



Montgomery County, Maryland

Minimum Wage Increase Impact Study

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Executive Summary

In April 2016, five members of the Montgomery County Council introduced Bill 12-16 to increase the County's minimum wage to \$15.00 per hour by July 1, 2020.¹ The Council passed the bill on a 5-4 vote, but it was vetoed by County Executive Isiah Leggett, who called for additional study into the potential economic impact of the increase.

This study addresses issues raised by the County Executive from four perspectives: the impact on County government, the impact on the County workforce and budget, the impact on the County economy and businesses, and the socioeconomic impact. As the findings detail, there are significant potential benefits, as well as significant economic costs associated with moving to a higher County minimum wage as proposed by Bill 12-16.

There is a significant body of research around the impacts of an increase in the minimum wage. In general, the primary benefit from an increase in the minimum wage is heightened earnings that improve the standard of living for low-wage workers. This greater purchasing power leads to improved mental health, morale, and decreased stress. The broader impacts from increased earnings include a potential reduction of poverty and overall wage inequality. Additional research has shown a connection between a higher minimum wage and a reduction in hunger and food insecurity.

Conversely, as the impact analysis conducted for the study shows, an increase in the County minimum wage would increase personnel and contract costs to the County, as well as prompt job loss and a loss of income due to these job losses. The projected loss of jobs and income would result from the actions County business owners would be expected to take in response to an increase in the minimum wage. These would include laying off employees, cutting hours and benefits, reducing training programs, and, in the extreme, possible business closures or relocation.

In short, the benefits from a minimum wage increase have the potential to be significant. However, workers who lose their jobs or are not hired as a result will not experience them.

The specific impacts of a minimum wage increase may vary depending on a variety of factors. For example, a tight labor market might ameliorate the potential job losses, while an economic downturn might exacerbate projected job and income losses. As it relates to the minimum wage increase, the County might consider additional exemptions or exceptions for small businesses or non-profits, provide a different youth worker or training wage, or provide an "off ramp" provision that halts scheduled increases during an economic downturn. Each of these changes could alter the impact of the legislation on impacted individuals and businesses.

¹ By 2022 for businesses with 25 or fewer employees



Findings

Given the multiple potential impacts from an increase in the County minimum wage, the findings have been organized into broad categories. These encompass the impact on the County, local economy, County businesses, and socioeconomic impact.

Impact on the County Economy

1. **Based on the study's assumptions, the County is projected to experience a loss of approximately 47,000 jobs by 2022 as a result of an increase in the minimum wage from its July 2017 level of \$11.50 to \$15.00 per hour.** The majority of the projected job loss – approximately 45,300 positions – will be experienced by workers in low-wage positions.

Table 23: Direct Economic Impact - Jobs

Calendar Year	Direct Jobs Lost
2017	18,318
2018	22,566
2019	35,587
2020	44,215
2021	44,797
2022	45,384



2. **As a result of the projected job losses, the aggregate estimated loss of income in the County would be approximately \$396.5 million from 2017 to 2022.** This figure is the net amount after accounting for loss of income among those who have lost their jobs, and those who received a higher take home pay as a result of Bill 12-16. The aggregate income loss associated with job reductions arising from a higher minimum wage is consistently greater than the baseline income projection at the current minimum wage level, even accounting for the increased income for those who remain employed.

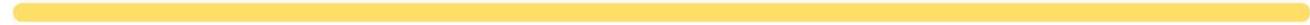
Table 24: Direct and Indirect Economic Impacts - Income

Year	Direct Income Lost	Indirect Income Lost	Total Income Lost
2017	\$240,785,166	\$39,681,395	\$280,466,561
2018	\$224,287,542	\$36,962,587	\$261,250,129
2019	\$329,383,264	\$54,282,362	\$383,665,626
2020	\$331,996,865	\$54,713,083	\$386,709,948
2021	\$336,195,663	\$55,405,045	\$391,600,709
2022	\$340,410,235	\$56,099,607	\$396,509,842

3. **Survey and focus group responses indicate that \$11.00 per hour is approximately the market rate for Montgomery County where employers are able to attract and retain quality lower-wage employees.** Economic research shows that increasing the minimum wage beyond the market rate causes increased job loss as more people are seeking jobs but companies are looking to hire fewer employees. Given the current minimum wage in the County is \$11.50 per hour, this suggests that current policy is reflective of the market, and not likely to cause substantial disruption if left in place. The market rate is specific to a particular location and will change over time.

Impact on County Government

1. **The County budget is projected to require an additional cumulative funding of \$10.0 million from FY2019 to FY2023 because of adjustments to the Minimum Wage/Seasonal Salary Schedule to reflect the new minimum wage and avoid wage compression.** This reflects the impact of adjustments for employees on the minimum wage/seasonal schedule. It does not include the costs for adjustments to the other County salary schedules, which are collectively bargained. Should these other schedules and employee pay be adjusted to avoid wage compression for higher-earning County employees, the total cost of the salary adjustment will increase. This will also increase the County's pension liability for eligible employees.



2. **The County would also experience a projected loss of income tax revenue of \$40.9 million from FY2018 to FY2022.** These projections are based on the projected direct job losses among low-wage workers that will occur as a result of the minimum wage increase.
3. **The County is likely to see an increase in contract costs, as businesses subject to its Prevailing and Living Wage Statutes will pass on to the County its increased personnel costs driven by the minimum wage increase.** The project team was unable to quantify these costs due to data availability issues.

Impact on County Businesses

1. **Survey responses and focus group feedback suggest that County businesses are likely to lay off employees, replace unskilled or lower-educated employees with more qualified employees, cut remaining employee hours and benefits, suspend existing plans to invest in new locations or hire additional employees, and, at worst, close their businesses in responses to rising personnel costs driven by a minimum wage increase. The survey results are summarized in the following table.**

Table 33: How likely are you to do any of the following if the minimum wage increases to \$15.00 per hour? (Employee Impacts)

	Very Unlikely	N/A/Don't Know	Very Likely
Reduce hiring	24.3%	12.5%	63.2%
Reduce hours per employee	27.7%	13.1%	59.2%
Reduce number of employees	27.3%	15.3%	57.4%
Decrease benefit offerings to hourly employees	28.3%	19.4%	52.3%
Increase experience required for employees	33.8%	16.0%	50.1%
Increase education required for employees	42.9%	21.1%	36.0%
Reduce training	55.8%	20.5%	23.8%

Business owners indicated that the level of job loss would accelerate as the minimum wage rose, estimating that they would reduce their lower-wage workforce by an average of 23 percent should the minimum wage reach \$15.00 per hour. This sentiment aligns with minimum wage impact analysis done by Neumark, which showed that low-wage workers are the cohort most likely to lose jobs as the minimum wage increases. This is compounded by the County's schedule of five increases over a period of time (compared



to a one-time increase, as was evaluated in other studies). A recent study of Seattle's minimum wage ordinance, which also features a series of increases to \$15.00 per hour, indicated that low-wage workers experienced a decline in both the hours worked and number of jobs.

2. **Prior research indicates that a minimum wage increase would have benefits for employers as well.** Higher earnings tend to improve employee morale, which would reduce turnover and the costs associated with hiring and training new employees. Additionally, research indicates that employee productivity can increase as the result of a wage increase, either through employees working “harder and smarter,” replacement of unskilled labor with more qualified employees, or increased use of automation.
3. **Survey and focus group responses indicate philosophical support for minimum wage increases, particularly among representatives of non-profit organizations.** However, non-profit organizations raise significant concerns that increased personnel costs will force a reduction in critical community services. Given the low-wage worker job loss projections, these cuts may come at a time when demand for services among unemployed individuals in the County will be increasing.
4. **Non-profit organization feedback indicated that the proposed increases under Bill 12-16 would cause them to seek funding increases and look to new funding sources.** In many instances, funding formulas and other program constraints mean that there is little opportunity for non-profit organizations (and the programs they run) to pass along additional costs. Because new sources of grants and private funders are limited, this would mean that they would primarily rely on seeking additional funds from the County.

Socioeconomic Impacts

1. **Research indicates that increasing the minimum wage would have socioeconomic benefits for employees.** Increased wages are associated with improved mental health, reduced hunger and decreased stress for workers and their families.
2. **Raising the minimum wage may also reduce wage inequality, particularly given the number of women working at or below the minimum wage level.** This may have a significant impact given the number of women who receive minimum wages.
3. **Non-profit and focus group feedback indicated that the proposed increases under Bill 12-16 would cause non-profits to seek funding increases and look to new funding sources.** This would include asking the County for additional funds as well as looking to grants and private funders.



4. **The business owners interviewed were often supportive of raising the minimum wage and providing a true living wage for their employees.** However, there were doubts that their organization could withstand the increase and remain profitable.
5. **The majority of minimum wage earners would continue to be eligible for social programs with a minimum wage increase to \$15.00 per hour.** Workers currently eligible for program benefits while earning \$11.50 per hour would remain eligible for the same program after raising the minimum wage beyond \$11.50 per hour.

Modifications to Minimum Wage Increase Structure

1. **There was support among County business owners for a subminimum wage rate for workers during their initial training period.** While most business owners indicated that the youth worker subminimum rate of 85 percent of the County minimum wage rate would be acceptable, to make the rate meaningful for them from a business perspective, they need the ability to pay that rate for more than the six months allowed under State law.
2. **While some benchmark jurisdictions have alternate phase-in schedules for their minimum wage increases, none of them completely exempt small businesses.** While a complete exemption for small businesses is not common, should the County consider altering the 2016 increase proposal to include one, it would need to weigh the impact of its definition of a “small business” against the desired breadth of impact it desires the increase to have.

Conclusion

The proposed increase in the County minimum wage has the potential to provide some important benefits. An increase in earnings for low-wage County workers will have tangible positive impacts for low-income workers and their families. This should also lead to reductions in poverty, improvement in mental health and a reduction in hunger and stress among minimum wage workers. From the perspective of County employers, additional research shows a relationship between higher wages and employee productivity and morale, which would reduce turnover and the costs associated with hiring and training new employees.

At the same time, it is also projected that the wage increase will lead to a significant loss of low-wage jobs. This loss of jobs would lead to a loss of income among County residents. This also has the spillover effect of reduced income tax revenue for the County. Additionally, an increase in the minimum wage will lead to a cost for the County to bring its own salary schedules in line with the new wage rate to avoid wage compression. It may also require the County to increase its funding for non-profit organizations to ensure that they can maintain essential services.



Ultimately, the decision on how to proceed will require the weighing of multiple issues and impacts. It is likely that multiple stakeholders and policymakers will find support for their respective (even if dissimilar) positions from the findings and analysis within this study. This is, after all, a topic that has generated – and will continue to be the subject of – considerable debate. The project team believes that the economic, financial and socioeconomic analysis from this study will advance the discussion of key public policy issues in Montgomery County and beyond.



Introduction

The Federal minimum wage was enacted in 1938 under the Fair Labor Standards Act (FLSA) and was originally set at \$0.25 per hour. Since its establishment, it has been increased 22 times, most recently in July 2009 when it was increased by \$0.70 to its current level of \$7.25 per hour. In recent years, some states and localities have increased their minimum wage above this federal level. Some of these increases are small, while others are as much as double the federal minimum wage (e.g. the City of Seattle's \$15.00 per hour minimum wage). As of January 1, 2017, 24 states and the District of Columbia have increased their minimum wage above the federal minimum, and more than 35 cities and counties have done the same. For a list of minimum wage increases in states and localities, see **Appendix A**.

National Political Climate

In recent years, there has been a discernable campaign for a higher minimum wage in the United States. For example, low-wage workers – primarily from the fast food industry – have organized “days of disruption” to demand a higher minimum wage.² During the 2016 election, a minimum wage increase was a key part of the Democratic Party platform. As already mentioned, the number of states and localities that have increased their minimum wage above the federal level, whether by legislation or direct ballot measures, has increased substantially. To date, Congress has not amended the FLSA to provide a minimum wage increase beyond \$7.25 per hour.

Advocates for a \$15.00 per hour minimum wage have argued that an increase would restore the purchasing power of the federal minimum wage. Since its establishment, the minimum wage has not kept pace with increases in consumer prices, eroding the value of this wage floor.³ The result, advocates argue, has been a loss of purchasing power for those workers who rely on the minimum wage. Advocates suggest an increase would reduce poverty, reduce income inequality, and decrease the demand for income-based social assistance programs.

Opponents argue that while an increase in the minimum wage might have the primary effect of increasing earnings for the lowest-wage workers in the U.S. economy, the increased costs to businesses would result in reduced employment for these workers or a reduction of hours worked. As of May 2017, 24 states have passed laws that preempt local governments (both cities and counties) from passing their own local minimum wage laws. The following map identifies those states.⁴

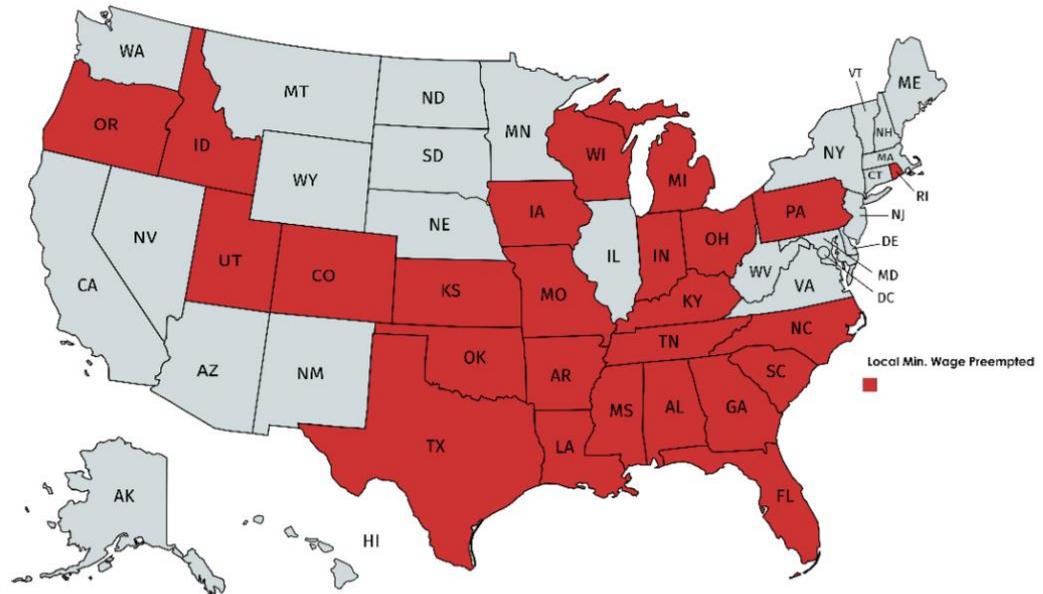
² Kristen Doerer, “Low-wage workers across the country protest and strike, demanding \$15 minimum wage,” PBS Newshour, November 29, 2016.

³ Craig R. Elwell, “Inflation and the Real Minimum Wage: A Fact Sheet,” *Congressional Research Service*, January 6, 2014.

⁴ National Employment Law Project, Policy Brief, May 2017. Accessed electronically at www.nelp.org



Figure 1: States That Have Adopted Minimum Wage Preemption Laws (as of May 10, 2017)



Source: National Employment Law Project

Previous Increases in Montgomery County and the Region

Montgomery County Bill 27-13, passed in 2013, established a County-specific minimum wage for all employers with employees working in Montgomery County. As a result, the County rate increased from the federal level of \$7.25 to \$8.40 per hour, effective October 1, 2014, with increases in subsequent years eventually bringing the rate to \$11.50 per hour as of July 1, 2017 (see **Table 1**). Tipped workers earning more than \$30 per month in tips must earn the County minimum wage rate. Employers must pay these workers at least \$4.00 per hour, and their hourly rate plus tips must equal at least the County minimum wage rate. The County rate does not apply to a worker who is exempt from the State or federal minimum wage, is under the age of 19 years and is employed no more than 20 hours per week, or workers subject to an "opportunity wage" under the State or federal law.

Table 1: Minimum Wage Increases in Montgomery County Under Bill 27-13

Date	County Minimum Wage
October 1, 2014	\$8.40
October 1, 2015	\$9.55
July 1, 2016	\$10.75
July 1, 2017	\$11.50



The 2013 increase was part of a regional partnership with the District of Columbia (DC) and Prince George’s County. In DC, Mayor Vincent Gray signed the Minimum Wage Amendment Act of 2013 after unanimous approval by Council, increasing the District’s minimum wage to \$11.50 by 2016. In neighboring Prince George’s County, the County Council also unanimously adopted and the County Executive signed a measure to increase the County’s minimum wage to \$11.50 per hour by October 1, 2017. This coordinated move by the three jurisdictions was intended to mitigate competitive impacts that might have resulted from just one of the governments changing their minimum wage rate.⁵ A year later, in 2014, the Maryland General Assembly enacted legislation increasing the State’s minimum wage from \$7.25 to \$10.10 per hour over four years, with incremental increases to \$8.25 in 2015, \$8.75 in 2016, \$9.25 in 2017, and \$10.10 per hour in 2018.

Table 2: Regional and State of Maryland Minimum Wage Increases, by Montgomery County Fiscal Year

	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Montgomery County	\$8.40 (10/1/2014)	\$9.55 (10/1/2015)	\$10.75 (7/1/2016)	\$11.50 (7/1/2017)	\$11.50	\$11.50	\$11.50
Prince George’s County	\$8.40 (10/1/2014)	\$9.55 (10/1/2015)	\$10.75 (10/1/2016)	\$11.50 (10/1/2017)	\$11.50 (10/1/2017)	\$11.50	\$11.50
District of Columbia	\$9.50 (7/1/2014)	\$10.50 (7/1/2015)	\$11.50 (7/1/2016)	\$12.50 (7/1/2017)	\$13.25 (7/1/2018)	\$14.00 (7/1/2019)	\$15.00 (7/1/2020)
State of Maryland	\$7.25	\$8.00 (1/1/2015)	\$8.75 (7/1/2016)	\$9.25 (7/1/2017)	\$10.10 (7/1/2018)	\$10.10	\$10.10

History of Current Proposal

In April 2016, Montgomery County Councilmembers Elrich, Leventhal, Riemer, Navarro, and Hucker introduced Bill 12-16 to continue the incremental increases set forth in Bill 27-13 until the County minimum wage reached \$15.00 per hour on July 1, 2020. The legislation also required the indexing of the minimum wage to the growth in the Consumer Price Index for Urban Wage Earners (CPI-W) after 2020. The Council passed the bill on a 5-4 vote, but it was vetoed by County Executive Leggett, who called for additional study into the potential economic impact of the increase.

⁵ J.B. Wogan, “How D.C. and 2 Maryland Counties Coordinated a Minimum Wage Hike,” *Governing*, December 9, 2013, <http://www.governing.com/topics/health-human-services/gov-how-dc-and-two-maryland-counties-coordinated-their-minimum-wage-hikes.html>.



The County issued a request for proposal (RFP) on February 3, 2016 to its three financial advisory firms. The RFP requested a study encompassing a variety of tasks, including:

- Identify the potential impacts on an increase in the minimum wage to \$15.00 per hour on the County economy, including effects on employment and prices;
- Identify and quantify the impact on the County's own workforce, tax revenues, and vendor contracts;
- Analyze direct and indirect impacts on private employers in the County;
- Explore alternate minimum wage increase structures, including an exemption for youth workers, an exemption for small businesses, and a slower implementation schedule; and
- Analyze similar increases in other jurisdictions and their impact.

PFM Group Consulting LLC (PFM) was hired by the County to conduct the study beginning in March 2017.



Study Approach and Methodology

PFM collaborated with TXP, Inc. and its Minority, Female and Disabled-Owned (MFD) partner, MFR Consultants, Inc. (“the project team”) to provide for an analysis of the fiscal, economic and social impacts of the proposed minimum wage increase and other variations or alternatives to the vetoed ordinance.

The analysis that follows details the impact of the proposed minimum wage increase in the 2016 legislation in the following areas:

- County budget and fiscal situation,
- County economy and labor market,
- Businesses located in the County, and
- Impact on County residents.

Multiple data and information sources were used to conduct the analyses, including:

- Data from the County regarding its budget, contracts with outside vendors, and County workers.
- Feedback from County officials on the possible impact of the proposed increases, gathered during interviews conducted in April and May 2017.
- Feedback from multiple County business owners and business community leaders, gathered during interviews conducted in April and May 2017.
- Responses from an electronic survey of Montgomery County business owners conducted in May 2017 (the full text of the survey is included in **Appendix B**).
- Feedback from multiple County non-profit employees and non-profit community leaders, gathered during interviews conducted in May 2017.
- Responses from an electronic survey of Montgomery County non-profit leaders in May 2017 (the full text of the survey is included in **Appendix C**).
- Third-party economic and demographic data and research from sources that include the United States Census Bureau (Census), the Bureau of Labor Statistics (BLS), the Center on Wage and Employment Dynamics (CWED), the National Employment Law Project (NELP), etc.
- Information from the websites and public documents of other cities and counties that have increased their minimum wage rates in recent years.

Unless otherwise noted, the analysis considers the impact of the minimum wage increases in Bill 12-16.



Interviews with Business Owners, the Non-Profit Community, and County Officials

The project team received feedback from multiple County business owners and business community leaders, gathered during interviews conducted in April and May 2017. Interviews with individual business owners and business community leaders, as well as focus groups with business owners, were conducted both on-site in Montgomery County and via telephone.

The project team relied on various County sources to identify business owners willing to speak to the project team. After all interviews and focus groups, the project team followed up with any clarifying questions and to request any supporting documentation necessary to substantiate points made during these conversations.

Business owners interviewed represented a variety of industries, including:

- Restaurant and food service
- Home health care
- Landscaping and home services
- Professional services
- Childcare
- Retail

The project team also spoke with members of the County non-profit community and County officials to obtain their feedback on the impact of the proposed increases on the non-profit sector and the County fiscal situation.

Electronic Surveys

The project team developed two surveys to support analysis of the minimum wage proposal. The project team surveyed both locally owned and/or operated businesses in Montgomery County and also non-profits located in the County and those who serve Montgomery County residents/businesses. To ensure that the survey did not capture individuals outside of Montgomery County or those unaffected by the increase, questions related to the respondent's title, location, and staff affected were included.

The business survey was initially open for a two week response period from May 1, 2017 through May 12, 2017. The 25 question survey received 450 responses through the initial opening phase. Upon review of results through May 12, the project team observed that 'survey fatigue' was an issue, with a declining response rate as the survey continued, and allowed an additional week of response through May 22, 2017.

The project team took a similar approach to the non-profit survey. The 26 question survey was open for response from May 15 through June 2, 2017, a three-week period. During this period,



22 responses were received. The survey was distributed among members of a professional association for non-profits based in Montgomery County.

Overview of Business Survey Respondents

Over 520 individuals responded to the survey; of those who responded, approximately 97 percent stated that their business was based in Montgomery County or performed the majority of their work within the County. The most common industry category was business and professional services, which is a wide-ranging category encompassing everything from sports training and fitness to automotive services. The least represented industries in the survey were financial services, with 12 responses, and childcare, with 3 responses.

Most respondents owned a corporation (56 percent), although sole proprietorships comprised 17 percent of responses. All business categories, with the exception of franchise, were more likely to, or just as likely to be (in the case of non-profits) a large business. The County's proposed minimum wage legislation defined small businesses as those employing 25 or fewer staff. The disparity in firm size is the greatest in sole-proprietorships, with over 93 percent employing fewer than 25 employees.

Of businesses who reported their firm size, over 65 percent reported employing 25 or fewer employees, which is the County's staffing threshold for minimum wage legislation. Business and professional services represented the largest number of small businesses, on both a raw basis (98 responses) and proportion (82 percent of business and professional service firms were identified as small business). The category with the least small business representation was the lodging and hospitality industry, with 21 percent of firms employing 25 or fewer employees. Approximately 13 percent employed more than 100 employees, with health and social service firms having the highest representation, at 20 (33 percent) responses.

Employee wage characteristics vary widely among firm respondents; approximately 16 percent employed no minimum wage employees. Given the nature of the survey data, the project team was unable to determine a direct measure of which businesses/respondents have a majority of minimum wage employees; as a result, the analysis looked at whether firms employed a majority of their staff as hourly, defined as those firms who matched categories for total number of employees and hourly employees. Overall, 45 percent of businesses were likely to employ all hourly staff, with large businesses (more than 25 employees) more likely to employ a majority of hourly employees than small businesses (51 percent, versus 42 percent for small businesses). Industries most likely to employ a majority of hourly employees include childcare (67 percent), food services/dining (65 percent), and retail (59 percent).

Experience and education requirements vary widely by both firm size and industry sector. Approximately 60 percent of businesses required only a year or less of experience prior to employment, and 73 percent required a high school diploma or less. However, there are clear



disparities between industries. Lodging and hospitality have lower entry requirements, with all firms who responded stating that they required less than a year of experience for employment and only a high school diploma or less for employment. By contrast, the scientific and technical services industry had 33 percent of respondents that require more than 3 years of experience, and 14 percent required a graduate or professional degree for an entry level position. Generally speaking, smaller firms had higher qualification standards than larger firms – 33 percent of small firms required more than a high school diploma for employment, compared to 11 percent of large firms. Small firms also required more experience, with 17 percent requiring 3 years or more for an entry level position, compared to large firms, in which 4 percent required 3 years or more of experience.

Economic Impact Model

PFM's partner, TXP, Inc., provided the analysis of a minimum wage increase on the County's economy. This relied on the Regional Input-Output Modeling System (RIMS II), which is commonly used by researchers, state and local government officials, civic leaders, planners, and others to model economy impacts. Detailed information about the methodology used in constructing the model is contained in that section of the report.



Benchmarking Increases in the Minimum Wage

As previously noted, many state and local jurisdictions have taken steps to increase their minimum wage, with some planning to increase the wage to \$15.00 per hour. The recent increases at the state and local level are shown in **Appendix A**. The project team reviewed eight cities and counties that recently increased their minimum wage and/or have scheduled increases for future years.

Overview of Comparison Group

While there is no ‘perfect twin’ for Montgomery County, comparison jurisdictions can provide a useful perspective on the effect of minimum wage increases. This can be one tool for gauging how a commensurate increase might impact Montgomery County; of course, the body of possible comparators is limited to those who have made recent changes to their minimum wage rate and those that are local (county or city) governments. At the same time, the County is subject to different regional labor market dynamics and economic conditions than other, even similarly situated, jurisdictions across the country. These differences are acknowledged in the following discussion.

The project team identified a group of *local* comparators that are either geographically proximate or demographically and economically similar to Montgomery County where minimum wage increases have been planned or are already in progress. While none of the jurisdictions are exactly comparable to Montgomery County, they have some similar economic characteristics, as shown in **Table 3**.

Table 3: Economic Characteristics of Comparable Jurisdictions

	Unemployment Rate (April 2017)	16+ Labor Force Participation	Median Earnings (16+)	Median Household Income	Per Capita Income	Median Home Value
Montgomery County	2.9%	71.9%	\$47,979	\$99,435	\$49,110	\$454,700
District of Columbia	5.4%	69.0%	\$47,384	\$70,848	\$47,675	\$475,800
Los Angeles City (CA)	4.4%	66.2%	\$28,761	\$50,205	\$28,761	\$471,000
Nassau County (NY)	3.7%	65.3%	\$44,390	\$99,465	\$43,206	\$446,400
Prince George's County (MD)	4.0%	72.1%	\$37,843	\$74,260	\$32,639	\$254,700
San Jose (CA)	3.5%	67.5%	\$35,811	\$84,647	\$35,811	\$609,500
Seattle (WA)	2.6%	72.5%	\$45,673	\$70,594	\$45,673	\$452,800
Suffolk County (NY)	4.1%	65.3%	\$40,889	\$88,663	\$37,634	\$375,100
Westchester County (NY)	4.1%	65.4%	\$48,885	\$83,958	\$48,885	\$506,900

Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics; U.S. Census Bureau, American Community Survey (2015, 5-Year Estimates), 2000 Decennial Census



In the next section, both recent analysis of impacts and analysis of the eventually-approved increase proposals are examined. Because the majority of the minimum wage increase in these jurisdictions are recent, it is difficult to make comparisons and draw definitive conclusions regarding the effect of these increase.

Minimum Wage Increases in Comparator Jurisdictions and Their Impact

Table 4 below shows the schedule of planned and implemented minimum wage increases in the selected comparison jurisdictions. It is clear from the table that significant differences exist in the conditions attached to and the magnitude of the minimum wage increases.



Table 4: Scheduled Minimum Wage Increases in Comparator Jurisdictions

	Prior Increases (Since 2009)	Minimum Wage	Scheduled Rate Increases on or after July 1, 2017	Indexing Start Date and Measure
Montgomery County	\$8.40 on October 1st, 2014 \$9.55 on October 1st, 2015 \$10.75 on October 1st, 2016	\$11.50	N/A	N/A
District of Columbia	\$9.50 on July 1st, 2014 \$10.50 on July 1st, 2015 \$11.50 on July 1st, 2016	\$12.50	\$13.25 on July 1st, 2018 \$14.00 on July 1st, 2019 \$15.00 on July 1st, 2020	July 1st, 2021, increase in CPI-U
Los Angeles City/County (CA)*	\$10.00 prior to July 1st, 2016 \$10.50 on July 1, 2016	26 or more employees: \$12.00 25 or fewer employees: \$10.50	26 or more employees: \$13.25 on July 1st, 2018 \$14.25 on July 1st, 2019 \$15.00 on July 1st, 2020 25 or fewer employees: \$12.00 on July 1st, 2018 \$13.25 on July 1st, 2019 \$14.25 on July 1st, 2020 \$15.00 on July 1st, 2021	July 1st, 2022, increase in CPI-W
Nassau, Suffolk, and Westchester Counties (NY)	\$9.00 prior to December 31st, 2016	\$10.00	\$11.00 on December 31st, 2017 \$12.00 on December 31st, 2018 \$13.00 on December 31st, 2019 \$14.00 on December 31st, 2020 \$15.00 on December 31st, 2021	October 1st, 2021, economic indices determined by budget office
Prince George's County (MD)	\$8.40 on October 1st, 2014 \$9.55 on October 1st, 2015 \$10.75 on October 1st, 2016	\$10.75	\$11.50 on October 1st, 2017	N/A
San Jose (CA)	\$8.00 before March 2013 \$10.00 after March 2013 \$10.50 on January 1, 2017	\$12.00	\$13.50 on January 1st, 2018 \$15.00 on January 1st, 2019	January 1st, 2020, increase in CPI-W
Seattle (WA)	More than 500 employees: \$11.00 on April 1st, 2015 \$13.00 on January 1st, 2016	More than 500 employees: \$15.00	More than 500 employees: None	More than 500 employees: January 1st, 2018
	Fewer than 500 employees: \$11.00 on April 1st, 2015 \$12.00 on January 1st, 2016	Fewer than 500 employees: \$13.00	Fewer than 500 employees: \$14.00 on January 1st, 2018 \$15.00 on January 1st, 2019	Fewer than 500 employees: January 1st, 2020 Increase in CPI-W

*same increase schedule for Los Angeles City as unincorporated areas of Los Angeles County



District of Columbia

In June 2016, the District of Columbia Council approved an increase in the minimum wage to \$15.00 by 2020 via a yearly increase of approximately \$0.70. In subsequent years, the wage will be adjusted for increases in the Consumer Price Index (CPI). The District previously increased the minimum wage from \$8.25 to \$9.50 in 2014 and an additional \$1.00 per year through 2016, bringing the wage rate to \$12.50 per hour on July 1, 2017.

Table 5: District of Columbia Minimum Wage Increase Implementation Schedule

7/1/2016	7/1/2017	7/1/2018	7/1/2019	7/1/2020
\$11.50	\$12.50	\$13.25	\$14.00	\$15.00

A May 2016 analysis of the proposal found that it would raise wages for about 114,000 workers by about \$2,900 annually. It did not explore any related impacts on employment or prices.⁶

In a February 2017 study, the District Office of Revenue Analysis found the proposal to increase the minimum wage to \$15.00 per hour would increase employee earnings, but the District would lose a little over 1,800 jobs and experience an increase in prices of 0.2 percent by 2021. The price increase would lower the relative price of goods in surrounding jurisdictions, resulting in a decrease in the District's GDP by \$66 million by 2021.⁷

Los Angeles (CA)

Effective July 1, 2016, the City of Los Angeles – and surrounding Los Angeles County – increased its minimum wage to \$10.50 per hour from the State-mandated \$10.00 per hour. This increase was the first of several scheduled increases that will bring the minimum wage to \$15.00 per hour by 2020 or 2021 depending on the size of the business.

⁶ David Cooper. "Raising the D.C. minimum wage to \$15 by 2020 would lift wages for 114,000 working people," *Economic Policy Institute*. May 4, 2016, <http://www.epi.org/publication/raising-the-d-c-minimum-wage/>.

⁷ Fahad Fahimulla, Yi Geng, Bradley Hardy, Daniel Muhammad, and Jeffrey Wilkins, "\$15 Minimum Wage in the District of Columbia: A general Equilibrium Analysis of the Economic Impact," *District of Columbia Office of Revenue Analysis*, February 2017.



Table 6: Los Angeles City/County Minimum Wage Increase Implementation Schedule

	7/1/2016	7/1/2017	7/1/2018	7/1/2019	7/1/2020	7/1/2021
25 or fewer employees	\$10.50	\$10.50	\$12.00	\$13.25	\$14.25	\$15.00
26 or more employees	\$10.50	\$12.00	\$13.25	\$14.25	\$15.00	-

In a March 2015 study for the City Council, the CWED at the University of California-Berkeley analyzed the proposed minimum wage increase for Los Angeles. While the structure of the increases analyzed in the study varies from the increases that were actually implemented,⁸ they generally mirror the findings of the February 2017 DC study previously discussed. Wages for over 600,000 Los Angeles city workers would increase by, on average, \$4,800 by 2019, while prices for goods in the City would increase by 0.9 percent by the same year. These impacts would also include increased spending from those workers earning higher wages both in and outside of the City. As a result of this increased spending, the study found that employment would decline 0.2 percent in the City by 2019, but overall employment in Los Angeles County would increase by 0.1 percent, largely due to the fact that more than half the workers that would be impacted live outside the City and spend money in the County.⁹

Nassau, Suffolk, and Westchester Counties (NY)

Positioned outside of New York City, Nassau, Suffolk, and Westchester Counties are economically and demographically similar to Montgomery County. In April 2016, Governor Andrew Cuomo signed legislation increasing the minimum wage for the State of New York to \$15.00 per hour by 2021, with varying implementation schedules for New York City; Nassau, Suffolk, and Westchester Counties; and the remainder of the State.

⁸ The study analyzed a proposal to bring the minimum wage to \$13.25 by 2017 and \$15.25 by 2019. As shown above, the implemented increase schedule would bring the minimum wage to only \$15.00 by 2020 for larger businesses and 2021 for small businesses, with an interim increase to \$13.25 by 2018 (large business) and 2019 (small business).

⁹ Michael Reich, Ken Jacobs, Annette Bernhardt, and Ian Perry, "The Proposed Minimum Wage Law for Los Angeles: Economic Impacts and Policy Options," *Center on Wage and Employment Dynamics*, March 2015.



Table 7: New York State Minimum Wage Increase Implementation Schedule

	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021*
New York City – 11 or more employees	\$11.00	\$13.00	\$15.00	-	-	-
New York City – 10 or fewer employees	\$10.50	\$12.00	\$13.50	\$15.00	-	-
NYC - Fast Food Establishments	\$12.00	\$13.50	\$15.00	-	-	-
Remainder of State – Fast Food Establishments	\$10.75	\$11.75	\$12.75	\$13.75	\$15.00	-
Nassau, Suffolk, and Westchester Counties	\$10.00	\$11.00	\$12.00	\$13.00	\$14.00	\$15.00
Remainder of State	\$9.70	\$10.40	\$11.10	\$11.80	\$12.50	*

*Annual increases for the rest of the state will continue until the rate reaches \$15.00 per hour minimum wage. Starting 2021, the annual increases will be published by the Commissioner of Labor on or before October 1. They will be based on percentage increases determined by the Director of the Division of Budget, based on economic indices, including the Consumer Price Index.

These increases took effect at the end of last year, providing little time to assess the impact of the first round of increases. The CWED at the University of California-Berkeley conducted a statewide analysis of the impact of Governor Cuomo’s proposals in March 2016, before the increases were signed into law. The analysis concluded that earnings would increase for over one-third of the state workforce, by about \$4,900 on average. Increased payroll costs of about 3.2 percent could be absorbed by reduced employee turnover and increased productivity, as well as small price increases of about 0.14 percent over the phase-in period. Finally, the report concluded that there would be a net statewide gain in employment of about 0.04 percent of 2021 employment. These effects are generalized to New York State as a whole, and specific conclusions were not drawn for the Nassau, Suffolk, and Westchester County region.¹⁰

¹⁰ Michael Reich, Sylvia Allegretto, Ken Jacobs, and Claire Montialoux, “The Effects of a \$15 Minimum Wage in New York State,” *Center on Wage and Employment Dynamics*, March 2016.



Prince George's County (MD)

In October 2014, nearby Prince George's County increased its minimum wage to \$8.40, above the then-state minimum of \$7.25. The ordinance brings the County's minimum wage up to \$11.50 by October 1, 2017. This increase was part of a coordinated regional action to increase the minimum wage in Prince George's and Montgomery County and the District of Columbia.

Table 8: Prince George's County Minimum Wage Increase Implementation Schedule

10/1/2014	10/1/2015	10/1/2016	10/1/2017
\$8.40	\$9.55	\$10.75	\$11.50

To date, no analysis has been completed regarding the impact of the increases on Prince George's County economy.

San Jose (CA)

In March 2013, San Jose increased its minimum wage to \$10.00 per hour, and it has been increased in years since, according to the annual increase in the CPI-W. The current San Jose minimum wage is \$10.50 per hour, which was effective January 1, 2017. The next scheduled increase is to \$12.00 per hour, effective July 1, 2017. Further scheduled increases are detailed in **Table 9**.

Table 9: San Jose Minimum Wage Increase Implementation Schedule

1/1/2017	7/1/2017	1/1/2018	1/1/2019
\$10.50	\$12.00	\$13.50	\$15.00

While only three years of data are available, it appears the economic impact of the increase of the minimum wage to \$10.00 per hour has been largely positive. A 2016 study by the Institute for Research on Labor and Employment found that the 2013 increase to \$10.00 per hour boosted overall employee pay without reducing employment in the City's restaurant industry. In reaction to the increase, businesses increased prices in line with their actual personnel cost increases resulting from the wage increase.¹¹

¹¹ Sylvia Allegretto and Michael Reich. "Are minimum wage increase absorbed by small price increases?" *Institute for Research on Labor and Employment*, November 29 2016, <http://irle.berkeley.edu/are-minimum-wage-increases-absorbed-by-small-price-increases/>.



While the aforementioned study was focused on the restaurant industry, labor market data suggests that the City economy as whole fared well during this period. Unemployment in the San Jose metro area decreased 1.8 percent from February 2013, just one month before the increase went into effect, to December 2014. Additionally, 9,000 more businesses registered with the City between 2013 and 2014.¹²

Anecdotal evidence suggests that low-wage workers benefitted from the wage increase, while businesses absorbed most of the increased costs. The Wall Street Journal reported increased hiring among fast-food establishments in the period after the raise from \$8.00 to \$10.00 per hour, with overall city employment increasing as well.¹³

Caution should be exercised when generalizing San Jose's experience. The findings represent the impact of an increase in the minimum wage from \$8.00 to \$10.00 per hour (effective March 2013). It is possible that the San Jose labor market could support a move to \$10.00 per hour but would not be able to support a move to a higher minimum wage. Because only one additional increase (to \$10.50 per hour effective January 1, 2017) has occurred in the intervening years, it may be too soon to determine the impact of further increases.

The CWED at the University of California-Berkeley issued an analysis in June 2016 that explored the potential economic impacts of the future planned move to a \$15.00 per hour minimum wage by January 1, 2019. Using data from the U.S. Census Bureau and the BLS, researchers found that the planned increase in the minimum wage would increase annual pay by about 17.8 percent for 115,000 workers, which is about one-third of the City's workforce.

Conversely, businesses in the City were predicted to see a 1.3 percent increase in payroll costs, largely because a large number of businesses pay hourly workers more than \$15.00 per hour or pay workers making less than \$15.00 per hour more than the current minimum wage. These additional costs were predicted to be largely absorbed by businesses through automation, reduced employee turnover, and increased productivity, resulting in a net increase in prices of 0.3 percent. Finally, while the increase would slow employment growth in the City, the net employment loss would be 0.3 percent over the 2017-2019 phase-in period.¹⁴

¹² Scott Myers-Lipton and Patrick Quyo, "San Jose minimum wage: A year-old success story," *San Jose Mercury News*, March 14, 2014, accessed May 9, 2017, <http://www.mercurynews.com/2014/03/10/san-jose-minimum-wage-a-year-old-success-story/>.

¹³ Eric Morath, "What Happened to Fast-Food Workers When San Jose Raised the Minimum Wage? Hold the Layoffs," *Wall Street Journal*, April 9, 2014, accessed May 10, 2017, <https://blogs.wsj.com/economics/2014/04/09/what-happened-to-fast-food-workers-when-san-jose-raised-the-minimum-wage/>.

¹⁴ Michael Reich, Claire Montialoux, Sylvia Allegretto, Ken Jacobs, Annette Bernhardt, and Sarah Thomason, "The Effects of a \$15 Minimum Wage by 2019 in San Jose and Santa Clara County," *Center on Wage and Employment Dynamics*, June 10, 2016, <http://laborcenter.berkeley.edu/the-effects-of-a-15-minimum-wage-by-2019-in-santa-clara-county-and-the-city-of-san-jose/>.



Seattle (WA)

Seattle increased its minimum wage from the state minimum of \$9.47 to \$11.00 in April 2015. The wage rate increased to \$12.00 for all businesses on January 1, 2016 and has since increased to different levels based on business size and employer contributions to health benefits, as shown in **Table 10**.

Table 10: City of Seattle Minimum Wage Implementation Schedule

	1/1/2017	1/1/2018	1/1/2019	1/1/2020	1/1/2021
500 or fewer employees (nationally)	\$13.00 \$11.00 with tips and/or medical benefits	\$14.00 \$11.50 w/ tips and/or medical benefits	\$15.00 \$12.00 w/ tips and/or medical benefits	\$15.00, adjusted by increase in CPI-W \$13.50 w/ tips and/or medical benefits	Previous rate, adjusted by increase in CPI-W \$15.00 w/ tips and/or medical benefits
501 or more employees (nationally)	\$15.00 \$13.50 with medical benefits	\$15.00, adjusted by increase in CPI-W \$15.00 w/medical benefits	Previous rate, adjusted by increase in CPI-W	Previous rate, adjusted by increase in CPI-W	Previous rate, adjusted by increase in CPI-W

Note: Employers qualify for the exemption for medical benefit costs only if their contribution exceeds the differential in the mandated minimum wage on an hourly basis. Employers qualify for the tip exemption only if the value of the tips reported to the IRS exceeds the differential in the mandated minimum wage on an hourly basis. Smaller employers (500 employees or fewer) may continue to count tips towards minimum compensation through 2024. For employers with 500 or fewer employees, the minimum wage rate after January 1, 2022 will be the previous rate adjusted by the increase in CPI-W.

The City partnered with the University of Washington to estimate the impacts of the minimum wage increase on the City’s economy and labor market from June 2014 (when the City’s new minimum wage rate went into effect) through the end of 2015, when the minimum wage for all employers was \$11.00 per hour. While Seattle has already reached the \$15.00 wage level for larger businesses, sufficient time has not elapsed to fully estimate the impacts of that increase.

The University of Washington team found that the increase in the City’s minimum wage had the intended effect of increasing the median hourly wage rate of low-wage workers, from \$9.96 to \$11.14 per hour. However, offsetting this increase in wages was a decrease in the employment rates for low-wage workers. The researchers estimated that the increase resulted in a 1.1 percent decrease in the likelihood of low-wage workers keeping their jobs and a reduction of about one hour per week in total hours worked, mitigating the effects of increased wages.

It was estimated that the increase resulted in a 0.7 percent growth in the rate of business closures in the City and a 0.9 percent increase in the rate of business openings in comparison to the historical rate relative to the “synthetic Seattle,” the set of regions in the state of



Washington that have had similar labor market trends to Seattle in recent years. On the whole, the increase improved the wages of low-wage workers but decreased their likelihood of remaining employed, relative to other parts of the state.

The strong regional economy in the Seattle area was an important factor for these results. The project team concluded that the same effects on wages would have occurred absent an increase in the minimum wage. The City's strong economy "may make it capable of absorbing higher wages for lower-wage workers," the capacity for which may not exist in other jurisdictions.¹⁵

In June 2017, the National Bureau of Economic Research (NBER) published an analysis of the effects of the City's minimum wage increase to \$13.00 per hour for businesses of 500 employees or more in 2016. The findings of this study, which was released around the time most of the analysis for this report was concluding, is discussed in detail in the report epilogue.

Conclusion

A growing number of cities and counties, as well as states, are increasing their minimum wage above the federal level, up to as much as \$15.00 per hour. There are two primary difficulties with using these jurisdictions as indicators for Montgomery County's potential experience. First, there are no "perfect twins" from which to draw solid conclusions about comparative impact. Each city and county is different in terms of the labor market, socio-economic characteristics of both the residents and workforce, the local and regional economy, and political dynamics. These differences lead to differential outcomes when the minimum wage is raised.

Second, most minimum wage increases in these jurisdictions have been recent. As a result, the body of research and data from which to draw conclusions about the impact of these increases is limited. Many studies on impacts in these cities and counties are prospective and are largely educated guesses as to how each economy and labor market will react. Outcomes are, of course, impacted by other factors, such as the general state of the economy and other government interactions that are not always controlled for in prospective analyses. Keeping these caveats in mind, the conclusions about the past and scheduled increases in these comparable jurisdictions include:

- Earnings, especially for low-wage workers, increase as a result of an increase in the minimum wage. The magnitude of these increases and the number of workers who would see an increase varies by jurisdiction.
- Businesses cope with increased personnel costs through modest price increases, ranging from 0.14 percent (New York counties) to 0.3 percent (San Jose).

¹⁵ The Seattle Minimum Wage Study Team, "Report on the Impact of Seattle's Minimum Wage Ordinance on Wages, Workers, Jobs, and Establishments Through 2015," *University of Washington*, July 2016, https://evans.uw.edu/sites/default/files/MinWageReport-July2016_Final.pdf.



-
- There were some small but meaningful declines in employment, largely among low-wage workers, but these impacts vary. In Seattle, data showed a 1.1 percent decrease in the likelihood of low-wage workers keeping their jobs as a result of the increase the minimum wage to \$11.00 per hour in 2014. In San Jose, projections show a potential 0.3 percent employment loss in the 2017-2019 phase-in period to a \$15.00 per hour minimum wage.

Subsequent analysis attempts to quantify potential impacts for Montgomery County, while considering the specific County economy and labor market dynamics.



Expected Impacts

Impact on the County Economy

Methodology

In order to quantify the net economic implications of the proposed schedule to increase the minimum wage in Montgomery County from its current \$11.50 per hour to \$15.00 per hour in 2020, the project team employed the following analytical approach. First, the project team reviewed the overall local economic climate, which set the context for the evaluation of the proposed schedule. Second, the project team determined a baseline estimate of the actual number of minimum wage jobs in Montgomery County. Since that does not exist, a statistical methodology using existing publicly-available datasets was created.

Third, a survey of local business owners was conducted and information from the survey was crossed with the data created in step two (along with projections of that data to match the timeline of the schedule). This determined the actual number of baseline jobs impacted over the next four years and the level of possible job loss associated with higher minimum wage rates. This step includes responses to the survey as the “elasticity” of the local minimum wage labor market in response to increasing wage rates, a concept that has been explored extensively in the literature.

Finally, the aggregate income figures (the result of higher wages for some and lost jobs for others) were compared to a baseline forecast of income associated with minimum wage jobs, assuming no change in current policy. The difference between the two sets of projections of aggregate household income associated with minimum wage jobs in step four forms the inputs into the model of Montgomery County. The data was adjusted by 30 percent due the survey finding that 30 percent of those who hold minimum wage jobs in Montgomery County actually live elsewhere. The model accounts for the total local economic impacts of the proposed schedule, and the income data also can be combined with data from the County, provided as part of the annual budget process, that allows estimation of County tax impacts.

The analysis relied on the Regional Input-Output Modeling System (RIMS II), which is commonly used by researchers, state and local government officials, civic leaders, planners, students, and others to model economy impacts.



RIMS II is based on a set of national input-output (I-O) accounts that show the goods and services produced by each industry and the use of these goods and services by industries and final users. Like most other regional I-O models, RIMS II adjusts these national relationships to account for regional supply conditions. Economic impacts estimated using RIMS II can be expressed in terms of output (sales), value added (gross domestic product), earnings, or employment (full- and part-time jobs) on all industries and on individual industries in the local economy.

The economic impact model relied on four main data sources:

- **Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW)**, which provides historic data on average employment levels and wage rates by industry by county by quarter. Data is currently available through Q3 2016.
- **Census Bureau's Longitudinal Employer-Household Dynamics**, which provides historic data on employment by both the location of the employer as well as the worker's residence. There is some stratification of data by wage rate and industry. This data is annual and is only available through 2014.
- **Bureau of Labor Statistics' Occupational Employment Statistics (OES)**, which provides detailed historic data on employment counts and percentile wage rates at the metropolitan division level. This data is available annually and has been published through 2016.
- **Maryland Department of Labor, Licensing, and Regulation's Occupational Employment Statistics**, which provides detailed occupational employment data for 2016 for Montgomery County.

A detailed explanation of the methodology behind this model and the economic impact can be found in **Appendix D**.

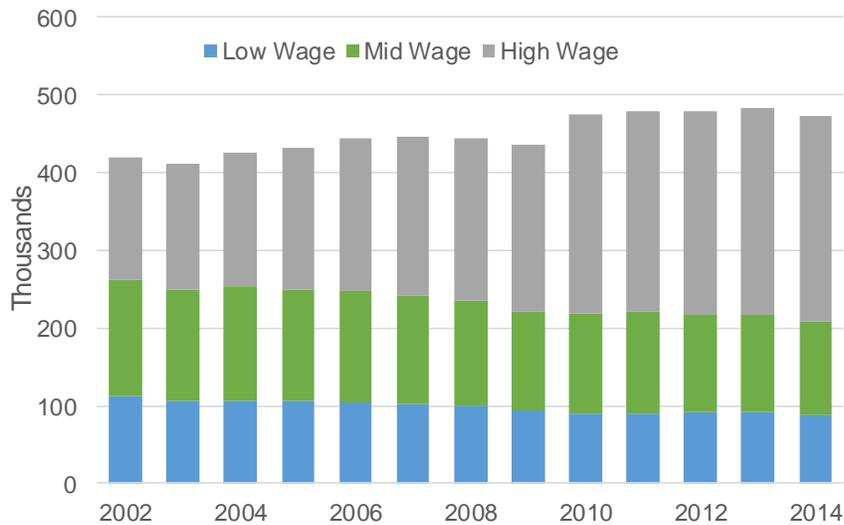


Context: Employment Trends in Montgomery County

The total number of jobs located in Montgomery County has been relatively steady over the past decade, while generally following major national economic trends. Maryland's Department of Labor, Licensing and Regulation calculated that there were a total of 471,580 jobs in Montgomery County in 2016. Of these jobs, nearly 19 percent were low-wage jobs (defined as jobs with \$1,250 per month or less in earnings, which includes pre-tax wages, salaries, and self-employment income). This is a decline from 2002, when nearly 27 percent of jobs in Montgomery County were low-wage jobs.

Nearly two-thirds of the low-wage jobs in Montgomery County are concentrated in retail trade, administrative services, health care and social assistance, and accommodation and food service industries. Nearly half of all jobs in the arts, entertainment, and recreation and the accommodation and food services industries are low-wage jobs. This means that the impact of an increased minimum wage will likely be concentrated in these industries.

Figure 2: Jobs by Wage Rate in Montgomery County



Source: U.S. Census Bureau



Table 11: Total Jobs and Low-Wage Jobs by Industry in Montgomery County

	2014 Low-Wage Jobs	2014 Total Jobs	Industry % Low-Wage
Agriculture, Forestry, Fishing & Hunting	115	267	43.1%
Mining, Quarrying, & Oil/Gas Extraction	4	63	6.3%
Utilities	2	594	0.3%
Construction	2,882	24,652	11.7%
Manufacturing	615	11,869	5.2%
Wholesale Trade	723	9,447	7.7%
Retail Trade	17,586	46,735	37.6%
Transportation & Warehousing	832	5,926	14.0%
Information	1,441	13,403	10.8%
Finance and Insurance	931	19,475	4.8%
Real Estate & Rental/Leasing	1,330	11,150	11.9%
Professional, Scientific, & Technical Services	4,888	70,252	7.0%
Management of Companies & Enterprises	470	7,037	6.7%
Administration & Support, Waste Management & Remediation	8,877	32,105	27.6%
Educational Services	6,703	40,730	16.5%
Health Care & Social Assistance	12,419	59,659	20.8%
Arts, Entertainment, & Recreation	3,900	7,847	49.7%
Accommodation & Food Services	15,978	32,857	48.6%
Other Services	6,508	23,465	27.7%
Public Administration	2,421	55,456	4.4%
Total Jobs	88,625	472,989	18.7%

Source: U.S. Census Bureau

Approximately half of all employed residents of Montgomery County also work in the County. The majority of the workers and employed residents of Montgomery County work and live in the County or one of the adjacent jurisdictions.



Table 12: Home Location for Workers Who Work in Montgomery County

	All Jobs
Montgomery County	49.0%
Anne Arundel County (MD)	3.1%
Baltimore City (MD)	1.8%
Baltimore County (MD)	3.0%
Frederick County (MD)	6.0%
Howard County (MD)	3.9%
Loudoun County (VA)	1.4%
Prince George's County (MD)	10.9%
District of Columbia	4.9%
All Other Counties	16.1%

Source: U.S. Census Bureau

Table 13: Work Location for Residents of Montgomery County

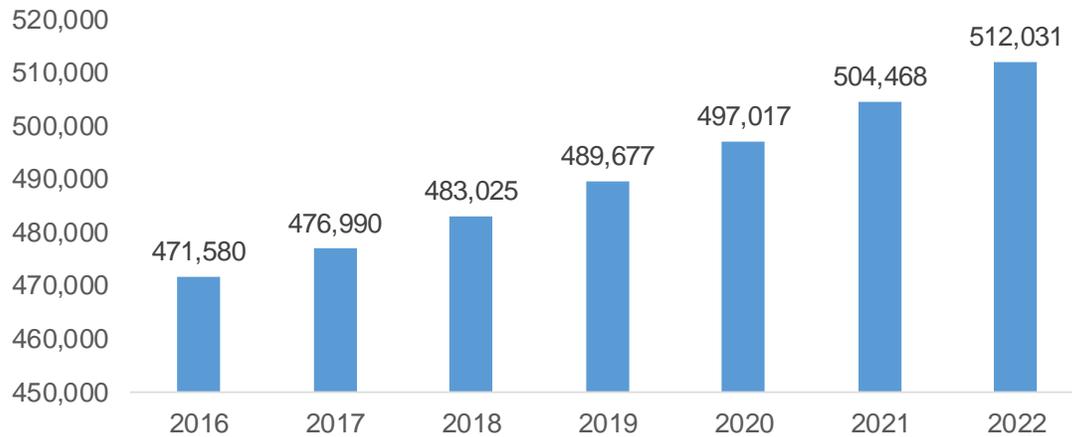
	All Jobs
Montgomery County	49.4%
Anne Arundel County (MD)	2.7%
Arlington County (VA)	1.8%
Baltimore City (MD)	1.8%
Baltimore County (MD)	2.1%
Fairfax (VA)	4.6%
Frederick County (MD)	1.6%
Howard County (MD)	2.9%
Prince George's County (MD)	7.4%
District of Columbia	19.2%
All Other Counties	6.6%

Source: U.S. Census Bureau



Several third-party sources project overall job growth for Montgomery County to be in the range of 1.5 percent over the next several years. Applying anticipated annual growth rates from 2014 to 2024 produced by the Maryland Department of Labor, Licensing, and Regulation by occupation to the estimated Montgomery County 2016 job base yields a forecasted 2020 employment base of just over 497,000, a compound annual growth rate of 1.3 percent.

Figure 3: Current and Projected Montgomery County Job Base



Source: U.S. Bureau of Labor Statistics OES, PFM/TXP

Labor Market Response to Increasing Minimum Wages

The Concept of Elasticity

In order to quantify the relationship between changes in the price of supplied labor (in this case because of mandatory increases in the minimum wage) and the quantity demanded (as expressed by changes in employment), economists use the concept of elasticity. Expressed as a ratio - in this case, with percentage change of the minimum wage as the numerator and percentage change in employment as the denominator - elasticity primarily is a measure of sensitivity. If the percentage change in quantity demanded is less than the percentage change in price, demand is said to be price inelastic, or not very responsive to price changes. Similarly, supply is price elastic when the percentage change in quantity supplied is greater than the percentage change in price, and supply is price inelastic when the percentage change in quantity supplied is less than the percentage change in price.

The price elasticity of demand or supply will differ among goods. For example, consider a 50 percent increase in the price of two goods, candy bars and prescription medicines. While the demand for both candy bars and prescription medicines should decline in response to price increases, the percentage change in the quantity demanded of candy bars is likely to be much greater than the percentage change in the quantity demanded of prescription medicines,



because candy bars are less of a necessity than prescription medicines. Similarly stated, the demand for candy bars is more price elastic than the demand for prescription medicines. Alternatively, it could be stated that the demand for prescription medicines is more price inelastic than the demand for candy bars.

Literature Review

The literature is mixed as to the overall economic impact of minimum wage increases, with differing conclusions reached depending on a variety of circumstances. An attempt to synthesize the varying perspectives and conclusions was provided by Dr. David Neumark in December 2015. Dr. Neumark is Chancellors Professor of Economics and Director of the Center for Economics and Public Policy at the University of California-Irvine and a visiting scholar at the Federal Reserve Bank of San Francisco. Writing in a paper sponsored by the Federal Reserve Bank of San Francisco, Neumark concluded that the overall employment impact is “modestly negative.”¹⁶ The key points made in this paper are summarized below.

Labor Market Theory

According to Neumark:

“The standard model of competitive labor markets predicts that a higher minimum wage will lead to job loss among low-skilled workers. The simplest scenario considers a competitive labor market for a single type of labor. A ‘binding’ minimum wage that is set higher than the competitive equilibrium wage reduces employment for two reasons. First, employers will substitute away from the low-skilled labor that is now more expensive towards other inputs, such as equipment or other capital. Second, the higher wage and new input mix implies higher prices, in turn reducing product and labor demand.

Of course, the labor market is more complicated. Most important, workers have varying skill levels, and a higher minimum wage will lead employers to hire fewer low-skilled workers and more high-skilled workers. This ‘labor-labor’ substitution may not show up as job losses unless researchers focus on the least-skilled workers whose wages are directly pushed up by the minimum wage. Moreover, fewer jobs for the least-skilled are most important from a policy perspective, since they are the ones the minimum wage is intended to help.

In some alternative labor market models, worker mobility is limited and individual employers therefore have some discretion in setting wages. In markets where the demand for labor is outstripped by supply, the effect of increasing the minimum wage becomes ambiguous. However, this situation is less applicable to labor markets for unskilled workers most affected by the minimum wage; these markets typically have

¹⁶ David, Neumark, “The Effects of Minimum Wages on Employment,” *Federal Reserve Bank of San Francisco*, December 21, 2015.



many similar employers in close proximity to each other (for example, in a shopping mall) and high worker turnover. Nonetheless, the ultimate test is not theoretical conjecture, but evidence.”¹⁷

Application to Minimum Wage Policy

Neumark wrote:

“Research since 2007, however, has reported conflicting findings. Some studies use ‘meta-analysis,’ averaging across a set of studies to draw conclusions. For example, Doucouliagos and Stanley (2009) report an average elasticity across studies of -0.19 , consistent with earlier conclusions, but argue that the true effect is closer to zero; they suggest that the biases of authors and journal editors make it more likely that studies with negative estimates will be published. However, without strong assumptions, it is impossible to rule out an alternative interpretation—that peer review and publication lead to more evidence of negative estimates because the true effect is negative.

Some follow-up studies, however, suggest that limiting comparisons to geographically proximate areas generates misleading evidence of no job loss effects from minimum wages. Pointing to evidence that minimum wages tend to be raised when labor markets are tight, this research suggests that, among nearby states that are similar in other respects, minimum wage increases are more likely to be associated with positive shocks, obscuring the actual negative effects of minimum wages. Using better methods to pick appropriate comparison states, this research finds negative elasticities in the range of -0.1 to -0.2 for teenagers, and smaller elasticities for restaurant workers. Other analyses that try to choose valid geographic comparisons estimate employment responses from as low as zero to as high as -0.50 .

Some new strategies in recent studies have also found generally stronger evidence of job loss for low-skilled workers. For example, Clemens and Wither (2014) compare job changes within states between workers who received federal minimum wage increases because of lower state minimums and others whose wages were low but not low enough to be directly affected. Meer and West (2015) found longer-term dynamic effects of minimum wages on job growth; they suggest these longer-term effects arise because new firms are more able to choose labor-saving technology after a minimum wage increase than existing firms whose capital was ‘baked in.’”¹⁸

¹⁷ Neumark, “Effects of Minimum Wages on Employment,” 2015.

¹⁸ Neumark, “Effects of Minimum Wages on Employment,” 2015.



Federal Reserve Bank Conclusions

Neumark concluded:

“Many studies over the years find that higher minimum wages reduce employment of teens and low-skilled workers more generally. Recent exceptions that find no employment effects typically use a particular version of estimation methods with close geographic controls that may obscure job losses. Recent research using a wider variety of methods to address the problem of comparison states tends to confirm earlier findings of job loss. Coupled with critiques of the methods that generate little evidence of job loss, the overall body of recent evidence suggests that the most credible conclusion is a higher minimum wage results in some job loss for the least-skilled workers—with possibly larger adverse effects than earlier research suggested.

From the research findings cited earlier, one can roughly translate these minimum wage increases into the overall job count. Among the studies that find job loss effects, estimated employment elasticities of -0.1 to -0.2 are at the lower range, but are more defensible than the estimates of no employment effects. Thus, allowing for the possibility of larger job loss effects, based on other studies, and possible job losses among older low-skilled adults, a reasonable estimate based on the evidence is that current minimum wages have directly reduced the number of jobs nationally by about 100,000 to 200,000, relative to the period just before the Great Recession. This is a small drop in aggregate employment that should be weighed against increased earnings for still-employed workers because of higher minimum wages. Moreover, weighing employment losses against wage gains raises the broader question of how the minimum wage affects income inequality and poverty.”¹⁹

Estimating the Number of Minimum Wage Workers in Montgomery County

The project team examined the annual OES dataset for the Silver Spring-Frederick-Rockville, MD Metropolitan Division (which encompasses Frederick and Montgomery counties) for 2010 through 2016 at the detailed occupation level. This dataset is compiled by BLS and provides the total number of employees, as well as the hourly wages received by employees at the 10th, 25th, 50th, 75th, and 90th percentiles. The OES data for the Silver Spring-Frederick-Rockville, MD Metropolitan Division for 2010 through 2016 generated a set of 603 occupations, which included 562,910 employed persons in 2016. The 603 occupations were sorted into five major categories, according to their 2016 data for employment and wages:

¹⁹ Neumark, “Effects of Minimum Wages on Employment,” 2015.



- **Unavailable Data:** 140 occupations lacked either employment or wage data for 2016. The BLS will withhold information in detailed datasets to protect the identity or identifiable information of the respondents. Most of this data is provided by a single large employer. Due to the lack of data, these occupations were excluded from subsequent analysis.
- **Large Worker Population, No Low-Wage Workers:** 75 occupations were determined to have a large aggregate worker population (more than 1,000 workers were employed in the occupations in 2016), and their 10th percentile wages were above the proposed minimum wage. These occupations would not be impacted by an increase in the minimum wage and were excluded from the analysis.
- **Small Worker Population, No Low-Wage Workers:** 181 occupations were determined to have small aggregate worker populations with no workers impacted by an increase in the minimum wage. These occupations were excluded from further analysis
- **Large Worker Population with Low-Wage Workers:** 65 occupations have large worker populations with at least some of the workers in this occupation earning wages below the proposed minimum wage. The wage data for these occupations was used in the next step of analysis.
- **Small Worker Population with Low-Wage Workers:** 142 occupations have small aggregate employee populations and at least some of these workers' wages will be impacted by a minimum wage increase. This group was aggregated into a 66th "all other impacted occupations" category for the next phase of analysis, using a weighted average of wage rates.

In the next step of the analysis, the actual 2016 employment data for the 66 occupations expected to be impacted by the minimum wage increase (the 65 occupations with large worker populations and low-wage workers, as well as the aggregate of the 142 occupations with small worker populations and low-wage workers) was obtained from the Maryland Department of Labor's Occupational Employment Statistics Program. The most recent occupational growth rate projections produced by the State of Maryland were applied to this data to forecast anticipated employment per occupation for 2017 through 2022, using 2016 as the base year.

Table 14: Occupations in Montgomery County Impacted by a Minimum Wage Increase

Occupation	Code	Industry Group	2016 Employ.
Social and Human Service Assistants	21-1093	Health	1,460
Preschool Teachers, Except Special Education	25-2011	Education	2,600
Self-Enrichment Education Teachers	25-3021	Education	1,350
Substitute Teachers	25-3098	Education	470
Pharmacy Technicians	29-2052	Health	1,210
Home Health Aides	31-1011	Health	2,860
Nursing Assistants	31-1014	Health	5,840



Occupation	Code	Industry Group	2016 Employ.
Medical Assistants	31-9092	Health	2,090
Security Guards	33-9032	Personal Services	3,740
First-Line Supervisors of Food Preparation and Serving Workers	35-1012	Eating/Drinking	2,910
Cooks, Fast Food	35-2011	Eating/Drinking	850
Cooks, Restaurant	35-2014	Eating/Drinking	2,350
Food Preparation Workers	35-2021	Eating/Drinking	2,450
Bartenders	35-3011	Eating/Drinking	930
Combined Food Preparation and Serving Workers, Including Fast Food	35-3021	Eating/Drinking	9,460
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	35-3022	Eating/Drinking	1,550
Waiters and Waitresses	35-3031	Eating/Drinking	5,340
Food Servers, Non-restaurant	35-3041	Eating/Drinking	1,170
Dining Room and Cafeteria Attendants and Bartender Helpers	35-9011	Eating/Drinking	1,750
Dishwashers	35-9021	Eating/Drinking	1,850
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	35-9031	Eating/Drinking	1,010
First-Line Supervisors of Housekeeping and Janitorial Workers	37-1011	Personal Serv.	950
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	37-2011	Personal Serv.	8,080
Maids and Housekeeping Cleaners	37-2012	Personal Serv.	3,310
Landscaping and Grounds keeping Workers	37-3011	Personal Serv.	3,930
First-Line Supervisors of Personal Service Workers	39-1021	Personal Serv.	790
Amusement and Recreation Attendants	39-3091	Arts/Ent	2,510
Hairdressers, Hairstylists, and Cosmetologists	39-5012	Personal Serv.	1,550
Childcare Workers	39-9011	Education	2,320
Personal Care Aides	39-9021	Health	1,840
Fitness Trainers and Aerobics Instructors	39-9031	Arts/Ent	1,050
Recreation Workers	39-9032	Arts/Ent	1,170
Residential Advisors	39-9041	Personal Serv.	1,140
First-Line Supervisors of Retail Sales Workers	41-1011	Retail	3,450
Cashiers	41-2011	Retail	10,920
Counter and Rental Clerks	41-2021	Personal Serv.	2,040
Retail Salespersons	41-2031	Retail	10,190
Insurance Sales Agents	41-3021	Personal Serv.	1,460
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	41-4012	Bus/Prof Serv.	1,490
Billing and Posting Clerks and Machine Operators	43-3021	Bus/Prof Serv.	1,990



Occupation	Code	Industry Group	2016 Employ.
Bookkeeping, Accounting, and Auditing Clerks	43-3031	Financial	4,210
Tellers	43-3071	Financial	1,440
Customer Service Representatives	43-4051	Bus/Prof Serv.	7,210
Interviewers, Except Eligibility and Loan	43-4111	Bus/Prof Serv.	1,090
Receptionists and Information Clerks	43-4171	Bus/Prof Serv.	4,200
Information and Record Clerks, All Other	43-4199	Bus/Prof Serv.	2,160
Shipping, Receiving, and Traffic Clerks	43-5071	Bus/Prof Serv.	990
Stock Clerks and Order Fillers	43-5081	Bus/Prof Serv.	6,060
Medical Secretaries	43-6013	Bus/Prof Serv.	2,040
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	43-6014	Bus/Prof Serv.	10,830
Office Clerks, General	43-9061	Bus/Prof Serv.	6,940
Office and Administrative Support Workers, All Other	43-9199	Bus/Prof Serv.	840
Construction Laborers	47-2061	Construction	2,790
Electricians	47-2111	Construction	1,050
Painters, Construction and Maintenance	47-2141	Construction	1,230
Plumbers, Pipefitters, and Steamfitters	47-2152	Construction	1,910
Telecommunications Equipment Installers and Repairers, Except Line Installers	49-2022	Construction	900
Automotive Service Technicians and Mechanics	49-3023	Personal Serv.	2,210
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	49-9021	Personal Serv.	740
Maintenance and Repair Workers, General	49-9071	Personal Serv.	3,480
Heavy and Tractor-Trailer Truck Drivers	53-3032	Transportation	1,560
Light Truck or Delivery Services Drivers	53-3033	Transportation	1,980
Taxi Drivers and Chauffeurs	53-3041	Transportation	1,250
Laborers and Freight, Stock, and Material Movers, Hand	53-7062	Transportation	3,400
Packers and Packagers, Hand	53-7064	Transportation	1,030
All Other Occupations With Low-wage Workers (142 Occupations)	-	Other	30,030
Total			214,990

Using the percentile wage rate data from OES for the Silver Spring-Frederick-Rockville Metropolitan Division for 2010 to 2016, a rate of change for each wage percentile was calculated for each occupation. This annual growth rate was applied to forecast wage rates for 2017 through 2022, using 2016 as the base year. A best-fit quadratic regression was then determined for the distribution of wages for each year using wage percentiles (10th, 25th, 50th, 75th, and 90th) for the X-values and the hourly wage for the Y-values. Once the quadratic equation was calculated, the Y-value of the equation was set to the anticipated annual minimum wage, and the equation solved for X. This generated the percentage of workers employed in that occupation who would be making less than the minimum wage in that year. This



percentage was multiplied by the forecast total number of workers in that occupation to determine the number of workers impacted by the minimum wage increase. This process was repeated across all 66 impacted occupations to determine the total number of workers in Montgomery County who would be impacted by a minimum wage increase each year.

Application in Montgomery County

While Neumark’s conclusion that increases in the minimum wage tend to have modestly negative impacts on overall employment is plausible, there are important local conditions in Montgomery County that require further evaluation. First, Montgomery County is part of a much larger urban area, making the possibility of a customer (or company) choosing to take their activity across county lines more realistic than areas that are either isolated geographically and/or of greater size, such as a state. Montgomery County has also outlined a proposed series of five annual increases from the \$9.55 per hour minimum wage that was in place during 2015 to \$15.00 per hour in 2020, a cumulative increase of over 57 percent (see **Table 15** below).

Table 15: Past and Proposed Increases in the Montgomery County Minimum Wage

	Minimum Wage	Annual Increase	Cumulative Increase
2015	\$9.55	-	-
2016	\$10.75	12.6%	12.6%
2017	\$11.50	7.0%	20.4%
2018	\$12.50*	8.7%	30.9%
2019	\$13.75*	10.0%	44.0%
2020	\$15.00*	9.1%	57.1%

*proposed

Due to these circumstances, the project team solicited local information related to the impacts of the proposed wage increase scale on local employment. The following questions were included in the survey of businesses:

- How many current minimum wage employees (full-time equivalents) do you have?
- What is the average annual compensation for your minimum wage workers?
- What percentage of your minimum wage workers live in Montgomery County?
- How many employees do you have that are paid above the current minimum wage but will be subject to increases as the minimum wage rises over the next five years?
- If the minimum wage schedule above is implemented, do you think there will be “ripple” effects that create upward pressure to raise the pay for more highly compensated hourly wage workers?
- Have you already eliminated minimum wage jobs in response to the initial increase? If so, how many?



- Would the increased costs associated with the schedule above cause job losses? If so, in looking at the percentage increase in the minimum wage, how would that translate in percentage terms? For example, if the minimum wage rises 7 percent, I will eliminate x percent of my workforce; if the minimum wage rises 39.5 percent, I will eliminate y percent of my workforce. Please fill out the following (**Table 16**) with this in mind.

Table 16: Elasticity Exercise Provided to County Business Owners

	Minimum Wage	Cumulative Increase	Percentage of Minimum Wage Workforce Eliminated
2017	\$11.50	20.4%	—
2018	\$12.50	30.9%	—
2019	\$13.75	44.0%	—
2020	\$15.00	57.1%	—

A total of 307 usable responses were received, with 10,969 reported minimum wage employees (representing 18.7 percent of the estimated current 58,532 minimum wage jobs in Montgomery County, 69.8 percent of which are occupied by County residents). These results were organized into broad industry groups and weighted within these industry groups by reported minimum wage jobs; a firm that reported 10 minimum wage jobs, for example, was given five times the weight of a firm that reported two. The following **Table 17** details the industry groups, and the weighted average response, which is the percentage of minimum wage jobs that were indicated would be eliminated if the planned rate increases are implemented, by year.

Table 17: Weighted Average Response by Industry Group

	2017	2018	2019	2020
Arts, Entertainment and Recreation	4.40	9.77	13.93	17.95
Business and Professional Services	6.98	10.30	26.10	35.42
Construction	0.61	3.64	7.83	13.38
Education	5.71	8.96	20.29	28.29
Financial Services	0.56	4.72	5.83	11.94
Food Services/Dining	3.52	6.38	10.30	15.89
Health or Social Services	20.48	22.62	26.62	33.27
Personal Services	1.43	2.35	9.10	14.56
Retail	4.99	6.23	9.07	10.88
Transportation	3.17	4.88	8.37	12.78
Other	2.31	6.65	16.45	21.67



Baseline projections of the minimum wage occupations discussed earlier were done using detailed projection growth rates provided in the most recent occupational forecasts done by the State of Maryland. These estimates were crossed with occupational patterns by industry to create a weighting system for the industry-specific results provided above; the following **Tables 18 and 19** enumerate the weights and the weighted results.

Table 18: Weights by Industry and Year

	2017	2018	2019	2020
Arts, Entertainment and Recreation	4.84%	4.30%	3.88%	3.56%
Business and Professional Services	14.76%	15.45%	16.19%	16.46%
Construction	0.80%	0.90%	1.01%	1.08%
Education	0.18%	0.72%	0.65%	0.83%
Financial Services	0.18%	0.24%	0.31%	0.28%
Food Services/Dining	26.35%	25.17%	24.49%	23.29%
Health or Social Services	6.54%	7.62%	8.67%	9.43%
Personal Services	14.24%	14.26%	14.44%	14.40%
Retail	17.61%	16.37%	14.79%	14.90%
Transportation	4.18%	4.52%	4.89%	5.13%
Other	10.32%	10.44%	10.68%	10.65%

Table 19: Weighted Values by Industry and Year

	2017	2018	2019	2020
Arts, Entertainment and Recreation	0.21	0.42	0.54	0.64
Business and Professional Services	1.03	1.59	4.23	5.83
Construction	0.00	0.03	0.08	0.14
Education	0.01	0.06	0.13	0.23
Financial Services	0.00	0.01	0.02	0.03
Food Services/Dining	0.93	1.61	2.52	3.70
Health or Social Services	1.34	1.72	2.31	3.14
Personal Services	0.20	0.34	1.31	2.10
Retail	0.88	1.02	1.34	1.62
Transportation	0.13	0.22	0.41	0.66
Other	0.24	0.70	1.76	2.31
<i>Total</i>	<i>5.00</i>	<i>7.70</i>	<i>14.70</i>	<i>20.40</i>
<i>Proposed Cumulative Rate Increase</i>	<i>20.40</i>	<i>30.90</i>	<i>44.00</i>	<i>57.10</i>
Elasticity	0.24	0.25	0.33	0.36



The weighted results show that a 20.4 cumulative percentage increase in the minimum wage rate is expected to yield a 5.0 percent loss in minimum wage jobs, a 30.9 percent increase yields a 7.7 percent loss, etc. The elastic measure is the percentage of jobs lost divided by the percentage wage increase, so that 5.0 divided by 20.4 yields an elasticity estimate of -0.24 for 2017. Stated slightly differently, a 10 percent increase in the wage rate, given the pre-July 2017 rate of \$10.75 per hour, would yield a loss of 2.4 percent of local minimum wage jobs.

Calculation of the Economic Impact

Direct Effects

The direct impact of an increase in the minimum wage contains two potentially offsetting elements. On the one hand, workers subject to the minimum wage will now receive increased compensation. On the other hand, as noted in the elasticity results, a higher minimum wage will lead to some workers losing their jobs. The following calculation provides an estimate of the net direct impact on overall Montgomery County household income.²⁰ **Table 20** shows the proposed wage increase schedule, as well as the number of County jobs that would be affected.

Table 20: Proposed Minimum Wage Increase Schedule and Impacted Positions

Year	Current/Proposed Wage Rate	Impacted Positions
2016	\$10.75	61,857
2017	\$11.50	75,110
2018	\$12.50	90,270
2019	\$13.75	106,851
2020	\$15.00	123,697
2021	\$15.00	125,327
2022	\$15.00	126,968

Using the elasticity estimates (which are held constant from 2020 to 2022), the baseline forecast is adjusted downward to reflect expected job losses. The remaining jobs see wages rise per the proposed schedule, as compared to the baseline projections with the hourly wage rate held constant at \$10.75 per hour.

²⁰ Note that the following simplifying assumptions were made: all workers are assumed to work full-time (2,080 hours per year) and only workers who live in Montgomery County are included in the analysis.



The calculations presented in **Table 21** show the level of aggregate household income directly attributable to local minimum wage jobs held by County residents under the two scenarios, with a consistent pattern that higher wages with job losses yield a lower aggregate income figure than more jobs at the current rate.

Table 21: Direct Impact of Minimum Wage Increase on Jobs

Year	Baseline Affected Jobs	Job Loss Elasticity	New Job Count
2017	75,110	24.4%	56,792
2018	90,270	25.0%	67,704
2019	106,851	33.3%	71,264
2020	123,697	35.7%	79,482
2021	125,327	35.7%	80,530
2022	126,968	35.7%	81,584

Table 22: Direct Impact of Minimum Wage Increase on Total Household Income

Year	Job Loss & Rising Wage	Existing Minimum Wage	Difference
2017	\$948,756,604	\$1,189,541,769	(\$240,785,166)
2018	\$1,229,403,463	\$1,453,691,005	(\$224,287,542)
2019	\$1,423,451,003	\$1,752,834,267	(\$329,383,264)
2020	\$1,731,923,782	\$2,063,920,647	(\$331,996,865)
2021	\$1,754,745,967	\$2,090,941,630	(\$336,195,663)
2022	\$1,777,722,166	\$2,118,132,401	(\$340,410,235)

The job loss estimate in the preceding table is informed by the information presented in **Table 21**. Job loss and rising wages are connected – as some individuals lose their jobs, the wages of individuals still in the labor force benefit from the wage increase. While the data varies from year to year, the aggregate income loss associated with job reductions arising from a higher minimum wage is consistently greater than the baseline income projection for this cohort at the current minimum wage level, even accounting for the increased income for those who remain employed. These figures are then used as the inputs into the economic impact model described below.



Economic Impact Results

The net loss of household income ripples through the local economy and creates further economic loss. While some of the secondary spending occurs outside Montgomery County (meaning that the loss in economic output is not as great as the direct loss in net household income), the ripple effects lead to further income and job losses.

Table 23 and **Table 24** provide the aggregate results by year; detailed annual indirect and induced impacts by industry are found in **Appendix E**. It is important to note that the job losses shown in Table 23 are not cumulative but total, meaning that the County will see a total loss of 46,817 jobs by 2022.

Table 23: Direct and Indirect Economic Impacts - Jobs

Year	Direct Jobs Lost	Indirect Jobs Lost	Total Jobs Lost
2017	18,318	1,014	19,331
2018	22,566	944	23,510
2019	35,587	1,387	36,973
2020	44,215	1,398	45,613
2021	44,797	1,415	46,213
2022	45,384	1,433	46,817

Table 24: Direct and Indirect Economic Impacts - Income

Year	Direct Income Lost	Indirect Income Lost	Total Income Lost
2017	\$240,785,166	\$39,681,395	\$280,466,561
2018	\$224,287,542	\$36,962,587	\$261,250,129
2019	\$329,383,264	\$54,282,362	\$383,665,626
2020	\$331,996,865	\$54,713,083	\$386,709,948
2021	\$336,195,663	\$55,405,045	\$391,600,709
2022	\$340,410,235	\$56,099,607	\$396,509,842

The labor market distortion is likely to result in additional consequences. In the earlier discussion of labor markets, Neumark wrote that “a minimum wage that is set higher than the competitive equilibrium wage reduces employment for two reasons. First, employers will



substitute away from the low-skilled labor that is now more expensive towards other inputs, such as equipment or other capital. Second, the higher wage and new input mix implies higher prices, in turn reducing product and labor demand.”²¹

Based on survey and focus group responses, this appears likely in Montgomery County if the proposed schedule is implemented. Many respondents indicated that, were wages to rise to the level intended, they would eliminate positions, change business practices, move locations (outside Montgomery County), or cease operations. Concern was also expressed that, in some industries, there would be a significant increase in “off-the-books” employment, though (not surprisingly) no one stated that was their intention. Meanwhile, consumers/customers may be motivated to move toward what economists call complementary goods that are less influenced by rising labor costs; food at home, for example, may become more appealing than eating out if higher labor costs prompt restaurants to raise their prices.

The survey and focus groups indicated that \$11.00 per hour is approximately the market rate where employers are able to attract and retain quality employees. Given the current minimum wage is \$11.50 per hour, this suggests that current policy is reflective of the market and not likely to cause substantial disruption if left in place.

Findings

1. **Based on the study’s assumptions, the County is projected to experience a loss of approximately 47,000 jobs by 2022 as a result of an increase in the minimum wage from its July 2017 level of \$11.50 to \$15.00 per hour.** The majority of the projected job loss – approximately 45,300 positions – will be experienced by workers in low-wage positions.

Table 23: Direct Economic Impact - Jobs

Calendar Year	Direct Jobs Lost
2017	18,318
2018	22,566
2019	35,587
2020	44,215
2021	44,797
2022	45,384

²¹ Neumark, *The Effects of Minimum Wages on Employment*, 2015.



2. **As a result of the projected job losses, the aggregate estimated loss of income in the County would be approximately \$396.5 million from 2017 to 2022.** This figure is the net amount after accounting for loss of income among those who have lost their jobs, and those who received a higher take home pay as a result of Bill 12-16. The aggregate income loss associated with job reductions arising from a higher minimum wage is consistently greater than the baseline income projection at the current minimum wage level, even accounting for the increased income for those who remain employed.

Table 24: Direct and Indirect Economic Impacts - Income

Year	Direct Income Lost	Indirect Income Lost	Total Income Lost
2017	\$240,785,166	\$39,681,395	\$280,466,561
2018	\$224,287,542	\$36,962,587	\$261,250,129
2019	\$329,383,264	\$54,282,362	\$383,665,626
2020	\$331,996,865	\$54,713,083	\$386,709,948
2021	\$336,195,663	\$55,405,045	\$391,600,709
2022	\$340,410,235	\$56,099,607	\$396,509,842

3. **Survey and focus group responses indicate that \$11.00 per hour is approximately the market rate for Montgomery County where employers are able to attract and retain quality lower-wage employees.** Economic research shows that increasing the minimum wage beyond the market rate causes increased job loss as more people are seeking jobs but companies are looking to hire fewer employees. Given the current minimum wage in the County is \$11.50 per hour, this suggests that current policy is reflective of the market, and not likely to cause substantial disruption if left in place. The market rate is specific to a particular location and will change over time.



Impact on County Government

An increase in the minimum wage will likely have varying fiscal impacts on the County. The County may need to increase pay levels for its own employees, and employee pay increases for its vendors should eventually have a financial impact as well. Additionally, changes in employment and earnings in the general County labor market will have an impact on income and other tax revenues. These impacts are explored in the sections that follow.

Impact on County Revenues

The project team used financial data from FY2013 to FY2018 to estimate the effects of the minimum wage proposal on County revenues. County staff provided the project team with budgeted expenditure data from FY2013 to FY2018 and budgeted revenue information for FY2018. The budgeted data was useful for identifying trends and key cost centers. In addition to the budgeted data, the project team gathered data from the County's 2016 Comprehensive Annual Financial Report (CAFR), which included financial data and supporting information from FY2013 to FY2016. The project team used data from the FY2016 CAFR to identify growth rates and trends within line items most likely to be impacted by the legislation. Finally, the project team used the 2014 Personal Income Tax Income Statistics produced by the Maryland State Comptroller to identify tax trends impacting collections.

Methodology

The project team determined that the revenues most impacted by an increase in the minimum wage will be the County income tax. While property tax is also discussed, it is not believed to be significantly impacted by the legislation. Its inclusion is due to the importance of the revenue source for the County's finances.

Property Tax

Property tax is the largest County revenue source, budgeted at \$1.7 billion for FY2017 and at \$1.8 billion for FY2018. While the amount of property tax owed is not directly dependent on a taxpayers' income, personal income does have a relationship to it, as residents who have lost a job are less likely, and less able, to pay a property tax bill than residents still employed. Three factors drive property tax revenue: the actual tax rate, the assessed taxable value of property, and collection rates. Assuming that the County does not adjust the tax rate from FY2018 to FY2023, the collection rate is the factor most likely to change as a result of increases to the minimum wage rate. The County does not anticipate much change to collection rates as a result of the legislation; the County currently has an efficient tax sales process, which encourages high collection rates. For FY2016, the County had a current year collection rate of 99.8 percent.



It is notable that the workers most likely to lose their jobs as a result of a minimum wage increase are those who already have a low income, and, therefore, are unlikely to have amassed the savings to purchase real estate. As a result, the loss of jobs in the region are not likely to have a significant impact on the ability of people to pay their property tax bills. Furthermore, the majority of low-income homeowners are likely to be seniors and mostly out of the workforce. For 2015, the last year of available Census data, less than 10 percent of homeowners had a household income of \$35,000 or less. Lower wage workers are more likely to rent an apartment rather than own a property; in 2015, 26.2 percent of renter occupied housing had an annual income of less than \$35,000.

Given the low percentage of low-wage earners who own houses in Montgomery County, it is not expected that the increase in minimum wage would have a significant, if any, impact on property tax collections. As a result, the project team has assumed that property tax collections will be minimally affected by an increase in the minimum wage rate.

Income Tax

Income tax is the second largest revenue source for the County, budgeted at \$1.5 billion for FY2017, and at \$1.6 billion in the County Executive's FY2018 recommended budget. The County's income tax rate has remained at 3.2 percent since 2005. In the State of Maryland, income taxes apply to both wage and non-wage income. Tips, capital gains and losses, retirement income, non-Maryland State or local government bond interest income are also subject to the income tax.

Income tax, more so than any other revenue source, is directly impacted by the County's proposal to increase the minimum wage to \$15.00 per hour. Income tax is more likely to be impacted by local economic conditions than property tax; changing employment rates, declining personal income, and decreased regional GDP all have a larger impact on income tax than property tax. As discussed in the Economic Impact section, the County's proposal is estimated to result in a net loss of income by 2022, which will impact the County's revenue collections.

In order to project the impact on County income tax revenue, the project team applied a discount rate of 81.9 percent to the projected lost income figures from the preceding economic impact section (**Table 24**), to represent the proportion of lost income that is taxable.²² This income includes wages, salaries and tips, capital gains, interest income, and other sources. The remaining personal income was either exempted or had tax credits applied to the amount due.

²² According to the 2014 Personal Income Tax Statistics, 81.9 percent of income in Montgomery County was subject to taxation.



The amount of taxable lost income was then multiplied by the County's income tax rate of 3.2 percent. **Table 25** provides the results, which represents the projected amount of income tax revenue lost to the County as the result of the proposed minimum wage increases.

Table 25: Projected Effect of Minimum Wage Increase on County Income Tax Revenue

	2018	2019	2020	2021	2022	Total
Projected Income Loss	\$224.3m	\$329.4m	\$332m	\$336.2m	\$340.4m	\$1.562b
Projected Lost Taxable Income	\$183.6m	\$269.6m	\$271.8m	\$275.2m	\$278.7m	\$1.278b
Lost Income Tax Revenue	\$5.9m	\$8.6m	\$8.6m	\$8.8m	\$8.9m	\$40.9m

The project team estimates that enacting the proposed minimum wage increase will result in a cumulative loss of income tax revenue of \$40.9 million from FY2018 to FY2022, which is driven by both the direct and indirect loss of jobs and, therefore, income discussed in the economic impact section.

Impact on County Contracts

There are two County statutes that establish minimum wages in County contracts, the Living Wage Statute and the Prevailing Wage Statute. According to the Office of Procurement, Montgomery County is responsible for over 2,000 contracts annually. Of these, 600 are subject to the Living Wage or Prevailing Wage Statutes; the remaining 1,400 contracts are not subject to either wage statute.

Both statutes are managed by the County Office of Procurement. The language of both statutes is located in **Appendix F**.

Living Wage Statute

The Living Wage Statute sets the minimum wage rate for Montgomery County contracts related to services. The contract rates are set and increased annually by the County Chief Administrative Officer based on a calculation that multiplies the prior year rate by the annual percentage change in the Consumer Price Index for urban consumers (CPI-U). Contracts for supplies and goods are not subject to the Living Wage Statute. In FY2018, the living wage will increase to \$14.55 per hour.



The Living Wage Statute allows for exemptions to these wage minimums for a variety of reasons, including:

- Contractors who received less than \$50,000 from the County in the most recent 12-month period,
- Contractors who will be entitled to receive less than \$50,000 in the next 12-month period,
- Contract is with a non-profit organization that has qualified for a federal income tax exemption under Section 501(c)(3) of the Internal Revenue Code,
- A Non-Competitive contract where the Chief Administrative Officer finds that the performance of the contract would be significantly impaired in the wage requirement was enforced.

Prevailing Wage Statute

The Prevailing Wage Statute governs the hourly minimum wage rate as set by the State Commissioner of Labor and Industry for State-funded construction contracts in the County. Any contractor or subcontractor must pay their employee at a rate equal to or above the prevailing wage. A rate is established annually for each job title in every county and stays at the rate set when the contract was negotiated throughout the life of the contract. In FY2018, wages ranged from \$14.00 per hour for some Power Equipment Operators to \$43.70 per hour for an Electrician.

Similar exemptions exist for the Prevailing Wage Statute as for the Living Wage Statute. The Prevailing Wage Statute also exempts construction contracts valued at under \$500,000.

Impacts from the Living Wage and/or Prevailing Wage Statutes

The impact of an increase in the minimum wage to providers whose contracts are already subject to either statute should be minimal, as seen in **Table 26**. Both statutes have mandatory minimum wages that are already significantly above current minimum wages in the County. The living wage rate has grown at approximately two percent annually since FY2002. Assuming the same growth rate over the proposed minimum wage schedule, the living wage rate will continue to exceed the scheduled minimum wage through FY2020. The rates for the prevailing wage are also expected to continue to exceed the proposed minimum wage increase.



Table 26: Comparison of Minimum Wage versus Living Wage FY2016-2020

Fiscal Year	Minimum Wage	Living Wage
2016	\$10.75	\$14.40
2017	\$11.50	\$14.55
2018	\$12.50	\$14.87*
2019	\$13.75	\$15.20*
2020	\$15.00	\$15.53*

*FY2018-2020 projected

Data Availability

It is difficult to estimate the financial impact of a minimum wage increase on contracts that are exempt from either wage statute, due to contract documentation issues. Providers who request exemptions are required to submit payroll data to the County Office of Procurement, where it is reviewed for accuracy. However, these payroll records are not kept electronically. As a result, there is no easy way to identify the percent of the contracts that is spent on personnel costs or of projecting the impact of a minimum wage increase for those individuals or their companies.

Estimated Impact

Staff from the Office of Procurement provided the project team with information on the number of FY2018 contracts that are subject to and exempt from the living wage exemption. The data was separated by contracts that were or were not subject to the living wage exemption, and then filtered based on whether the contracts were listed as exempt and the address provided was located in Montgomery County.

As shown in **Table 27**, 57 percent of the exempted contracts are for providers who listed an address within Montgomery County. In FY2018, the total value of these exempted contracts for providers located in Montgomery County is almost \$45 million - and over \$100 million for all exempted contracts. It is reasonable to assume that given the value of these exempted contracts, there would be a measurable impact to these providers from a minimum wage increase. However, without access to more detailed data from the contracts, it is difficult to estimate the overall personnel costs. In addition, it is hard to estimate the overall cost to the County, because both the Living Wage and Prevailing Wage exemptions apply to any provider that contracts with Montgomery County, regardless of where their business is located.



Table 27: Contracts Subject to Wage Restriction Legislation

Number of Contracts	596
Number of Exempted Contracts	201
Number of Exempted Contracts in Montgomery County	115
Value of All Contracts	\$853,420,224
Value of Exempted Contracts	\$105,796,838
Value of Exempted Contracts in Montgomery County	\$44,877,187

Other factors also impact the project team's ability to determine changes to personnel costs as a result of an increase in the minimum wage. Multi-year contracts keep the same rates for the length of the contract, which would delay the impact of a minimum wage increase. Providers can also apply to the Office of Procurement for an adjustment in the pricing of their contracts at any time, which can lead to unanticipated increases.

Of the providers who had exempt contracts, almost all were listed as exempt either due to the contract being less than \$50,000 or by being a certified 501(c)(3) organization.

Impact on County Personnel Costs

The project team assessed the impact of the proposed minimum wage increases on those County employees who are on the minimum wage/seasonal salary schedule ("minimum wage schedule"). These employees are paid on an hourly basis, and many are part-time or temporary employees. The minimum wage schedule has eight grades and is a pay range schedule, meaning that employees do not have specified "steps" that determine salary. Rather, employees are placed within their job classification's pay grade at a position between the minimum and maximum pay rates of that grade and receive general wage adjustments ("GWAs") in most years.

As shown in the following table, the minimum pay rate on the schedule is the current County minimum wage (\$11.50 as of July 1, 2017). In FY2018, the minimum wage is both the minimum and maximum of Grades S1 and S2 and the minimum pay rate for Grades S3 and S4. According to payroll data for Calendar Year 2016 provided by the County, 2,318 employees were assigned to this schedule.²³

²³ The 2,318 employees includes those that separated from County service during the calendar year. These individuals are not included in the cost estimate provided later in this section. They are assumed to remain separated from County service during the analysis period. No additional hiring is assumed during the analysis period.



**Table 28: FY2018 Montgomery County Minimum Wage/Seasonal Salary Schedule
(Effective July 9, 2017)**

GRADE	MINIMUM		MAXIMUM	
	ANNUAL	HOURLY	ANNUAL	HOURLY
S1	\$23,920	\$11.50	\$23,920	\$11.50
S2	\$23,920	\$11.50	\$23,920	\$11.50
S3	\$23,920	\$11.50	\$26,230	\$12.61
S4	\$23,920	\$11.50	\$28,906	\$13.90
S5	\$26,300	\$12.64	\$32,471	\$15.61
S6	\$31,786	\$15.28	\$39,602	\$19.04
S7	\$37,356	\$17.96	\$46,847	\$22.52
S8	\$43,107	\$20.72	\$54,322	\$26.12

For FY2015 to FY2018, the minimum wage schedule has been adjusted according to the scheduled increases in the minimum wage (from \$8.40 per hour in FY2015 to \$11.50 per hour in FY2018). In these adjustments, the County has maintained the difference (in dollars) of the minimum and maximum of each grade, as well as the difference (in dollars) between grades (e.g. the difference in the minimum of Grade S5 and Grade S6) for all grades other than those set to the minimum wage. In each year of increase in the minimum wage, the County has granted employees at the minimum wage the scheduled increase and all other employees a flat dollar GWA. The minimums and maximums of grades that are not equal to the minimum wage are also adjusted by the GWA.

Table 29: Montgomery County General Wage Adjustments (GWA) and Minimum Wage Increases

	Minimum Wage Increase	GWA	Difference Between Minimum Wage Increase and GWA
FY2015	\$1.15	\$0.50	\$0.65
FY2016	\$1.15	\$0.00	\$1.15
FY2017	\$1.20	\$0.25	\$0.95
FY2018	\$0.75	\$0.25	\$0.50



Minimum wage increases have ranged from \$0.75 to \$1.20, while routine GWAs granted have ranged from \$0.00 to \$0.50. As a result of these uneven increases, employees on this schedule at the minimum wage have become compressed versus those who are paid above minimum wage. To illustrate this, the following is the wage increase experience of an employee at minimum wage and an employee at the minimum of Grade S5.

Table 30: Illustration of Wage Compression Between Two Hypothetical Employees

	Employee at Minimum Wage (Granted Increases in Minimum Wage Only)	Employee at Grade S5 Minimum (Granted GWAs)	Difference in Pay
FY2014	\$7.25	\$11.64	\$4.39
FY2015	\$8.40	\$12.14	\$3.74
FY2016	\$9.55	\$12.14	\$2.59
FY2017	\$10.75	\$12.39	\$1.64
FY2018	\$11.50	\$12.64	\$1.14

Between FY2014 (the year before the first increase in the minimum wage) and FY2018, the wage differential between these employees decreases, resulting in wage compression.

To adjust for wage compression in the personnel cost impact analysis, the project team adjusted the pay of all employees by the increase in the minimum wage from the previous year, rather than an assumed GWA. For example, all employees not at minimum wage in FY2019 receive a \$1.00 increase, commensurate with the increase in the minimum wage from \$11.50 to \$12.50 under the 2016 legislation. The minimums and maximums of the schedule are also adjusted by this amount. Adjustments to the pay schedules maintain the current distances between minimum and maximum and between grades. In FY2022 and 2023, when there are no scheduled increases in the minimum wage, all employee pay is adjusted by an assumed \$0.25 GWA. In the baseline scenario, all employee pay is adjusted by an assumed \$0.25 GWA in each fiscal year.

Table 31 shows the additional cost of the increase in the minimum wage over the baseline scenario on the personnel costs for those on the minimum wage schedule. Using a five-year projection horizon, should the 2016 increase legislation go into effect in FY2019, adjusting the pay for the employees on the minimum wage/seasonal salary schedule in a way that avoids wage compression will require additional County expenditures of \$10.0 million from FY2019 to FY2023. This cost is inclusive of any increases in additional pay such as overtime and shift



differential, as well any tax liability (FICA). A complete list of assumptions used in this costing is contained in **Appendix G**.

**Table 31: Fiscal Impact of Adjustments to Minimum Wage/Seasonal Salary Schedule
(in millions)**

	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Baseline (\$0.25 GWA awarded to all employees each year)	\$14.5	\$14.8	\$15.0	\$15.3	\$15.5	\$103.2
Minimum Wage Increase Proposal	\$15.3	\$16.3	\$17.6	\$17.9	\$18.1	\$113.2
Projected Fiscal Impact (Difference)	\$0.8	\$1.5	\$2.6	\$2.6	\$2.6	\$10.0

This estimate is approximately \$3.5 million higher than the County Office of Management and Budget's (OMB) estimate of \$6.5 million in FY2018 to FY2022 for several reasons. First, the project team's horizon extends to FY2023, which includes an additional fiscal year of cost. When looking just at FY2019 to FY2022, the cost impact is \$7.4 million. When looking at only the years where there is a proposed increase under the 2016 increase legislation (FY2019 to FY2021), the cost to the County is \$4.9 million.

Second, the additional adjustments to relieve potential wage compression bears an extra cost to the County that is not included in OMB's estimate. OMB did not include an estimate of the cost to relieve compression because they did not believe that the request for the fiscal note allowed them to make assumptions regarding other adjustments to the salary schedule. Finally, OMB confirmed with other County staff that, in practice, no employee on other County salary schedules is paid below \$15.00 per hour, so costing analysis for other salary schedules was not completed.

The County maintains several other salary schedules for salaried employees, including schedules for sworn police, fire, deputy sheriffs, and correctional officers, as well as civilians in service, trade, labor, and management classifications. The majority of these schedules are bargained, meaning that they can only be altered through the collective bargaining or interest arbitration process under County labor relations law. While an increase in the minimum wage, which is the wage floor for all County workers, necessitates adjustment to these schedules to avoid wage compression, the project team did not estimate these costs because these employees' pay is determined through the collective bargaining process. However, it should be noted that such adjustments would likely present a significant cost to the County, both in terms of adjusting employees' pay to reflect a higher wage floor and to avoid wage compression in relation to that floor, but also through the resulting increases in additional compensation



dependent on the base rate of pay (e.g. overtime) and in the County's pension liability for eligible employees, due to increases in base earnings.

Findings

1. **The County budget is projected to require an additional cumulative funding of \$10.0 million from FY2019 to FY2023 because of adjustments to the Minimum Wage/Seasonal Salary Schedule to reflect the new minimum wage and avoid wage compression.** This reflects the impact of adjustments for employees on the minimum wage/seasonal schedule. It does not include the costs for adjustments to the other County salary schedules, which are collectively bargained. Should these other schedules and employee pay be adjusted to avoid wage compression for higher-earning County employees, the total cost of the salary adjustment will increase. This will also increase the County's pension liability for eligible employees.
2. **The County would also experience a projected loss of income tax revenue of \$40.9 million from FY2018 to FY2022.** These projections are based on the projected direct job losses among low-wage workers that will occur as a result of the minimum wage increase.
3. **The County is likely to see an increase in contract costs, as businesses subject to its Prevailing and Living Wage Statutes will pass on to the County its increased personnel costs driven by the minimum wage increase.** The project team was unable to quantify these costs due to data availability issues.



Impact on County Businesses

The project team explored impacts of the minimum wage increases proposed in the 2016 County legislation on businesses in the County using focus groups, individual interviews, and a formal electronic survey. Throughout, the project team collected information and data not only regarding business owners' opinions on the proposed increases, but also on the possible impacts to businesses and the measures business owners would need to take (or already plan to take) to maintain profitability and/or existing levels of service.

Opinion on the Increase to \$15.00 per Hour – Survey Results and Business Owner Feedback

According to survey results, the majority of businesses located within Montgomery County do not support an increase in the minimum wage, with 65 percent of respondents either opposing or strongly opposing the law and only 24 percent supporting or strongly supporting. Support varies among industry, with business and professional services showing the strongest support at 41 percent of respondents.

Potential Labor Market Impacts

Business owners' perceptions of how the proposed increases to the minimum wage would generally affect the County labor market and conditions of employment are shown in **Table 32** below.

Table 32: Please provide your opinion on the nature of the effect of an increase in the minimum wage on the following issues

	More Negative	Neutral	More Positive
Employee turnover rate	25.1%	56.3%	18.7%
Employee morale	12.6%	45.8%	41.7%
Availability of jobs for entry-level employees	67.4%	24.9%	7.7%
Employment rate	54.6%	34.9%	10.5%
Poverty rate	24.2%	46.6%	29.2%
Wage compression	44.9%	43.9%	11.2%
Employee productivity	19.3%	64.2%	16.5%
Consumer purchasing power	40.2%	36.9%	22.9%



What emerges from the data is that County business owners see an overall negative impact on employment availability in the County resulting from an increase in the minimum wage. What is also of interest is the opinion of 77 percent of business owners that an increase in the minimum wage would not have the intended positive effect of increasing consumers' purchasing power.

When asked what actions regarding existing employees they would have to take in their business should the minimum wage increase to \$15.00 per hour, respondents indicated:

- Reduce hiring (63 percent of respondents indicated that they would be very likely to do so).
- Reduce hours per employee (59 percent).
- Make layoffs (57 percent).
- Decrease existing benefit offerings to hourly employees (52 percent).
- Increase the experience needed for positions (50 percent).

Table 33: How likely are you to do any of the following if the minimum wage increases to \$15.00 per hour? (Employee Impacts)

	Very Unlikely	N/A/Don't Know	Very Likely
Reduce hiring	24.3%	12.5%	63.2%
Reduce hours per employee	27.7%	13.1%	59.2%
Reduce number of employees	27.3%	15.3%	57.4%
Decrease benefit offerings to hourly employees	28.3%	19.4%	52.3%
Increase experience required for employees	33.8%	16.0%	50.1%
Increase education required for employees	42.9%	21.1%	36.0%
Reduce training	55.8%	20.5%	23.8%

While a majority of respondents indicated they would very likely be able to identify efficiencies and operational savings such as reducing supply costs and automation of certain services and operations to offset increase personnel costs, a higher percentage indicated they would need to pass these additional costs on to the consumer through increased prices.

Reducing Employee Hours or Number of Employees

One small business response to previous minimum wage increases has been to cut the total number of employees or cut the number of working employees. Throughout the interviews, the project team found a pattern that businesses usually layoff part-time employees first, especially those with low skills. Examples included:



- A family-run restaurant is considering no longer hiring seven or eight high school students during the summer.
- A professional services franchisee will stop bringing in an adult with disabilities to clean up the shop in the evenings and college interns who want to learn graphic design.
- A fast-food restaurant franchisee has cut the table cleaning position and allocated the extra work to other positions. This fast-food restaurant franchisee has cut staffing from 8-12 employees per shift in 2014 to two or three per shift in 2016 in response to minimum wage increases.

The survey asked business owners to estimate the percent of their workforce they had to/would need to reduce as a result of past and future minimum wage increases. The results are significant (**Table 34**). Among respondents who provided estimates, the average estimated reduction in their workforce from a minimum wage increase to \$15.00 per hour was almost 23 percent, or a quarter of any business's employee pool.

Table 34: Average Reported Percentage of Minimum Wage Workforce Reduced Due to Past and Future Increases in the County Minimum Wage

	25 or fewer employees	25 or more employees	All businesses
\$10.75	3.9%	3.2%	4.4%
\$11.50	5.8%	6.2%	5.9%
\$12.50	8.5%	10.2%	9.0%
\$13.75	15.0%	16.9%	15.6%
\$15.00	22.8%	23.8%	22.9%

Cutting Employee Benefits

Many small businesses reported that a method used to lower costs is to cut employee benefits. Many businesses have provided non-mandated benefits, such as providing health insurance, creating IRA retirement accounts, profit sharing plans, and performance bonuses but are unable to continue these programs with the increased cost of labor. In addition, businesses reported being unable to reward employees who are top performers or have had long tenure with the company, because the wage floor is so high that they cannot afford to pay these employees significantly more than a less experienced recent hire.



Changes to Prices for Goods and Services

In response to the increased minimum wage, some businesses have raised prices. As previous analysis suggests, some of the small businesses interviewed reported that increased prices have generally led to a decrease in customers and revenues.²⁴ Some service businesses (such as those providing home-based services for dependents) have had little choice but to raise prices since their costs are largely driven by employee hourly wages. Given the expense associated with dependent care, customers have opted to go without service or purchased services from cash-based service providers. The impacts have not been confined to more expensive home-based services. For example, a quick-service restaurant raised prices by five percent for its restaurants in Montgomery County in response to the 2016 minimum wage hike and has experienced decreased sales and customer count.

Long Term Effect: Less Investment

Long term, decreasing profits will likely decrease further investment and economic growth of small businesses in an area, since businesses have less retained profits to invest in improvements and growth, and businesses will seek comparatively higher returns in surrounding areas. For example, a newly established business in the County discussed how a \$15.00 per hour minimum wage will increase the company's payroll by \$300,000 and essentially eliminate all of the business' profits and most of its working capital, which in previous years have been used for capital improvements in its facility to accommodate growth.

Other Possible Business Actions in Response to Proposed Increases

Some businesses have found additional ways to adapt to an increased minimum wage. Some businesses are shifting to an independent contractor model, particularly in home health services. Given the increasing employee costs of benefits, wage taxes and the minimum wage itself, companies are finding it more profitable to charge fees by placing independent contractors to perform services instead of hiring in-house employees. Since independent contractors are not subject to minimum wage laws, this approach is likely to grow with increases in the minimum wage. Other alternatives include relocating their physical business, automating customer service jobs, cutting services, cutting store hours, and eliminating management positions.

²⁴ Nicholson, Walter, and Snyder, Christopher. *Microeconomic Theory Basic Principles and Extensions 10th Edition*. Thomson Higher Education, 2008, pp 144-147.
http://www.dphu.org/uploads/attachements/books/books_5973_0.pdf



Other Major Themes from Focus Group/Interview Feedback

Timing of Minimum Wage Increases

During interviews, several business owners commented that the proposed increases were “too much, too soon.” While 42 percent of respondents indicated that phasing in the increase to \$15.00 per hour would decrease its impact on their organizations, business owners still expressed concern that their business would be unable to absorb the year-over-year impact of the increases, which average 9.3 percent for large businesses and 5.5 percent for small businesses.²⁵

Besides a slower phase-in schedule, many business owners suggested that the County let the market dictate the wage rate. The majority of businesses interviewed indicated that they already pay most or all of their employees above the minimum wage, because that is what the market demands in order to hire the employees they need.

Regulatory and Business Environment

Interviewees expressed a concern that both past and proposed minimum wage increases would add to an already difficult business environment in the County. Business owners suggested that increases in the minimum wage are another County mandate that makes it more difficult and costly to do business in Montgomery County relative to other jurisdictions.

To explore this concern, the project team collected information on commercial taxes and fees in Montgomery County and surrounding counties. It is assumed that, should a Montgomery County business relocate to avoid the business environment in the County, it would relocate to a surrounding county or city, rather than another region of the country. Following that assumption, the project team focused on benchmarking the business tax burden for other counties within the greater DC metro area.

The following table presents this data for the County and comparable jurisdictions.

²⁵ Respondents were permitted to choose more than one modification option. 158 of 376 respondents answering the question indicated that a slower phase-in schedule would be one modification that would reduce impact on their business.



Table 35: Comparative Measures of Business Tax Burden (2017)

	Real Property	Personal Property	Franchise Tax	Energy (Utility) Tax	Recordation Tax	Transfer Taxes	Gross Receipts Tax	Hotel/Motel Tax	Amusement Tax	Meals Tax
Montgomery County	\$0.7734	\$1.9335	-	Electricity: \$0.01978/kWh Natural Gas: \$0.17026/therm	\$4.45	0.25-6.0%	-	7.0%	7.0%	-
District of Columbia	\$1.65 (first \$3m in value) \$1.85 (value more than \$3m)	5.75%	9.2%	Electricity: \$0.0077/kWh Natural Gas: \$0.00707/therm	1.1% (Value of \$399K or less) 1.45% (Value of \$400K or greater)	1.1% (Value of \$399K or less) 1.45% (Value of \$400K or greater)	\$5,500-\$16,500, depending on receipts for select types of businesses	14.5%	10.0%	10.00%
Fairfax County	\$1.2550	\$4.5700	-	Electricity: \$1.15 + \$0.00594/kWh Natural Gas: \$0.845 + \$0.047494/CCF	\$8.33 per \$100 of assessed value	-	\$0.03 to \$0.31 per \$100 of gross receipts, depending on type of business	6% (county) + 4% (Herndon, Vienna)	-	2.5% in Herndon 3.0% in Vienna
Frederick County	\$1.0600	-	-	-	\$6.00	-	-	5.0%	-	-
Howard County	\$1.0140	\$2.5350	-	-	\$2.50	1.0%	-	7.0%	7.5%	-
Loudoun County	\$1.1250	\$4.2000	-	Electricity: \$0.92 + \$0.005393/kWh Natural Gas: \$0.0676 + \$0.03034/CCF	\$0.50	-	\$0.05 to \$0.50 per \$100 of gross receipts, depending on type of business	7.0%	-	-
Prince George's County	\$1.0000	\$2.5000	-	Electricity: \$0.009366/kWh Natural Gas: \$0.05919/therm	\$2.75	1.4%	-	7.0%	10.0%	-

Sources: Jurisdiction websites, Maryland Association of Counties FY2017 Budget and Tax Rate Survey, State of Maryland Department of Assessments and Taxation

Rates shown above are in addition to an applicable state tax rates.

Real and personal property tax rates shown per \$100 of assessed value, unless otherwise noted. Property tax rates reflect rate for commercial property. Some municipalities within each county may have special property tax rates not shown here.

Recordation tax rates shown per \$500 of assessed value, unless otherwise noted.

Arlington County: The County recordation tax is based on the State recordation tax collectable on the first recordation of such taxable instrument.

District of Columbia: The District also levies an Economic Interest Tax of 2.9% of fair market value if 80% of a business's assets consist of real property located in the District or if more than 50% of the controlling interest of the corporation is being transferred. Ballpark gross receipts tax applies to gross revenue received by heating oil, toll telecommunications service, commercial mobile service, cable television, satellite relay, video distribution, natural or artificial gas utility, and other utility industries.

Fairfax County: The County levies a bank franchise tax of \$0.80 per \$100 of net capital.

Frederick County: Some municipalities have an amusement tax ranging from 0.5-10.0%.

Howard County: There is a 5.0% tax on live performances, golf course fees, and concerts.

Montgomery County: Amusement tax is 10% in Gaithersburg, Glen Echo, Rockville (except miniature golf facilities), and Takoma Park. Non-profit community associations and arts and athletic organizations are exempt. Some municipalities have a lower amusement tax rate (0.5-7.0%).

Prince George's County: Some municipalities have lower amusement tax rate (5.0-9.0%).



A June 2016 analysis by the County's Office of Legislative Oversight (OLO) did a similar analysis. The report provided six case studies for various business structures and the 2014-2015 tax burden on County businesses under each structure.²⁶ In four of the six scenarios, the Montgomery County business tax burden was the lowest among the comparator jurisdictions of Prince George's County, Fairfax County, and the District of Columbia. Tax burden was determined on the basis of rates for corporate income tax, personal property tax, individual income tax, gross receipts tax, and tax credits.

It is difficult to compare the tax burden for Montgomery County business owners relative to surrounding areas, because not all business are subject to all of the taxes and fees. With that caveat, some notable OLO findings include:

- Real and personal property taxes in the County are below regional norms when considering the base County rate and when including town/special taxing district rates for some localities within the County.
- The County's natural gas utility tax rate leads the comparison group. Energy tax rates were increased by 155 percent in FY2011, a measure that was supposed to be temporary. Council reduced the energy tax rate by 10 percent in 2013, but additional attempts to restore energy taxes to their pre-FY2011 levels have been unsuccessful. Multiple business owners cited the increase in the energy tax as a source of significant expense for their business.
- At 7.0 percent each, the County's hotel and amusement taxes – noted by some interviewees as particularly high – are in line or even below regional norms.

However, the tax burden is only part of the County 'cost of doing business.' Besides minimum wage requirements, business owners mentioned the recently-enacted County Sick and Safe Leave statute as another regulation impacting the costs of hourly employees. The statute, which became effective October 1, 2016, requires County employers (who do not already provide such leave) with five or more employees to provide their employees with one hour of sick leave for every 30 hours worked, up to 56 hours per year. Employers with less than five employees must provide 32 hours of paid leave and 24 hours of unpaid leave. Employees can use up to 80 hours of earned sick leave in a year and can carry over 56 hours from year to year, unless the employer provides the full amount of leave the employee would earn at the beginning of the year.²⁷

The impacts of the statute varied from business owner to business owner, but the primary issues cited include:

²⁶ Structures included corporation (single jurisdiction operation), corporation (multiple jurisdiction corporation), high-tech company receiving high-tech business related tax credits, pass-through entity (owned by DC residents), pass-through entity (owned by MD residents), and pass-through entity (owned by VA residents).

²⁷ All employees working more than eight hours per week are covered. Employers must allow employees in a 90-day probation period to earn leave.



- Does not accommodate employers who already use a Paid Time Off (PTO) structure that combines all leave.
- For many businesses, compliance costs – primarily from tracking employee leave for reporting purposes – will be considerable. Small businesses that do not already have systems in place will face the steepest costs.
- Will generally increase personnel costs, because employers are now required to pay employees even when those workers are not productive (because they are off). This could result in layoffs in businesses who cannot shoulder this cost.

Montgomery County is one of an increasing number of state and local jurisdictions across the country that have implemented paid sick leave statutes, among them:

- **District of Columbia:** Passed in 2008 and amended in 2013, the District's Sick and Safe Act bases the number of hours of sick leave earned on the number of employees in a business. Employees, including part-time, food service, and temporary employees, may earn 3 to 7 days of sick leave per calendar year.
- **Seattle:** Effective September 1, 2012, employers with four or more full-time equivalent employees are required to provide earned sick leave to all employees regardless of status. Accrual is based on business size and ranges from 40 to 72 hours per year.
- **Westchester County (NY):** Lawmakers proposed similar legislation in early 2017 that would allow employees to accrue 1 hour of sick leave for every 30 hours worked, up to 40 hours per year.²⁸

A number of restaurant owners interviewed indicated that the County's new Food Allergen Awareness regulation is also adding to the cost and complexity of staffing. Effective July 1, 2017, all eating and drinking establishments must pay the cost for at least one of their employees to attend a food allergen awareness training approved by the Department of Health and Human Services (HHS) and must ensure that an employee who has completed this training is on the premises when food is being prepared or served. While the cost of this training is relatively low per employee, the requirement that a trained employee be on premises at all times will make staffing difficult. One restaurant owner indicated that their employees are likely to demand a higher wage, on top of any minimum wage increase, to reflect completion of the required training.

²⁸ Sean Adams, "Westchester Lawmakers Consider Guaranteed Paid Sick Leave for Workers," *CBS New York*, March 28, 2017, <http://newyork.cbslocal.com/2017/03/28/westchester-paid-sick-leave/>.



Given the survey responses and interview feedback, one might expect that businesses would be likely to leave the County should another minimum wage increase be enacted. On a positive note, almost half of respondents (46 percent) indicated that they were unlikely or very unlikely to relocate to a county or city with a lower minimum wage than Montgomery County should the County increase the minimum wage to \$15.00 per hour. This is a positive point among the survey findings that is reinforced by feedback from interviews; most interviewees want to keep their businesses in Montgomery County.

Advantages to Businesses

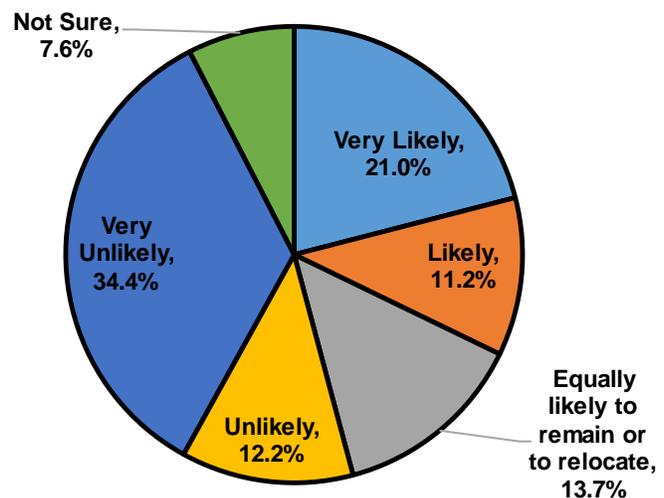
While an increase in the minimum wage undoubtedly has an upward effect on payroll costs, a significant body of research indicates that part of these additional costs are offset by some positive impacts, which are explained in the following sections.

Employee Retention and Training Costs

In early 2016, Walmart increased its minimum wage to \$10.00 per hour. In doing so, they joined a growing list of private companies, including Gap, Starbucks, and Ikea, that are boosting their lowest wages. A factor behind this move was the high level of turnover in the retail sector – separation rates ranged from 49 to 57 percent since 2013.²⁹

High worker replacement costs help explain the motivation to voluntarily increase minimum wages. According to the Center for American Progress, the cost of replacing an employee earning less than \$30,000 is 16 percent of that employee's annual earnings.³⁰ It is assumed that higher wages improve employee satisfaction and, therefore, increase retention rates. Research supports this assumption:

Figure 4: If the proposed increase to \$15.00/hour were to become law, how likely are you to move the location of your business to a county or city with a lower minimum wage than Montgomery County?



²⁹ U.S. Bureau of Labor Statistics, Job Openings and Labor Turnover Survey (JOLTS), Retail trade, Total Separations, 2013-2016 (annual averages)

³⁰ Heather Boushey and Sarah Jane Glynn, "There are Significant Business Costs to Replacing Employees," Center for American Progress, November 16, 2012.



- A 10 percent increase in the minimum wage resulted in a 2.1 percent reduction in turnover for restaurant workers and a 2.0 percent reduction in turnover for teen workers.³¹
- In a study of the impact of the Los Angeles Living Wage Ordinance, firms that increased their lower wages had a 35 percent reduction in employee turnover.³²
- A study of airport screeners in San Francisco found an 80 percent reduction in turnover following a 55 percent wage increase (from \$5.75 to \$10 per hour).³³
- Other larger studies have concluded that for every one percent increase in wages for low-wage service positions, turnover declines by an average of 1.45 percent.³⁴

Reduced turnover reduces other costs, including the indirect costs of lost sales, poor customer service/relations, and lost productivity during training periods. When employees stay in their jobs, businesses don't need to replace them, which costs them both time and money as they complete the hiring and training processes. While cost savings vary by type and size of business, they have the potential to increase business profitability.³⁵

There are additional examples from business owners of positive results from minimum wage increases. For example, Chris Sommers, an owner of businesses in three states, reports in a blog for the U.S. Department of Labor that increasing his restaurants' minimum wage to \$10.10 per hour reduced employee turnover (and, as a result, reduced the cost to train new employees), resulted in savings from reduced production waste, and has improved customer return rates because of the message a higher wage sends to them about his business' values.³⁶

³¹ T. Dube Arindrajit, William Lester, and Michael Reich, "Minimum Wage Effects Across State Borders: Estimates Using Contiguous Counties," *Review of Economics and Statistics* 92 (2005): 945-964.

³² David Farris, "The Impact of Living Wages on Employers: A Control Group Analysis of the Los Angeles Ordinance," *Industrial Relations* 44 (2005): 84-105.

³³ Michael Reich, Peter Hall, and Ken Jacobs, "Living Wage Policies at the San Francisco Airport: Impacts on Workers and Businesses," *Industrial Relations* 44 (2005): 106-138.

³⁴ Ken Jacobs and Dave Graham-Squire, "Labor Standards for School Cafeteria Workers, Turnover and Public Program Utilization," *Berkeley Journal of Employment and Labor Law* 21 (2010): 447-458.

³⁵ Michael Reich, Ken Jacobs, and Annette Bernhardt, "Local Minimum Wage Laws: Impacts on Workers, Families, and Businesses," Prepared for the Seattle Income Inequality Advisory Committee, March 2014.

³⁶ Chris Sommers, "Boost Business by Raising Minimum Wage," *U.S. Department of Labor Blog*, April 7, 2015.



Impact on Productivity

Increased productivity related to a wage increase comes via three “mechanisms.” First, higher wages may cause workers to work “harder and smarter,” resulting in more productive work. Second, mandated higher minimum wages may cause employers to move away from unskilled labor and seek more experienced and skilled employees, who are more productive at the jobs they are hired to do. Third, higher personnel costs may lead business owners to automate some business functions and services. In other words, businesses substitute capital for labor in response to increasing labor costs.³⁷

In a 2011 survey of managers of quick service restaurants in Georgia and Alabama, respondents indicated that they were able to offset 23 percent of the cost of increasing wages through newly-found operational efficiencies. Of responding managers, 90 percent reported they had or would increase performance standards for employees receiving a pay increase and would find additional savings in economizing non-labor inputs. Responding managers indicated that the additional cost presented by an increase in the minimum wage would serve as a “challenge to the store” that managers could use to “energize employees to improve productivity for the sake of the ‘team.’”³⁸ In other words, enhanced productivity was the result of the first mechanism outlined above – employees working harder and smarter as a result of an increased wage.

Similarly, a 2005 study of airport screeners found a number of positive effects of a wage increase on productivity. In 1999, the San Francisco Airport implemented a number of living wage policies, including the Quality Standards Program (QSP) that affected about 10,000 of the 30,000 SFO employees. The QSP included raised educational standards for new hires (minimum requirement of a high school diploma) and training requirements, but there was no replacement of existing workers with new technology or a move to automation. Nearly half of employees reported they were working harder on the job and that the pace of work had increased as a result of the pay increase. Employers reported an overall improvement in work performance and employee morale, as well as reduced rates of absenteeism, employee grievances, and disciplinary issues.³⁹

While the studies cited above show that there is a positive relationship between an increased minimum wage and productivity, they did not conclude that there is a direct causal relationship between increased pay and higher productivity.

³⁷ Reich, Montialoux, Allegretto, Jacobs, Bernhardt, and Thomason, “The Effects of a \$15 Minimum Wage by 2019 in San Jose and Santa Clara County,” 2016.

³⁸ Barry T. Hirsch, Bruce Kaufman, and Tetyana Zelenska, “IZA Discussion Paper No. 6132: Minimum Wage Channels of Adjustment,” *Institute for the Study of Labor*, 2011.

³⁹ Reich, Hall, and Jacobs, “Living Wage Policies at the San Francisco Airport”, 2005.



Impact on Non-Profit Organizations

As part of determining the potential impact, the project team conducted interviews with Montgomery County non-profits and administered a survey to local non-profit organizations. Philosophically, many (perhaps most) Montgomery County non-profit organizations support higher wages for lower-income County residents. However, many are also concerned that a minimum wage increase will significantly increase their costs and, as a result, negatively impact their organization.⁴⁰ Given that County non-profit organizations do not expect increased funding from State/Federal Grants or private contributions resulting from new minimum wage requirements, they would have to rely on increased County funding or likely have to adjust or cut services offered to Montgomery County clientele.

For example, a County-funded organization providing youth and family services expects funding to increase by one percent in the next fiscal year even though costs are rising more quickly. Because of this, the organization intends to lower costs by decreasing the number of scholarships for camps and memberships usually provided to local low-income families. Other organizations are considering changing staffing levels or cutting services.

Impact on Medicaid Providers

Besides the survey of non-profit organizations, the project team held a separate focus group with Medicaid service providers. The programs offered by the providers varied, but all reported receiving between 70 and 95 percent of their program funding through Medicaid reimbursement.

Medicaid providers identified several significant concerns:

- Reimbursement rates cannot be adjusted mid-year, meaning providers will have no opportunity to pass along the increased cost of service from a minimum wage hike.
- Medicaid providers are reimbursed for services set at a pre-established rate that depends on each service provided, and not the cost to provide the service.
- Providers do not have the option of reducing the quality or number of services they provide to their clients. If the cost of providing a service increases due to increased

⁴⁰ Most of the employers in the non-profit community that responded to the survey and participated in the focus groups were broadly supportive of the minimum wage increase. Many of the organizations already paid their employees above minimum wage, both as a means of staying competitive in the economic marketplace, but also as a sign of respect that shows the value the organizations have for their employees and the work they perform. According to the survey results, approximately 41 percent of respondents listed “Strongly Support” or “Support” to the question of whether they support or oppose increasing the County minimum wage from \$10.75 to \$15.00 by July 1, 2020. Only 25 percent responded as “Strongly Oppose” or “Oppose” to that same question. However, many organizations remained concerned as to what the impact would be to their organization by what some deemed an unfunded mandate to continue to provide services without additional resources. As one interviewee stated, we “support the idea, but business can’t support it”.

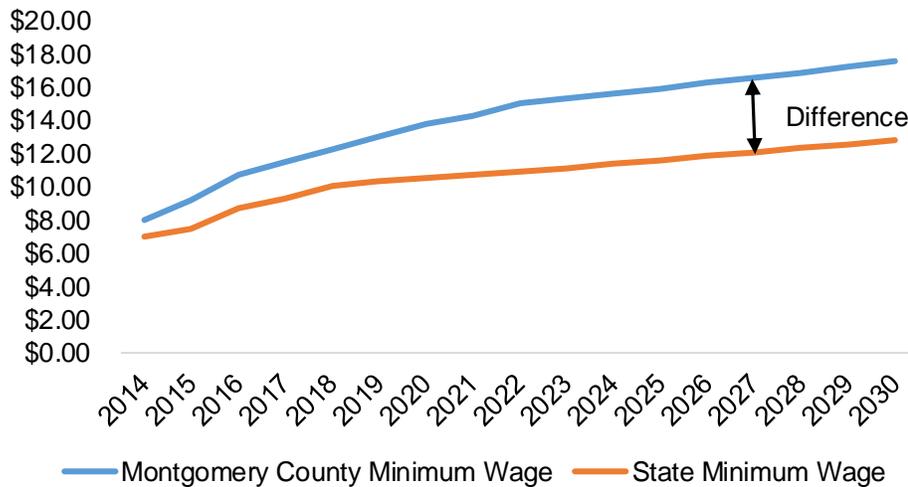


personnel costs, providers cannot necessarily reduce staff or hours to compensate for those increases, as those services are mandated.

As the proposed minimum wage increase is a County initiative, it is unlikely that the State will adjust reimbursement rates beyond the current state minimum wage to include increased personnel costs. If additional revenues are not coming from the state, providers will be looking to the County to help supplement the funding increases.⁴¹ During interviews with non-profit stakeholders, providers indicated that they would ask Montgomery County to assist with their increased costs, but the degree to which the County will be able to provide additional funds is unknown.

The project team also interviewed the Chief Financial Officer of an adult medical day care organization located in the County. This individual provided information regarding the funding gap between the State minimum wage and the proposed County wage increase. This information was previously provided to the County Council.

Figure 5: Sample Projected Minimum Wage Increase



According to this analysis, the gap between the State minimum wage and the County's proposed minimum wage increase will grow over time. In order for the State minimum wage rate to equal the County rate, the State would have to increase its rate by five percent annually between 2018 through 2029.

Medicaid providers also raise the same wage compression concerns as other non-profits - that overall increases in the minimum wage will create competition from less strenuous/stressful jobs

⁴¹ When the City of Seattle increased the minimum wage to \$15.00 per hour, its Human Services Department allocated funds to help non-profit organizations to offset the increased costs (The Seattle Minimum Wage Study Team, "Report on Nonprofit Response to Minimum Wage," *University of Washington*, 2017).



in other sectors. This has the potential to require broad-based wage increases or create labor shortages that negatively impact on services. One organization that employs direct support staff and aides noted that the national attrition rate for these positions is 45 percent. This leads to more overtime costs as they pay existing staff to provide needed services to clients. This rate is likely to be exacerbated by a significant minimum wage increase.

For Medicaid providers, staff vacancies may mean that they do not have enough qualified staff to provide the services at the ratios required for state reimbursement. Because they are required to provide a certain level of care, they cannot reduce the services they provide or reduce staffing levels. As a result, they may have to close a program or facility to save money.

Increased Costs

Many of the County's non-profit vendors, particularly for the County HHS, provide support and care services for low income citizens. These activities are generally labor intensive. Some organizations expect an increased minimum wage will lead to substantially increased costs. For example, a local non-profit providing services to the homeless community reported that 30 percent of their 160-person staff currently earns the minimum wage. An increase to \$15.00 per hour is expected to increase labor costs by more than \$400,000 annually. According to the CFO of the adult medical day care organization, the proposed wage increase to \$15.00 per hour translates to a 35 percent increase in the overall operating costs for Medicaid service providers between 2014 and 2020.

In the three contracts the project team received from the County HHS, 25 percent of total FTE's were making under the equivalent of \$15.00 per hour and 44 percent were making between \$15.00 and \$20.00 per hour. In addition to reviewing contract data, during interviews with non-profits, the project team identified many organizations that reported much higher percentages of employees making less than \$15.00 per hour. With a larger list of contracts to analyze, the project team would be able to provide a more accurate view of the impact of minimum wage on non-profits in aggregate. Nevertheless, due to the combination of wage increases for low-wage workers and complementary wage increases for higher earners to avoid wage compression, it is clear that an increased minimum wage will substantially increase costs for non-profit vendors. A representative from HHS estimates that vendors will request increasing their contracts in proportion to the increase in minimum wage. For example, if the minimum wage increases by 30 percent, as represented by the shift from \$11.50 to \$15.00 per hour projected over three years, contract values will also need to increase 30 percent during the same time period.

Funding Limitations

Many federal and state grants are shifting to a fee-for-service model, which provides a flat rate for all service providers, regardless of the location. In a region like Montgomery County, with a higher cost of living, these rates may not fully recover the cost of service. For example, while the County minimum wage is currently \$11.50 per hour, organizations across the state that



provide group housing for disabled individuals receive \$10.94 per service hour from the State of Maryland. Given this gap in reimbursement, organizations have little alternative than to rely on the County to supplement their income, or change or limit their service offerings to account for higher costs.

Most funding for non-profit vendors is received through private fundraising or government grants (federal, state, and county). According to representatives of non-profits interviewed, fundraising has become increasingly challenging, with overall donations decreasing and more donations earmarked for specific purposes. Given this, private donations are likely not a viable way to cover additional costs for a typical non-profit County vendor.

Developmental Disabilities (DD) Supplement

One way that the County is dealing with the gap between hourly employee costs and reimbursement is to provide supplemental funds to non-profits who perform direct services through the Developmental Disabilities (DD) Supplement. A goal of the DD Supplement is to allow these vendors to pay their employees at least 124 percent of the minimum wage. In 2017, the DD Supplement is projected to cost the County over \$13 million. Based on information from providers, raising the minimum wage to \$15.00 per hour will increase the DD Supplement by an additional \$23 million (see **Appendix G**).

Recipients have noted that the DD Supplement only covers the base wage and does not provide assistance for additional costs of benefits, requiring other funding sources to cover the difference. According to one DD Supplement recipient, these additional costs amount to roughly 20 percent of the base wage. With a minimum wage increase to \$15.00, the organization will have to cover the proportional increase in benefits. This supplement only covers services provided to individuals with disabilities and does not assist with the cost of providing services to other individuals.

Wage Compression

Non-profit organizations already operate on tight pay scales, with some professional employees (with college degrees and professional certifications) making little more than \$15.00 per hour. If less skilled employees are elevated to similar hourly wages, these organizations are likely to have to provide increases to their more highly skilled employees as well.

Wage competition will more or less require this type of wage growth. Given the difficult nature of providing social services, many organizations strive to pay their employees more than minimum wage to incentivize workers to remain with an organization, rather than finding a less stressful job in other sectors. This effect will also ripple through organizations without any employees at the current minimum wage.



Increased Costs

During interviews with the project team, an HHS representative discussed a report that projected the increased costs to HHS from their non-profit vendors of a \$15.00 per hour minimum wage. While the project team has not had the opportunity to view the report, the representative estimated the increased costs from the DD Supplement at an additional \$23 million and increased costs from all other vendors at over \$20 million, creating a total additional yearly cost of over \$43 million.

Findings

- Survey responses and focus group feedback suggest that County businesses are likely to lay off employees, replace unskilled or lower-educated employees with more qualified employees, cut remaining employee hours and benefits, suspend existing plans to invest in new locations or hire additional employees, and, at worst, close their businesses in responses to rising personnel costs driven by a minimum wage increase. The survey results are summarized in the following table.**

Table 33: How likely are you to do any of the following if the minimum wage increases to \$15.00 per hour? (Employee Impacts)

	Very Unlikely	N/A/Don't Know	Very Likely
Reduce hiring	24.3%	12.5%	63.2%
Reduce hours per employee	27.7%	13.1%	59.2%
Reduce number of employees	27.3%	15.3%	57.4%
Decrease benefit offerings to hourly employees	28.3%	19.4%	52.3%
Increase experience required for employees	33.8%	16.0%	50.1%
Increase education required for employees	42.9%	21.1%	36.0%
Reduce training	55.8%	20.5%	23.8%

Business owners indicated that the level of job loss would accelerate as the minimum wage rose, estimating that they would reduce their lower-wage workforce by an average of 23 percent should the minimum wage reach \$15.00 per hour. This sentiment aligns with minimum wage impact analysis done by Neumark, which showed that low-wage workers are the cohort most likely to lose jobs as the minimum wage increases. This is compounded by the County's schedule of five increases over a period of time (compared to a one-time increase, as was evaluated in other studies). A recent study of Seattle's minimum wage ordinance, which also features a series of increases to \$15.00 per hour,



indicated that low-wage workers experienced a decline in both the hours worked and number of jobs.

5. **Prior research indicates that a minimum wage increase would have benefits for employers as well.** Higher earnings tend to improve employee morale, which would reduce turnover and the costs associated with hiring and training new employees. Additionally, research indicates that employee productivity can increase as the result of a wage increase, either through employees working “harder and smarter,” replacement of unskilled labor with more qualified employees, or increased use of automation.
6. **Survey and focus group responses indicate philosophical support for minimum wage increases, particularly among representatives of non-profit organizations.** However, non-profit organizations raise significant concerns that increased personnel costs will force a reduction in critical community services. Given the low-wage worker job loss projections, these cuts may come at a time when demand for services among unemployed individuals in the County will be increasing.
7. **Non-profit organization feedback indicated that the proposed increases under Bill 12-16 would cause them to seek funding increases and look to new funding sources.** In many instances, funding formulas and other program constraints mean that there is little opportunity for non-profit organizations (and the programs they run) to pass along additional costs. Because new sources of grants and private funders are limited, this would mean that they would primarily rely on seeking additional funds from the County.



Socioeconomic Impacts

Beyond the local economy and County Government, increasing the minimum wage is projected to have wide-ranging socioeconomic impacts. The following discusses some of the surrounding issues.

Spending Habits of Minimum Wage Earners

An increase in the minimum wage is anticipated to bring changes to the consumption patterns of minimum wage earners in Montgomery County. In general, increased income for minimum wage workers will increase their spending levels. More than most any other group, minimum wage workers will put back into the (mostly local) economy their additional hourly wages in the form of increased consumption.

The BLS and the U.S. Census Bureau conduct the quarterly Consumer Expenditure Survey (CES), which releases data on household spending. The data is collected through two instruments, an interview survey and a diary survey. The interview survey is conducted once in person for each respondent, while the diary survey is completed over the span of two weeks - respondents record daily spending habits over a two-week period. The BLS releases this data on both the national level and for select metropolitan areas. Individual data sets can be further divided by percentiles of income.

For purposes of this analysis, the project team used national-level CES data, which provides spending trends by percentiles of income (quintiles). While metropolitan level data was available, that data could not be parsed by income level. The project team compared spending in the two lowest with the third quintile, assuming that most minimum wage earners would not move into the two highest quintiles. The following details the average annual income for each quintile in the CES data.

**Table 36: Consumer Expenditure Survey,
Average Annual Income by Quintile**

	Average Annual Income
Lowest Quintile	\$10,916
Second Quintile	\$28,343
Third Quintile	\$49,606
Fourth Quintile	\$80,813
Fifth Quintile	\$177,851



Average U.S. household spending in 2015 was \$55,978. The three biggest components of spending for all US consumers in 2015 were housing (32.9 percent), transportation (17 percent), and food (12.5 percent). This holds true for all but the highest quintile.

Within the major categories of spending, there are variations across income levels. Households in the lowest quintile spend slightly more of their income on food compared to all other quintiles, at 15.4 percent. Spending for food at home is also larger, at 10.2 percent for the first quintile, and 9.3 percent for the second. Food habits do not begin to mirror the general U.S. population until reaching the third quintile, at \$46,807 average annual after tax earnings in 2015. The largest variation in spending between minimum wage earners and the average U.S. household is in housing. Consumers in the lowest quintile spent on average 40.4 percent of their income on housing, far higher than the 32.9 percent spent by the general US population. Consumer spending begins to approach general trends once they hit the third quintile.

The lowest quintile spends less on transportation, at 14.5 percent of expenditures, than other quintiles. This is primarily due to lower spending on gasoline and lower spending on vehicle purchases in general. Spending on used trucks continues to exceed spending on new vehicles until consumers reach the fifth quintile, with an average annual income of \$177,851.

Changes in Spending Behavior

A few studies have looked into what behavior changes occur as the minimum wage increases. It is notable that changes in income also typically occur with changes in age, which can make it more difficult to discern changes in spending based solely on income. The BLS suggests these changes in consumption may be related to life events, such as obtaining employment, marriage, and children. It can be difficult to separate a change in income from these other changes - and they may be related. As an individual's earnings increase, he or she may be more willing to engage in other life events (such as getting married and having children).⁴²

The Federal Reserve Bank of Chicago investigated changes in consumption behavior using CES, the Current Population Survey (CPS), and credit card data.⁴³ The study found that the most significant change in consumption patterns among minimum wage workers was an increase in the purchase of durable goods, particularly vehicles. While individual incomes increased an average of \$250 per quarter following a minimum wage increase, spending increased by an average of \$700 per quarter. Using consumer credit data, the study confirmed that minimum wage earners increased their borrowing in response to the minimum wage increase. The study also found that spending habits did not change in anticipation of the increase (i.e. when the minimum wage legislation passed), and only changed following the actual increase.

⁴² Bureau of Labor Statistics, "Problems in Labor Statistics: Spending Patterns by Age," U.S. Department of Labor, August 16, 2000.

⁴³ Daniel Aaronson, Sumit Agarwal, and Eric French, "The Spending and Debt Responses to Minimum Wage Increases," Federal Reserve Bank of Chicago, February 8, 2011.



Other studies looked at how spending patterns changed in response to anticipated increases in income. A study of the United Kingdom's Universal Minimum Wage did not find any significant changes to spending patterns, and a study on Alaska's Permanent Fund also did not find any changes.⁴⁴ These studies are not entirely on point, as the United Kingdom study looked at the national level, and the Permanent Fund is an annual one-time payment rather than a recurring hourly wage increase.

If the County increases the minimum wage to \$15.00 per hour, it is likely that spending patterns will begin to mirror spending patterns of individuals in the second and third quintile of incomes. An increase in minimum wage workers' incomes may result in food, housing, and transportation comprising a smaller portion of their income, and an increase in the purchase of durable goods, like vehicles.

Impact on Citizen Eligibility for Government-Funded Programs

Eligibility determinations were calculated for the programs that provided eligibility criteria. The project team assumed the impacted individuals were full-time employees (2,000 hours/year) living as the sole member of their household and calculated eligibility based on the prior (\$10.75) and current (\$11.50) minimum wage hourly rates as well as the proposed minimum wage hourly rates of \$15.00. It is likely that individuals with other characteristics (such as less hours worked or part of a larger household) are even less likely to lose income-based eligibility for programs. This set of determinants seems to represent the 'best case' for losing eligibility because of a higher minimum wage.

The analysis found that, in general, minimum wage earners, if eligible for program benefits at \$10.75 per hour, maintained their same level of eligibility for the same program during the increase to the current minimum wage of \$11.50 per hour and at \$15.00 per hour. The proposed increase is not sufficient to raise many families above the federal poverty level, one of the most commonly used criteria for determining eligibility for social safety net programs. In addition to income, most programs consider household size, number of dependents, and total family assets, which were not controlled for in the example case study. Due to the limited eligibility information received and publicly available, the project team did not account for programs that proportionately decrease benefits ("phase out") as household income increases.

This analysis is supported by other research. An Economic Policy Institute (EPI) study concluded that minimum wage increases do not successfully reduce overall social safety net participation, due to reduced job opportunities and lost jobs among welfare recipients. While

⁴⁴ Andrew Aitken, Peter Dolton and Jonathan Wadsworth, "Did the minimum wage change consumption behavior?" Royal Holloway College, University of London, Centre for Economic Performance at the London School of Economics, June 2, 2014; Chang-Tai Hsieh, "Do Consumers React to Anticipated Income Changes? Evidence from the Alaska Permanent Fund," *The American Economic Review*, March 2003.



some participants will exit social service programs, others will enter as they lose their jobs or have difficulty finding a job.⁴⁵ EPI's researchers developed a statistical model and determined that caseloads and expenditures would not reduce as a result of the increase.

Minimum wage increase advocates often argue that raising the minimum wage will save taxpayers money by reducing low-income earners' reliance on public assistance safety net programs. However, there are few studies that support this claim. At the federal program level, the Congressional Budget Office (CBO) found that a higher minimum wage, across all programs, would have little net effect on the federal budget. The CBO found that, in the short term, "workers whose income rose because of a minimum-wage increase would consequently pay more in taxes and receive less benefits."⁴⁶ However, in the long term, an increase in the minimum wage would have adverse employment effects, leading to lower federal tax revenue and a higher demand for public assistance benefits. The jobless, having no wages to increase, would still be reliant upon public welfare programs regardless of a mandated minimum wage increase. The EPI study explained these findings by "(i) non-workers being less likely to find jobs as a result of minimum wage increases and hence are more likely to take up these forms of public assistance, or (ii) new non-workers – those disemployed from minimum wage hikes – being more likely to take-up public assistance than prior non-workers."⁴⁷

Impact on Wage Inequality

While the degree of impact varies between different sources, most researchers agree that raising the minimum wage has a positive impact on reducing wage inequality, at least on the lower end of the wage distribution. There is also consensus that this disproportionately impacts women, given the higher percentage of women working at or near minimum wage.

Researchers have looked at the impact of the minimum wage on wage inequality by analyzing the rising wage inequality and falling real value of the minimum wage between 1979 and 2009. One study from the American Economic Association found that, while minimum wage does impact wage inequality, it is not necessarily the main driver of change:

"We estimate that between 1979 and 1989, the decline in the real value of the minimum wage is responsible for 30 to 55 percent of the growth of lower tail inequality in the female, male, and pooled wage distributions (as measured by the differential between the log of the fiftieth and tenth percentiles). Similarly, calculations indicate that during the full sample period of 1979–2012, the declining minimum wage made a meaningful

⁴⁵ Joseph J. Sabia and Thanh Tam Nguyen, "The Effects of Minimum Wage Increases on Means-Tested Government Assistance," Employment Policies Institute, December 2015.

⁴⁶ Congressional Budget Office. 2014. "The Effects of a Minimum-Wage Increase on Employment and Family Income." Retrieved from <http://www.cbo.gov/publication/44995>

⁴⁷ Joseph J. Sabia and Thanh Tam Nguyen, "The Effects of Minimum Wage Increases on Means-Tested Government Assistance," Employment Policies Institute, December 2015.



contribution to female inequality, a modest contribution to pooled gender inequality, and a negligible contribution to male lower tail inequality.”⁴⁸

Other studies claim a larger impact of a higher minimum wage on wage inequality. An EPI study determined that falling minimum wages accounted for the majority (57 percent) of the rise in wage inequality between 1979 and 2009:

“Between 1979 and 2009 the erosion of the minimum wage explained about two-thirds (65.5 percent) of the large 25.2 (log percentage point) expansion of the wage gap between median-wage workers and workers at the 10th percentile in wages—known as the 50/10 wage gap—among women but just over a tenth (11.3 percent) of the smaller 5.3 expansion of the 50/10 wage gap among men. For workers overall more than half (57.0 percent) of the increase in the 50/10 wage gap from 1979 to 2009 was accounted for by the erosion of the minimum wage.”⁴⁹

Effects on Employee Morale, Stress, and Mental Health

Living wage policies have impacts on employees that often extend beyond increased earnings. Proponents of increasing the minimum wage also point to increased employee morale, decreased employee stress levels and improved mental health as additional benefits of raising employee wages.

Two reports on the impact of increasing the minimum wage indicate that raising wages leads to an improvement in employee morale. In a survey of employees at San Francisco Airport, employers reported a 47 percent increase in employee morale after a substantial wage and benefits increase was implemented, with 37 percent of employers reporting no change and 16 percent stating that morale was worse after the increase. Employers also reported overall improvement in worker performance and reductions in absenteeism in the same survey.⁵⁰ A similar survey conducted three years after the City of Boston implemented a living wage law found that 25 percent of firms reported higher employee morale and greater employee effort after the implementation of the wage increase.⁵¹

Social research finds that economically disadvantaged families often experience higher levels of stress as daily economic pressures compound existing life stressors for workers and their families. Research shows that low-wage workers regularly have difficulty paying for their

⁴⁸ David H. Autor, Alan Manning, and Christopher L. Smith. 2016. "The Contribution of the Minimum Wage to US Wage Inequality over Three Decades: A Reassessment." *American Economic Journal: Applied Economics*, 8(1): 58-99.

⁴⁹ Lawrence Mischel, "Declining value of the federal minimum wage is a major factor driving inequality," *Economic Policy Institute*, February 21, 2013, <http://www.epi.org/publication/declining-federal-minimum-wage-inequality/>.

⁵⁰ Reich, Hall, and Jacobs, "Living Wage Policies at the San Francisco Airport", 2005.

⁵¹ Mark D. Brenner and Stephanie Luce, "Living Wage Laws in Practice: The Boston, New Haven and Hartford Experiences," *Political Economy Research Institute*, 2005.



monthly bills or necessary repairs. According to one source, “Low-wage work provides employment income, but often it is not enough to stave off high levels of financial stress.”⁵² In addition, other research points to the psychological stress of low-wages, as many individuals connect a sense of their own value to their wage. Feelings of low self-worth can lead to additional stress and can have an impact on the mental health of workers.⁵³

Poverty can be a cause as well as a result of poor mental health. A study from The Commonwealth Fund found that from 1997 to 2003, the health status of both high-wage and low-wage workers declined, most likely due to the aging of the workforce population. During that same period, low-wage workers experienced slight declines in their mental health compared to high-wage workers but were more likely to self-report worse mental health than high-wage workers. In addition, low-wage workers are more likely to be uninsured and, as a result, less likely to use preventative services or to take a prescription medication.⁵⁴ In this situation, conditions can go undiagnosed and untreated, which can then lead to underemployment or unemployment.

In April 1999, the United Kingdom implemented a National Minimum Wage. Multiple studies have evaluated the impact of that increase on mental health. In one report, researchers noted that the introduction of the National Minimum Wage led to improved mental health reporting among low-wage workers to a degree similar to the effect of antidepressants on depression.⁵⁵ Another study on workers in the Dominican Republic one year after a wage increase in a clothing factory found that only 23 percent of the workers in the living wage factory had depressive symptoms, compared to 40 percent of workers in the factory without a living wage increase.⁵⁶

In recent years, psychologists have begun advocating for an increase in the minimum wage, noting the correlation between poverty and decreased psychological well-being. A recent article published in *American Psychologist* pushed for greater advocacy in support of increasing the minimum wage. The article notes not only the negative impact that poverty has on physical and psychological well-being but also claims that low-income individuals also suffer from social

⁵² Lisa Dodson, Randy Albelda, Diana Salas Coronado and Marya Mtshali, “How Youth Are Put At Risk by Parents’ Low-Wage Jobs,” *Center for Social Policy Publications*, http://scholarworks.umb.edu/csp_pubs/68/.

⁵³ Paul J. Leigh. “Raising the minimum wage could improve public health,” *Economic Policy Institute*, March 2013, <http://www.epi.org/blog/raising-minimum-wage-improve-public-health/>.

⁵⁴ Sherry Glied and Bisundev Mahato, “The Widening Health Care Gap between High-And Low-Wage Workers,” *The Commonwealth Fund*, May 2008.

⁵⁵ Aaron Reeves, Martin McKee, Johan Mackenbach, Margaret Whitehead, and David Stuckler, “Introduction of a National Minimum Wage Reduced Depressive Symptoms in Low-Wage Workers: A Quasi-Natural Experiment in the UK,” *Health Economics* 26 (2017), 639-655. <http://onlinelibrary.wiley.com/doi/10.1002/hec.3336/epdf>.

⁵⁶ Katharine B. Burmaster, John C. Landefeld, David H. Rehkopf, Maureen Lahiff, Karen Soka-Gutierrez, Sarah Adler-Milstein, Lia C.H. Fernald, “Impact of a private sector living wage intervention on depressive symptoms among apparel workers in the Dominican Republic: a quasi-experimental study,” *BMJ Open*. 2015. <http://bmjopen.bmj.com/content/5/8/e007336>.



exclusion by which they have less access to resources and opportunities, which exacerbates the negative effects of poverty and keeps them from being able to fully participate in political and policy decisions that directly influence them.⁵⁷

Improvements to employee morale, reduced stress levels, and improved mental health are all connected to decreases in poverty and would likely improve if Montgomery County adopted an increase to its minimum wage. In addition, low-wage employees who benefit from the wage increase are likely to experience reduced stress and improved morale, based on the research. However, if businesses respond to the minimum wage increase with employee layoffs or a reduction in hours or benefits, it is likely that the positive impacts associated with the increase will be offset by any negative impacts of unemployment on workers.

Effects on Family Instability, Depression, and Hunger

During the interviews with business and non-profit leadership members, the project team found that many believe that increasing the minimum wage would be an overall benefit to society. Interviewees expressed a belief that increasing wages would make workers and families healthier and happier. In some instances, this was tempered by the belief that many businesses would not be able to support those increases without reducing staff or services. Some expressed the wish that they had more that they could give to their employees, but that they could not afford to give them any additional financial compensation.

In 2017, 14 percent of American households did not regularly have enough food for all members of their household. In the years since the Great Recession, the number of families experiencing food insecurity has grown. For families earning less than \$40,000, food comprises between 13 and 15 percent of average annual expenditures. In order to study the effects of raising the minimum wage on hunger, the Century Foundation, developed an economic model that explored increasing the minimum wage to \$8.00 in 2016 and then increasing the wage annually until it reached \$15.00 in 2023.⁵⁸

The model found that increasing the minimum wage to \$15.00 per hour would end hunger for 1.2 million households nationally.⁵⁹ The effects were most notable for single-parent and non-white households as well as for parents who had only attained a high school diploma. The model also suggested that raising the minimum wage would have the most impact on low-wage families with jobs that are struggling to afford enough food for their families rather than the unemployed or significantly impoverished. The additional income can be the difference

⁵⁷ Laura Smith. "Reforming the Minimum Wage: Toward a Psychological Perspective." *American Psychologist*. 70(2015), <http://pocketknowledge.tc.columbia.edu/home.php/viewfile/147920>.

⁵⁸ William M. Rodgers III, "The Impact of a \$15 Minimum Wage on Hunger in America." *The Century Foundation*. September 2016.

⁵⁹ Michelle Chen, "A \$15 Minimum Wage Would Stop 1.2 Million Households from Going Hungry," *The Nation*, September 2016.



between being able to afford their own groceries and needing to visit a food pantry. In 2014, 54 percent of Americans using a food pantry were from working families.

Reducing hunger will also likely increase worker productivity, as the study found that most of the impact was on the adults, who typically forgo meals on behalf of their children. Increased wages not only reduce worry and distraction related to providing food in households, but allow the heads of households to be more productive at their jobs.⁶⁰

Poverty and family instability are likely linked, as poverty and its associated economic and emotional stresses increase the risks to relationships. However, there are no conclusive studies that point to the degree to which family instability and poverty are connected. Poverty is a more significant indicator of a child's cognitive development than family instability.⁶¹

As noted in the analysis on overall mental health, there is a connection between individuals earning low wages and increased depressive symptoms. According to a 2011 Gallup survey, the percent of individuals diagnosed with depression was double for those in poverty in comparison to those that were not in poverty.⁶²

As previously discussed, as households with minimum wage earners increase their income, they will have more money to spend on essential items, such as food and health care. As a result, the impact of raising the minimum wage on employees for reducing hunger and depression in Montgomery County should be largely positive. Family instability may decrease, as increased wages help reduce economic stresses of poverty. However, these positive effects assume that all businesses are able to support these wage increases without reducing staff levels or eliminating benefits to employees. If this is not the case, some individuals will become unemployed and less able to provide for their families.

Impact on Low-Income Seniors with Part-Time Jobs

Overall, older workers represent the smallest percentage of the hourly wage workforce. BLS data indicates that employees aged 65 and older represent four percent of the total number of hourly workers. Excluding those aged 65 and older, the number of workers receiving hourly wages is fairly evenly distributed across age ranges, with those between ages 25-34 slightly larger than other age ranges.⁶³ This data has often been used to claim that 80 percent of

⁶⁰ Rodgers, "The Impact of a \$15 Minimum Wage on Hunger in America," September 2016.

⁶¹ "Long term poverty but not family instability affects children's cognitive development," *Science Daily*, April 2011, <https://www.sciencedaily.com/releases/2011/04/110420184437.htm>.

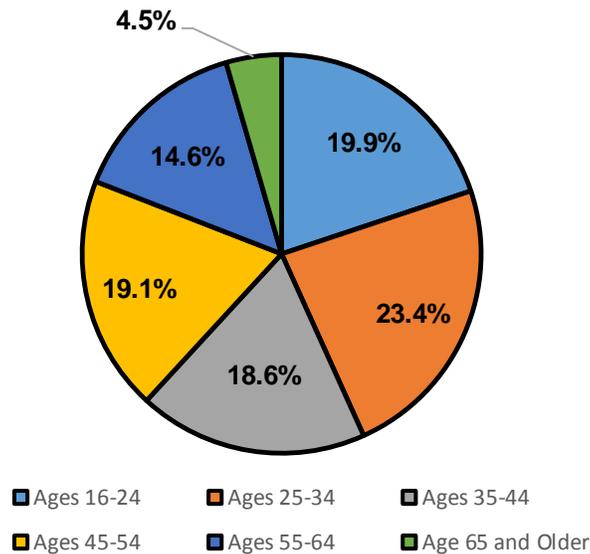
⁶² Alyssa Brown, "With Poverty Comes Depression, More than Other Illnesses." Gallup.com October 2012, <http://www.gallup.com/poll/158417/poverty-comes-depression-illness.aspx>.

⁶³ "Characteristics of minimum wage workers, 2015," U.S. Bureau of Labor Statistics, <https://www.bls.gov/opub/reports/minimum-wage/2015/home.htm>.



minimum wage employees are over the age of 24. In fact, this data only supports the number of hourly employees and does not distinguish based on wages, as can be seen in **Figure 6**.

Figure 6: Workforce Paid Hourly Wages by Age, 2015

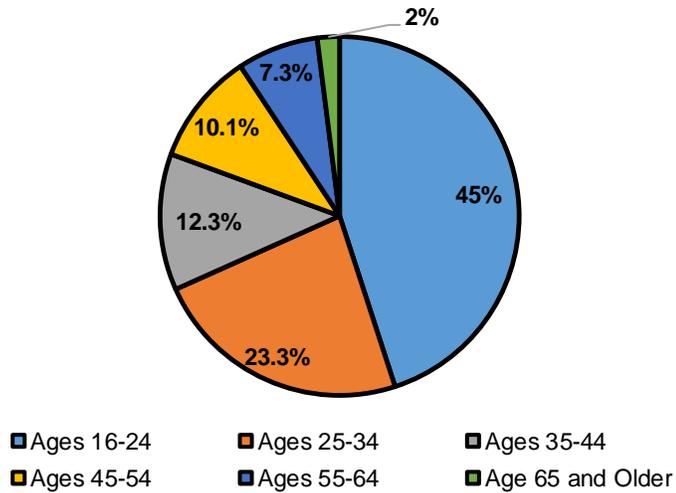


Source: Bureau of Labor Statistics

Although workers under the age of 25 comprise 20 percent of hourly paid workers, they represent almost half of the workforce that is paid at or below the federal minimum wage, while workers over the age of 65 represent two percent of the workforce receiving at or below minimum wage. **Figure 7** below shows the breakdown of the workforce earning the minimum wage by age.



Figure 7: Hourly Workforce Making At or Below the Minimum Wage by Age, 2015



Source: Bureau of Labor Statistics

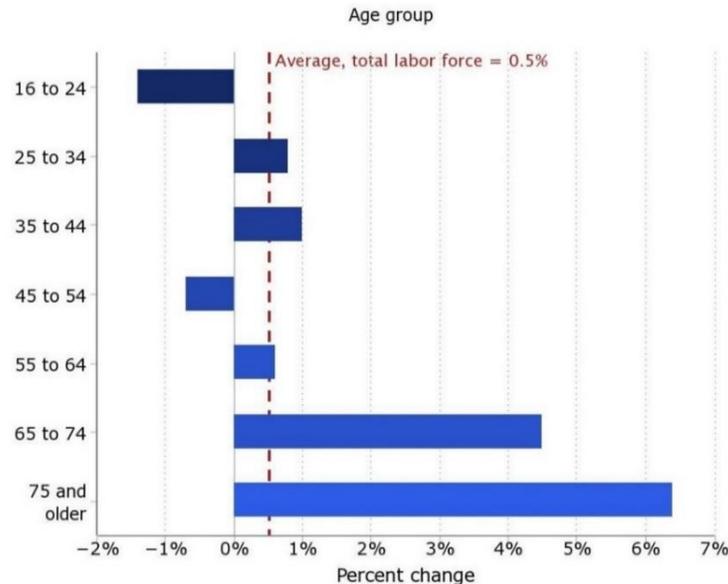
These percentages may change in the future, as increasing numbers of older workers are staying in or returning to the labor force, as more baby boomers postpone retirement. According to the BLS, between 1977 and 2007 the number of workers aged 65 and over in the workplace increased 101 percent, compared to an increase of 59 percent among the total population.⁶⁴ As shown in **Figure 8**, the largest anticipated growth in the labor market between FY2014 and FY2024 is from workers over the age of 65.⁶⁵

⁶⁴ “BLS Spotlight on Statistics: Older Workers,” U.S. Bureau of Labor Statistics, <https://www.bls.gov/careeroutlook/2017/article/older-workers.htm>.

⁶⁵ “Bureau of Labor Statistics: Projections of the labor force, 2014-2024,” U.S. Bureau of Labor Statistics, <https://www.bls.gov/careeroutlook/2015/article/projections-laborforce.htm>.



Figure 8: Percent Change in Labor Force by Age (and sex)



Source: Bureau of Labor Statistics

Not only are there more older employees participating in the workforce, more of them are employed at full-time rather than part-time positions. In June 2016, the Pew Research Center noted that the part-time share of older workers has fallen 10 percent since 2000.⁶⁶

Senior citizens may feel the impact of a minimum wage increase in a variety of ways. Many live on a fixed income, typically through Social Security, which determines benefits based on an individual's lifetime earning history. Individuals who have historically had lower-paying jobs receive a lower amount of retirement income than those with higher-paying jobs. Research shows that low-wage and part-time workers are also less likely to have pension coverage or other retirement investments, and are less likely to have pension income in retirement.⁶⁷

For individuals who supplement their income with a part-time position, an hourly wage increase would provide them more disposable income and with increased purchasing power. Of course, increasing the minimum wage may also lead to cost of living increases, as retailers, restaurants, and other businesses pass increased personnel costs onto consumers. In particular, many seniors rely on home health care services, such as senior personal care, companion care, and in-home care. These caregivers and companions would also have their wages increase, and those costs would likely be passed along to seniors and their families.

⁶⁶ Drew Desilver, "More older Americans are working and working more, than they used to," Pew Research Center, June 20, 2016, <http://www.pewresearch.org/fact-tank/2016/06/20/more-older-americans-are-working-and-working-more-than-they-used-to/>.

⁶⁷ Kijakazi Kilolo, "Low Wage Earners: Options for Improving Their Retirement Income," *Center on Budget and Policy Priorities*, June 2003.



Effects of Poverty on Children's Performance in School and Future Earning Potential

Research shows that family income is linked to high school graduation rates. A 2014 article cited a new report from GradNation that found that low-income students graduated at a lower rate than their peers. In most states, the gap between low-income students and their peers was in the double digits.⁶⁸

Attaining a high school diploma is a significant predictor of future earnings. According to a 2008 study conducted by the United States Department of Education, the median income of an individual who did not graduate high school is \$23,000 per year, while the median income of a person who graduated high school is \$42,000 per year. As a result, over the course of a career, a high school graduate will earn approximately an additional \$630,000.⁶⁹ For low-income students, not earning a degree makes them more likely to remain low-income in adulthood.

Research on the impact of increasing the minimum wage on graduation rates and employment is mixed. A 1995 report assessing the impact of raising the federal minimum wage on teenage employment and graduation found that higher wages would cause lower skilled teenagers to be replaced in the workforce with more highly skilled teens. In addition, the data suggested that increasing the minimum wage would lead to teens leaving school at an earlier age and that these effects were stronger for teenagers with the worst employment prospects and for minorities. The study also found that raising the minimum wage increased the probability that teenagers who had been earning below the new minimum wage would become unemployed.⁷⁰

Conversely, a paper published by EdPolicy Works found that a 10 percent increase in the federal minimum wage would lower the likelihood of low socioeconomic teenagers earning that wage dropping out of high school by 4 to 10 percent. It posited no change in the drop-out rate for teenagers from more affluent families, even with an increase in their wage.⁷¹

To date, there are no conclusive studies on the impact to youth employment and educational attainment in states or cities that have implemented an increase in the minimum wage to \$15.00 per hour. However, a June 2017 report on Seattle's progress in raising the minimum wage noted that the number of jobs paying less than \$13.00 per hour declined 39 percent between FY2014 and FY2016, and the total number of jobs paying less than \$19.00 per hour fell by

⁶⁸ Ben Cosman, "The High School Graduation Rate is Great, Unless You're Poor," *The Atlantic*, April 28, 2014.

⁶⁹ Chris Chapman, Jennifer Laird and Angelina Kewal-Ramani, "Trends in High School Dropout and Completion Rates in the US 1972-2008," U.S. Department of Education, <https://nces.ed.gov/pubs2012/2012006.pdf>.

⁷⁰ David Neumark, "The Effects of Minimum Wages on Teenage Employment, Enrollment, and Idleness," *Employment Policies Institute*, August 1995, <http://files.eric.ed.gov/fulltext/ED397241.pdf>.

⁷¹ Alex Smith, "The Minimum Wage and Schooling Decisions of Teenagers," EdPolicy Works Working Paper Series No 32, September 2014.



approximately five percent during that same period.⁷² As the majority of low-income workers are youths, the report suggests a significant job loss impact for teenagers.

Alternate Strategies to Address Income Inequality

While the balance of this report addresses the issues associated with incrementally raising the Montgomery County minimum wage to \$15.00 per hour, there are other approaches worth considering to deal with issues of income inequality, poverty and general lack of resources for minimum wage workers.

Among the means to address these concerns are the Earned Income Tax Credit, Direct Wage Subsidy, Tax Incentive Subsidy, Child and Dependent Tax Credit and Guaranteed Income. Of course, to be impactful, the following recommendations would require significant additional revenues or a reallocation of funds from other programs. In many cases, the costs associated with providing these resources will vary depending on factors that cannot be readily quantified for this study. The following discusses these alternatives.

Expand the Earned Income Tax Credit (EITC)

In 1999, Montgomery County was the first local jurisdiction in the country to offer a refundable EITC and currently is one of only three counties to do so. An expansion of the credit is another way the County can seek to address income inequality.

The Montgomery County EITC, also known as the Working Families Income Supplement, pays workers an amount equal to the amount they receive as a Refundable EITC from the State of Maryland. The Working Families Income Supplement is initiated by the worker while filing their State of Maryland income tax return.

The federal EITC is paid to low and moderate income workers as a refundable federal individual income tax credit. The credit amount increases as the worker's earned income grows until it reaches a maximum credit level and then begins to phase out (**Table 37**). The EITC has been a powerful tool in reducing poverty. Currently, more than 27 million workers in the United States receive the federal EITC.

⁷² Ekaterina Jardim, Mark C. Long, Robert Plotnick, Emma van Inwegen, Jacob Vigdor, Hilary Wething, "Minimum Wage Increases, Wages, and Low-Wage Employment: Evidence from Seattle," *National Bureau of Economic Research*, June 2017, <http://www.nber.org/papers/w23532>.



Table 37: Income Eligibility and Maximum Credit Amount

	Qualifying Children Claimed			
	Zero	One	Two	Three or More
Single Head of Household	\$14,880	\$39,296	\$44,648	\$47,955
Married Filing Jointly	\$20,430	\$44,846	\$50,198	\$53,505
Max Credit Amount - Federal	\$506	\$3,373	\$5,572	\$6,269
Max Credit Amount - MD	\$253	\$1,686	\$2,786	\$3,134

Maryland is one of 29 states that have their own version of an EITC. The Maryland EITC is available to workers who qualify for the federal EITC and reduces or eliminates the amount of state and local income tax that is owed. The amounts of the credits are listed in **Table 38**.

Table 38: EITC Credits

	Credit Amount
MD Non-Refundable EITC	Up to 50% of the Federal Tax Credit
MD Refundable EITC	Up to 26% of the Federal EITC in 2016, 27% in 2017 and 28% thereafter

In 2014, nearly 57,000 Montgomery County residents filed for the Federal EITC, for credits totaling \$127 million.⁷³ Additionally, approximately 36,000 County residents were recipients of the Working Families Income Supplement.⁷⁴ In 2017, the Montgomery County budget allots \$24.3 million for the Working Families Income Supplement.

By increasing the amount of the Working Families Income Supplement, the County could put additional dollars in worker's pockets. This could most easily be accomplished by increasing the refundable percentage to a figure higher than the current match of the State's EITC. Even though adding a non-refundable portion or lowering the income eligibility requirements to allow greater participation by workers without children would have a positive effect, these methods would be significantly more difficult and costly to implement since it would impact the State's administration of the program and would require new state legislation.

⁷³ Brookings Institution, "Earned Income Tax Credit (EITC) Interactive and Resources," December 21, 2016, <https://www.brookings.edu/interactives/earned-income-tax-credit-eitc-interactive-and-resources/>.

⁷⁴ Federal Reserve Bank of Richmond, "Local EITC Montgomery County, Maryland," March 31, 2015, https://www.richmondfed.org/-/media/richmondfedorg/conferences_and_events/community_development/2015/pdf/montgomery_md_20150331.pdf?WT.si_n=Search&WT.si_x=3.



By extrapolating the above data, the FY2017 cost to the County resulting from a percentage increase in the matching Working Families Income Supplement and the increase in the average Supplement received by working families is shown in the table below.

Table 39: EITC Match Increases

Match	Budget	Increase in Cost	Average Supplement Earned	Increase in average Supplement
100%	\$24,275,000	-	\$674.31	-
125%	\$30,343,750	\$6,068,750	\$842.88	\$168.58
150%	\$36,412,500	\$12,137,500	\$1,011.46	\$337.15
200%	\$48,550,000	\$24,275,000	\$1,348.61	\$674.31

It should be noted that an increase in the minimum wage could have an impact on certain recipients of the EITC. Based on current eligibility limits, taxpayers who are married and filing jointly with either two or three or more children would earn above the eligibility limits (for purposes of this analysis we are assuming both parents work 2,000 hours at \$15.00 per hour). This could lead to the worker's potential loss of their EITC benefit from federal, state and local sources.

The table below shows the maximum hourly wage at 2,000 hours (4,000 for married filing jointly) where workers would lose eligibility.

Table 40: Maximum Hourly Wage for EITC Eligibility

	Qualifying Children Claimed			
	Zero	One	Two	Three or more
Single Head of Household	\$7.44	\$19.65	\$22.32	\$23.98
Married Filing Jointly	\$5.11	\$11.21	\$12.55	\$13.38

Strengths:

- System for administration is already in place.
- Has been a highly successful program both nationally and at the state level.
- Provides incentive to work.
- Avoids County costs associated with changes to its own salary structure and increases in the DD supplement or other additional payments for non-profits.



Weaknesses:

- Rather than receiving regular payments, qualified individuals receive a single yearly lump sum payment.
- Complicated for workers to determine eligibility. Many eligible individuals do not claim the EITC.
- Full-time workers without children making the current minimum wage of \$10.75 per hour would be over the maximum income amounts for eligibility (e.g. a worker earning \$10.75 per hour for 2,000 hours would earn \$21,500 which exceeds the limit of \$14,880 and would not be eligible for any EITC). This could, of course, be adjusted.

Opportunities:

- Provides incentive to work, potentially increasing County workforce.

Threats:

- Dependent on local economy to provide jobs since participants who lose their job are no longer eligible to receive EITC benefits. Job losses can result from many sources, including increased minimum wage, economic recession, and technology advancements.
- If the State of Maryland decided to dissolve their EITC program, the County would be responsible for the administration and associated costs of continuing the county-level EITC program.
- If tax rates are increased to pay for the subsidy, it incents some tax payers to relocate to nearby areas without the additional tax.

Direct Wage Subsidy

In a Direct Wage Subsidy, the government pays additional dollars per hour directly to workers. The wage can be either a target wage equal to the median wage in a local market or a distinct amount (such as \$15.00 per hour). For example, a worker making \$12.00 per hour could receive a \$3.00 subsidy to bring their overall compensation up to \$15.00 per hour. For the worker, it has the same (or perhaps better) financial impact as a minimum wage increase.⁷⁵ As with an EITC, the subsidy is paid via a government transfer payment. Funding for this program could come, in part, via a reallocation of the Montgomery County Working Families Income Supplement.

⁷⁵ It is possible, for example, that there are tax advantages from the subsidy as opposed to a minimum wage increase.



The costs would be based upon the amount of subsidy or incentive provided. For example, a subsidy of \$1.00 to the 107,000 workers making below \$15.00 per hour would require a County expenditure of \$214 million, assuming an average of 2,000 hours per year per worker.⁷⁶

Strengths:

- The worker receives the benefit of a higher wage immediately, and the total benefit increases as the number of hours worked increase versus the EITC where the benefits decrease as total income reaches certain levels.
- The cost of the subsidy is borne, most likely, by higher wage earners via progressive taxation as opposed to a minimum wage increase that is borne by a combination of the employers, employment levels and customers.
- As the wages are paid in each paycheck, unlike the EITC which is paid as a lump sum, the worker can more easily budget and has immediate use of the funds.
- Does not discourage hiring. Rather, as a portion of the cost is borne by a third party, a wage subsidy can act as an incentive to increase employment levels.

Weaknesses:

- Does not help families with children as much as the EITC. As the income eligibility ceiling for workers with children is significantly higher, workers with children have the opportunity to earn a higher income and still receive an EITC benefit. Alternatively, a full-time worker without children would be well over the eligibility ceiling, even at the current County minimum wage.

Opportunities:

- Since a portion of the cost is borne by a third party, a wage subsidy can act as an incentive to increase employment levels.

Threats:

- Employers can game the system by lowering current wages to receive the subsidy, thereby substantially increasing costs to County without proportionately increasing wages for workers.
- Increasing tax rates to pay for the subsidy incentivizes tax payers to relocate to nearby areas without the additional tax.

⁷⁶ Yannet Lathrop, "National Employment Law Project; Impact of a \$15.00 Minimum Wage in Montgomery County, MD," National Employment Law Project, July 8, 2016 <http://www.nelp.org/content/uploads/Fact-Sheet-Impact-of-15-Minimum-Wage-Montgomery-MD.pdf>.



Tax Incentive for Employers

Similar to the direct wage subsidy, a tax incentive could be provided to business owners who raise wages to a target wage (such as the same levels as the proposed minimum wage). This is accomplished by providing a refundable tax credit to the business (versus a subsidy given directly to the worker). The percentage can range from 1 to 100 percent.

This method has similar advantages to the worker as the direct wage subsidy. It incents higher wages from employers through the tax credit (although how much incentive and how many workers are incented is an open question, and there are not the guarantees of increased wages as in a mandated minimum wage).

The costs of the tax incentive would be similar to the wage subsidy.

Strengths:

- The worker receives the benefit of a higher wage immediately, and the total benefit increases as the number of hours worked increase unlike the EITC where the benefits decrease as total income reaches certain levels.
- The cost of the subsidy is borne, most likely, by higher wage earners via progressive taxation as opposed to a minimum wage increase that is borne by a combination of the employers, employment levels and customers.
- Since the wages are paid in each paycheck, unlike the EITC which is paid as a lump sum, the worker can more easily budget and has immediate use of the funds.
- Does not discourage hiring. Rather, as a portion of the cost is borne by a third party, a wage subsidy can act as an incentive to increase employment levels.

Weaknesses:

- Does not help families with children as much as the EITC. As the income eligibility ceiling for workers with children is significantly higher (see **Table 37**), workers with children have the opportunity to earn a higher income and still receive an EITC benefit. Alternatively, a full-time worker without children would be well over the eligibility ceiling, even at the current County minimum wage.
- Would require a system for administration by the County and require additional paperwork by the employer.
- Depending on the system there might be a lag in time between when the employer pays the wages and receives the tax benefit from the County.

Opportunities:

- Since a portion of the cost is borne by a third party, a wage subsidy can act as an incentive to increase employment levels.



Threats:

- Employers can game the system by lowering current wages to receive the subsidy, thereby substantially increasing costs to County without proportionately increasing wages for workers.
- Increasing tax rates to pay for the subsidy incentivizes tax payers to relocate to nearby areas without the additional tax.

Child and Dependent Care Credit

The Federal Child and Dependent Care Tax Credit (CDCTC) helps working families pay expenses for the care of children or adult dependents. Families can claim up to \$3,000 for one dependent or \$6,000 for two dependents. Families with an Adjusted Gross Income (AGI) of less than \$15,000 per year can claim up to 35 percent of their qualifying expenses. This percentage steadily declines as income rises until the family's AGI reaches \$43,000, where the credit tops off at 20 percent. Unlike the EITC, the CDCTC is not refundable.

The State of Maryland offers a similar CDCTC. The credit starts at 32.5 percent of the federal credit for families with an AGI below \$21,500 and phases out completely when AGI reaches \$50,000. Montgomery County does not provide its own Child and Dependent Care Tax Credit. Approximately 3,323 Montgomery County residents filed for the federal CDCTC in 2014.⁷⁷

In 2014, Montgomery County families filed 2,736 tax returns with the State of Maryland, with total credits of \$411,517, averaging \$150 per family.⁷⁸ If the County were to implement a credit that matches the state in terms of reimbursement and eligibility, the cost to the county would also be \$411,517, and families would receive an additional \$150 on average. Adding this program would provide additional resources for Montgomery County workers with dependent children or adults.

Strengths:

- System for administration is already in place in that Montgomery County could feasibly allow the State of Maryland to administer the program similar to the Working Families Income Supplement.
- Has been a successful program both nationally and at the state level.
- Provides incentive to work.

⁷⁷ Brookings Institution, 'Earned Income Tax Credit (EITC) Interactive and Resources,' 2016.

⁷⁸ Department of Legislative Services, Office of Policy Analysis, State of Maryland "Tax Incentives for Child and Dependent Care Expenses," December 2016.



Weaknesses:

- Rather than receiving regular payments throughout the year, recipients receive a lump sum payment once a year.
- Can be complicated for workers to understand, document and claim on tax return. Many eligible recipients do not claim their CDCTC.
- Does not provide assistance for lower income individuals without dependents.

Opportunities:

- Provides incentive to work.

Threats:

- Can be complicated for workers to understand, document and claim on tax return. Many eligible recipients do not claim their CDCTC.
- Increasing tax rates to pay for the subsidy incentivizes tax payers to relocate to nearby areas without the additional tax.

Findings

1. **Research indicates that increasing the minimum wage would have socioeconomic benefits for employees.** Increased wages are associated with improved mental health, reduced hunger and decreased stress for workers and their families.
2. **Raising the minimum wage may also reduce wage inequality, particularly given the number of women working at or below the minimum wage level.** This may have a significant impact given the number of women who receive minimum wages.
3. **Non-profit and focus group feedback indicated that the proposed increases under Bill 12-16 would cause non-profits to seek funding increases and look to new funding sources.** This would include asking the County for additional funds as well as looking to grants and private funders.
4. **The business owners interviewed were often supportive of raising the minimum wage and providing a true living wage for their employees.** However, there were doubts that their organization could withstand the increase and remain profitable.
5. **The majority of minimum wage earners would continue to be eligible for social programs with a minimum wage increase to \$15.00 per hour.** Workers currently eligible for program benefits while earning \$11.50 per hour would remain eligible for the same program after raising the minimum wage beyond \$11.50 per hour.



Modifications to Minimum Wage Increase Structure

Many local governments have included modifications to their legislation to address various issues or concerns. Some of the most common modifications include an “off ramp” provision, alternative rates for youth and/or trainee workers, and small business exemptions. To gauge business community support of these modifications, the project team included questions related to the provisions listed below in the business survey. Overall, the business community is open to modifications to reduce impacts on their bottom line, with some qualifications.

Off Ramp Provision

The 2016 County legislation included an “off ramp,” which suspends the scheduled minimum wage increases should certain economic conditions prevail. Beginning in 2018, the scheduled increases can be paused (and subsequent increases delayed) if the County Director of Finance certifies that one of the following four conditions is met:

- Total private employment for the County decreased 1.5 percent from April 1 to June 30 for the previous year,
- Total private employment for the County decreased by two percent over the period from January 1 to June 30 of the previous year,
- The Gross Domestic Product (GDP) of the United States has experienced negative growth for the preceding two quarters, or
- The NBER has determined that the U.S. economy is in a recession.

While not widely used in jurisdictions with scheduled minimum wage increases, economically-triggered “off ramps” were included in both the State of California and State of New York minimum wage increase legislation. In California, the economic indicators are state-specific and are similar to those outlined in the Montgomery County increase bill:

- Total non-farm employment for California decreased during the three month period from April to June,
- Total non-farm employment for California decreased during the six month period from January to June,
- Retail sales and use tax cash receipts from the one month period preceding the determination (July 1 to June 30) is less than retail sales and use tax cash receipts from the prior July 1 to June 30 period (13 months earlier), or
- The Special Fund for Economic Uncertainties has a negative balance in the current fiscal year or would have a negative balance in the following two fiscal years or the General Fund would be in a deficit in the current fiscal year or following two fiscal years.⁷⁹

⁷⁹ Increases cannot be suspended more than two times



In New York State, beginning in 2019, the Director of the Division of the Budget will conduct an annual analysis of the economy in each region and the effect of the minimum wage increases statewide to determine whether a temporary suspension of the scheduled increases is necessary. That analysis will be submitted to the Department of Labor, but no specific economic triggers are outlined.⁸⁰

The inclusion of the “off ramp” provisions was generally supported by interviewed business owners. There was consensus that these provisions would lessen the risk associated with higher wage rates during an economic downturn. In the survey conducted by the project team, over 30 percent of respondents indicated that limiting or halting an increase to the minimum wage if economic conditions worsen from the prior year would lessen the impact of the scheduled increases on their organizations.

The inclusion of a provision allowing for the temporary suspension of scheduled increases due to poor economic conditions is advisable. The current expansion phase of the business cycle began more than 8 years ago. The average expansion cycle in modern history (1945 to 2009) has been 58.4 months.⁸¹ An economic downturn in the near future might magnify the potential negative effects of a minimum wage increase. An “off ramp” provision would likely help protect County businesses from these effects.

Table 41: Growth/Decline in Total County Private Employment, Prior Periods of Economic Downturn

	County Private Employment Growth/Decline
January - June 2008	2.7%
April - June 2008	1.1%
2008 Percent Change	-0.9%
January - June 2009	1.4%
April - June 2009	1.4%
2009 Percent Change	-4.3%

Source: U.S. Bureau of Labor Statistics QCEW, Total Private Employment

It is important to note that a decrease in private employment in the County, which is the basis for suspending scheduled increases outlined in the current bill, did not occur during the last national recession. As shown in **Table 41**, while total private employment in the County declined on an annual basis in both 2008 and 2009, employment actually increased between 1.1 and 2.7 percent during the periods of January to June and April to June (the periods of measurement provided in the legislation) during the peak years of the Great Recession. Should

⁸⁰ State of New York, “Governor Cuomo Signs \$15 Minimum Wage Plan and 12 Week Paid Family Leave Policy into Law,” April 4, 2016, <https://www.governor.ny.gov/news/governor-cuomo-signs-15-minimum-wage-plan-and-12-week-paid-family-leave-policy-law>.

⁸¹ National Bureau of Economic Research, “US Business Cycle Expansions and Contractions,” http://www.nber.org/cycles/US_Business_Cycle_Expansions_and_Contractions_20120423.pdf



the County fare similarly in another economic downturn, the two thresholds for halting scheduled increases would not be met.

A significant downturn would likely result in the halting of increases due to a decrease in the national GDP or official declaration of a recession, however the County might consider lowering the total private employment thresholds or modifying the language regarding the total employment benchmark to not include a specific percent decrease (like the California statute, which only requires a decrease in employment).

Additionally, the County should consider inclusion of a tax revenue threshold similar to that in the California legislation. A decline in tax revenue would likely come before the loss of jobs during a downturn, making it a more suitable indicator of the impact of economic conditions on businesses.

Minimum Wage Structure for Youth Workers

The 2016 County increase legislation included a number of exemptions to the \$15.00 minimum wage. They included:

- Any employee exempt from the State of Maryland or Federal minimum wage requirements is also exempt from County minimum wage requirements (a full list of exemptions is provided in **Appendix I**).
- An employee is subject to an opportunity wage under State or Federal law (see **Appendix J** for U.S. Code on the Federal Youth Opportunity Wage).
- Employees age 18 and under working less than 20 hours per week are exempt from the County's minimum wage rate; these employees would be subject to the greater of the State of Maryland or Federal minimum wage.
- Employees under age 20 can be paid no less than 85 percent of the State Minimum Wage Rate for the first six months of employment (currently \$8.25, increasing to \$9.25 effective July 1, 2017).

County business owners expressed strong support for the ability to pay youth workers an alternative wage rate. Many currently employ students that are college-age and younger (approximately age 22 and below) and indicated that they largely pay these employees above the current County minimum wage of \$10.50 but could not sustain paying these workers \$15.00 per hour. The majority of survey respondents (67 percent) indicated that an increase in the minimum wage (beyond the current scheduled increases) would have a generally negative effect on the availability of jobs for entry level employees with no experience.



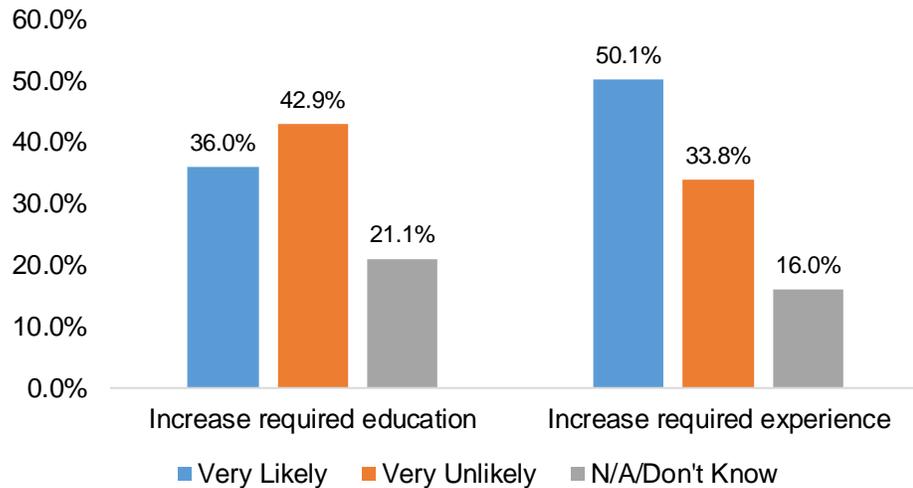
Many interviewees indicated that a minimum wage of \$15.00 would necessitate modifying their workforce toward more experienced, educated employees in order to maximize the return on their investment. In reference to the impact on their business, 50 percent of respondents indicated that they

were very likely to increase the required experience, and 36 percent indicated that they were very likely to increase the level of education required for their positions.

Research shows that a higher minimum wage rate disadvantages

younger workers, because businesses are not willing to pay higher wages to inexperienced employees. A 2015 NBER study found that increasing minimum wage rates from 2006 to 2010 reduced employment among workers ages 16 to 30 without a high school diploma by 5.6 percent.⁸² Other research has shown that a 10 percent increase in the minimum wage is associated with a 3.2 percent decline in youth employment.⁸³

Figure 9: How likely are you to do any of the following if the minimum wage increases to \$15.00 per hour?



⁸² Jeffrey Clemens, "The Minimum Wage and the Great Recession: Evidence from the Current Population Survey (Working Paper 21830)," National Bureau of Economic Research, December 2015.

⁸³ Charlene M. Kalenkoski and Donald J. Lacombe, "Effects of Minimum Wages on Youth Employment: the Importance of Accounting for Spatial Correlation," *Journal of Labor Research* 29 (December 2008): 303-317.



Table 42: Comparative Youth Unemployment

	Age 16-19 Unemployment Rate (2015)
Montgomery County	25.9%
<i>United States</i>	25.1%
<i>Maryland</i>	23.1%
District of Columbia	30.1%
Los Angeles City/County (CA)	36.5%
Nassau County (NY)	20.6%
Prince George's County (MD)	26.9%
San Jose (CA)	26.0%
Seattle (WA)	28.1%
Suffolk County NY)	19.8%
Westchester County (NY)	27.9%
Median (excluding Montgomery County, United States, and Maryland)	27.4%
Montgomery County Variance	-5.5%

Source: U.S. Census Bureau, American Community Survey, 2015 5-Year Estimates

As shown in **Table 42**, the County unemployment rate among workers ages 16 to 19 (those who are currently impacted by the minimum wage exemption and subminimum wage provision of the County's statute) is nearly 26 percent. While this is 5.5 percent less than the comparison group median, it is higher than both the United States and State of Maryland rates. The rate of County youth unemployment has increased by 31.5 percent since 2010 and 2.4 percent since 2013, when the last County minimum wage legislation went into effect.



Youth Wages and Exemptions in Comparable Jurisdictions

At the federal level, the current youth minimum wage (YMW) applies to all workers under the age of 20 and is \$4.25 per hour, to be paid for a period of up to 90 days. States have various policies on the minimum wage for youth. Maryland is one of a handful of states that has a Youth Minimum Wage that is set higher than the federal Youth Minimum Wage or general minimum wage. The State allows workers under 20 years of age to earn no less than 85 percent of the current State minimum wage for the first 6 months of employment, a practice Montgomery County follows.

Looking across the comparison group (**Table 43**), there are several approaches to wage rates for youth workers or exemptions from a minimum wage rate for youth workers. These approaches vary in three key ways:

- Structure of alternative wage: do youth workers need to be paid a percentage of the current minimum wage, a certain dollar rate, or are they exempt from the minimum wage requirement altogether (and thus subject to the higher of the Federal or State minimum wage)?
- Age threshold: at what ages does an alternative wage rate apply?
- Limit on employment period during which an alternative wage rate can be paid: for how long can an alternative wage rate be paid?



Table 43: Youth Minimum Wage Exemptions and Alternative Wage Rates

	Minimum Wage (as of 7/1/2017)	Youth Employment Exemptions		
		Age	Rate of Pay	Time Period
Montgomery County	\$11.50	18 and under	Exempt from rate if working less than 20 hours a week	
		19 and under	85% of Minimum Wage	First 6 months of employment
Federal Government	\$7.25	19 and under	\$4.25	First 90 consecutive calendar days of employment
District of Columbia	\$12.50	19 and under	Federal Minimum Wage (\$7.25)	First 90 consecutive calendar days of employment
Los Angeles City/County (CA)	\$10.50 to \$12.00*	Age 14-17	85% of Minimum Wage	First 160 Hours of Employment
Nassau County, Suffolk, and Westchester Counties (NY)*	\$11.00	No general exemption or alternative wage rate		
Prince George's County (MD)	\$10.75	18 and under	Exempt from rate if working less than 20 hours a week	
		19 and under	85% of Minimum Wage	First 6 months of employment
San Jose (CA)*	\$12.00	No general exemption or alternative wage rate		
Seattle (WA)	\$11.00 to \$15.00**	15 and under	85% of Minimum Wage	Until age 16

*State or federal exemptions apply

**Rate dependent on employer size and health benefit coverage; employers may also apply for authorization to pay wages below the City minimum, but above state minimum, for learners, apprentices, messengers, individuals with disabilities

San Jose: Workers age 17 or younger employed by a youth training program employer for 120 days or less during a calendar year are exempt from the City's minimum wage rate. A Youth Training Program is any temporary youth employment program serving disadvantaged youth through which persons age 17 years or younger are employed by or engaged in employment and trained for future employment that is coordinated by a nonprofit or governmental entity.

As shown in **Table 43**, Montgomery County's definition of a youth worker (age 19 and under) and the alternative wage rate for those employees (85 percent of the minimum wage) is not out of line with comparison jurisdictions. The City of Seattle's definition of a youth worker is narrower than that of Montgomery County; a worker qualifies only if they are under age 16. Prince George's County (which also follows the State of Maryland regulations), Los Angeles, and Seattle all allow employers to pay 85 percent of the current minimum wage for a period of time up to six months or until age 16 (in the case of Seattle). The New York counties and San Jose provide no general exemption or alternative wage rate for youth workers.



Current Structure of Youth Exemption

Business owners were generally supportive of the provision allowing them to pay 18 and 19 year old workers 85 percent of the current minimum wage for 6 months. However, they expressed concern that the time period for the reduced period would not be long enough if the minimum wage increased to \$15.00.

Additional concern was expressed at the limited age range – only workers ages 18 and 19 can be paid at the 85 percent rate. Several business owners hire college-age students ranging from ages 18 to 22; the subminimum rate does not apply to many of these students because of their age. While the majority of business owners indicated that they pay entry-level employees above the current minimum wage, a move to the \$15.00 rate would make paying this group of workers unsustainable from a business perspective.

Minimum Wage Structure for Trainees

While not part of the current County minimum wage law, providing an alternative minimum wage or structure for employees during their training period garnered strong support from focus group participants. Business owners indicated that a high percentage of employees leave within the first few weeks or months of employment. The expense incurred from training these (ultimately unsuccessful) employees would be unsustainable if the minimum wage was \$15.00. Interviewees indicated that the ability to pay a lower training wage for three to six months would help make the loss of investment more palatable, should trained employees not ultimately be successful.

None of the comparable jurisdictions provide a pure trainee wage rate; while alternative rates are allowed for employees in certain training programs, the structure of the statutes in these jurisdictions does not allow for a lower minimum wage to be paid to general employees during a designated training period.



Table 44: Trainee Wage Rates in Comparable Jurisdictions

District of Columbia	Employers may pay “adult learners” the federal minimum wage for up to 90 days of employment.
San Jose (CA)	A Youth Training Program may pay workers age 17 or younger the higher of the state or federal minimum wage for 120 days or less. Such a program is one serving disadvantaged youth through which persons age 17 years or younger are employed by or engaged in employment and trained for future employment that is coordinated by a nonprofit or governmental entity.
Seattle (WA)	Employers may also apply for authorization to pay wages below the City minimum, but above state minimum, for learners, apprentices, messengers, individuals with disabilities.
Los Angeles City/County (CA)	Specific non-profit employers may pay certain employees in a certified training or transitional program the state minimum wage for the duration of the program, not to exceed 18 months.

While the concept of a trainee minimum wage rate for all employees is popular among business owners, it would be unprecedented among other minimum wage statutes nationwide. The County would also need to assess the legality of establishing such a wage rate in light of state and federal statutes.

Alternative Minimum Wage Structures for Small Businesses

The County bill included a slower implementation schedule for businesses with 25 or fewer employees, as shown in **Table 45** below:

Table 45: Montgomery County Proposed Minimum Wage Increase Implementation Schedule (Bill 12-16 (2016), as enacted and vetoed)

	7/1/2018	7/1/2019	7/1/2020	7/1/2021	7/1/2022
25 or fewer employees	\$12.50	\$13.75	\$15.00	-	-
26 or more employees	\$12.00	\$12.75	\$13.50	\$14.25	\$15.00

This alternate schedule for small business was not included in the original 2016 Council legislation and was added later to allay concerns about the impact of the proposed increases on County small businesses. In his statement regarding his veto of the legislation, the County Executive expressed his support for an exemption for small businesses from the proposed increases.



Small Business Implementation Schedules and Exemptions in Comparable Jurisdictions

A delayed implementation schedule for smaller businesses is found in a few comparable jurisdictions. As shown in **Table 46**, only Los Angeles and Seattle included slower schedules for reaching a \$15.00 per hour minimum wage. These schedules provide a one to two year delay for small businesses, which is in line with the 2016 County legislation.

Table 46: Minimum Wage Increase by Year and Size of Business

Business Size		2017	2018	2019	2020	2021
Los Angeles City/County (CA)	25 or fewer employees	\$10.50	\$12.00	\$13.25	\$14.25	\$15.00
	26 or more employees	\$12.00	\$13.25	\$14.25	\$15.00	\$15.00 + index
Seattle (WA)	500 or fewer employees (nationally)	\$13.00	\$14.00	\$15.00 + index	-	-
	501 or more employees (nationally)	\$15.00	\$15.00 + index	-	-	-

In the New York State legislation, employees with 10 or fewer employees located in New York City will reach the \$15.00 per hour minimum wage one year later than businesses with 11 or more employees in the City. Nassau, Suffolk, and Westchester Counties, as well as the remainder of the state, also have slower implementation schedules, but these are not based on size of business.

None of the comparable jurisdictions exempt small business, however defined, entirely from the scheduled minimum wage increases. Looking beyond the comparison universe, small businesses in Arizona and Missouri (retail or service businesses only) are exempt from the statewide minimum wage requirements.⁸⁴ The project team could not find any other instances of small businesses being entirely exempt from minimum wage statutes.

⁸⁴ National Conference of State Legislatures, "State Minimum Wages, 2017 Minimum Wage by State," January 5, 2017, <http://www.ncsl.org/research/labor-and-employment/state-minimum-wage-chart.aspx>.



Definition of Small Business

While the City of Los Angeles small business threshold is the same as that in the County's proposed minimum wage increase, the Seattle threshold for a small employer is 500 employees *nationwide*, meaning that businesses with locations outside of the Seattle area must include these employees in their total headcount for purposes of the minimum wage.

This raises the important issue of how to define a small business. The most common small business definitions include objective measures of size, such as number of employees and yearly revenue or sales receipts. Differing definitions exist in the United States, as well as within the County itself:

- Threshold of 25 or fewer employees, as exists in the 2016 County legislation and Los Angeles' minimum wage statute,
- The County definition used for the Local Small Business Reserve Program (LSBRP), to ensure that the County grants 20 percent of their procurement awards for goods, services and construction to small businesses, which varies by industry and is based on the number of employees and the business' prior three years' sales, as shown below:

Table 47: Montgomery County Small Business Definition

	Employee Limit	Prior 3 years' average sales
Retail	30	\$5 million
Wholesale	30	\$5 million
Services	100	\$10 million
Construction	50	\$14 million
Manufacturing	40	\$14 million

- Federal threshold of 50 or fewer employees, used when determined exemption from Federal workforce-related statutes like the Family and Medical Leave Act and the Affordable Care Act,
- State of Maryland threshold of 500 or fewer employees, which is also the threshold for Seattle, and
- United States Small Business Administration (SBA) definitions that determine eligibility for Federal programs for small businesses. These standards vary by industry and define a small operation by either the number of employees (ranging from 100 to 1,500 employees) or total annual receipts (ranging from \$750,000 and \$35.5 million).



There is no singular approach on how to define a small business. Any definition of a small business should consider the potential impact of that definition on the community that would be subject to the statute in which it is included.

Impact of Different Definitions of Small Business

Defining Small Business by Number of Employees

Table 48 shows the distribution of Montgomery County businesses by number of employees, grouped according to some of the thresholds shown above.

Table 48: Distribution of Montgomery County Businesses by Employee Number

Number of Employees	Number of Businesses (one or more employee)	% of Total County Businesses (one or more employee)
1-5	17,975	63.8%
6-10	3,609	12.8%
11-15	1,745	6.2%
16-20	1,129	4.0%
21-25	707	2.5%
26-50	1,515	5.4%
51-100	831	3.0%
101-250	479	1.7%
251-500	109	0.4%
501+	61	0.2%
Total	28,160	100%

Source: U.S Bureau of Labor Statistics, Quarterly Census of Employment and Earnings (2017, 2nd Quarter)



This data can also be used to explore the impact of setting the threshold for the number of employees at alternate levels. This can be used to determine the impact of either a slower implementation schedule or an exemption for small businesses entirely, as the County Executive has suggested. In summary:

- 25 employees or fewer (2016 County legislation, Los Angeles): 89.3 percent of businesses,
- 50 employees or fewer (Federal threshold): 94.7 percent of businesses,
- 500 employees or fewer (State of Maryland, Seattle): 99.8 percent of businesses.

If an exemption were granted for businesses falling under the current threshold, 10 percent of County businesses would be required to pay employees a minimum wage of \$15.00 per hour by 2020. Even setting the threshold at ten employees or less, 23 percent of businesses would be required to pay the higher minimum wage. The implication is that a smaller number of employees would benefit from the economic and social benefits (higher earnings, earnings above the poverty line, better mental health, and better educational outcomes) of a higher minimum wage. Conversely, the negative impacts (job loss, business closure) on the County economy and workforce might be reduced.

Defining Small Business by Revenue, Sales, or Total Receipts

More detailed data on business revenue, sales, or total receipts is not publicly available at the county level, therefore the potential impact of defining a small business by one of these measures cannot be determined.

Findings

1. **There was support among County business owners for the addition of a subminimum wage rate for workers during their initial training period.** While most business owners indicated that the youth worker subminimum rate of 85 percent of the County minimum wage rate would be acceptable, to make the rate meaningful for them from a business perspective, they need the ability to pay that rate for more than the six months allowed under State law.
2. **While some benchmark jurisdictions have alternate phase-in schedules for their minimum wage increases, none of them completely exempt small businesses.** While a complete exemption for small businesses is not common, should the County consider altering the 2016 increase proposal to include one, it would need to weigh the impact of its definition of a “small business” against the desired breadth of impact it desires the increase to have.



Epilogue

In June 2017, the NBER published an analysis by researchers at the Evans School of Public Policy at the University of Washington of the effects of the City of Seattle's minimum wage increase from \$9.47 to \$11.00 per hour in April 2015 and to \$13.00 per hour for businesses of 500 employees or more in January 2016. The study relied on employment and payroll data collected and published by the Washington State Employment Security Department. The authors concluded that while the increase to a \$13.00 minimum wage increased hourly wages for low-wage jobs⁸⁵ as expected, it also reduced the number of hours worked in these occupations by approximately 9.4 percent, reducing total payroll and lowering low-wage workers' earnings by \$125 per month on average.

Most relevant to findings in this report, the authors found that the increase in the City minimum wage from \$9.47 to \$13.00 resulted in a loss of 6,317 jobs at single location firms. Accounting for multi-location firms employing low-wage workers in the City, this job loss number increased to approximately 10,000.⁸⁶

The general finding that jobs were lost in Seattle as a result of the minimum wage increase to \$13.00 per hour is in line with the projection in this analysis that the County will experience job loss as a result of the proposed increase in the minimum wage to \$15.00 per hour. The losses shown in the NBER study, however are less than those presented in this report, for several key reasons:

- The study estimates low-wage job loss resulting from a less significant increase in the minimum wage than what is modeled in this report. The approximately 6,317 jobs lost resulted from an increase in the minimum wage of approximately 37 percent (\$9.47 to \$13.00), which is significantly less than the 57 percent increase (\$9.55 to \$15.00) modeled in this report
- The NBER analysis models the impact on jobs from the third quarter of 2014 to the third quarter of 2016, a period of two years. The job impacts presented for the County reflect a longer projection horizon of five years, which will drive the projected job loss figures higher than the NBER study.
- There are methodological differences between the NBER analysis and the economic impact analysis presented in this report, as outlined in the following section.

⁸⁵ Defined as those jobs paying less than \$19.00 per hour

⁸⁶ Jardim, Long, Plotnick, van Inwegen, Vigdor, and Wething, "Minimum Wage Increases, Wages, and Low-Wage Employment: Evidence from Seattle," June 2017.



Comparison to Montgomery County Economic Impact Analysis

The NBER study relied on data from the Washington State Employment Security Division. This data, like the data from the QCEW used in the County analysis, covers workers covered by State Unemployment Insurance (UI) laws. However, the NBER authors were given access to not-publicly-available microdata that allowed them to look at the hours worked and wages received by individual low-wage workers. The project team did not have access to this type of microdata for analysis of impacts in Montgomery County, so survey findings regarding the reported percentage of the workforce that would be laid off following an increase in the County minimum wage was layered on top of QCEW data. While the team believes the survey findings lend an additional layer of statistical detail to the analysis, County business owners reported their anticipated layoffs in response to a *hypothetical* increase to \$15.00 per hour. This required some estimating of the future, as the increase to \$15.00 per hour is just a proposal at this point in time. Furthermore, it is difficult to validate the credibility of these survey findings in comparison to actual past County minimum wage increases, as the last increase from \$9.55 to \$10.75 is still fairly recent and subject to the impact of other variables in the economy.

The elasticity estimates derived from the data previously discussed are consistent with the overall findings in the literature, albeit slightly on the high side (the highest elasticity figure used in the analysis – the total elasticity for all industries in 2020 – is 0.36); the higher elasticity estimates likely reflect the schedule of five County increases representing a total increase of about 57 percent over a fairly short period of time. Neumark concludes that an elasticity range of 0.1 to 0.2 is likely appropriate, for an isolated increase in the minimum wage, although the studies he cites reflect a wider range of outcomes. What is consistent is the overall finding in these studies:

“Indeed, in our view, the preponderance of the evidence points to disemployment effects. For example, the studies surveyed in this monograph correspond to 102 entries in our summary tables. Of these, by our reckoning nearly two-thirds give a relatively consistent (although by no means always statistically significant) indication of negative employment effects of minimum wages, while only eight give a relatively consistent indication of positive employment effects.”⁸⁷

Again, the Montgomery County proposal is for a series of increases, rather than a one-time event, suggesting that rising elasticities at the level found in the survey results and used in the economic impact analysis are consistent with Neumark’s overall conclusion. The elasticity figure used in the NBER study of -3 is far outside the range shown above.

⁸⁷ David Neumark and William Wascher, “Minimum Wages and Employment: A Review of Evidence from the New Minimum Wage Research,” *National Bureau of Economic Research*, November 2006.



Comparative Job Loss Findings

The project team estimates that approximately one-fourth of the 2022 job base of Montgomery County, just under 127,000 jobs out of a total of approximately 612,000 jobs, would be subject to minimum wage standards, slightly less than double the current number of just under 62,000 jobs.⁸⁸ This growth is due to the fact that as the minimum wage rises, the number of employees it covers also increases. The direct job loss using the elasticity figures outlined in the economic impact section of this report, and shown again in **Table 23** below is about 47,000 by 2022 (cumulative), which includes both direct loss of low-wage jobs and indirect loss of other jobs. This is the equivalent of about eight percent of the County's job base in 2022.

Table 23: Direct and Indirect Economic Impacts - Jobs

Year	Direct Jobs Lost	Indirect Jobs Lost	Total Jobs Lost
2017	18,318	1,014	19,331
2018	22,566	944	23,510
2019	35,587	1,387	36,973
2020	44,215	1,398	45,613
2021	44,797	1,415	46,213
2022	45,384	1,433	46,817

These job loss figures are difficult to compare to other studies, as the analysis presented is an alternative scenario versus baseline projection, rather than an analysis of what has actually happened (like the NBER Seattle analysis).

⁸⁸ It is worth recalling that the CWED at the University of California-Berkeley analysis of an increase in the San Jose minimum wage to \$15 an hour estimated an increase in the annual pay for about one-third of that city's workers, which is similar to the proportion estimated for Montgomery County.



Table 49: Comparative Job Loss Findings Among Minimum Wage Studies

	Job Loss	Analysis Period	Percent Increase in Minimum Wage
Montgomery County	46,817	5 years	57.1% (\$9.55 to \$15.00)
District of Columbia ⁸⁹	1,817	4 years	30.4% (\$11.50 to \$15.00)
Los Angeles ⁹⁰	3,472	5 years	69.4% (\$9.00 to \$15.25) ⁹¹
Seattle ⁹²	6,317	2 years	37.3% (\$9.47 to \$13.00)
San Jose ⁹³	960	2 years	42.5% (\$10.52 to \$15.00)

The project team’s approach to estimating job loss varies from other studies in one key way. The team’s approach attempts to forecast a baseline scenario with no policy change from existing conditions, and then contrast it with an alternative scenario based on using publicly available data and forecasts combined with survey results from business owners. In contrast, the NBER Seattle study attempts to untangle the impact of what actually happened during a relatively short period of time from exogenous impacts, while relying on a dataset that is not publicly-available.

This approach could not be used in this analysis. First there is no jurisdiction that provides a useful comparison in terms of already implementing an increase schedule similar to the one proposed for the County that is also similar to the County economically and demographically. Second, any effort to establish historical causation is subject to entangling the impact of exogenous variables. The project team believes that its approach provides an equally or more accurate projection of the economic impact of the proposed increases.

⁸⁹ Fahimulla, Geng, Hardy, Muhammad, and Wilkins, “\$15 Minimum Wage in the District of Columbia: A general Equilibrium Analysis of the Economic Impact,” February 2017.

⁹⁰ Reich, Jacobs, Bernhardt, and Perry, “The Proposed Minimum Wage Law for Los Angeles: Economic Impacts and Policy Options,” March 2015.

⁹¹ The study analyzed a proposal to bring the minimum wage to \$13.25 by 2017 and \$15.25 by 2019. As shown above, the implemented increase schedule would bring the minimum wage to only \$15.00 by 2020 for larger businesses and 2021 for small businesses, with an interim increase to \$13.25 by 2018 (large business) and 2019 (small business).

⁹² Jardim, Long, Plotnick, van Inwegen, Vigdor, and Wething, “Minimum Wage Increases, Wages, and Low-Wage Employment: Evidence from Seattle,” June 2017.

⁹³ Reich, Montialoux, Allegretto, Jacobs, Bernhardt, and Thomason, “The Effects of a \$15 Minimum Wage by 2019 in San Jose and Santa Clara County,” June 10, 2016.



Appendices

Appendix A: Recent Increases to the Minimum Wage across the United States

Select Local Minimum Wage Increases

	Old Minimum Wage	Approved Minimum Wage	Percent Increase	Number of Affected Workers
Albuquerque, NM	\$7.50	\$8.50	13.3	<i>Not available</i>
Bernalillo County, NM	\$7.50	\$8.50	13.3	10,000
Chicago, IL	\$8.25	\$13.00	57.6	410,000
Cook County, IL	\$8.25	\$13.00	57.6	200,000
Flagstaff, AZ	\$8.05	\$15.00	86.3	22,000
Los Angeles, CA	\$9.00	\$15.00	66.7	609,000
Johnson County, IA	\$7.25	\$10.10	39.3	10,100
Las Cruces, NM	\$7.50	\$10.10	34.7	17,500
Linn County, IA ^[1]	\$7.25	\$10.25	41.4	18,400
Miami Beach, FL	\$8.05	\$13.31	65.3	<i>Not available</i>
Montgomery County, MD	\$7.25	\$11.50	58.6	80,000
Polk County, IA	\$7.25	\$10.75	48.3	60,000
Prince George's County, MD	\$7.25	\$11.50	58.6	<i>Not available</i>
San Francisco, CA ^[2]	\$10.74	\$15.00	39.7	142,000
San Jose, CA ^[3]	\$10.00	\$15.00	50.0	115,000
Santa Fe County, NM	\$7.50	\$10.66	42.1	28,000
SeaTac, WA ^[4]	\$9.19	\$15.00	63.2	6,300
Seattle, WA ^[5]	\$9.32	\$15.00	60.9	102,000
Wapello County, IA	\$7.25	\$10.10	39.3	<i>Not available</i>
Washington, DC	\$10.50	\$15.00	42.9	114,000
Local Subtotal				1,944,300

Note: Estimates for cities and counties in California (other than Los Angeles City, San Francisco and San Jose), Maine, and Washington State (other than Seattle and SeaTac) are included in the state subtotal. Estimates for preempted cities and counties, localities with minimum wage laws lower than approved state minimum wage laws, and localities whose minimum wage laws were challenged in court and are currently being litigated are not included in the local subtotal. For a list of preempted cities, please see Table 7, below.

[1] Peter Fisher, The Case for a Polk County Minimum Wage, The Iowa Policy Project, May 16, 2016, <http://iowapolicyproject.org/2016Research/160516-minwage-Polk.html>. We take the lowest wage estimate in the study (\$3,350 for a proposed \$12 minimum wage), and lower it by 10.42 percent to reflect the lower minimum wage of \$10.75, which was approved by the county.

[2] Michael Reich, Ken Jacobs, Annette Bernhardt and Ian Perry, endnote 5.

[3] Michael Reich, Claire Montaloux, Sylvia Allegretto, Ken Jacobs, Annette Bernhardt, and Sarah Thomason, The Effects of a \$15 Minimum Wage by 2019 in San Jose and Santa Clara County, Institute for Research on Labor and Employment, University of California-Berkeley, June 2016, <http://irle.berkeley.edu/files/2016/The-Effects-of-15-Minimum-Wage-by-2019-in-San-Jose-and-Santa-Clara-County.pdf>.

[4] Nicole Vallestero Keenan and Howard Greenwich, The Economic Impacts of a Transportation and Hospitality Living Wage in the City of SeaTac, Puget Sound Sage, September 2013, <http://www.pugetsoundsage.org/downloads/PSSage%20-%20Economic%20Analysis%20of%20SeaTac%20Living%20Wage%20-%2009-25-13.pdf>.

[5] Nicole Vallestero Keenan and Howard Greenwich, Economic and Equity Outcomes of a \$15/hr Minimum Wage in Seattle, Puget Sound Sage, April 2014, [http://www.pugetsoundsage.org/downloads/Economic%20and%20Equity%20Outcomes%20of%20a%20\\$15%20Minimum%20Wage%20in%20Seattle_1.pdf](http://www.pugetsoundsage.org/downloads/Economic%20and%20Equity%20Outcomes%20of%20a%20$15%20Minimum%20Wage%20in%20Seattle_1.pdf).

Source: National Employment Law Project



State Minimum Wage Increases

	Old Minimum Wage	Approved Minimum Wage	Percent Increase	Number of Affected Workers
Arizona	\$8.05	\$12.00	49.1	757,000
Arkansas	\$7.25	\$8.50	17.2	130,800
Alaska	\$7.75	\$9.75	25.8	48,000
California	\$10.00	\$15.00	50.0	5,489,000
Colorado ^[1]	\$8.31	\$12.00	44.4	477,000
Connecticut	\$8.70	\$10.10	16.1	227,000
Delaware	\$7.25	\$8.25	13.8	40,000
Florida	\$8.05	\$8.10	0.6%	N/A
Hawaii	\$7.25	\$10.10	39.3	99,000
Maine ^[2]	\$7.50	\$12.00	60.0	181,000
Maryland ^[3]	\$7.25	\$10.10	39.3	375,000
Massachusetts ^[4]	\$8.00	\$11.00	37.5	605,000
Michigan ^[5]	\$8.15	\$9.25	13.5	940,000
Minnesota	\$7.25	\$9.50	31.0	325,000
Nebraska ^[6]	\$7.25	\$9.00	24.1	146,000
New Jersey ^[7]	\$7.25	\$8.25	13.8	429,000
New York ^[8]	\$9.00	\$15.00	66.7	3,162,345
Ohio	\$8.10	\$8.15	0.6%	N/A
Oregon	\$9.25	\$14.75	59.5	623,300
Rhode Island	\$8.00	\$9.60	20.0	12,000
South Dakota ^[9]	\$7.25	\$8.50	17.2	62,000
Vermont	\$8.73	\$10.50	20.3	57,000
Washington	\$9.47	\$13.50	42.6	621,700
West Virginia	\$7.25	\$8.75	20.7	114,000
State Subtotal				14,921,145

Note: Estimate for Arizona does not include Flagstaff; for California includes all cities and counties except Los Angeles City, San Francisco and San Jose; for Maine includes all cities; for Maryland, does not include Montgomery County or Prince George's County; and for Washington State includes all cities except Seattle and SeaTac.

[1] Worker impact estimates provided by the Bell Policy Center, a member of the Colorado Families for a Fair Wage. Total wage estimates in Colorado Families for a Fair Wage, Frequently Asked Questions, "How Will Raising the Minimum Wage Affect Colorado's Economy?" <http://www.coloradofamiliesforafairwage.org/faqs/>.

[2] Maine Center for Economic Policy, Restoring the Value of Work: A \$12 Minimum Wage will Strengthen Maine's Economy and Enable Working Mainers to Make Ends Meet, August 2016, http://www.mecep.org/wp-content/uploads/2016/08/Minimum-wage-brief_final_08-17-16.pdf. All Maine cities are included in the estimates.

[3] David Cooper, Raising the Maryland Minimum Wage will Benefit Nearly Half a Million Workers and Modestly Boost the State's Economy, Economic Policy Institute, January 31, 2014, http://www.epi.org/files/2014/MD_to_1010%201_31_14.pdf. Estimates do not include Montgomery County.

[4] Massachusetts Budget and Policy Center, Rewarding Work: The Data on an \$11 Minimum Wage, June 19, 2014, http://www.massbudget.org/report_window.php?loc=Facts-6-17-14.html.

[5] Yannet M. Lathrop, Raising the Minimum Wage: Good for Working Families, Good for Michigan's Economy, Michigan League for Public Policy, February 2014, <http://www.mlpp.org/wp-content/uploads/2014/02/Raising-Minimum-Wage.pdf>.

[6] Kellie Wasikowski, "How a Minimum Wage Increase Could Impact Nebraskans," The Daily Nebraskan, November 3, 2014, http://www.dailynebraskan.com/news/how-a-minimum-wage-increase-could-impact-nebraskans/article_e6080132-6321-11e4-a324-0017a43b2370.html. Annual per worker wage increase calculated by subtracting the pre-increase annual income from the projected annual income at the new wage level.

[7] Jon Whitten, The Stimulus New Jersey Needs: Raising the Minimum Wage Would Boost the Economy While Providing Better Opportunities for Hundreds of Thousands of Working New Jerseyans, New Jersey Policy Perspective, May 16, 2013, <https://www.njpp.org/reports/the-stimulus-new-jersey-needs-raising-the-minimum-wage-would-boost-the-economy-while-providing-better-opportunities-for-hundreds-of-thousands-of-working-new-jerseyans>. Annual per worker wage increase calculated by dividing total wage increase by the number of impacted workers.



Appendix B: Business Owner Survey

1. Is your business currently located in Montgomery County, or does it complete the majority of its work (more than 50%) in the County?
2. What percentage of your minimum wage employees live in Montgomery County?
3. Please provide your current title: _____
4. What major industry category does your organization fall under?
 - a. Manufacturing
 - b. Construction
 - c. Trade, Transportation and Utilities
 - d. Retail
 - e. Financial Services
 - f. Business and Professional Services
 - g. Real Estate
 - h. Scientific and Technical Services
 - i. Education
 - j. Health or Social Services
 - k. Leisure and Hospitality
 - l. Arts, Entertainment, and Recreation
 - m. Food Services
 - n. Other (please specify)
5. Is your organization best described as a:
 - a. Non-profit
 - b. Sole Proprietorship
 - c. Franchise
 - d. Corporation
6. How many total employees does your organization employ?
 - a. 1-5
 - b. 6-10
 - c. 11-15
 - d. 16-20
 - e. 21-25
 - f. 26-50
 - g. 51-75
 - h. 76-100
 - i. More than 100
7. How many hourly (non-exempt) employees does your organization employ?
 - a. 1-5
 - b. 6-10
 - c. 11-15
 - d. 16-20
 - e. 21-25



- f. 26-50
 - g. 51-75
 - h. 76-100
 - i. More than 100
8. What level of experience is required for an entry-level job with your organization?
- a. Less than 1 year
 - b. 1-3 years
 - c. More than 3 years
9. What is the lowest educational requirement for an entry-level job with your organization?
- a. Less than a high school diploma
 - b. High school diploma or equivalent
 - c. Some college or associates
 - d. Bachelor's degree
 - e. Graduate or professional degree
10. Please provide the following information for salaried (exempt) employees only. Please enter N/A if you do not have salaried employees:
- a. Entry/starting salary
 - b. Maximum/highest salary
 - c. Average Salary
 - d. Average Tenure
11. Please provide the following information for hourly (non-exempt) employees only. Please enter N/A if you do not have salaried employees:
- a. Entry/starting hourly wage
 - b. Maximum/highest hourly wage
 - c. Average hourly wage
 - d. Average number of hours worked per year
 - e. Average Tenure
 - f. Average Turnover Rate (please do not include retirements or dismissals)
12. How many employees do you have that are paid above the current minimum wage but would be subject to the County Council's proposed increases over the next three years?
13. How many current minimum wage employees (full-time equivalents) do you have?
14. Please rank, from most likely (1) to least likely (9) how the following factors will be affected by an increase in the minimum wage. Please consider the general effect of a minimum wage increase on these factors, not the specific effects on your business
- a. Turnover Rate
 - b. Employee Morale
 - c. Profitability
 - d. Employee mental Health
 - e. Availability of Jobs
 - f. Employment rate
 - g. Reduction in poverty
 - h. Wage Compression



- i. Improved productivity
- j. Improved purchasing power
- k. Increased business

15. To what extent, if any, do you believe the following will be affected by an increase in the minimum wage? Select 5 for positive impact, and 1 for negative. Leave at 3 for neutral.

- | | More Negative | Neutral | More Positive |
|------------------------------|---------------|---------|---------------|
| a. Turnover Rate | | | |
| b. Employee Morale | | | |
| c. Profitability | | | |
| d. Employee mental Health | | | |
| e. Availability of Jobs | | | |
| f. Employment rate | | | |
| g. Reduction in poverty | | | |
| h. Wage Compression | | | |
| i. Improved productivity | | | |
| j. Improved purchasing power | | | |
| a. Increased business | | | |

16. How likely are you to do any of the following if the minimum wage increases to \$15.00/hour?

- | | Very Unlikely | Very Likely |
|---|---------------|-------------|
| a. Identify efficiencies and operational savings | | |
| b. Reduce hiring | | |
| c. Reduce hours/employee | | |
| d. Lay off employees | | |
| e. Savings through turnover reduction | | |
| f. Increase prices | | |
| g. Reduce training | | |
| h. Decrease benefit offerings to hourly employees | | |
| i. Decrease benefit offerings to salaried employees | | |

17. Can your business relocate within the Washington DC metro region?

18. If the proposed increase to \$15.00/hour were to become law, how likely are you to move the location of your business to a county or city with a lower minimum wage than Montgomery county?

- a. Very Likely
- b. Likely
- c. Equally Likely to remain or leave
- d. Unlikely
- e. Very Unlikely
- f. Not Sure

19. Do you support or oppose an increase in the County's minimum wage from \$10.75 to \$15.00/hour by July 1, 2020?

- a. Strongly Support
- b. Support



- c. Neutral
- d. Oppose
- e. Strongly Oppose
- f. Don't know/not sure

20. Regardless of your support or opposition to an increase, which response most closely mirrors your support for the minimum wage?

- a. Decrease Poverty
- b. An increase to the Minimum Wage isn't sustainable
- c. Improve employee retention
- d. Ensure equity between small business and large corporations

21. Regardless of your support or opposition to an increase, which response most closely mirrors your opposition to the minimum wage?

- a. Reduces jobs/employment
- b. Companies can't support it
- c. Too high of an increase
- d. Will benefit commuters more than residents

22. Regardless of your support/opposition to the minimum wage, if the minimum wage were increased to \$15.00/hour, which of the following modifications would decrease its impact to your organization's operations (check all that apply)?

- a. Increasing the minimum wage to \$15 **all at once**
- b. Phasing in the minimum wage to \$15 over **five years**
- c. Providing a separate, slower phase-in schedule for small and medium businesses (Less than 25 employees) to reach the minimum wage
- d. Limiting or preventing an increase to the minimum wage if economic conditions worsen from the prior year
- e. Ability to pay workers under the age of 22, and/or newly hired workers in a probation or training period, a percentage of the minimum wage



Appendix C: Non-Profit Survey

1. Please select the job title that most closely matches your current position.
 - a. Chief Executive Officer
 - b. Chief Financial Officer
 - c. Executive Officer
 - d. President
 - e. Vice President
 - f. Other

2. Is your business currently located in Montgomery County or does it complete the majority of its work (more than 50 percent) within Montgomery County?

3. What major category most closely represents your organization's area of focus?
 - a. Arts, Culture, and Humanities
 - b. Community Development
 - c. Criminal Justice
 - d. Education
 - e. Employment
 - f. Environment
 - g. Food, Agriculture, and Nutrition
 - h. Health
 - i. Housing and Homelessness
 - j. Human Services
 - k. Mental Health
 - l. Youth Development
 - m. Other (please specify)

4. Which most closely mirrors your organization's annual budget for the last available entire fiscal year?
 - a. Less than \$100,000
 - b. \$100,001 - \$250,000
 - c. \$250,001 - \$500,000
 - d. \$500,001 - \$1,000,000
 - e. \$1,000,001 - \$10,000,000
 - f. \$10,00,000+

5. What percentage of your annual budget is spent on personnel costs?
 - a. 1% - 10%
 - b. 11% - 20%
 - c. 21% - 30%
 - d. 31% - 40%
 - e. 41% - 50%
 - f. 51% - 60%
 - g. 61% - 70%
 - h. 71% - 80%
 - i. 81% - 90%
 - j. 91% - 100%



6. What percentage of your annual budget comes from governmental sources?
 - a. 1% - 10%
 - b. 11% - 25%
 - c. 26% - 50%
 - d. 51% - 75%
 - e. 46% - 100%
 - f. We don't receive any funding from governmental sources

7. What percentage of your annual budget comes from contracts with Montgomery County government?
 - a. 1% - 10%
 - b. 11% - 25%
 - c. 26% - 50%
 - d. 51% - 75%
 - e. 46% - 100%
 - f. My organization doesn't have any contracts with Montgomery County

8. In the current fiscal year, did you receive funding from any of the following sources?
 - a. Earned or commercial revenue from non-governmental sources
 - b. Governmental sources, including grants, contracts or fees for services
 - c. Grants or contracts from Montgomery County
 - d. Medicaid

9. If you do receive funding from Medicaid, what kinds of services does your organization receive reimbursement for? Please describe in the box below.

10. Which of the following best describes the majority of your organization's work?
 - a. Advocacy
 - b. Direct Service
 - c. Research

11. What percentage of your organization's minimum wage employees live in Montgomery County?
 - a. 1% - 10%
 - b. 11% - 25%
 - c. 26% - 50%
 - d. 51% - 75%
 - e. 46% - 100%
 - f. None of my employees live in Montgomery County

12. How many salaried (exempt) employees does your organization employ?
 - a. 1 - 10
 - b. 11 - 20
 - c. 21 - 40
 - d. 41 - 75
 - e. 76 - 100
 - f. 100+



13. How many hourly (non-exempt) employees does your organization employ?
 - a. 1 - 10
 - b. 11 - 20
 - c. 21 - 40
 - d. 41 - 75
 - e. 76 - 100
 - f. 100+

14. Approximately what percentage of employees in your organization currently make between \$10.75 - \$13.00 per hour?
 - a. 1% - 5%
 - b. 6% - 15%
 - c. 16% - 25%
 - d. 26% - 50%
 - e. 51% - 75%
 - f. 76% - 100%
 - g. None

15. Approximately what percentage of employees in your organization currently make between \$13.01 - \$15.00 per hour?
 - a. 1% - 5%
 - b. 6% - 15%
 - c. 16% - 25%
 - d. 26% - 50%
 - e. 51% - 75%
 - f. 76% - 100%
 - g. None

16. What is the entry or starting salary for salaried employees in your organization?

17. What is the maximum or highest salary for salaried employees in your organization?

18. How many salaried employees currently make less than \$31,200 annually?
 - a. 1% - 10%
 - b. 11% - 20%
 - c. 21% - 40%
 - d. 41% - 75%
 - e. 76% - 100%
 - f. None of our salaried employees make less than \$31,200 annually

19. What is the entry or starting wage for hourly employees in your organization?

20. What is the maximum or highest wage for hourly employees in your organization?

21. How many hourly employees currently make less than \$15.00 per hour?
 - a. 1% - 10%



- b. 11% - 20%
 - c. 21% - 40%
 - d. 41% - 75%
 - e. 76% - 100%
 - f. None of our hourly employees make less than \$15.00 per hour
22. Which of the following does your organization offer to your employees?
- a. Contribution to a retirement or pension plan (401k,403b)
 - b. Health insurance for employee
 - c. Health insurance for employee's spouse, domestic partner, or dependent
23. Which of the following changes would your organization consider to accommodate an increase in the minimum wage?
- a. Change client population served
 - b. Change programs offered
 - c. Change scope of services provided
 - d. Decrease benefit offerings to hourly employees
 - e. Decrease benefit offerings to salaried employees
 - f. Identify efficiencies and operational savings to offset salary costs
 - g. Lay off employees
 - h. Utilize additional interns or volunteers
 - i. Reduce hiring or implement hiring freeze
 - j. Reduce scheduled hours for minimum wage employees
 - k. Request additional resources from funders
 - l. Utilize additional interns or volunteers
 - m. None of the above
24. How do you believe each of the following would be impacted by an increase in the minimum wage? Select positively, neutral, or negatively for each.
- a. Consumer disposable income
 - b. Employee Morale
 - c. Employee Productivity
 - d. Employment Rate
 - e. Employee Turnover Rate
 - f. Poverty Rate
25. Do you support or oppose an increase in the County's minimum wage from the current rate of \$10.75 per hour to \$15.0 per hour by July 1, 2020?
- a. Strongly Support
 - b. Support
 - c. Neutral
 - d. Oppose
 - e. Strongly Oppose
 - f. Don't Know/Not Sure
26. Regardless of your support or opposition to the minimum wage increasing to \$15.00 per hour, which of the following modifications would decrease its impact to your organization's operations? Check all that apply.



-
- a. Exempting certain organizations from having to participate in the increase
 - b. Increasing the minimum wage to \$15.00 per hour all at once
 - c. Increasing the minimum wage to \$15.00 per hour over five or more years
 - d. Limiting or preventing an increase to the minimum wage if economic conditions worsen from the prior year
 - e. Providing a second, slower phase-in schedule for small organizations to reach \$15.00 per hour (e.g. 25 employees or less)

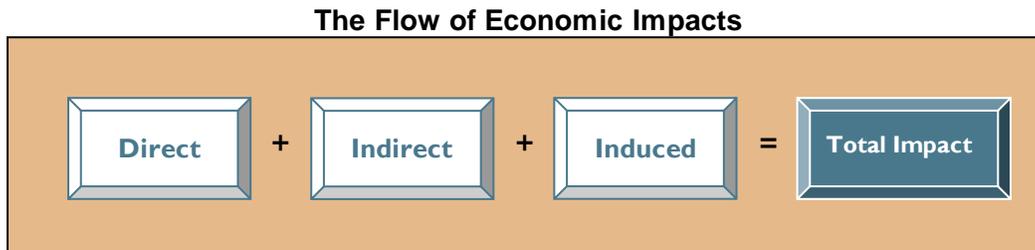


Appendix D: Detailed Methodology for Economic Impact Model

The economic impacts extend beyond the direct activity outlined above. In an input-output analysis of new economic activity, it is useful to distinguish three types of expenditure effects: direct, indirect, and induced. Direct effects reflect the spending injection(s) into the local economy being considered. The payment made by an out-of-town visitor to a hotel operator is an example of a direct effect, as would be the taxi fare that visitor paid to be transported into town from the airport.

Indirect effects typically reflect additional purchases to produce additional output. Satisfying the demand for an overnight stay will require the hotel operator to purchase additional cleaning supplies and services, for example, and the taxi driver will have to replace the gasoline consumed during the trip from the airport. These downstream purchases affect the economic status of other local merchants and workers.

Induced effects are the changes in regional household spending patterns caused by changes in household income generated from the direct and indirect effects. Both the hotel operator and taxi driver experience increased income from the visitor's stay, for example, as do the cleaning supplies outlet and the gas station proprietor. Induced effects capture the way in which this increased income is in turn spent in the local economy.



Once the ripple effects have been calculated, the results can be expressed in a number of ways. Three of the most common are “Output,” equivalent to sales; “Earnings,” which represents the compensation to employees and proprietors; and “Employment,” which refers to permanent, full-time jobs that have been created in the local economy. The interdependence between different sectors of the economy is reflected in the concept of a “multiplier.” An output multiplier, for example, divides the total (direct, indirect and induced) effects of an initial spending injection by the value of that injection – i.e., the direct effect. Larger multipliers mean greater interdependence among different sectors of the economy. An output multiplier of 1.4, for example, means that for every \$1,000 injected into the economy, another \$400 in output is produced in all sectors.

The Bureau of Economic Analysis (BEA) first provided regional input-output multipliers in the early 1970s as a tool to help economists analyze the potential impacts of economic activities on regional economies. Since then, use of these multipliers has grown steadily as economic impact studies took on a greater importance and as an increasingly diverse group of users began to take advantage of the tool. Today, users of these multipliers include researchers, state and local government officials, civic leaders, planners, students, and others.



RIMS II is based on a set of national input-output (I-O) accounts that show the goods and services produced by each industry and the use of these goods and services by industries and final users. Like most other regional I-O models, RIMS II adjusts these national relationships to account for regional supply conditions.

RIMS II provides Type I and Type II multipliers. Type I multipliers account for the direct and indirect impacts of a final-demand change. The direct impact relates to the first round of inputs purchased by the final-demand industry. The indirect impact relates to the subsequent rounds of inputs purchased by supporting industries. The sum of the direct and indirect impacts is often called the interindustry effect.

Type II multipliers not only account for the interindustry effect, but they also account for the induced impact of a final-demand change. The induced impact relates to the spending of workers whose earnings are affected by a final-demand change. This impact is often called the household-spending effect.

The impacts can be expressed in terms of output (sales), value added (gross domestic product), earnings, or employment (full- and part-time jobs) on all industries and on individual industries in the local economy.

For this study, the Team employed the most recently available BEA RIMS II multipliers for Montgomery County. Specifically, the decision was made to use changes in aggregate direct household income of County residents as the driver of the model. According to BEA:

“Using household multipliers to estimate the total impacts of a final-demand change can be a conservative alternative to using an industry’s final-demand multiplier when most of the intermediate inputs purchased by the industry are produced and supplied by industries outside the region. This alternative method involves multiplying the household multiplier by the change in household earnings in the final-demand industry and adding the result to the change in the final-demand industry.

Multiplying the change in household earnings by the household multiplier results in an estimate of the effect of household spending. Only final-demand multipliers are available for households because households do not produce output. Direct-effect multipliers exist only when labor inputs are used to produce output. In many cases, the final-demand output multiplier for households is less than one. This happens when most of the purchased goods and services are produced outside the region. The change in household earnings that is used with the household multiplier should be consistent with the RIMS II definition of earnings. It should also only account for the earnings of workers who live in the region. This change does not need to be adjusted to account for taxes and savings. Taxes and savings are already implicitly accounted for in the value of the multipliers.

The impacts of the change in household earnings on each industry can be calculated with the multipliers in the household column in the industry breakdown tables. For value added, earnings, and employment, the last entry in the household column is used for estimating the



impacts on domestic services provided by workers—such as butlers, maids, and gardeners—who are directly employed by households. The household multipliers can also be used to estimate the impact of household spending not originating from local production, such as retiree spending.”⁹⁴

⁹⁴ U.S. Department of Commerce, Bureau of Economic Analysis, “RIMS II: An essential tool for regional developers and planners,”
http://www2.econ.iastate.edu/classes/crp274/swenson/URP290/Readings/RIMSII_User_Guide.pdf



Appendix E: Detailed Indirect and Induced Economic Impact Results by Year

2017 Impact

	Output	Earnings	Employment
Agriculture, forestry, fishing, and hunting	\$72,236	\$24,079	1
Mining	\$0	\$0	0
Utilities	\$1,444,711	\$48,157	0
Construction	\$1,998,517	\$361,178	6
Durable goods manufacturing	\$457,492	\$72,236	1
Nondurable goods manufacturing	\$4,430,447	\$409,335	6
Wholesale trade	\$6,043,708	\$1,252,083	17
Retail trade	\$22,080,000	\$5,225,038	179
Transportation and warehousing	\$2,191,145	\$626,041	19
Information	\$12,015,180	\$1,396,554	20
Finance and insurance	\$30,266,695	\$4,887,939	76
Real estate and rental and leasing	\$45,821,417	\$4,719,389	171
Professional, scientific, and technical services	\$10,329,684	\$2,841,265	38
Management of companies and enterprises	\$3,250,600	\$674,198	7
Administrative and waste management services	\$6,188,179	\$1,444,711	43
Educational services	\$2,841,265	\$1,011,298	30
Health care and social assistance	\$29,568,418	\$8,909,051	181
Arts, entertainment, and recreation	\$2,142,988	\$505,649	21
Accommodation	\$2,793,108	\$505,649	15
Food services and drinking places	\$8,571,952	\$1,805,889	86
Other services	\$10,064,820	\$2,696,794	77
Households	NA	\$264,864	19
Total	\$202,572,560	\$39,681,395	1,014



2018 Impact

	Output	Earnings	Employment
Agriculture, forestry, fishing, and hunting	\$67,286	\$22,429	1
Mining	\$0	\$0	0
Utilities	\$1,345,725	\$44,858	0
Construction	\$1,861,587	\$336,431	6
Durable goods manufacturing	\$426,146	\$67,286	1
Nondurable goods manufacturing	\$4,126,891	\$381,289	6
Wholesale trade	\$5,629,617	\$1,166,295	16
Retail trade	\$20,567,168	\$4,867,040	167
Transportation and warehousing	\$2,041,017	\$583,148	18
Information	\$11,191,948	\$1,300,868	19
Finance and insurance	\$28,192,944	\$4,553,037	71
Real estate and rental and leasing	\$42,681,919	\$4,396,036	159
Professional, scientific, and technical services	\$9,621,936	\$2,646,593	36
Management of companies and enterprises	\$3,027,882	\$628,005	6
Administrative and waste management services	\$5,764,190	\$1,345,725	40
Educational services	\$2,646,593	\$942,008	28
Health care and social assistance	\$27,542,510	\$8,298,639	169
Arts, entertainment, and recreation	\$1,996,159	\$471,004	19
Accommodation	\$2,601,735	\$471,004	14
Food services and drinking places	\$7,984,636	\$1,682,157	80
Other services	\$9,375,219	\$2,512,020	72
Households	N/A	\$246,716	18
Total	\$188,693,109	\$36,962,587	944



2019 Impact

	Output	Earnings	Employment
Agriculture, forestry, fishing, and hunting	\$98,815	\$32,938	1
Mining	\$0	\$0	0
Utilities	\$1,976,300	\$65,877	1
Construction	\$2,733,881	\$494,075	8
Durable goods manufacturing	\$625,828	\$98,815	2
Nondurable goods manufacturing	\$6,060,652	\$559,952	8
Wholesale trade	\$8,267,520	\$1,712,793	24
Retail trade	\$30,204,445	\$7,147,617	245
Transportation and warehousing	\$2,997,388	\$856,396	27
Information	\$16,436,225	\$1,910,423	28
Finance and insurance	\$41,403,476	\$6,686,480	104
Real estate and rental and leasing	\$62,681,635	\$6,455,912	234
Professional, scientific, and technical services	\$14,130,542	\$3,886,723	53
Management of companies and enterprises	\$4,446,674	\$922,273	9
Administrative and waste management services	\$8,465,150	\$1,976,300	58
Educational services	\$3,886,723	\$1,383,410	41
Health care and social assistance	\$40,448,265	\$12,187,181	248
Arts, entertainment, and recreation	\$2,931,511	\$691,705	28
Accommodation	\$3,820,846	\$691,705	20
Food services and drinking places	\$11,726,044	\$2,470,374	117
Other services	\$13,768,220	\$3,689,093	106
Households	N/A	\$362,322	26
Total	\$277,110,140	\$54,282,362	1,387



2020 Impact

	Output	Earnings	Employment
Agriculture, forestry, fishing, and hunting	\$99,599	\$33,200	1
Mining	\$0	\$0	0
Utilities	\$1,991,981	\$66,399	1
Construction	\$2,755,574	\$497,995	9
Durable goods manufacturing	\$630,794	\$99,599	2
Nondurable goods manufacturing	\$6,108,742	\$564,395	8
Wholesale trade	\$8,333,121	\$1,726,384	24
Retail trade	\$30,444,112	\$7,204,332	247
Transportation and warehousing	\$3,021,171	\$863,192	27
Information	\$16,566,644	\$1,925,582	28
Finance and insurance	\$41,732,006	\$6,739,536	105
Real estate and rental and leasing	\$63,179,003	\$6,507,139	235
Professional, scientific, and technical services	\$14,242,665	\$3,917,563	53
Management of companies and enterprises	\$4,481,958	\$929,591	9
Administrative and waste management services	\$8,532,319	\$1,991,981	59
Educational services	\$3,917,563	\$1,394,387	41
Health care and social assistance	\$40,769,215	\$12,283,884	250
Arts, entertainment, and recreation	\$2,954,772	\$697,193	28
Accommodation	\$3,851,164	\$697,193	20
Food services and drinking places	\$11,819,088	\$2,489,976	118
Other services	\$13,877,469	\$3,718,365	106
Households	N/A	\$365,197	26
Total	\$279,308,962	\$54,713,083	1,398



2021 Impact

	Output	Earnings	Employment
Agriculture, forestry, fishing, and hunting	\$100,859	\$33,620	1
Mining	\$0	\$0	0
Utilities	\$2,017,174	\$67,239	1
Construction	\$2,790,424	\$504,293	9
Durable goods manufacturing	\$638,772	\$100,859	2
Nondurable goods manufacturing	\$6,186,000	\$571,533	9
Wholesale trade	\$8,438,511	\$1,748,217	24
Retail trade	\$30,829,142	\$7,295,446	250
Transportation and warehousing	\$3,059,381	\$874,109	27
Information	\$16,776,164	\$1,949,935	28
Finance and insurance	\$42,259,795	\$6,824,772	106
Real estate and rental and leasing	\$63,978,035	\$6,589,435	238
Professional, scientific, and technical services	\$14,422,794	\$3,967,109	54
Management of companies and enterprises	\$4,538,641	\$941,348	9
Administrative and waste management services	\$8,640,229	\$2,017,174	60
Educational services	\$3,967,109	\$1,412,022	41
Health care and social assistance	\$41,284,827	\$12,439,240	253
Arts, entertainment, and recreation	\$2,992,141	\$706,011	29
Accommodation	\$3,899,870	\$706,011	20
Food services and drinking places	\$11,968,566	\$2,521,467	120
Other services	\$14,052,979	\$3,765,391	108
Households	N/A	\$369,815	27
Total	\$282,841,412	\$55,405,045	1,415



2022 Impact

	Output	Earnings	Employment
Agriculture, forestry, fishing, and hunting	\$102,123	\$34,041	1
Mining	\$0	\$0	0
Utilities	\$2,042,461	\$68,082	1
Construction	\$2,825,405	\$510,615	9
Durable goods manufacturing	\$646,779	\$102,123	2
Nondurable goods manufacturing	\$6,263,548	\$578,697	9
Wholesale trade	\$8,544,297	\$1,770,133	25
Retail trade	\$31,215,619	\$7,386,902	253
Transportation and warehousing	\$3,097,733	\$885,067	27
Information	\$16,986,471	\$1,974,379	29
Finance and insurance	\$42,789,567	\$6,910,328	108
Real estate and rental and leasing	\$64,780,068	\$6,672,041	241
Professional, scientific, and technical services	\$14,603,599	\$4,016,841	54
Management of companies and enterprises	\$4,595,538	\$953,149	9
Administrative and waste management services	\$8,748,543	\$2,042,461	60
Educational services	\$4,016,841	\$1,429,723	42
Health care and social assistance	\$41,802,377	\$12,595,179	256
Arts, entertainment, and recreation	\$3,029,651	\$714,861	29
Accommodation	\$3,948,759	\$714,861	21
Food services and drinking places	\$12,118,604	\$2,553,077	121
Other services	\$14,229,148	\$3,812,595	109
Households	\$0	\$374,451	27
Total	\$286,387,131	\$56,099,607	1,433



Appendix F: County Prevailing and Living Wage Statutes

Montgomery County Living Wage Statute

Sec. 11B-33A. Wage requirements.

(a) *Scope.* Any contract for procurement of services by a County department or office must require the contractor and any subcontractor to comply with the wage requirements of this Section. As used in this Section, “covered employer” refers to any contractor or subcontractor that is subject to this Section.

(b) *Exceptions to coverage.* This Section does not apply to:

(1) a contractor who, at the time a contract is signed:

(A) has received less than \$50,000 from the County in the most recent 12-month period; and

(B) will be entitled to receive less than \$50,000 from the County under that contract in the next 12-month period;

(2) a contract with a public entity;

(3) a contract with a nonprofit organization that has qualified for an exemption from federal income taxes under Section 501(c)(3) of the Internal Revenue Code;

(4) a non-competitive contract awarded under Section if the Chief Administrative Officer finds that the performance of the contract would be significantly impaired if the wage requirements of this Section applied;

(5) a contract for electricity, telephone, cable television, water, sewer, or similar service delivered by a regulated public utility;

(6) a contract for services needed immediately to prevent or respond to an imminent threat to public health or safety;

(7) an employer to the extent that the employer is expressly precluded from complying with this Section by the terms of any federal or state law, contract, or grant;

(8) a bridge contract entered into under Section; or

(9) a contract entered into under a cooperative procurement under Section.

The Executive by regulation may increase the amount in subsection (b)(1) to reflect increases in the cost of living.

(c) *Solicitation requirements.*

(1) Each bid or proposal to provide services to the County must specify how the contractor and each subcontractor will comply with these wage requirements, and must include sufficient funds to meet these requirements. The Director, for good cause shown, may permit a bidder or proposer to provide this information after the bid or proposal is submitted if:

(A) the information is provided before the time for evaluation of the bid or proposal and no later than contract award;

(B) the original bid or proposal price does not change; and

(C) the Director approves the later submission in writing.

(2) Each bid or proposal to provide services to the County which is submitted by an organization that is exempt from coverage under subsection (b)(3) must specify the wage the organization intends to pay to those employees who will perform direct, measurable work under the contract, and any health insurance the organization intends to provide to those employees. In evaluating the cost of a bid or proposal the County must disregard any additional cost attributable to payment of the wage requirements of this Section by any organization that is exempt from coverage under subsection (b)(3) when compared to a bid or proposal submitted by another organization that is also exempt from coverage under subsection (b)(3).

(3) A contractor must not split or subdivide a contract, pay an employee through a third party, or treat an employee as a subcontractor or independent contractor, to avoid the imposition of any requirement under this Section.

(d) *Health insurance.*



(1) Definitions. As used in this subsection;

Health insurance means insurance coverage that is part of an employer benefit package that pays for medical expenses incurred by an employee and an employee's family either by reimbursing the employee or by paying the care provider directly and provides the minimum essential health benefits required under the Patient Protection and Affordable Care Act, 26 U.S.C. §5000A, as amended.

Maryland Health Benefit Exchange means the public corporation and independent unit of Maryland State government established in Title 31 of the Maryland Insurance Code.

(2) A contractor or subcontractor who does not provide health insurance for an employee who provides services to the County must:

(A) report to the Director the job title and salary for each employee providing services to the County under the contract who does not have health insurance without identifying confidential medical information; and

(B) permit each employee without health insurance to meet with a County representative designated by the Director of Health and Human Services during normal work hours to receive help applying for health insurance on the Maryland Health Benefit Exchange, including any available Federal tax subsidy.

(3) The Director of the Department of Health and Human Services or a designee must assist any employee of a contractor or subcontractor without health insurance who requests help to apply for health insurance on the Maryland Health Benefit Exchange, including any available Federal tax subsidy.

(4) Each contractor must submit a quarterly payroll report to the Chief Administrative Officer for each employee of the contractor or any subcontractor who performed services on the contract that includes:

(A) the wages paid to the employee; and

(B) the employer and the employee share of any health insurance premium provided to the employee.

(5) The Director must retain the quarterly payroll reports submitted by the contractor under paragraph (4) for at least 3 years after the completion of the contract. On or before each September 1, the Director must report to the Executive and the Council the number of employees of a contractor or subcontractor who provided services to the County during the previous fiscal year who had health insurance and the number of employees who did not have health insurance.

(e) *Wage requirement.*

(1) Each covered employer must pay each employee who is not exempt under subsection (f) at least \$10.50 per hour during the time the employee actually provides services to the County.

(2) The Chief Administrative Officer must adjust the wage rate required under this subsection, effective July 1 of each year, by the annual average increase, if any, in the Consumer Price Index for all urban consumers for the Washington- Baltimore metropolitan area, or any successor index, for the previous calendar year. The Chief Administrative Officer must calculate the adjustment to the nearest multiple of 5 cents, and must publish the amount of this adjustment not later than March 1 of each year. Each adjustment under this paragraph applies to any contract covered by this Section which:

(A) is in effect when the adjustment takes effect, or

(B) takes effect during the next 12 months.

(f) *Exceptions to wage requirement.* The wage requirements of this Section do not apply to any employee:

(1) who performs no measurable work related to any contract with the County;

(2) who participates in a government-operated or -sponsored program that restricts the earnings of or wages paid to employees to a level below the wage required under this Section;

(3) who participates for no longer than 120 days in any calendar year in a government-operated or -sponsored summer youth employment program; or

(4) for whom a lower wage rate is expressly set in a bona fide collective bargaining agreement.



(g) *Wage reporting.*

(1) The Director must insert into each contract subject to this Section a provision that requires a covered employer to submit to the Director a report (on a schedule determined by the Director) showing a summary of the wages paid to its employees, who performed direct, measurable work under the contract, by gender and race.

(2) *Prohibition against retaliation.* Except as provided in paragraph (3), a covered employer must not discharge or in any other manner discriminate or retaliate against an employee, who performed direct, measurable work under the contract, because the employee:

(A) has inquired about, discussed, or disclosed the wages of the employee or another employee;

(B) asserts any right under this subsection; or

(C) files any complaint for violation of this subsection.

(3) The prohibition against retaliation under paragraph (2) does not apply to an employee who has access to wage information of other employees or applicants as part of the employee's essential job functions and discloses the wages of other employees or applicants to individuals who do not otherwise have access to the information, unless the disclosure is in response to:

(A) a formal complaint or charge;

(B) in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by a covered employer; or

(C) is consistent with the contractor's legal duty to furnish information.

(4) The Director may refer a report to the Office of Human Rights for investigation of a possible violation of Chapter 27, Human Rights and Civil Liberties.

(5) On or before December 31, 2019, the Director must submit to the County Executive and the County Council a report on the evaluation of the wage data submitted by contractors and subcontractors under paragraph (1). This report must include:

(A) the number of reports reviewed;

(B) the number of reports referred to the Office of Human Rights for investigation;

(C) the number of probable cause findings by the Office of Human Rights resulting from these reports;

(D) a list of sanctions imposed upon a contractor for a violation of subsection (g); and

(E) any other information the Director finds relevant to evaluate the effect of this reporting requirement on wage equity.

(h) *Conflicting requirements.* If any federal, state, or County law or regulation requires payment of a higher wage, that law or regulation controls. If any applicable collective bargaining agreement requires payment of a higher wage, that agreement controls.

(i) *Enforcement.*

(1) The Chief Administrative Officer must require each covered employer to:

(A) certify that the employer and each subcontractor is aware of and will comply with the applicable wage requirements of this Section;

(B) keep and submit any records necessary to show compliance; and

(C) conspicuously post notices informing employees of the requirements of this Section, and send a copy of each such notice to the Chief Administrative Officer's designee.

(2) The Chief Administrative Officer must enforce this Section, perform random audits and any other audit necessary to do so, and investigate any complaint of a violation.

(3) An employer must not discharge or otherwise retaliate against an employee for asserting any right under this Section or filing a complaint of violation. Any retaliation is subject to all sanctions for noncompliance with this Section.

(4) The sanctions of Section 11B-33(b) which apply to noncompliance with nondiscrimination requirements apply with equal force and scope to noncompliance with the wage requirements of this Section.

(5) Each contract may specify that liquidated damages for any noncompliance with this Section includes the amount of any unpaid wages, with interest, and that the contractor is jointly



and severally liable for any noncompliance by a subcontractor. In addition, each contract must specify:

(A) that liquidated damages may be imposed on the contractor in the event that a covered employer violates the wage reporting requirement in subsection (g); and

(B) that an aggrieved employee, as a third-party beneficiary, may by civil action enforce the payment of wages due under this Section and recover any unpaid wages with interest, a reasonable attorney's fee, and damages for any retaliation for asserting any right under this Section.

(j) *Report.*

The Chief Administrative Officer must report annually to the Council and Executive on the operation of and compliance with this Section. In addition, the report filed under Section 11B-61(a) each year must compute the number of contracts and subcontracts with minority-owned businesses that are subject to the requirements of this Section, and how that number has changed since the year before those requirements took effect. (2002 L.M.C., ch. 17, § 1; 2010 L.M.C., ch. 7, § 1; 2015 L.M.C., ch. 18, § 1; 2015 L.M.C., ch. 19, § 1.)

Editor's note—2015 L.M.C., ch. 19, § 2, states: Transition. This Act applies to a contract awarded after October 1, 2015, but does not apply to an amendment or extension of a contract originally awarded before October 1, 2015.

2015 L.M.C., ch. 18, § 2, states: Effective date. The amendments to Section 11B-33A, inserted in Section 1 of this Act:

(a) apply to any contract in effect on or after the date this Act takes effect; and

(b) are not effective after July 1, 2017.

2002 L.M.C., ch. 17, § 2, states: Section 11B-33A, inserted by Section 1 of this Act, applies, effective July 1, 2003, to any contract for which the County government released a solicitation on or after January 1, 2003, and to any renewal or extension of a previously-effective contract which takes effect on or after July 1, 2003, and incorporates any material alteration to a provision of that contract. The Chief Administrative Officer must offer to renegotiate any multi-year contract which took effect before July 1, 2003, if the contractor agrees to apply the wage requirements of Section 11B-33A to employees who provide services under that contract. The first annual wage adjustment required by Section 11B-33A(e)(2) must take effect on July 1, 2004.



Montgomery County Prevailing Wage Statute

Sec. 11B-33C. Prevailing Wage Requirements — Construction Contracts.

(a) *Definitions.* In this Section, the following words have the meanings indicated:

Apprentice means an individual who:

- (1) is at least 16 years old;
- (2) has signed an agreement with an employer or employer's agent, an association of employers, an organization of employees, or a joint committee, that includes a statement of:
 - (A) the trade, craft, or occupation that the individual is learning; and
 - (B) the beginning and ending dates of the apprenticeship; and
- (3) is registered in a program of a Council or Bureau of Apprenticeship and Training of the United States Department of Labor.

Construction means work defined in Section 11B-1(c).

County financed construction contract means a contract for construction work that is awarded by the County or where County funds are used to finance all or part of the cost of the contract.

County funds means any:

- (1) funds directly appropriated by the County; or
- (2) grant funding for construction under Section 20-75 that cumulatively exceeds \$500,000.

Employee means a laborer, apprentice, journeyman, or mechanic employed by a contractor or subcontractor on a County financed construction contract.

Prevailing wage means the hourly wage rate set by the State Commissioner of Labor and Industry for State-funded construction contracts in the County.

(b) *Exclusions.* This Section does not apply to a County financed construction contract:

- (1) of less than \$500,000;
- (2) that is subject to a Federal or State prevailing wage law;
- (3) awarded without competition under Section 11B-14;
- (4) with a public entity;
- (5) to the extent that the contractor is expressly precluded from complying with this Section by the terms of any Federal or State law, contract, or grant;



- (6) entered into as a bridge contract under Section 11B-42;
- (7) entered into as a cooperative procurement under Section 11B-40; or
- (8) which results from an emergency procurement under Section 11B-16.

(c) *Payment of prevailing wage.* Any contractor and subcontractor that performs direct and measurable construction work on a County financed construction contract must pay each employee at a rate equal to or more than the prevailing wage in effect when the solicitation is published for the type of work performed.

(d) *Prevailing wage.*

(1) *Basic rate.* The prevailing wage rate is the prevailing wage rate established annually by the Commissioner of Labor and Industry for State financed construction work performed in the County by an employee who performs direct and measurable work.

(2) *Overtime rate.* A contractor or subcontractor must pay an employee at a rate equal to or more than the prevailing wage rate for overtime for the type of work performed for each hour that the employee performs direct and measurable work:

- (A) more than 10 hours in any single calendar day;
- (B) more than 40 hours in a workweek; or
- (C) on a Sunday or a legal holiday.

(3) *Deductions.* A contractor or subcontractor may only make fair and reasonable deductions that are:

(A) required by law;

(B) authorized in a written agreement between an employee and an employer signed at the beginning of employment that:

- (i) concerns food, sleeping quarters, or similar items;
- (ii) is submitted by the employer to the Chief Administrative Officer or a designee; or

(C) required or allowed by a collective bargaining agreement between a bona fide labor organization and a contractor or subcontractor.

(4) *Apprentices.* Each apprentice must be paid at least the rate that the State's Apprenticeship and Training Council sets for an apprentice in the trade involved, based on a percentage of the prevailing wage rate in that trade.

(d) *Contract requirements.* Each contract covered by this Section must:

- (1) require the contractor and subcontractor to comply with this Section; and



(2) specify that an aggrieved employee, as a third-party beneficiary, may by civil action recover the difference between the prevailing wage for the type of work performed and the amount actually received, with interest and a reasonable attorney's fee.

(e) *Misclassification of employees.*

(1) A contractor or subcontractor must not split or subdivide a contract, pay an employee through a third party, or treat an employee as a subcontractor or independent contractor to avoid any requirement of this Section.

(2) A laborer may perform any work that is not ordinarily performed by a mechanic or mechanic's apprentice, but must be paid the prevailing wage rate for the work performed.

(3) A laborer receiving the prevailing wage rate for laborers must not perform work ordinarily performed by a mechanic or mechanic's helper.

(4) If a laborer performs work ordinarily performed by any mechanic or mechanic's apprentice, the laborer must be paid for the entire time of performance of that work at the prevailing wage rate for a mechanic.

(f) *Helper and trainee restrictions.* A contractor or subcontractor must not employ any individual classified as a helper or trainee to perform direct and measurable work on a contract covered by this Section.

(g) *Posting requirements.* Each contractor and subcontractor must post a clearly legible statement of each prevailing wage rate in a prominent and easily accessible place at the work site during the entire time work is being performed in English and any other language that is primarily spoken by the employees at the work site.

(h) *Payroll records.*

(1) Each contractor and subcontractor must submit a complete copy of its payroll records for construction work performed on a contract covered by this Section to the Chief Administrative Officer or a designee within 14 days after the end of each payroll period.

(2) The payroll records must contain a statement signed by the contractor or subcontractor certifying that:

(A) the payroll records are correct;

(B) the wage rates paid are not less than those required by this Section; and

(C) the rate of pay and classification for each employee accurately reflects the work the employee performed.

(3) Each payroll record must include:

(A) the name, address, and telephone number of the contractor or subcontractor;

(B) the name and location of the job; and



(C) each employee's:

- (i) name;
- (ii) current address, unless previously reported;
- (iii) specific work classification;
- (iv) daily straight time and overtime hours;
- (v) total straight time and overtime hours for the payroll period;
- (vi) rate of pay;
- (vii) fringe benefits by type and amount; and
- (viii) gross wages.

(4) Each contractor or subcontractor must:

(A) keep payroll records covering construction work performed on a contract covered by this Section for not less than 5 years after the work is completed; and

(B) subject to reasonable notice, permit the Chief Administrative Officer or a designee to inspect the payroll records at any reasonable time and as often as necessary.

(5) The Chief Administrative Officer or a designee must make payroll records obtained from contractors or subcontractors under this Section available for public inspection during regular business hours for 5 years after the Chief Administrative Officer receives the records.

(i) *Enforcement.*

(1) The Chief Administrative Officer or a designee may perform random or regular audits and investigate any complaint of a violation of this Section. If the Director determines that a provision of this Section has been violated, the Director must issue a written decision, including appropriate sanctions, and may withhold from payment due the contractor, pending a final decision, an amount sufficient to:

(i) pay each employee of the contractor or subcontractor the full amount of wages due under this Section; and

(ii) satisfy a liability of a contractor for liquidated damages as provide in this Section.

(2) A contractor or subcontractor must not discharge or otherwise retaliate against an employee for asserting any right under this Section or for filing a complaint of a violation.

(3) The sanctions of Section 11B-33(b) which apply to noncompliance with nondiscrimination requirements apply with equal force and scope to noncompliance with this Section.



(4) Each contract subject to this Section may specify the payment of liquidated damages to the County by the contractor for any noncompliance with this Section.

(5) Each contractor is jointly and severally liable for noncompliance with this Section by a subcontractor.

(6) If a contractor or subcontractor is late in submitting copies of any payroll record required to be submitted under this Section, the County may deem invoices unacceptable until the contractor or subcontractor provides the required records, and may postpone processing payments due under the contract or under an agreement to finance the contract.

(7) A contractor may appeal a written decision of the Director that the contractor violated a provision of this Section to the Chief Administrative Officer within 10 working days after receiving a copy of the decision. The Chief Administrative Officer must designate a hearing officer to conduct a hearing under Chapter 2A upon receipt of a timely appeal. If the contractor does not appeal a written decision within 10 working days after receipt, the decision of the Director becomes final and binding.

(j) *Report.* The Chief Administrative Officer must report annually to the Council and Executive on the operation of and compliance with this Section. (2008 L.M.C., ch. 31, § 1; 2010 L.M.C., ch. 7, § 1.)

Editor's note—2008 L.M.C., ch. 31, § 2, states: Effective Date. This Act applies to any County financed construction contract that takes effect on or after July 1, 2009, but does not apply to any renewal or extension of a contract that took effect before July 1, 2009.



Appendix G: Assumptions in County Workforce Costing (Minimum Wage Schedule)

When using Calendar Year 2016 payroll data for employees on the minimum wage/seasonal salary schedule to determine the workforce-related costs associated with the proposed increases in the minimum wage, the following assumptions were used:

- The number of hours worked at each hourly rate of pay, as well as hours worked at the overtime rate (1.5x pay), are assumed to be flat in each year of the projection.
- Shift differential and holiday pay payments are also assumed to be flat in each year.
- Leave payouts received in Calendar Year 2016 are not included in the projections.
- All employees that separated from County service in Calendar Year 2016 are assumed to remain separated during the projection horizon and are not included in the analysis.
- The baseline scenario includes a \$0.25 GWA for all employees paid above the minimum wage as of the end of Calendar Year 2016. Employees paid at minimum wage at the end of the calendar year 2016 receive a pay adjustment up to the FY2018 minimum wage of \$11.50 per hour in FY2018 and adjusted by the assumed \$0.25 GWA in each subsequent year.
- A \$0.25 General Wage Adjustment is assumed in FY2022 and 2023 in the proposed increase scenario.
- FICA taxes for each employee are determined by multiplying the employee's total earnings by 6.2% (Social Security) and 1.45% (Medicare).
- Employee turnover is generally assumed to be even with hiring in each year.



Appendix H: Projected Impact of a County \$15/Hour Minimum Wage on the Value of the DD Supplement

Projected Impact of a County \$15/Hour Minimum Wage on the Value of the DD Supplement

PER FY17 WAGE SURVEY *	
4,890,058	FY15 hours
5,030,495	FY16 hours per FY17 wage survey (3% increase from FY15)
5,181,410	FY17 projection (assumes 3 % increase)
5,336,852	FY18 projection (assumes 3% increase)
5,496,958	FY19 projection (assumes a 3% increase)
5,661,866	FY20 projection (assumes a 3% increase)
5,831,722	FY21 projection (assumes a 3% increase)

Based on FY16 direct service hours data from the FY17 Wage Survey									
Year	County Min Wage	County Min Wage*125 %	DDA Wage Factor *	Difference between 125% of County Min Wage and DDA Wage Factor	Supplement Needed to Maintain Wages (on average) at 25% above Min Wage	FY17 Approved DD Supplement Allocation	Add'l \$/hr Funded by FY17 base Supplement	% Above County Min Wage (based on current allocation)	Additional Funding Needed to maintain wages at 125% (on average) - using the FY17 approved amount (\$13.8M) as the base
7/1/2016	10.75	13.44	10.94	2.50	12,940,571	13,800,221	2.66	26.5%	FY17 Approved
7/1/2017	11.50	14.38	11.50	2.88	15,343,450	13,800,221	2.59	22.5%	1,543,229
7/1/2018	12.5	15.63	11.90	3.72	20,462,425	13,800,221	2.51	15.3%	6,662,204
7/1/2019	13.75	17.19	12.14	5.05	28,575,157	13,800,221	2.44	6.0%	14,774,936
7/1/2020	15.00	18.75	12.38	6.37	37,128,471	13,800,221	2.37	-1.7%	23,328,250

* Assumes a 3.5% increase in FY19 and a 2% in FY20 and FY21



Appendix I: State of Maryland Minimum Wage Exemptions

Maryland exempts the following employees from its minimum wage and overtime requirements:

- Individuals working in a non-administrative capacity at an organized camp, including a resident or day camp;
- Individuals compensated on a commission basis;
- Individuals who are at least 62 years old and who are employed no more than 25 hours in a week;
- Children, parents, spouses, or other members of the immediate family of the employer;
- Individuals working in a motion picture or drive-in theater;
- Individuals working as part of the training in a special education program for emotionally, mentally, or physically handicapped students under a public school system;
- Individuals working for an employer who is engaged in canning, freezing, packing, or first processing of perishable or seasonal fresh fruits, vegetables, or horticultural commodities, poultry, or seafood;
- Individuals who engage in the activities of a charitable, educational, not for profit, or religious organization if:
 - The service is provided gratuitously; and
 - There is, in fact, no employer-employee relationship.
- Individuals working in a cafe, drive-in, drugstore, restaurant, tavern, or other similar establishment that:
 - Sells food and drink for consumption on the premises; and
 - Has an annual gross income of \$250,000 or less.
- Individuals working in agriculture if, during each quarter of the preceding calendar year, the employer used no more than 500 agricultural-worker days;
- Individuals working principally in the range production of livestock; or
- Individuals working as a hand-harvest laborer and paid on a piece-rate basis in an operation that, in the region of employment, has been and customarily and generally is recognized as having been paid on that basis, if:
 - The individual commutes daily from the permanent residence of the individual to the farm where the individual is employed; and during the preceding calendar year, was employed in agriculture less than 13 weeks; or
 - The individual is under the age of 17; is employed on the same farm as a parent of the individual or a person standing in the place of the parent; and is paid at the same rate that an employee who is at least 17 years old is paid on the same farm.



Appendix J: Federal Youth Opportunity Wage

Excerpt from U.S. Code, Title 29, USC 206

(g) Newly hired employees who are less than 20 years old

- (1) In lieu of the rate prescribed by subsection (a)(1), any employer may pay any employee of such employer, during the first 90 consecutive calendar days after such employee is initially employed by such employer, a wage which is not less than \$4.25 an hour.
- (2) In lieu of the rate prescribed by subsection (a)(1), the Governor of Puerto Rico, subject to the approval of the Financial Oversight and Management Board established pursuant to section 2121 of title 48, may designate a time period not to exceed four years during which employers in Puerto Rico may pay employees who are initially employed after June 30, 2016, a wage which is not less than the wage described in paragraph (1). Notwithstanding the time period designated, such wage shall not continue in effect after such Board terminates in accordance with section 2149 of title 48.
- (3) No employer may take any action to displace employees (including partial displacements such as reduction in hours, wages, or employment benefits) for purposes of hiring individuals at the wage authorized in paragraph (1) or (2).
- (4) Any employer who violates this subsection shall be considered to have violated section 215(a)(3) of this title.
- (5) This subsection shall only apply to an employee who has not attained the age of 20 years, except in the case of the wage applicable in Puerto Rico, 25 years, until such time as the Board described in paragraph (2) terminates in accordance with section 2149 of title 48.