficiency (2010). These distinctions likely impact student academic preparedness, but also perceptions about who is “college material” and who is not, leading to disparities in college applications and enrollment. Taken together, there are likely a host of social, academic, and systemic factors that ultimately inform postsecondary enrollment trends identified in this study. Considering the obstinate nature of these disparities, in the Commonwealth, as well as across the nation, intentional policies and practices must be developed and enacted to address the unique needs and circumstances of racial/ethnic minority male students and males who are members of historically underperforming groups.

A much smaller proportion of male students from historically underperforming groups were enrolled full-time and in 4-year institutions.

Results from this study also identified differences in postsecondary enrollment status and type for male students. With regards to residential status, males from historically underperforming groups enrolled in in-state institutions at a higher rate than males who were not identified as historically underperforming. Enrolling at an in-state institution may be particularly beneficial for students who experience economic disadvantage, have an IEP or are an EL student. In-state institutions are typically less expensive than out-

of-state institutions, which likely benefits students facing economic struggles. Enrolling at an in-state institution may also prove beneficial for students with an IEP and EL students. Individuals with an IEP and EL students enrolled in in-state institutions may be more familiar with services available in the Commonwealth and may be able to navigate more easily than if they were to attend postsecondary in another state. In-state attendance may also allow individuals with an IEP and EL status to call upon familial and social support that would be less accessible if they attended an institution outside of Pennsylvania. In addition to differences in residency status, there were also differences in enrollment type (public/private) for EL students. Compared to students who were not identified as EL, a larger proportion of EL students enrolled in public institutions than private institutions. The discrepancy in enrollment was consistent across cohorts. Overall, enrollment at public institutions was also higher among economically disadvantaged students and students with an IEP, but the differences between the groups was not as robust, suggesting EL students in particular are more likely to enroll in public institutions compared to students who are not EL or a member of a historically underperforming group.

Suggestions for Future Research and Conclusions

This research clearly demonstrates a gender disparity in postsecondary enrollment in the Commonwealth, but there is no clear evidence to explain why this disparity exists. Previous research suggests there are a host of social, academic and economic reasons that may help explain why male high school graduates are enrolling in postsecondary institutions at lower rates than their female counterparts. While some theories have been put forth (i.e. social capital, academic performance), future work must examine why these disparities persist within the Commonwealth. Additional research in this area is particularly important to the development of effective policy and practice measures to reduce postsecondary gender disparities.

This research presents several opportunities for further study. Understanding statistical trends across three cohorts is helpful but continuing to monitor male postsecondary enrollment over a more extended period would help guide policy and practice efforts to an even greater extent. In this study there was a slight decline in male enrollment year-over-year. As educational and economic landscapes continue to evolve post-pandemic, it is important to explore whether year-over-year enrollment declines persist. Related to this, a more in-depth examination of the trajectory of male postsecondary students is warranted. Specifically, are male students persisting at their institutions? Are postsecondary institutions retaining male students? Considering the gender differences in postsecondary enrollment identified in this study, it is necessary to explore whether gender differences in postsecondary persistence and retention also exist? Future studies will investigate these questions among Pennsylvania postsecondary students.

As educational and economic landscapes continue to evolve post-pandemic, it is important to explore whether year-over-year declines persist.

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