MLDS Center
Maryland Longitudinal Data System
Better Data • Informed Choices • Improved Results

Maryland
Governor's Workforce Development Board

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More Jobs for Marylanders Data Analysis and Goal Recommendations

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Contents

List of Charts

List of Figures

List of Tables

Introduction

The More Jobs for Marylander's Act, Chapter 149 of 2017, requires the Maryland Longitudinal Data System (MLDS) Center and the Governor's Workforce Development Board (GWDB) to develop annual income earnings goals for high school graduates who have not earned at least a 2–year college degree by age 25.

> The Maryland Longitudinal Data System is the State's central repository for student and workforce data. The MLDS Center develops and maintains the System, in order to provide analyses, produce relevant information, and inform choices to improve student and workforce outcomes in the State of Maryland.
>
> The Governor's Workforce Development Board helps plan, coordinate, and monitor State programs and services for workforce development, and advises the Governor on the development, implementation, and modification of the four-year State Plan, as required by federal law. (excerpt from the Maryland Manual)

This document contains information on a comprehensive analysis of the current earnings of this population of 25-year-olds, the process for developing the analysis, and the decision points made by the staff of the MLDS Center. Using the information developed by the MLDS Center, the document concludes with GWDB's establishment of income goals for high school graduates who have not earned at least a 2-year college degree by age 25.

Questions

The MLDS Center reviewed the data available in the System to **inform the process of setting earnings goals for 25-year-olds who have not earned a college degree.** Specifically, the System data can provide insight into:

- What are the **actual** wage trajectories for high school graduates who do not complete at least an Associate's degree by age 25?
- How does that wage trajectory compare to the cost of living and **median wage earnings** in Maryland?

MLDS Data

The MLDS connects data from across Maryland's education and workforce agencies. These data are subject to strict data management, security, and privacy requirements. All research conducted by the MLDS Center focuses on what happens to students before and after critical transitions in education to workforce pathways. All research and analysis using the MLDS are cross-sector. The MLDS may only report aggregate, de-identified data.

This analysis focuses on the workforce outcomes of individuals as they move from high school, into postsecondary education, and/or into the workforce. Below is an overview of the available data within the System to support this analysis:

Education Data

The MLDS contains education data on all students from Maryland public high schools, and students attending Maryland institutions of higher education. The System also contains limited information on out-of-state college enrollments. Education data begins with the 2007-2008 school year and is current through the 2015-2016 school year.

The System does not contain education data on students in private high schools, or for-profit private institutions of higher education. Nor does the System contain data on postsecondary students in continuing education or non-degree seeking programs.

Wage Data

The MLDS workforce data includes quarterly wages for the Maryland workforce from 2008 through the first quarter of 2017. The System does not contain workforce data on self-employed persons, independent contractors, military personnel, or federal employees.

The workforce data contained in the System cannot distinguish between part-time and full-time employment, or hourly and salaried wages. Nor can the MLDS determine the number of days a person worked in a particular quarter.

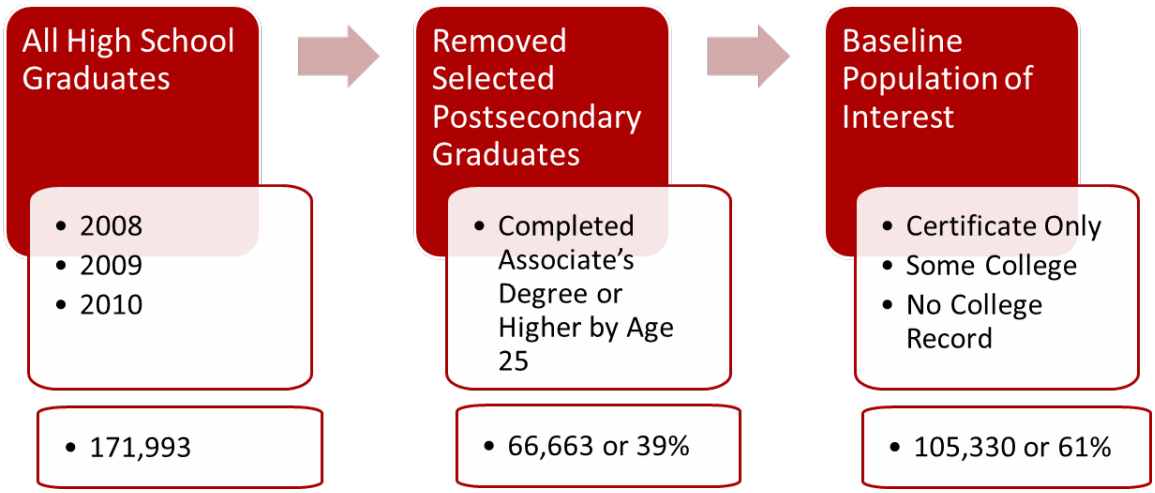
Population Selection Criteria

To answer the identified questions, the population of interest was established by a two-step process. First, individuals that met the education criteria were identified. Second, individuals with sufficient wage data to calculate earnings trajectories from age 18 to age 25 were selected.

Educational Attainment

Three cohorts of high school graduates, who had reached age 25, were pooled for the analysis; academic years 2008, 2009, and 2010 (See Figure 1). Over 170,000 high school graduates were included in the initial population of interest. Any high school graduate that obtained an Associate's degree or higher by age 25 was removed from the population, leaving 105,300 high school graduates available for analysis.

Figure 1. Education Selection Analysis



The remaining population was divided into three groups based upon education attainment by age 25 (See Table 1):

1. **Certificate graduates** – postsecondary certificate graduates,
2. **Some college** – individuals with some college enrollment but no degree conferred, and
3. **High school graduates** – high school graduates without a college enrollment record.

Table 1. Population Distribution by Education Level

Education Level	Record Count	Percentage
Certificate Graduates	1,167	1%
Some College	47,084	45%
High School Graduates	57,079	54%
Total	***105,330***	***61%***

Creating these three subgroups was important for two reasons. First, research suggests that employment outcomes for postsecondary certificate graduates may be similar to those of Associate degree graduates[1]. Second, individuals enrolled in college may be employed in part-time entry-level minimum-wage positions so that they can prioritize college, whereas high school graduates that do not enroll in college are likely to be engaged in full-time career-track employment. Because these three groups may experience very different earnings, this analysis separated them into three distinct, mutually exclusive groups.

Wage Visibility

Wage visibility is defined as the number of quarters in which an individual has reported wages for the timeframe of interest. Wage visibility is directly affected by gaps in the MLDS employment data. The MLDS does not contain workforce data on self-employed persons, independent contractors, military

[1] Minaya, Veronica and Judith Scott-Clayton. (2017). Labor Market Trajectories for Community College Graduates: New Evidence Spanning the Great Recession. Center for Analysis of Postsecondary Education and Employment.

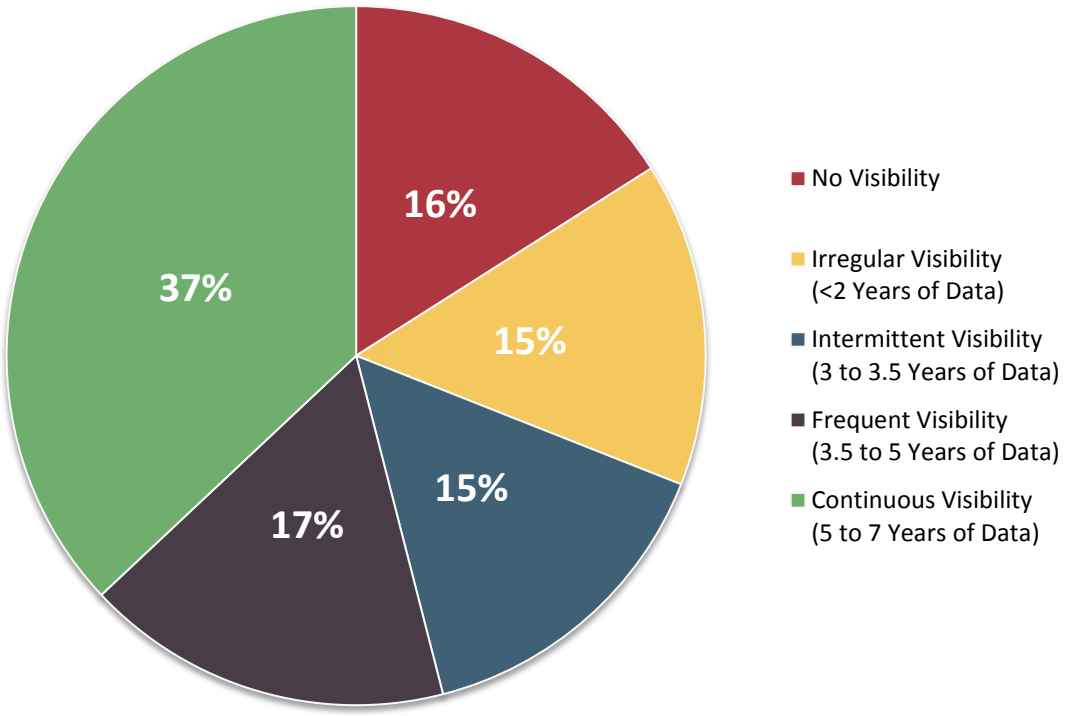
personnel, out-of-state, or federal employees. Wage records were analyzed for visibility for the 105,330 individuals who met the education selection criteria. As individuals change jobs over the course of the period of analysis it is possible that when they do not have wage data, it may be due to gaps in the MLDS employment data rather than unemployment.

Individuals were placed into one of five wage visibility groups (See Figure 2):

1. **No Visibility** – no wages for the entire period,
2. **Irregular Visibility** – wages for 25% of the period (approximately 2 years)
3. **Intermittent Visibility** – wages for 25%-49% of the period (3 to 3.5 years)
4. **Frequent Visibility** – wages for 50%-74% (3.5 to 5 years), or
5. **Continuous Visibility** – wages for 75% or more of the period (5 to 7 years).

Individuals in the continuous visibility group were selected for analysis as these individuals provide a complete wage history for calculating wage trajectories. Individuals in the continuous visibility group consisted of the highest percentage of the wage visibility groups (37% of the total or 39,380 individuals).

Figure 2. Wage Visibility



Quarterly Wage Calculations

Median quarterly wages were calculated at age 18, age 21, and age 25 for individuals in the continuous wage visibility group by education attainment level at both the state level and the county level.

Statewide Calculation

The median quarterly wage for each individual within each educational attainment group was selected at age 18, age 21, and age 25[2]. Then, the median quarterly wage was selected for each age-education attainment group (See Table 2).

Table 2. Median Quarterly Wages by Educational Attainment and Age

Educational Attainment	Population	Median Quarterly Wages at Age 18	Median Quarterly Wages at Age 21	Median Quarterly Wages at Age 25
Certificate Graduates	659	$2,134	$4,948	$9,518
Some college	21,665	$1,758	$3,875	$6,771
High School Graduates	17,056	$2,351	$4,551	$7,074

County Calculation

The median quarterly wage was also calculated at the county level for each age-educational attainment group at age 18, age 21, and age 25. Individuals were assigned to a county based on the county in which they attended high school. The wage data in the MLDS System does not identify employer address. It is possible that wages for some individuals are attributed to a county in which they do not reside and/or are not employed.

Wage Indicators

Two sources of data were selected to provide context for the results and guide the analysis. Collectively, these two sources provide comparison points between the wage data, cost of living, and median wages for all workers. Both sources provide data at the state-level and the county-level.

MIT Living Wage Calculator

The Living Wage Calculator developed by the Massachusetts Institute of Technology[3] provides data on the cost of living in various geographic areas across the United States. The living wage calculator incorporates the cost of food, housing, health insurance, transportation, taxes, clothing and other personal items to derive the minimum annual income required for basic self-sufficiency. It is more comprehensive than traditional poverty measures, which do not incorporate these broader costs of living. More information on the MIT Living Wage Calculator is available on their website. The measure selected from the Living Wage Calculator was "required annual income before taxes" for one adult with

[2] The total number of records available for selecting the median varies by age interval and education group. Not all individuals had quarterly wages at each age interval. For example, some individuals had quarterly wage data at age 18 and age 21, but not age 25.
[3] Glasmeier, Amy K. (2017). Living Wage Calculator. Massachusetts Institute of Technology.

no dependent children. This income was converted to a quarterly income to align to the MLDS quarterly wage data and is referred to as "living wage" in the remainder of this analysis.

American Community Survey 5 Year Estimates

The second source of contextual data is the 2011 to 2015 American Community Survey 5 Year Estimates[4] (ACS). This survey provides extensive data on demographic characteristics, housing, and wages for States and Counties throughout the United States. The measure selected from the ACS was "median annual earnings for workers". This income measure was converted to quarterly earnings to align to the MLDS quarterly wage data and is referred to as "median earnings".

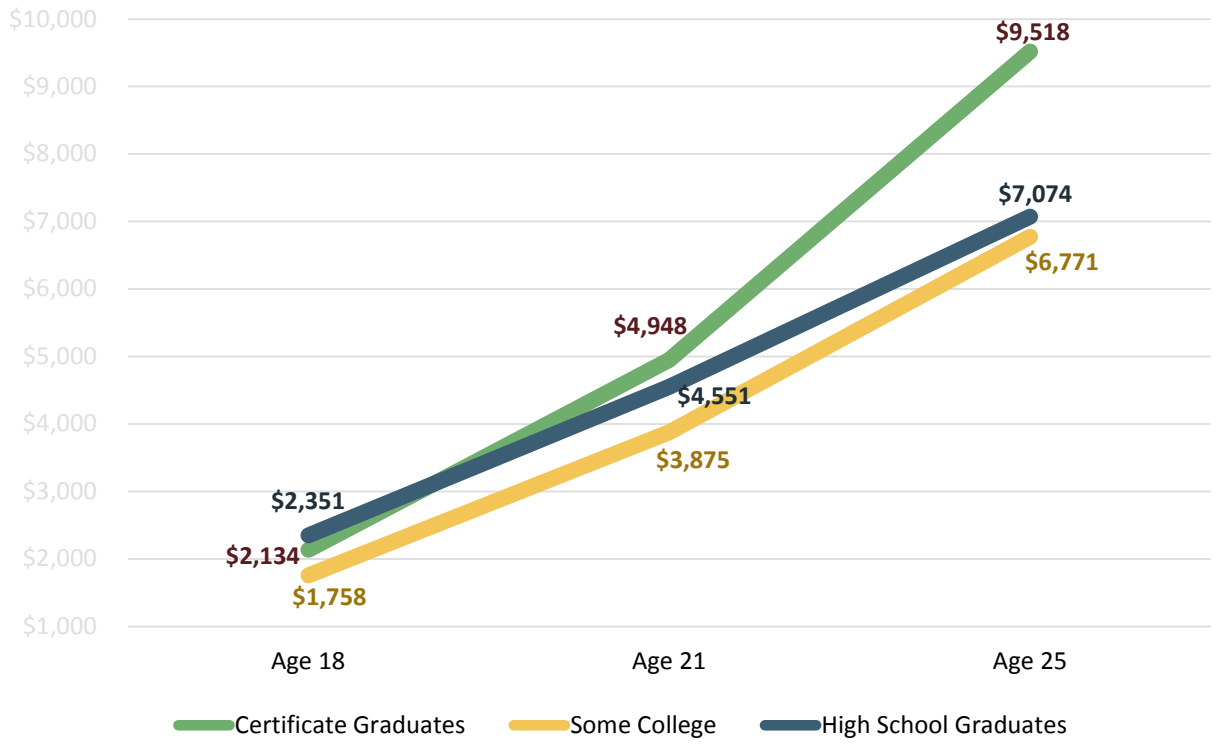
[4] United States Census Bureau. (2017). Selected Social Characteristics for Maryland Jurisdictions. American Community Survey 2011-2015. U.S. Census Bureau's American Community Survey Office.

Results

Statewide Results

Median quarterly wages at age 18 show little variation by educational attainment. High school graduates have the highest median quarterly wages at age 18, followed closely by certificate graduates. Individuals with some college have the lowest median quarterly wages at age 18, this group is most likely enrolled in college full-time with little time to work (See Chart 1).

Chart 1. Median Quarterly Wage Trajectory from Ages 18 to 25 for Individuals with Continuous Wage Visibility by Educational Attainment



At age 21, the median quarterly earnings for certificate graduates surpass high school graduates by about $500. As most certificate programs are between 9 and 18 months in length, the increase in the median quarterly earnings for this group at age 21 may reflect that they are engaged in full-time, career-track employment. Despite the median quarterly wage doubling for individuals with some college, the wage gap between some college and the other two groups widened. Individuals with some college lag behind the other two groups by $700 to $1000 at age 21 (See Chart 1).

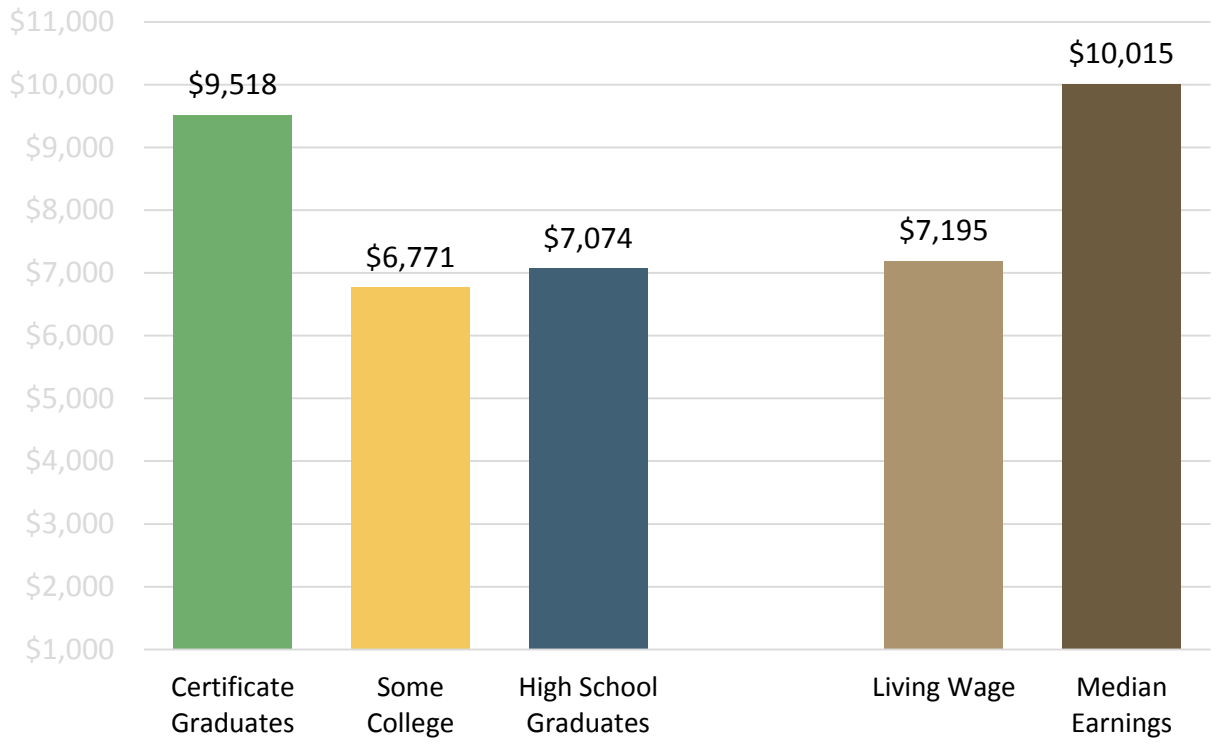
Median quarterly wages are most pronounced seven years after high school, at age 25, for the educational attainment groups. The median quarterly wage for the certificate graduates nearly doubles from their wages at age 21. At age 25, certificate graduates have a median quarterly wage that is $2,500 to $3,000 more than the other educational attainment groups. The other educational attainment groups show median quarterly wage increases; however, their increases are not as large causing the wage gap

to become more pronounced. The median quarterly wage for high school graduates increased 50%, while the median quarterly wages for individuals with some college increase about 75%. The wage gap between individuals with some college and high school graduates has narrowed from age 21 to age 25.

Statewide Results with Contextual Framework

To help analyze and contextualize the observed wages for the educational attainment groups at age 25, a comparison to living wages (from the MIT Living Wage Calculator) and median quarterly earnings (American Community Survey 5 Year Estimates) is provided below. At the State level, certificate graduates exceed the living wage required for the State of Maryland and fall within $500 of the statewide median earnings. Median quarterly wages for high school graduates are within about $100 of the living wage. The median quarterly earnings for individuals with some college lag behind the living wage by $400.

Chart 2. Statewide Median Quarterly Wages at Age 25 Compared to Statewide Wage Indicators



County Results

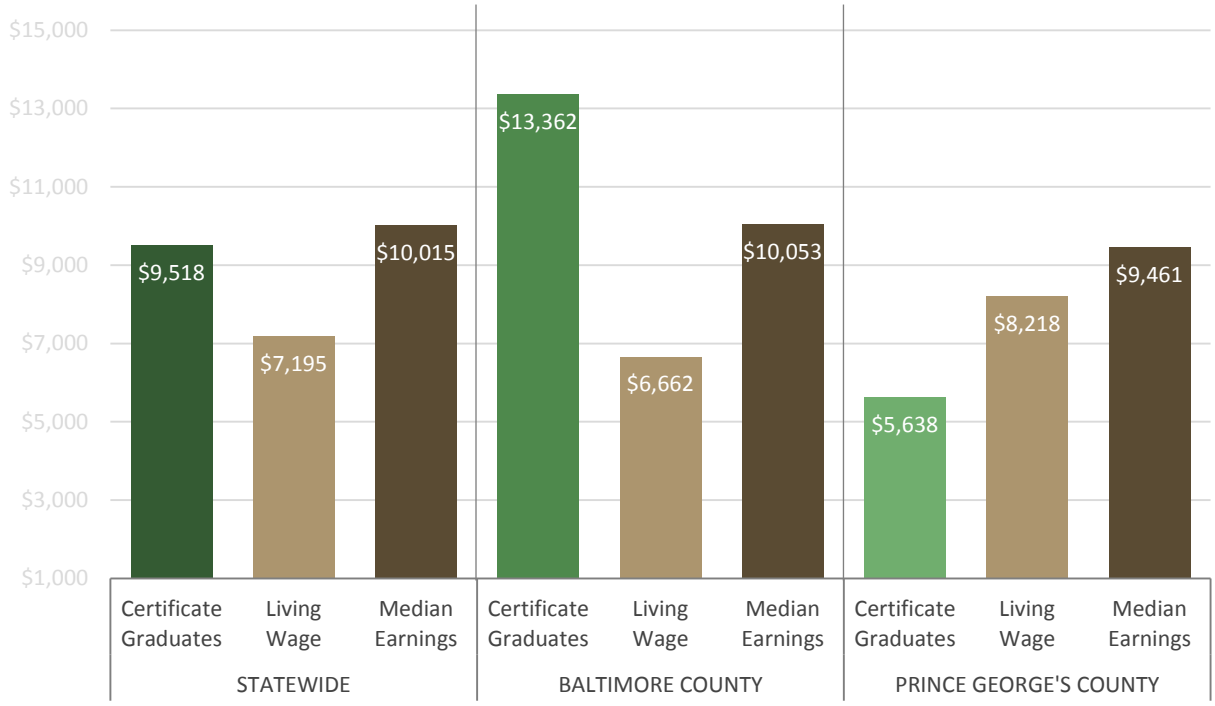
The Center analysis expanded to consider if the statewide results for the three educational attainment groups hold across all counties in Maryland. County results are similar to statewide results for the high school graduates and some college groups. Wages vary widely for the certificate graduates. It is possible that small population sizes for the certificate graduates in some counties biased the results. County results for each of the educational attainment groups are provided below. Baltimore and Prince George's counties are compared to the statewide results as points of comparison.

Certificate Graduates

Wage trajectory results for all certificate graduates by county are reported in the Appendix in Table 3. There are 15 counties in Maryland where the median quarterly wages for certificate graduates exceed both the county-level living wage and median earnings. Certificate graduates in three counties exceed the required living wage but are below the median earnings. Certificate graduates in 6 counties are below both wage indicators.

The largest concentration of certificate graduates is located in Baltimore County (See Appendix Table 3). The median quarterly wage at age 25 for this group is $13,362, nearly double the living wage, and $3,000 above the median earnings. Conversely, certificate graduates in Prince George's County exhibit a median quarterly wage at age 25 of $5,638, which is both below the living wage of $6,662 and only 60% the median earnings of $9,461 (See Appendix Table 6).

Chart 3. Certificate Graduates Median Quarterly Wages at Age 25 Compared to Wage Indicators, Statewide and by Selected Counties[5]



Some College

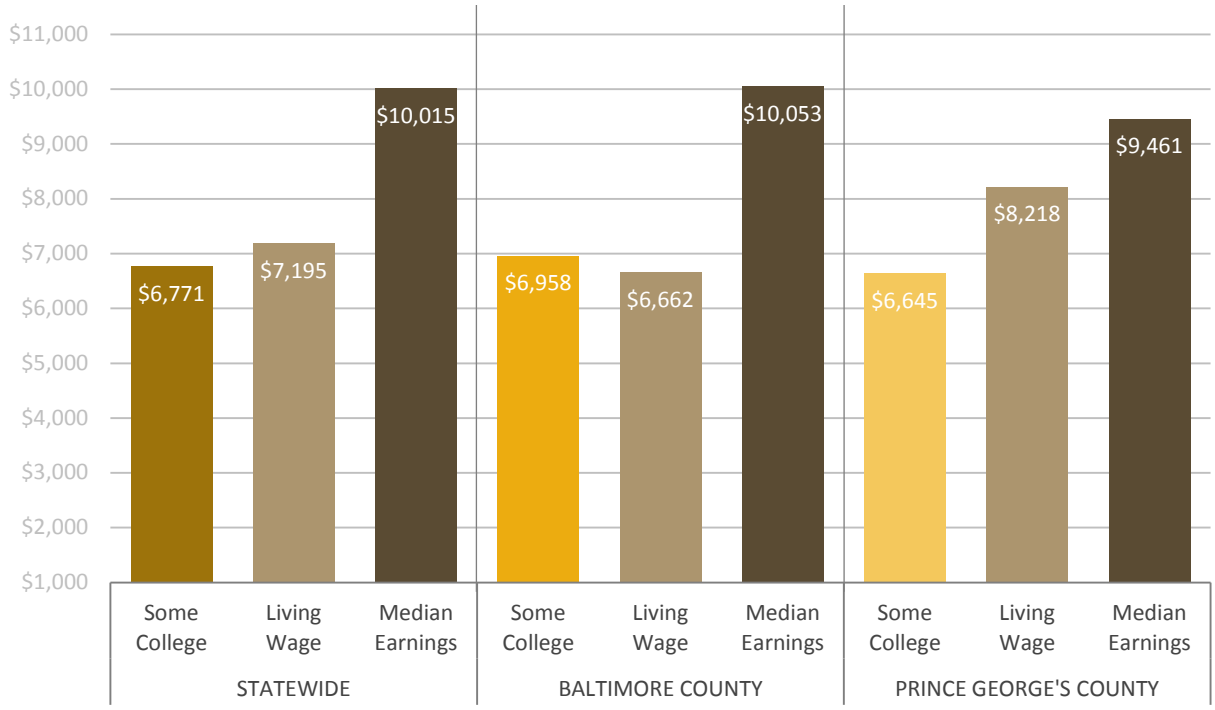
The county wage trajectories for individuals with some college closely mirror the statewide results for median quarterly wages (See Appendix Table 4). In eleven of the counties, median quarterly wages at age 25 are below the county living wage. In most counties, like the statewide results, the gap is around $100-$300. In some counties, this gap expands to as high as $,2000. In the remaining thirteen counties,

[5] Individuals were assigned to a county based upon the county in which they attended high school.

median quarterly wages exceed the living wage, but fall short of the median earnings. This gap ranges from $1,000 to $4,000.

In Baltimore County, the median quarterly wage at age 25 ($6,958) is just above the county's living wage of $6,662 but well below the county's median earnings of $10,053 (See Chart 4). Conversely, while the median quarterly wage for individuals with some college in Prince George's County is close to Baltimore County at $6,645, it falls well below the living wage for Prince George's county of $8,218 and median earnings of $9,461.

Chart 4. Some College Median Quarterly Wages at Age 25 Compared to Wage Indicators, Statewide and by Selected Counties[6]



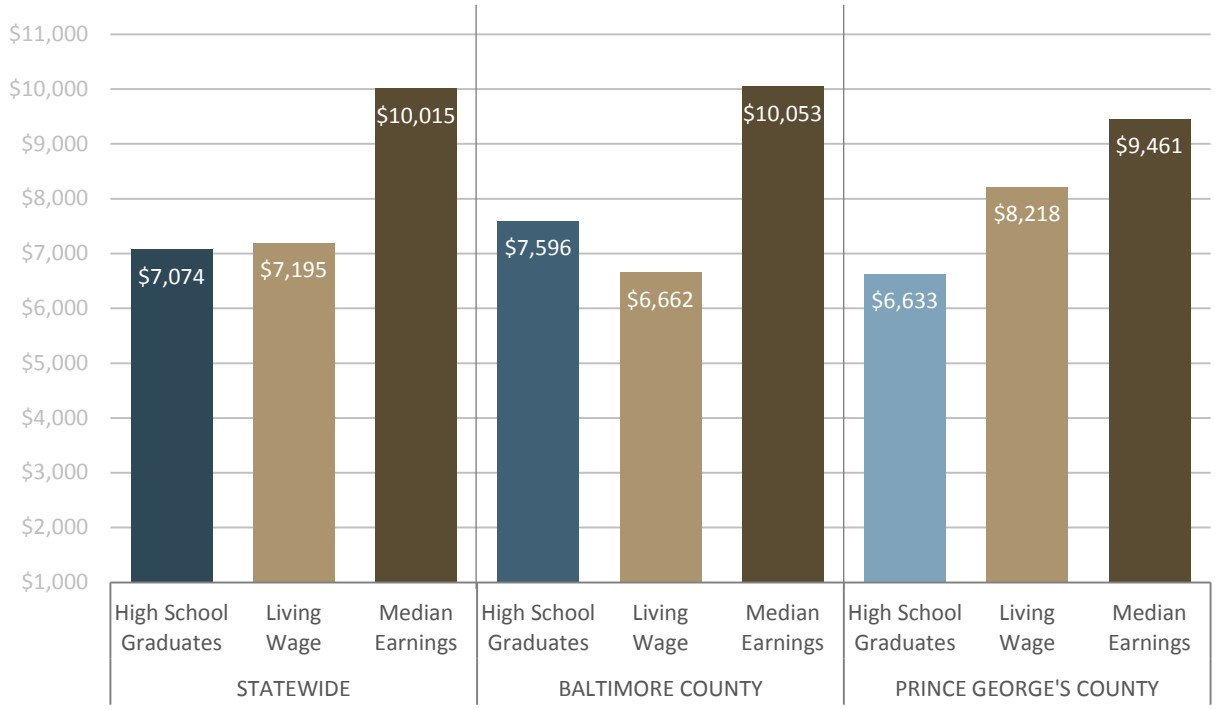
[6] Individuals were assigned to a county based upon the county in which they attended high school.

High School Graduates

The county wage trajectories for high school graduates closely mirror the statewide results for median quarterly wages (See Appendix Table 5). Fifteen counties demonstrate median quarterly wages greater than the required county living wage, while another three display earnings greater than both the living wage and the median earnings. High school graduates in only six counties have median quarterly wages below the living wage, with a shortfall ranging from $300 to $1,600.

In Baltimore County, the median quarterly wage at age 25 for some college is $7,596, approximately $1000 more than the living wage but $2,500 below the median earnings (See Chart 5). Conversely, high school graduates in Prince George's County report median quarterly wages at age 25 of $6,633, which is $800 below the living wage and nearly $2,000 below the median earnings.

Chart 5. High School Graduates Median Quarterly Wages at Age 25 Compared to Wage Indicators, Statewide and by Selected Counties[7]



[7] Individuals were assigned to a county based upon the county in which they attended high school.

Conclusions

The wage trajectories by educational attainment provided in this analysis are consistent to those presented in other research. Research indicates that the average male high school graduate who does not complete college will earn approximately $1 million over his lifetime as compared to the average male bachelor's degree graduate who will earn approximately $2 million in his lifetime[8]. Projecting the median quarterly wage data at age 25 out to forecast lifetime earnings, the high school graduates will achieve lifetime earnings of $1.12 million, the individuals with some college will accrue lifetime earnings of $1.08 million and certificate graduates will realize lifetime earnings of $1.52 million[9].

Regardless of educational attainment group, failing to achieve a living wage, puts individuals at-risk for relying on social safety nets during periods of unemployment, health emergencies, or other unforeseen life events as they will have little opportunity to accrue savings[10]. This research indicates that approximately 50% of individuals with some college, 40% of high school graduates, and 15% of certificate graduates from the analyzed population have median quarterly wages below the living wage. Overall, 42% of the individuals in our population had a median quarterly wage below the living wage.

These results also demonstrate regional variation in median quarterly wages by educational attainment. For example, generally, individuals who graduate with a postsecondary certificate experience a wage premium over individuals with some college or only a high school degree. This is certainly the case in Baltimore County, where the median quarterly wage for a certificate graduate is $13,362 compared to $6,958 for individuals with some college or $7,596 for individuals with a high school degree. Though, this is not the trend across Maryland. In Prince George's county, individuals with some college have higher median quarterly wages ($6,645) than high school graduates ($6,633) or certificate graduates ($5,638).

The difference between median quarterly wages for high school graduates compared to individuals with some college is another important data point. In 17 counties, the median quarterly wage for individuals with a high school diploma is higher than that for individuals with some college. This holds true in Baltimore County ($7,596 for high school versus $6,958 with some college). This may be due, in part, to the fact that high school graduates most likely enter the labor market in a full-time career path earlier than individuals who enroll in college after high school. This early entry may give them extend time to be promoted or receive pay increases. This wage premium for high school graduates is not consistent across Maryland. In Prince George's County, the median quarterly wages are slightly higher for individuals with some college ($6,645) than those with a high school diploma ($6,633).

Further research is required to determine why wage premiums vary by educational attainment and county. For example, these differences may be attributable to the types of certificates (allied health,

[8] For examples: Baum, Sandy, Jennifer Ma and Kathleen Payea. (2013). "Education Pays 2013: The benefits of higher education for individuals and society." College Board. Or https://trends.collegeboard.org/education-pays/figures-tables/lifetime-earnings-education-level.

[9] Projected lifetime earnings are based on the sum of median quarterly wages for individuals through the age of 65 for each education level.

[10] Reference to Shaw et al on high school noncompleters

technology, hospitality, etc.) or to regional differences in employers (manufacturing, healthcare, tourism, etc.). Or, these differences may be related to differences in high school programs of study. For example, some high school students complete a career and technical education program while others complete a program of study that aligned with freshman admission requirements for University System of Maryland colleges. A longer period of study will provide more insight into whether the wage gaps between the three educational attainment groups continues to grow or closes.

Finally, this analysis is based upon wage data for approximately 37% of the original cohort. While this decision provides comprehensive data to project wage trajectories for a seven-year period, it does not provide insight into the underemployment experienced by many Marylanders. Almost half (47%) of the original population have wage data between one quarter and less than five years. This analysis cannot distinguish unemployment from employment in places not captured in MLDS data.

The analysis from the MLDS is provided to assist the Governor's Workforce Development Board in the development of annual income earnings goals for high school graduates who have not earned at least a 2–year college degree by age 25.

Annual Income Earnings Goals

The More Jobs for Marylander's Act, Chapter 149 of 2017, requires the GWDB and the MLDS Center to develop annual income earnings goals for high school graduates who have not earned at least a 2–year college degree by age 25.

The GWDB, in consultation with the MLDS Center and the Governor's P-20 Council, advises setting the earnings goal at 4% above the respective living wage thresholds for the counties of Maryland. According to the most recent data, 9 of the 24 counties in Maryland do not meet or exceed this goal for high school graduates by the age of 25.[11]

The GWDB believes living wage is an inherently suitable baseline from which to tether the earnings goal. Moreover, use of living wage as a baseline is essential to ensure that future applications of the goal are responsive to market fluctuations. Data provided by the MLDS Center were analyzed to develop a viable goal of 4% that is both challenging and attainable.

The paramount issue in the development process was establishing a goal that could be applied to the counties individually. A goal that provided a single, sweeping number would have discounted the possibility of changing markets and nuance required when analyzing factors throughout the varying geographic locations of Maryland. By setting a goal that is 4% above the living wage and providing a baseline that can be applied respectively to the counties, Maryland chooses to utilize a pragmatic approach.

The GWDB, in consultation with the MLDS Center, contends that an earnings goal of 4% above the living wage is both challenging and attainable for all Maryland counties.

[11] See Table 8. *Median Quarterly Wage to Wage Indicators Comparison for High School Graduates by County*.

Appendix

Table 3. Median Quarterly Wage Trajectory for Certificate Graduates by County

County[1]	Percentage of Population	Age 18	Age 21	Age 25
Allegany	6%	$1,656	$3,886	$7,332
Anne Arundel	13%	$1,873	$4,356	$7,723
Baltimore City	8%	$1,751	$5,182	$11,079
Baltimore County	16%	$2,558	$6,511	$13,362
Calvert	5%	$1,935	$4,443	$10,422
Caroline	≤2%	$2,815	$4,393	$9,656
Carroll	≤3%	$2,183	$5,885	$6,563
Cecil	≤2%	$3,150	$6,596	$10,647
Charles	6%	$1,544	$3,389	$2,767
Dorchester	≤3%	$2,973	$9,563	$14,340
Frederick	5%	$2,350	$5,359	$10,812
Garrett	≤3%	$2,413	$5,391	$6,724
Harford	≤3%	$2,405	$5,082	$11,527
Howard	≤3%	$1,601	$2,418	$5,631
Kent	≤2%	$2,745	$5,995	$10,968
Montgomery	5%	$1,997	$4,694	$6,624
Prince George's	5%	$1,622	$3,920	$5,638
Queen Anne's	≤2%	$2,446	$5,037	$9,327
Somerset	≤2%	$4,229	$8,107	$11,776
St. Mary's	4%	$2,394	$6,703	$12,366
Talbot	≤2%	$2,475	$4,687	$0
Washington	9%	$2,427	$4,585	$8,784
Wicomico	≤3%	$2,034	$4,605	$9,887
Worcester	≤2%	$1,646	$6,996	$10,800

[1] Individuals were assigned to a county based on the county in which they attended high school.

Table 4. Median Quarterly Wage Trajectory for Individuals with Some College by County

County[1]	Percentage of Population	Age 18	Age 21	Age 25
Allegany	1%	$1,695	$3,494	$5,113
Anne Arundel	11%	$1,872	$4,144	$7,128
Baltimore City	12%	$1,734	$3,824	$6,677
Baltimore County	18%	$1,731	$3,967	$6,958
Calvert	3%	$1,912	$4,183	$7,537
Caroline	1%	$1,687	$4,004	$6,127
Carroll	2%	$1,798	$4,026	$6,515
Cecil	2%	$2,205	$4,222	$6,627
Charles	3%	$1,752	$3,784	$6,602
Dorchester	1%	$1,683	$3,845	$5,881
Frederick	5%	$1,844	$3,917	$7,013
Garrett	1%	$1,827	$3,950	$5,428
Harford	5%	$1,826	$3,914	$6,743
Howard	5%	$1,562	$3,590	$6,410
Kent	<1%	$2,114	$4,269	$6,227
Montgomery	12%	$1,659	$3,778	$7,015
Prince George's	9%	$1,652	$3,563	$6,645
Queen Anne's	1%	$1,900	$4,412	$7,480
Somerset	<1%	$1,556	$3,482	$5,504
St. Mary's	1%	$1,982	$4,506	$6,965
Talbot	1%	$1,663	$3,675	$5,708
Washington	3%	$1,792	$3,834	$6,719
Wicomico	2%	$1,790	$3,529	$5,877
Worcester	1%	$1,722	$3,544	$5,583

[1] Individuals were assigned to a county based on the county in which they attended high school.

Table 5. Median Quarterly Wage Trajectory for High School Graduates by County

County[1]	Percentage of Population	Age 18	Age 21	Age 25
Allegany	1%	$2,400	$4,084	$5,370
Anne Arundel	11%	$2,567	$4,867	$7,553
Baltimore City	12%	$2,091	$4,057	$6,317
Baltimore County	16%	$2,405	$4,727	$7,596
Calvert	2%	$2,511	$4,802	$7,399
Caroline	1%	$2,606	$4,743	$7,489
Carroll	5%	$2,540	$5,195	$8,401
Cecil	2%	$2,643	$4,713	$7,079
Charles	4%	$2,302	$4,309	$6,749
Dorchester	1%	$2,137	$4,005	$6,591
Frederick	5%	$2,533	$5,046	$7,341
Garrett	1%	$2,845	$4,501	$7,069
Harford	4%	$4,286	$6,386	$8,929
Howard	3%	$2,069	$4,392	$7,277
Kent	<1%	$2,458	$5,059	$6,312
Montgomery	7%	$2,221	$4,538	$7,505
Prince George's	13%	$2,077	$4,089	$6,633
Queen Anne's	1%	$2,563	$4,987	$7,221
Somerset	<1%	$2,413	$4,172	$5,934
St. Mary's	2%	$3,166	$5,337	$8,573
Talbot	1%	$2,127	$4,433	$7,332
Washington	4%	$2,358	$4,479	$6,689
Wicomico	2%	$2,640	$4,148	$5,870
Worcester	1%	$2,491	$4,156	$5,458

[1] Individuals were assigned to a county based on the county in which they attended high school.

Table 6. Comparison of Median Quarterly Wage to Wage Indicators and Goals for Certificate Graduates by County

County[1]	Certificate Graduates Quarterly Wages at Age 25	Living Wage[2]	Median Earnings[3]	GOAL	
				Living Wage Plus 4%	Wage Gap
Quarterly wages are lower than living wage and median earnings:					
Carroll	6,563	6,662	10,340	6,928	-365
Charles	2,767	8,218	12,539	8,547	-5,780
Howard	5,631	6,662	13,969	6,928	-1,297
Montgomery	6,624	8,218	11,995	8,547	-1,923
Prince George's	5,638	8,218	9,461	8,547	-2,909
Talbot	0	6,038	7,743	6,280	-6,280
Quarterly wages are higher than living wage but lower than median earnings:					
Anne Arundel	7,723	6,662	11,410	6,928	*
Calvert	10,422	8,218	11,728	8,547	*
Queen Anne's	9,327	6,662	10,278	6,928	*
Quarterly wages are higher than living wage and median earnings:					
Allegany	7,332	5,294	5,928	5,506	*
Baltimore City	11,079	6,662	7,928	6,928	*
Baltimore County	13,362	6,662	10,053	6,928	*
Caroline	9,656	5,874	7,373	6,109	*
Cecil	10,647	6,590	9,503	6,854	*
Dorchester	14,340	5,956	7,414	6,194	*
Frederick	10,812	8,218	10,511	8,547	*
Garrett	6,724	5,229	6,226	5,438	*
Harford	11,527	6,662	10,508	6,928	*
Kent	10,968	5,942	6,580	6,180	*
Somerset	11,776	5,461	5,429	5,679	*
St. Mary's	12,366	6,543	11,331	6,805	*
Washington	8,784	5,649	8,043	5,875	*
Wicomico	9,887	5,771	6,900	6,002	*
Worcester	10,800	5,840	7,266	6,074	*

[1] Individuals were assigned to a county based on the county in which they attended high school.

[2] Living Wage Calculator-Required annual income before taxes for 1 adult with no dependent children.

[3] American Community Survey 2011 to 2015-Median earnings for workers.

* Current wages are equal to or above the 4% increase in living wage

Table 7. Comparison of Median Quarterly Wage to Wage Indicators and Goals for Individuals with Some College by County

County[1]	Some College Quarterly Wages at Age 25	Living Wage[2]	Median Earnings[3]	GOAL	
				Living Wage Plus 4%	Wage Gap
Quarterly wages are lower than living wage and median earnings:					
Allegany	5,113	5,294	5,928	5,506	-393
Calvert	7,537	8,218	11,728	8,547	-1,010
Carroll	6,515	6,662	10,340	6,928	-413
Charles	6,602	8,218	12,539	8,547	-1,945
Dorchester	5,881	5,956	7,414	6,194	- 313
Frederick	7,013	8,218	10,511	8,547	-1,534
Howard	6,410	6,662	13,969	6,928	-518
Montgomery	7,015	8,218	11,995	8,547	-1,532
Prince George's	6,645	8,218	9,461	8,547	-1,902
Talbot	5,708	6,038	7,743	6,280	-572
Worcester	5,583	5,840	7,266	6,074	-491
Quarterly wages are higher than living wage but lower than median earnings:					
Anne Arundel	7,128	6,662	11,410	6,928	*
Baltimore City	6,677	6,662	7,928	6,928	-251
Baltimore County	6,958	6,662	10,053	6,928	*
Caroline	6,127	5,874	7,373	6,109	*
Cecil	6,627	6,590	9,503	6,854	*
Garrett	5,428	5,229	6,226	5,438	*
Harford	6,743	6,662	10,508	6,928	*
Kent	6,227	5,942	6,580	6,180	*
Queen Anne's	7,480	6,662	10,278	6,928	*
St. Mary's	6,965	6,543	11,331	6,805	*
Washington	6,719	5,649	8,043	5,875	*
Wicomico	5,877	5,771	6,900	6,002	*
Quarterly wages are higher than living wage and median earnings:					
Somerset	5,504	5,461	5,429	5,679	-175

[1] Individuals were assigned to a county based on the county in which they attended high school.

[2] Living Wage Calculator-Required annual income before taxes for 1 adult with no dependent children.

[3] American Community Survey 2011 to 2015-Median earnings for workers.

* Current wages are equal to or above the 4% increase in living wage

Table 8. Comparison of Median Quarterly Wage to Wage Indicators and Goals for High School Graduates by County

County[1]	High School Graduates Quarterly Wages at Age 25	Living Wage[2]	Median Earnings[3]	GOAL	
				Living Wage Plus 4%	Wage Gap
Quarterly wages are lower than living wage and median earnings:					
Baltimore City	6,317	6,662	7,928	6,928	-611
Calvert	7,399	8,218	11,728	8,547	-1,148
Charles	6,749	8,218	12,539	8,547	-1,798
Frederick	7,341	8,218	10,511	8,547	-1,206
Montgomery	7,505	8,218	11,995	8,547	-1,042
Prince George's	6,633	8,218	9,461	8,547	-1,914
Worcester	5,458	5,840	7,266	6,074	-616
Quarterly wages are higher than living wage but lower than median earnings:					
Allegany	5,370	5,294	5,928	5,506	-136
Anne Arundel	7,553	6,662	11,410	6,928	*
Baltimore County	7,596	6,662	10,053	6,928	*
Carroll	8,401	6,662	10,340	6,928	*
Cecil	7,079	6,590	9,503	6,854	*
Dorchester	6,591	5,956	7,414	6,194	*
Harford	8,929	6,662	10,508	6,928	*
Howard	7,277	6,662	13,969	6,928	*
Kent	6,312	5,942	6,580	6,180	*
Queen Anne's	7,221	6,662	10,278	6,928	*
St. Mary's	8,573	6,543	11,331	6,805	*
Talbot	7,332	6,038	7,743	6,280	*
Washington	6,689	5,649	8,043	5,875	*
Wicomico	5,870	5,771	6,900	6,002	-132
Quarterly wages are higher than living wage and median earnings:					
Caroline	7,489	5,874	7,373	6,109	*
Garrett	7,069	5,229	6,226	5,438	*
Somerset	5,934	5,461	5,429	5,679	*

[1] Individuals were assigned to a county based on the county in which they attended high school.

[2] Living Wage Calculator-Required annual income before taxes for 1 adult with no dependent children.

[3] American Community Survey 2011 to 2015-Median earnings for workers.

* Current wages are equal to or above the 4% increase in living wage