

To: OLO Staff

From: Jenna Bauer

Subj: Minimum Wage Economic Indicators

As Montgomery County raises the County minimum wage in accordance with Bill 28-17, the County Council wants to monitor its implementation while remaining informed about local economic conditions. To ensure this occurs, Bill 28-17 requires the Office of Legislative Oversight (OLO) to conduct an annual analysis. Specifically, the bill states, “The Office of Legislative Oversight must provide to the Council, by January 31 of each year, a report containing data related to the implementation of the County minimum wage and the local economy”.¹ This memo provides information and recommendations on what economic indicators OLO should present to fulfill their obligation to provide data to the council.

Specifically, this memorandum:

- Gives background on the minimum wage law;
- Details the scope of OLO’s annual analysis, highlights potential problems or limitations, and recommends ways to overcome limitations;
- Identifies key areas of the local economy that would be important to study;
- Provides recommendations on which indicators to present to the Council and what jurisdictions to compare Montgomery County to; and
- Describes studies produced by other jurisdictions that could serve as a guide for OLO.

The Montgomery County Minimum Wage Bill 28-17

Overview: In November of 2017, the Council passed Bill 28-17. This bill increases the County minimum wage, which was \$11.50 per hour before July 1, 2018.² Bill 28-17 also requires the Chief Administrative Officer to adjust the County minimum wage rate each year and requires the Office of Legislative Oversight (OLO) to prepare an annual report on the implementation of the County’s minimum wage and the local economy.³

Transition Schedule: The bill raises the minimum wage in phases with each increase beginning annually on July 1. Small, mid-size, and large employers have different schedules to eventually reach \$15.00 per hour. After reaching \$15.00 per hour, Montgomery County will index the minimum wage with inflation

¹ County Council for Montgomery County, Maryland, Bill No. 28-17, Concerning: Human Rights and Civil Liberties – County Minimum Wage – Amount – Annual Adjustment, Enacted: November 7, 2017; retrieved from https://www.montgomerycountymd.gov/council/resources/files/lims/bill/2017/Enacted/pdf/3334_1454_Enacted_11092017.pdf

² In 2013, the Council enacted Bill 27-13 that increased the minimum wage for County employees and private sector employees working in the County. The wage increase was set to \$8.40 per hour effective Oct. 1, 2014 and was increased each year to the current rate of \$11.50, which took effect on July 1, 2017. There was no requirement to increase the minimum wage beyond this level in future years.

³Hamlin and Smith, Josh and Gene, Montgomery County Enactment Memo, page 1, https://www.montgomerycountymd.gov/council/resources/files/lims/bill/2017/Action/pdf/3302_1454_Action_11062017.pdf

using the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) for Washington-Baltimore. Mid-size and small employers will also have an additional annual scheduled increase in addition to the inflation increase so that their wage rate can eventually match the large employers' wage rate. The rate schedule is outlined in the table below.

Date	Large Employers (51+)	Mid-Sized Employers (11-50) ⁴	Small Employers (0-10)
7/1/2018	\$12.25	\$12.00	\$12.00
7/1/2019	\$13.00	\$12.50	\$12.50
7/1/2020	\$14.00	\$13.25	\$13.00
7/1/2021	\$15.00	\$14.00	\$13.50
7/1/2022	\$15.00 + Inflation ⁵	\$14.50	\$14.00
7/1/2023	2022 rate + Inflation	\$15.00	\$14.50
7/1/2024	2023 rate + Inflation	\$15.00 + Adjustment ⁶ + Inflation	\$15.00
7/1/2025	2024 rate + Inflation	2024 + Adjustment + Inflation	\$15.00 + Adjustment + Inflation

The classification or 'schedule' for employers is determined by the average number of employees per calendar week during the previous year. Employers follow the schedule that they originally were assigned when they became subject to the act. In general, large employers employ at least 51 employees, mid-sized employers employ between 50 and 11 employees, and small employers employ 10 or fewer employees.

The Council originally considered Bill 12-16, which was passed in January of 2016 and vetoed by the Executive. Bill 12-16 had only two classifications for employers – above or below 25 employees – and the minimum wage reached \$15.00 per hour in 2020 or 2022 depending on size. The Executive vetoed Bill 12-16 because it went, "too far, too fast".⁷ In response, the Council drafted Bill 28-17, which added some exemptions and additional classes of employers to reach a \$15.00 minimum wage over a longer period of time. While Bill 12-16 passed 5-4, Bill 28-17 was approved 9-0.

Besides number of employees, an employer can also qualify as a mid-sized employer if they meet certain requirements. Specifically, a mid-sized employer could be an employer who employs 11 or more

⁴ As noted, certain organizations can qualify as a mid-sized employer even if they have more than 50 employees.

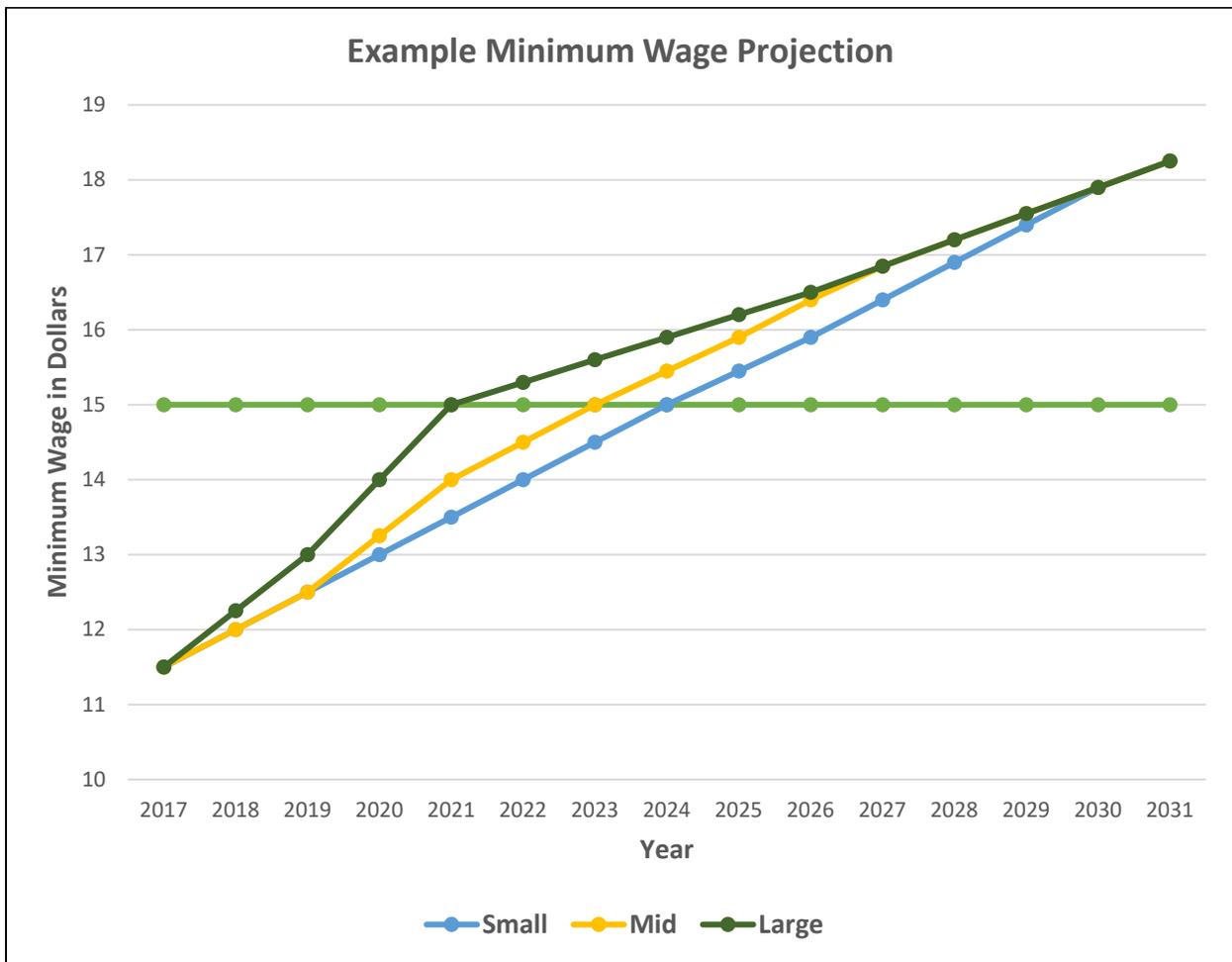
⁵ Inflation is determined using the CPI-W for Washington-Baltimore for the previous calendar year and is rounded to the nearest five cents. The CPI-W is published monthly by the U.S. Bureau of Labor Statistics and may be retrieved from <https://www.bls.gov>. The statute tasks the County's Chief Administrative Officer with adjusting the County's minimum wage rate.

⁶ An adjustment would occur for small- and mid-size employers if the annual CPI-W increase is less than \$0.50. In that case, the adjustment would equal up to one percent of the minimum wage required for the prior year, with a maximum increase of \$0.50. This adjustment will occur annually until the wage rate is the same as the large employers at which point it would increase with inflation only and the adjustment would no longer be applied.

⁷ Hamlin and Smith, Josh and Gene, Montgomery County Enactment Memo, page 3, https://www.montgomerycountymd.gov/council/resources/files/lims/bill/2017/Action/pdf/3302_1454_Action_11062017.pdf

employees and (1) has tax exempt status under Section 501(c)(3) of the Internal Revenue Code or (2) provides 'home health services or 'home or community-based services' and receives at least 75% of their gross revenues through state and federal Medicaid programs. The Council included these exceptions after hearing concerns from these organizations about the effects of the scheduled increases.

The way the bill is designed, the minimum wage rate for each classification of employers will be different for multiple years after each size employer reaches \$15.00 per hour. The graph gives an example of how the wage rate might rise over time and how long it could take the various wage rates to be synchronized. For the purpose of the projection, the annual inflation rate was held constant at 2.0%, which is the average of the last 10 years (2007-2017) annual percentage change for the CPI-W Washington Baltimore index.



Tipped Employees: Tipped employees are individuals earning more than \$30 per month in tips. Their base wage is \$4.00 per hour, but this amount plus tips must be at least equal to the Montgomery County minimum wage. Section 27-69 (d) of the Montgomery County Code requires employers to submit a quarterly wage report to the Office of Human Rights certifying that their tipped employees are paid at least the minimum wage.

Exceptions: The law includes multiple exemptions from the minimum wage law. These include:

- Any individual exempt from the State or Federal minimum wage requirements.
- Any individual subject to the State or Federal opportunity wage.⁸
- Any individual under 19 years of age employed for fewer than 20 hours per week.⁹

Estimating the County Workforce: It is difficult to estimate the exact number of minimum wage workers in the County, but it is important to understand the impact that Bill 28-17 could have. The District of Columbia did a study on the minimum wage in 2016 to attempt to identify the demographics of the minimum wage workforce.¹⁰ Easily accessible information on the breakdown of minimum wage workers in Montgomery County is currently unavailable, but the District of Columbia report could serve as a guide for future inquiry. There is some information available regarding the number of establishments disaggregated by size and number of employees they have. Information on the private establishments in the County can be found in the table below.

Establishment Size	Number of Establishments	Percent of Total	Number of Jobs	Percent of Total
10 or fewer jobs	26,457	81.1%	63,069	17.1%
11 to 25 jobs	3,384	10.4%	54,874	14.9%
26 to 50 jobs	1,408	4.3%	49,702	13.5%
51 to 99 jobs	752	2.3%	52,240	14.2%
100 to 499 jobs	568	1.7%	100,723	27.4%
Greater than 500 jobs	43	0.1%	47,361	12.9%

Source: 2017Q1 QCEW; County, private establishments only¹¹

Stated Goals: It is important to note the benefits and goals the Council expects to achieve by raising the minimum wage. The code states, “Minimum wage standards in the County are necessary to: promote the health and welfare of County residents; safeguard employers and employees against unfair competition; increase the stability of industry in the County; increase the buying power of employees in

⁸ An opportunity wage allows an employer to pay a wage equal to 85% of the County minimum wage to an employee under 20 years of age for the first six months the employee is employed

⁹County Council for Montgomery County, Maryland, Bill No. 28-17, Concerning: Human Rights and Civil Liberties – County Minimum Wage – Amount – Annual Adjustment, Enacted: November 7, 2017; retrieved from https://www.montgomerycountymd.gov/council/resources/files/lims/bill/2017/Enacted/pdf/3334_1454_Enacted_11092017.pdf.

¹⁰ District of Columbia, Department of Employment Services Office of Wage and Hour, “Minimum Wage Impact Study” https://does.dc.gov/sites/default/files/dc/sites/does/page_content/attachments/Minimum%20Wage%20Impact%20Study%20Report_r1.pdf

¹¹ Hamlin and Smith, Josh and Gene, Montgomery County Enactment Memo, page 11, https://www.montgomerycountymd.gov/council/resources/files/lims/bill/2017/Action/pdf/3302_1454_Action_11062017.pdf

the County; and decrease the need for the County to spend public money for the relief of employees who also live in the County”.

The Director of Finance’s Annual Determination: Bill 28-17 requires the Director of Finance to make an annual determination each year during the transition period (from 2018-2022) certifying whether four conditions are met. These conditions include employment data, Gross Domestic Product (GDP) data, and whether National Bureau of Economic Research has determined that the United States economy is in recession. The Executive may temporarily suspend the scheduled minimum wage increases for the year if the Director of Finance determines one of the conditions is met.

OLO’s Annual Report

Overview: Assessing the economic impact of any legislative action is difficult and extensive disagreement exists over how to design studies or research concerning the minimum wage as was evident in the Council’s formation of Bill 28-17. An earlier version of the Bill originally required OLO to provide an analysis of the impact of the minimum wage.¹² The clarification in the enacted Bill narrows the scope of the required OLO report to data regarding the implementation of the minimum wage and the local economy, acknowledging the limitations of assessing the impact of the minimum wage.

“Implementation’: This memo interprets the sentence, “a report containing data related to the implementation of the County minimum wage and the local economy” as requiring data that OLO presents to be related to *both* the local economy and the implementation of the minimum wage. However, this understanding may not be Council’s intent. More research would need to be done to clarify the intent. If the intent was to provide information on how the minimum wage is being implemented by the Executive, this report would recommend meeting with the Office of Human Rights and giving the Council a written update of their efforts to enforce the tipped minimum wage.¹³ In addition, this report would recommend that the OLO meet with or reach out to the Maryland Department of Labor, Licensing and Regulation (DLLR). Maryland employers are required to file a quarterly Contribution and Employment Report with DLLR.¹⁴ These employers must provide information on the number of employees and the total gross wages paid to each employee during the quarter. DLLR is tasked with enforcing minimum wage laws throughout the state including in Montgomery County.¹⁵

¹² Hamlin and Smith, Josh and Gene, Montgomery County Enactment Memo, page 10, https://www.montgomerycountymd.gov/council/resources/files/lims/bill/2017/Action/pdf/3302_1454_Action_11062017.pdf

¹³ More information on the Montgomery County Office of Human Rights Minimum Wage Reporting can accessed here: <https://www.montgomerycountymd.gov/humanrights/min-wage.html>

¹⁴ Maryland Department of Labor, Licensing, and Regulation, Division of Unemployment Insurance, “Employers Quick Reference Guide” pg 17, <https://www.dllr.state.md.us/employment/empguide/empguide.pdf>

¹⁵ Maryland Department of Labor, Licensing, and Regulation, “Employment Standards Service (ESS), Wage and Hour Information – Division of Labor and Industry”, <https://www.dllr.state.md.us/labor/wages/>

Limitations: When examining the implementation of raising the minimum wage, several practical limitations exist. First, some data are only available at the state level and not at the county level. In addition, many of the predicted economic outcomes resulting from raising the wage can take months or even years to materialize. Moreover, other external factors and trends such as changing interest rates, technological innovations, fluctuating oil prices, changes to other workforce protection laws and regulations in the County, shifts in the minimum wage rate or regulations in neighboring jurisdictions, or even extreme weather can offset or obscure the anticipated effects of the minimum wage. Comparing Montgomery County to other counties in the region might resolve some of these issues, but it is nonetheless unwise to attribute shifts in economic indicators entirely to an increase in the minimum wage.

Furthermore, some of the potential benefits of increasing the wage rate, such as increased productivity and decreased employee turnover, are difficult for OLO (or anyone else) to assess. This difficulty occurs because data on employee turnover is not easily accessible and the costs associated with retraining employees vary greatly. Yet decreased employee turnover can result in real savings in hiring and training costs for employers. Additionally, data on labor productivity is not currently available at the County level.

Overcoming Limitations:

1) Using comparison jurisdictions: As previously mentioned, comparing Montgomery County to other nearby jurisdictions with lower minimum wage rates can help OLO overcome *some* of the limitations of gathering data about the local economy as it relates to the minimum wage. By comparing the trends of Montgomery County to other areas, analysts can determine whether the changes in indicators they observe are typical for the region or are only occurring in Montgomery County. If a trend is only occurring in Montgomery County this does not necessarily mean the trend is due to the minimum wage increasing, but it does help remove some of the excess noise from other economic effects.

Besides the District of Columbia, which is also raising its minimum wage to \$15.00, Montgomery County has the highest minimum wage in the region. The minimum wage for the State of Maryland is \$10.10, Prince George’s County minimum wage is \$11.50, and Virginia’s minimum wage is \$7.25. Obviously, these wage rates could change, and OLO may need to adjust the comparison jurisdictions to reflect these changes if they occur. Updated minimum wage information for all jurisdictions can be found at the Economic Policy Institute.¹⁶ Prince George’s County is an interesting comparison jurisdiction because their minimum wage was the same as Montgomery County at \$11.50 before July 1, 2018. Their minimum wage is currently set to stay at \$11.50 as Montgomery County increases. This could provide interesting insight as a baseline for Montgomery County. This is particularly so because Montgomery County’s minimum wage of \$11.50 was already higher than the rest of Maryland and Virginia even before these scheduled increases to \$15.00.

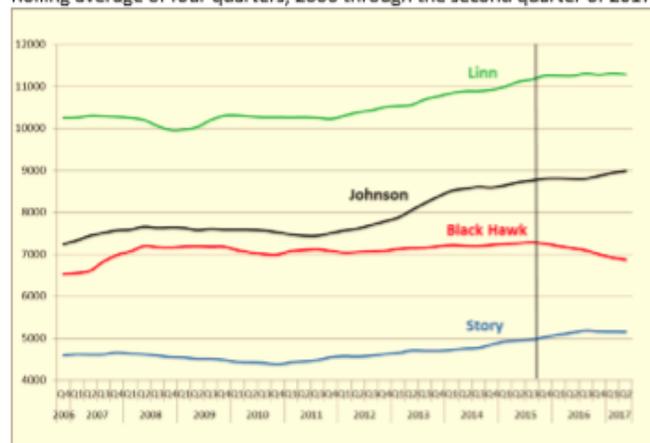
2) Using moving averages or percent change over the year: Comparison jurisdictions are helpful, but obviously every county is different and faces unique set of economic conditions. Montgomery

¹⁶ The Economic Policy Institute, “Minimum Wage Tracker” <https://www.epi.org/minimum-wage-tracker/>

County’s past performance can also be used as a baseline for comparison. By looking at moving averages or percent change over the year analysts can again smooth some of the effects of random events and get a sense of the larger shifts. Furthermore, using moving averages or percentage change over the year can make comparisons between different jurisdictions easier to interpret.

3) Focusing on low-wage sectors or industries: To further narrow the effects to sectors most likely to be affected by minimum wage increases it is important to focus on industries that rely on low-wage workers. Of the supersectors identified by the Bureau of Labor Statistics, Montgomery County’s ‘Leisure and Hospitality’¹⁷ supersector has the lowest average weekly wage rate.¹⁸ Thus, this report recommends using this industry throughout the report when looking at low-wage industries. There are more specific industries within these supersectors that the Bureau of Labor Statistics tracks that could be helpful to analyze such as the ‘Accommodation and Food Services’¹⁹ industry within the Leisure and Hospitality supersector; however, this classification is not always available for every recommended indicator. When possible, OLO should analyze data at the more specific sector level. Looking at the average weekly wage in an industry can help OLO identify which industries are dependent on low-wage workers. The ‘Leisure and Hospitality’ supersector encompasses restaurants, bars, hotels, and smaller employers such as fitness centers or museums. Ideally, OLO should combine all these best practices to overcome limitations when presenting a single indicator. The graph to the right is an example from the Johnson County report that uses all these practices. More information on this report can be found in the case study section.

Figure 4. Number of Jobs in Each County in the Leisure and Hospitality Sector
Rolling average of four quarters, 2006 through the second quarter of 2017



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages
<http://www.bls.gov/cew/datatoc.htm>

4) Collaborating when possible: Many departments and agencies in Montgomery County deal with economic data on a regular basis. Specifically, the Department of Finance publishes multiple reports on the local economy, and some of the reports are presented to the County Council. Finance publishes a Monthly Economic Update, Quarterly Economic Indicators, an Annual Report of the Business Advisory Panel, Revenue Updates for the Council, and a bi-annual Economic Indicators

¹⁷ Industry code 1026, <https://www.bls.gov/cew/supersector.htm>

¹⁸ The U.S. Bureau of Labor Statistics aggregates the North American Industry Classification System (NAICS) industry sectors into groupings called "Supersectors." For more information, see: <https://www.bls.gov/bls/naics.htm>.

¹⁹ North American Industry Classification System (NAICS), NAICS 71, <https://www.bls.gov/cew/supersector.htm>

Presentation for the Council.²⁰ The Department of Finance reports contain information about employment, unemployment, and the CPI. Most of the data for these indicators is gleaned from the Bureau of Labor Statistics. The reports also have additional information that isn't necessarily relevant to the minimum wage.

Given the expertise in the Department of Finance it may be helpful for OLO to consult with Finance, particularly when interpreting the data for the County Council. While there is some overlap between the reports, the data that the Department of Finance provides usually does not include comparison jurisdictions and is limited to overall unemployment rather than sector specific information. It is possible that Finance could create a report to provide the necessary information to the Council in the future, but that would require a shift in the legislative mandate of Bill 28-17.

Key Indicator Areas

This report identifies wages, prices, employment, and business activity as essential areas of study. It is important to ensure that OLO covers these broad areas of interest when designing the report to the Council. OLO does not necessarily need to track all the indicators discussed below. For example, if data were unavailable for one of the indicators the others would still provide valuable information. However, tracking at least one indicator from each key area will provide a better picture of the implementation of the minimum wage.

Recommendations

This section of the memorandum will provide recommendations on indicators to study in each of the four key indicator areas. Each potential indicator includes a justification for its inclusion and sources from which to gather necessary data. Additionally, each key area includes recommendations on comparison jurisdictions. Comparisons are important because they provide context and capture *some* of the other trends that might complicate the effects of the minimum wage.

As previously discussed, OLO need not track all the indicators below. Each indicator provides different information, and many indicators can be analyzed at the local, state, and national level. While the annual OLO reports are intended to provide information on local level indicators, including a comparison for indicators at the state or national level could clarify trends in the more specific metrics.

Wages: It is important to look at data surrounding wages to ascertain whether wages continue to grow for low wage workers as the minimum wage increases.

- **Average Weekly Earnings:**
 - Justification: This is a useful statistic because the trend over time should show the growth or contraction of overall wages. If the loss of hours wipes out the gains in wages this number

²⁰ Montgomery County Department of Finance, "Economic & Revenue Information"
<https://www.montgomerycountymd.gov/finance/economic.html>

could decrease to reflect this problem. This directly relates to Council's goal of increasing the buying power for workers.

- Sources: Analysts can compute this data using the Bureau of Labor Statistics Quarterly census of Employment and Wages.²¹ They can also obtain the data from the Maryland Department of Labor.²² To find the average simply divide the quarterly average by 13 (the number of weeks in the quarter). Focusing on a low-wage industry is most helpful. As mentioned in the overcoming limitations section, Leisure and Hospitality is a good sector to focus on.
- Average Hourly Wage:
 - Justification: This is a helpful metric that illustrates growth in wages, which also relates to Council's goal of increasing the buying power of workers. It should be noted, however, that the average would also be affected by the number of low-wage workers exempted from the County's minimum wage increase, noncompliance with the law, and/or increased automation as a substitute for low-wage laborers. This metric might not shift as much if many of the minimum wage workers in particular industries or areas are exempt.
 - Sources: The Bureau of Labor Statistics has data relating to the average hourly wage but does not disaggregate the data based on industry. Moreover, the data is only available for Metropolitan Statistical Areas, so this metric may not convey the necessary information to draw many conclusions.²³ However, Maryland Department of Labor, Licensing and Regulation publishes their 'Maryland Occupational Wage Estimates' that include median wage estimates for different occupations. I could not locate historical data, but it is likely DLLR may have the data and reaching out to that department could be helpful when looking at this metric.²⁴
- Recommended Comparisons:
 - Average weekly earnings data is generally available by county with additional information on the state and federal level. Good comparisons for Montgomery County would be Fairfax County, VA; Loudoun County, VA; Prince George's County, MD; Frederick County, MD; and the State of Maryland.
 - Average hourly wage may only be available for Metropolitan Statistical Area if the BLS data is used. In that case, the Baltimore-Towson MSA could be a useful comparison.

Employment: If the minimum wage is higher than what the market would otherwise pay, some neo-classical economists predict that (all other factors being equal) overall employment will decrease. This could result in lower employment both in terms of the number of individuals employed and the number of hours worked by employed minimum wage workers.

²¹ US Bureau of Labor Statistics, "Quarterly Census of Employment and Wages" <https://www.bls.gov/cew/datatoc.htm>

²² Maryland Department of Labor, Licensing & Regulation, Montgomery County – County Industry Series Quarterly Census of Employment and Wages, <https://www.dllr.state.md.us/lmi/emppay/tab4mont32017.shtml>

²³ Bureau of Labor Statistics, "State and Metro Area Employment, Hours, & Earnings" <https://www.bls.gov/sae/>

²⁴ More information on the Department of Labor, Licensing & Regulation Maryland Occupational Wage Estimates can be found here: <https://www.dllr.state.md.us/lmi/wages/aboutnum.shtml>

- Overall Unemployment:
 - Justification: This is obviously the broadest statistic on unemployment, which will capture many other effects besides the minimum wage increases. Regardless, the general trends are important and can provide a baseline that establishes whether a subset metric is moving against a larger trend.
 - Sources: These data are available through the Bureau of Labor Statistics Local Area Unemployment Statistics.²⁵ The Maryland Department of Labor, Licensing and Regulation also has unemployment metrics.²⁶ Using the 12-month moving average is helpful for this statistic because it controls for seasonal changes, but this may also obscure effects from the minimum wage increases because they occur annually on July 1.
- Employment in specific sectors, e. g., ‘Leisure and Hospitality’:
 - Justification: Examining employment trends in specific low-wage industries can show whether companies are able to absorb the labor costs imposed by minimum wage increases as economic conditions change.
 - Source: These data are available through the Bureau of Labor Statistics Quarterly Census of Employment and Wages.²⁷ The industries with the largest percentage of low-wage workers are more likely to reflect the effects of a minimum wage increase. Generally, these industries include restaurants and fast food chains as well as hospitality, i.e., hotels or motels. The Maryland Department of Labor has additional data on specific industries and occupations under different categorizations.²⁸ Either could be used to provide information, however, the Maryland Department of Labor information is not updated as frequently so may be useful only for supplementary purposes.
- Recommended Comparisons:
 - This data is generally available at the county level with additional information on the state and federal level. Good comparisons for Montgomery County would be Fairfax County, VA; Loudoun County, VA²⁹; Prince George’s County, MD; Frederick County, MD; and the State of Maryland.

Prices: When surveyed, many businesses claim they will raise prices to cover their increased costs associated with a higher minimum wage.³⁰ Price inflation can have a number negative effects. Montgomery County will be indexing the minimum wage to inflation so that the minimum wage remains

²⁵ Bureau of Labor Statistics, “Local Area Unemployment Statistics” <https://www.bls.gov/lau/>

²⁶ Maryland Department of Labor, Licensing & Regulation, “Area Explorer – Montgomery County Workforce Region – Workforce Information & Performance” <https://www.dllr.state.md.us/lmi/areas/montcowia.shtml>

²⁷ Bureau of Labor Statistics, “Quarterly Census of Employment and Wages”, <https://www.bls.gov/cew/datatoc.htm>

²⁸ Maryland Department of Labor, Licensing & Regulation, “Maryland Occupational Wage Estimates Workforce Information & Performance” <https://www.dllr.state.md.us/lmi/wages/toc008.htm>

²⁹ Virginia info available here: Bureau of Labor Statistics, “Local Area Unemployment Statistics Map” <https://data.bls.gov/map/MapToolServlet?state=51&datatype=unemployment&survey=la&map=county&seasonal=u>

³⁰ The Seattle Minimum Wage Study Team. October 2017. The Seattle Minimum Wage Ordinance. October 2017 Update: Report on Employer Adjustments, Worker Experiences, and Price Changes. Seattle. University of Washington.

competitive. Monitoring both expected and current inflation levels is helpful not only to predict the future increases in the minimum wage, but also to ensure the increasing prices do not overtake gains in wages.

- Overall Inflation:
 - Justification: This national average will not reflect local area changes in the price level, but it will provide context for any local area inflation data. Nevertheless, given that the County law indexes the wage rate to the CPI-W index, it would make sense to use the general CPI-W index when looking at overall inflation.
 - Sources: The Bureau of Labor Statistics tracks this data and publishes every month.³¹ Analysts can compare this data with the projected inflation level established by either the Federal Reserve or the Congressional Budget Office to determine if inflation is exceeding expectations.
- Metropolitan Area Inflation:
 - Justification: The local rate of inflation is important and more specific than the national level, and it is helpful especially for understanding how much the minimum wage level will increase in the future when indexed to inflation.
 - Sources: The Bureau of Labor Statistics tracks the level of inflation for the Washington-Arlington-Alexandria area and publishes an update every other month. The Washington-Arlington-Alexandria area is large and includes the District of Columbia as well as many counties in Maryland, Virginia, and West Virginia.³² Obviously, this is much larger than Montgomery County alone and will include trends of other areas with different minimum wage laws.³³
- Real Personal Income
 - Justification: Real personal income takes into account income adjusted by 'Regional Price Parities' (RPPs).³⁴ RPPs measure the difference in price levels across state and metropolitan areas for a given year and are expressed as a percentage of the overall national price level.³⁵ This data expresses purchasing power to an extent because it adjusts wages to show the effect of prices.

³¹ Bureau of Labor Statistics, "CPI-Urban Wage Earners and Clerical Workers" <https://data.bls.gov/cgi-bin/surveymost?cw>

³² Bureau of Labor Statistics, CPI https://data.bls.gov/pdq/SurveyOutputServlet?data_tool=dropmap&series_id=CUURS35ASA0,CUUSS35ASA0

³³ Specifically, this includes the District of Columbia; the counties of Calvert, Charles, Frederick, Montgomery, and Prince George's in Maryland; the cities of Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas, and Manassas Park and the counties of Arlington, Clarke, Culpeper, Fairfax, Fauquier, Loudoun, Prince William, Rappahannock, Spotsylvania, Stafford, and Warren in Virginia; and the county of Jefferson in West Virginia.

³⁴ Bureau of Labor Statistics, "Purchasing power: using wage statistics with regional price parities to create a standard for comparing wages across U.S. areas" <https://www.bls.gov/opub/mlr/2016/article/purchasing-power-using-wage-statistics-with-regional-price-parities-to-create-a-standard-for-comparing-wages-across-us-areas.htm>

³⁵ Bureau of Economic Analysis, Real Personal Income and Regional Price Parities, July 2016, https://www.bea.gov/regional/pdf/RPP2016_methodology.pdf

- Sources: Unfortunately, this data is not disaggregated by industry and is only available for Metropolitan Statistical Area. Nonetheless, it may still be useful for understanding how prices effect wages. The data is available from the Bureau of Economic Analysis.³⁶
- Tracking a local bundle of goods:
 - Justification: BLS tracks inflation through price increases on an aggregate bundle of goods. The BLS metrics, however, are not specific to Montgomery County and do not provide information on the differences in prices between Montgomery County and nearby counties or cities with different minimum wage laws. For example, the City of Seattle funded research that tracked the prices of groceries in Seattle and King County to assess the impacts of Seattle’s minimum wage increases on important essential goods.³⁷ OLO could choose which essential goods to track.
 - Sources: This data would need to be collected individually using pricing information on the goods selected.
- Recommended Comparisons:
 - Inflation data are only available by state and by metropolitan area. Therefore, available data do not allow for comparisons of inflation among different counties: comparing the level of inflation for the Washington-Arlington-Alexandria metropolitan area to the national level is the most granular level of comparison available. However, as previously mentioned including the metropolitan area inflation level can provide useful information on what the minimum wage adjustment would be if the rate were already indexed to inflation.
 - For the bundle of goods selected, good comparisons for Montgomery County would be Fairfax County, VA; Loudoun County, VA; Prince George’s County, MD; and Frederick County, MD.

Business Activity: A higher minimum wage could affect business growth or activity in Montgomery County. To track the current business environment in the local economy it is important to look at the rate of employment growth and sales as well as the number of businesses.

- Employment Growth (Overall and in Specific Sectors):
 - Justification: This is an important indicator because businesses in low wage industries may simply choose not to expand or open additional branches. Alternatively, they might locate or relocate to nearby jurisdictions with lower minimum wage requirements. Tracking employment growth provides an idea of how many jobs are being created or lost in Montgomery County and in specific sectors.
 - Sources: The Maryland Department of Labor tracks this information, but the data available online has not been updated since 2014. More work would need to be done

³⁶ Bureau of Economic Analysis, “Real Personal Income for State and Metropolitan Areas” https://www.bea.gov/newsreleases/regional/rpp/rpp_newsrelease.htm

³⁷ Otten et. Al, “The Impact of a City-Level Minimum-Wage Policy on Supermarket Food Prices in Seattle-King County” Int J Environ Res Public Health, 2017; retrieved from, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5615576/>

identifying where this data is available or working with the Maryland Department of Labor to get updated figures.³⁸

- Number of Businesses (Overall and in Specific Sectors):
 - Justification: This metric conveys whether businesses are opening in Montgomery County or potentially choosing to locate elsewhere. However, it is important to note that the number of businesses does not account for existing business growth and many businesses will not be represented in this statistic because they are unincorporated. Thus, this statistic should not be the only metric analyzed in the key area of business activity.
 - Sources: The Bureau of Labor Statistics tracks the number of establishments and publishes the number in their Quarterly Census of Employment and Wages.³⁹ This metric can also be disaggregated by size of employer which could be useful given that different size businesses face different minimum wage rates. Information disaggregated based on size is available from the U.S. Census Bureau.⁴⁰ To access the data analysts should utilize the US Census Bureau American Fact Finder.⁴¹
- Average Sales for establishments:
 - Justification: The trend of average sales over time could capture a few effects including whether businesses are raising prices and how consumers are responding to price increases. Theoretically, if all restaurants increased prices to deal with higher labor costs they could experience decreased sales. This metric will combine many different effects, but it is helpful to look at revenue for businesses to get a better understanding of the overall health of an industry.
 - Sources: This data is available from the Maryland Comptroller and OLO can compare the amount of sales made in specific industries.⁴² This data is differentiated by county.
- Recommended Comparisons:
 - Average sales data is available by county from the Maryland Comptroller and is also available for Virginia. The Bureau of Labor Statistics data for number of establishments is separated by county. Good comparisons for Montgomery County would be Fairfax County, VA; Loudoun County, VA; Prince George's County, MD; and Frederick County, MD.
 - Employment growth is tracked by the Maryland Department of Labor, so comparisons might be most effective between Montgomery, Prince George's, and Frederick Counties.

³⁸ Maryland Department of Labor, Licensing & Regulation, "Maryland's Industry and Occupational Growth Analysis Tool – Workforce Information & Performance" <https://www.dllr.state.md.us/lmi/wiagrowthind/>

³⁹ Bureau of Labor Statistics, "Quarterly Census of Employment and Wages" <https://data.bls.gov/PDQWeb/en>

⁴⁰ United States Census Bureau, "2016 County Business Patterns Show Overall Growth in Employment" <https://www.census.gov/newsroom/press-releases/2018/county-business-patterns.html>

⁴¹ American Fact Finder, <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>, use the advanced search to search Montgomery County and 'County Business Patterns' for topic.

⁴² Comptroller of Maryland, "Sales and Use Tax Receipts by Subdivision and Business Activity Archive", http://finances.marylandtaxes.gov/Where_the_Money_Comes_From/Fiscal_Year_End_Reports/Receipts_by_Subdivision_and_Business_Activity.shtml

Case Studies – Other Jurisdictions

Many jurisdictions have considered raising their minimum wage, but Montgomery County is one of the first to raise the minimum wage to \$15.00. Few counties have raised their minimum wage. Many of the jurisdictions that have passed minimum wage laws are large cities or even states. This section highlights a few examples of jurisdictions that have raised their wage level or are in the process of raising their minimum wage that also require studies or reports on the economic effects. These reports provide a guide for OLO and this memorandum.

- **Seattle, Washington:**

- Legislation: The City of Seattle’s Minimum Wage Ordinance came into effect in 2015. Wage increases are being phased in over time. After the minimum wage reaches \$15.00 the city will adjust the rate annually for inflation. Currently the minimum wage for small employers is \$11.50 or \$14.00 an hour depending on whether the employees receive medical benefits or tips. The rate for large employers is \$15.45 or \$15.00 an hour depending on whether the employees receive medical benefits.⁴³
- Required Studies: The City of Seattle has contracted with the University of Washington Evans School of Public Policy & Governance (UW) to evaluate the economic impact of raising the minimum wage. UW has offered “a comprehensive assessment of the impact of local minimum wage ordinances on employment and earnings, income, and health...”⁴⁴ To date, they have produced several papers on the impact of the minimum wage ranging from extensive econometric analyses using state level administrative data to specific studies on supermarket food prices. They have presented some of their papers containing major findings to the Seattle City Council and continue to study the effects of raising the wage.
- Study Design and Indicators: The University of Washington’s study to evaluate the impact of the higher minimum wage in Seattle used data from the State of Washington Employment Security Department (ESD) which collects quarterly data on earnings and hours worked from all employers in the state. The University of Washington (UW) researchers used this extensive dataset and statistical techniques to create a counterfactual image of what Seattle would look like without their Minimum Wage Ordinance.⁴⁵ UW researchers organized their findings into four main areas: wages, workers, jobs, and establishments. Wages includes the distribution of

⁴³ Seattle Office of Labor Standards, “Minimum Wage Ordinance”

https://www.seattle.gov/Documents/Departments/LaborStandards/OLS-FactSheets-MW_updated_04_19_18.pdf

⁴⁴ The University of Washington, “The Minimum Wage Study”

https://evans.uw.edu/sites/default/files/MWS%20overview_final.pdf

⁴⁵ Seattle was one of the first major cities to raise their minimum wage to \$15.00, and as a result has generated great interest from the academic community. Several other researchers have conducted studies using available data to evaluate the impact of the minimum wage and have come to different conclusions about the impact. For example, Berkley’s study, which can be found here: <http://irle.berkeley.edu/files/2017/Seattles-Minimum-Wage-Experiences-2015-16.pdf>

earnings in Seattle; workers includes the increase in actual earnings; jobs includes employment statistics; and establishments refers to the business failure rate.⁴⁶

- **Key Takeaways:** Many of these principal areas are useful for Montgomery County. This memorandum classifies the four main areas that the UW researchers have identified slightly differently, but information about all the areas can be inferred using the recommended indicators above. The University of Washington had access to specific state-wide earnings data that OLO may be unable to access and that the Maryland Department of Labor may not track.⁴⁷ Furthermore, designing a counterfactual model city is outside the capacity of OLO. Instead OLO should utilize comparable jurisdictions to identify whether indicators are shifting due to the minimum wage or general regional trends.

Johnson County, Iowa:

- **Legislation:** In 2015, the Johnson County Board of Supervisors approved an ordinance increasing the local minimum wage from \$7.25 to \$10.10 over three years. In 2017, the State of Iowa passed House File 295 which preempted the Johnson County law and prohibited counties from establishing certain regulations including the minimum wage.⁴⁸ The Board of Supervisors now encourages businesses to voluntarily comply with the increased wage rate.
- **Required Studies:** The Johnson County Board of Supervisors established a Minimum Wage Advisory Committee to study local economic conditions including the impact of the local minimum wage ordinance as well as make recommendations to the Board regarding the ordinance and any proposed amendments.⁴⁹ The Committee contracted with a University of Iowa professor of economics and with the nonpartisan Iowa Policy Project to produce a joint report on local economic conditions that could be affected by the minimum wage increase.
- **Study Design and Indicators:** The Johnson County report uses publicly available data including the U.S. Bureau of Labor Statistics Quarterly Census of Employment and Earnings and State of Iowa sales and use tax revenue.⁵⁰ The report identified three major areas of study: overall employment, jobs and wages in low-wage sectors, and business activity. Overall employment looks at the employment and unemployment levels in general and in particular industries. The report uses a four-month or twelve-month moving average to account for seasonal fluctuations, and compares the trends to other counties in Iowa that have a similar economic makeup and are home to large state universities. The jobs and wages section looks at number of jobs in the

⁴⁶ The Seattle Minimum Wage Study Team, 2016, "Report on the Impact of Seattle's Minimum Wage Ordinance on Wages, Workers, Jobs, and Establishments Through 2015", https://evans.uw.edu/sites/default/files/MinWageReport-July2016_Final.pdf

⁴⁷ The Seattle Minimum Wage Study Team, 2016, "Report on the Impact of Seattle's Minimum Wage Ordinance on Wages, Workers, Jobs, and Establishments Through 2015", https://evans.uw.edu/sites/default/files/MinWageReport-July2016_Final.pdf

⁴⁸ The City of Iowa City, "Iowa City minimum wage update" <https://www.icgov.org/news/iowa-city-minimum-wage-update>

⁴⁹ Johnson County, "Boards, Commissions, and Councils, Minimum Wage Advisory Committee" http://www.johnson-county.com/dept_blank.aspx?id=2075

⁵⁰ Johnson County, "Minimum Wage in Johnson County" http://www.johnson-county.com/dept_supervisors.aspx?id=18549

leisure and hospitality sector over time, the number of business establishments, and average weekly earnings in the leisure and hospitality sector. The business activity section focused on eating and drinking establishments and used tax filings in selected counties to identify the number of establishments and average sales.⁵¹

- Key Takeaways: This report can provide a helpful example to Montgomery County because it analyzes data at the county level and draws from publicly available data rather than large state level datasets that may be inaccessible. The Johnson County report presented many proposed indicators, which can serve as a guide for OLO.

- The State of New York:

- Legislation: The State of New York enacted a statewide \$15 minimum wage plan. The first increase in the minimum wage occurred on December 31, 2016, and additional increases will be phased in over the next several years. The plan also creates four categories differentiated by size of employers and location (whether in New York City or elsewhere).⁵² The bill has a ‘pause’ provision which would allow the State of New York to delay the minimum wage increases given sufficient evidence.
- Required Studies: On January 1, 2019, and each year thereafter the Division of Budget is tasked with analyzing the state of the economy in each region and the effect of the minimum wage increases to determine whether there should be a suspension or delay of the increases previously scheduled by New York.⁵³ The Division of Budget is required to consult with the New York Department of Labor and its Division of Research and Statistics as well as the US department of Labor, the Federal Reserve Bank of New York, and other economic experts. The Commissioner of Labor will publish this report, which could provide an additional guide for OLO and Montgomery County.

⁵¹ Link to the Johnson County, Iowa report “Minimum Wage Advisory Committee Report” can be found here: http://www.johnson-county.com/dept_supervisors.aspx?id=18549

⁵² New York State, “New York State’s Minimum Wage” <https://www.ny.gov/new-york-states-minimum-wage/new-york-states-minimum-wage>

⁵³ Report of the Minimum Wage and Benefits Cliff Study Committee, December 2017, VT LEG #328104 v.2, State of Vermont; retrieved from http://www.leg.state.vt.us/jfo/Minimum_Wage_Study_Committee/Minimum%20Wage%20and%20Benefits%20Cliff%20Study%20Committee%20Report.pdf