MLDS Center
Maryland Longitudinal Data System

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Highlights from the Career Preparation Expansion Act Report, 2019

Five years after high school graduation the following outcomes are observed…

$6,160	. . . the median quarterly wage for high school graduates with full-quarter employment
$10,000	. . . the median quarterly wage for high school graduates with bachelor's degrees and full-quarter employment
$6,941	. . . the median quarterly wage for high school graduates with CTE program completion who *never attend college* and have full-quarter employment
34%	. . . high school graduates with full-quarter employment who have quarterly wages *greater than the living wage*
66%	. . . high school graduates with *bachelor's degrees* and full-quarter employment who have quarterly wages *greater than the living wage*
9,019	. . . high school graduates who *disengage* from college after four years of enrollment *without a earning a college degree* (27% of *Some College*)
5,757	. . . high school graduates *continuously enrolled* in college for four or more year and are *still in college* (77% of *Still Enrolled*)
14,226	. . . high school graduates who *never attempt college* (24%)
+$1,000	. . . the quarterly *disposable income* of high school graduates with a *Bachelor's* degree and full-quarter employment after living expenses and student loan payments
-$3,000	. . . the quarterly *deficit* of high school graduates with *Some College* and full-quarter employment after living expenses and student loan payments
40%	. . . high school graduates with full-quarter same-employer wages employed in a NAICS with a median quarter wage *above the living wage*
71%	. . . high school graduates with bachelor's degrees and full-quarter same-employer wages employed in a NAICS with a median quarter wage *above the living wage*

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Executive Summary

This report seeks to understand this population (high school graduates, class of 2013) and their workforce outcomes within the context of the other critical factor in the lives of recent high school graduates: postsecondary education. The first five years after high school is traditionally the time when high school graduates engage in college; and that is certainly the case with the cohort analyzed for this report. Notably, 76% of the high school graduates had or continue to have some involvement with college during the first five years after high school. The impact of college on workforce outcomes is of critical importance and highlighted throughout this report.

The report groups the cohort of high school graduates based on whether the high school graduates entered college and received degrees, attempted college but exited without a degree, are still in college, or bypassed college altogether and went straight into the workforce. Not surprisingly, each pathway yields different workforce outcomes. Those high school graduates with no college degree had a median wage in the 20th quarter (five years) after high school ranging from $5,300 to $6,300, which is $1,500 to $2,500 below the estimated living wage in Maryland. Those high school graduates who earned a college degree had median 20th quarter wages that ranged from $7,000 to $14,000, which is $800 below to $6,100 above the living wage.

Several important observations can be gleaned from the wage earnings data. First, there is no immediate return on the investment (both time and money) in college unless a degree is earned. Students who attempted college but did not earn a degree have a lower 20th quarter median wage than those students who directly enter the workforce. And, unlike students who earned a degree, they do not have the financial reward of higher wages to help offset any costs incurred with going to college. Second, the value of any postsecondary degree is significant. While those without a degree are on pace to earn $1 million in their lifetime, those with a degree are on pace to earn $1.5 to $2 million in their lifetime. Finally, while all postsecondary degree earners have improved workforce outcomes over non-degree earners, bachelor's degree earners have a median 20th quarter wage that is approximately $1,400 to $2,500 higher than associate and certificate degree earners, respectively.

This report also identifies the industry sector in which the high school graduates are employed. Generally, five years after high school, the sector with the largest percentage of high school graduates is *Trade, Transportation, and Utilities*, followed by *Leisure and Hospitality*. Once again, educational attainment has an impact on sector and wage outcomes. *Trade, Transportation, and Utilities* sector was the largest employer of high school graduates for all educational attainment groups, except Bachelor's, with wages ranging from a low of $4,300 for those Still in College and as high as $6,400 for those with No College, which are both below living wage. *Professional and Business Services* was the largest employer of Bachelor's degree earners with a median quarterly wage of $11,700, which is above the living wage.

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In addition to the methodologies for analyzing wages introduced in last year's report, this year's report adds additional methodologies for analyzing wages and workforce participation of the graduates. These include: (1) a comparison of the salaries of the graduates to Maryland's minimum wage; (2) an analysis of the percent of graduates employed in a sector as compared to that sector's contribution to the Maryland economy; (3) a comparison of the salaries of graduates in an industry sector to the average quarterly wage of all Marylanders working in that sector; and (4) a comparison of projected growth in industry sectors to the percentage of graduates working in those sectors.

The report includes a supplemental analysis on *Student Loans and Wages*. This analysis calculates the estimated amount of loan repayments and whether the graduates' wages are sufficient to make those repayments and meet cost of living requirements. Findings vary by educational attainment groups: the Bachelor's group had median quarterly wages sufficient to cover the basic cost of living, loan repayment costs, and some amount of surplus; the Associate's group had median quarterly wages that were below, but close to what is needed for both cost of living and loan repayment; and the Some College group had a large gap between quarterly wages and cost of living plus loan repayment.

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Data Notes for the Career Preparation Expansion Act Report, 2019

1. The population of interest is high school students who graduated from a Maryland public high school with a diploma between January and October of 2013 and are between the ages of 16 and 24 at the time of graduation.
2. High school graduates were disaggregated into educational attainment groups using the following definitions:
    a. **High School Graduates**: High school graduates without an in-state or out-of-state college enrollment record by the end of spring term 2018.
    b. **Some College**: High school graduates enrolled for at least one term between fall 2013 and fall 2017 but who did not earn a postsecondary degree and are not actively enrolled in college in the spring 2018 or fall 2018 terms.
    c. **Still in College**: High school graduates enrolled in college in-state or out-of-state in the spring 2018 and/or fall 2018 terms. These graduates may have earned a postsecondary degree by the end of the fall 2017 term; however, they are still actively pursuing additional postsecondary education.
    d. **Certificate Graduates**: High school graduates who earned a postsecondary certificate by the end of the fall term 2017 and are not enrolled in college in the spring 2018 or fall 2018 terms.
    e. **Associate's Graduates:** High school graduates who earned a postsecondary associate's degree by the end of the fall term 2017 and are not enrolled in college in the spring 2018 and/or fall 2018 terms.
    f. **Bachelor's Graduates:** High school graduates who earned a postsecondary bachelor's degree by the end of the fall term 2017 and are not enrolled in college in the spring 2018 and/or fall 2018 terms.
    g. **Other Degree Attainment:** High school graduates who earned a post-baccalaureate degree or a graduate degree by the end of fall 2017 term and are not enrolled in college in the spring 2018 or fall 2018 terms.
    h. Note, some high school graduates received more than one degree during the five year period. Each graduate is counted only once, based upon highest degree attained.
    i. Other high school graduates earned a degree but were still progressing toward an additional degree, therefore some high school graduates in the *Still in College* category have already earned a degree.
    j. The 20th quarter after high school graduation aligns with the postsecondary spring term which would end in May or June of 2018; however, assignment to an educational attainment category is made as of each student's status in fall 2017 (December 2017 or quarter 18 post-high school graduation).
3. The Living Wage Calculator was developed by the Massachusetts Institute of Technology. The measure selected was "required annual income before taxes" for one adult with no dependent children which was $31,365 annually or $7,841 per fiscal quarter in 2018. This income was converted to a quarterly income to align to the MLDS quarterly wage data. http://livingwage.mit.edu/
4. The high school graduates included in the wage analysis were selected by using the U. S. Census Bureau Stable or Full-Quarter Employment Methodology. This methodology excludes individuals from the median calculation who do not have wage data in either the fiscal quarter before or after the period of interest. For this study, the period of interest is the 20th quarter after high school graduation or fiscal quarter 2 of 2018. Accordingly, individuals were included in the median wage calculation if, in addition to having wages in quarter 2 of 2018, they also had wages in fiscal quarter 1 of 2018 and fiscal quarter 3 of 2018. https://lehd.ces.census.gov/doc/QWI_101.pdf.
5. Some individuals have wages in a quarter from more than one employer. Those wages were summed and then the sum was used in the median quarterly wage calculation.
6. The industry of employment was determined by evaluating the North American Industry Classification System (NAICS) code reported with each wage record.

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7. The U.S. Census Bureau Stable Employment Methodology was used as a basis for selecting high school graduates to include in the NAICS wage analysis with the added requirement that they must have been employed by the same employer for the nine month period (Q1 of 2018, Q2 of 2018 and Q3 of 2018) before deriving median wage calculations for fiscal quarter 2 of 2018 (referenced as Same-Employer throughout this report). https://lehd.ces.census.gov/doc/QWI_101.pdf.
8. For the NAICS quarterly median wage calculation, some individuals had wages in the quarter from more than one employer and more than one NAICS. Only wages from the employer that covered all three quarters were used in median wage calculations
9. The population of interest for the student loan analysis was students who completed a postsecondary *Associate's* or *Bachelor's* degree within five years of high school graduation or attempted college and discontinued their education without graduating (*Some College)* and have full-quarter wages.
    a. Students were evaluated to determine if they ever had financial aid classified as a loan. The following aid types were included in the evaluation: Federal Perkins Loan, William D. Ford Subsidized Direct Loans, Federal Unsubsidized Stafford Loans, PLUS Loan (Parent Loan for Undergraduate Students), Other Federal Loans, Institutional Loans and Other Private Loans.
    b. It is possible that students (or their parents) have other private loans where funds are paid directly to the student (or parent) rather than the college. This information is not available to include in this analysis
    c. All loan amounts for a student were summed to a single amount for analysis. Due to variations in institutional practices, the amounts recorded for loans may reflect awards, disbursements or net disbursements. Further, some students in each educational attainment category were enrolled in college in some or all terms out-of-state. Student loan data are not available on any enrollments that occurred out-of-state. Lack of data on out-of-state enrollments means that the number of students with loans or the total amount of loans is understated in this analysis. This amount may be from one college or multiple colleges. Due to variations in institutional practices, the amounts recorded for loans may reflect awards, disbursements or net disbursements. Awards reflect monies intended to be paid to a student. Disbursements reflect actual monies paid to a student. Net disbursements reflect monies paid and monies refunded. This variation means that loan amounts may be overstated and not reflect the actual loan obligation.
    d. Results presented here should be interpreted with caution due to the variation in data collected and gaps in data available; however, the results provide an approximate measure of the loan payments required after graduation or disengaging from college. Understanding the relationship between student loans, degree attainment and wages is important for administering federal student aid programs, such as loans.
    e. The median loan amount was input into the federal student loan calculator using the Direct Loan specifications for a 10 year repayment plan at 5% interest. Note, not all loans in this student are direct loans, payment terms and interest rates could vary widely. https://studentloans.gov/myDirectLoan/repaymentEstimator.action