Immediate Transitions:
Common Pathways After High School Graduation

April 20, 2018

Commissioned Paper Prepared for:

Committee on Identifying Indicators
National Academy of Sciences
500 Fifth Street N.W.,
Washington, DC 20001

Prepared by:

Lashawn Richburg-Hayes, Ph.D.
Principal
R. Hayes & Associates, LLC
P.O. Box 893
Maywood, NJ 07607
lashawn@rhayesassoc.com

Introduction

The average bachelor's degree holder earns close to $1M more in lifetime earnings than a high school graduate and a holder of a certificate in a high demand field earns $1.8M over a high school graduate (Carnevale, Rose, & Cheah, 2011). Additional education beyond high school is often an expectation given the large differences in lifetime earnings and this message has been received by students and parents alike. A large body of research on college-going expectations report high levels of intent to pursue a postsecondary degree or certificate (Hanson, 1994). Similarly, high school drop-out rates have declined to about 6 percent in 2015 from about 11 percent in 2000 (NCES, 2017). A high school diploma is no longer a transition into adulthood, but a transition into additional training and skill development.

However, not all high school graduates immediately transition to college. While current transition rates to college are high—close to 70 percent of high school graduates in 2016 were enrolled in a postsecondary institution by October of the year they graduated[1]—high school graduates also transition to the workforce, the military, or other endeavors outside of the labor force (such as full-time parenting, travel, volunteer work without the intention to secure employment, entrepreneurship, illicit activity, etc.). These transitions vary by gender, race/ethnicity, and family income level.

Various reasons account for different transition patterns. Some research assert that the cost of college is a primary deterrent for enrollment (Holzer and Baum, 2017; Bozick & DeLuca, 2010), while other research suggest that contextual factors influence a student's decision to enroll in

[1] Most current tables from Synder, de Brey, & Dillow (2018), *Digest of Education Statistics,* February 2018.

college or pursue work. For instance, students living in communities and families in which obtaining a bachelor's degree is deemed to be unlikely, and a successful transition to work is the norm, are more likely to pursue non-postsecondary education activities (Bozick and DeLuca, 2010). Information is another barrier impeding both the decision to enroll in college (Bettinger et al, 2012) and the decision about the type of institution to attend (Holzer and Baum, 2017), differentially affecting low-income students, first-generation students, and students of color (Hanson, 1994). While access to college may vary for several reasons, it is important to keep in mind that the benefits of college are largely dependent on the acquisition of a degree. Yet research shows that college completion rates have generally not improved over the last 30 years.[2]

While there are mixed findings on the importance of employment during high school (Bird & Okoh, 2016), most studies suggest that some employment experience provides young adults with useful skills that can later translate to postsecondary success (Sum et al, 2014) and to success in the workforce (Ayres, 2013; Sum, McLaughlin & Khatiwada, 2006). In recent years, federal legislation has driven a resurgence in the provision of career and technical education (CTE) courses in high school[3] (previously known as vocational-technical education) and these changes have resulted in a students taking a combination of CTE courses and academic courses in a thematic approach, with the belief that CTE courses help prepare students for additional postsecondary education and the world of work (Plank et al, 2008). Such integration of CTE courses with academic courses has erased the stigma associated with purely "vocational" technical courses,

[2] There is a large body of work that focuses on reasons for the lack of completion among college matriculates. See Scherer and Anson (2014), Holzer and Baum (2017),

[3] This has been primarily driven by federal legislation such as the reauthorization of Carl D. Perkins Career and Technical Education Act of 2006 (known as Perkins IV), which funds career and technical education (CTE) nationwide and federally mandates college and career-preparatory programs (Castellano et al, 2014).

which were primarily aimed to train students for a specific job after high school, such as wielding (Castenallo et al, 2014). Nonetheless, the National Center for Education Statistics CTE Statistics program reports a decline in the average number of CTE courses taken by high school students since 1990 (Hudson, 2013), but the federal requirements has resulted in most students attending comprehensive high schools taking at least one CTE course.[4] Several studies suggest a positive link between CTE course-taking and high school completion (Kreisman & Stage, 2017; Castenallo et al, 2014; Plank, 2001). However, causal research is thin in this area, with only one randomized control trial meeting *What Works Clearinghouse* standards[5] and one updated study underway (Alfeld, 2017).

There is evidence that students who intend to transition to the workforce immediately after high school reasonably underinvest in their high school academics and invest more in labor, a strategy that poises a greater payoff (Mortimer, 2003 as cited in Bozick and DeLuca, 2010). This can be a reasonable strategy as there are employment opportunities for youth after high school as the Bureau of Labor Statistics reports that 10 percent of job growth over the next few years will occur in occupations that do not require a college degree or prior experience (BLS, 2012). It is also important to note that immediate transition to work does not preclude later movement to either college or other alternatives. In fact, the bulk of students in college are between the ages of 20-24, a much older age range than those moving directly to college after high school, suggesting that many are cycling in and out of attendance.

---

[4] See Synder, de Brey, & Dillow (2018), *Digest of Education Statistics, 2016* Table 225.20.

[5] The single study is Kemple (2008).

Despite this, the labor market has not been equally welcoming to all workers with only a high school diploma. Historically, African-American males have experienced fewer opportunities in the labor market (Gaddis, 2015; Bertrand & Mullainathan, 2004; Bernstein, 1995), have had higher unemployment rates (Spaulding et al, 2015), and have been subjected to wider fluctuations in joblessness because of changes in the economy (Sum et al, 2014). In addition, women have historically been paid less than men for similar work and while the gaps tend to be lower in certain occupations associated with less education (Carnevale, Rose, & Cheah, 2011), the pattern remains. Research shows that many of these patterns of inequality have been linked to discrimination in the labor market (Pager and Shepherd, 2008).

Military enlistment addresses some of the financial concerns associated with transitioning to college (Barr (2016) shows that acquiring resources for college is one reason for enlistment). Enlistment also addresses equality and work availability concerns associated with transitioning to the labor force. It is an opportunity targeted to the young as over 50 percent of the armed forces are under the age of 19 and, in some branches, the proportion is more than 70 percent.[6] Military enlistment has been viewed as aiding in the transition to adulthood as it provides structured skill development, a group cohort for learning and connectedness (Elder et al, 2010; Eighmey, 2006), an opportunity to secure money for education (Eighmey, 2006), and social welfare supports—such as free medical care, generous housing subsidies, subsistence benefits, and subsidies for household expenses—that have been described as analogous to those provided by European welfare states (Gifford, 2006). Accession, or the process of showing up to boot camp after signing a contract to enlist, after high school varies by geography. Rates are higher in the south, accounting for more

[6] Office of the Under Secretary of Defense, *Population Representation in the Military Services*, Appendix B, Table B-1.

than 40 percent of new enlistees, followed by the west (Institute for Policy Studies, 2011; Watkins & Sherk, 2008), two regions that have large military installations and many families with connections to the military (Kleykamp, 2006).

This paper describes transition patterns after high school, with a focus on identifying indicators that can be tracked to measure equity in transition outcomes.[7] The paper provides descriptive statistics and summarizes findings from the literature to address three questions: 1) What are the most common pathways pursued after high school? 2) What are the primary correlates (or predictors) for group differences in each transition type? and 3) Which of the factors in question #2 are best suitable as indicators to measure change in disparities over time in the transition from high school? This paper focuses on three common transitions: to college, to the labor force, and to the military, providing descriptive statistics on patterns for each as well as illuminating group differences. The paper then discusses the predictors associated with each transition type, as identified by prior research. Indicators for tracking equity are then recommended. The paper concludes with considerations for examining further or expanding interventions that have been demonstrated to reduce disparities.

What are the most common pathways pursued after high school?

The most common pathway pursued by students is a transition to college.[8] Of the 3.1 million students who graduated high school between January and October 2016, close to 2.2

[7] This paper does not examine high school dropouts, nor does it cover interim measures of postsecondary academic success (such as college persistence or retention) or college completion/graduation as it is focused entirely on the gaps in pursuits immediately after high school graduation (either through attainment of a high school diploma or completion of a GED).

[8] See Appendix Table 1 for a list of data sources used in research to track enrollment patterns after high school completion.

million (or 69.8 percent) were enrolled in college in October 2016 as shown in Table 1. The remaining students were either employed or looked for work (21.9 percent) or were not in the labor force (8.4 percent). College enrollment was higher for females (at 71.9 percent) than males (at 67.5 percent) and highest for Asians (at 91.9 percent) and then those of Hispanic ethnicity (at 72 percent). Labor force participation shows the opposite patterns, with greater transitions by males (at 25.4 percent) than females (at 18.5 percent) and the highest transitions among Blacks (at 34.5 percent). For comparative purposes, in 2006, prior to the Great Recession, there were about 2.5 million high school graduates and 65.8, 26.1, and 8 percent transitioned immediately to college, to the labor force, or were not in the labor force, respectively.

Table 1 also provides an estimate of the proportion of high school graduates that enlisted in the military based on statistics from the National Longitudinal Survey of Youth 1997 (NLSY-97), which are limited to respondents between the ages of 17 and 18. By the October that respondents turned 18, 4.3 percent were enlisted in the military, representing 6.6 percent of males and slightly less than 2 percent of females. Enlistment rates were higher for Blacks and Hispanics than white youth.[9]

[9] While illustrative, this snapshot of military enrollment is not analogous to the first eight columns of Table 1 because the NLSY-97 sample was aged 17 to 18 between 1997 to 2003—a completely different period. While the Defense Manpower Data Center (DMDC) conceivably has information on the source of recruits each year, this information is not easily accessible as data requests must be made through the Defense Assistance Awards Data System (DAADS), evaluated for merit, and then processed. The *Population Representation in the Military*—an annual report on the characteristics of military personnel mandated by Congress to be produced by the Department of Defense upon the implementation of the All-Volunteer Force in 1973—provides cursory information on the proportions of military applicants, accessions, and enlistment by age, but it is not possible to determine whether accessions among those 17 to 18 years of age occur immediately after high school graduation. In addition, since military personnel are not considered to be in the labor force (as they are not available for work), it is not possible to back out the true proportion of high school graduates that report to boot camp or enlist based on publically available data sources.

College

Table 2 shows characteristics of those immediately transitioning to college from high school between 2011 and 2016 (the latest 5-year period for which data are available). About the same percentage of students transitioned to college in the two years shown, and more students transitioned to 4-year institutions than 2-year institutions. Historically, 4-year colleges have higher completion rates (an average of more than 50 percent within 150 percent of the normal completion time) than 2-year colleges, where the average graduation rate within 150 percent of the normal completion time is less than 20 percent.

College Subgroup differences

The remainder of Table 2 shows college transition status by gender and income levels. In 2011, more females than males transitioned to both types of colleges, while in 2016 more men than women transitioned to 2-year colleges. The bottom panel of the table shows college going patterns by family income level. College-going increases with income (as one would expect), but college-going rates have increased dramatically among low-income families by 11.9 percentage points between 2011 and 2016 (or about 22 percent). This increase is due to large jumps in enrollment that occurred in 2015 and 2016. These increases may reflect changes in federal financial aid policy, which resulted in increasing the maximum Pell Grant by more than $1,000, cutting student loan interest rates, allowing more borrowers to cap their loan payments at 10 percent of their income through various income-driven repayment plans, and providing more than $10,000 in tax credits over four years of college through the American Opportunity Tax Credit (ED, 2016).

Figure 1 shows the trends in postsecondary enrollment type by gender. The figure shows increased college-going since 1973 among both males (dark lines) and females (light lines) and

increased rates of enrollment at both 2-year institutions (dashed lines) and 4-year institutions (solid lines). The patterns suggest relatively similar college enrollment patterns by gender at 2-year institutions, but women have had higher enrollment rates at 4-year institutions since around 1990. Figure 2 shows trends in immediate transitions to college by race/ethnicity. The figure repeats the pattern of increasing college enrollment over time, with similar gaps in enrollment evident each year as indicated in 2016 (with a few exceptions). Finally, Figure 3 displays trends of transitions by family income, illustrating the sharp rise in enrollment among those in the bottom quintile of the income distribution in the latter period.

Workforce

Table 3 provides labor force status for high school completers who do not immediately transition to college. In October 2016, 948,000 recent high school graduates were not enrolled in college, representing 30.3 percent of all students in the civilian population (Bureau of Labor Statistics, 2017). Of this group, 72.3 percent, or about 686,000 students, were in the labor force and more than 58 percent were employed. The unemployment rate, or the proportion seeking work that could not find it, was 19.3 percent, a rate substantially higher than the average unemployment rate of 4.9 percent and higher than the teen unemployment rate of 15.6 during the same period (Bureau of Labor Statistics, 2016). This suggest that graduates taking this transition route did not fare well on average. The table also shows employment patterns in 2011, which had a smaller percentage of recent high school graduates in the labor force, a smaller percentage employed, and a higher unemployment rate, patterns that are likely reflective of the Great Recession.

Workforce Subgroup differences

The remainder of Table 3 shows labor force status by gender and race/ethnicity. Among those high school graduates not enrolling in college, a larger percentage of males enter the labor force immediately than females. The patterns of labor force status by race/ethnicity are interesting, but noisy. In 2011, it appears that a similar proportion of white and black high school graduates enter the labor force, but the unemployment rate among black students is almost double that of white students. In 2016, this gap widens, with a larger percentage of black high school graduates entering the labor force yet unemployment rates being more than two times higher for such students.

Figure 4 shows trends in labor force status between 2013 and 2015 by gender. The figure suggests that both the employment rate and the unemployment rate diverged between the genders in 2015. Figure 5 displays trends over the same period by race/ethnicity. The figure shows that the employment pattern tends to jump around over the period, providing an unclear picture of the general trend. In contrast, the unemployment rate by whites seems to dip significantly from that of blacks and Hispanics in 2015.

Military

Since 1973, enlistment in the military has been voluntary, requiring the military to compete with market forces for the acquisition of talent (Kelty, Kleykamp, & Segal, 2010; Kilburn & Asch, 2003). Given the rise in college going and the increased need to attract high-quality recruits to work with information technology, the military is often competing with colleges to attract high school graduates.[10] In fact, recruitment has been difficult in some years, even prior to 9/11 and

[10] The Department of Defense defines a "high-quality" recruit as one who scores at or above the 50th percentile on the Armed Forces Qualification Test (AFQT) and is Tier 1 (has a regular high school diploma or better). Such recruits are deemed more likely to complete contracted enlistment terms and have a higher likelihood of trainability

the prospect of war, because of the strong labor market and the increased expectation of college-going. These patterns led some researchers to suggest that a more viable option (Kilburn & Asch, 2003; Asch et al, 1999) is for the military to improve their targeting of students who are aiming to attend 2-year colleges, as military enlistment, offering cash and recruitment nonmonetary incentives, as well as generous benefits (Gifford, 2006).

Young adults join the military for various reasons. Benefits (such as money for college and job security), dignity, challenge, and adventure were the top four categories of occupationally-related reasons for enlisting in the military over civilian employment for youth in the early 2000's; fidelity (doing something for your country), risk, and family were the top three social reasons (Eighmey, 2006).

In 2015, about 145,270 people enlisted in the military and over 56.9 percent were between the ages of 17 and 19 years, a clear signal that military service is a mission for the young (Kelty, Kleykamp, & Segal, 2010). These trends have held steady since 2005 as indicated in Figure 6. Table 4 shows that the Army recruited the largest number of enlistees that year, including the largest number of youth. However, youth comprised the largest percentage of recruits for the Marine Corps.[11]

Military Subgroup differences

(Institute for Policy Studies, 2011). However, high school does not seem to be preparing youth for military service as 20 percent failed to quality for enlistment based on their AFQT score and black students are less likely to qualify than white students (Theokas, 2010).

[11] Note that these figures do not represent immediate transitions from high school as that information is not provided by the Department of Defense. The number of accessions at age 17 may be low because parental consent is required to enlist at that age.

The last panel of Table 4 shows accessions by gender, with almost five times as many males as females enlisting. Female representation is highest in the Navy (at 13.7 percent of all recruits) and at its lowest in the Marine Corps (at 6.7 percent of all recruits). These patterns may reflect the occupations that women are prevented from holding, such as infantry in the Army—30 percent of all jobs, or serving in direct combat-related occupations in the Marine Corps—90 percent of all jobs, as the military is the one major social institution in the nation that may legally discriminate in employment based on gender (Kelty, Kleykamp, & Segal, 2010).

Many hypothesized that the change to an all-volunteer would result in a disproportionate number of poor and brown youth enlisting (Kelty, Kleykamp, & Segal, 2010). Shortly after the change to the All-Volunteer Force in 1973, black enlistment increased from 20 percent to 30 percent by the mid-1980's.[12] Since the military does not record family income or household income data for recruits, all reports of enlistment by income level use proxies based on zip codes or census tract and data from the U.S. Census Bureau. Such proxies suggest underrepresentation by youth in the poorest and wealthiest areas (Institute for Policy Studies, 2011; Watkins and Sherk, 2008). These patterns likely reflect the lower number of people qualified to serve from lower-income neighborhoods (given the AFQT and tier requirements for a high school diploma) and the higher number of people attending college from the highest-income neighborhoods (Office of the Under Secretary of Defense, 2017). However, these patterns do not hold for officers, who tend to come disproportionately from the highest-income neighborhoods, especially those from West Point (Watkins and Sherk, 2008). In terms of race, blacks are over-represented in the military

[12] Increases of this level occurred in the Army; overall representation in the military changed from 17.1 percent to 25.9 percent between 1973 and 1979. See Appendix Table D-23, Office of the Under Secretary of Defense (2017).

relative to their proportion in the civilian population and black women are more over-represented than men by nearly a 2:1 margin (Kelty, Kleykamp, & Segal, 2010).[13]

What factors are most strongly correlated with group differences?

Research suggests that there are differences in transition patterns by high school academic performance level, aspirations for college, institutional presence, gender, race/ethnicity, socioeconomic status, geography, and the economy.[14] Of these factors, the first three are the most malleable, or able to be influenced by outside forces or influences. Table 5 summarizes the patterns found in the literature around these factors.

In general, better academic preparation, higher socioeconomic status, two-parent household structure, and being female, have a higher likelihood of transitioning to college immediately after high school. Students who have moderate academic preparation, but differ on the other categories, such as having a family structure consisting of a step-parent, non-biological parent, or single parent, have a higher likelihood to enlist in the military rather than transition to the workforce. Overall, research seems to suggest that the most disadvantaged students transition to the workforce, as both college and the military have selective criteria (Spence, Henderson, & Elder, 2013; Elder et al, 2010).

---

[13] Statistics by race are not presented in the tables as the most detailed information comes from the annual *Population Representation in the Military Services* reports and these reports do not provide cross tabulations by age and race/ethnicity. As a result, it is not possible to use the tables to proxy for immediate transitions.

[14] Institutional presence refers to the broader community effects on the decision to make a transition. In the case of the military, it reflects the social and cultural familiarity of the military institution in daily life (Kleykamp, 2006). Other factors are detailed in Table 5.

The evidence underlying Table 5 is derived from secondary analysis of either large-scale, nationally representative surveys, or the availability of unique state-level datasets.[15] Various researchers attempt to explore the relationships between transition and predictors, but the work is not causal and other explanations may be plausible and not able to be ruled out.[16] Since it is difficult to leverage a national experiment to explore the relationship between high school graduation and transition decisions, the descriptive studies are likely the best evidence that we currently have. The studies that contribute to the evidence base for Table 5 are cataloged in Appendix Table 4.

Recommendations for Indicators of Equity

Given that most of the indicators in Table 5 are predetermined and difficult to change, I recommend focusing on factors that can be influenced: high school GPA, college aspirations, and institutional presence. It is unclear how much explanatory power the last two of these factors have, but high school GPA has been demonstrated to be very predictive of college going in several studies (Scott-Clayton, 2012); Barnett and Reddy, 2017).

While it may be difficult to influence the less malleable indicators, it is possible to use alternative tools to manipulate the underlying factor embodied by the indicators. For example, while family income is difficult to change, financial aid may be leveraged to provide resources to help with the cost of college. As another example, adult mentoring may be provided to first-

[15] See Appendix Table 1 for a list of commonly used data sources and their coverage.
[16] This is particularly true for the studies of military enlistment, which are often limited to males given small samples sizes for females who enlist.

generation college students who may lack the benefit of college-knowledge through their family (Bailey and Alfonso, 2005).

Conclusion: Recommendations for Interventions

The trend towards college-going immediately after high school shows no signs of abetting, yet immediate postsecondary training may not be the best fit for all high school students. While looking at the intermediate outcomes from these transitions (such as college retention, initial wages and employment stability, completion of boot camp) is beyond the scope of this paper, the success levels in these endeavors should be considered before judging the relative merit of various transition options and determining whether transition parity between groups is desirable. For example, one researcher compared entry into developmental math, an almost ubiquitous experience for students enrolled in 2-year colleges, to a crematorium—a lot of material goes in, but little comes out.[17] Given this, equalizing this transition pattern is not in anyone's best interest.

Fortunately, there are some interventions that may improve the outcomes associated with certain transitions, making the transitions themselves more fruitful. For example, improving the education and employment opportunities for disadvantaged young men may improve the outcomes associated with transitioning to the workforce. Rigorous research on career academies, a form of career and technical education where students interested in a career take courses together and supplement their classroom education with summer and year-round employment, has shown

[17] Comment attributed to Philip Uri Treisman, Executive Director of the Charles A. Dana Center, University of Texas-Austin.

significantly higher monthly earnings, months worked, hours worked per week, and hourly wages for participants when compared to the experimental control group (Kemple, 2008).

Other programs for youth transitioning to the workforce include the Youth Opportunity Program (YOP) and Jobs Corps. YOP encourages schooling and employment through a skills-based curriculum that includes mentoring, paid or unpaid work experience, leadership development activities, tutoring, study skills training, and comprehensive guidance with the goals to increase employment and earnings and increase the likelihood of successful transitions to adulthood. Participation in this program was associated with gains in overall employment along with higher wages, especially among minorities and teens. The Job Corps program serves a similarly disadvantaged population as YOP, but includes a residential component, in which youth receive intensive vocational training along with other life skills. Participants in the program saw improved earnings, mostly from older young adults 20-24.

In conclusion, a focus on closing equity gaps needs to define the end goal. Each transition pattern leads to a set of outcomes under certain conditions. It may be welfare-improving to have all students be present with similar options after high school graduation, such that the cost of college is not a factor in decision making or the scores on the AFQT will always be sufficient to pass based on the regular preparation that occurs in high school. However, such changes may require a larger redirection of resources earlier in the education pipeline.

References

Alfeld, C. (2017). CTE Programs Ripe for Research and Evaluation. IES Blog. Accessed April 20, 2018 from https://ies.ed.gov/blogs/post/cte-programs-ripe-for-research-and-evaluation.

Astone, N. M., & McLanahan, S. S. (1991). Family Structure, Parental Practices, and High School Completion. *American Sociological Review.* 309-320.

Asch, B., Kilburn, R., and Klerman, J. (1999). *Attracting College-Bound Youth into the Military: Toward the Development of New Recruiting Policy Options*. MR-984-OSD. Santa Monica, CA: RAND.

Ayres, S. (2013). *The High Cost of Youth Unemployment*. Washington, DC: Center for American Progress.

Bachman, J. G., Segal, D. R., Freedman-Doan, P., & O'Malley, P. M. (2000). Who Chooses Military Service? Correlates of Propensity and Enlistment in the U.S. Armed Forces. *Military Psychology.* 1-30.

Bailey, T. & Alfonso, M. (2005). *Paths to Persistence: An Analysis of Research on Program Effectiveness at Community Colleges.* New York, NY: Columbia University, Teachers College, Community College Research Center.

Barnett, E. and Reddy, V. (2017). College Placement Strategies: Evolving Considerations and Practices. (*CAPR Working Paper*). New York, NY: Columbia University, Teachers College, Community College Research Center.

Barr, A. (2016). Enlist or Enroll: Credit Constraints, College Aid, and the Military Enlistment Margin. *Economics of Education Review*, 51, 61-78.

Bertrand, M., & Mullainathan, S. (2004). Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *American Economic Review*, 94(4), 991-1013.

Bettinger, E., Long, B. T., Oreopoulos, P., & Sanbonmatsu, L. (2012). The Role of Application Assistance and Information in College Decisions: Results from the H&R Block Fafsa Experiment, *The Quarterly Journal of Economics*, Volume 127, Issue 3, 1 August 2012, Pages 1205–1242.

Bird, K., & Okoh, C. (2016). Employment Pathways for Boys and Young Men of Color: Solutions and Strategies That Can Make a Difference. *Robert Wood Johnson Foundation.* 1-15.

Bozick, R. & Deluca, S. (2005). Better Late Than Never? Delayed Enrollment in the High School to College Transition. *The University of North Carolina Press.* 529-548.

Bozick, R. & Deluca, S. (2010). Not Making the Transition to College: School, Work, and Opportunities in the Lives of Contemporary American Youth. *Rand Labor and Population.* 1-47.

Bureau of Labor Statistics (BLS) (2012). High wages after high school without a bachelor's degree. *Occupational Outlook Quarterly,* Summer 2012.

Bureau of Labor Statistics (BLS) (2016). The Employment Situation—October 2016. News Release. Accessed January 10, 2018 from https://www.bls.gov/news.release/archives/empsit_11042016.pdf.

Bureau of Labor Statistics (BLS) (2017). College Enrollments and Work Activity of 2016 High School Graduates, News Release, April 27, 2017. Accessed December 23, 2017 from https://www.bls.gov/news.release/hsgec.nr0.htm.

Carnevale, A., Rose, S., and Cheah, B. The College Payoff: Education, Occupations, Lifetime Earnings. Center on Education and the Workforce, Georgetown University.

Castellano, M., Sundell, K., Overman, L, Richardson, G., & Stone III, J. (2014). *Rigorous Tests of Student Outcomes in CTE Programs of Study: Final Report.* Louisville, KY: National Research Center for Career and Technical Education.

Dillon, C. H. (2007). Military Training for Civilian Careers: How to Gain Practical Experience While Serving Your Country. *Occupational Outlook Quarterly.* 7-16.

Downey, D. B. (1995). Understanding Academic Achievement among Children in Stephouseholds: The Role of Parental Resources, Sex of Stepparent, and Sex of Child. *University of North Carolina Press.* 875-894.

Eighmey, J. (2006). Why Do Youth Enlist? Identification of Underlying Themes. *Inter-University Seminar on Armed Forces and Society.* 307-328.

Elder Jr, G. H., Wang, L., Spence, N. J., Adkins, D. E., & Brown, T. H. (2010). Pathways to the All-Volunteer Military. *Social Science Quarterly.* 455-475.

Ermisch, J., & Francesconi, M. (2000). Family Matters: Impacts of Family Background on Educational Attainments. *The London School of Economics and Political Science.* 137-156.

Gaddis, S. M. (2015). Discrimination in the Credential Society: An Audit Study of Race and College Selectivity in the Labor Market, *Social Forces*, Volume 93, Issue 4, 1 June 2015, Pages 1451–1479.

Gifford, B. (2006). "The Camouflaged Safety Net: The U.S. Armed Forces as Welfare State Institution," *Social Politics: International Studies in Gender, State, and Society.* 13(3): 372-399.

Hanson, S. L. (1994). Lost talent: Unrealized educational aspirations and expectations among U.S. youths. *Sociology of Education, 67*(3), 159.

Holzer, H. and Baum, S. (2017). *Making College Work: Pathways to Success for Disadvantaged Students.* Washington, DC: Brookings Institute.

Hudson, L. (2013). NCES Data Point: Trends in CTE Coursetaking. NCES 2014-901. Washington, DC: U. S. Department of Education.

Institute for Policy Studies (2011). *Military Recruitment 2010.* National Priorities Project. Accessed January 1, 2018 from https://www.nationalpriorities.org/analysis/2011/military-recruitment-2010/.

Kane, T. (2006). Who Are the Recruits? The Demographic Characteristics of U.S. Military Enlistment, 2003-2005. 1-15. Washington, DC: The Heritage Foundation.

Kemple, J. (2008). *Career Academies: Long-Term Impacts on Work, Education, and Transitions to Adulthood.* New York, NY: MDRC.

Ketty, R., Kleykamp, M., & Segal, D. R. (2010). The Military and the Transition to Adulthood. *Future of the Children.* 181-207.

Kilburn, R. & Asch, B. (2003). *Recruiting Youth in the College Market: Current Practices and Future Policy Options*. Santa Monica, CA: RAND.

Kleykamp, M. A. (2006). College, Jobs, or the Military? Enlistment During a Time of War. *Social Science Quarterly,* 272-287.

Kreisman, D. & Stange, K. (2017). Vocational and Career Tech Education in American High Schools: The Value of Depth over Breadth. Working paper #23851, National Bureau of Economic Research, September 2017.

Musu-Gillette, L., Robinson, J., McFarland, J., KewalRamani, A., Zhang, A., & Wilkinson-Flicker, S. (2016). Status and Trends in the Education of Racial and Ethnic Groups 2016. *The National Center for Education Statistics.* 8-113.

National Center for Education Statistics (NCES), U.S. Department of Education. (2017). *The Condition of Education 2017* (NCES 2017-144), Status Dropout Rates.

Office of the Under Secretary of Defense, Personnel and Readiness (2017). Population Representation in the Military Services: Fiscal Year 2015 Summary Report. Published in 2016. Accessed January 1, 2018. http://www.cna.org/research/pop-rep.

Pager, D., & Shepard. H. (2008). The Sociology of Discrimination: Racial Discrimination in Employment, Housing, Credit, and Consumer Markets. *The Annual Review of Sociology.* 181-209.

Plank, Stephen B. (2001). A Question of Balance: CTE, Academic Courses, High School Persistence, and Student Achievement. *Journal of Vocational Education Research*, 26:279–327.

Plank, S., DeLuca, S., & Estacion, A. (2008). High School Dropout and the Role of Career and Technical Education: A Survival Analysis of Surviving High School. S*ociology of Education,* Vol. 81 (October): 345–370.

Sandefur, G. D., McLanahan, S., & Wojtkiewicz, R. A. (1992). The Effects of Parental Marital Status during Adolescence on High School Graduation. *The University of North Carolina Press.* 103-121.

Scherer, J. and Anson, M. (2014). *Community Colleges and the Access Effect: Why Open Admissions Suppresses Achievement*. New York, NY: Palgrave MacMillian.

Scott-Clayton, J. (2012). Do high-stakes placement exams predict college success? (*CCRC Working Paper No. 41*). New York, NY: Columbia University, Teachers College, Community College Research Center.

Snyder, T.D., de Brey, C., and Dillow, S.A. (2018). *Digest of Education Statistics 2016 (NCES 2016-014)*. National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Spaulding, S., Lerman, R.., Holzer, H. J., & Eyster, L. (2015). Expanding Economic Opportunities for Young Men and Boys of Color through Employment and Training. *Urban Institute.* 1-36

Spence, N. J., Henderson, K. A., & Elder Jr, G. H. (2013). Does Adolescent Family Structure Predict Military Enlistment? A Comparison of Post-High School Activities. *National Institutes of Health,* 1-19.

Sum, A., Khatiwada, I., Trubskyy, M., Ross, M., McHugh, W., & Palma, S. (2014). The Plummeting Labor Market Fortunes of Teens and Young Adults. *The Brooking Institution.* 1-26.

Teachman, J., & Tedrow, L. (2007). Joining Up: Did Military Service in the Early All Volunteer Era Affect Subsequent Civilian Income? *Elsevier. Social Science Research.* 1447-1474.

Theokas, C. (2010). *Shut Out of the Military: Today's High School Education Doesn't Mean You're Ready for Today's Army.* Washington, DC: The Education Trust.

U.S. Department of Education (ED) (2016). Fact Sheet: Helping More Americans Complete College: New Proposals For Success. (Press release). Accessed January 10, 2018 from https://www.ed.gov/news/press-releases/fact-sheet-helping-more-americans-complete-college-new-proposals-success.

Valentine, J. C., Bremer, C.D., Novillo, W., Castellano, M., & Banister, A. (2011). Keeping At-Risk Students in School: A Systematic Review of College Retention Programs. *Educational Evaluation and Policy Analysis.* 214-234.

Watkins, S. & Sherk, J. (2008). *Who Serves in the U.S. Military? Demographic Characteristics of Enlisted Troops and Officers.* Washington, DC: The Heritage Foundation.

Youth Employment: Indicators of Child and Youth Well-Being. (2016). *Child Trends Data Bank.* 2-13.

Zimmerman, D. J. (1992). Regression Toward Mediocrity in Economic Statue. *The American Economic Review,* 409-429.

Table 1. Number and Percentage of High School Completers Transitioning to College, Workforce, or Military Enlistment within 12 months of High School Graduation, 2016

Characteristic	Civilian, Noninstituionalized Population								Percentage Enlisted in the Military[1]
	Total Population	Percent of the Total Population	Enrolled in College	Percent of the Total Population Enrolled in College	Participating in the Labor Force	Percent of the Total Population in the Labor Force	Not in the Labor Force	Percent of the Total Population in Not in the Labor Force	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All	3,137	100.0	2,188	69.8	686	21.9	262	8.4	4.3
Gender									
Male	1,517	48.4	1,023	67.5	386	25.4	107	7.1	6.6
Female	1,620	51.6	1,165	71.9	300	18.5	155	9.6	1.9
Race/ethnicity									
White	2,326	74.1	1,622	69.7	496	21.3	208	8.9	3.9
Black	409	13.0	238	57.3	141	34.5	30	7.3	6.7
Asian	158	5.0	146	91.9	6	3.8	5	3.2	--
Hispanic	742	23.7	534	72.0	132	17.8	76	10.2	4.5

Source: Entries for the civilian, noninstitutionalized population are from the Bureau of Labor Statistics, "College Enrollments and Work Activity of 2016 High School Graduates," News Release, April 27, 2017. Percentage enlistment in the military is obtained from the National Longitudinal Survey of Youth (NLSY) 1997 (as reported by the Bureau of Labor Statistics, "America's Youth at 18: School Enrollment and Employment Transitions Between Ages 17 and 18," February 2006).

Notes: Numbers are in thousands. Estimates are for students who graduated from high school in January through October 2016. The transition status is of October 2016. Estimates for race do not sum to the totals because data are not presented for all races. Students who identify as Hispanic may be of any race.

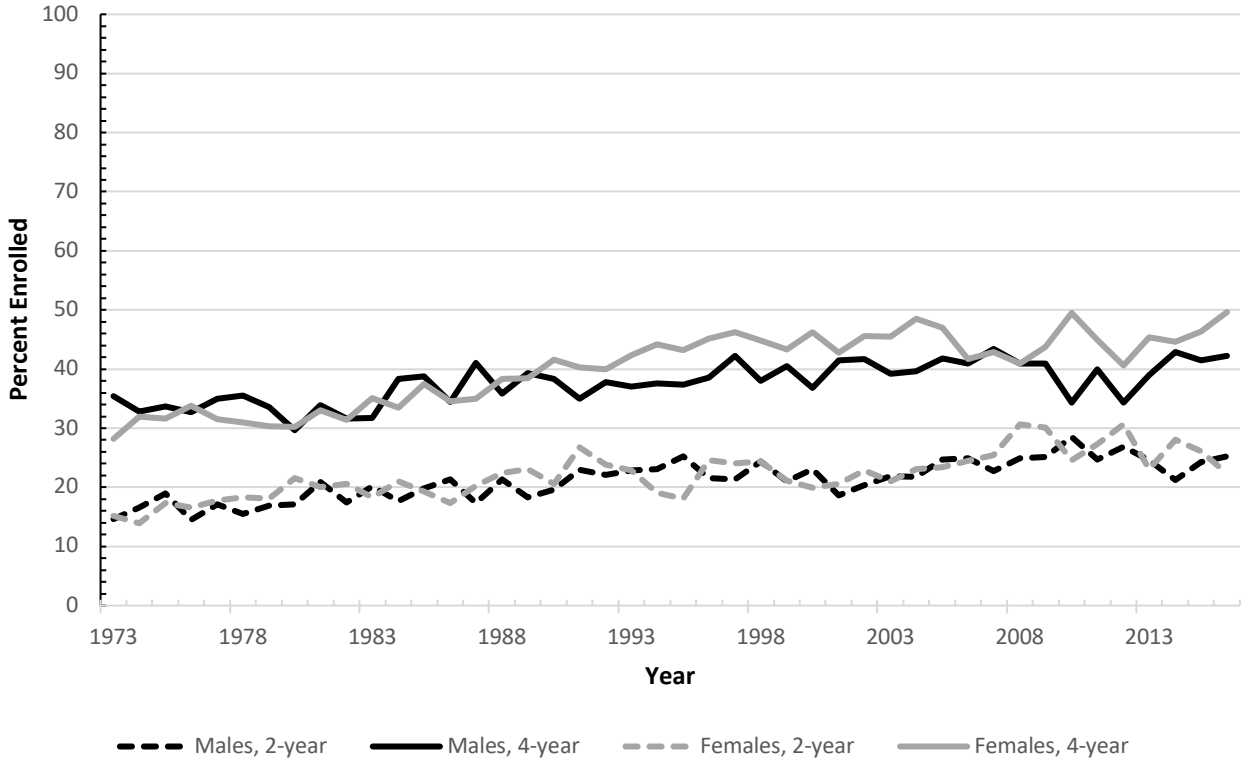
[1] These estimates are from the NYSY 1997. Respondents were ages 17 during the years 1997 to 2002 and age 18 in October from 1998 to 2003. As a result, these figures are much less current than the other transition figures.

Table 2. Percentage of Recent High School Completers Enrolled in College, 2011 and 2016

Characteristic	2011	2016	Difference
	(1)	(2)	(3)
All recent completers	68.2	69.8	1.6
Type of institution			
2-year	25.9	23.7	-2.2
Male	24.7	25.3	0.6
Female	27.3	22.3	-5.0
4-year	42.3	46.0	3.7
Male	40.0	42.2	2.2
Female	44.9	49.6	4.7
Income level			
Low income	53.5	65.4	11.9
Middle Income	66.2	65.0	-1.2
High Income	82.4	82.5	0.1

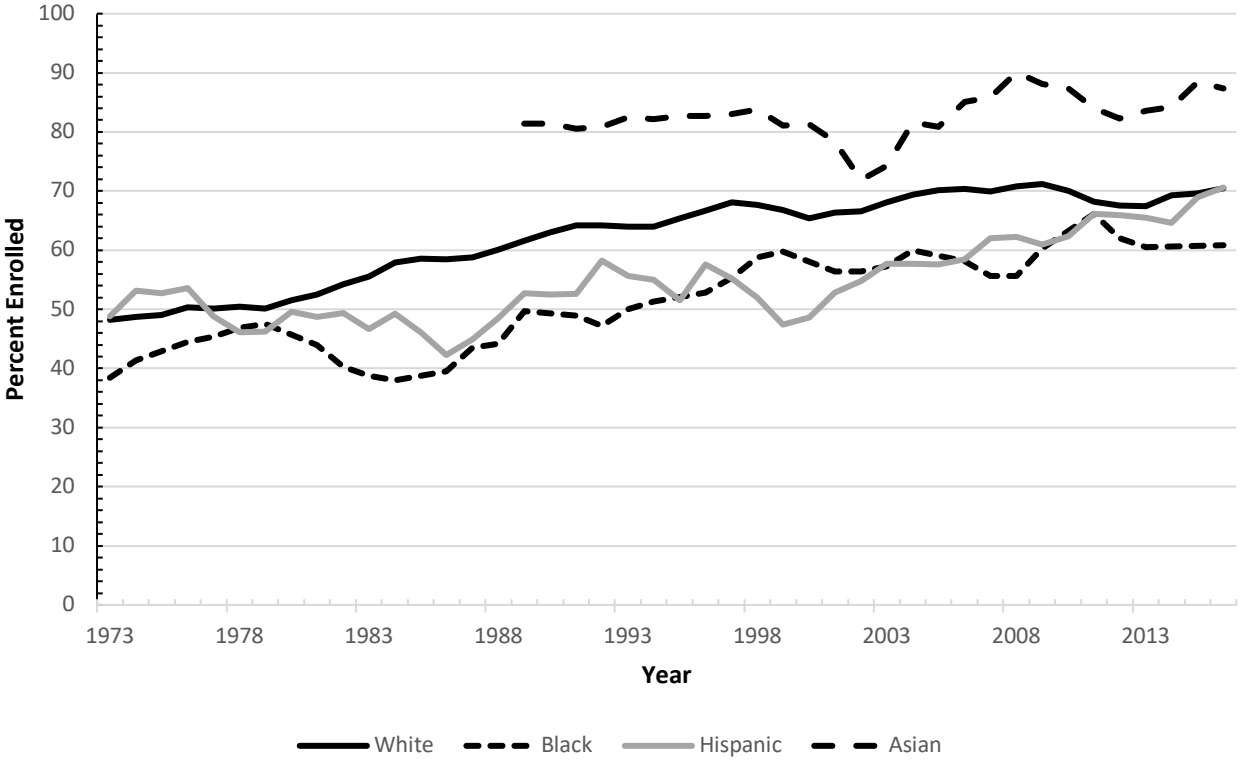
Source: *Digest of Education Statistics, 2015* Table 302.10 and 302.30.
Notes: Entries are for the civilian, noninstitutionalized population of students, ages 16-24, who graduated from high school or had completed a GED or other high school equivalency credential in January through October 2011 or 2016 and transitioned to college as of October of the same year. Low income refers to the bottom 20 percent of all family incomes, high income refers to the top 40 percent of all family incomes, and middle income refers to the 60 percent in between.

Figure 1. Trends in Postsecondary Enrollment Among Recent High School Completers, by Gender and Institution Type: 1973 to 2016



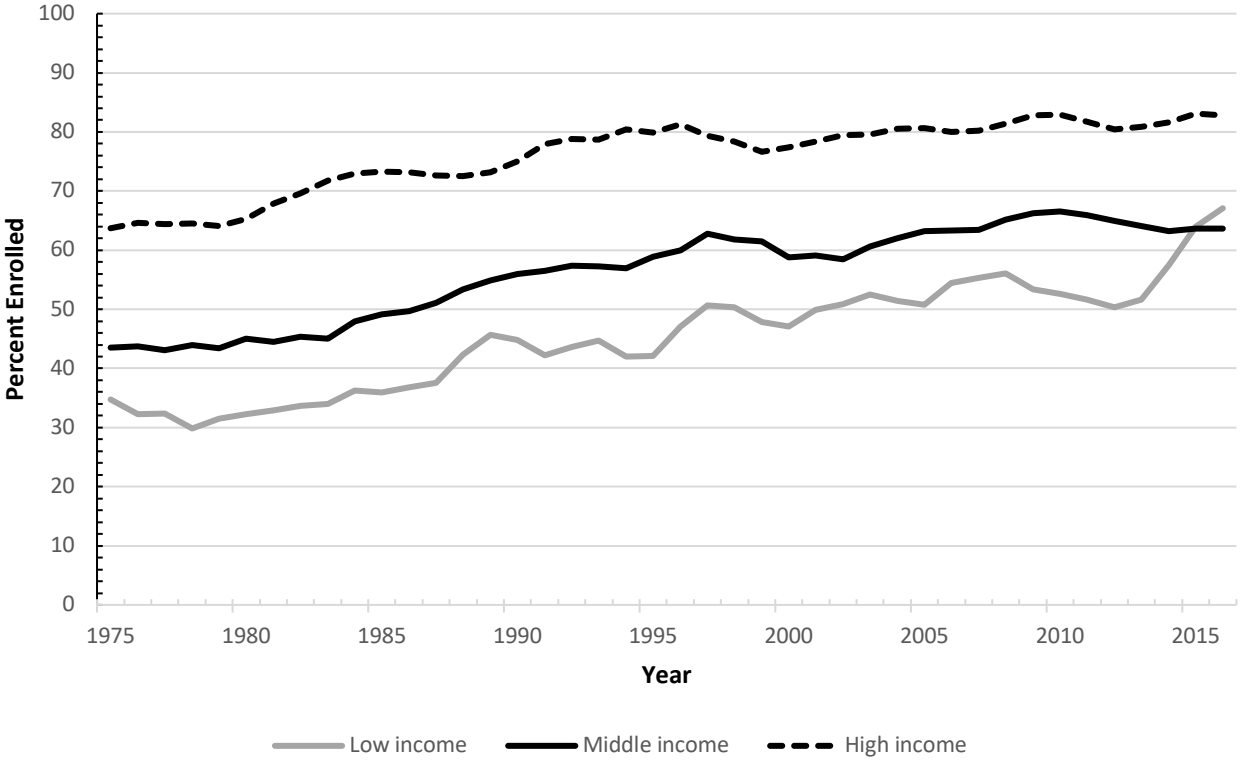
Source: Digest of Education Statistics, 2015 Table 302.10.
Notes: Entries are for the civilian, noninstitutionalized population of students, ages 16-24, who graduated from high school or had completed a GED or other high school equivalency credential in January through October and transitioned to college as of October of the same year. See detailed tabulations in Appendix Table 2.

Figure 2. Trends in Postsecondary Enrollment Among Recent High School Completers, by Race/Ethnicity: 1973 to 2016



Source: Digest of Education Statistics, 2015 Table 302.20.
Notes: Entries are for the civilian, noninstitutionalized population of students, ages 16-24, who graduated from high school or had completed a GED or other high school equivalency credential in January through October and transitioned to college as of October of the same year. Prior to 2003, Asian data include Pacific Islanders. Figure shows the 3-year moving average. See detailed tabulations in Appendix Table 3.

Figure 3. Trends in Postsecondary Enrollment Among Recent High School Completers, by Income Level: 1975 to 2016



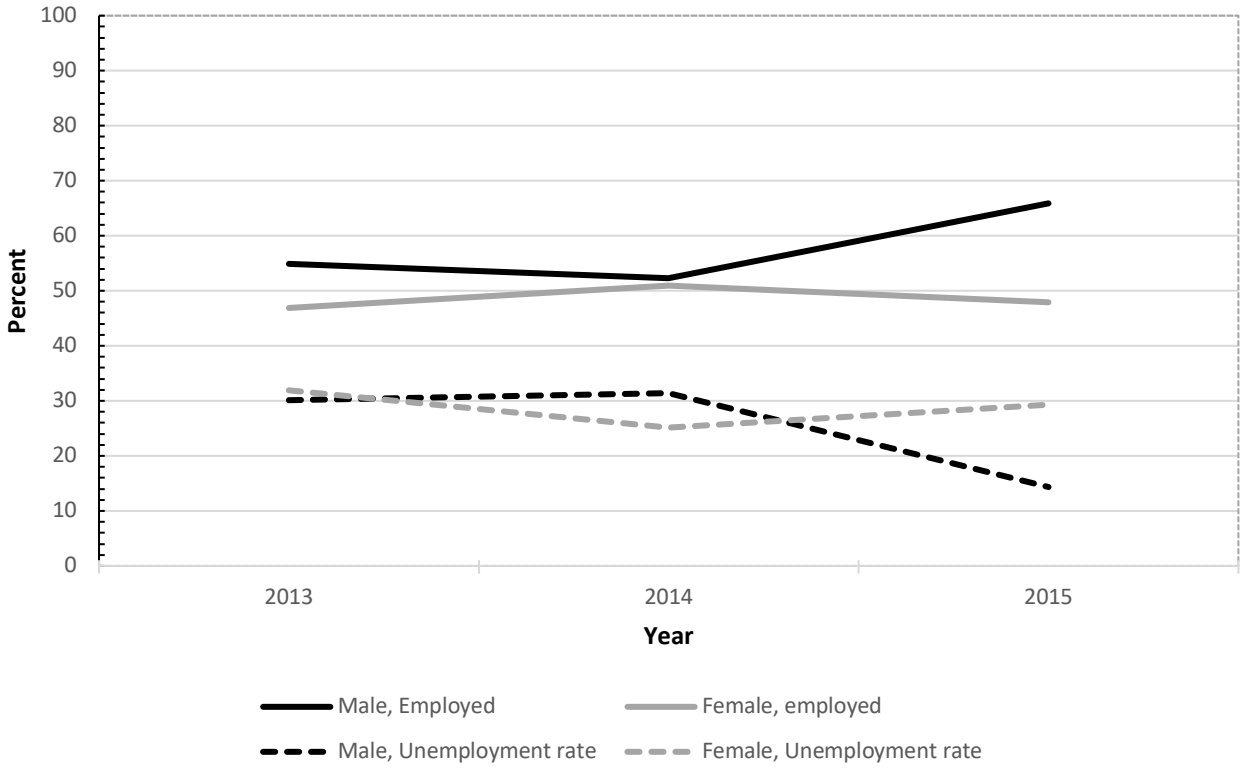
Source: Digest of Education Statistics, 2015 Table 302.30.
Notes: Entries are for the civilian, noninstitutionalized population of students, ages 16-24, who graduated from high school or had completed a GED or other high school equivalency credential in January through October and transitioned to college as of October of the same year. Low income refers to the bottom 20 percent of all family incomes, high income refers to the top 40 percent of all family incomes, and middle income refers to the 60 percent in between. Figure shows the 3-year moving average.

Table 3. Number and Percentage of High School Completers, by Labor Force Status: 2011 and 2016

	2011				2016			
Characteristics	Total population not enrolled in college (1)	Percent of Population in the labor force (2)	Percent employed (3)	Unemployment rate (4)	Total population not enrolled in college (5)	Percent of Population in the labor force (6)	Percent employed (7)	Unemployment rate (8)
All	979	68.7	45.6	33.6	948	72.3	58.4	19.3
Gender								
Male	569	75.5	48.8	35.4	493	78.3	62.0	20.7
Female	409	59.2	41.2	30.4	455	65.9	54.4	17.5
Race/ethnicity								
White	753	68.2	48.4	29.0	704	70.4	61.6	12.5
Black	158	68.4	32.0	53.3	171	82.4	48.4	41.2
Asian	19	-	-	-	12	-	-	-
Hispanic	208	58.0	35.4	39.0	208	63.3	54.8	13.4

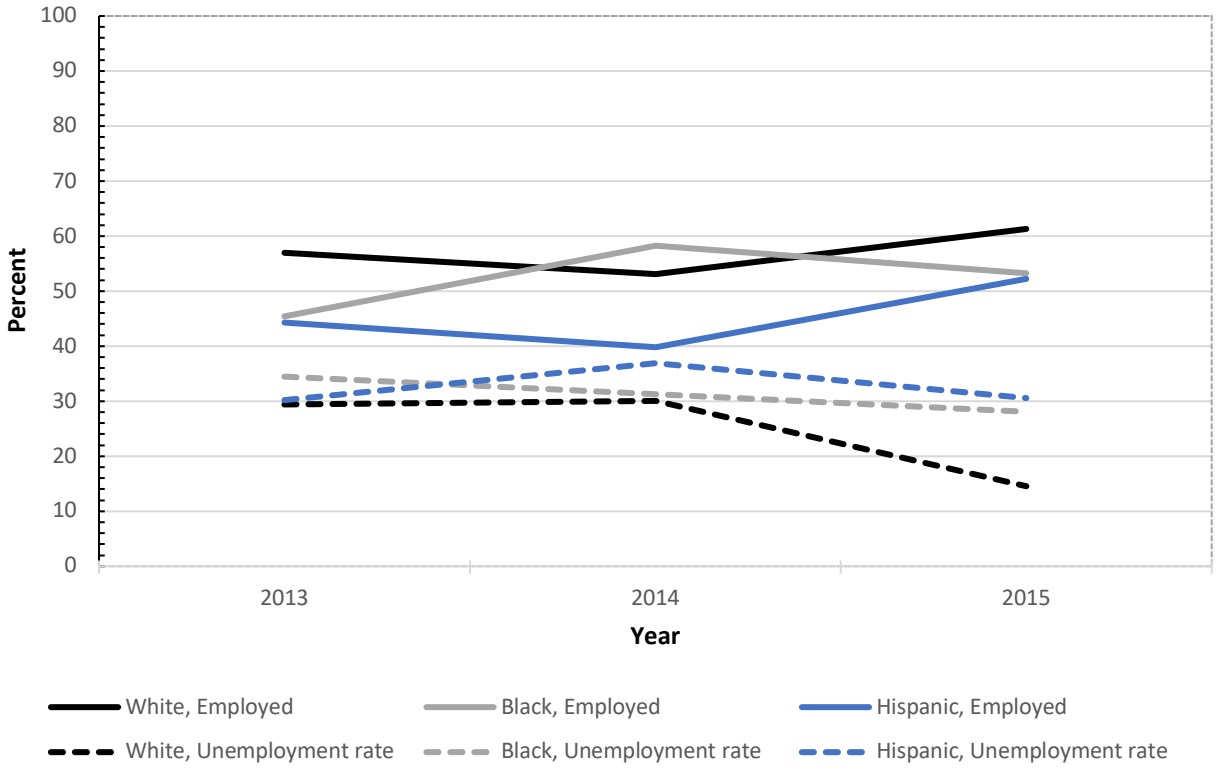
Source: Bureau of Labor Statistics, "College Enrollments and Work Activity of 2016 High School Graduates," News Release, April 27, 2017 and "College Enrollments and Work Activity of 2011 High School Graduates," News Release, April 19, 2012.
Notes: Entries are for the civilian, noninstitutionalized population. Estimates are for students who graduated from high school in January through October 2011 or 2016 and did not transition to college as of October of the same year. Population numbers are in thousands. Students who identify as Hispanic may be of any race. The percent employed is the number employed out of the total population not enrolled in college. The unemployment rate is the number unemployed (seeking employment) out of the number in the labor force that are not enrolled in college.

Figure 4. Trends in Labor Force Status Among Recent High School Completers Not Enrolled in College, by Gender: 2013 to 2015



Source: Digest of Education Statistics, 2015 Table 504.10.
Notes: Entries are for the civilian, noninstitutionalized population of students, ages 16-24, who graduated from high school or had completed a GED or other high school equivalency credential in January through October 2013, 2014, or 2015 and transitioned to college as of October of the same year. The percent employed is the number employed out of the total population not enrolled in college. The unemployment rate is the number unemployed (seeking employment) out of the number in the labor force that are not enrolled in college.

Figure 5. Trends in Labor Force Status Among Recent High School Completers Not Enrolled in College, by Race/Ethnicity: 2013 to 2015



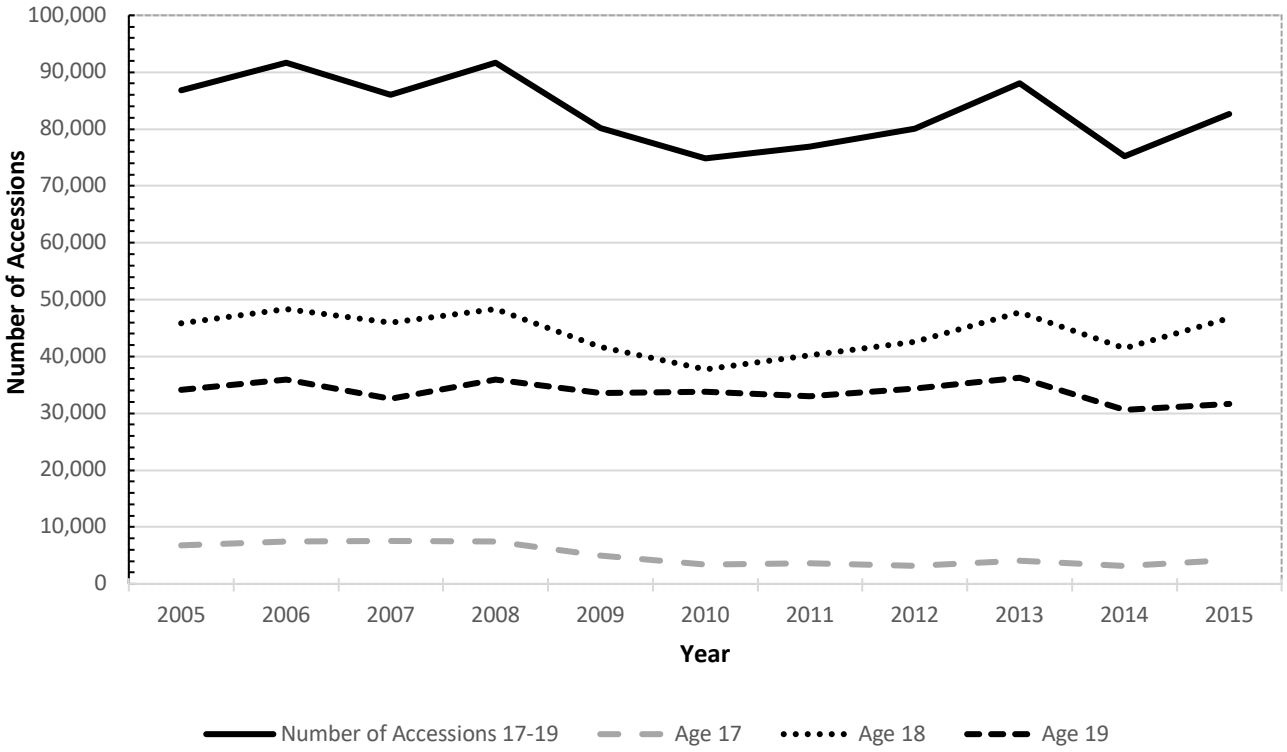
Source: Digest of Education Statistics, 2015 Table 504.10.
Notes: Entries are for the civilian, noninstitutionalized population of students, ages 16-24, who graduated from high school or had completed a GED or other high school equivalency credential in January through October 2013, 2014, or 2015 and transitioned to college as of October of the same year. The percent employed is the number employed out of the total population not enrolled in college. The unemployment rate is the number unemployed (seeking employment) out of the number in the labor force that are not enrolled in college.

Table 4. Number and Percentage of Enlisted Military Accessions of 17 to 19 year olds, by Service: 2015

Characteristic	Total Population (1)	Percent of the Total Population (2)	Army (3)	Navy (4)	Marine Corps (5)	Air Force (6)
Number of accessions (all ages)	145,270	100.0	56,990	34,864	29,389	24,027
Percent (all ages)	100	--	39.2	24.0	20.2	16.5
Age						
All 17-19 years	82,663	56.9	54.2	51.9	72.4	51.7
17 years	4,243	2.9	3.2	1.9	4.6	1.6
18 years	46,753	32.2	30.9	28.8	43.7	26.2
19 years	31,667	21.8	20.1	21.2	24.1	23.9
Gender, 17-19 years						
Male	67,990	46.8	44.9	38.2	65.7	40.8
Female	14,673	10.1	9.3	13.7	6.7	10.8

Source: Office of the Under Secretary of Defense, Personnel and Readiness. Population Representation in the Military Services: Fiscal Year 2015. Appendix B: Active Component. Table B-1: Non-Prior Service (NPS) Active Component Enlisted Accessions, FY15: by Service, Gender, and Age with Civilian Comparison Group. Published in January 2017. http://www.cna.org/research/pop-rep.
Notes: Accession refers to the number of recruits that have signed a contract to enlist and have shown up to boot camp to start their training. Data reflect accessions by those without prior military service or less than 180 days of service previously from October 1, 2014 through September 30, 2015. Reserve Corps data are not included as many serving in the Reserve Corps have prior service experience, which suggests that such personnel are not transitioning directly from high school.

Figure 6. Trends in the Number of Enlisted Military Accessions of 17 to 19 year olds, 2005 to 2015



Source: Office of the Under Secretary of Defense, Personnel and Readiness. Population Representation in the Military Services. Reports from fiscal years 2005 to 2015. Appendix B: Active Component. Table B-1: Non-Prior Service (NPS) Active Component Enlisted Accessions: by Service, Gender, and Age with Civilian Comparison Group. combination of reports published between 2007 and 2017. See http://www.cna.org/research/pop-rep.

Notes: Accession refers to the number of recruits that have signed a contract to enlist and have shown up to boot camp to start their training. Data reflect service accessions from recruits without prior military service or less than 180 days of previous military service from October 1 of the prior year through September 30 of the year shown in the figure. Reserve Corps data are not included as many serving in the Reserve Corps have prior military service experience, which suggests that such personnel are not transitioning directly from high school.

Table 5. Correlates of Group Differences in the Transition to College, the Workforce, or Military Accession

	College				
	Any College	2-year	4-year	Workforce	Military Accession
Correlate	(1)	(2)	(3)	(4)	(5)
Most malleable					
High school GPA	↑	↓	↑	↓	↑
College aspirations	↑		↑		
Institutional presence	↑			↑	↑
Less malleable					
Gender					
Male	↓				↑
Female	↑		↑		↓
Race/Ethnicity					
White	↑		↑		
Black					
Asian	↑		↑		
Hispanic					
Socioeconomic status					
Family income	↑	↓	↑	↓	↓
Parent's education level	↑		↑		↓
Alternative family structure (step parent/non-biological parent)		↑		↑	↑
Geography					
Northeast					
Midwest					
South					↑
West					↑
Economy				↑	↓

Source: Author's tabulations based on research support.
Notes: See Appendix Table 4 for cited studies. Workforce is used synonymously with labor force participation.
↑ = Associated with an increase in transition to this sector.
↓ = Associated with a decrease in transition to this sector.
↑ = Strong associated increase in transition to this sector.
↓ = Strong associated decrease in transition to this sector.

Appendix Table 1. Data Available to Track Enrollment Patterns After High School Graduation

Data Source	Reports on transition to:			Proxies available for:					Reporting convenience:			
	College	Labor Force	Military	HS Seniors	Immediate transition from HS	HS Graduates	Ages 18-24	Subgroups available	Individual level data	Detailed reports	Annually updated tables	Research papers using source
Education Longitudinal Survey, 2002 (ELS: 2002)	x	x		x		x		gender, race/ethnicity, parental education	x			Bozick & DeLuca, 2010
Current Population Surveys (CPS), October school enrollment supplement (since 2005)	x	x			x		x					Sum et al, 2014; Annual BLS News Releases[2]
American Community Surveys							x					Sum et al, 2014
Digest of Education Statistics, National Center for Education Statistics (NCES)	x	x		x	x		x	gender, race/ethnicity, family income level		x	x	Perna et al.,
National Longitudinal Study of Adolescent Health (ADD Health)			x					gender, race/ethnicity, family income level				Elder et al, 2010
Population Representation in the Military Services			x				x[1]			x	x	Annual report required by Congress and produced by "CNA"
National Longitudinal Study of Youth, 1997 (NLSY-97)	x		x				x		x			

Source: Author's tabulations.
Notes: Immediate transition from high school represents students who graduated from high school in the current year and transitioned by the fall of that same year. Ages 18-24 represents aggregation of information for all students in this age cohort independent of when they actually graduated from high school.
1 Reports provide estimates for individual ages from 17 to 35, but does not indicate high school completion status.
2 The Bureau of Labor Statistics releases the "College Enrollment and Work Activity of 20xx High School Graduates" annually in April. The report contains information on immediate transitions of high school graduates using the October CPS as well as reports on the labor force status of the population between the ages of 16-24.

Appendix Table 2. Trends in Postsecondary Enrollment Among Recent High School Completers, by Gender and Institution Type: 1973 to 2016

Years	Males, 2-year (1)	Males, 4-year (2)	Females, 2-year (3)	Females, 4-year (4)
1973	14.62	35.41	15.20	28.20
1974	16.57	32.78	13.92	32.00
1975	19.01	33.63	17.39	31.57
1976	14.49	32.74	16.57	33.76
1977	17.15	34.97	17.78	31.47
1978	15.55	35.52	18.28	31.00
1979	16.91	33.53	18.06	30.32
1980	17.07	29.66	21.58	30.19
1981	20.87	33.93	20.10	33.03
1982	17.49	31.60	20.61	31.42
1983	20.20	31.73	18.36	35.08
1984	17.67	38.37	20.98	33.47
1985	19.86	38.77	19.34	37.50
1986	21.34	34.48	17.32	34.60
1987	17.30	41.03	20.31	35.00
1988	21.29	35.81	22.41	38.32
1989	18.29	39.27	23.11	38.47
1990	19.65	38.37	20.62	41.60
1991	22.92	34.98	26.80	40.33
1992	22.11	37.84	23.85	39.99
1993	22.86	37.00	22.81	42.38
1994	23.04	37.54	19.10	44.14
1995	25.25	37.36	18.12	43.18
1996	21.54	38.53	24.60	45.12
1997	21.36	42.19	24.09	46.23
1998	24.41	37.97	24.33	44.79
1999	20.97	40.47	21.11	43.30
2000	23.07	36.84	19.97	46.20
2001	18.61	41.45	20.63	42.82
2002	20.42	41.71	22.84	45.58
2003	21.91	39.26	21.02	45.50
2004	21.77	39.64	23.07	48.47
2005	24.67	41.81	23.40	47.02
2006	24.95	40.88	24.45	41.67
2007	22.71	43.40	25.47	42.84
2008	24.91	40.95	30.64	40.93
2009	25.09	40.92	30.07	43.75
2010	28.52	34.31	24.55	49.49
2011	24.67	39.98	27.26	44.90
2012	26.89	34.36	30.66	40.65
2013	24.55	38.98	23.05	45.33
2014	21.19	42.85	28.02	44.62
2015	24.30	41.49	26.15	46.38
2016	25.28	42.21	22.26	49.64

Source: *Digest of Education Statistics, 2017* Table 302.10.

Notes: Entries are for the civilian, noninstitutionalized population of students, ages 16-24, who graduated from high school or had completed a GED or other high school equivalency credential in January through October 2011 or 2016 and transitioned to college as of October of the same year.

Appendix Table 3. Trends in Postsecondary Enrollment Among Recent High School Completers, by Race/Ethnicity: 1973 to 2016

Years	White (1)	Black (2)	Hispanic (3)	Asian (4)
1973	48.21	41.40	48.83	--
1974	48.74	40.45	53.15	--
1975	49.07	44.52	52.69	--
1976	50.30	45.31	53.63	--
1977	50.07	46.83	48.77	--
1978	50.42	47.50	46.10	--
1979	50.09	45.22	46.27	--
1980	51.51	43.97	49.58	--
1981	52.45	40.28	48.73	--
1982	54.20	38.78	49.38	--
1983	55.51	37.99	46.69	--
1984	57.95	39.92	49.29	--
1985	58.61	39.53	46.13	--
1986	58.47	43.46	42.27	--
1987	58.78	44.16	44.97	--
1988	60.11	49.71	48.54	--
1989	61.59	48.01	52.68	81.43
1990	62.97	48.93	52.46	81.43
1991	64.22	47.19	52.56	80.56
1992	64.21	49.96	58.21	80.91
1993	63.94	51.35	55.66	82.52
1994	63.95	52.43	55.02	82.20
1995	65.42	52.88	51.57	82.67
1996	66.65	55.36	57.63	82.68
1997	68.05	58.75	55.25	83.02
1998	67.66	59.75	51.93	83.76
1999	66.83	58.56	47.38	81.09
2000	65.42	56.36	48.57	81.26
2001	66.34	56.39	52.84	78.36
2002	66.53	57.27	54.81	71.87
2003	68.03	59.94	57.74	74.24
2004	69.37	58.76	57.71	81.59
2005	70.16	58.18	57.54	80.90
2006	70.37	55.65	58.48	85.11
2007	69.98	55.65	62.02	85.79
2008	70.84	60.32	62.28	90.07
2009	71.19	62.41	60.93	88.11
2010	70.08	66.14	62.30	87.35
2011	68.21	62.08	66.09	83.95
2012	67.58	60.47	65.92	82.32
2013	67.39	60.65	65.45	83.61
2014	69.30	60.55	64.66	84.22
2015	69.59	60.80	68.97	88.46
2016	70.51	56.45	70.59	87.38

Source: *Digest of Education Statistics, 2017* Table 302.20.

Notes: Entries are for the civilian, noninstitutionalized population of students, ages 16-24, who graduated from high school or had completed a GED or other high school equivalency credential in January through October 2011 or 2016 and transitioned to college as of October of the same year. Prior to 2003, Asian data include Pacific Islanders. Entries represent the 3-year moving average.

Appendix Table 4. Research Studies on the Correlates of Group Differences in the Transition to College, the Workforce, or Military Accession

Correlate		College			Workforce	Military Accession
		Any College (1)	2-year (2)	4-year (3)	(4)	(5)
Most malleable						
High school GPA		↑	↓	↑	↓	↑ Kleykamp (2006); Spence et al (2013)
College aspirations		↑		↑		
Institutional presence		↑			↑	↑
Less malleable						
Gender						
	Male	↓				↑
	Female	↑		↑		↓
Race/Ethnicity						
	White	↑		↑		
	Black					Kilburn & Klerman (1999); Kleykamp (2006)
	Asian	↑		↑		
	Hispanic					
Socioeconomic status						
	Family income	↑	↓	↑	↓	↓
	Parent's education level	↑		↑		↓ Kilburn & Asch (2003)
	Alternative family structure (step parent/non-biological parent)	↓ Turley & Desmond (2011); Astone & McLanahan (1991)	↑		↑ Bozick & DeLuca (2006)	↑ Spence et al (2013); Elder et al (2010); Bachman et al (2000)
Geography						
	Northeast					
	Midwest					
	South					↑
	West					↑
Economy					↑	↓ Korb & Segal (2011)

Source: Author's tabulations based on research support.
Notes:
↑ = Associated with an increase in transition to this sector.
↓ = Associated with a decrease in transition to this sector.
↑ = Strong associated increase in transition to this sector.
↓ = Strong associated decrease in transition to this sector.