The Great Acceleration:
College Completion in the 21st Century

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We document a remarkable shift in the distribution of education in the United States. In 2010, 30.5 percent of 25- to 29-year-olds had a bachelors' degree (BA); as of 2024, the share stood at 40.2 percent. This is the fastest growth in BA attainment since the Census began to collect data on education in 1940. In this paper, we document and discuss this overlooked transformation of educational attainment. We find that the increase in BA supply is driven by a rising completion rate among those who go to college, not by an increase in college entry. In the 1990s, just 39 percent of college students went on to earn a BA. By 2024, that share had risen to 56 percent, the highest completion rate in the historical record. A few decades ago, college dropouts were as common as college graduates among young people; now they are outnumbered three to one. The transformation also reaches both extremes of the educational distribution. In 1992, young adults who had not completed high school outnumbered those with graduate degrees by more than three to one (13 percent to 4 percent). By 2024, graduate degree holders outnumbered high school dropouts nearly two to one (11 percent to 6 percent). Against this historic shift in the supply of college-educated labor, we see little to no deterioration in employment outcomes for young BAs, suggesting strong continued demand for college-educated labor.

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1. Introduction

Low rates of college completion have been the focus of intensive research and policy attention for decades. For much of the 20th century, growth in BA attainment came from getting more students into college. But by the 1990s, BA attainment had stagnated even while enrollment continued to rise (Goldin and Katz 2008). Governments, colleges, and foundations increasingly focused on persistence and completion, while researchers identified interventions that could raise graduation rates (Castleman and Long 2016; Scrivener et al. 2015; Dynarski et al. 2023a; Dynarski, Page, & Scott-Clayton 2023b). Recent research documents a slight recovery in completion rates between 1990 and 2010 (Denning et al., 2022a). We show that this recovery subsequently accelerated sharply. We dub this transformation "The Great Acceleration."

In 2010, just 30.5 percent of 25- to 29-year-olds had a BA; in 2024, it was 40.2 percent. This is the fastest growth in BA attainment since the Census began recording education in 1940. In this paper, we document this overlooked transformation in educational attainment. The increase in BA supply comes from rising completion among those who go to college, not from rising college entry. In the 1990s, just 39 percent of college students went on to earn a BA. By 2024, that share had risen to 56 percent, the highest completion rate in the historical record. College entry, meanwhile, has flattened or dropped for recent cohorts.

The Great Acceleration has reshaped the educational distribution. In 1990, there were as many young college dropouts as young college graduates; now they are outnumbered three to one. High school completion has approached saturation, while college entry among high school graduates has stopped increasing. Growth in educational attainment has shifted decisively from college entry to college completion. We explore what drove that shift.

First, we examine whether students are moving through college differently. We find that students finish more quickly. Today, a college student is more likely to leave because she is graduating than because she is dropping out, reversing the historical pattern.

Second, we ask whether students have shifted toward institutions where completion is more likely. They have, but not nearly enough to explain the increase. IPEDS shows a sharp retreat from two-year and for-profit institutions after 2011, while four-year enrollment has held steady. Within the four-year sector, enrollment shifted toward more selective institutions. But even generous assumptions about differences in completion across sectors can explain only a small portion of the rise in BA completion. Most of the Great Acceleration occurred within sectors.

Third, we examine whether the additional degrees are low-value credentials. Denning et al. (2022a) points to grade inflation as the explanation for the small rise in college completion from 1990 to 2010. If marginal students are earning degrees with little value, we would expect the

labor-market outcomes of BA holders to weaken as their ranks expand. We find little evidence of this. Median wages remain strongly ordered by education. Bachelor's degree holders remain most attached to work. The BA wage distribution has pulled away from that of people who left college without a degree. If the new BAs had weaker skills than their predecessors, we would expect the two distributions to converge. These patterns do not establish the causal return to the additional degrees, but they are difficult to reconcile with a story in which the Great Acceleration consists primarily of economically empty credentials.

The paper connects two literatures that have largely proceeded separately. One literature asks why college completion rose after decades of stagnation (Bound, Lovenheim, and Turner 2010, 2012; Denning et al. 2022a, 2022b). The other literature asks whether slowing wage growth and weaker outcomes for recent graduates signal declining demand for college labor (Abel and Deitz 2025; Bengali, Valletta, and Zhao 2025; Federal Reserve Bank of New York 2026). The historic increase in BA supply makes these two questions inseparable. Against the historic increase in the supply of college-educated labor, the recent modest deterioration in labor-market outcomes for young graduates suggests that demand remains strong.

Finally, our analyses provide an opportunity to take stock of two decades' worth of intensive research, policy, and philanthropic attention devoted to getting college entrants "across the finish line."[1] Over this period of rising completion, the net cost of college attendance is down in all sectors; state and local funding per student is up; and evidence-based interventions and reforms have been implemented around the country. BA attainment has also risen rapidly in other high-income countries, however, so any explanation must consider common forces across countries. While a rigorous exploration of the factors driving the Great Acceleration is left for future work, the evidence we present here is at least consistent with a story in which research and policy efforts responded to underlying economic forces to promote productive investments in higher education.

2. Data and measurement

We are interested in population-level measures of college entry, bachelor's degree attainment, and completion conditional on entry that can be tracked consistently over decades. We are also interested in the characteristics of the schools in which students enrolled. No one household or institutional survey contains all this information, so our main analyses triangulate between four: The Decennial Census and ACS provide the long-run attainment series. The October CPS provides an independent attainment series and detailed enrollment measures. IPEDS provides

[1] A reference to Bowen, Chingos, & McPherson (2009)'s influential book, *Crossing the Finish Line*.

institutional enrollment by sector. The Basic Monthly CPS and March CPS ASEC provide labor-market outcomes. Additional details on these datasets and how we construct samples and measures are in the Appendix.

2.1 Census and American Community Survey

We use the Decennial Census from 1940 through 2000 and the ACS from 2001 through 2024 (Ruggles et al. 2025). The sample includes the full resident population, including those living in group quarters (e.g., correctional facilities), and includes records where education is imputed. We look at exact age 25 as well as 25- to 29-year-olds in aggregate to capture trends for the most recent cohorts of college-goers, while still ensuring the cohort is old enough to pick up most college completions. Aggregating across several ages helps smooth out year-to-year blips and avoid small sample sizes which might otherwise be an issue when we move to other data sources and subgroups.

We define college entry as attainment of at least some college or current undergraduate enrollment, and bachelor's attainment as a bachelor's degree or higher. Before 1990, we code at least 16 years of education as a BA. We define the cohort completion rate as bachelor's attainment divided by college entry.

2.2 October Current Population Survey

The October CPS School Enrollment Supplement (Flood et al. 2025) provides annual data from 1976 through 2024 for the civilian noninstitutional population. We use it both to replicate the attainment and completion series and to measure enrollment by institution type, sector, attendance intensity, and prior enrollment status. Because the October CPS asks some retrospective questions about enrollment in the prior October, we also use these data to examine college transfer and dropout rates over time.

2.3 IPEDS

We use data from the Integrated Postsecondary Education Data System (IPEDS) to examine enrollment trends by age and institution type, 1987 through 2023 (National Center for Education Statistics 2026). This enables us to corroborate the enrollment patterns we document in the household surveys, and enables us to examine patterns further by institution level, sector (public/private), and selectivity within the four-year sector. We follow Fink and Jenkins (2020) in classifying institution level in IPEDS according to the primary degree type conferred, rather than classifying institutions by highest degree type conferred.

Our main series covers ages 18 to 24, excludes Puerto Rico and the territories, and distinguishes four-year, two-year, and for-profit institutions. We also identify a fixed set of selective colleges using the Bound, Lovenheim, and Turner (2012) classification (see Appendix for complete list).

2.4 Labor-market data

We use the Basic Monthly CPS from 1992 through 2025 via IPUMS (Flood et al. 2025) to measure labor-force participation, unemployment, and employment-to-population ratios for adults ages 25 to 29. We classify education as high school only, some college with no degree, associate degree, and bachelor's degree or more.

We use the Annual Social and Economic Supplement (CPS ASEC, via IPUMS, Flood et al. 2025) from 1992 through 2025 for annual wages and year-round/full-time work, omitting 2014 because that year used both redesigned and legacy income questionnaires. Annual wage-and-salary income is expressed in 2025 dollars.

3. The Great Acceleration

We begin with the central fact of the paper: bachelor's attainment among young adults has risen extraordinarily quickly since 2010. We first place this increase in the long historical record and decompose it into changes in college entry and college completion. The decomposition shows that the recent rise in BA attainment is almost entirely a completion story. We then examine when in the college career the change occurs, whether shifts across institutions can explain it, and how the labor-market outcomes of the growing population of BA holders have evolved.

3.1 From rising entry to rising completion

For most of the postwar period, gains in educational attainment came from dramatic expansions in college entry (see Figure 1A). By 2000, 60 percent of 25-year-olds had entered college, up from 25 percent in 1960. But BA completion among college goers did not keep pace, hovering around 40 percent. The completion rate fell falling from 42 percent in 1980 to 39 percent in 1990 before rising to 43 percent in 2000. Bound, Lovenheim, and Turner (2010) document and explore this decline.

The pattern had reversed by the turn of the century and then accelerated sharply after 2010. By 2024, 56 percent of college goers had earned a BA, up from 39 percent in 1990. Denning et al. (2022a) document the recovery through 2010 and attribute much of the increase in institutional graduation rates to grade inflation, but the recovery they discuss is a fraction of the increase since 2010.

Exact age 25 gives us a clean long historical series, but many students are still completing college in their mid-twenties. We therefore also pool ages 25 to 29, an age range that both captures more completed degrees and smooths year-to-year noise (not shown). Pooling also enables us to compare the Census/ACS series to the same measures using the October CPS (which is much smaller). The conclusion is unchanged. From 2015 to 2024, college entry remained essentially flat at about two-thirds of young adults, while BA attainment rose from 33 to 40 percent and completion from 50 to 59 percent. The same acceleration in BA attainment appears in both survey sources, even though they use different samples and questionnaires.

Another hint that something distinctive is happening with college completion: even before college entry flattened out around 2015, increases in college entry between 2000 and 2015 were primarily due to increases in the rate of high school completion, rather than higher rates of college matriculation among high school completers. Figure 2A separates these two margins. Among 25- to 29-year-olds, high school completion rose from 84 percent in 2000 to 93 percent in 2024. College entry among high school completers rose only 2 percentage points, reaching 74 percent in 2015 before falling to 73 percent in 2024.[2]

The recent rise in bachelor's attainment therefore reflects higher completion among college entrants, not continued growth in the propensity of high school graduates to enter college. The distinction matters because the high school margin is now close to exhausted. By 2024, more than nine in ten 25- to 29-year-olds had completed high school, while college entry among completers was no higher than it had been a decade earlier.

This "Great Acceleration" in BA completion among college entrants has changed the shape of the educational distribution. In 1992, there were nearly as many young college dropouts as young college graduates (19 vs 23 percent); today, graduates outnumber dropouts by three to one (42 vs 14 percent, see Figure 3A). The change reaches both ends of the distribution. In 1992, young adults who had not completed high school outnumbered those with graduate degrees by more than three to one, 13 percent to 4 percent. By 2024, graduate degree holders outnumbered high school dropouts nearly two to one, 11 percent to 6 percent.

Figure 3A also shows that the rise in BA attainment since 2010 did not come at the cost of associate's degree completion. The associate-degree share was essentially unchanged, falling slightly from 9.6 percent in 2010 to 9.3 percent in 2024, after reaching 10.7 percent in 2019. The increase came instead from bachelor's and graduate degrees: bachelor's-only attainment rose

[2] High school completers include both traditional diploma and equivalency recipients. The flattening in college entry among completers is not driven by a changing mix of these groups: from 2015 to 2024, the continuing decline in equivalency credentials would have raised college entry among high school completers by 0.9 percentage points, while observed entry fell by 1.9 points.

from 24.4 to 31.5 percent, while graduate attainment rose from 7.3 to 10.9 percent. Among 25- to 29-year-olds, the share with any college degree (AA or BA) rose from 41.3 percent in 2010 to 51.7 percent in 2024. The Great Acceleration is therefore not a relabeling of credentials. More young adults are leaving college with a degree.

3.2 The acceleration spans gender and race/ethnicity

The shift from rising entry to rising completion is broad-based. From 2015 to 2024, college entry by age 25 was essentially flat for men and rose by just 1 percentage points for women (landing at 61.0 and 72.8 percent, respectively, see Figure 1B). Completion among college goers rose by 8.1 percentage points for men and 10.4 for women. The same pattern appears across U.S.-born racial and ethnic groups (Figure 1C).[3] Completion among college goers rose by 8.3 points among White non-Hispanic young adults, 14.8 among Black non-Hispanic young adults, and 15.2 among Hispanic young adults.[4]

The flattening of college entry among high school graduates is also broad-based (Figures 2B and 2C). Between 2015 and 2024, entry among 25-29-year-old high school completers fell by 1 percentage point for both men and women (to 68.3 and 77.6 percent, respectively). At the same time, high school completion continued to rise, especially for groups that had started further behind. From 2008 to 2024, high school completion rose from 84.2 to 93.1 percent among Black young adults and from 83.4 to 92.4 percent among Hispanic young adults. The recent increase in BA completion is therefore not driven by growth in the propensity of high school graduates to attend college.

The attainment distribution has shifted upward within groups as well (Figures 3B and 3C). Among women age 25 to 29, the share with at least a bachelor's degree rose from 23.5 percent in 1992 to 47.5 percent in 2024; among men, it rose from 23.2 to 37.4 percent. Among U.S.-born White young adults, BA-or-higher rose from 28.5 in 1994 to 47.9 percent in 2024; among Black young adults, from 12.7 to 30.8 percent; and among Hispanic young adults, from 13.0 to 27.3 percent. The mix differs across groups: associate degrees account for more of the increase among Black and Hispanic young adults, and the decline in college dropout is much larger among White

[3] For Figure 1C we restrict to the native-born, because the Hispanic series otherwise is sensitive to immigration shifts over time. Among all Hispanic young adults, college entry rose by 6 percentage points from 2015 to 2024, while completion among college goers rose by 12 points. Among U.S.-born Hispanics, entry rose by only 2 points, while completion still rose by 12 points. We therefore use the U.S.-born population in the main race and ethnicity figure so that changing immigrant composition does not drive subgroup comparisons. The all-nativity version appears in the Appendix.

[4] Asians are not included in the age-25 graphs because the cells are too small for reliable estimates. They are included in the graphs that rely on the broader population of 25-29-year-olds.

young adults. But the main story is the same. College entry has changed little, completion has risen sharply, and completed college credentials have become much more common.

4. What has changed for students entering college?

The previous section showed that the rise in BA attainment comes from higher completion rather than increased college entry. We now ask what changed for students entering college. Higher attainment could arise because students earn degrees at younger ages, because fewer leave without completing, or because students spend more total time enrolled and eventually accumulate more degrees. The evidence in Section 4.1 points to a more efficient path through college: students are earning BAs at younger ages, fewer are leaving without a BA, those who leave are doing so later in the college career, and the increase in degrees does not appear to require more total time spent in undergraduate enrollment. In Section 4.2, we examine sectoral shifts. We find that enrollments have shifted away from for-profit and two-year institutions towards the four-year sector, and even within the four-year sector, towards more selective institutions. Since sector and selectivity are associated with higher resources per student, this could explain some of the increase in attainment, though the shifts are not large enough to explain it all.

4.1 Shifts in persistence and timing of completion

First and most notably, students are earning bachelor's degrees at younger ages. Figure 4 shows that recent cohorts are reaching a given level of BA attainment sooner than earlier cohorts. At age 23, the share with a BA rose from 25 percent in 2010 to 31 percent in 2024; at age 24, it rose from 31 to 36 percent. These early completions are not merely taking the place of completions that would have happened eventually: the increase is not smaller but *larger* by the mid-twenties: among 25- to 27-year-olds, BA attainment rose from 31 to 41 percent. Figure 5, which looks at current enrollment by age, shows that these increases have occurred despite *declines* in current enrollment for those age 22 or older. These patterns are consistent with Denning et al. (2022b), who document falling time to bachelor's degree.

Second, the shrinking pool of college non-completers shown in Figure 3A suggests that college attrition has fallen. To examine this directly, we examine current enrollment outcomes for students who were undergraduates the previous year, using a retrospective question asked in the October CPS. They fall into three groups: they have completed a BA, they are still enrolled

without a BA, or they have left college without a BA.[5] In 1988, among students who had been enrolled as undergraduates one year earlier, 12.5 percent had completed a BA and 16.0 percent had left college without one. By 2015, the two shares were nearly equal. By 2024, 15.3 percent had completed a BA and only 10.2 percent had left without one. The share still enrolled without a BA changed little, remaining around three-quarters. The decline in leaving therefore shows up as an increase in completion, not as a growing stock of students lingering in college.

Third, even within the shrinking population of college dropouts, fewer are exiting near the beginning of college. Beginning in the late 1990s, the October CPS asks people with some college but less than a bachelor's degree how many years of college credit they have completed. Among 25- to 29-year-olds in this group, the share with no more than one year of college credit fell from about 39 percent in 1998 to 31 percent in 2024, while the share with less than one year fell from 13 to 9 percent. The share with at most two years of credit changed little, so the shift is concentrated among students who leave very early.

4.2 Shifts in where students enroll

Where students enroll has changed substantially over the same period that completion rose. We use both the CPS and IPEDS to document these shifts: the October CPS lets us distinguish two-year from four-year enrollment, while IPEDS gives us a more detailed view of institutional type. We use IPEDS to separate for-profit colleges from public and private institutions and, within the four-year sector, to identify the institutions that Bound, Lovenheim, and Turner (2010) classify as selective. We keep that classification fixed over time so that recent enrollment shifts are measured relative to the same institutional groups used in their analysis of the earlier decline in completion. The Data Appendix provides the full list of institutions in each selective roster.

Three changes stand out: the retreat from for-profit colleges, the shift from two-year to four-year colleges (including both initial entry and via transfer), and, within the four-year sector, a shift toward more selective institutions. These are descriptive facts about where students enroll. We return at the end of the paper to whether, and how much, they help explain the rise in college completion.

Figure 6, using IPEDS data, tells the first part of the story: for-profit colleges expanded rapidly during the Great Recession and then contracted sharply. Among 18- to 24-year-olds, the for-profit share of undergraduate enrollment rose from 1.7 percent in 1987 to 5.9 percent in 2011,

[5] These transitions do not require matching individuals across CPS years. The October CPS asks respondents retrospectively whether they were enrolled the previous October, allowing us to classify current outcomes relative to prior-year enrollment status.

then fell to 3.6 percent in 2023.[6] This movement is large relative to the sector's starting point. At its peak, for-profits enrolled nearly one in seventeen traditional-age undergraduates, more than three times their share in 1987. By 2023, their share had fallen by roughly two-fifths from the peak, although it remained above its late-1980s level. The for-profit boom was therefore both substantial and temporary.

Second, among 18- to 24-year-olds, the balance between the much larger (public and not-for-profit) two-year and four-year sectors has also shifted markedly. Figure 6 shows that two-year enrollment fell by about one-quarter between 2011 and 2023 – with the decline clearly starting prior to the pandemic – while four-year enrollment was roughly flat. The October CPS also reveals the shift away from the two-year sector. In the October CPS (Figure 7), the two-year share of undergraduate enrollment was 27 percent in 1976 and 29 percent in 1990, rose to about one-third in 2010, and fell to 24 percent by 2024.[7]

Finally, to examine shifts within the four-year sector, we turn back to IPEDS data. The relative stability of four-year enrollment since the Great Recession may mask changes in where students enroll within the four-year sector. This matters because four-year colleges differ substantially in their historical completion rates, and the earlier decline in college completion occurred primarily among less-selective institutions.[8]

Figure 8 shows that within the four-year sector, enrollment has shifted toward selective institutions since 2011 (reversing a longstanding decline), from under 25 percent to almost 28 percent. While the increase in share may seem modest, selective institutions are the *only* part of the four-year sector in our classification that grew after the 2011 enrollment peak. From 2011 to 2023, enrollment at selective four-year institutions increased by about 262,000 students. Over the same period, enrollment at other public four-year institutions fell by about 13,000 and enrollment at other private four-year institutions fell by about 57,000.

This gives the recent change in institutional composition a different shape from the sectoral movement associated with the earlier decline in completion. Two-year enrollment is now

[6] IPEDS expanded its age-enrollment collection in 2001 to include many institutions that had previously been omitted, disproportionately in the for-profit sector. The resulting break raises measured for-profit enrollment mechanically, so we interpret the long-run level change across 2001 with caution. The post-2001 rise to 2011 and subsequent decline are measured within the expanded coverage.

[7] Goodman and Winkelmann (2025) also document a large decline in two-year enrollments, focusing on the institutional perspective. The find much of the decline is driven by improving labor market conditions that draw away older students with lower likelihood of degree completion.

[8] We use the fixed selective-institution classification from Bound, Lovenheim, and Turner (2010, 2012) for historical continuity with the earlier literature on college completion. Because we hold the classification fixed, institutions remain in the same group throughout the analysis even if their admissions selectivity changes over time. The Data Appendix lists the institutions included in the selective group.

contracting rather than expanding, and the four-year growth that remains is concentrated at the selective end of the sector. These facts establish that where students enroll has changed substantially. We return later to how much of the increase in completion can be attributed to this reallocation rather than to changes within institutions.

5. Where the new BAs come from

The shifts in enrollment documented above raise a related question: how has this affected the total flow of bachelor's degree production? The answer is strikingly stable. BA production has expanded enormously without a comparable reallocation of degrees across the major sectors of higher education.

Figure 9 shows the number and share of bachelor's degrees awarded by sector from 1984 through 2024.[9] The annual number of BAs almost exactly doubled, from 986,000 in 1984 to 1.97 million in 2024. It peaked at 2.09 million in 2021 before falling modestly. Most of this expansion occurred within the same public and nonprofit four-year sectors that had long produced the bulk of bachelor's degrees. Meanwhile, the total civilian labor force (age 16 or older) grew by about 48 percent between 1984 and 2024. The annual flow of new BAs has risen considerably relative to the size of the labor force. In 1986, the number of new BAs was equivalent to 0.85 percent of the labor force. In 2024, it was 1.16 percent, a 36% increase.[10]

Less-selective public four-year institutions remain the workhorse of BA production. They awarded 463,000 bachelor's degrees in 1984 and 949,000 in 2024. That increase of 485,000 accounts for almost half of the net national increase in BAs over the period. Their share of all bachelor's degrees barely changed, from 47 percent in 1984 to 48 percent in 2024. Other private four-year institutions (those not on the "selective" list) also substantially increased their output, from 218,000 to 404,000 degrees, while their share edged down from 22 to 20 percent.

The recent shift toward selective institutions documented above also appears in BA production, but it follows a longer period in which selective institutions lost share. Using the fixed Bound, Lovenheim, and Turner classification described above, selective institutions produced 29 percent of BAs in 1984. Their share fell to 23 percent in 2014 and then rose to 25 percent by 2024. The

[9] IPEDS counts annual bachelor's degrees awarded and includes recipients of all ages. These data therefore describe the institutional source of BA production, not the probability that an individual college entrant completes a BA by a particular age. The continuous annual series begins in 1984. An isolated 1980 observation is available, but observations for 1981–1983 are not.

[10] Civilian labor force figures are from U.S. Bureau of Labor Statistics, Civilian Labor Force Level [CLF16OV], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/CLF16OV, using October counts from each year.

recent increase is concentrated among top public institutions, whose share rose from 15 percent in 2014 to 17 percent in 2024, while the selective-private share changed little. Thus selective institutions have become a growing source of BAs in the recent period, but they do not account for most of the long-run increase in BA production.

For-profit colleges are the clearest exception to the stability of sector shares. They produced less than one-half of one percent of BAs in 1984. Their share rose rapidly after 2000, peaked at just over 7 percent in 2013, and fell to about 6 percent by 2024. Community colleges increasingly award bachelor's degrees as well, but the level remains small: about 16,000 degrees in 2024, less than 1 percent of the national total.

The main fact is therefore not a movement of BA production from one institutional sector to another. The United States nearly doubled the annual production of bachelor's degrees largely within its longstanding public and nonprofit four-year system. The enrollment shifts documented above may have contributed to rising completion, but the enormous growth in degree production occurred primarily within the broad sectors that were already producing BAs.

6. Do the new BAs pay off?

Many of the additional BA holders are likely students who, in an earlier period, would have entered college but not earned a degree. A natural question is whether the marginal degrees completed represent new valuable human capital, or instead reflect a devaluation of degrees. Ultimately, if these new BAs represent much less human capital, or if weakening demand has sharply reduced the value of the degree, the expanding BA group should begin to look more like those who entered college but did not finish. We should see the wage gap narrow, the two wage distributions become more alike, and the employment advantage associated with a BA diminish.

In this section, we look for those patterns in wages, wage distributions, employment, and unemployment. The comparisons are descriptive. They do not identify the causal return to the marginal BA or show that labor-market incentives caused the rise in completion. They ask whether the large increase in BA supply has weakened the labor-market distinction between completing college and dropping out.

6.1 Median wages remain ordered by attainment

Median wages provide a first test of whether the expanding BA group has weakened relative to college non-completers. Most analyses of the college wage premium focus on full-time workers age 25-64 and find evidence of a flattening out of the premium since 2000, with some finding evidence of declines in the most recent few years (Bengali, Valletta, and Zhao 2025; Azar, Gine,

and Sanz-Espín 2026). Even with a modest decline from its peak, most analyses still suggest an earnings premium of around 75% for those with exactly a bachelor's degree, relative to those with exactly high school completion. Even for recent graduates (age 22-27), the BA premium among full-time workers appears stable since 2000, around 50% (Federal Reserve Bank of New York, 2026).[11] However, the limitation to full-time workers may be consequential given that part of the return to attainment may operate through a higher likelihood of employment.

We thus use the CPS Annual Social and Economic Supplement to permit more flexible and targeted analyses, following 25- to 29-year-olds from 1992 through 2025. We first examine annual wage-and-salary income (measured in 2025 dollars), including zero earners. We distinguish high school graduates, college dropouts, associate-degree holders, and those with a BA or more.[12]

The education gradient in wages is remarkably persistent, as shown in Figure 10. BA holders have the highest median wages throughout the period. Associate-degree holders generally come next, followed by college dropouts and high school graduates. In 1992, median annual wages were about $51,000 for BA holders, compared with $34,000 for college dropouts and $28,000 for high school graduates. As others have documented using different measures and samples, we also find that education is especially protective in downturns.

The critical period for our argument begins around 2015, when BA completion accelerates while entry is nearly flat. A weakening-BA story would predict visible deterioration in BA wages as the group expands. Instead, the gap between the two groups increases from about $17,000 in 1992 to $26,000 in 2025. BA wages do not turn down when BA attainment begins to rise rapidly. At the same time, however, wages among the least educated have recovered since the mid-2010s, part of the broader rise in wages among lower-paid workers documented by Autor, Dube, and McGrew (2024). This recovery helps narrow conventional college wage premiums, but for a very different reason than a weakening-BA story would predict: wages at the bottom rose rather than BA wages collapsing.

Those who leave college with no degree do not share the BA trajectory. Their wages do not move toward those of BA holders as completion rises. Instead, they move closer to those of high school graduates. By the end of the period, the two medians are nearly identical. The striking

[11] See: https://www.newyorkfed.org/research/college-labor-market#--:explore:wages

[12] Figure 10 uses our ASEC sample of ages 25–29 and includes current enrollees and people with zero wage earnings. We use the New York Fed recent-graduate series as a benchmark, but its wage series uses a narrower population: ages 22–27, not currently enrolled, and working full time.

change is therefore not that BA holders have become more like college dropouts. It is that college dropouts have become more like high school graduates.

6.2 The wage distributions of college graduates and dropouts are diverging

Focusing on the median may miss important changes going on at the bottom of the college wage distribution. A growing group of weaker BA recipients could alter the bottom of the BA wage distribution, or change their likelihood of unemployment, even if the median moves little. We therefore compare the full wage distributions of degree completers and college dropouts. If rising completion were simply moving lower-productivity students across the degree line without changing their labor-market prospects, the two distributions should become more similar over time.

Figures 11A and 11B make that comparison for 25- to 29-year-old year-round, full-time workers with positive wages in 1995, 2005, 2015, and 2025. In Figure 11A we compare degree completers (associate- and bachelor's-degree holders) to those with some college but no degree. In Figure 11B we compare only BA holders to those with some college but no degree.[13] The shaded area measures the common area under the two wage distributions. An overlap of 100 percent would mean that the distributions are identical; a decline means that the groups are becoming easier to distinguish by their wages.

In both figures, the distributions move in the opposite direction. In 1995, degree completers and college dropouts had about 82 percent shared area. By 2025, the overlap had fallen to about 70 percent. The separation is visible across the distribution, not just at the median. As completed degrees have become more common, the wage distribution of completers has moved farther from that of students who entered college but left without a degree. The separation is also clear when we compare those with a BA to college dropouts (Figure 11B). Their overlap in 1995 was 77 percent while in 2025 it was 65 percent. Figure 11C shows the same exercise for high school graduates and college dropouts, showing that the two distributions are merging.

Figure 12 presents the shifting distribution in percentiles. The x-axis consists of the 10th, 25th, 50th, 75th and 90th percentiles of the high school wage distribution in the four different periods. The y-axis is the share of an education group whose wages fall above that percentile. Lines depict those with some college but no degree, an AA, and a BA or above. The sample is year-round, full-time workers.

[13] Figures 11A-C use CPS ASEC wage-and-salary income in 2025 dollars. The sample is ages 25–29 with positive wages who report working at least 35 usual hours per week and 50–52 weeks during the year. We restrict the density comparison to year-round, full-time workers so that the figure describes the wage distribution among workers with strong labor-force attachment; employment differences are examined separately below.

In 1995, among those with at least a BA, 76 percent earned more than the median high school graduate. By 2025 this had risen to 82 percent. The analogous statistics at the 25th percentile are 92 and 94 percent; for the 75th percentile 56 percent and 61 percent. BA wages show no sign of collapsing toward high school wages. We can also see that BAs are pulling away from those who attended college but did not earn a degree, by noting the increase in the vertical distance between these two lines from 1995 to 2025.

This pattern is consistent with the attainment changes documented earlier in the paper. As the college-dropout category shrinks, its composition may also be changing: students who once would have remained in that category are increasingly completing degrees. These descriptive comparisons cannot tell us whether the divergence reflects selection, the value of the credential itself, differences in fields of study, or other changes. But they do not look like an expanding degree sector simply absorbing low-value credentials until completers become indistinguishable from dropouts.

6.3 Work attachment remains strongest for BAs

Strong wages among workers do not rule out weaker labor-market attachment. The wage distributions in the previous section include only year-round, full-time workers with positive wages. If the expanding BA group increasingly included graduates who worked intermittently or not at all, the wage evidence would understate that deterioration.

Figure 13 addresses that concern. In the CPS ASEC, young BA holders remain more likely than college dropouts or high school graduates to work year-round and full-time. The gap persists through the recent completion boom. Associate-degree holders generally fall between BA holders and college dropouts, while college dropouts and high school graduates remain lower and close together. Appendix Figure A2 shows the same ordering on a less demanding margin: BA holders are also the most likely to report any positive wage-and-salary earnings during the year.

The wage evidence therefore does not come only from a selected group of steady BA workers. As BA attainment rose, annual work attachment among BA holders remained strong.

6.4 The BA unemployment advantage largely persists, with one caveat

Unemployment captures a different form of labor-market weakness than wages or work attachment. The unemployment rate is the share of people in the labor force who are not working but are actively looking for a job. It therefore asks whether people who want to work can find work. If the growing supply of BA holders were running into weakening demand, unemployment is one place we might expect that pressure to appear.

The education gradient in unemployment is strong and remarkably stable. Among 25- to 29-year-olds in the Basic Monthly CPS, BA holders have the lowest unemployment rate throughout the series. College dropouts and high school graduates have higher rates. The BA unemployment advantage widens sharply in recessions: unemployment rises for every group, but much more for those with less education. Figure 14A shows this pattern in both the Great Recession and the pandemic downturn.

That ordering persists through the recent completion boom. BA attainment rises rapidly after 2015, yet unemployment among 25- to 29-year-old BA holders remains well below that of college dropouts. Weakening demand for college labor, if it has emerged, has not narrowed the BA unemployment advantage for this age group.

The picture changes when we isolate the very youngest workers. Historically, unemployment at exact age 25 follows the same familiar ordering by education: BA holders have the lowest unemployment rate, with unemployment rising as educational attainment falls. This hierarchy is one of the most consistent features of the labor-market data. In the most recent years, however, that ordering breaks down at age 25. BA holders no longer have a clear unemployment advantage over 25-year-olds with an AA (Figure 14B).

The distinction between age 25 and ages 25 to 29 is important. The broader young-adult group still shows a strong BA advantage, while for the newest entrants to the labor market it has weakened. Whether this is transitory noise or the beginning of a persistent change remains to be seen.

For now, the unemployment evidence reinforces the larger pattern in this section. The rapid increase in BA supply has not erased the labor-market advantage associated with completing college. The main exception is concentrated among the youngest graduates, where the long-standing ordering of unemployment by education has recently broken down.

6.5 Supply changes the interpretation of demand-side evidence

None of these results proves that the demand for college-educated labor has not weakened. Bengali, Valletta, and Zhao (2025) provide evidence that the stagnation of the college wage premium is best explained by a slowdown in skill demand. While Bengali, Valletta, and Zhao (2025) find that the supply side plays a limited role in the stagnating premium overall, their analysis does not preclude supply playing a larger role for the youngest graduates, particularly when considering the unemployment margin. Whatever has happened to demand, it has occurred against a much larger increase in the number of degree holders than a wage-only discussion reveals. A rising bachelor's premium relative to some college, or growing separation of their

wage distributions, is not by itself evidence about whether the return to the BA has changed. But it is powerful evidence against the simplest story that the new bachelor's holders have merely diluted the degree category until it resembles noncompletion.

To close the descriptive section of the paper, we show graphically how the accelerated flow of new BAs is altering the skill mix of the labor force. Figure 16 plots (in millions) the size of the labor force, and the number of workers with a BA, by single year of age. These plots are done separately for 1970, 1990, 2015, and 2025. In 1970 we see a labor force with few BAs, and the better-educated Baby Boom is just beginning to appear among the youngest workers. By 1990, the surge of college-educated Boomers has transformed the labor market, with workers younger than 45 far more educated than the rest of the labor force. By 2015, the Boomers are beginning to retire, but enough well-educated young workers are entering the labor force to replace them, such that the age distribution of the BA labor force is nearly flat. But in 2025, while the BA labor force continued to grow at virtually every age, there are now fewer early-career BA workers (age 25 to 29) than mid-career BA workers (age 30-34, or 35-39). This may help explain the resilience of the labor market premium even as completion rates have risen.

7. What can explain rising completion for college entrants?

The Great Acceleration produced a historically large increase in the supply of college graduates. Among 25- to 29-year-olds, BA attainment rose from 30.5 percent in 2010 to 40.2 percent in 2024, even as college entry changed little. The increase in the annual flow of degrees is even larger in historical perspective. U.S. colleges awarded 986,000 bachelor’s degrees in 1984 and 1.97 million in 2024, almost exactly twice as many. Population growth accounts for only a fraction of this increase: in our Census/ACS data, the population of 18-year-olds rose from 3.60 million in 1990 to 4.58 million in 2024, an increase of about 27 percent. That the labor market absorbed this enormous increase in supply without an equally clear deterioration in the relative outcomes of BA holders suggests that demand for college-educated labor remains strong.

The source of rising college attainment marks an important change in the history of American higher education. For much of the twentieth century, gains in college attainment came primarily by expanding access. Between the high school classes of 1972 and 1992, for example, college participation rose from 48.4 to 70.7 percent in the cohorts studied by Bound, Lovenheim, and Turner (2010). That vast democratization of access changed who went to college, while completion among entrants fell.

The recent period is different. College entry has flattened, while the share of college goers earning a BA has risen sharply. Among 25- to 29-year-olds, BA attainment among college goers

rose from 47.6 percent in 2010 to 59.1 percent in 2024. The cohort analysis tells the same story: recent growth occurs almost entirely after students have entered the college pipeline. So what can explain rising completion among entrants?

One possibility is that students increasingly attend institutions where completion rates are higher. The direction is right. Enrollment shifted away from two-year and for-profit colleges and toward four-year institutions, with a further shift toward selective institutions within the four-year sector. The earlier experience documented by Bound, Lovenheim, and Turner (2010) shows that this margin can matter enormously. Between their 1972 and 1992 cohorts, a large shift toward community colleges was the dominant institutional-composition change and accounted for roughly three-quarters of the decline in completion. The recent movement runs in the opposite direction, but the decline in two-year enrollment is much smaller than the earlier increase they studied.

Our own accounting confirms that this mechanism can explain only a minority of the recent increase. In the cohort-aligned CPS comparison, the two-year share among enrolled 20- to 21-year-olds fell 4.16 percentage points between 2011 and 2019. Applying causal estimates of the effect of starting at a four-year rather than a two-year college implies an increase in BA completion of roughly 0.6 to 0.9 percentage points, compared with an observed 9.5-point rise in completion at age 25 over the corresponding outcome window.[14] Institutional sorting therefore contributed in the right direction, but most of the Great Acceleration must have occurred within broad institutional sectors.

A second potential explanation is an improvement in the preparation of the students who enter college. We cannot rule this out with a single consistent national measure of preparation over the full period. But Denning et al. (2022a) found that measured preparation moved in the wrong direction to explain the subsequent rise in completion through 2010, and Bound, Lovenheim, and Turner (2010) found that preparation could not explain the completion decline outside the community-college sector. Increases in the prevalence of dual enrollment – which engages 2.5 million high school students each year, up from 300,000 in the early 2000s – could plausibly

[14] We use ages 20-21 because they are close to the starting-sector margin while avoiding much of the growing dual-enrollment contamination at ages 18–19. Their two-year share fell from 27.18 percent in 2011 to 23.02 percent in 2019. Long and Kurlaender (2009) estimate a BA-completion disadvantage of about 14.5 percentage points for community-college starters relative to comparable four-year starters, while Mountjoy (2022) estimates a roughly 20.4-point effect for students diverted from immediate four-year entry. Multiplying these estimates by the 4.16-point sector shift implies gains of 0.60 to 0.85 percentage points. Exact-age-25 completion rose 9.47 percentage points between the 2015–16 and 2023–24 averages, so this calculation accounts for roughly 6 to 9 percent of the observed increase. We use externally identified causal estimates rather than differences in raw institutional graduation rates because students sort nonrandomly across sectors.

contribute to higher BA completion rates, though limited national/historical data make this hard to quantify.[15]

A third possibility is that the college experience has changed. After decades spent expanding access, colleges appear to have become substantially better at getting students to a degree. Students are earning bachelor's degrees at younger ages, fewer students leave college without completing, and the rise in completion has not come from more late or interrupted enrollment. Among those who still leave without a BA, very early exits have become less common.

The increases in completion since 2010 occurred at a time when improving college completion was arguably the top postsecondary policy priority, and various subsequent policy shifts could plausibly have influenced completion in a meaningful way. College completion was the focus of a call-out by President Obama in his first address to Congress in 2009 (Obama, 2009), attention from influential scholars (see, e.g., *College Choices* by Hoxby, 2004; "Why Have College Completion Rates Declined?" by Bound, Lovenheim, and Turner 2010; *Crossing the Finish Line* by Bowen, Chingos, & McPherson, 2009), major initiatives by private funders, the Federal government, and institutional collaboratives to innovate and evaluate efforts to track and improve completion, and substantial efforts at both the state and Federal level to shift institutional accountability towards college outcomes, not just enrollment.[16]

The resulting evidence base has found that need-based aid and comprehensive programs combining financial support, advising, and structured academic pathways can raise persistence and degree completion (Castleman and Long 2016; Scrivener et al. 2015; Dynarski et al. 2023a; Dynarski, Page, & Scott-Clayton 2023b). Federal, state, philanthropic, and institutional initiatives have also increasingly emphasized completion, including guided pathways, completion grants, transfer reform, redesigned remediation, and advising.

At the same time, states and localities were reinvesting in postsecondary education, increasing per-full-time-equivalent student funding by nearly 50 percent between 2011 and 2024 (from about $8,000 to $12,000 per FTE student, see College Board, 2025). Net prices are also *down* in all sectors over that period (after adjusting for inflation), whether considering tuition and fees

[15] See Alonso (2025). https://www.insidehighered.com/news/admissions/traditional-age/2025/09/08/dual-enrollment-research-shows-far-reach-strong-outcomes. IPEDS only began tracking dual enrollment in 2023-24.
[16] Examples include: College Board's 2010 College Completion Agenda (College Board Advocacy and Policy Center, 2010), the founding of the Complete College America advocacy organization, targeted efforts by the Lumina Foundation and Gates Foundation, founding of the Achieving the Dream community college network, Federally-funded research centers including the National Center for Postsecondary Research (IES), Center for the Analysis of Postsecondary Education and Employment (IES), creation of the College Scorecard in 2013, and numerous state reforms to link institutional funding to degree completion and post-college earnings.

only, or the full cost of attendance (College Board, 2025). Note that this is a plausible mechanism but we need (a lot of) further research to conclusively establish a causal link.

An alternative and compatible hypothesis is that colleges might be relaxing their expectations for completion. Denning et al. (2022a) suggest that grade inflation contributed to rising completion through 2010, with the implication that human capital is weaker among marginal BAs. Our exploration of labor market outcomes suggests this is not the case. In fact, more forgiving grades can plausibly increase human capital. A regression-discontinuity analysis of students who just missed a key academic threshold shows that the marginal student pushed out of college due to low grades would have benefitted by staying enrolled (Ost, Pan, and Webber, 2018). If grade inflation leads to students remaining enrolled and completing more courses, it may yield real additional human capital (though it muddles the comparison of student performance across cohorts).

The international evidence provides another piece in this incomplete puzzle. The recent U.S. increase is extraordinary relative to American history, but it is not uniquely American (Figure 15). Among the fixed group of 33 countries for which we have comparable data, BA attainment among 25- to 34-year-olds rose from 35.3 to 42.3 percent in the United States between 2014 and 2023, while the country average rose from 34.7 to 41.5 percent. The United States barely changed its relative position. Whatever forces raised completion in the United States therefore operated during a period in which many other high-income countries were also producing substantially more college graduates.

8. Conclusion

The Great Acceleration is now clear descriptively: it is not another expansion of college-going, but rather a transformation in what happens to students after they get to college. The broad historical arc is striking. The great expansion of the 1970s and 1980s democratized access to college but did not produce a comparable increase in completion. In the twenty-first century, that pattern changed. College entry stopped rising, while colleges became much more successful at converting entrants into graduates. The additional degrees came mainly from the established higher-education system, and the labor market continues to place substantial value on the distinction between finishing college and dropping out.

What produced the Great Acceleration is less settled. Our evidence does not identify a single mechanism, but it sharply constrains the set of plausible explanations. In particular, the labor market evidence weighs against interpreting the increase primarily as the production of low-value credentials through lower standards. Denning et al. (2022a) provide strong evidence that

rising grades contributed to rising completion, including evidence of higher grades conditional on performance on identical exams. But if the additional BAs carried little labor-market value, the rapidly expanding BA group should increasingly resemble the college dropouts from whom many marginal graduates were drawn. We observe the opposite. The wage distributions diverge, BA holders remain much more strongly attached to work, and their unemployment advantage remains large.

While a rigorous exploration of the factors driving the Great Acceleration is left for future work, the evidence we present here is consistent with a story in which research and policy efforts responded to underlying economic forces to promote productive investments in higher education. The evidence presented does not necessarily show that every additional BA represents the same human capital as an earlier BA. It does show that the labor market continues to value the distinction between finishing college and leaving without a degree. Any account of what changed therefore must explain not only why more students received degrees, but why those degrees continued to yield a strong premium in the labor market.

References

Abel, Jaison R., and Richard Deitz. 2025. "Is College Still Worth It?" *Federal Reserve Bank of New York Liberty Street Economics*, April 16.

Alonso, Johanna. 2025. "Dual Enrollment Leads to More College Acceptances, Greater Financial Awards." *Inside Higher Ed*, September 8.

Autor, David, Arindrajit Dube, and Annie McGrew. 2024. "The Unexpected Compression: Competition at Work in the Low-Wage Labor Market." NBER Working Paper No. 31010.

Azar, José, Mireia Gine, and Javier Sanz-Espín. 2026. "The College Wage Premium in the Generative AI Era." SSRN working paper, August 28.

Bengali, Leila, Robert G. Valletta, and Cindy Zhao. 2025. "Explaining Stagnation in the College Wage Premium." Federal Reserve Bank of San Francisco Working Paper 2025-01.

Bound, John, Michael F. Lovenheim, and Sarah Turner. 2010. "Why Have College Completion Rates Declined? An Analysis of Changing Student Preparation and Collegiate Resources." *American Economic Journal: Applied Economics* 2(3): 129–157.

Bound, John, Michael F. Lovenheim, and Sarah Turner. 2012. "Increasing Time to Baccalaureate Degree in the United States." *Education Finance and Policy* 7(4): 375–424.

Bowen, William G., Matthew M. Chingos, and Michael S. McPherson. 2009. *Crossing the Finish Line: Completing College at America's Public Universities*. Princeton, NJ: Princeton University Press.

Castleman, Benjamin L., and Bridget Terry Long. 2016. "Looking Beyond Enrollment: The Causal Effect of Need-Based Grants on College Access, Persistence, and Graduation." *Journal of Labor Economics* 34(4): 1023–1073.

College Board Advocacy and Policy Center. 2010. *The College Completion Agenda: 2010 Progress Report*. Washington, DC: College Board.

College Board. 2025. *Trends in College Pricing and Student Aid 2025*. New York: College Board.

Denning, Jeffrey T., Eric R. Eide, Kevin J. Mumford, Richard W. Patterson, and Merrill Warnick. 2022a. "Why Have College Completion Rates Increased?" *American Economic Journal: Applied Economics* 14(3): 1–29.

Denning, Jeffrey T., Eric R. Eide, Kevin J. Mumford, and Daniel J. Sabey. 2022b. "Decreasing Time to Baccalaureate Degree in the United States." *Economics of Education Review* 90: 102287.

Dynarski, Susan, Aizat Nurshatayeva, Lindsay C. Page, and Judith Scott-Clayton. 2023a. "Addressing Nonfinancial Barriers to College Access and Success: Evidence and Policy

Implications." In *Handbook of the Economics of Education*, Vol. 6, edited by Eric A. Hanushek, Stephen Machin, and Ludger Woessmann, 319–403. Amsterdam: Elsevier.

Dynarski, Susan, Lindsay C. Page, and Judith Scott-Clayton. 2023b. "College Costs, Financial Aid, and Student Decisions." In *Handbook of the Economics of Education*, Vol. 7, edited by Eric A. Hanushek, Stephen Machin, and Ludger Woessmann, 227–285. Amsterdam: Elsevier.

Federal Reserve Bank of New York. 2026. "The Labor Market for Recent College Graduates." Research and Statistics Group, interactive data feature. Accessed September 2026.

Fink, John, and Davis Jenkins. 2020. "Shifting Sectors: How a Commonly Used Federal Datapoint Undercounts Over a Million Community College Students." Community College Research Center, Teachers College, Columbia University, April 30.

Flood, Sarah, Miriam King, Renae Rodgers, Steven Ruggles, J. Robert Warren, Daniel Backman, Etienne Breton, Grace Cooper, Julia A. Rivera Drew, Stephanie Richards, David Van Riper, and Kari C. W. Williams. 2025. *IPUMS CPS: Version 13.0* [dataset]. Minneapolis, MN: IPUMS. doi:10.18128/D030.V13.0.

Goldin, Claudia, and Lawrence F. Katz. 2008. *The Race Between Education and Technology*. Cambridge, MA: Harvard University Press.

Goodman, Joshua, and Joseph Winkelmann. 2025. "Labor Market Strength and Declining Community College Enrollment." NBER Working Paper No. 34498.

Hoxby, Caroline M., ed. 2004. *College Choices: The Economics of Where to Go, When to Go, and How to Pay for It*. Chicago: University of Chicago Press.

Long, Bridget Terry, and Michal Kurlaender. 2009. "Do Community Colleges Provide a Viable Pathway to a Baccalaureate Degree?" *Educational Evaluation and Policy Analysis* 31(1): 30–53.

Mountjoy, Jack. 2022. "Community Colleges and Upward Mobility." *American Economic Review* 112(8): 2580–2630.

National Center for Education Statistics. 2026. *Integrated Postsecondary Education Data System (IPEDS): Complete Data Files*. Washington, DC: U.S. Department of Education, Institute of Education Sciences.

Obama, Barack. 2009. "Remarks of President Barack Obama: Address to Joint Session of Congress." February 24. White House archives.

OECD. 2026. "Adults' Educational Attainment Distribution, by Age Group and Gender." OECD Data Explorer. Accessed September 2026.

OECD. Various years. *Education at a Glance*. Paris: OECD. Historical attainment tables: 2000 Table A2.2b; 2006, 2009, 2011, and 2014 Table A1.3a.

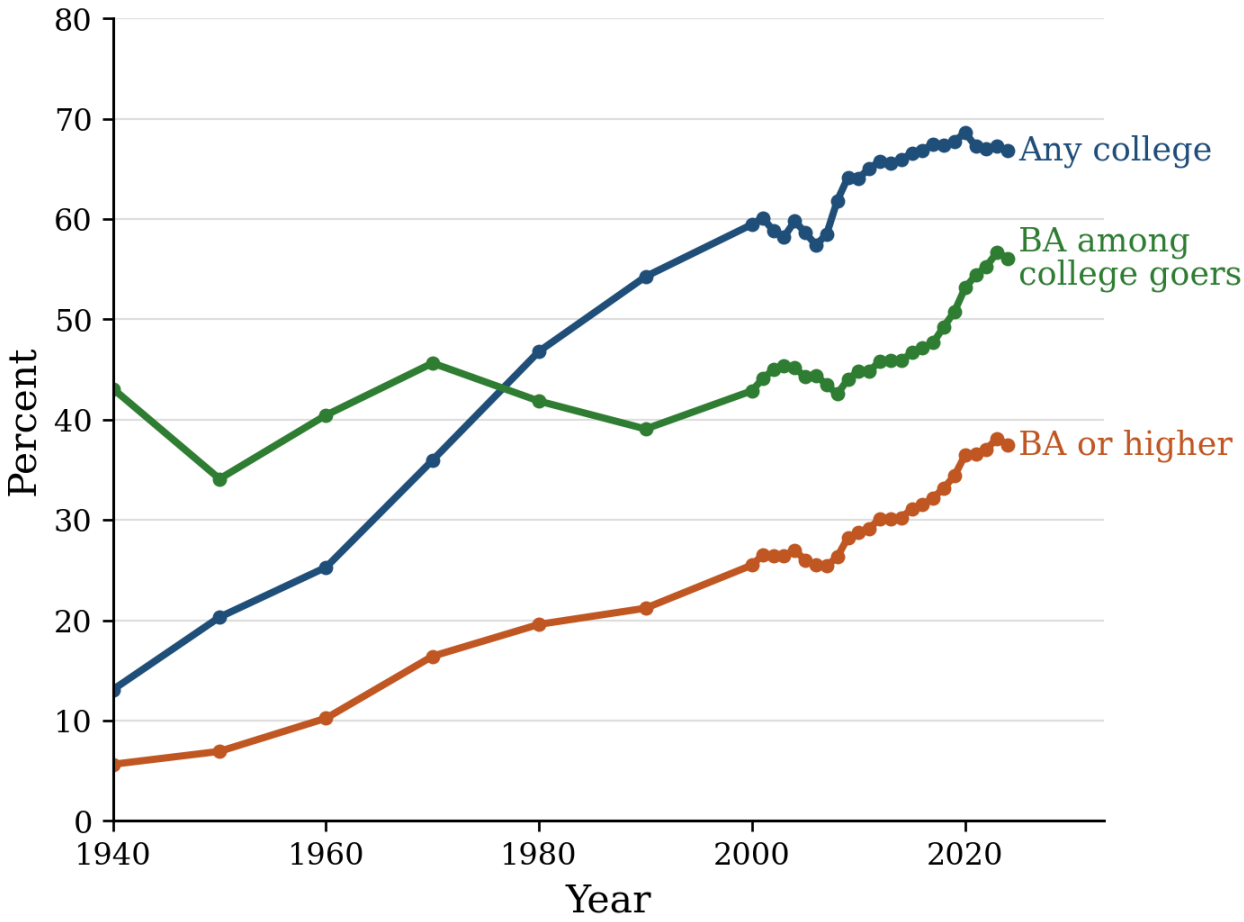
Ost, Ben, Weixiang Pan, and Douglas Webber. 2018. “The Returns to College Persistence for Marginal Students: Regression Discontinuity Evidence from University Dismissal Policies.” *Journal of Labor Economics* 36(3): 779–805.

Ruggles, Steven, Sarah Flood, Matthew Sobek, Daniel Backman, Grace Cooper, Julia A. Rivera Drew, Stephanie Richards, Renae Rogers, Jonathan Schroeder, and Kari C. W. Williams. 2025. *IPUMS USA: Version 16.0* [dataset]. Minneapolis, MN: IPUMS. doi:10.18128/D010.V16.0.

Scrivener, Susan, Michael J. Weiss, Alyssa Ratledge, Timothy Rudd, Colleen Sommo, and Hannah Fresques. 2015. *Doubling Graduation Rates: Three-Year Effects of CUNY’s Accelerated Study in Associate Programs (ASAP) for Developmental Education Students*. New York: MDRC.

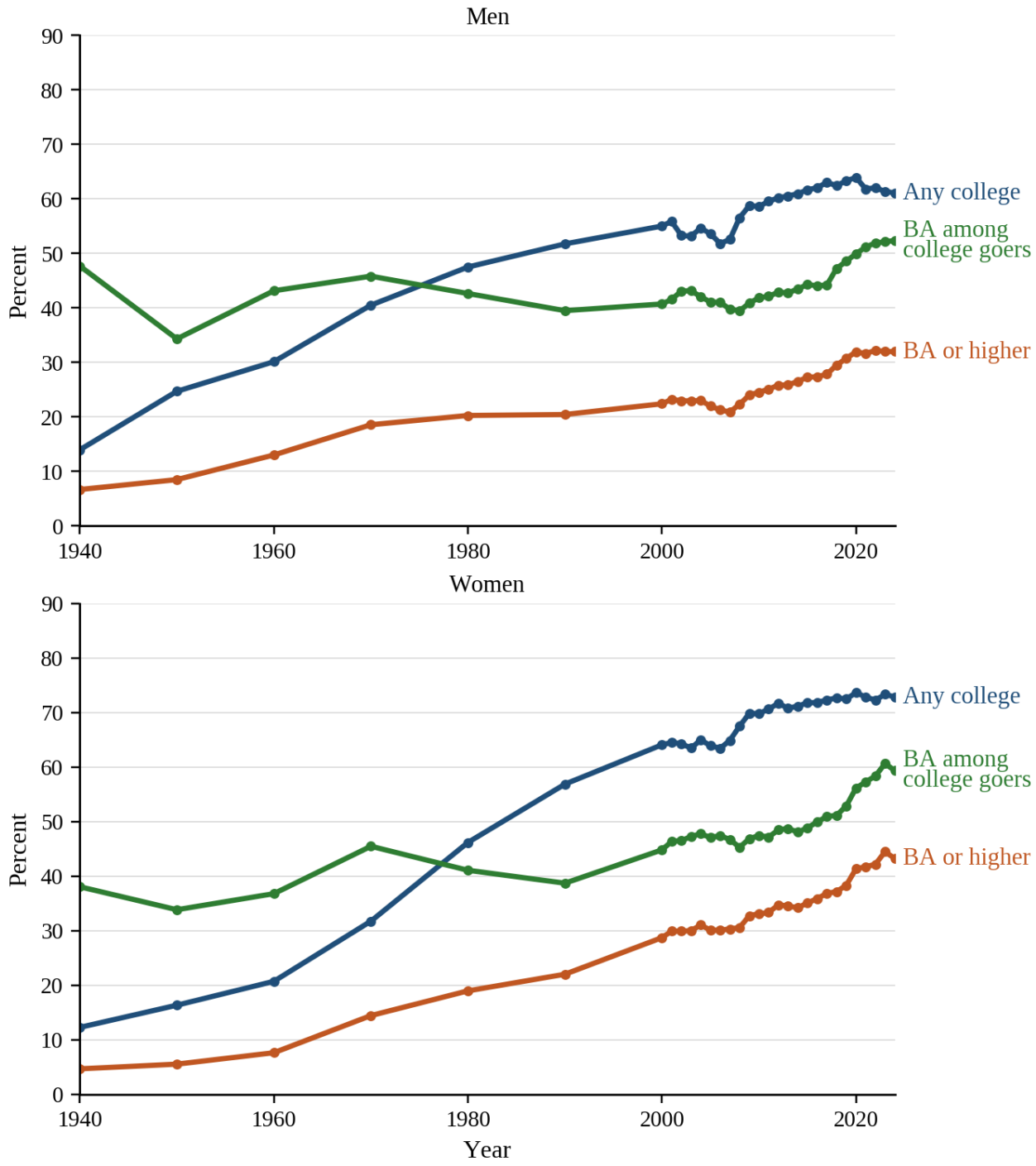
U.S. Bureau of Labor Statistics. 2026. “Civilian Labor Force Level [CLF16OV].” Retrieved from FRED, Federal Reserve Bank of St. Louis. Accessed September 2026.

Figure 1A. Postsecondary attainment at age 25, 1940-2024



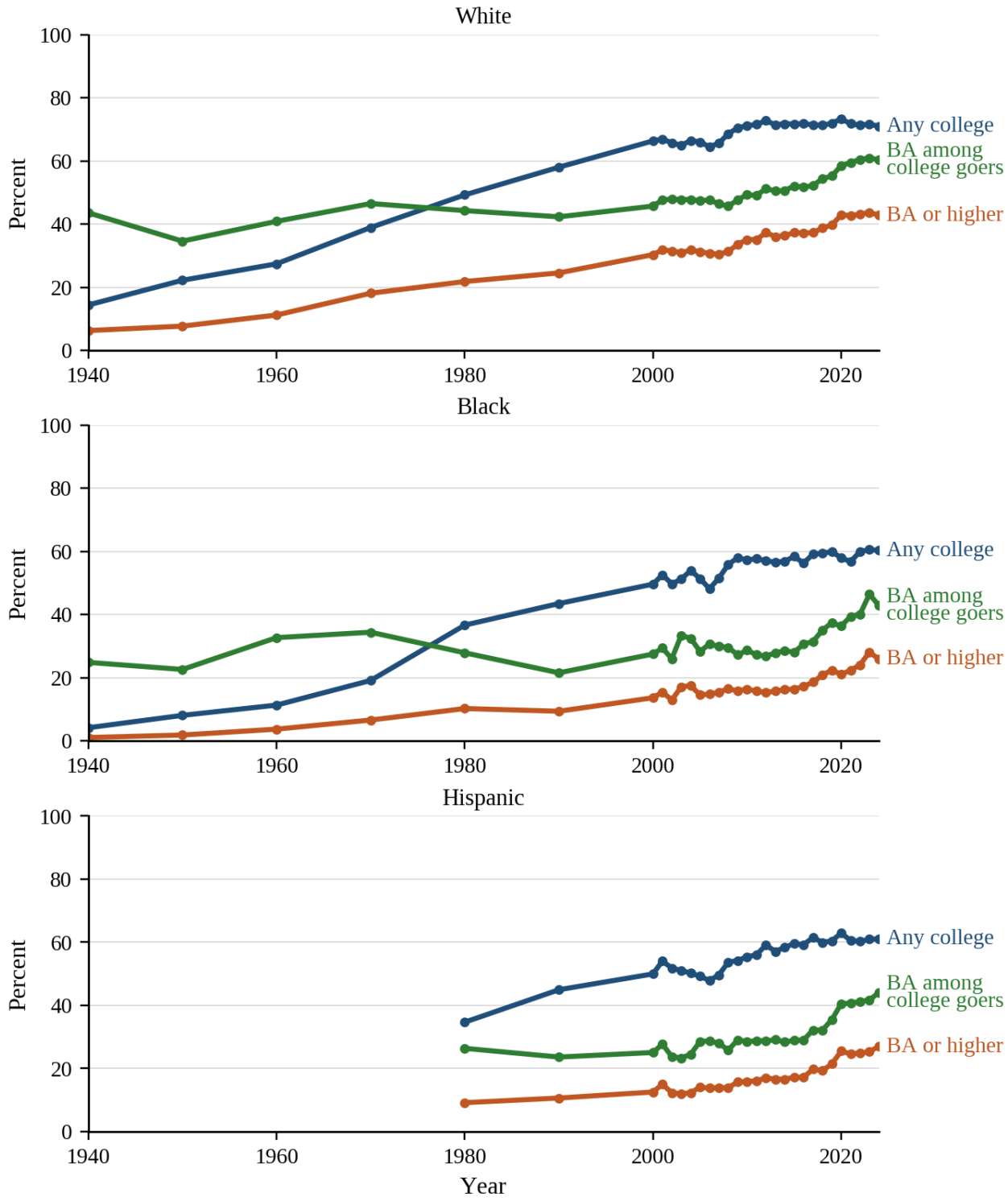
Notes: Sample is the resident population at exact age 25. Any college includes people who are currently enrolled as undergraduates or who have attained at least some college. BA or higher includes bachelor's and graduate degrees. BA among college goers is BA or higher divided by any college. Before 1990, educational attainment is coded from years of schooling: 13 or more years counts as any college, and 16 or more years counts as BA or higher. From 1990 forward, degree-based categories identify some college, associate, bachelor's, and graduate degrees directly. Decennial Census observations are shown through 2000; annual ACS observations are shown for 2001-2024. Source: Decennial Census and American Community Survey via IPUMS USA.

Figure 1B. Postsecondary attainment at age 25, by sex



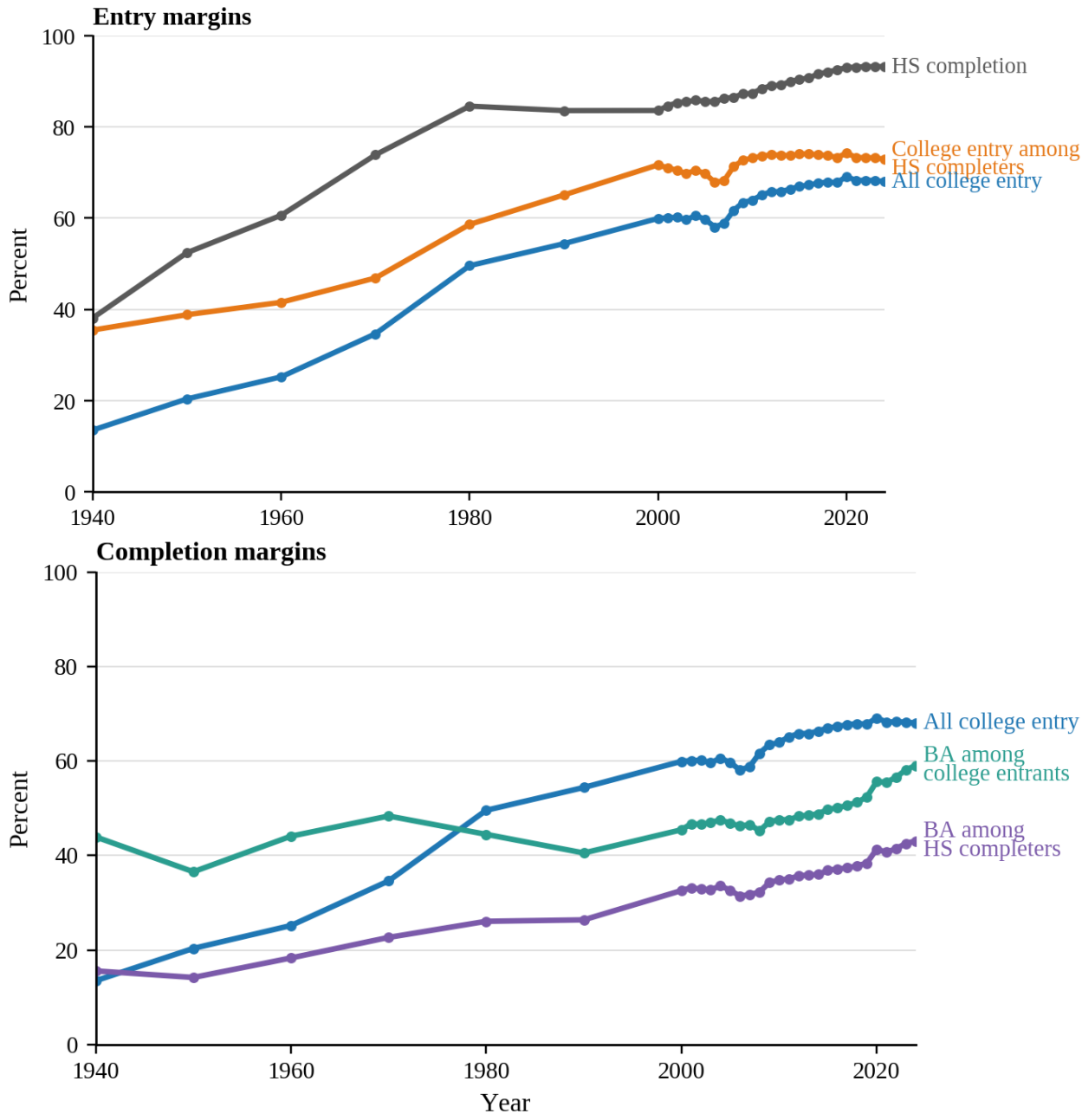
Notes: Same definitions and sources as Figure 1A. 1940-2024. Panels show men and women separately.

Figure 1C. Postsecondary attainment at age 25, by race/ethnicity



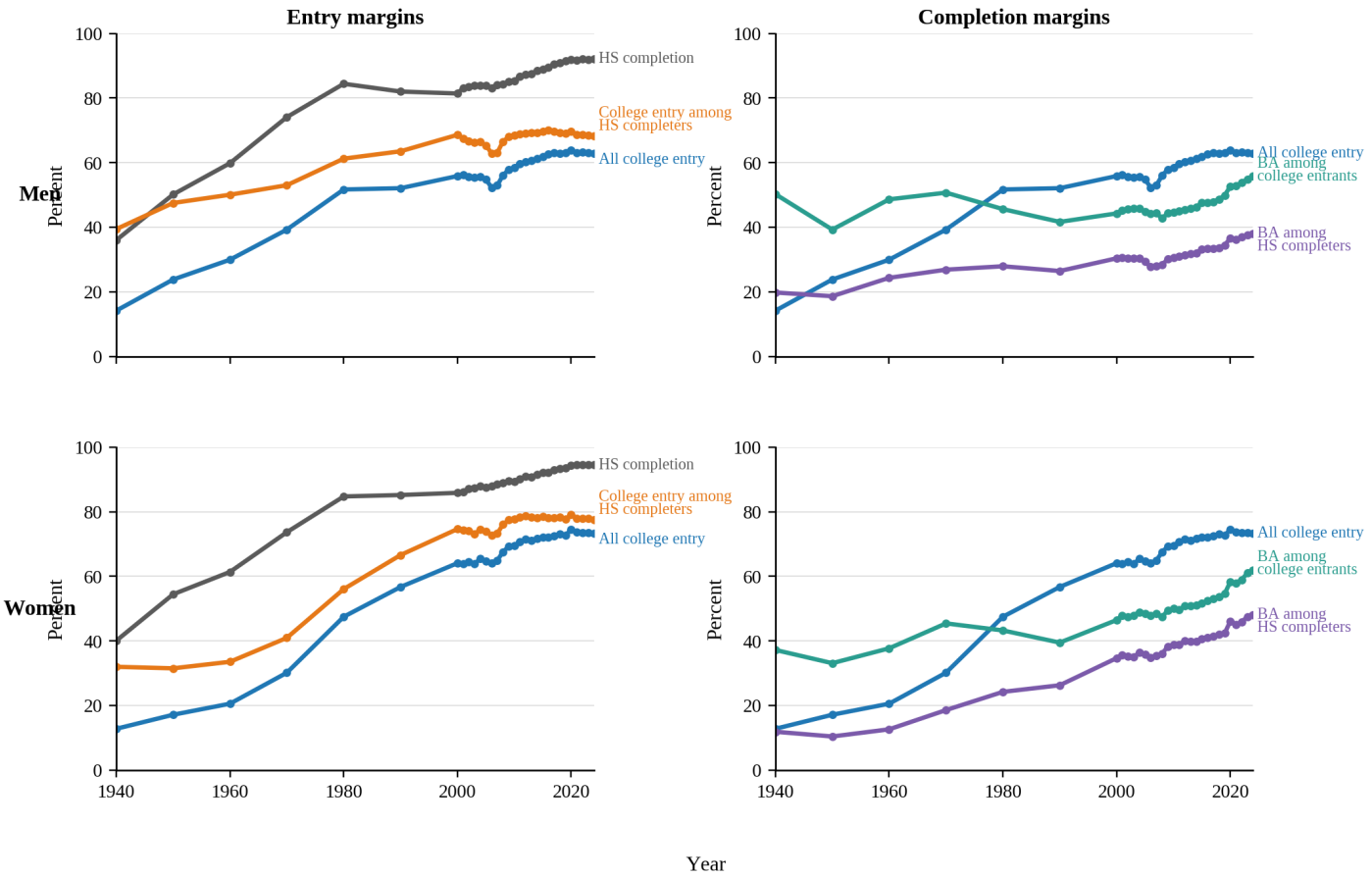
Notes: Same definitions and sources as Figure 1A. 1940-2024. Sample is native-born. Race/ethnicity groups are mutually exclusive; Hispanic origin takes precedence.

Figure 2A. High school completion, college entry, and BA, ages 25-29, 1940-2024



Notes: Same definitions and sources as Figure 1A, for ages 25-29. HS completion includes a diploma or equivalency credential. Conditional rates use the denominator named in each series.

Figure 2B. High school completion, college entry, and BA, by sex



Notes: Same definitions and sources as Figure 2A. 1940-2024.

Figure 2C. High school completion, college entry, and BA, by native-born race/ethnicity

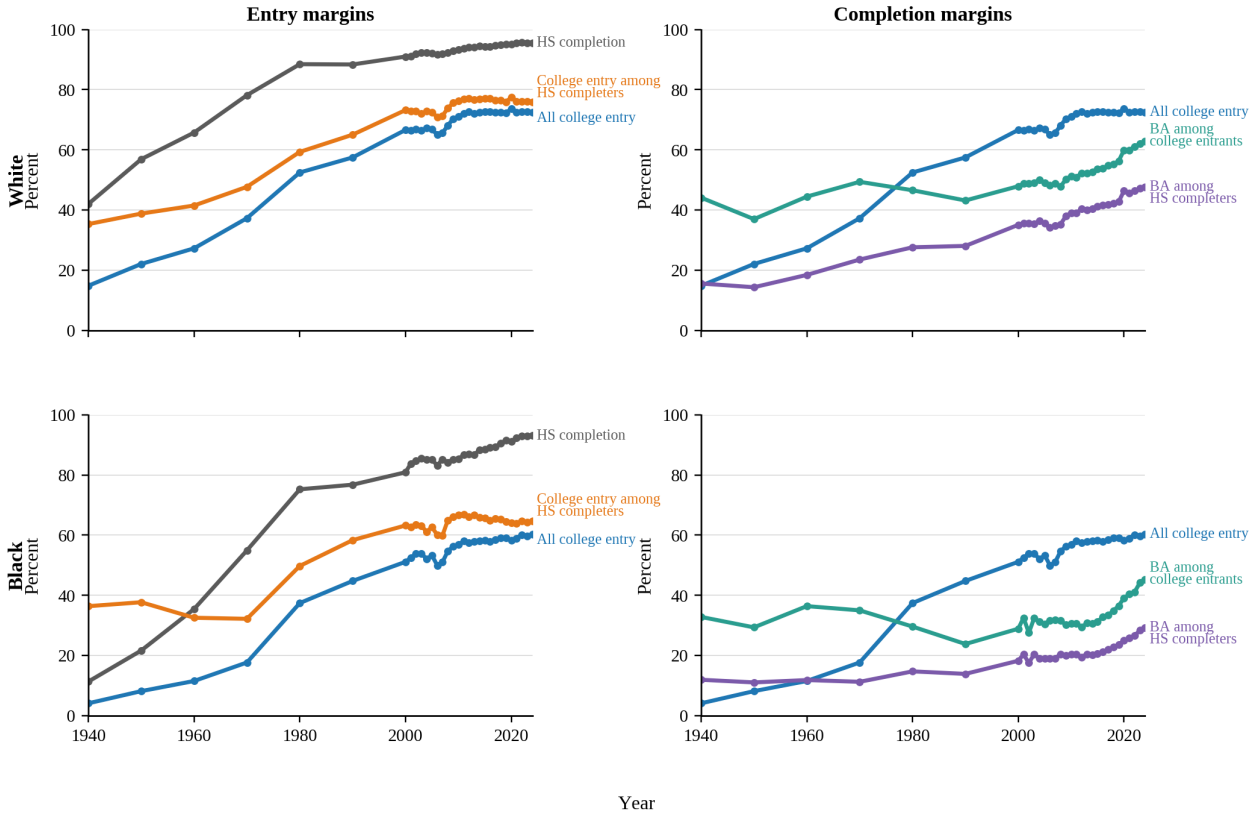
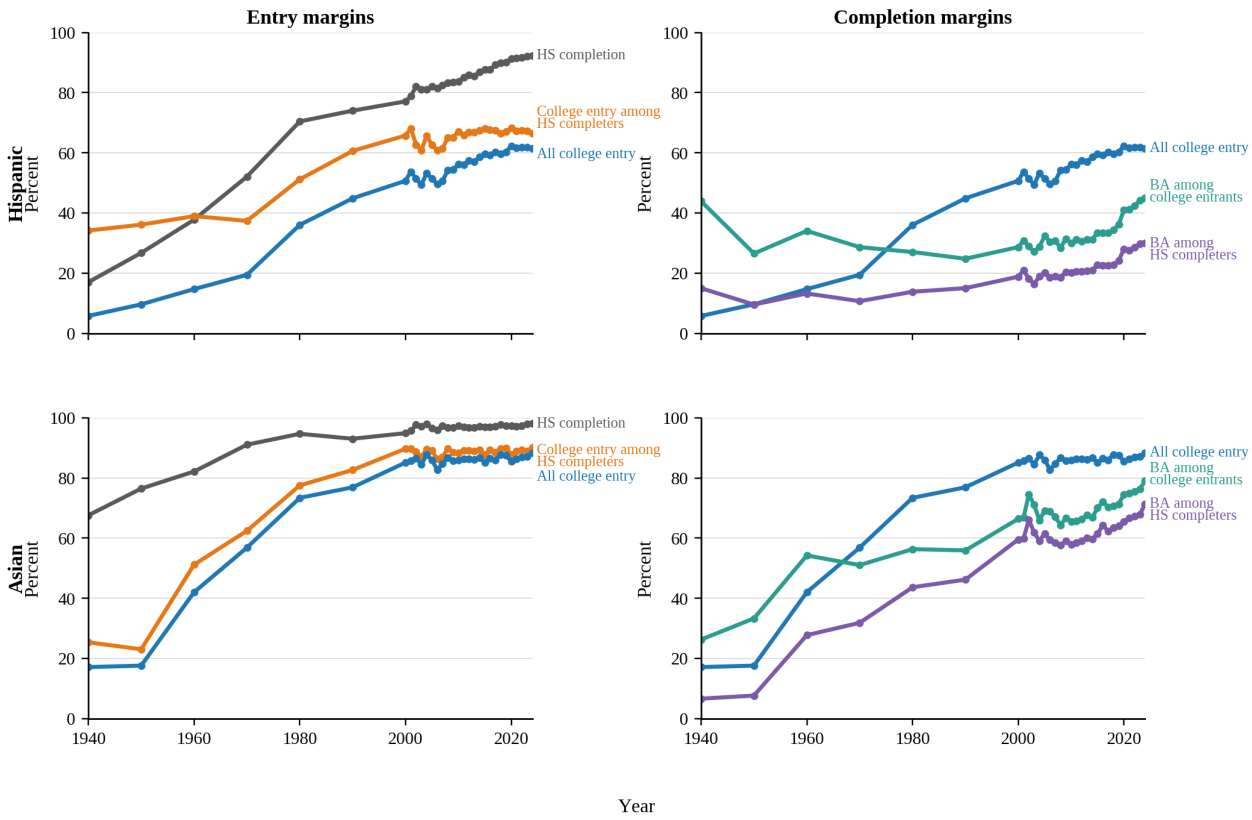
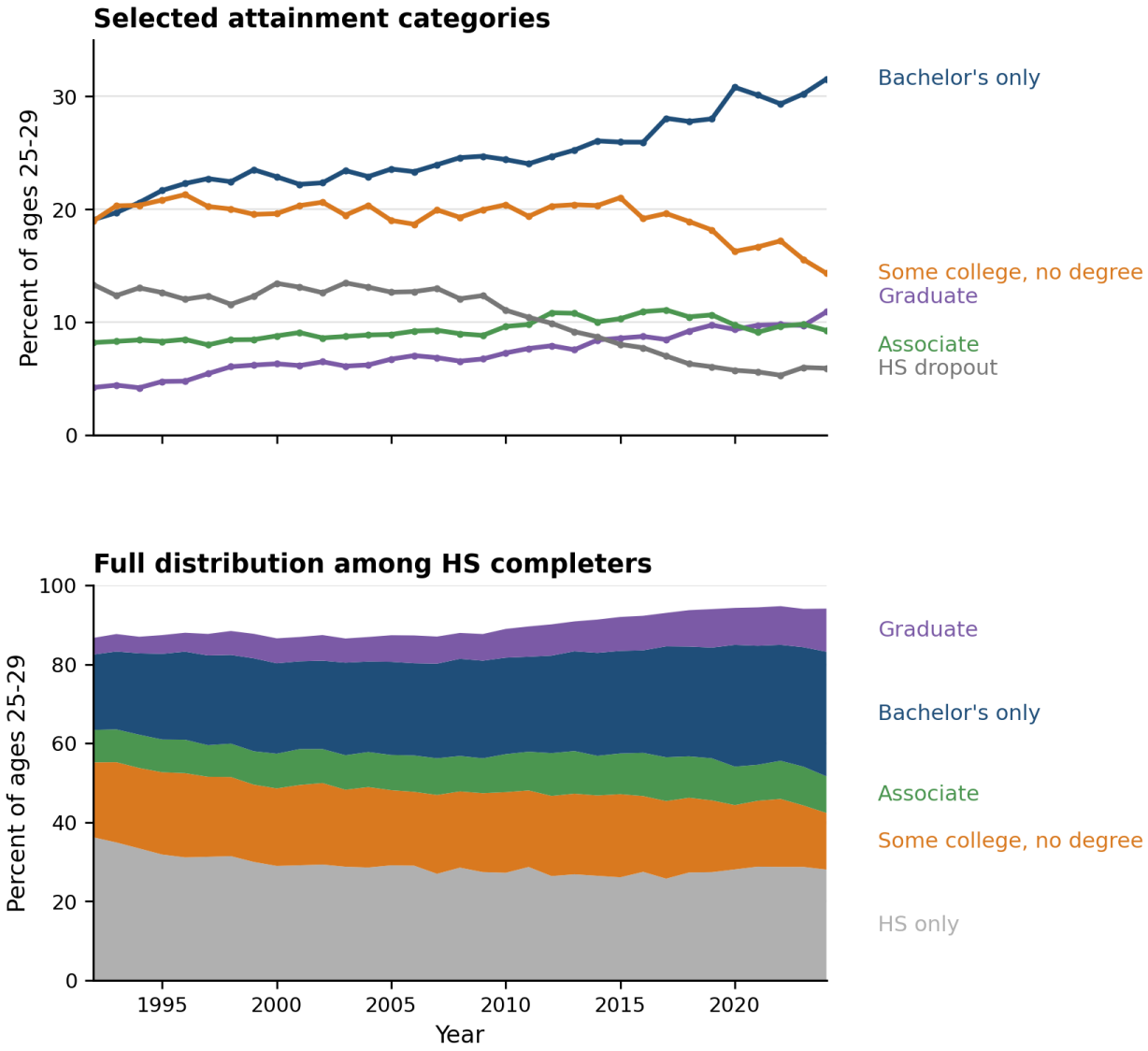


Figure 2C. High school completion, college entry, and BA, by native-born race/ethnicity (continued)



Notes: Same definitions and sources as Figure 2A. 1940-2024; sample is native-born.

Figure 3A. The distribution of education, ages 25-29, 1992-2024



Notes: Sample is the civilian noninstitutional population ages 25-29. The decomposition begins in 1992 because the October CPS education measure changes from years of schooling to degree-based attainment categories. The top panel shows selected attainment categories, including people with some college but no degree as college dropouts and people with less than high school as high-school dropouts. The bottom panel stacks the mutually exclusive categories: HS only, some college with no degree, associate degree, bachelor's degree only, and graduate degree. The blank area above the stack is the residual share with less than high school. BA attainment is the sum of bachelor's-only and graduate-degree categories. Percentages use October supplement weights. Source: October CPS via IPUMS.

Figure 3B. The distribution of education, by sex

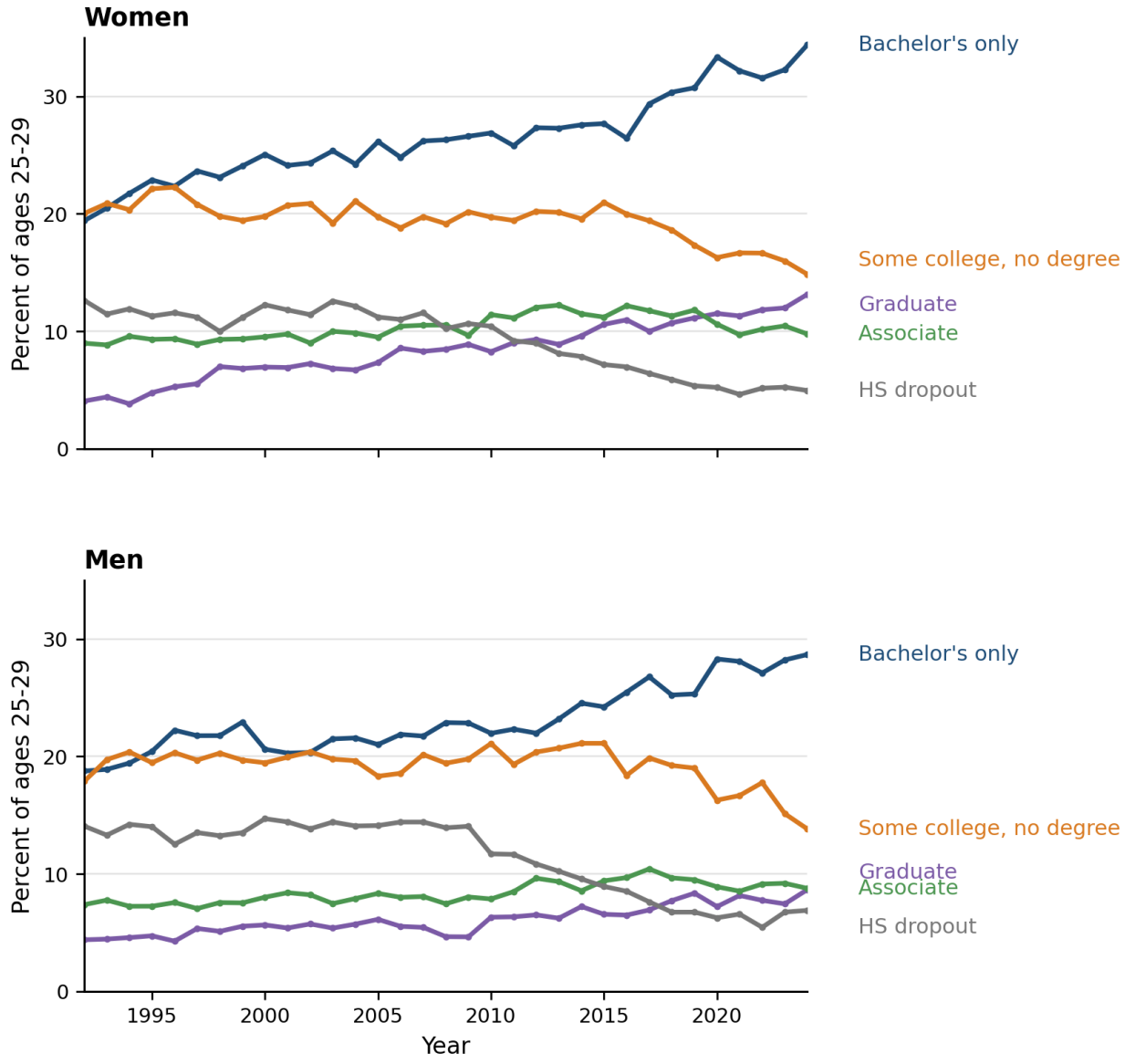
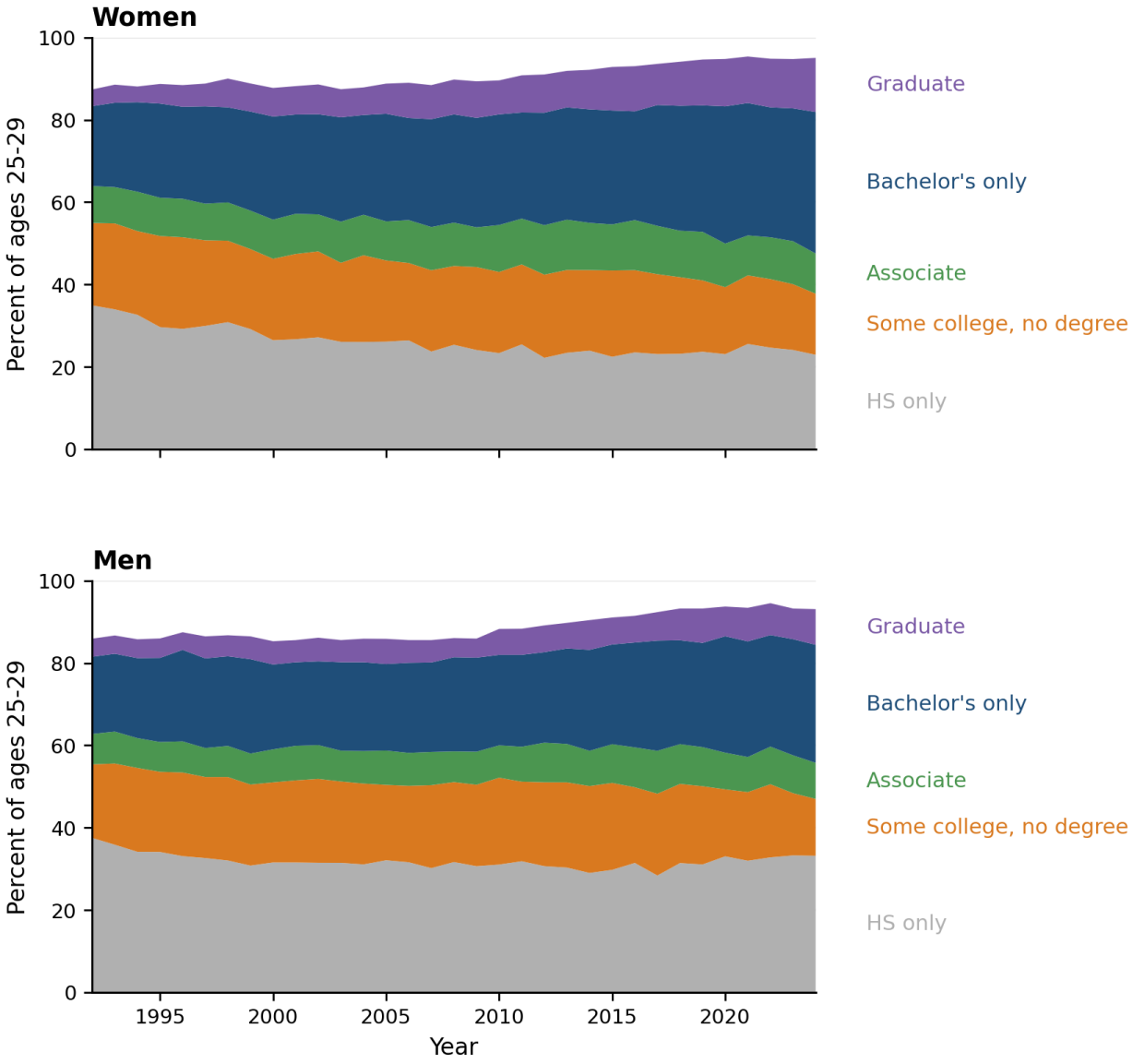
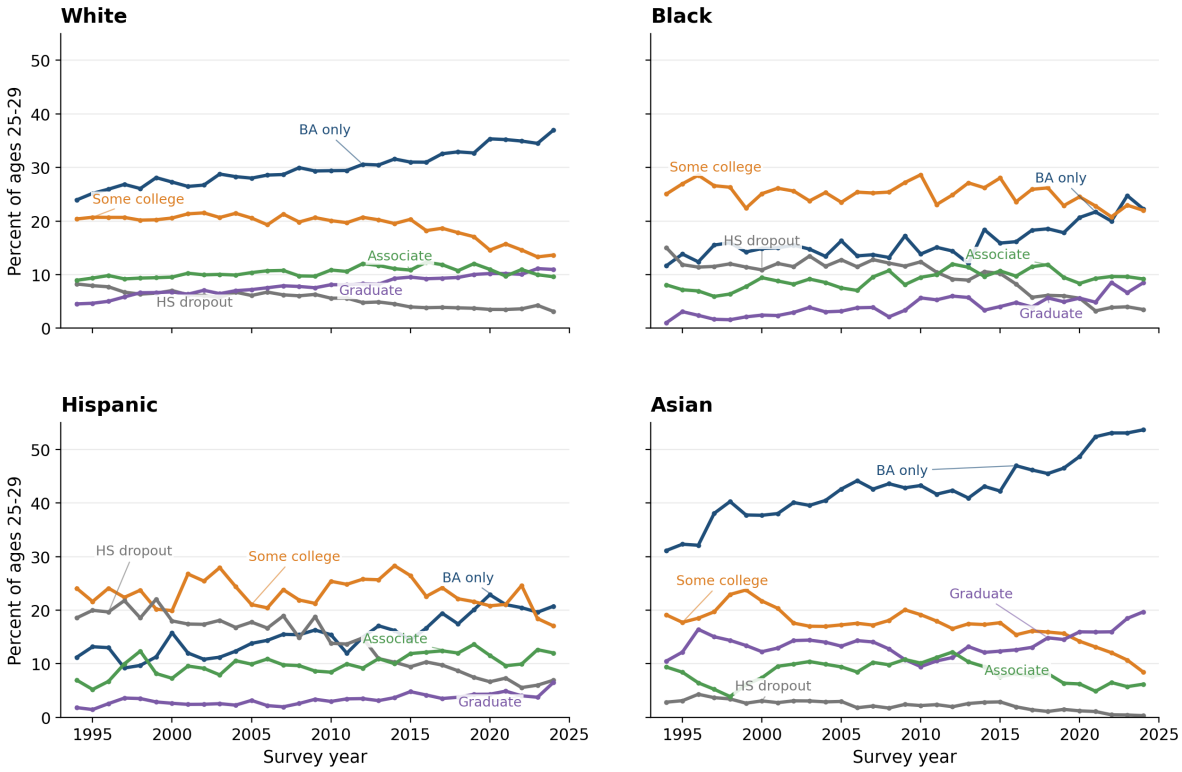


Figure 3B. The distribution of education, by sex (continued)



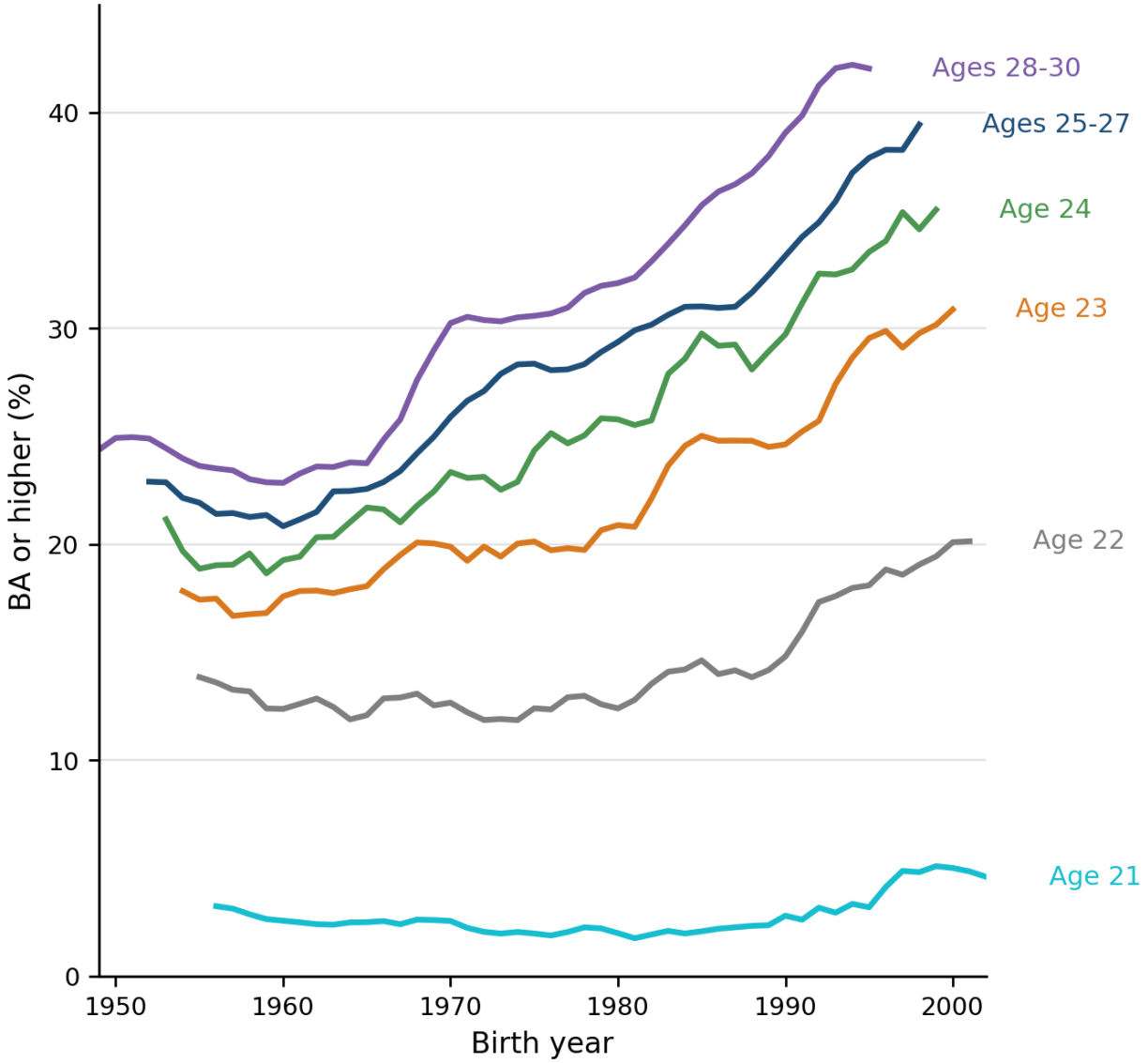
.

Figure 3C. The distribution of education, by race/ethnicity (native born only)



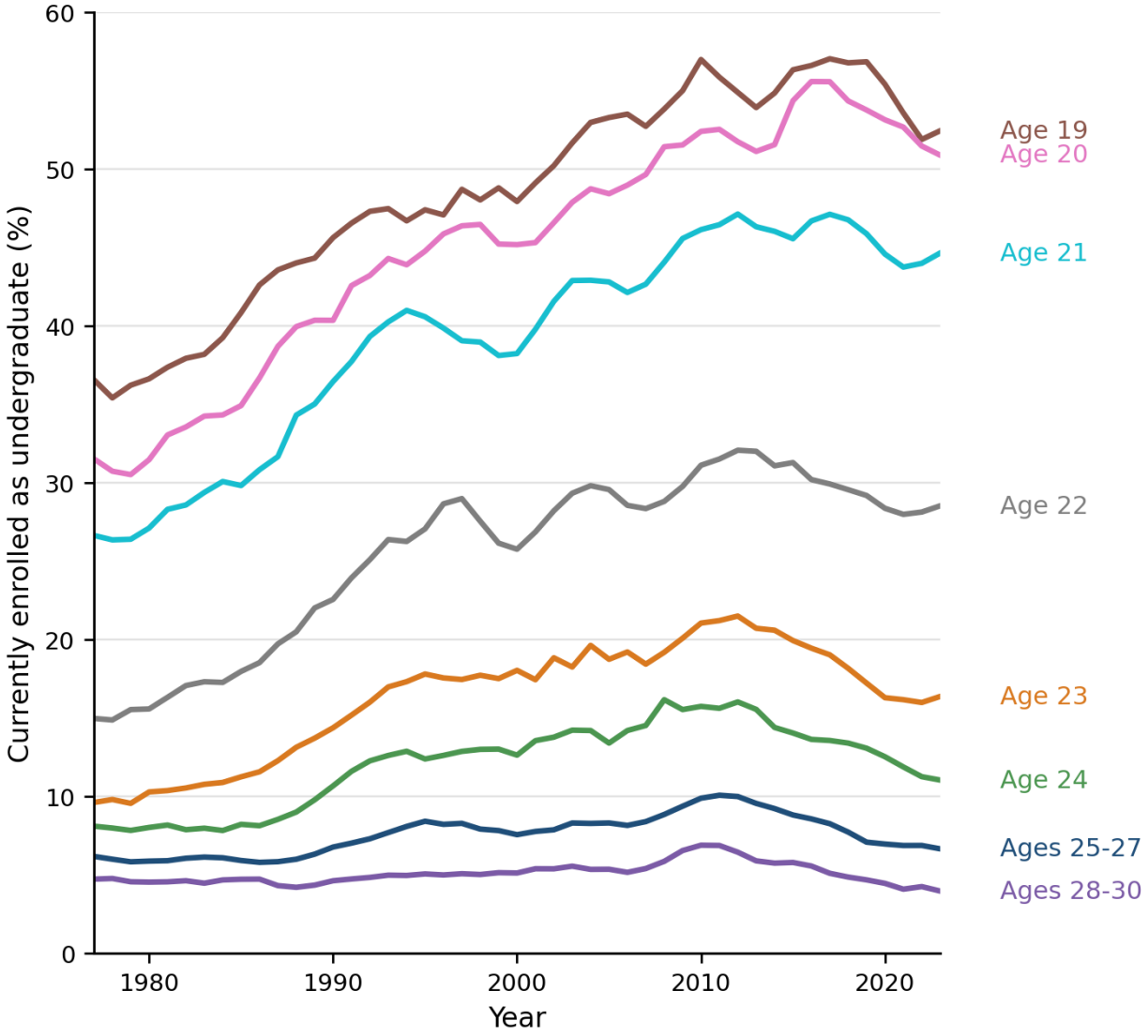
Notes: Sample is the native-born civilian noninstitutional population ages 25-29. Race and ethnicity groups are mutually exclusive, with Hispanic origin taking precedence. Lines show the same mutually exclusive attainment categories as Figure 3A. In the figure, 'some college' denotes some college with no degree. All panels use the same y-axis. Asian series use centered three-year moving averages; other panels show annual estimates. HS dropout means less than high school. The series begins in 1994 because nativity is unavailable in the October CPS cells for 1992 and 1993. Percentages use October supplement weights. Source: October CPS via IPUMS.

Figure 4. BA attainment by age and birth cohort



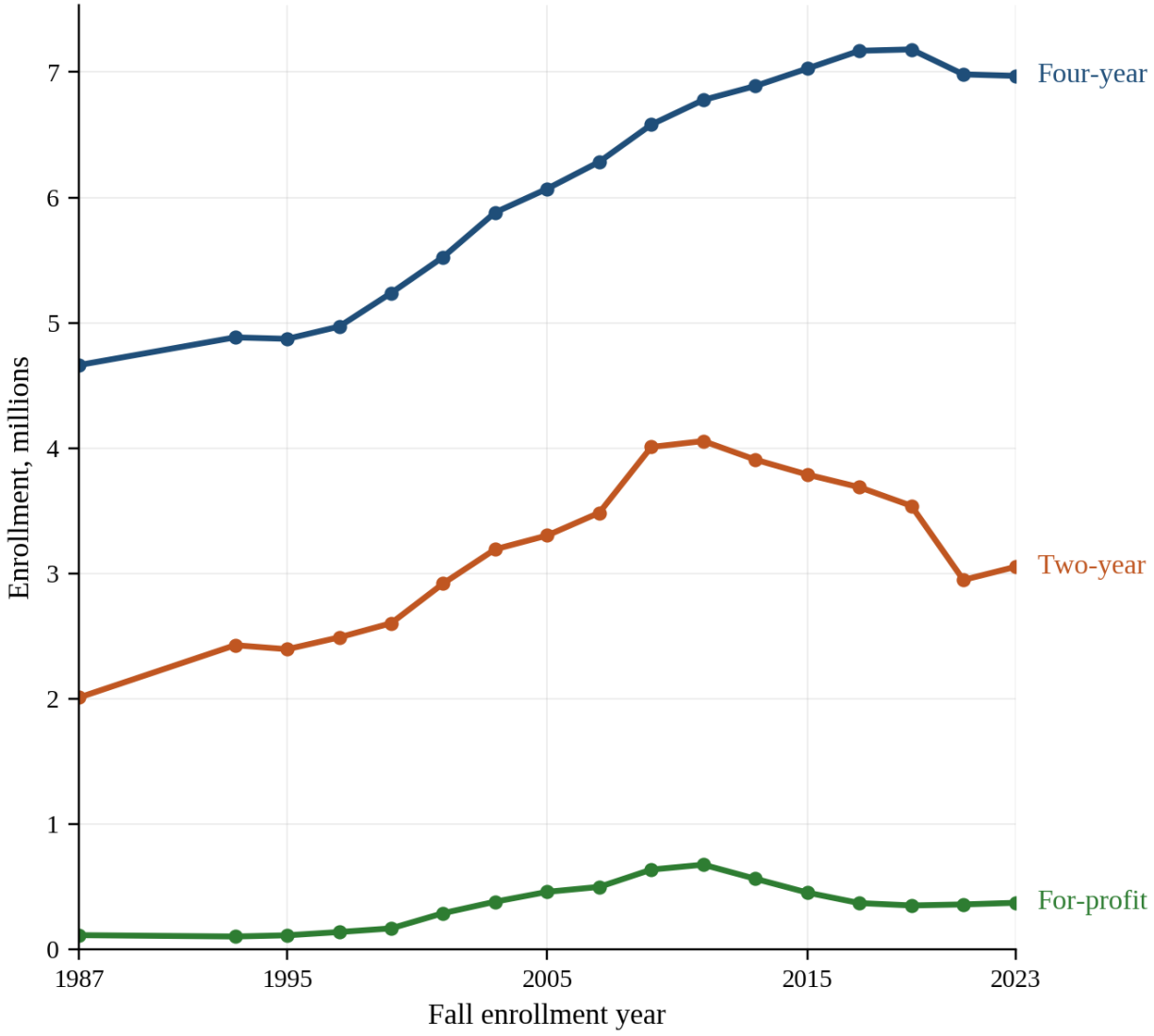
Notes: Sample is the civilian noninstitutional population at the indicated age. The figure reports the share with a bachelor's degree or higher. Birth year is survey year minus exact age; for grouped ages, birth year uses the lower endpoint of the group. Lines are centered three-year moving averages. Source data cover October CPS survey years 1976-2024; percentages use October supplement weights. Source: October CPS via IPUMS.

Figure 5. Undergraduate enrollment at time of survey, by age



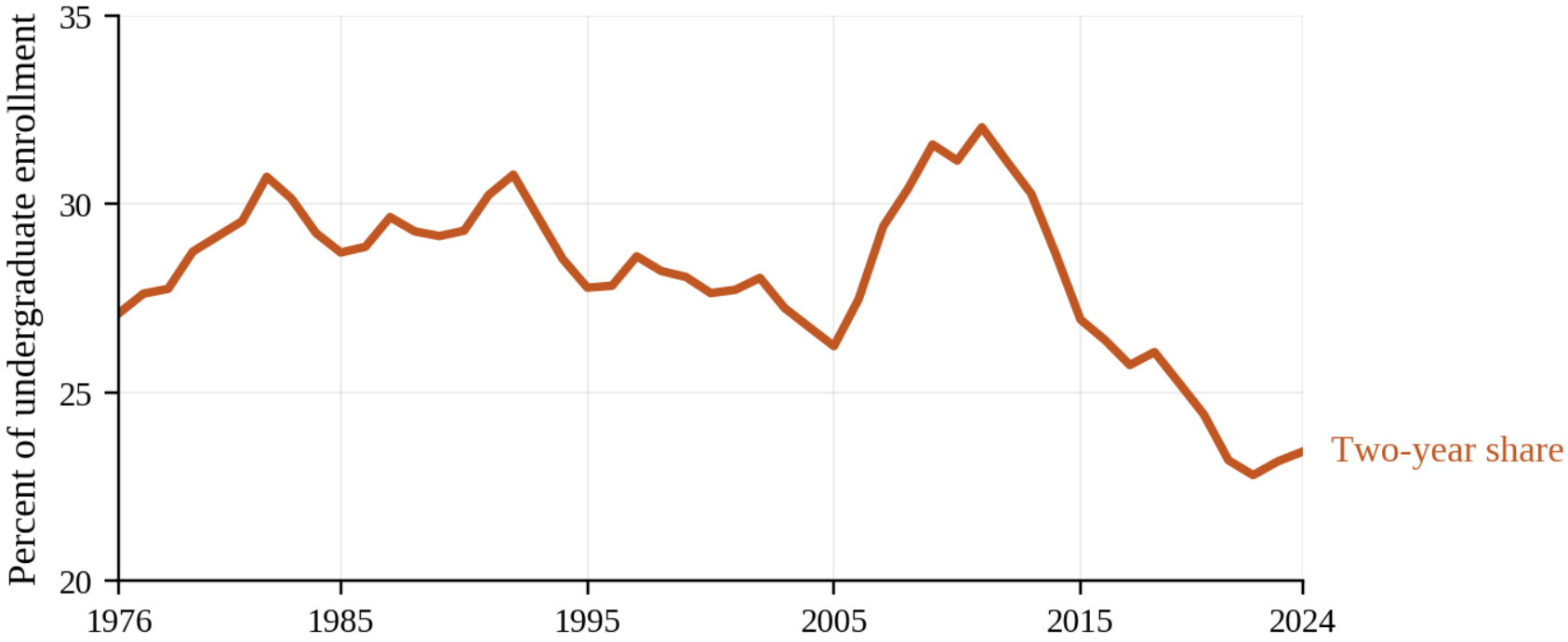
Notes: Sample is the civilian noninstitutional population in the indicated age group, 1976-2024. The figure reports the share currently enrolled as an undergraduate in October. Lines are centered three-year moving averages. Percentages use October supplement weights. Source: October CPS via IPUMS.

Figure 6. Enrollment by sector, ages 18-24, IPEDS 1987-2023



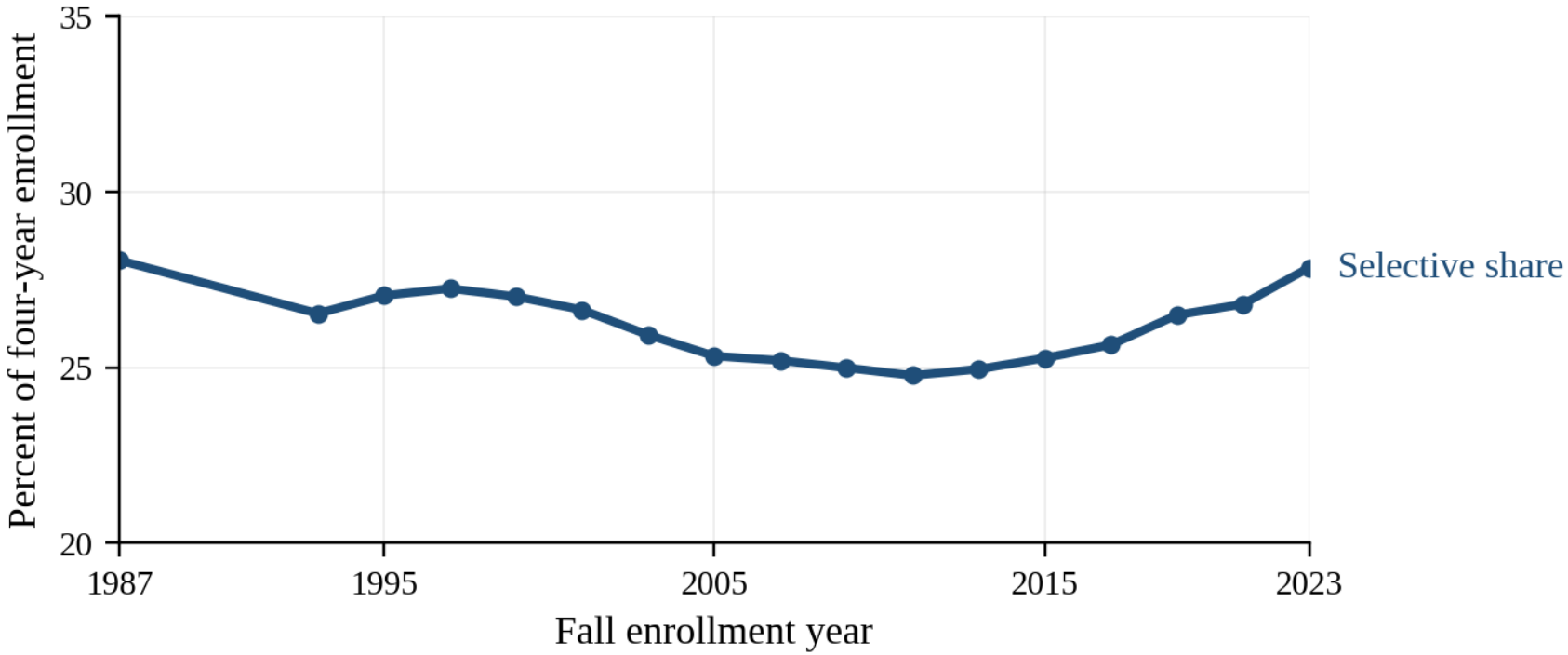
Notes: Sample is undergraduate fall enrollment among students ages 18-24. For-profit institutions are shown separately; the two-year and four-year series exclude for-profit institutions. Observations are available for 1987 and odd IPEDS years from 1993 through 2023; lines connect observed years. Source: IPEDS age-restricted fall-enrollment files.

Figure 7. Share of students enrolled in two-year colleges, ages 18-24, CPS



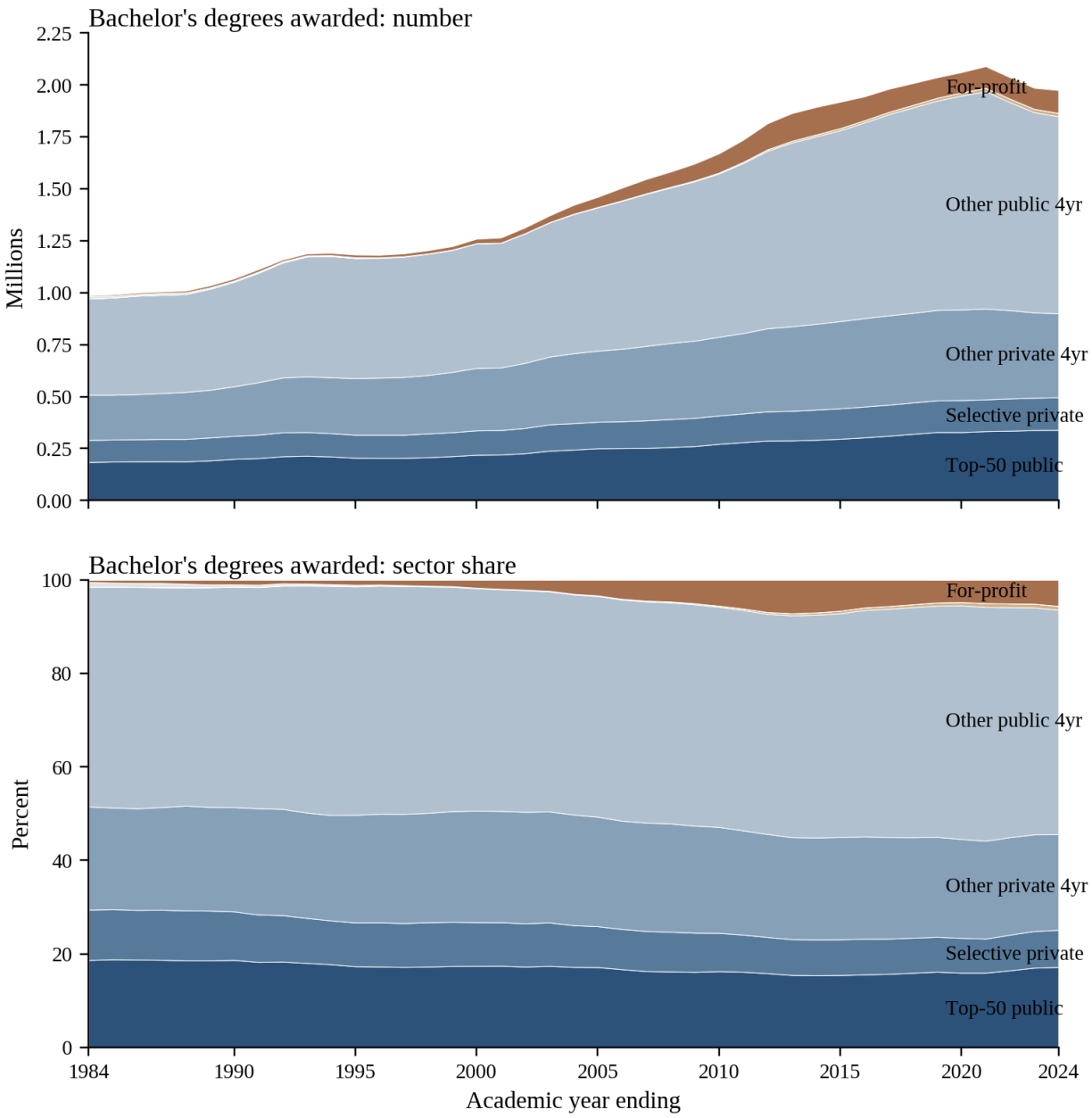
Notes: Sample is currently enrolled undergraduates ages 18-24 in the October CPS. The series covers 1976-2024. Fall enrollment year aligns the October CPS survey year to the corresponding fall term. The series reports two-year enrollment as a share of two-year plus four-year undergraduate enrollment among observations with usable institution-type items. The line is a centered three-year moving average. Source: October CPS via IPUMS.

Figure 8. Selective share of four-year enrollment, ages 18-24



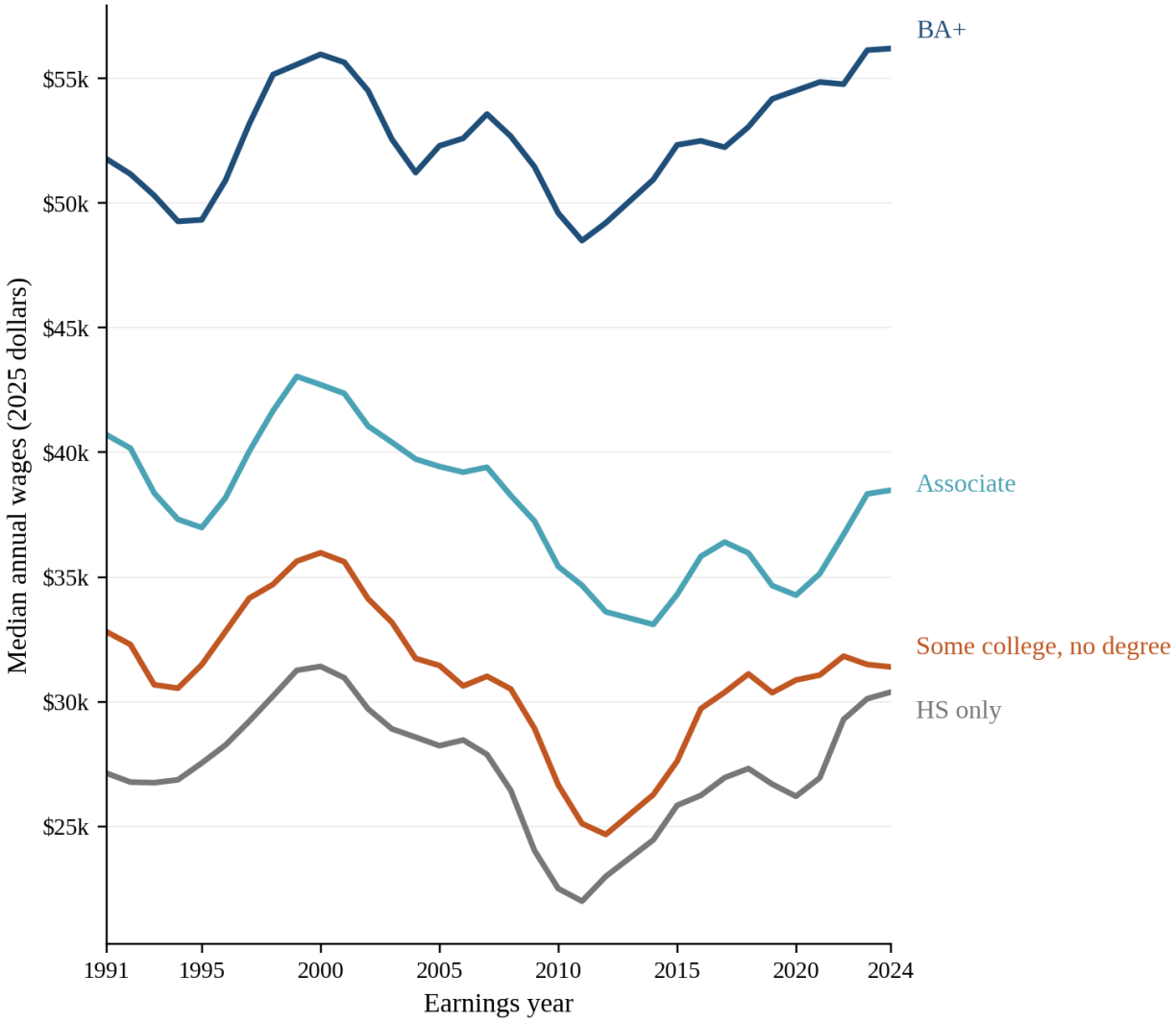
Notes: Sample is undergraduate fall enrollment among students ages 18-24. Selective institutions use the fixed roster listed in the Appendix. The denominator is four-year undergraduate enrollment, excluding for-profit institutions. Observations are available for 1987 and odd IPEDS years from 1993 through 2023; lines connect observed years. Source: IPEDS age-restricted fall-enrollment files and project selectivity crosswalk.

Figure 9. Annual BAs awarded, by sector



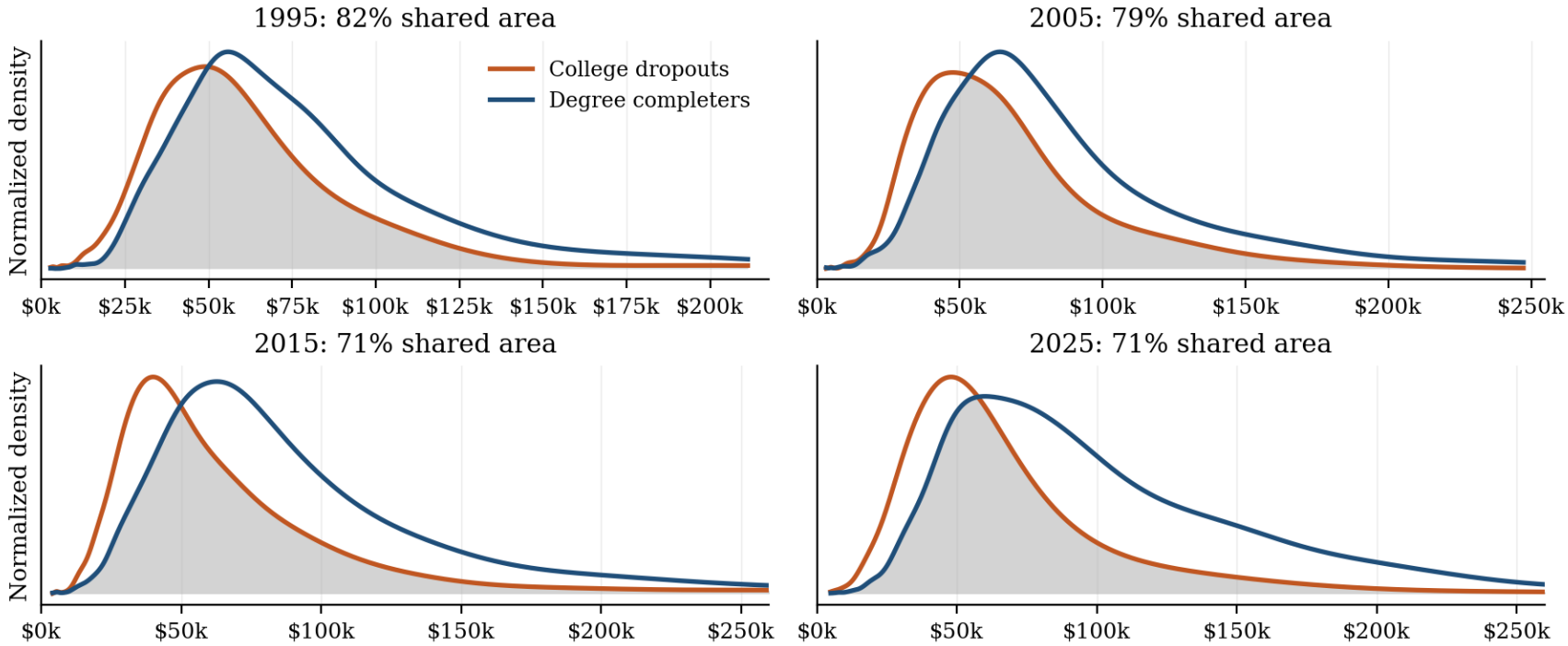
Notes: IPEDS counts bachelor's degrees awarded to recipients of all ages. The series covers academic years ending 1984-2024; 2024 denotes awards in 2023-24. Top-50 public and selective private institutions form the fixed selective roster listed in the Appendix. Other public four-year and other private nonprofit four-year institutions are institutions not on that roster. Community-college BA awards are included but not labeled because their share is under 1 percent. Source: IPEDS Completions files and project sector/selectivity crosswalk.

Figure 10. Median wages by education, ages 25-29, CPS



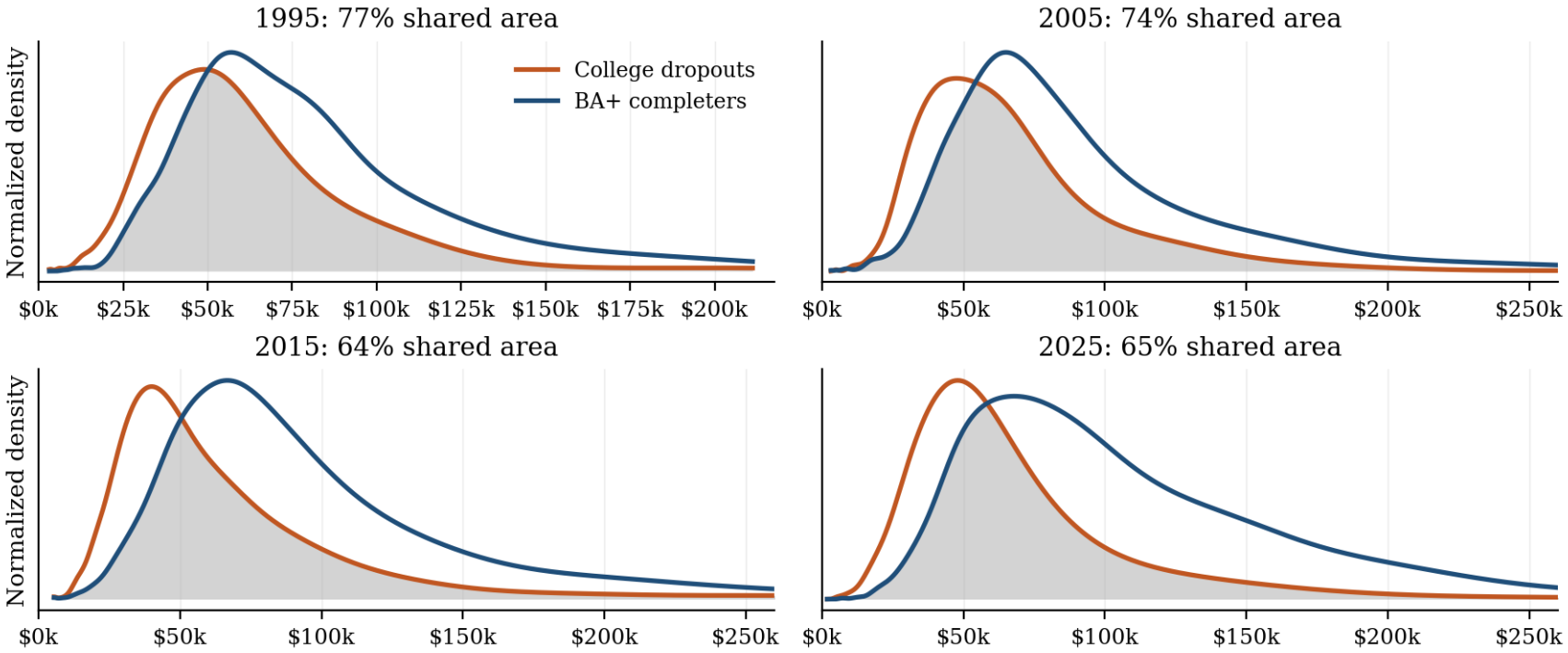
Notes: Earnings years are 1991-2024. Year is the CPS ASEC survey year minus one, the calendar year in which income was earned. Sample is the civilian noninstitutional population ages 25-29 at the ASEC interview. The figure reports median annual wage-and-salary income by highest educational attainment. Medians include people with zero wage-and-salary income and current enrollees. Lines are centered three-year moving averages of annual weighted medians. Education groups are mutually exclusive. Earnings year 2013 is omitted because the 2014 CPS ASEC income redesign creates a break in the wage series. Source: CPS ASEC via IPUMS.

Figure 11A. Wage densities of degree completers and college dropouts



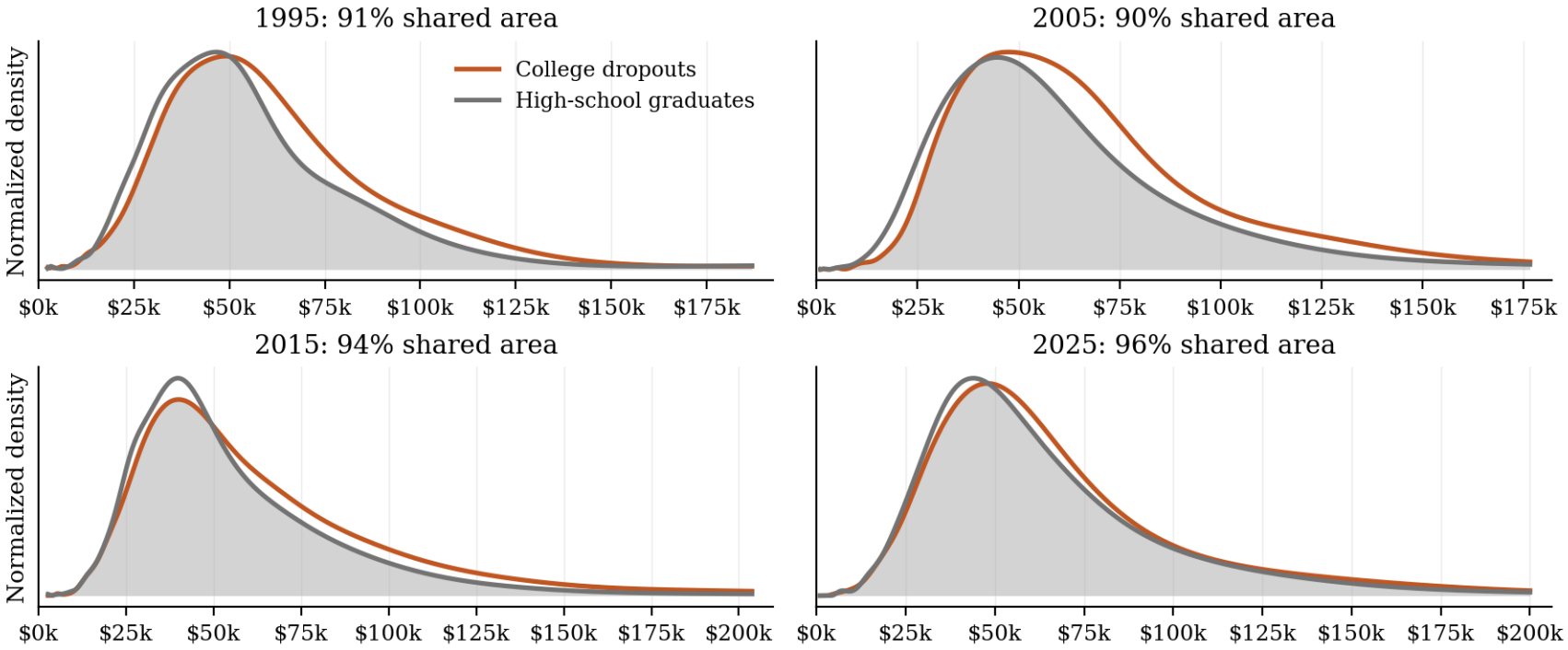
Notes: Sample is adults ages 25-29 who worked year-round/full-time and had positive annual wage-and-salary income. Panel labels give ASEC survey year; wages refer to the prior calendar year. Year-round/full-time is 35+ usual weekly hours and 50-52 weeks worked. Wages are in 2025 dollars. Weighted Gaussian kernels are estimated on log wages and normalized to integrate to one. The shaded shared area is the integral of the pointwise minimum of the two densities. Degree completers combine associate and BA+ groups. Source: CPS ASEC.

Figure 11B. Wage densities of BAs and college dropouts



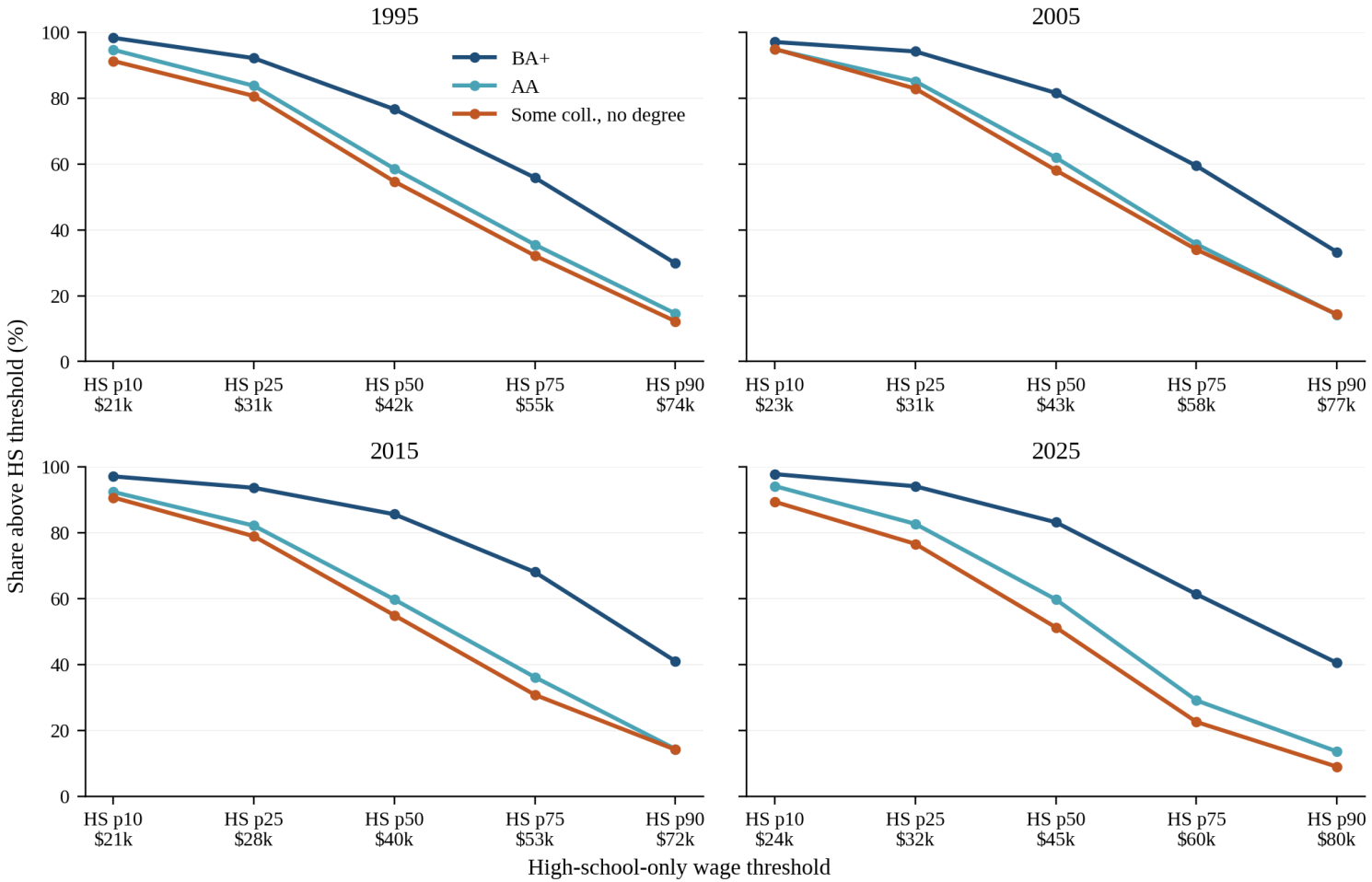
Notes: Same sample, wage construction, density method, and benchmark ASEC survey years as Figure 11A. BA+ completers are compared with college dropouts. Panel labels give ASEC survey year; the wages refer to the prior calendar year. Source: CPS ASEC.

Figure 11C. Wage densities of high school graduates and college dropouts



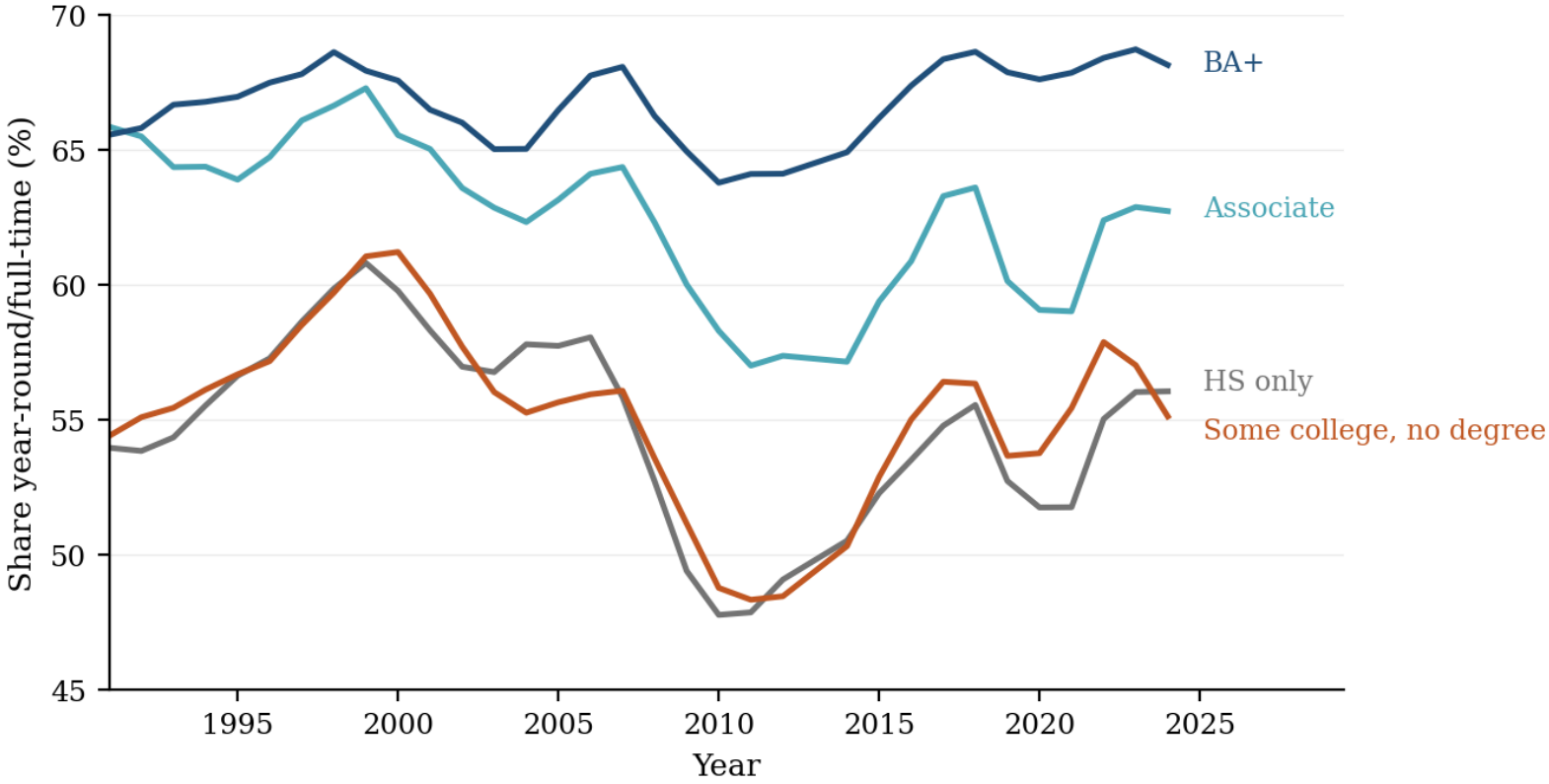
Notes: Same sample, wage construction, density method, and benchmark ASEC survey years as Figure 11A. High-school graduates are compared with college dropouts. Panel labels give ASEC survey year; the wages refer to the prior calendar year. Source: CPS ASEC.

Figure 12. Share earning above high-school wage thresholds, by education



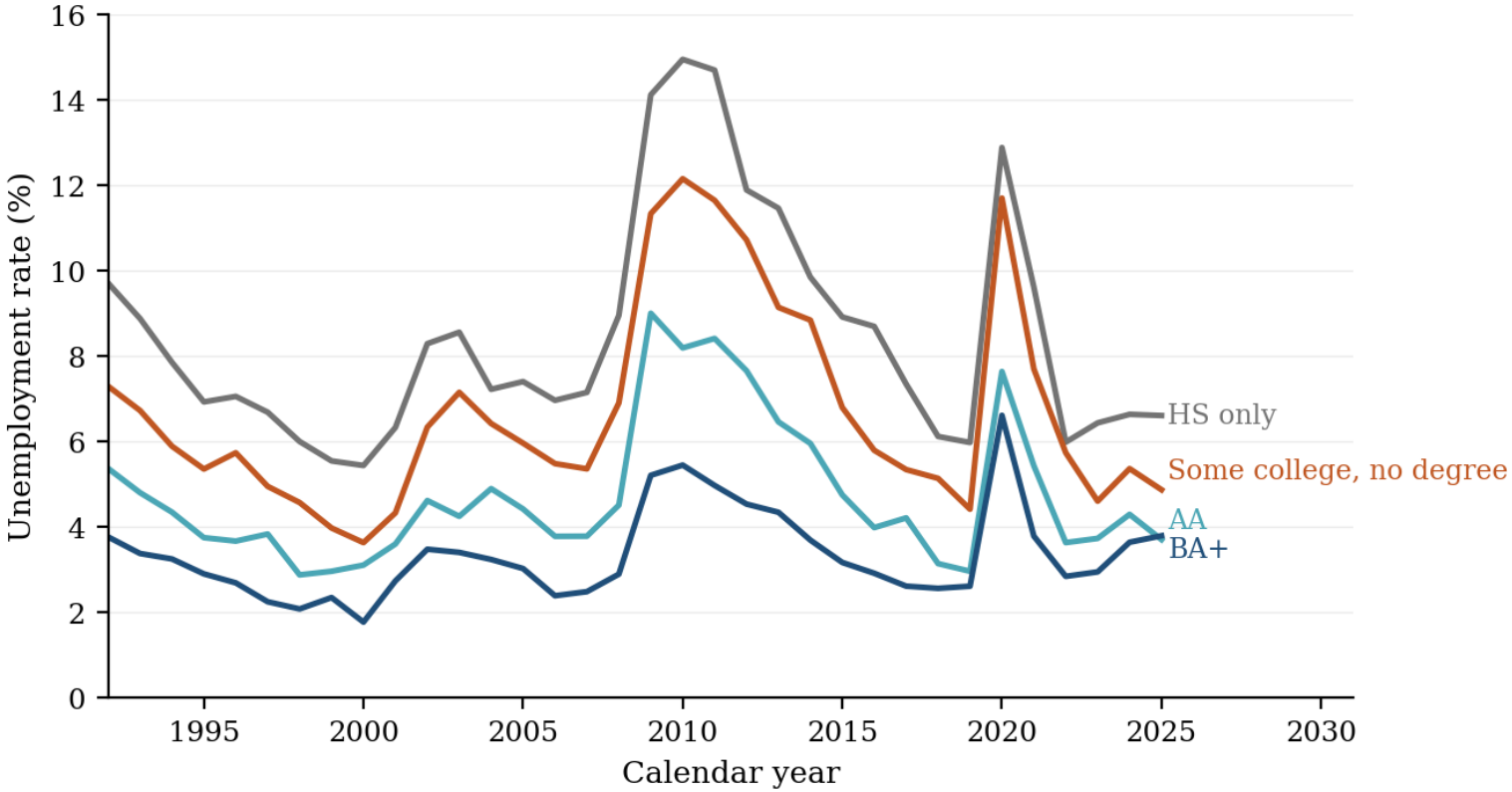
Notes: Sample is adults ages 25-29 who worked year-round/full-time and had positive annual wage-and-salary income. Panel labels give ASEC survey year; wages refer to the prior calendar year. Each x-axis value is a weighted percentile of the high-school-only wage distribution in that survey year. The y-axis reports the weighted share of each education group with annual wages above that dollar threshold. Education groups are mutually exclusive. Wages are in 2025 dollars. Source: CPS ASEC via IPUMS.

Figure 13. Share working year-round/full-time, by education, ages 25-29



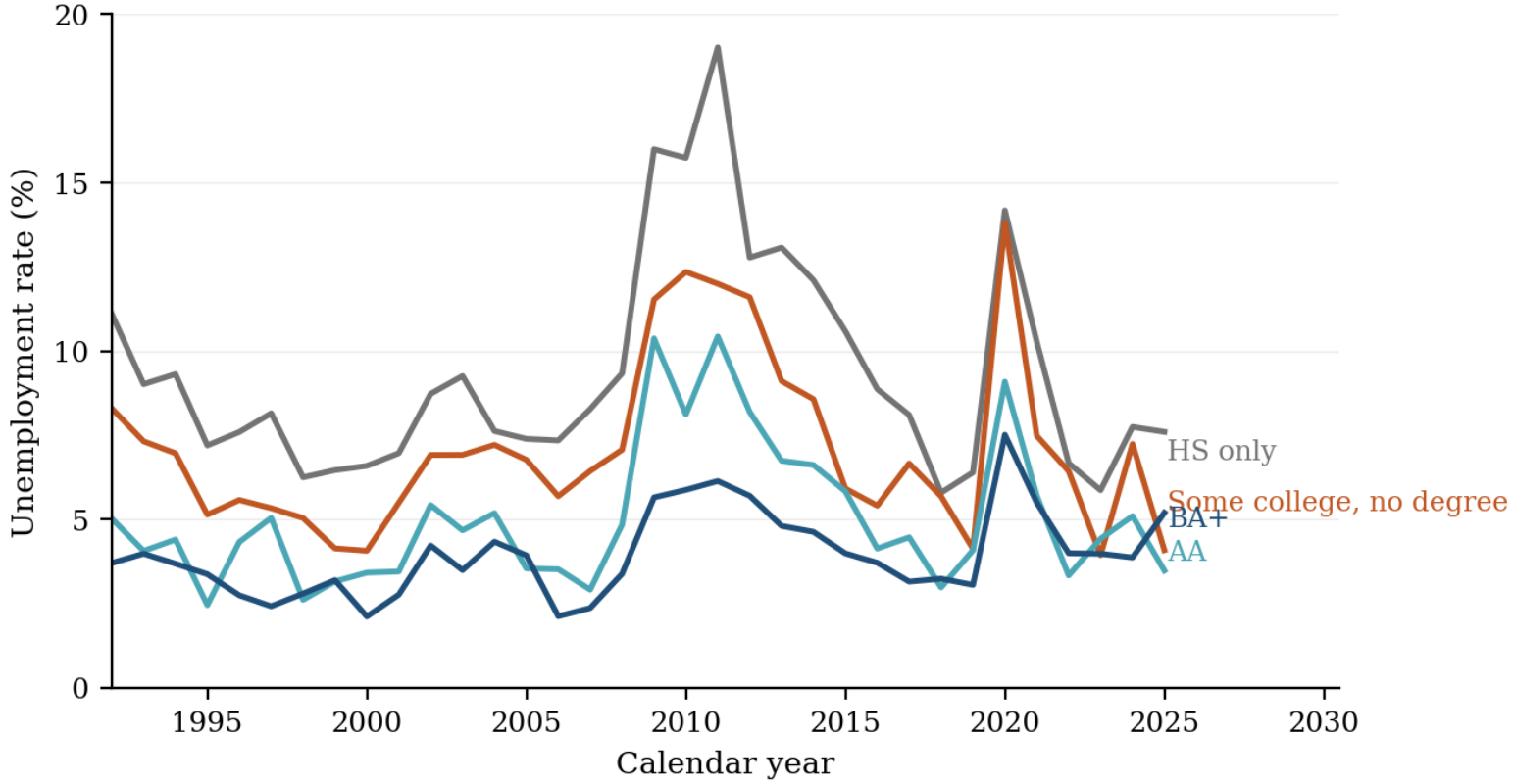
Notes: Earnings years are 1991-2024. Year is the CPS ASEC survey year minus one, the calendar year in which work occurred. Sample is the civilian noninstitutional population ages 25-29 at the ASEC interview, including current enrollees. Year-round/full-time is 35 or more usual weekly hours and 50-52 weeks worked. Lines are centered three-year moving averages. Education groups are mutually exclusive. Source: CPS ASEC via IPUMS.

Figure 14A. Share unemployed, by education, ages 25-29



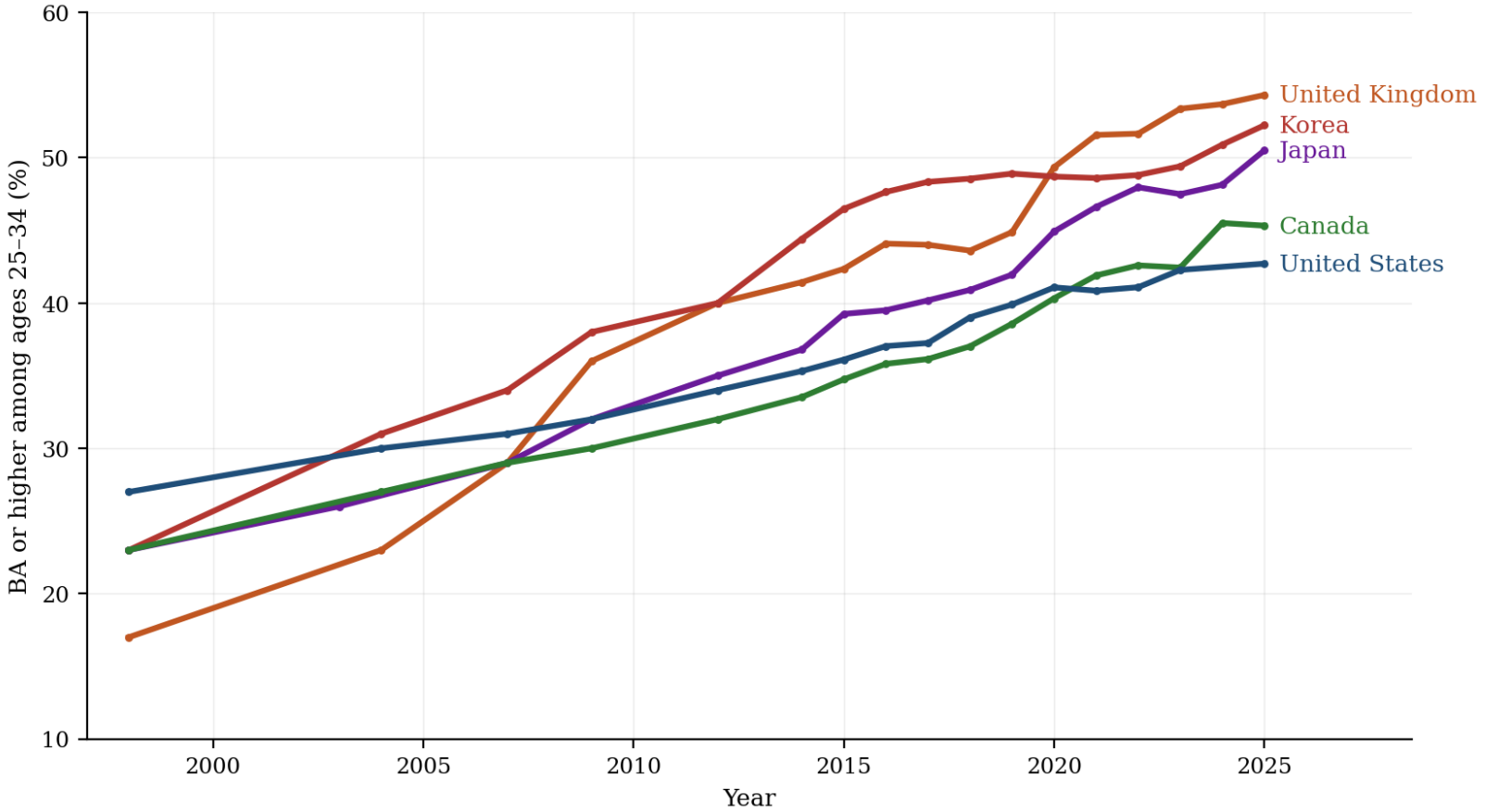
Notes: Calendar years are 1992-2025. Sample is the civilian noninstitutional population in the Basic Monthly CPS. Unemployment is measured among people in the labor force. Each annual point is a trailing 12-month moving average ending in December. Figure 14A uses ages 25-29; Figure 14B uses exact age 25. Education groups are mutually exclusive. Source: Basic Monthly CPS via IPUMS.

Figure 14B. Share unemployed, by education, age 25



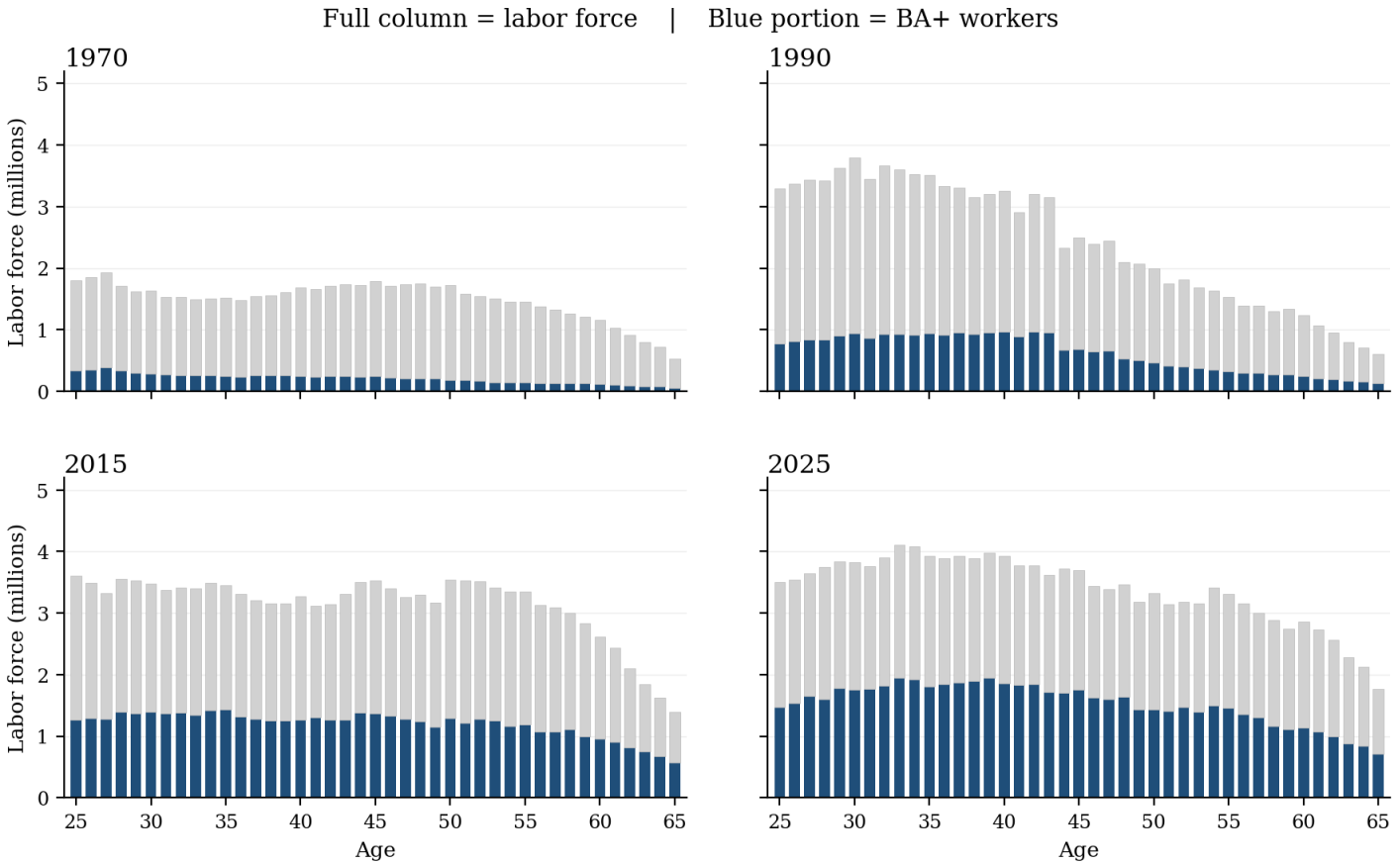
Notes: See 14A.

Figure 15. International BA attainment, selected countries, ages 25-34



Notes: Years are 1998-2025. Figure shows selected countries from the project international BA-attainment series. The outcome is the share of adults ages 25-34 with bachelor's-degree-equivalent attainment or higher. Lines connect observed country-years; values are not smoothed or interpolated. Historical observations use OECD Education at a Glance tertiary-type A plus advanced research qualifications; modern observations use OECD ISCED 2011 levels 6-8. Source: OECD Education at a Glance historical tables, specifically 2000 Table A2.2b and 2006, 2009, 2011, and 2014 Table A1.3a; and OECD Data Explorer, "Adults' educational attainment distribution, by age group and gender."

Figure 16. Age composition of the BA labor force, selected years



Notes: Sample is the labor force ages 25-65. Each full column shows the weighted labor-force count at an exact age; the blue portion shows workers with a bachelor's degree or higher. Values are in millions. Education is coded from years of schooling in 1970 and from degree-based categories thereafter. Sources: Decennial Census for 1970 and 1990 and CPS for 2015 and 2025, via IPUMS.

Appendix

Contents

A.1 Institutional selectivity classification

A.2 Institutional sector classification

A.3 IPEDS data construction

A.4 Kernel-density wage distributions and overlap

A.5 Appendix figures

A.1 Institutional selectivity classification

For the analysis of enrollment within the four-year sector, we use the fixed institutional classification in Bound, Lovenheim, and Turner (2010, 2012). The classification is a roster, not a time-varying selectivity rule. Bound, Lovenheim, and Turner identify the top 50 public universities and a group of highly selective private institutions based on the 2005 U.S. News rankings. The highly selective private group consists of the top 65 private universities, the top 50 liberal-arts colleges, and four federal service academies. We keep these groups fixed throughout the analysis. Thus an institution's classification does not change when its admissions selectivity changes over time. This makes the enrollment series directly comparable to the institutional groups used in the earlier literature on college completion.

We implement the classification using the FICE-code rosters in the replication files used by Denning et al. (2022a), which reproduce the Bound-Lovenheim-Turner classification. The project crosswalk maps these historical FICE identifiers to IPEDS UNITIDs. The original private roster contains 121 FICE codes; after the historical crosswalk is applied, the project identifies 119 highly selective private institutions, in addition to the 50 top public institutions. The four service academies remain in the highly selective private group, following the original classification, although they are federal institutions.

Within each category, institutions are listed in the order of the 2005 U.S. News rankings used by Bound, Lovenheim, and Turner, rather than alphabetically.

Top 50 public universities. University of California-Berkeley; University of Virginia; University of Michigan-Ann Arbor; University of California-Los Angeles; University of North Carolina-Chapel Hill; College of William and Mary; University of Wisconsin-Madison; University of California-San Diego; University of Illinois; Georgia Institute of Technology;

University of California-Davis; University of California-Irvine; University of California-Santa Barbara; University of Texas-Austin; University of Washington; Pennsylvania State University; University of Florida; University of Maryland-College Park; Rutgers University-New Brunswick; University of Georgia; University of Iowa; Miami University (Ohio); Ohio State University; Purdue University; Texas A&M University-College Station; University of Connecticut; University of Delaware; University of Minnesota-Twin Cities; University of Pittsburgh; Indiana University; Michigan State University; Clemson University; Binghamton University (SUNY); University of California-Santa Cruz; University of Colorado-Boulder; Virginia Tech; University of California-Riverside; Iowa State University; North Carolina State University; University of Alabama; University of Missouri-Columbia; Auburn University; University of Kansas; University of Tennessee-Knoxville; University of Vermont; Ohio University; University of Arizona; University of Massachusetts-Amherst; University of Nebraska-Lincoln; University of New Hampshire.

Top 65 private universities. Harvard University; Princeton University; Yale University; University of Pennsylvania; Duke University; Massachusetts Institute of Technology; Stanford University; California Institute of Technology; Columbia University; Dartmouth College; Northwestern University; Washington University in St. Louis; Brown University; Cornell University; Johns Hopkins University; University of Chicago; Rice University; University of Notre Dame; Vanderbilt University; Emory University; Carnegie Mellon University; Georgetown University; Wake Forest University; Tufts University; University of Southern California; Brandeis University; New York University; Case Western Reserve University; Boston College; Lehigh University; University of Rochester; Tulane University; Rensselaer Polytechnic Institute; Yeshiva University; George Washington University; Pepperdine University; Syracuse University; Worcester Polytechnic Institute; Boston University; University of Miami; Fordham University; Southern Methodist University; Brigham Young University; Clark University; Stevens Institute of Technology; Saint Louis University; Baylor University; American University; Howard University; Marquette University; University of Denver; University of Tulsa; Texas Christian University; University of Dayton; Drexel University; Illinois Institute of Technology; University of San Diego; Catholic University of America; Loyola University; University of San Francisco; University of the Pacific; The New School; Northeastern University; Seton Hall University; University of St. Thomas.

Top 50 liberal-arts colleges. Amherst College; Williams College; Swarthmore College; Wellesley College; Carleton College; Middlebury College; Pomona College; Bowdoin College; Davidson College; Haverford College; Claremont McKenna College; Wesleyan University; Grinnell College; Vassar College; Harvey Mudd College; Washington and Lee University; Smith

College; Hamilton College; Colgate University; Oberlin College; Colby College; Bates College; Bryn Mawr College; Colorado College; Macalester College; Scripps College; Mount Holyoke College; Barnard College; Bucknell University; Kenyon College; College of the Holy Cross; Trinity College; Lafayette College; Occidental College; Bard College; Furman University; Whitman College; Union College; Franklin and Marshall College; Sewanee: The University of the South; University of Richmond; Connecticut College; Centre College; Dickinson College; Skidmore College; Gettysburg College; Pitzer College; DePauw University; Rhodes College; Reed College.

Federal service academies. United States Naval Academy; United States Air Force Academy; United States Military Academy at West Point; United States Coast Guard Academy.

Source: Bound, Lovenheim, and Turner (2010), Appendix Table A-2, and the corresponding fixed FICE-code rosters used in the Denning et al. replication files. Bound, Lovenheim, and Turner paper and data appendix.

A.2 Institutional sector classification

Our IPEDS sector measures use the Community College Research Center (CCRC) classification developed by John Fink and Davis Jenkins rather than relying mechanically on the standard IPEDS level-of-institution classification. The distinction matters because IPEDS classifies institutions by the highest degree they award. A community college that begins awarding even a small number of bachelor's degrees can therefore move from the IPEDS public two-year sector to the public four-year sector even when the institution remains part of a state community-college system and continues to function primarily as a community college. Fink and Jenkins (2020) show that this reclassification had already shifted 95 community colleges, enrolling roughly 1.4 million undergraduates, out of the IPEDS public two-year category by 2017.

CCRC instead defines community colleges substantively as public postsecondary institutions funded primarily by state and local sources that offer mainly sub-baccalaureate education and training, while allowing that some of these institutions also award bachelor's degrees. CCRC constructs an institution-level classification using state higher-education directories and community-college association membership lists. We use the October 2025 version of that crosswalk as a fixed institutional attribute in the IPEDS panel. Holding the classification fixed prevents apparent sector shifts that arise solely because an institution begins awarding bachelor's degrees.

The CCRC crosswalk used in the project contains six categories: (1) Community colleges; (2) Public four-years; (3) Private not-for-profit four-years; (4) Private for-profits; (5) Other public

two-years, less-than-two-years; and (6) Other private not-for-profits. In the analysis, these map respectively to Community college; Public 4yr; Private nonprofit 4yr; For-profit; Other public 2yr/lt2yr; and Other private nonprofit. The CCRC information is left-joined to the IPEDS institutional universe; where the current CCRC crosswalk does not contain an institution, the project retains the corresponding IPEDS sector classification. This is important for historical coverage because a current crosswalk cannot contain every institution that closed or merged before the snapshot date.

Sources and crosswalk: Fink and Jenkins (2020), "Shifting Sectors: How a Commonly Used Federal Datapoint Undercounts Over a Million Community College Students"; CCRC institution-by-sector spreadsheet (updated October 2025).

A.3 IPEDS data construction

Source files and panel construction. We construct the IPEDS measures directly from NCES complete data files rather than from a third-party harmonized source. The core institutional files are the completions files (C[year]_A), fall-enrollment files (EF[year]A), and institutional directory files (HD[year]), linked by UNITID. The completions files report awards by field, award level, race, and sex; the fall-enrollment files report enrollment by attendance status and level; and the directory files supply institutional characteristics. We verified the variable mappings separately against the Stata labeling files released with each collection year, because both variable names and category codes change across years. We use the NCES year convention for completions, in which the file year is the spring in which the academic year ends.

Institutional attributes and sector assignment. For each UNITID, we construct a stable institutional lookup from the directory files, taking the most recent nonmissing value available across years for control, institutional level, sector, and state or territory. We treat administrative and unknown-sector codes as missing rather than allowing them to overwrite substantive classifications. IPEDS sector is the starting classification for every institution. We then apply the fixed CCRC/Fink public-sector override described in Appendix A.2 and, within the four-year sector, the fixed Bound-Lovenheim-Turner selectivity rosters described in Appendix A.1. These classifications are held fixed over time so that changes in sector shares reflect enrollment changes rather than institutions moving mechanically across categories.

Age-restricted enrollment. The enrollment figures in Section 4.2 use Fall Enrollment Part B, which reports enrollment by age. We sum undergraduate enrollment at ages 18 through 24, including both full-time and part-time students. The age files change format several times, so the construction is year-specific: in the early files we combine the columns that separately identify degree-seeking and non-degree-seeking undergraduates, while in later files we select the

undergraduate level and sum the corresponding age cells. Where an all-sexes total is unavailable, we construct it as the sum of men and women. We exclude Puerto Rico and the territories using the institutional directory geography so that the age-restricted series is closer to the geographic universe of the household-survey comparisons. Nonresident students remain because the age file does not contain the race or citizenship detail needed to remove them. IPEDS counts enrollments at institutions rather than unique people, so a student enrolled at more than one institution can be counted more than once.

Years used and coverage changes. IPEDS first collected enrollment by age in 1987. We use the available pre-2000 age collections beginning in 1987, omit 1991 because of unusually poor age reporting and heavy imputation at two-year institutions, and from 2001 forward use the required odd-year collections through 2023. Even-year age reporting is optional and covers a selected subset of institutions, so those observations are not used for the age-restricted trend series. We retain the 2001 observation but treat it as a coverage break: the redesigned collection brought many non-degree-granting institutions, disproportionately small for-profit institutions, into the age file for the first time. This break is why changes in the for-profit series across 2001 are interpreted cautiously. We also exclude students younger than 18 from the main traditional-age series. This removes the large and rapidly growing under-18 dual-enrollment population, although dual-enrolled high-school students who are already 18 cannot be separately identified in the age file.

Bachelor's completions. The bachelor's-production series is constructed separately from the age-restricted enrollment series. We sum bachelor's degrees reported as first majors in the IPEDS completions files and do not add second-major awards. The series is therefore a count of bachelor's degrees awarded by institutions, not a cohort completion rate and not an age-restricted measure. The continuous annual series begins in 1984, with an isolated 1980 observation, and extends through 2024. We assign each institution to the same fixed sector and selectivity categories used for the enrollment analysis, which makes the enrollment and degree-production figures comparable by institutional category even though their age universes differ.

Source: Authors' processing of NCES IPEDS complete data files and year-specific Stata documentation; institutional sector classifications as described in Appendices A.1 and A.2.

A.4 Kernel-density wage distributions and overlap

Figures 11A-11C compare the wage distributions of different education groups using kernel-density estimates. The density sample consists of adults ages 25 to 29 who worked year-round and full-time and had positive wage-and-salary income in the benchmark years 1995, 2005, 2015, and 2025. We define year-round/full-time work as 35 or more usual hours per week and 50

to 52 weeks worked during the year. Wages are expressed in 2025 dollars, and observations are weighted using the CPS ASEC survey weights.

For each education group and benchmark year, we estimate a weighted Gaussian kernel density of log wages. Estimating the density in logs accommodates the strong right skew in wages. The estimated log-wage density is then transformed back to the wage scale, including the change-of-variables adjustment, so that the horizontal axis of the figures is expressed in 2025 dollars. The project does not impose a separate bandwidth choice; the estimator uses the default bandwidth in SciPy's gaussian_kde routine.

For each pair of education groups, the two estimated densities are evaluated on the same 650-point grid in dollars. The lower endpoint is the smaller of the two groups' 0.2nd-percentile wages, subject to a $1,000 floor, and the upper endpoint is the larger of the two groups' 99.5th-percentile wages. These endpoint quantiles are unweighted. Each transformed density is then normalized separately so that its area over this common grid equals one.

We summarize the similarity of the two wage distributions using the overlap coefficient. If f1(w) and f2(w) denote the two normalized densities, the overlap is

$$OVL = \int \min\{f_1(w), f_2(w)\}\, dw.$$

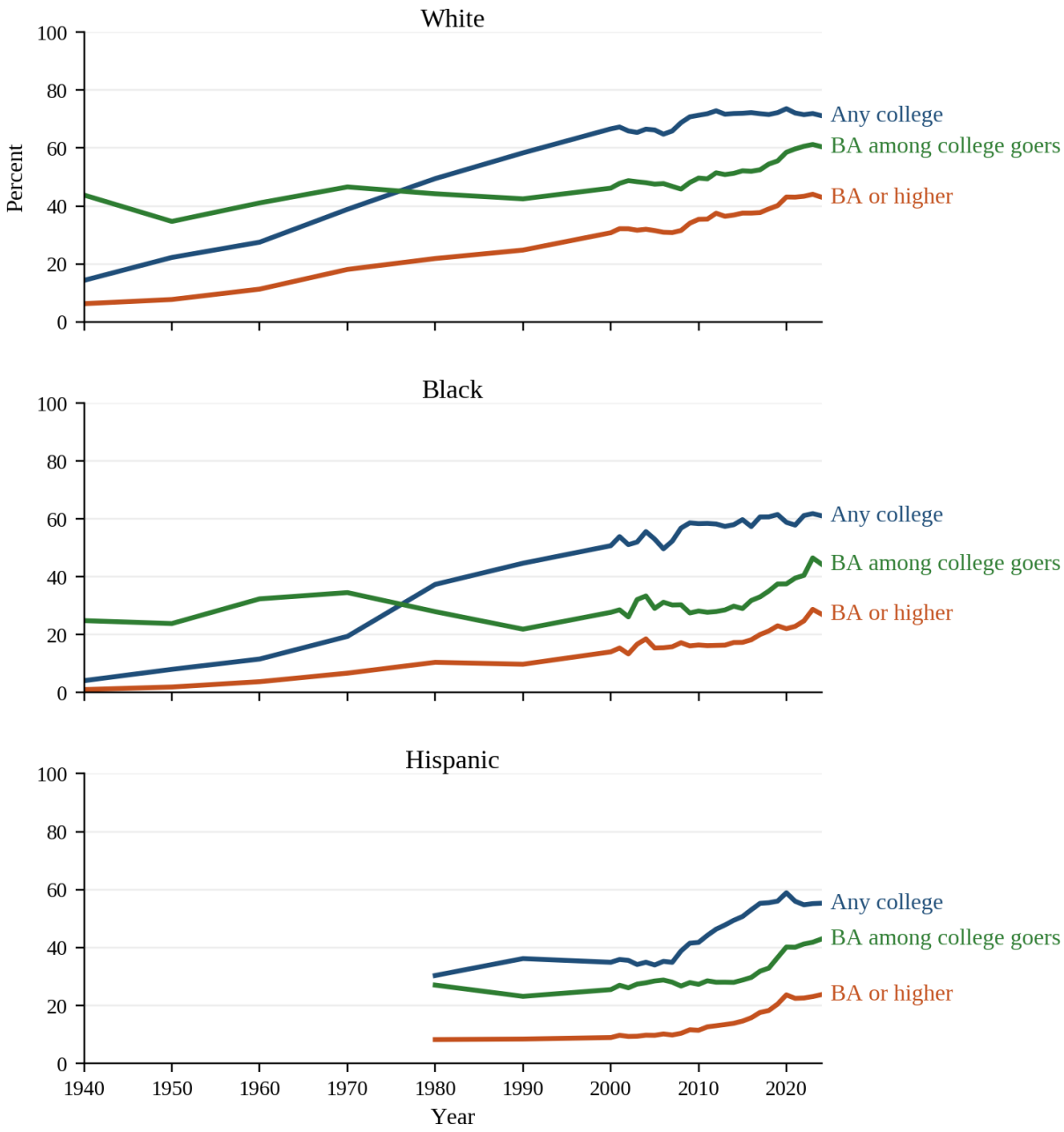
We calculate this integral numerically using the trapezoidal rule on the common dollar grid. An overlap of 100 percent means that the two estimated wage distributions are identical over the grid; an overlap of 0 percent means that they share no area. Thus an overlap of 70 percent means that 70 percent of the area under the two normalized density curves is shared. It does not mean that 70 percent of individual workers have the same or overlapping wages.

For presentation, the two normalized density curves are subsequently rescaled by a common factor so that the higher of their two peaks equals one. This rescaling affects only the vertical scale of the plotted curves. The reported “Shared area” statistic is computed from the unit-integral densities before this visual rescaling and therefore should not be interpreted as the literal geometric area of the shaded region in the displayed y-axis units.

Source: Authors' calculations from the CPS ASEC. Kernel densities and overlap coefficients are produced from the project wage-density sample using weighted Gaussian kernel estimation on log wages and numerical trapezoidal integration.

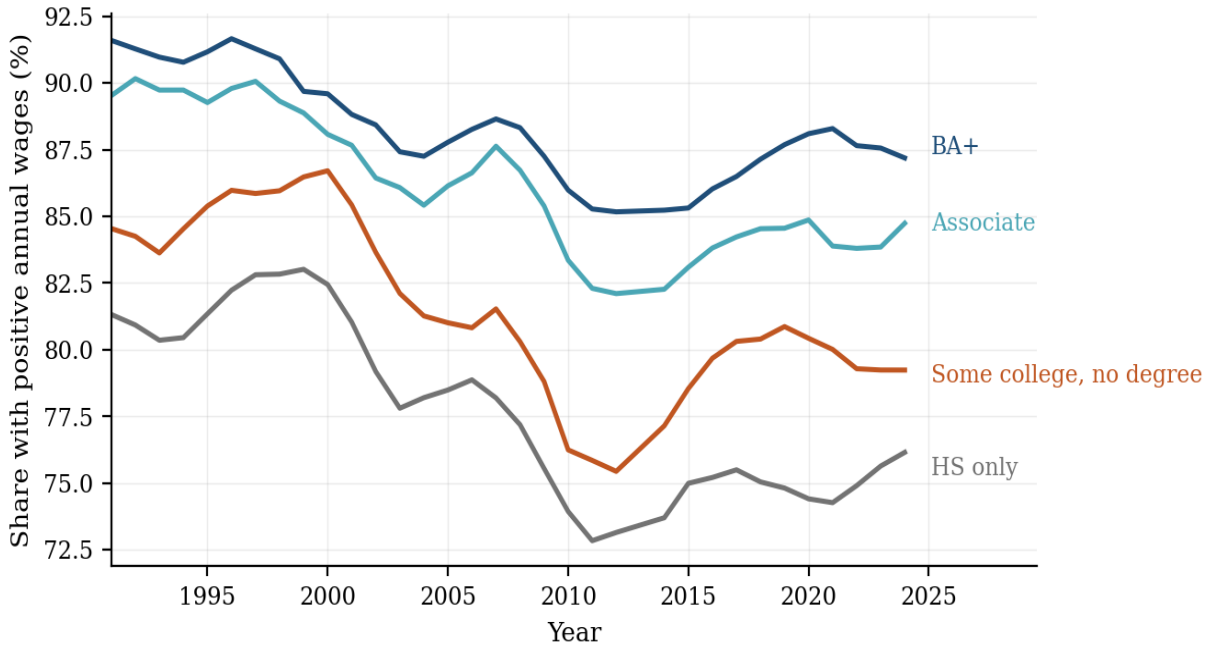
A.5 Appendix figures

Appendix Figure A1. All-nativity counterpart to Figure 1C



Notes: Appendix counterpart to Figure 1C using all nativity. Same definitions and source as Figure 1C; this sample includes both native- and foreign-born adults. Hispanic begins in 1980. Years 1940-2024.

Appendix Figure A2. Share of workers ages 25-29 with positive earnings



Notes: Share of workers ages 25-29 with positive annual wage-and-salary income. Source: IPUMS CPS ASEC, survey years 1992-2025 with 2014 omitted. Earnings year equals CPS ASEC survey year minus one. Lines are centered three-year moving averages. Earnings years 1991-2024.