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# College Benefits and Costs: Student Perception and Data Realities

Evidence from the High School Graduation Survey

Jennifer Ma  
Caitlin O'Grady  
Jessica Howell  
Amanda Jacklin

College Board Research

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## Executive Summary

Research demonstrates that additional education beyond high school is associated with more employment opportunities, higher earnings, and better health outcomes. Despite stability in the economic benefits of a college degree as well as the net prices that students pay for college in recent years, student perceptions of whether college “is worth it” dropped sharply during the pandemic and have not rebounded. We examine data from the College Board High School Graduation Survey that collects attitudinal information from more than 250,000 high school seniors across the graduating classes of 2017 through 2023 to understand changes in student confidence in the value and importance of college across different student subgroups by demographics, academic achievement, and geography. We also contrast student perceptions of college with their actual postsecondary enrollment choices using data from College Board and National Student Clearinghouse. We find that even though high school students express less favorable sentiment about college after the pandemic, they are still enrolling in four-year colleges at similar rates as during pre-pandemic years. In fact, post-pandemic, students expressing decreased confidence in the value of college are actually more likely to enroll in a four-year institution than similar pre-pandemic students who expressed less favorability about the value of college. These results inform potential actions to improve both student sentiment and behavior.

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## Changing Perceptions of Higher Education in the U.S.

A college education opens doors to many opportunities. Research demonstrates that additional education beyond high school is associated with more employment opportunities, higher earnings, more fringe benefits, better health outcomes, and higher levels of civic engagement (Case & Deaton, 2023; Hoekstra, 2009; Ma & Pender, 2023; Oreopoulos & Petronijevic, 2013; Zimmerman, 2014).

While the earnings premium from a college degree has remained stable over time, the public's perception of higher education has weakened in recent years. A recent Gallup survey reveals that, while 57% of U.S. adults reported having a great deal or quite a lot of confidence in higher education in 2015, only 36% of U.S. adults did in 2024 (Jones, 2024). A recent Pew Research Center survey shows that about half of U.S. adults report they feel it is less important to have a four-year college degree today in order to get a well-paying job than it was 20 years ago (Fry, Braga, & Parker, 2024). Similarly, New America's Varying Degrees survey, which has been tracking Americans' perception of the value of higher education since 2017, demonstrates that Americans' confidence in higher education is trending downward (Nguyen, Fishman, & Cheche, 2024).

What do high school seniors think? We analyze trends between 2017 and 2023 in perceptions of the value and importance of a college degree among high school graduating seniors. The survey data reveal that the share of high school seniors holding positive views of higher education declined sharply in 2021 and has not rebounded. Subgroup analyses indicate that traditionally underserved students report larger declines in their confidence in the value of college. As a result, differences in student perception of the value of college across various subgroups have widened since the pandemic.

Using merged college enrollment data and controlling for student demographics and prior academic achievement, we show that students who hold positive views of higher education are more likely to enroll in college than those who do not hold positive views, although the difference in college enrollment rates between these two groups actually narrowed rather than widened after the pandemic. Regression results suggest that holding negative perceptions of the value of higher education reduces a student's likelihood of enrolling in college, but the impact of negative perceptions is much smaller post-pandemic compared to pre-pandemic. In other words, the sharp and large decline in the share of students holding positive views of higher education did not translate into reduced college enrollment of a similar magnitude.

This research contributes to the current literature on student sentiment around higher education in several ways. First, our analysis draws on survey responses from large, annual samples of high school seniors that permit greater segmentation and understanding of student subgroups. Second, our survey has been repeated annually between 2017 and 2023, revealing a unique perspective on student perceptions before, during, and after the covid-19 pandemic. Finally, we pair the survey data with administrative data on a rich set of

covariates and postsecondary enrollment outcomes, yielding a combination of attitudinal and behavioral data that creates a deeper understanding of how student perceptions are related to their actions.

The research is presented in three sections. First, we describe the annual survey of high school graduates and demonstrate how student perceptions of the value and importance of college have changed over time—before, during, and after the pandemic. The descriptive survey results are further analyzed in a regression framework to demonstrate that the takeaways continue to hold even after controlling for differences in student demographics and academic achievement. Second, we document trends in college prices—both sticker and net prices—as well as student loan debt and college wage premia over this same time period to demonstrate that changes in student perception are not reflective of contemporaneous changes in the actual costs and benefits of college. Finally, we examine whether changes over time in student sentiment translate into changes in college-going, concluding that post-pandemic students with less favorable views of the value of a bachelor’s degree are more likely to enroll in a four-year college than similar students who held less favorable views of college pre-pandemic.

## I. Student Perceptions of College

The College Board High School Graduation Survey (e.g., the Grad Survey) is an annual survey of high school seniors who participated in the PSAT, SAT, or AP assessments and opted into email communications from the College Board. Conducted near the end of students’ senior year of high school and graduation, the survey asks students about their feelings about leaving high school, plans after high school graduation, and attitudes about their future. Roughly one million graduating seniors are invited to participate in the survey each year, with response rates ranging from 3 to 5 percent between 2017 and 2023. In this study, we focus on a trio of survey questions related to how students perceive the value of and need for a college education. Every survey year, graduating seniors were asked about the extent to which they agree or disagree with the following statements:

1. *Having a bachelor's degree is critical to students' future success.*
2. *The future benefits of a college education outweigh the current financial costs.*
3. *Students are more likely to be employed in the job of their choice if they complete a 4-year college degree.*

For each of these statements, students were provided a five-point Likert scale to indicate their level of agreement: (1) completely agree, (2) generally agree, (3) neither agree or disagree, (4) generally disagree, and (5) completely disagree. We consider students’ perception of higher education as positive if they selected either “completely agree” or “generally agree” in response to these statements about the value of and importance of college for their future success. We include in our analysis sample all domestic students who responded to these three survey questions.

Table 1 shows the total number and percentage distribution of students in our study sample. Sample sizes vary from year to year because of question randomization, although the distribution of student attributes is quite stable across cohorts. For example, the share of students who are Black ranges from 7.3% in 2020 to 10.3% in 2023, the share of students who are Hispanic ranges from 19.4% in 2017 to 22.9% in 2023, and the share of students who are Native ranges from 0.4% in 2021 to 0.8% in 2023. Respondents are more likely to be female than male, with the share of students who are female ranging from 62.6% in 2023 to 70.5% in 2021. More than half of the respondents have at least one parent with a four-year college degree, the majority of students self-report high school GPAs of A- or higher, and nearly 90% of students graduated from public high schools.<sup>1</sup> Because research often shows that perceptions of higher education vary with respondents' demographics, we employ the variables in Table 1 as controls in our regression analyses below.

**Table 1. Number and Percentage Distribution of Students in Study Sample**

	2017	2018	2019	2020	2021	2022	2023
<b>Number of Respondents</b>	9,817	66,124	88,774	20,736	42,058	31,148	19,872
<b>Race/Ethnicity</b>							
Asian	10.2%	11.2%	10.0%	11.1%	12.9%	12.0%	11.7%
Black	8.9%	9.1%	8.9%	7.3%	8.1%	8.4%	10.3%
Hispanic	19.4%	20.7%	20.6%	20.1%	21.7%	20.5%	22.9%
Native	0.6%	0.6%	0.5%	0.5%	0.4%	0.7%	0.8%
White	54.8%	52.7%	53.6%	53.9%	49.4%	50.0%	45.6%
Two+ Races	4.2%	4.1%	4.7%	4.8%	5.3%	5.1%	5.1%
Missing	2.0%	1.6%	1.7%	2.3%	2.2%	3.3%	3.7%
<b>Gender</b>							
Female	70.3%	67.2%	68.4%	70.0%	70.5%	67.8%	62.6%
Male	29.7%	32.8%	31.5%	29.8%	29.1%	31.1%	36.1%
Missing	0.0%	0.0%	0.0%	0.2%	0.4%	1.1%	1.4%

<sup>1</sup> Research shows that students accurately self-report their high school grades (Marini, Young, & Shaw, 2021).

**Table 1 Cont. Number and Percentage Distribution of Students in Study Sample**

	2017	2018	2019	2020	2021	2022	2023
<b>Parents' Ed</b>							
HS or Less	15.8%	17.5%	16.5%	13.9%	15.8%	15.6%	15.1%
Some Col	13.3%	13.8%	13.1%	11.3%	11.3%	11.2%	11.0%
Associate Deg	7.3%	7.8%	7.3%	6.4%	6.1%	6.0%	5.5%
Bachelor's+	60.7%	58.5%	60.6%	66.1%	63.2%	60.3%	57.1%
Missing	3.0%	2.4%	2.4%	2.3%	3.6%	6.9%	11.4%
<b>Student HSGPA</b>							
A+	13.5%	13.4%	14.5%	18.6%	18.7%	20.5%	19.1%
A	29.8%	29.5%	29.2%	31.1%	32.3%	30.6%	27.9%
A-	20.4%	19.3%	19.5%	17.6%	18.0%	14.8%	16.5%
B+	13.6%	13.4%	12.7%	10.7%	9.7%	8.7%	9.7%
B or Lower	17.7%	18.6%	17.6%	14.5%	12.1%	10.6%	13.4%
Missing	5.1%	5.8%	6.6%	7.5%	9.1%	14.8%	13.4%
<b>School Type / Resources</b>							
Other	1.3%	1.3%	1.1%	1.1%	1.4%	2.1%	2.0%
Private	11.6%	10.5%	10.5%	10.3%	10.2%	10.3%	8.4%
Public	87.2%	88.1%	88.4%	88.6%	88.4%	87.6%	89.6%
FRPL 1-25%	29.4%	27.7%	29.7%	32.2%	30.5%	28.1%	28.1%
FRPL 26-50%	27.3%	28.7%	28.7%	29.0%	28.4%	29.1%	30.0%
FRPL 51-75%	16.4%	17.3%	16.3%	14.9%	15.6%	15.4%	17.5%
FRPL 76-100%	8.7%	9.8%	9.1%	7.2%	8.7%	8.8%	9.2%
FRPL Missing	5.4%	4.6%	4.7%	5.3%	5.2%	6.3%	4.7%

**Note:** Totals include students who answered any of the three statements about perceptions/importance of college. Some survey questions, including our focal question, were posed to a random subset rather than all respondents, so the number of students who received these questions varies from year to year. FRPL is free and reduced-price lunch.

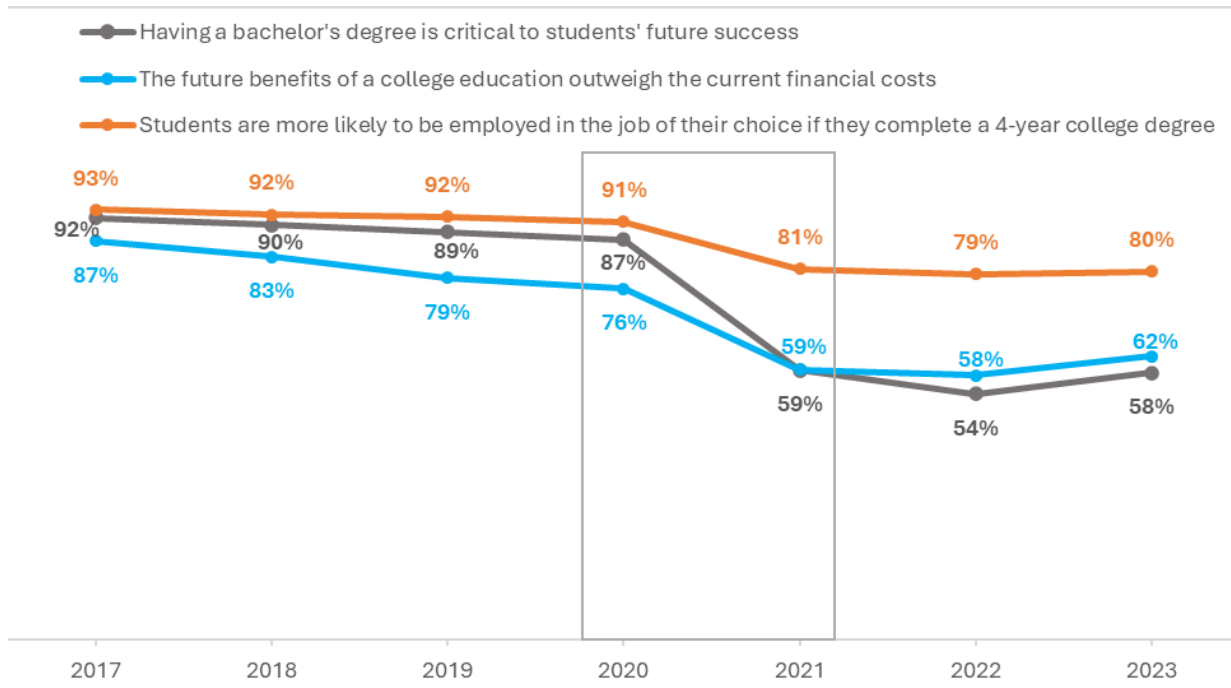
Compared with all domestic College Board assessment takers, Grad Survey respondents are more likely to be Asian, white, female, have higher high school GPAs, and have parents who have graduated from college. Grad Survey respondents are also less likely to graduate from a public high school with more than half of students eligible for free and reduced-price lunch. See the appendix for more detail on the study sample relative to all students who take College Board assessments.



## What Do High School Seniors Think of the Value of College?

An overwhelming majority of student respondents in the graduating cohorts of 2017 through 2020 held favorable views of higher education, with upwards of three-quarters of respondents agreeing with statements about the value and importance of a college education for future success. Although there is some evidence of declining sentiment prior to 2021, there is a notable sharp decline in the shares of students in the 2021 cohort who held favorable views of college. The gray line in Figure 1 shows that while 87% of students in the 2020 cohort either completely or generally agreed that having a bachelor's degree was critical to students' future success, only 59% of the 2021 cohort students shared the same view. This share further declined to 54% in 2022 and rebounded slightly to 58% in 2023. Similarly, the share of respondents who agreed that the future benefits of a college education outweighed the current costs (blue line) declined from a high of 87% in 2017 to 76% in 2020 and then sharply to 59% in 2021 followed by a small rebound. Finally, the share of respondents who agreed that students with a four-year college degree were more likely to be employed in the job of their choice (orange line) was the most stable student sentiment prior to the pandemic, before falling 10 percentage points in 2021 and remaining relatively flat afterwards.

**Figure 1.** Shares of Respondents Who Completely or Generally Agree with Each Statement About the Value of College

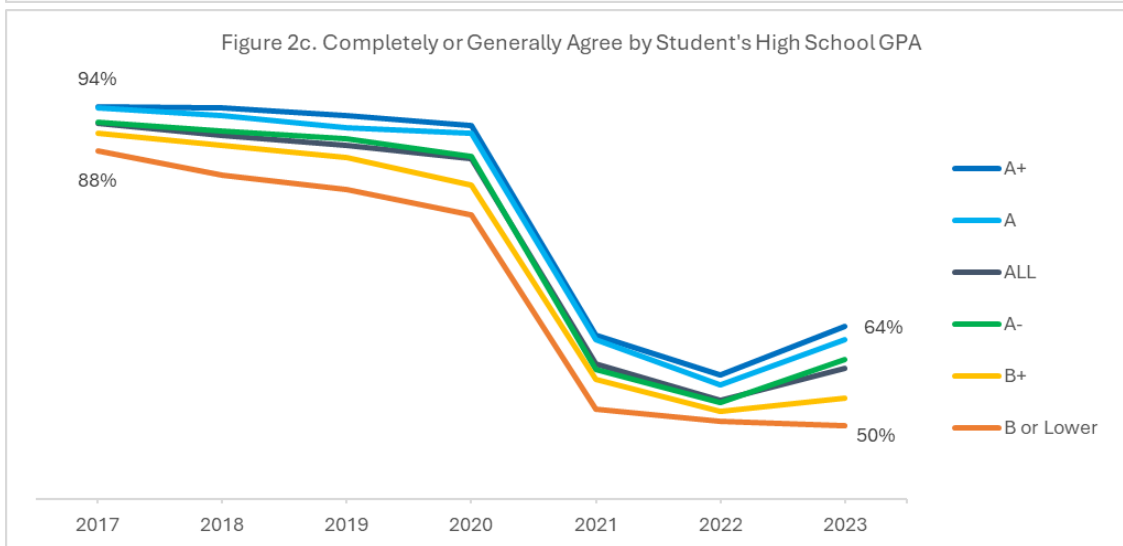
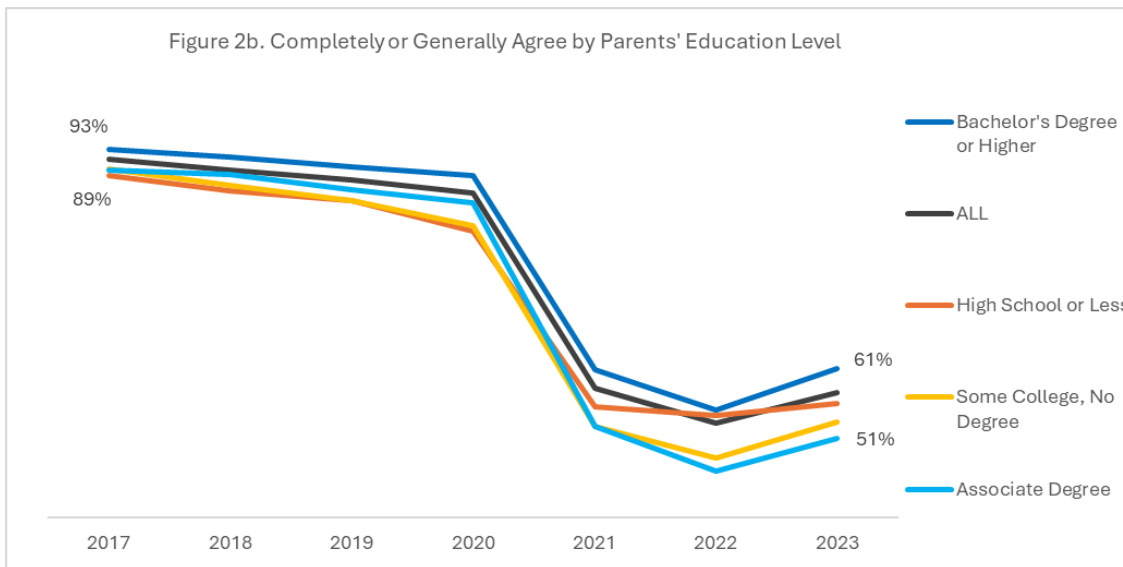
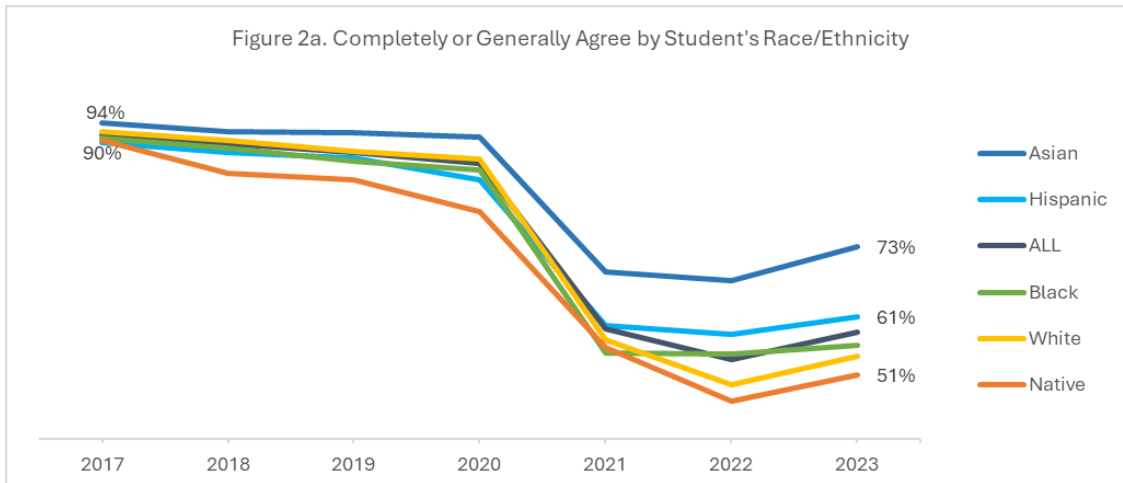


We unpack the changes in student perception of higher education evident in Figure 1 by examining change in sentiment among students in different subgroups. To simplify this analysis, we home in on the statement that “Having a bachelor’s degree is critical to students’ future success” (gray line in Figure 1), which experienced the sharpest decline over time. Figure 2 shows the shares of students who completely or generally agree that a bachelor’s degree is critical to future success by race/ethnicity (Figure 2a), highest level of parents’ education (Figure 2b), and high school GPA (Figure 2c).

Several interesting patterns are revealed in the three panels of Figure 2. In 2017, there are relatively small differences in the shares of students from different subgroups who hold positive views of higher education. For example, there is a 4 percentage-point gap in favorable sentiment across different racial/ethnic subgroups in Figure 2a, ranging from 94% of Asian students (the maximum) to 90% of Hispanic students (the minimum) agreeing that a bachelor’s degree is critical to future success. Not only does student favorability plummet in 2021 for all racial/ethnic groups, but sizeable gaps open by race/ethnicity. By 2023, a 22 percentage-point gap opens between the favorability of Asian students (the maximum at 73%) and Native American students (the minimum at 51%).

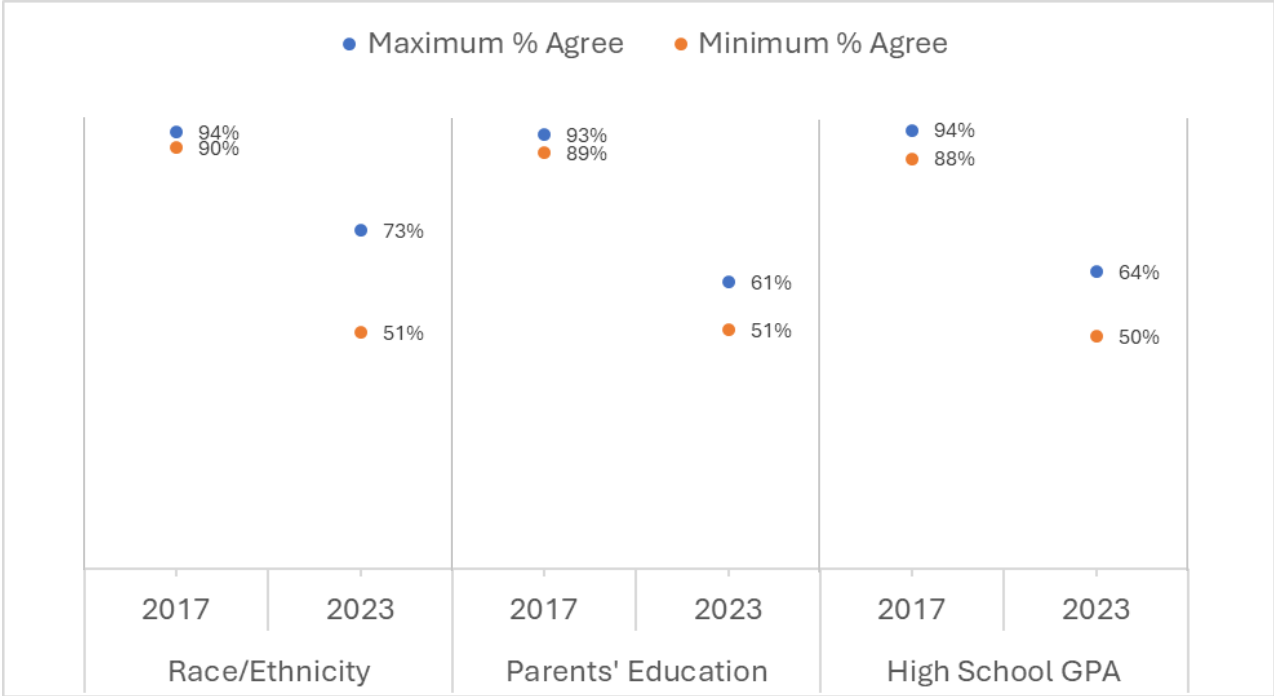
Figures 2b and 2c show similar patterns of declines in sentiment toward college in 2021 among all student subgroups with a fanning effect across subgroups by parental education and high school GPA. Figure 2b shows that students with college-educated parents have the highest share of agreement about the value of a bachelor’s degree, but that agreement falls more than 30 percentage points (from 93% to 61%) between 2017 and 2023. Figure 2c shows that A+ high school students hold the most favorable view of the value of a bachelor’s degree, but that favorability also falls 30 percentage points (from 94% to 64%) between 2017 and 2023. See the appendix for additional student subgroups as well as data on the other two student sentiment statements from Figure 1, all of which reveal patterns similar to Figure 2.

**Figure 2. Shares of Respondents Who Completely or Generally Agree That Having a Bachelor's Degree Is Critical to Students' Future Success**



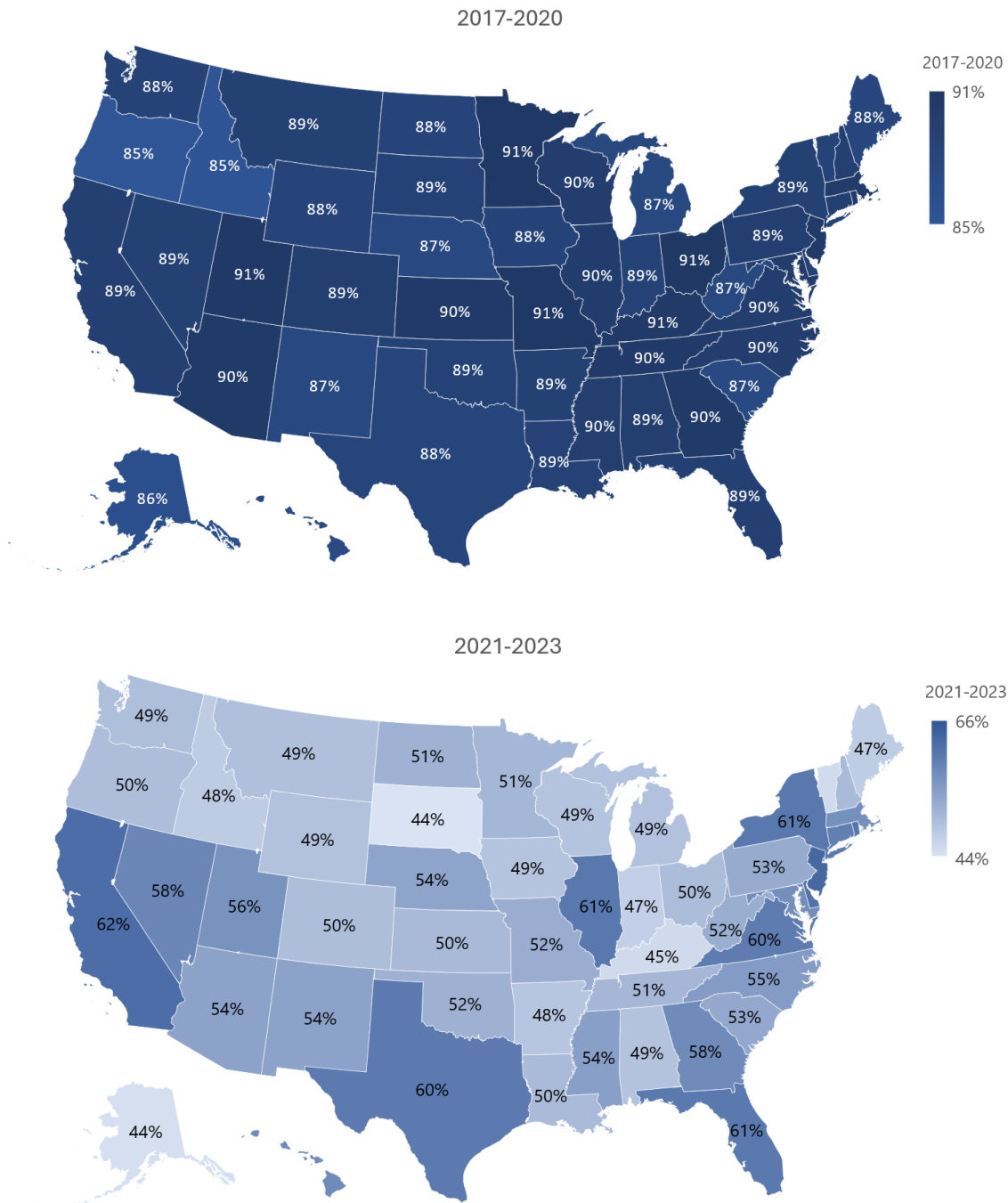
With the timing and consistency of the drop in student favorability toward college established, Figure 3 summarizes these changes in a way that clearly depicts both the decline in sentiment and widening of sentiment gaps across subgroups before versus after the pandemic. In 2017, all student subgroups reported near-universal agreement about the value of a bachelor’s degree for future success, with favorability gaps of 4 to 6 percentage points across subgroups. By 2023, that near-universal agreement slips by 20 to 40 percentage points and favorability gaps by student subgroup more than double or, in the case of race/ethnicity, more than quintuple.

**Figure 3.** Changes Over Time in Favorable Perception of the Value of a Bachelor’s Degree, by Student Subgroup



Differences in student perception of the value of a bachelor’s degree may also vary geographically due to differences in labor market opportunities, the number and attributes of higher education institutions, and even political ideology. Figure 4 shows that, in the years prior to the pandemic (top panel), the shares of students who agreed that having a bachelor’s degree was critical to future success ranged from lows of 85% (e.g., ID and OR) to highs of 91% (e.g., MN and KY). The lower panel map shows that student favorability toward college declined after the pandemic to a range of 44% (e.g., SD) to 66% (e.g., NJ).

**Figure 4. Shares of Respondents Who Completely or Generally Agree That Having a Bachelor’s Degree is Critical to Students’ Future Success**



Sixteen states experienced pandemic-related favorability declines of 40 percentage points or more and declines were somewhat larger in states that tend to vote for Republican presidential candidates than in states that tend to vote for Democratic presidential

candidates.<sup>2</sup> As was evident in favorability gaps in Figure 3, Figure 4 shows that cross-state variation in students’ favorable perception of the value of college grew from a 6 percentage point range pre-pandemic to 22 percentage points post-pandemic.

*Explaining Students’ Perceptions of College Using Statistical Models*

To understand the extent to which students’ perceptions of higher education are related to year (or cohort) rather than any variation in the attributes of survey respondents from year to year, we fit statistical models that account for differences in respondents’ demographics, academic achievement, and geography over time. Coefficient estimates from these statistical models are provided in Table 2.

**Table 2.** Estimated Effect on Likelihood of Having Favorable Views of Higher Education

	Having a bachelor’s degree is critical to future success	Future benefits of a college education outweigh the current financial costs	Students more likely to be employed in job of their choice if complete a 4-year college degree
<b>2017 Cohort Mean</b>	91.7%	86.8%	93.4%
<b>Cohort Years (comparison is 2017 cohort)</b>			
Cohort 2018	<b>-1.4%</b>	<b>-3.4%</b>	<b>-0.8%</b>
Cohort 2019	<b>-2.9%</b>	<b>-8.3%</b>	<b>-1.5%</b>
Cohort 2020	<b>-5.4%</b>	<b>-11.5%</b>	<b>-3.3%</b>
Cohort 2021	<b>-33.8%</b>	<b>-29.2%</b>	<b>-13.5%</b>
Cohort 2022	<b>-38.4%</b>	<b>-30.2%</b>	<b>-14.2%</b>
Cohort 2023	<b>-33.6%</b>	<b>-25.3%</b>	<b>-12.9%</b>
<b>Controls Included:</b>			
Parental Education	Yes	Yes	Yes
Student HSGPA	Yes	Yes	Yes
Student Race/Ethnicity	Yes	Yes	Yes
State Variables	Yes	Yes	Yes

**Note:** Bolded estimates are statistically significant at the 5% level. See Appendix Table 2A for full set of parameter estimates on control variables.

<sup>2</sup> Students from these states had declines in favorability toward college greater than 40 percentage points: Alaska (-42pp), Alabama (-41pp), Arkansas (-41pp), Colorado (-40pp), Iowa (-40pp), Indiana (-42pp), Kansas (-40pp), Kentucky (-45pp), Maine (-40pp), Minnesota (-40pp), Montana (-40pp), Ohio (-41pp), South Dakota (-45pp), Tennessee (-40pp), Vermont (-43pp), and Wisconsin (-41pp). Prior to the pandemic, there was no difference in student favorability toward college in states that voted Republican or voted Democratic in at least three of the last four presidential elections; after the pandemic, students in Democratic-voting states expressed a 59% favorability toward college compared to a 55% favorability among students in Republican-voting states.

The first column of Table 2 indicates that, relative to the very high level of agreement in the 2017 cohort that a bachelor's degree is critical to students' futures, observationally similar students from cohorts 2018 through 2020 are about 1 to 5 percentage points less likely to agree while observationally similar students from cohorts 2021 through 2023 are 34 to 38 percentage points less likely to agree. These post-pandemic declines are very similar in magnitude as the descriptive data in Figure 1, indicating that differences in survey respondent composition are not driving the main results.<sup>3</sup>

The second and third columns of Table 2 confirm a similar pattern for the other two survey statements. The substantial changes in student sentiment about future college benefits relative to costs as well as employment chances with a bachelor's degree are driven by pandemic timing even after controlling for attributes of students responding to the Grad Survey.

## II. College Tuition, Student Debt, & Labor Market Outcomes

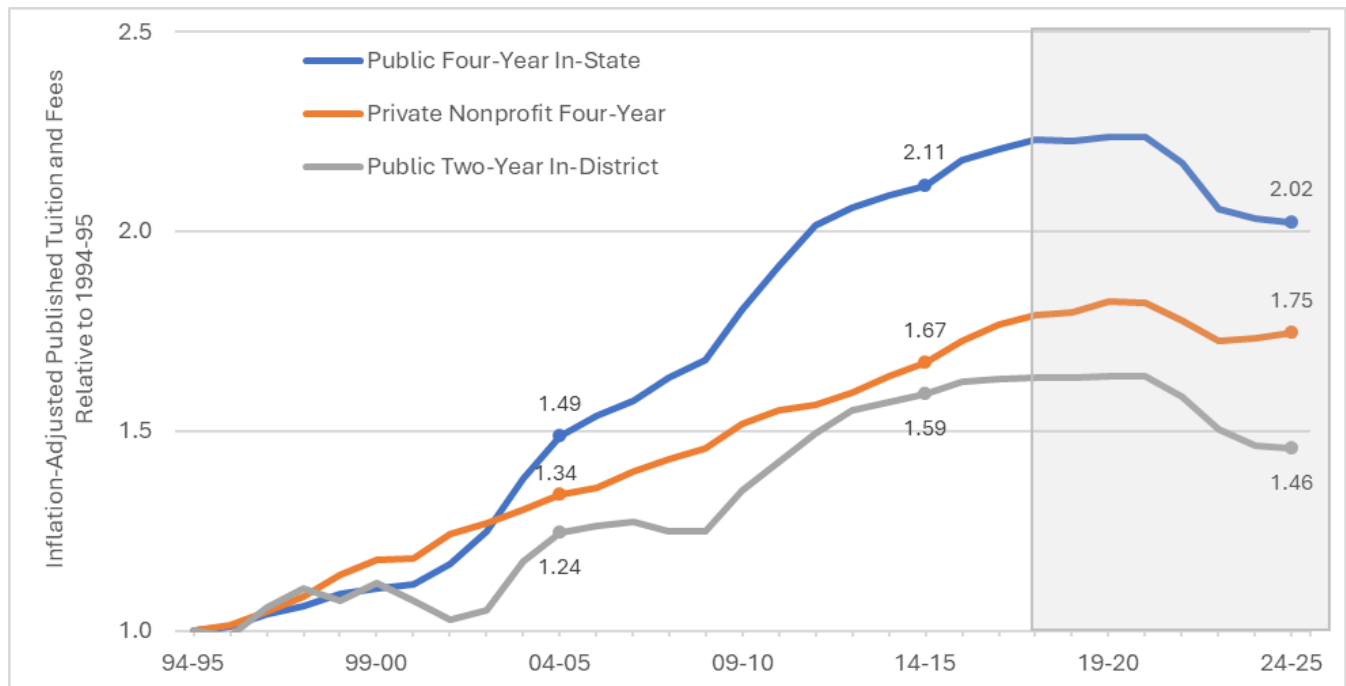
Researchers and experts have attributed the declining public confidence in higher education to various factors, including the rising costs of attending college, rising levels of student debt, and uneven labor market outcomes experienced by college graduates. These concerns are all valid and yet they do not seem to explain the recent sharp decline in high school seniors' favorability toward higher education. Below, we show that the cost of college, student debt levels, and college wage premia are all stable over the study sample years and, thus, unlikely drivers of the dramatic changes in student perceptions of the value of college that began in the pandemic.

### *Published Tuition and Fees Declining/Stable in Recent Years*

Figure 5 shows changes in published, or sticker, prices over the last three decades at private four-year, public four-year, and public two-year colleges. While average tuition and fees doubled at public four-year institutions, increased by 75% at private four-year institutions, and increased by 46% at community colleges, after adjusting for inflation, over these 30 years, average inflation-adjusted tuition prices actually declined or remained stable over our study period (highlighted box). These recent directional changes in published tuition and fees are not consistent with a sharp decline in student confidence in the value of college.

<sup>3</sup> This isn't because attributes of the respondents do not matter. In fact, the full version of Table 2 in the appendix shows that student characteristics are statistically related to their perceptions of the value of college. For example, students with higher HSGPAs are more likely to have a positive perception (than students with lower HSGPAs) and students whose parents attended college but did not complete a bachelor's degree are more likely to have a negative perception of college (than students whose parents did not attend college at all).

**Figure 5.** Inflation-Adjusted Published Tuition and Fees, 1994-95 to 2024-25 (1994-95=1.0)



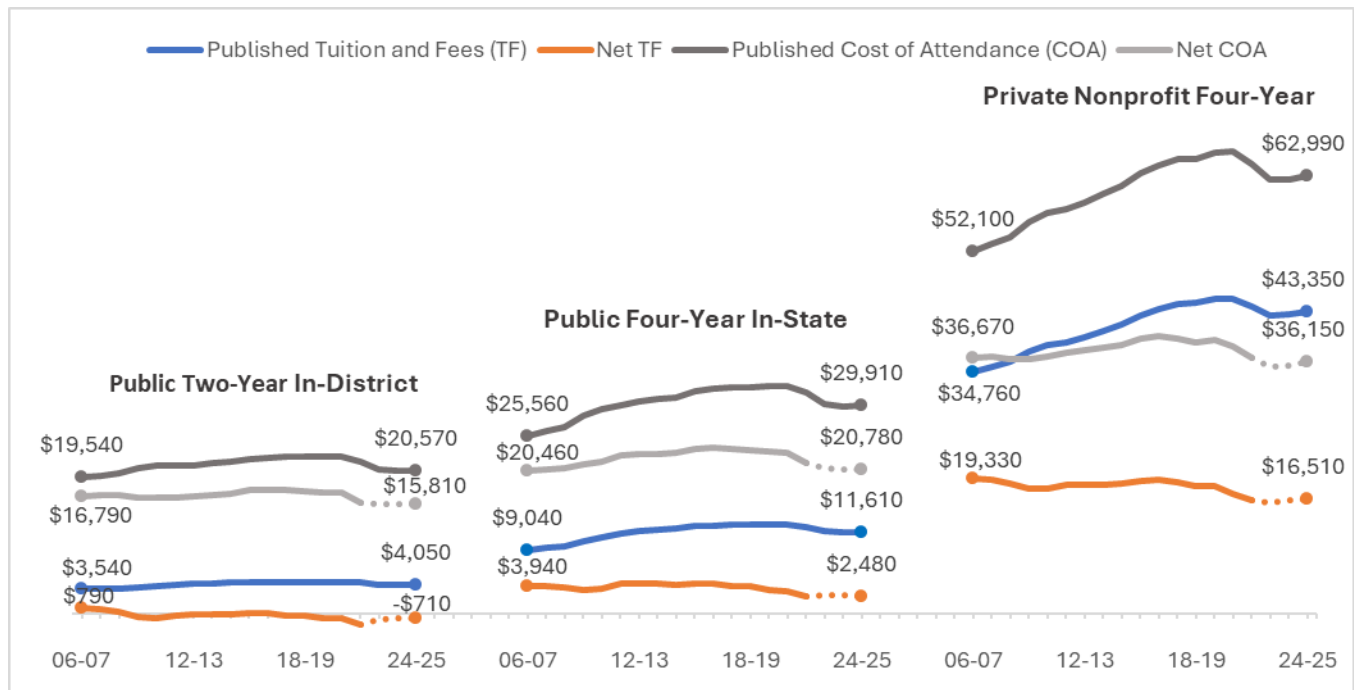
**Source:** College Board, *Trends in College Pricing and Student Aid 2024*, Figure CP-3.

### *Net Tuition and Fees and Cost of Attendance Declining/Stable Over Time*

While published college prices tend to garner the most media attention, the majority of undergraduate students receive grant aid that lowers their college prices. The resulting net price of college attendance is considerably lower, on average, than published prices in all three sectors of higher education. Figure 6 contrasts published tuition and fees (blue) with net tuition and fees (orange) over time in all three higher education sectors. Despite increases in average published prices, average net tuition and fees have declined across all three sectors for over a decade, after adjusting for inflation, including our study period. Net cost of attendance (light gray), which adds to net tuition and fees the cost of housing, food, books, supplies, and other expenses, has also declined over the past decade in all three sectors. The stability of net prices would, if anything, drive stability in sentiment about the value of college, so the patterns evident in Figure 6 are unlikely to have driven decreases in student sentiment about the value of college. Research demonstrates that students generally experience “sticker price shock,” and respond negatively to increases in published tuition and fees even when those sticker prices have no effect on their net prices (Levine, Ma, & Russell, 2023). Thus, it is possible that increases in published tuition and fees prior to 2017 had a lagged negative effect on student sentiment.



**Figure 6.** Average Published and Net Prices, 2006-07 to 2024-25 (2024 Dollars)



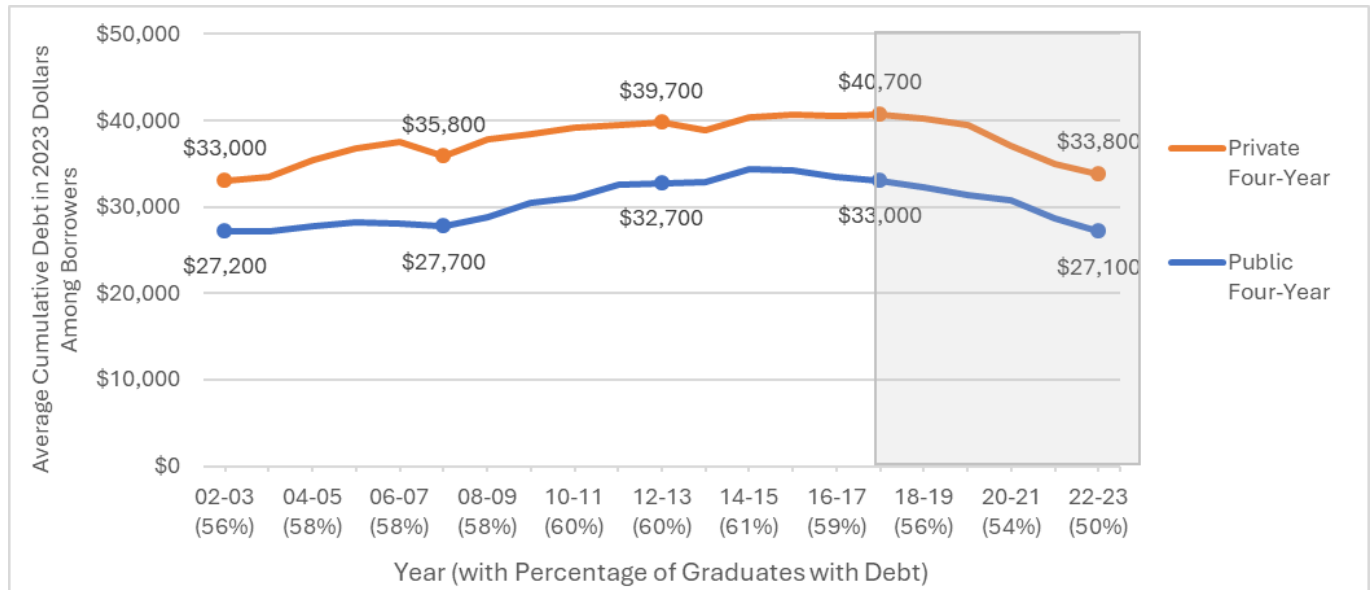
**Source:** College Board, *Trends in College Pricing and Student Aid 2024*, Figures 8, 9, and 10.

### Student Borrowing and Loan Debt Declining in Recent Years

Another often-cited source for the increasing public skepticism around higher education is rising student debt. While the *total* outstanding education debt in the U.S. has been on the rise and the \$1.7 trillion total debt statistic is widely covered in the media, the *average* student loan debt accrued by bachelor’s degree recipients has declined in recent years. Figure 7 shows that, among 2022-23 bachelor’s degree recipients from public and private nonprofit four-year institutions, 50% graduated with debt, down roughly 10 percentage points from a decade earlier. Among those who borrowed for their undergraduate education in 2022-23, the average debt amount was \$27,100 and \$33,800 for public and private four-year college graduates, respectively. Both the fraction of graduates who borrowed and the average debt amount are lower in 2022-23 than among 2017-18 college graduates, after adjusting for inflation.<sup>4</sup> These recent directional changes in student borrowing and debt levels are not consistent with a sharp decline in student confidence in the value of a college degree.

<sup>4</sup> Although the average debt among college graduates has declined in recent years, there are students who borrow large amounts for their education. Data from the latest National Postsecondary Student Aid Study reveals a wide range of debt levels among college graduates. Among all 2019-20 bachelor’s degree recipients, 5% borrowed between \$40k and \$50k for their undergraduate study and another 10% borrowed \$50k or more (Trends in College Pricing and Student Aid 2023, Figure SA-15).

**Figure 7.** Average Cumulative Debt per Borrower in 2023 Dollars: Bachelor’s Degree Recipients at Public and Private Nonprofit Four-Year Institutions, 2002-03 to 2022-23



**Note:** Includes the principal amounts of federal and nonfederal loans taken by students who began their studies at the institution from which they graduated. Parent PLUS loans are not included. The available data are not adequate to allow comparable calculations for for-profit institutions.

**Source:** College Board, Annual Survey of Colleges.

### College Wage Premia Stable/Increasing Over Time

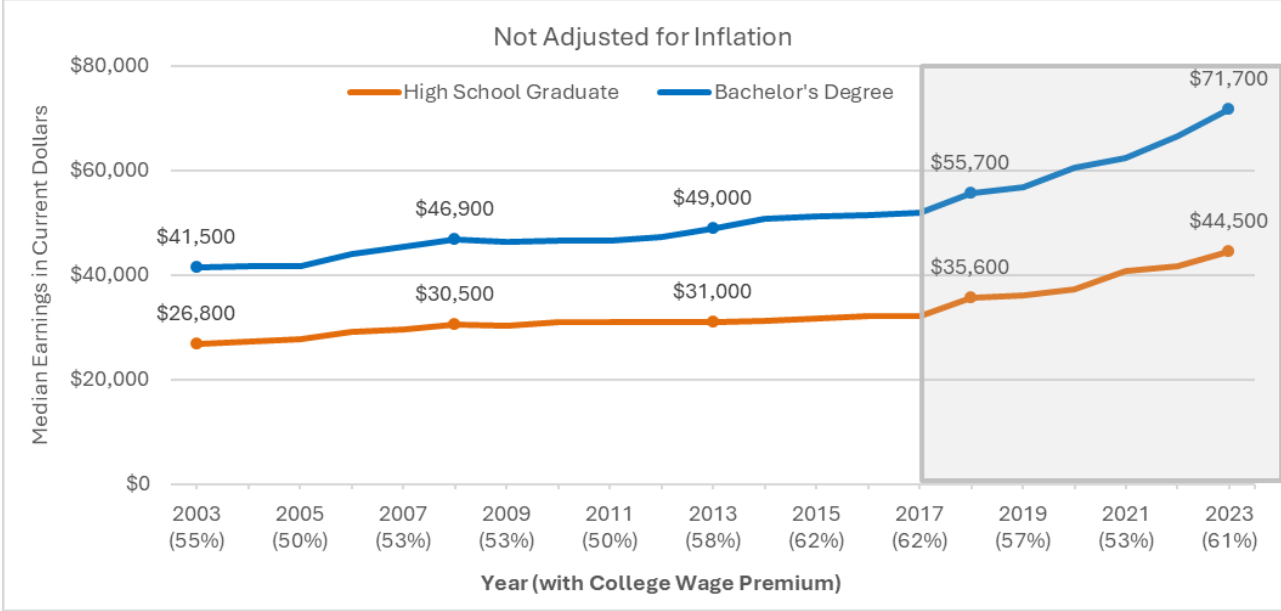
Another potential explanation for declining student confidence in the value of higher education is uneven labor market outcomes among college-goers. Some students borrow to attend college, but do not complete a degree or credential and may have a more difficult time repaying their student loans because they enjoy a smaller college wage premium in the job market. Even among students who do successfully complete college with a degree, job market outcomes can vary with student demographics, college major, and industry and occupation (Ma & Pender, 2023).

Figure 8 shows median earnings of full-time year-round workers ages 25 to 34, a group that includes many early-career college graduates, over the last 20 years. In 2003, the median earnings of early-career college graduates were \$41,500, 55% higher than the median earnings of high school graduates in the same group. Between 2003 and 2013, the college wage premium for this age group varied between 50% and 58% before rising above 60% in 2014 and beyond. While there has been some variation in the size of the college wage premium over our study period, early-career workers with a four-year degree reliably earn, on average, roughly 60% more than those with only a high school diploma.<sup>5</sup> These data are

<sup>5</sup> The wage premium associated with a two-year degree is also quite stable over time, although smaller than the premium associated with a four-year degree. Additionally, college wage premia are higher and for older workers than early-career workers (Ma & Pender, 2023).

consistent with research that finds the labor market returns to education increased significantly because of covid-19 (Patrinos & Rivera-Olvera, 2024).

**Figure 8.** Median Earnings of Full-Time Year-Round Workers Ages 25 to 34, by Education Level, 2003 to 2023



**Source:** U.S. Census Bureau, March Supplement of the Current Population Survey, PINC-03, 2004 to 2024.

In our search for possible drivers of the sharp decrease in student perceptions of the value and importance of college, the evidence does not suggest the cost of college, student debt levels, or college wage premia are likely culprits unless students are broadly uninformed about these facts.

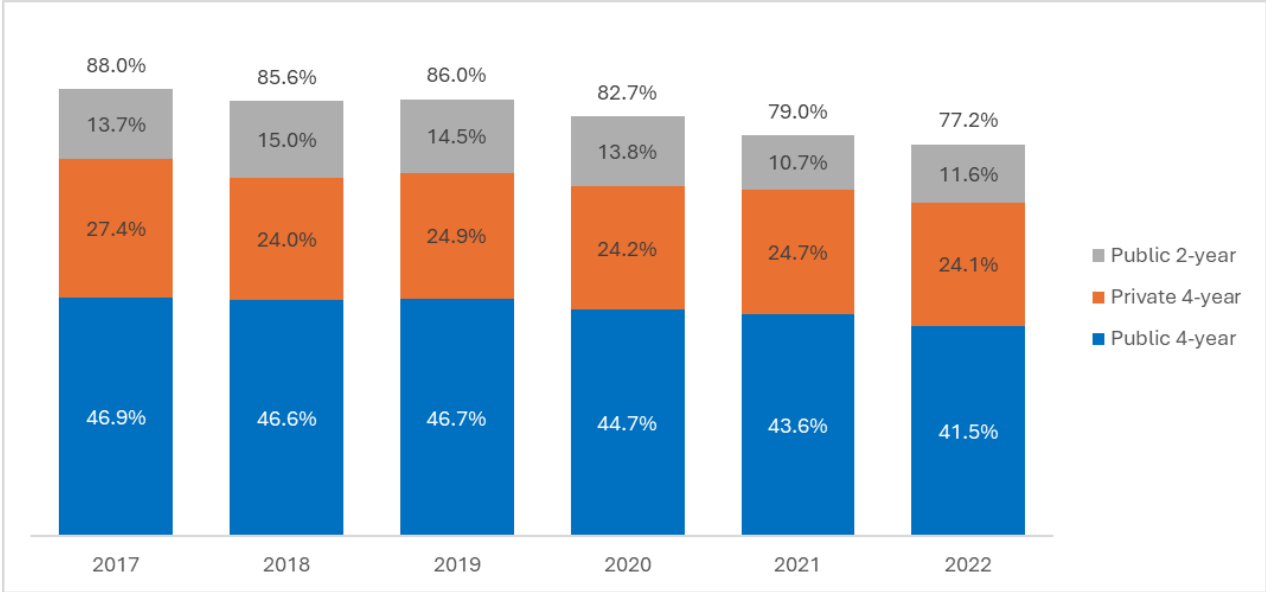
### III. Postsecondary Enrollment Choices After High School

Declining student confidence in the value and importance of higher education is concerning, especially since college is an investment that pays off for many over the course of a lifetime. In this final section, we examine the extent to which the decline in students' perceptions of the value of college actually translates into lower college enrollment rates.

Figure 9 shows the college enrollment rates of Grad Survey respondents from each cohort. Pre-pandemic college enrollment rates among Grad Survey respondents were stable with overall enrollment rates between 86% and 88%. Respondents in the 2020 cohort experienced a decline in college enrollment rates consistent with well-documented overall declines in college enrollment due to interruptions related to the pandemic (Howell, et. al,

2022; National Student Clearinghouse, 2023).<sup>6</sup> Enrollment rates declined further among survey respondents in the 2021 and 2022 cohorts. It is noteworthy that decreases in college enrollment rates after the start of the pandemic are substantially smaller than the double-digit decreases in any of the three measures of student sentiment about the value and importance of college. For example, Figure 3 shows a 25 percentage-point decline (87% to 54%) between 2020 and 2022 in student agreement that a bachelor’s degree is critical to future success, yet actual enrollment in four-year colleges among these same survey respondents only declined by 2.6 percentage points (68.2% to 65.6%).

**Figure 9.** Shares of Grad Survey Respondents Enrolling in Each Higher Education Sector, 2017 to 2022



**Note:** Enrollment data for cohorts beyond 2022 were not available at the time of the study.

**Source:** College Board and National Student Clearinghouse.

*College Enrollment Changes and Perceptions of the Value of College*

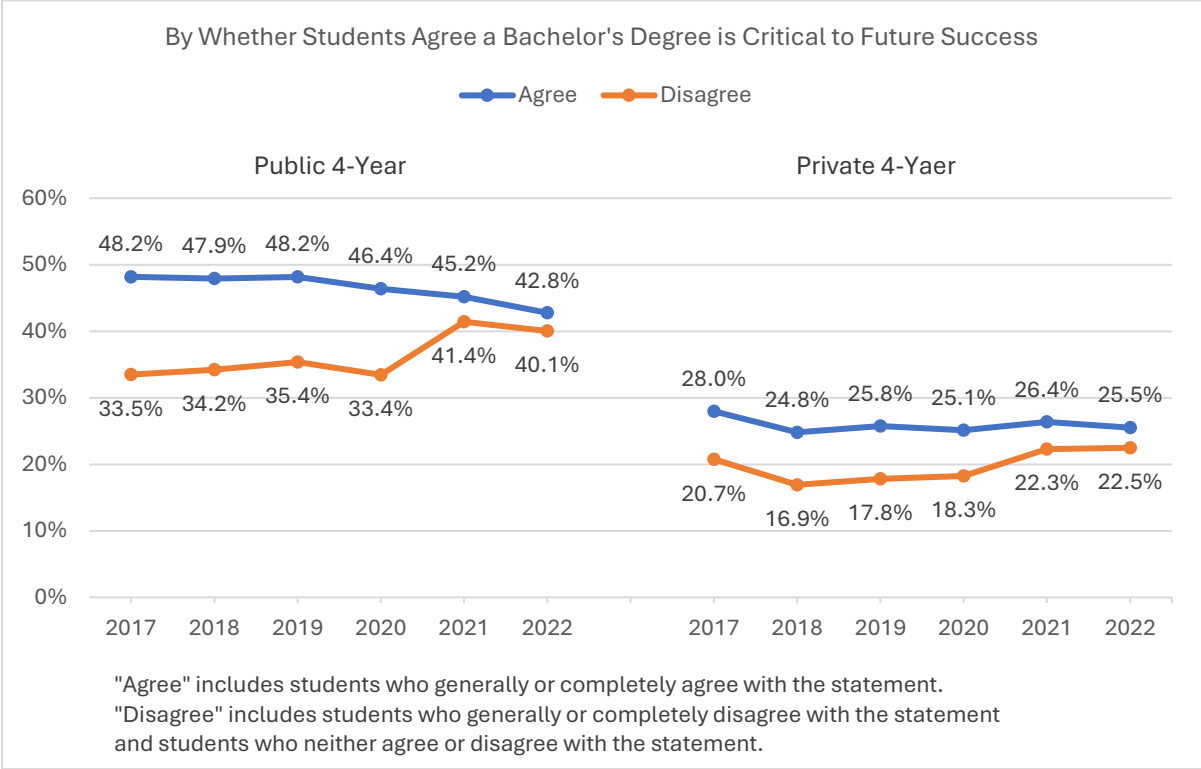
Does student sentiment about the value and necessity of college drive individuals to make different choices about college enrollment? Figure 9 suggests that behavior does not follow sentiment. To answer that question with a bit more rigor, we examine whether post-pandemic declines in college enrollment visible in Figure 9 are driven primarily by enrollment declines among Grad Survey respondents who expressed the least confidence in the value of a college education following the pandemic. Figure 10 shows this decomposition for the public and private four-year higher education segments with a distinction between students

<sup>6</sup> College enrollment rates of Grad Survey respondents depicted in Figure 9 are substantially higher than the college enrollment rates of full College Board cohorts (for example, 55% in 2021) and all U.S. high school students (62% in 2021), which is not surprising given Grad Survey respondents have higher high school GPAs than these broader groups.

who *agree* that a bachelor’s degree is critical to future success (blue) versus those who *disagree* (orange).

Among students who *agree* that a bachelor’s degree is critical to future success (blue lines), college enrollment rates are either fairly stable (private four-year institutions) or declining modestly (public four-year institutions) over time. By contrast, students who *disagree* that a bachelor’s degree is critical to future success (orange lines), are *more* likely to enroll in four-year institutions after the pandemic. As a result, the four-year college enrollment gaps between students who express more and less favorable views about the value of a bachelor’s degree actually narrow post-pandemic. If relationships between student sentiment and actions remained stable over time, we’d expect enrollment gaps to also be stable. Instead, Figure 10 suggests reduced alignment between student sentiment and behavior post-pandemic. Students expressing concern about the value of a bachelor’s degree after the pandemic are not as likely to act on those concerns by not enrolling in a four-year college as their observationally similar pre-pandemic peers.

**Figure 10.** Shares of Respondents Enrolling in a Four-Year College, by Higher Education Sentiment, 2017 to 2022

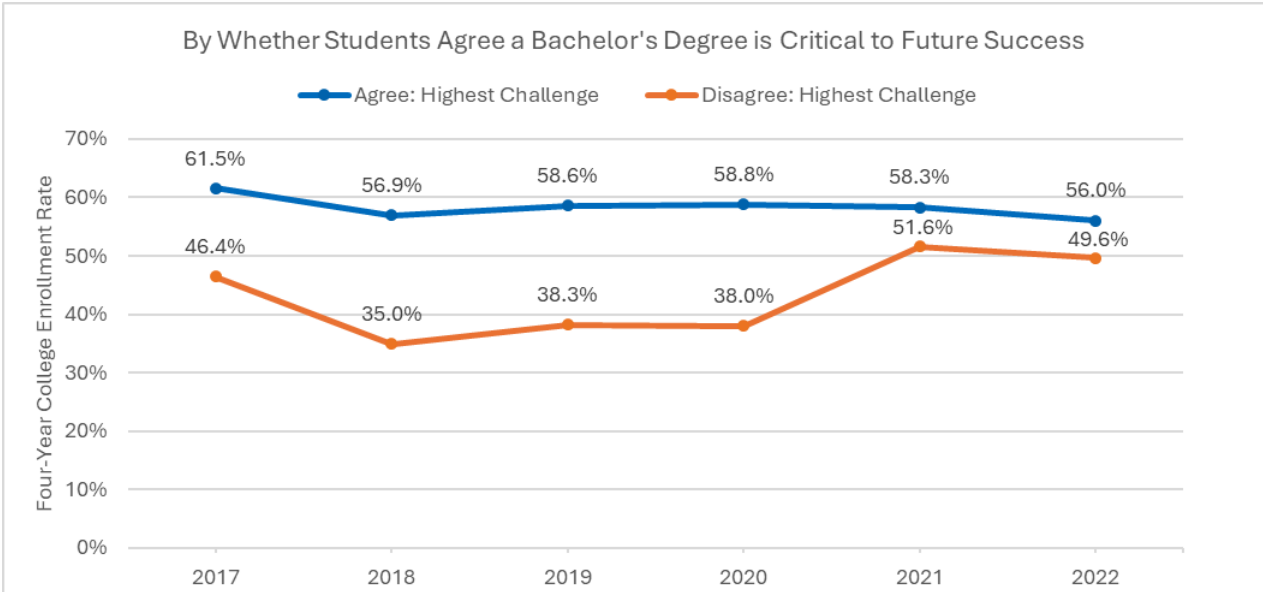


**Source:** College Board High School Graduation Survey and National Student Clearinghouse.

One may wonder if lower-socioeconomic status high school graduates are more sensitive to the value of college such that changes in their sentiment are more closely related to changes in their college enrollment choices, even after the pandemic. Figure 11 shows four-year college enrollment rates among Grad Survey respondents from the most challenging

neighborhoods in the U.S. where there are fewer educational opportunities and more low-income and low-socioeconomic status families. Even among this subset of students from more disadvantaged environments, four-year college enrollment gaps between those who perceive college to be critical to their future and those who do not narrow after the pandemic.<sup>7</sup> Figure 11 provides further evidence that, post-pandemic, declining student sentiment about the value of college does not translate directly into reduced enrollment in college.

**Figure 11.** Shares of Highest-Challenge Respondents Enrolling in a Four-Year College, by Higher Education Sentiment, 2017 to 2022

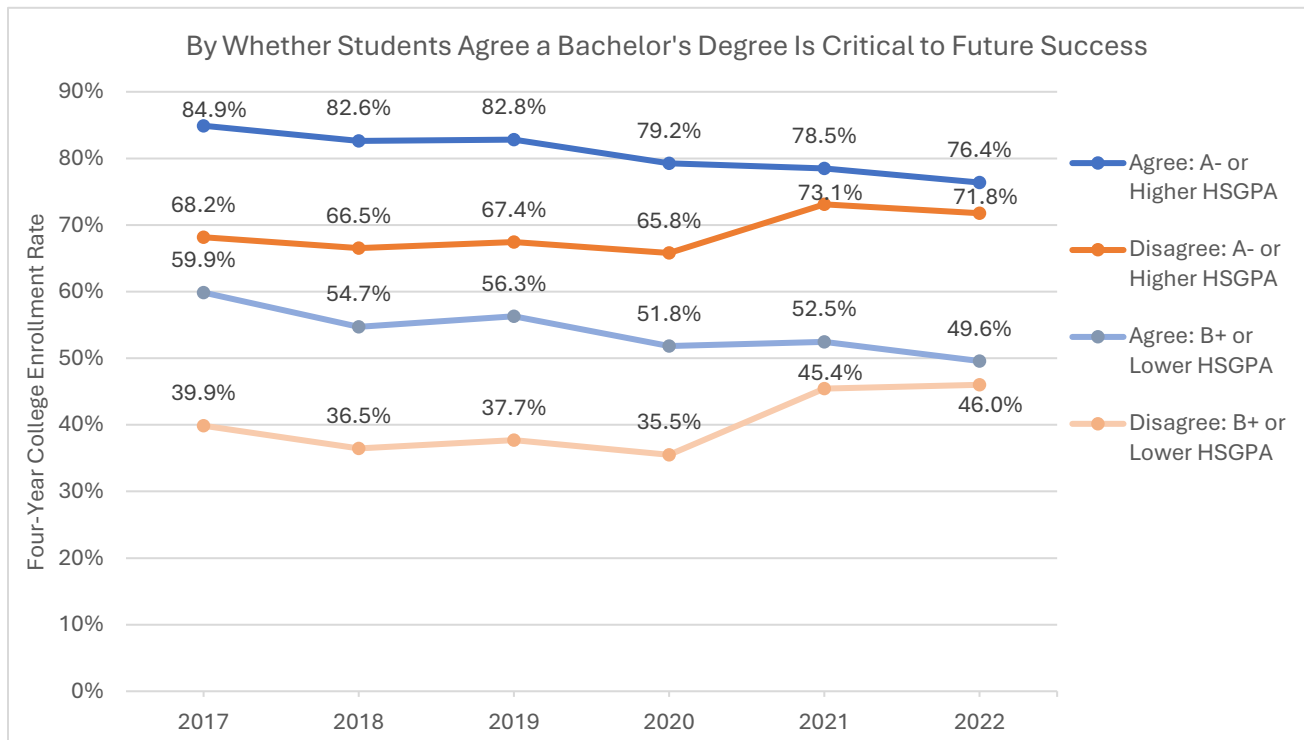


**Source:** College Board High School Graduation Survey, College Board, and National Student Clearinghouse.

Because the study sample is fairly high-achieving, one might wonder if the actions of more moderate-achieving students tend to be more sensitive to declining favorability toward the importance of a bachelor’s degree post-pandemic. Figure 12 suggests these same four-year college enrollment patterns also apply to the bottom quarter of students by HSGPA. Respondents with a B+ or lower in Figure 12 who disagree that a bachelor’s degree is critical to their future success *increase* their four-year college enrollment rates post-pandemic just like their higher-achieving peers. As a result, enrollment gaps narrow post-pandemic for modest-achieving students with different sentiment toward the importance of a bachelor’s degree.

<sup>7</sup> Note that the patterns visible in Figure 11 hold for students from all different types of neighborhood environments.

**Figure 12.** Shares of Respondents Enrolling in a Four-Year College, by HSGPA and Higher Education Sentiment, 2017 to 2022



**Source:** College Board High School Graduation Survey and National Student Clearinghouse.

Table 1 suggests that the composition of Grad Survey respondents has been relatively stable over time, but it is possible that small compositional shifts are influencing the enrollment changes described in the figures above. To explore this more rigorously, we again use a statistical model to better understand how the link between student perception and action may have changed for cohorts graduating around the start of the pandemic, while controlling for other demographic, geographic, and academic factors that may influence students’ postsecondary enrollment decisions. Results from this college enrollment model are shown in Table 3.

Estimates from the enrollment model support the descriptive patterns observable in Figures 10, 11, and 12; students’ perceptions of higher education have a different relationship with enrollment choices across cohorts. For example, while students in the 2017 to 2020 cohorts with favorable views of the value of higher education are between 10 and 12 percentage points more likely to enroll in a public four-year college than similar students who do not express favorable views, 2021 and 2022 cohort students who are favorable toward college are only about 2 percentage points more likely to enroll in a public four-year college than similar students who do not share the same views (Table 3, column 1). Put differently, the connection between student sentiment and actions post-pandemic is much weaker than pre-

pandemic. Thus, while much smaller shares of Grad Survey respondents express favorable sentiment toward the value of college post-pandemic, these negative perceptions are less likely to be connected to lower college enrollment rates than pre-pandemic. Results from the private four-year enrollment model show similar patterns as those from the public four-year model in column 1.<sup>8</sup>

**Table 3.** Estimated Relationships with the Likelihood of Enrolling in a Four-Year College

	Enroll in a public four-year college	Enroll in a private four-year college
<b>2017 Cohort Mean (all respondents)</b>	<b>46.9%</b>	<b>27.4%</b>
<b>Student Agrees That a Bachelor’s Degree is Critical to Future Success</b>		
Cohort 2017	<b>11.7%</b>	<b>4.4%</b>
Cohort 2018	<b>10.5%</b>	<b>4.4%</b>
Cohort 2019	<b>9.9%</b>	<b>4.5%</b>
Cohort 2020	<b>9.8%</b>	<b>2.5%</b>
Cohort 2021	<b>2.8%</b>	<b>2.7%</b>
Cohort 2022	<b>2.1%</b>	<b>2.1%</b>
<b>Student Disagrees That a Bachelor’s Degree is Critical to Future Success</b>		
Cohort 2018	0.7%	-2.2%
Cohort 2019	1.6%	-2.2%
Cohort 2020	-1.2%	-1.8%
Cohort 2021	<b>4.7%</b>	-0.5%
Cohort 2022	<b>3.8%</b>	-0.7%
<b>Controls Included:</b>		
Parental Education	Yes	Yes
Student HSGPA	Yes	Yes
Student Race/Ethnicity	Yes	Yes
State Variables	Yes	Yes

**Note:** Bolded estimates are statistically significant at the 5% level. Regressions are run separately for public and private four-year institutions, and include cohort dummies that are also interacted with the sentiment responses about whether a bachelor’s degree is critical to future success. Cohort 2017 students who disagree are comparison group. See the appendix for the full set of parameter estimates on the additional control variables.

<sup>8</sup> Estimates from the public two-year enrollment model tend to have opposite signs as those from four-year enrollment models. In other words, factors that increase the likelihood of enrolling in a four-year college tend to decrease the likelihood of enrolling in a two-year college.



## Discussion

Perceptions of the importance and value of a college degree among high school seniors shifted dramatically with the start of the covid-19 pandemic. Data from a large national survey repeated between 2017 and 2023 reveal that the share of high school seniors holding positive views of higher education declined sharply—by 20 to 40 percentage points—in 2021 and has not rebounded since. Traditionally underserved student respondents report larger declines in their perceived value of college, causing differences in student perception of the value of college across various subgroups to have widened since the pandemic.

By sharp contrast, declines in college enrollment among these students have been very moderate—2 to 3 percentage points. Using merged college enrollment data and controlling for student demographics and prior academic achievement, we show that students who hold positive views of higher education are more likely to enroll in college than those who do not hold positive views, although the difference in college enrollment rates between these two groups actually narrowed rather than widened after the pandemic. Regression results suggest that holding negative perceptions of the value of higher education reduces a student's likelihood of enrolling in college, but the impact of negative perceptions is much *smaller* post-pandemic compared to pre-pandemic. In other words, the large, sharp decline in the share of students holding positive views of higher education did not translate into reduced college enrollment of a similar magnitude.

What are the implications of these results? It is tempting to discount the substantial decline in favorable student sentiment toward college because these students do not appear to act on that sentiment. If they are still largely enrolling in four-year colleges despite reporting that they don't think a four-year degree is really necessary, many would take them at their actions rather than their words. It is particularly vexing to see no contemporaneous changes in college prices, student loan borrowing or debt, or earnings among college degree holders that might explain such sharp changes in perceived value and importance of college. If student perceptions are not grounded in the recent data around the costs and benefits of postsecondary pathways, it is possible that student sentiment declines post-pandemic are a reflection of lagged data on costs and benefits of college. Additionally, the widening of sentiment gaps by student race/ethnicity, parental educational attainment, and academic achievement may suggest information gaps about the costs and benefits of college are not uniform across student subgroups. Grad Survey respondents are largely academically prepared for college, so perhaps many are college-bound regardless of their increasing concerns about whether college is worth it. It is possible these concerns linger and play a role in retention and/or time-to-degree.

As policy efforts focus on collecting accurate data on the costs and benefits of all postsecondary alternatives, particularly those low-financial value pathways (Meyer, 2023), it is necessary to consider the array of efforts designed to bring such data the final mile to students and families engaged in postsecondary planning and decision-making. A

substantial literature beyond the scope of this research examines myriad interventions to inform students about their postsecondary options. Many of those interventions focus on information and tools that inform students about the costs and benefits associated with different four-year options, but perhaps a more general informational campaign is needed to influence broad understand and perceptions of the value of postsecondary investment.

Although we cannot fully explain the sharp decline in sentiment at the start of the pandemic, we've also uncovered very little about the slow or non-existent rebound in student sentiment toward college since the pandemic. It is possible that student sentiment about traditional college pathways is influenced by national and state conversations about workforce development opportunities and the availability of alternative pathways into trades that yield financial independence without the time and expense of a bachelor's degree. Relatedly, skills-based hiring practices have brought greater attention to job postings with educational requirements that better reflect the needs of the position and, thus, remove the standard "bachelor's degree required" language where it isn't necessary. If these messages about alternative routes to the middle class are reaching students after they and their parents have watched decades of steadily climbing college prices in the 1980s, 1990s, and 2000s, it is possible that the Grad Survey data does not reveal any misperception about the importance of a bachelor's degree among high school seniors. The data may reflect a lagged response to many years of rising prices and student loan debt. Despite more recent moderation in prices and debt, few would describe college in the U.S. as affordable or student loan debt levels as acceptable. The pandemic may have provided just the right environment for students and families to reevaluate what they need to be successful in the future and the answer may now include a broader array of postsecondary pathways even for those who have traditionally favored four-year institutions.

This research leaves many fruitful areas of inquiry open for the future. The relationships between postsecondary plans, sentiment, and actions among high school seniors should continue to be studied. Retention and success in college may be affected by less favorable perceptions of the value of college. Additional research on how student sentiment and actions vary by intended major and career aspirations may also yield insights that inform policy and institutional actions. Finally, a deeper analysis of the adults who guide student plans and actions—parents, school counselors, and other mentors—might explain the ways that changes in student sentiment reflects or diverges from the sentiments of advisors.

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## About the College Board

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## Appendix

**Table A1. Number and Percentage Distribution of Domestic Students in College Board Data**

	2017	2018	2019	2020	2021	2022	2023
<b>Total</b>	2,947,044	3,166,685	3,246,204	3,226,587	3,136,133	3,039,077	2,902,636
<b>Race/Ethnicity</b>							
Asian	6.6%	6.6%	6.5%	6.5%	6.6%	6.7%	6.8%
Black	13.2%	12.8%	12.6%	12.3%	11.7%	11.7%	11.8%
Hispanic	24.2%	25.4%	26.8%	27.4%	26.5%	26.0%	26.2%
Native	0.9%	1.0%	1.1%	1.3%	1.4%	1.5%	1.3%
White	47.2%	45.4%	44.0%	42.8%	42.3%	41.1%	40.5%
Two Races	3.0%	3.8%	4.2%	4.3%	4.1%	4.1%	3.9%
Missing	5.0%	5.1%	4.8%	5.5%	7.4%	8.8%	9.4%
<b>Gender</b>							
Female	51.5%	51.0%	50.8%	50.8%	50.7%	50.6%	50.7%
Male	48.3%	48.7%	48.9%	48.9%	49.0%	48.9%	48.6%
Missing	0.2%	0.3%	0.2%	0.3%	0.4%	0.5%	0.8%
<b>Parents' Highest Level of Education</b>							
High School or Less	19.3%	23.4%	24.2%	23.2%	20.4%	17.5%	16.1%
Some College, No Degree	13.6%	15.5%	15.2%	14.4%	13.2%	11.2%	10.1%
Associate Degree	7.0%	7.6%	7.3%	6.8%	5.9%	5.0%	4.6%
Bachelor's or Higher	41.0%	43.3%	43.0%	42.7%	41.7%	40.1%	40.1%
Missing	19.1%	10.1%	10.3%	12.9%	18.8%	26.3%	29.1%
<b>Student's High School GPA</b>							
A+	4.9%	5.0%	5.6%	6.1%	6.4%	7.4%	8.2%
A	15.6%	15.6%	16.0%	16.7%	17.3%	18.1%	18.0%
A-	15.2%	15.2%	15.6%	15.8%	15.8%	14.7%	14.3%
B+	15.5%	15.2%	14.7%	14.2%	13.4%	11.9%	11.0%
B or Lower	37.2%	37.3%	36.4%	35.1%	31.3%	26.6%	22.4%
Missing	11.8%	11.7%	11.7%	12.1%	15.9%	21.3%	26.1%
<b>School Type and Free and Reduced-Price Lunch (FRPL) Share for Public Schools</b>							
Other	1.2%	1.5%	1.6%	1.6%	1.7%	1.8%	1.9%
Private	9.8%	9.3%	9.0%	8.8%	8.9%	8.9%	9.2%
Public	89.0%	89.2%	89.3%	89.6%	89.4%	89.3%	88.9%
FRPL 1-25%	21.7%	21.6%	21.4%	21.6%	22.1%	22.3%	22.5%
FRPL 26-50%	28.0%	28.2%	28.3%	28.2%	28.1%	27.9%	27.5%
FRPL 51-75%	20.9%	21.3%	21.6%	21.5%	21.1%	20.8%	20.3%
FRPL 76-100%	13.8%	14.2%	14.4%	14.7%	14.1%	13.8%	13.5%
FRPL Missing	4.7%	3.9%	3.6%	3.6%	3.9%	4.5%	5.2%

**Table A2. Shares of Respondents Who Completely or Generally Agree That Having a Bachelor’s Degree Is Critical to Students’ Future Success, by State and Time**

State	2017-2020		2021-2023		Change from 2017-2020 to 2021-2023
	N	% Agree	N	% Agree	
Alaska	435	86%	178	44%	-42%
Alabama	1,484	89%	797	49%	-41%
Arkansas	1,261	89%	651	48%	-41%
Arizona	2,876	90%	1,192	54%	-36%
California	28,708	89%	12,871	62%	-27%
Colorado	2,944	89%	1,014	50%	-40%
Connecticut	3,094	89%	1,278	59%	-30%
Washington, D.C.	256	90%	139	66%	-24%
Delaware	644	89%	213	62%	-27%
Florida	10,553	89%	5,795	61%	-29%
Georgia	6,183	90%	3,015	58%	-33%
Hawaii	725	87%	370	58%	-29%
Iowa	945	88%	585	49%	-40%
Idaho	1,101	85%	570	48%	-37%
Illinois	7,058	90%	3,257	61%	-29%
Indiana	4,535	89%	2,087	47%	-42%
Kansas	843	90%	448	50%	-40%
Kentucky	1,253	91%	586	45%	-45%
Louisiana	1,294	89%	671	50%	-39%
Massachusetts	5,966	90%	2,738	57%	-33%
Maryland	4,558	90%	2,031	57%	-33%
Maine	931	88%	365	47%	-40%
Michigan	5,700	87%	1,808	49%	-38%
Minnesota	2,538	91%	1,451	51%	-40%
Missouri	1,617	91%	937	52%	-39%
Mississippi	555	90%	303	54%	-35%
Montana	382	89%	205	49%	-40%
North Carolina	5,580	90%	2,698	55%	-35%
North Dakota	204	88%	138	51%	-37%
Nebraska	544	87%	309	54%	-34%
New Hampshire	1,035	89%	421	50%	-39%
New Jersey	7,670	91%	3,435	63%	-27%
New Mexico	715	87%	439	54%	-33%
Nevada	1,192	89%	585	58%	-30%
New York	15,518	89%	6,806	61%	-28%
Ohio	4,621	91%	2,359	50%	-41%
Oklahoma	1,103	89%	567	52%	-37%
Oregon	2,207	85%	938	50%	-35%
Pennsylvania	8,431	89%	3,807	53%	-37%
Rhode Island	570	91%	272	61%	-29%
South Carolina	2,270	87%	1,397	53%	-34%
South Dakota	230	89%	146	44%	-45%
Tennessee	1,831	90%	1,182	51%	-40%
Texas	16,302	88%	8,307	60%	-28%
Utah	1,376	91%	1,053	56%	-34%
Virginia	6,555	90%	2,910	60%	-30%
Vermont	496	89%	233	45%	-43%
Washington	4,932	88%	2,215	49%	-39%
Wisconsin	2,883	90%	1,921	49%	-41%
West Virginia	580	87%	380	52%	-35%
Wyoming	163	88%	102	49%	-39%

**Table A3.** Estimated Effect on Likelihood of Having a Favorable View of Higher Education

	(1) Having a bachelor's degree is critical to future success	(2) Future benefits of a college education outweigh current financial costs	(3) Students are more likely to be employed in the job of their choice if they complete a 4-year college degree
2017 Mean	91.7%	86.8%	93.4%
<b>Cohort Years (comparison group is cohort 2017)</b>			
Cohort 2018	-1.4%	-3.4%	-0.8%
Cohort 2019	-2.9%	-8.3%	-1.5%
Cohort 2020	-5.4%	-11.5%	-3.3%
Cohort 2021	-33.8%	-29.2%	-13.5%
Cohort 2022	-38.4%	-30.2%	-14.2%
Cohort 2023	-33.6%	-25.3%	-12.9%
<b>Parents' Education Level (comparison group is high school or lower)</b>			
Some college, no degree	-0.3%	-1.3%	1.0%
Associate degree	0.7%	-0.9%	1.4%
Bachelor's degree or higher	4.3%	3.5%	5.0%
<b>Student's High School GPA (comparison group is B or lower)</b>			
A+	9.0%	13.7%	9.1%
A	7.6%	9.6%	7.2%
A-	5.3%	5.4%	5.1%
B+	3.4%	2.8%	3.1%
Missing	2.0%	2.7%	2.4%
<b>Student's Race/Ethnicity (comparison group is White)</b>			
Asian	5.9%	0.9%	0.7%
Black	1.6%	-2.0%	-3.0%
Hispanic	2.7%	-1.8%	-1.4%
Native	-1.0%	-2.9%	-4.2%

Note: In addition to the variables listed in Table A2, our models also control for students' state of residence.

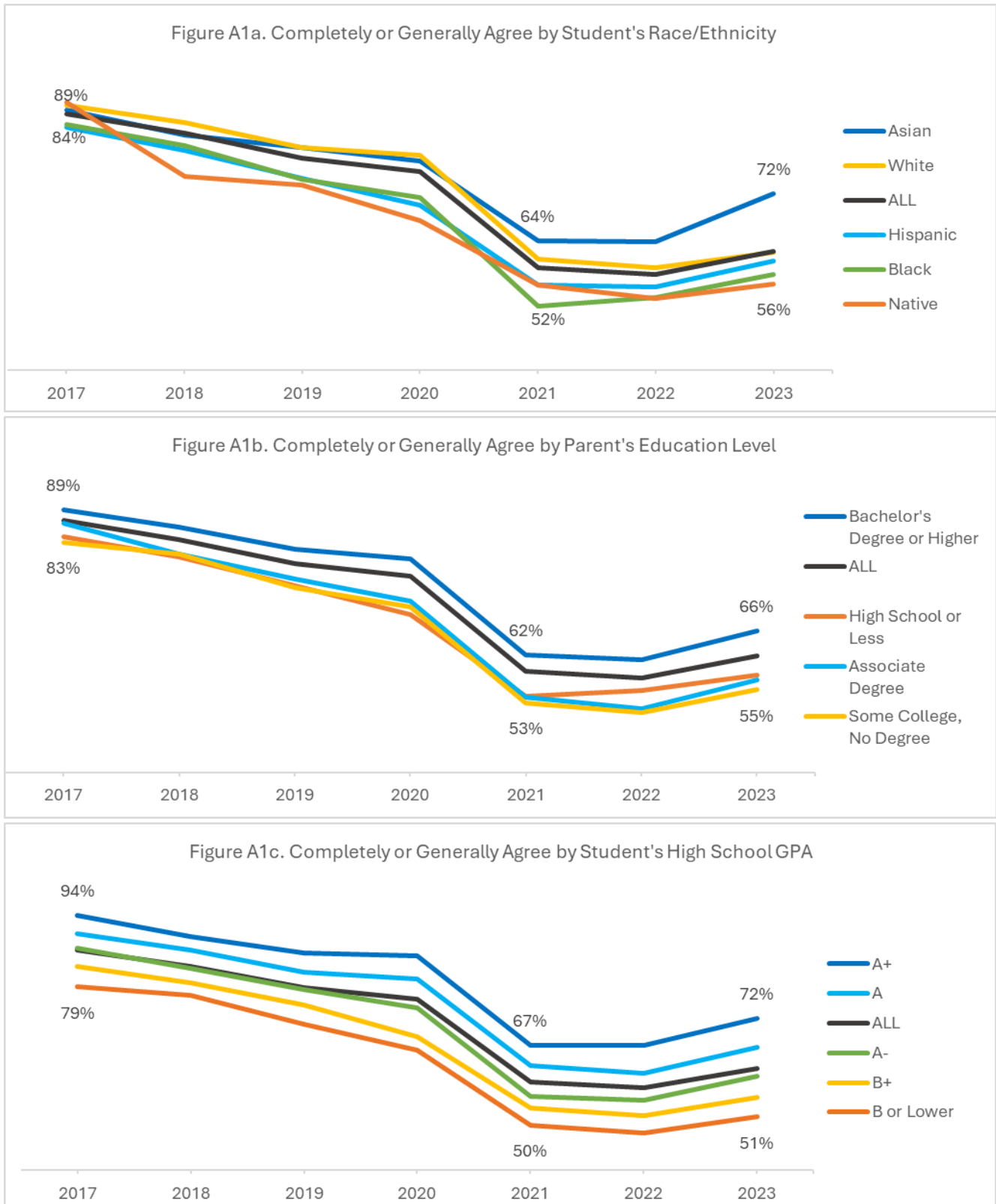
**Table A4.** Estimated Effect on the Likelihood of Enrolling in College After High School

	(1) Enroll in a <b>public</b> four- year college	(2) Enroll in a <b>private</b> four- year college
2017 Mean	46.9%	27.4%
<b>Cohort Years (comparison group is cohort 2017)</b>		
Cohort 2018	<i>0.7%</i>	<i>-2.2%</i>
Cohort 2019	<i>1.6%</i>	<i>-2.2%</i>
Cohort 2020	<i>-1.2%</i>	<i>-1.8%</i>
Cohort 2021	<i>4.7%</i>	<i>-0.5%</i>
Cohort 2022	<i>3.8%</i>	<i>-0.7%</i>
<b>Student Agrees That a Bachelor's Degree Is Critical to Future Success</b>		
Cohort 2017	11.7%	4.4%
Cohort 2018	10.5%	4.4%
Cohort 2019	9.9%	4.5%
Cohort 2020	9.8%	2.5%
Cohort 2021	2.8%	2.7%
Cohort 2022	2.1%	2.1%
<b>Parents' Education Level (comparison group is high school or lower)</b>		
Some college, no degree	2.4%	2.9%
Associate degree	2.9%	3.7%
Bachelor's degree or higher	5.6%	9.9%
<b>Student's High School GPA (comparison group is B or lower)</b>		
A+	13.2%	19.7%
A	15.5%	13.8%
A-	14.7%	9.6%
B+	10.7%	5.3%
Missing	5.7%	4.4%
<b>Student's Race/Ethnicity (comparison group is White)</b>		
Asian	6.6%	-3.8%
Black	-2.3%	2.3%
Hispanic	-3.8%	-1.0%
Native	-9.7%	-2.1%

**Note:** All estimates except those italicized are significant at the 5% level. In addition to the variables listed in Table A2, our models also control for students' state of residence.



**Figure A1. Shares of Respondents Who Completely or Generally Agree That the Future Benefits of a College Education Outweigh the Current Financial Costs**



**Figure A2.** Shares of Respondents Who Completely/Generally Agree Students Are More Likely to Be Employed in Job of Their Choice If They Complete a Four-Year College Degree

