The Minimum Wage in Hawai‘i: 2025 Update

August 2025

Research and Economic Analysis Division
Department of Business, Economic Development & Tourism
State of Hawai‘i

This report was produced by the Research and Economic Analysis Division (READ) of the Department of Business, Economic Development & Tourism (DBEDT). It was prepared by Rene Kamita, Ph.D., Economist under the direction of Eugene Tian, Ph.D., Economic Research Administrator (retired) and Jennifer Chun, Acting Economic Research Administrator.

Hawai‘i Department of Business, Economic Development & Tourism
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Table of Contents

List of Tables

List of Figures

Executive Summary

The federal minimum wage, last set in 2009, is $7.25 per hour. When adjusted for inflation, the federal minimum wage in 2023 and 2024 were among its historic lows. Hawai‘i’s current minimum wage of $14.00 per hour, adjusted for inflation, was the highest in the state’s history. When compared with other states and the District of Columbia, Hawai‘i’s minimum wage as of March 1, 2025 was the 17th highest.

Hawai‘i, however, faces a high cost of living. Based on 2023 data from the U.S. Bureau of Economic analysis (latest year available), Hawai‘i ranked 4th highest in prices faced. When minimum wages in 2023 were adjusted for differences in regional price levels, Hawai‘i’s adjusted minimum wage ranked 25th highest among the states and the District of Columbia.

The state’s minimum wage will increase to $16 per hour in 2026 and to $18.00 per hour in 2028. This report updates DBEDT’s analysis regarding the impact of prior increases in the minimum wage in Hawai‘i and estimates the number of workers affected by further increases to the minimum wage.

Looking back

The minimum wage in Hawai‘i has increased in four waves since the year 2000, with the most recent wave beginning in 2022 and going through 2028. A “high level” analysis comparing the increases in the minimum wage to employment growth in low-wage occupations indicates no clear negative impacts among the occupations most likely to be affected by minimum wage increases.

Additional analyses were conducted to examine the impact of historical minimum wage increases on labor market outcomes.

- The results from a comparison of wage and employment data for the Food Services and Drinking Places industry in Honolulu to a “synthetic” Honolulu suggest that average weekly wages were higher following increases in the minimum wage except during the period surrounding the COVID19-pandemic. Employment increased during the pre-pandemic period of minimum wage increases but slightly decreased in the post-pandemic period. This trend in employment is more pronounced at the state level and for Maui. It is unclear to what extent lower Food Services and Drinking Places employment in the post-pandemic period is due to minimum wage increases vs. tourism’s continuing recovery from the COVID-19 pandemic and the Maui wildfires.

- Results from regressions of labor market outcomes (income, wages, and employment status) on worker characteristics (age, gender, education) and various minimum wage variables suggest that prior minimum wage increases had little impact on employment outcomes while generally increasing income and wages.

Looking forward

DBEDT also analyzed the percentages of workers impacted by minimum wage levels of $14, $16, $18, $20, and $22.

- U.S. Bureau of Labor Statistics Occupational Employment Statistics data for 2024 was used to estimate the number and percentage of workers directly impacted by the minimum wage of $14 as well as by minimum wage increases of $16, $18, $20, and $22. DBEDT estimated that approximately 3.5 percent of workers in the state were at the minimum wage of $14 per hour. If the minimum wage were raised, workers impacted would range from 11.7 percent (at a $16 minimum wage) to 31.6 percent (at a $22 minimum wage) of the 2024 level. Occupation groups most likely to be affected are food preparation and serving related occupations (34.9% affected by a $16 minimum wage), followed by personal care and service occupations (32.4% affected by a $16 minimum wage) and sales and related occupations (21.5% affected by a $16 minimum wage). These are likely overestimates as wages will tend to grow over time and decrease the number of workers that fall below these cutoffs in the future.

- Based on the U.S. Census Bureau's American Community Survey data, females are more likely to be affected by an increase in the minimum wage than males. Young adults, families with low incomes, and workers with less education are also more likely to be impacted by increases in the minimum wage.

1. Introduction

The federal minimum wage was introduced under the Fair Labor Standards Act (FLSA) during the Great Depression to improve labor conditions by promoting a "minimum standard of living necessary for health, efficiency, and general well-being of workers" without "substantially curtailing employment or earning power."[1] The current federal minimum wage is $7.25 per hour, which was set in 2009. Most states and the District of Columbia have minimum wages that are higher than the federal minimum wage. Hawai'i's minimum wage is currently $14.00 per hour and is set to increase to $16.00 per hour beginning January 1, 2026, and to $18.00 an hour beginning January 1, 2028.[2]

Figure 1 shows federal and Hawai'i minimum wage levels since 1990, in nominal dollars and adjusted for inflation using the Consumer Price Index for All Urban Customers (CPI-U). Except for a brief period in 1992-1993, Hawai'i's minimum wage level equaled or exceeded the federal minimum wage level during this time. In the last ten years, Hawai'i's minimum wage rose from the federal minimum wage level of $7.25 per hour to $7.75 per hour in 2015, followed by increases to $8.50 per hour in 2016, $9.25 per hour in 2017, $10.10 per hour in 2018, $12.00 per hour in 2022 and $14,00 per hour in 2024.[3] When adjusted for inflation, Hawai'i's minimum wage has risen by an annual average rate of 3.9 percent between 2014 and 2024. In contrast, the federal minimum wage adjusted for inflation has fallen by an annual average rate of -2.8 percent during the same period and is at its lowest point in the last 35 years.[4]

Hawai'i had the 17th highest minimum wage among the states and the District of Columbia as of March 1, 2025. See Figure 2. Hawai'i consumers, however, also face a high cost of living. According to the U.S. Bureau of Economic Analysis, Hawai'i ranked fourth highest in prices faced in 2023, the most recent year for which this statistic is available, compared with other U.S. states and the District of Columbia. As shown in Figure 4, Hawai'i had a Regional Price Parity (RPP) of 108.6.[5] The state with the highest RPP was California (112.6), followed by the District of Columbia (110.8), and New Jersey (108.9). States with RPPs above 100 face higher prices than the national average price level (which is normalized to 100).

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[1] See the Fair Labor Standards Act of 1938, 29 U.S.C. § 202.

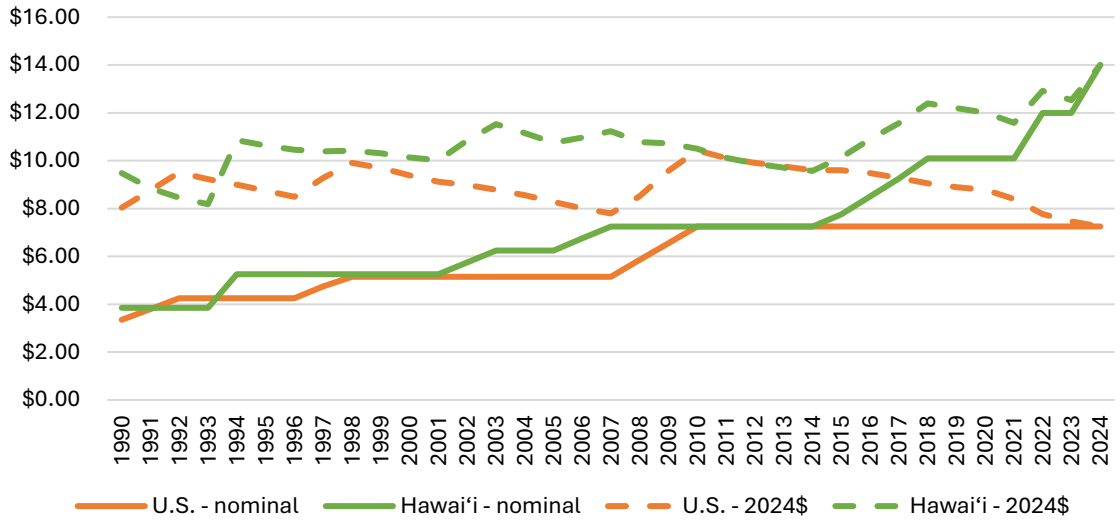
[2] Pursuant to Act 114, Session Laws of Hawai'i (2022).

[3] These increases to Hawai'i's minimum wage were made pursuant to Act 82, Session Laws of Hawai'i (2014) and Act 114, Session Laws of Hawai'i (2022).

[4] A single person working full time at the federal minimum wage would earn an income below the 2025 federal poverty guideline (48 contiguous states) of $15,650. A person earning $7.25 per hour and working 40 hours per week for 52 weeks a year would earn an annual income of $15,080 ($7.25/hour x 40 hours/week x 52 weeks/year).
https://aspe.hhs.gov/sites/default/files/documents/dd73d4f00d8a819d10b2fdb70d254f7b/detailed-guidelines-2025.pdf

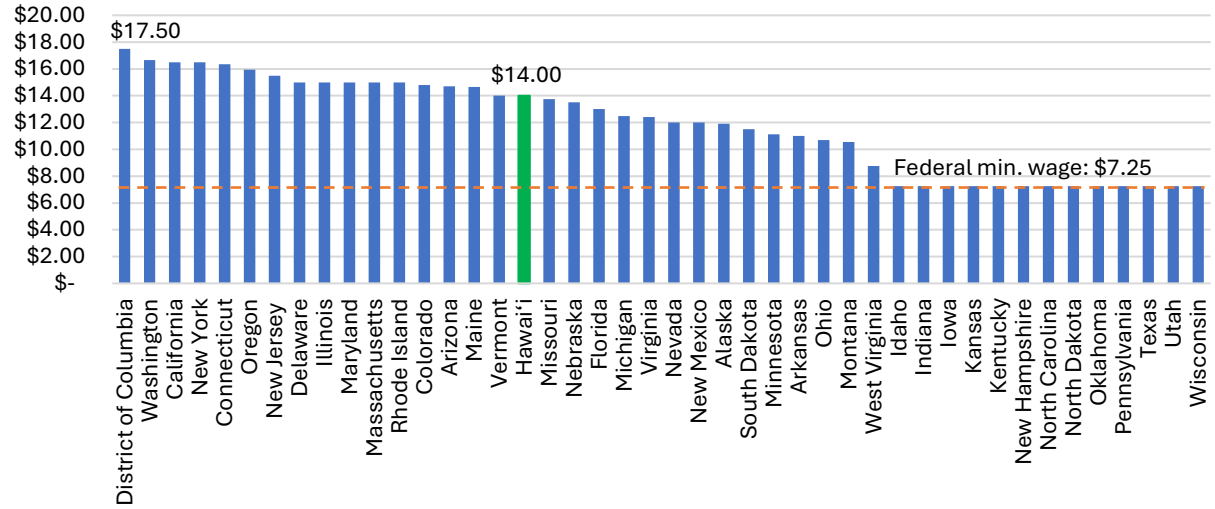
[5] RPPs are calculated based on price- and expenditure-related survey data, including the U.S. Bureau of Labor Statistics Consumer Price Index survey data and the U.S. Census Bureau American Community Survey Public Use Microdata Sample.

Figure 1. U.S. and Hawai‘i Minimum Wage, Nominal and Real (2024) Dollars



Sources: U.S. Department of Labor and U.S. Bureau of Labor Statistics, with calculations by DBEDT. Minimum wage data from https://www.dol.gov/agencies/whd/state/minimum-wage/history, accessed March 11, 2025. Consumer price index data accessed via https://www.bls.gov/cpi/data.htm on March 11, 2025.

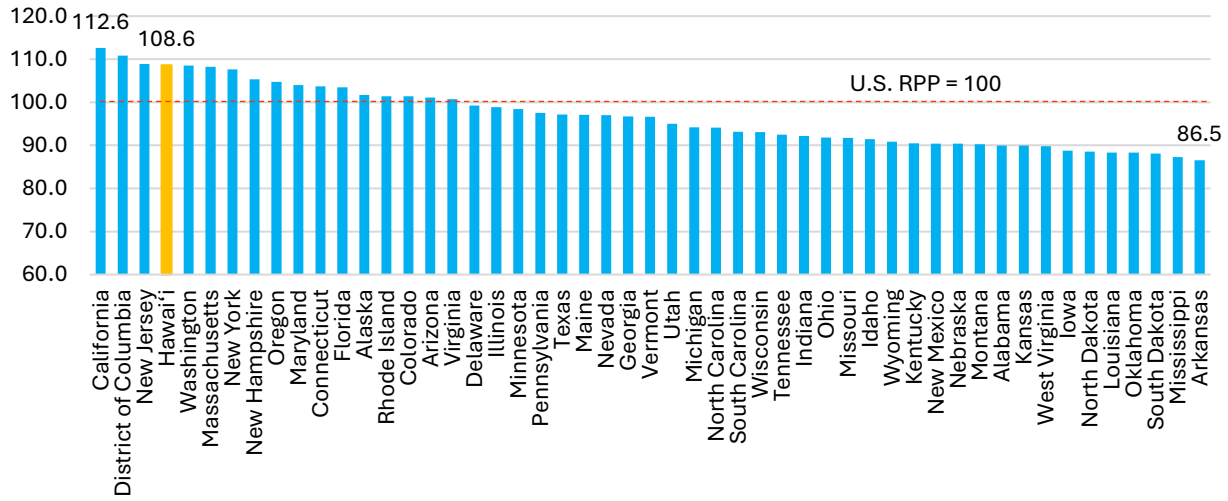
Figure 2. Minimum Wage by State and the District of Columbia, as of March 1, 2025
For states with a minimum wage equal to or above the federal minimum wage



Source: U.S. Department of Labor Consolidated Minimum Wage Table, accessed March 11, 2025 at https://www.dol.gov/agencies/whd/mw-consolidated

Notes: The minimum wage for some cities or employer segments may differ. In California, a $20 sectoral minimum wage for fast food restaurant and non-alcoholic beverage bar workers took effect on April 1, 2024. In New York, the minimum wage for New York City, Nassau County, Suffolk County, and Westchester County is $16.50 per hour; the minimum wage for the rest of New York state is $15.50 per hour. In Oregon, the minimum wage for the Portland metro area is $15.95 per hour, with the standard minimum wage for Oregon being $14.70 per hour and the minimum wage in nonurban counties being $13.70 per hour. In New Jersey, the minimum wage for employers who employ fewer than 6 people and seasonal employees is $14.53 per hour. In Ohio, employers with annual gross receipts of less than $394,000, must pay at least $7.25 per hour. In Montana, a business not covered by the FLSA and with gross annual sales of $110,000 or less may pay employees $4.00 per hour.

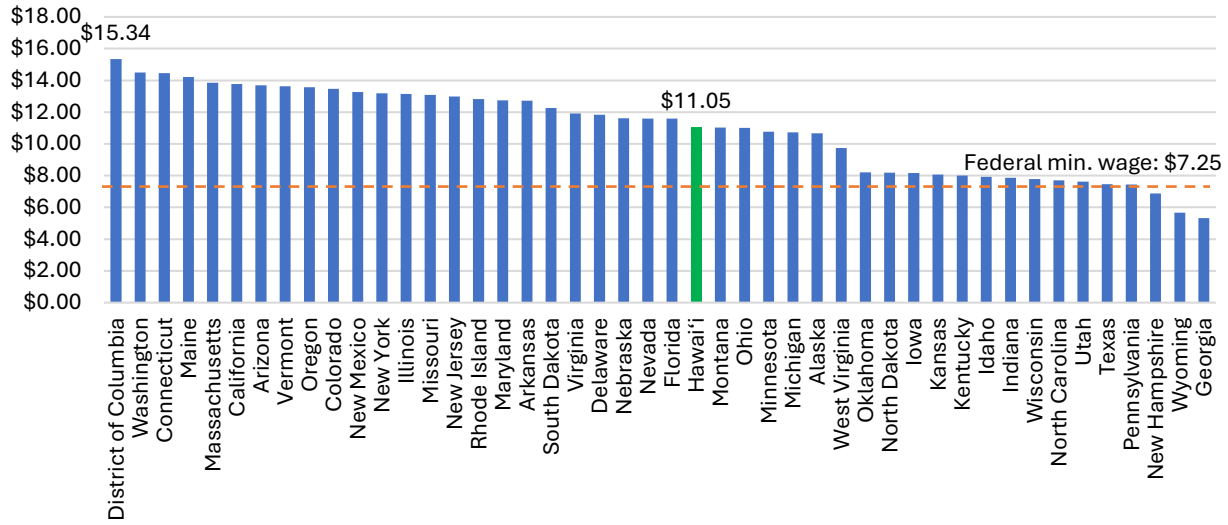
Figure 3. Regional Price Parities by State and the District of Columbia, 2023



Source: U.S. Bureau of Economic Analysis, "SARPP Real personal income, real PCE, and regional price parities by state" accessed March 11, 2025.

When minimum wage levels are adjusted to reflect the difference in prices based on BEA's RPP index, Hawai'i has the 25th highest RPP-adjusted minimum wage compared to other states and the District of Columbia.[6]

Figure 4. Minimum Wage Levels Adjusted by Regional Price Parities by State and the District of Columbia, 2023



Source: U.S. Department of Labor Consolidated Minimum Wage Table and U.S. Bureau of Economic Analysis, "SARPP Real personal income, real PCE, and regional price parities by state", both accessed March 11, 2025. Calculations by DBEDT.

[6] Based on the Council for Community and Economic Research (C2ER) Cost of Living Index (COLI), Hawai'i's minimum wage ranked 31st highest in 2023 and 29th highest in 2024. The C2ER COLI is based on expenditure patterns for professional and managerial households. C2ER Cost of Living Index Manual, revised December 2017.

The rest of this report is organized as follows. Section 2 describes different minimum wage models and briefly summarizes the empirical evidence on minimum wage impacts. Section 3 examines the impacts of increases in the minimum wage in Hawai‘i. Section 4 concludes.

2. The Effects of a Minimum Wage: Theory and Evidence

Standard labor market models of the supply and demand for labor under perfect competition indicate that setting a minimum wage above the market equilibrium wage leads to a shortage in the number of jobs available to workers. When the cost of an input increases, all else equal, firms will substitute away from the input that has become more expensive. If the cost of labor increases (e.g., via an increase in the minimum wage), firms will demand less labor. This reduction in labor may take the form of fewer employed workers, workers working fewer hours, or some combination of the two.

More complex models of the labor market, however, suggest that a binding minimum wage (i.e., a minimum wage above the lowest wages in the economy) does not necessarily lead to lower employment rates. For example, an increase in the minimum wage in a labor market that is not perfectly competitive, as may occur when there are only a few large firms hiring workers, can lead to higher wages and greater employment. These workers may demand more goods and services (increase their consumption level) given their new, higher wages, leading in turn to increased demand for those goods and services. Firms producing those goods and services may then hire more workers in response to the increase in demand. Even small extensions of the standard labor market model may lead to ambiguous wage and employment effects. For example, the standard labor market model assumes that workers are identical, but this is unlikely to be the case, and a minimum wage increase may have different impacts on different groups of workers. Careful analysis is required to examine these impacts and how they affect the overall economy.

Empirical research is in general agreement that increasing the minimum wage results in higher wages for low-wage workers. Employment outcomes are less clear. Card and Krueger (1994), for example, found in their seminal paper that employment at fast food restaurants in New Jersey, which raised its minimum wage in 1992, increased relative to employment at fast food restaurants in Pennsylvania, which had no minimum wage change.[7] Neumark and Wascher (2000), however, used an alternative data source and found a decrease in New Jersey fast food employment.[8] Upon further review using multiple data sets, Card and Krueger (2000) concluded that New Jersey's minimum wage increase likely had no effect on employment in New Jersey's fast food industry and possibly had a small positive effect.[9] After an extensive review of minimum wage research,

[7] Card, David and Alan Krueger, Minimum Wages and Employment: A Case Study of the Fast Food Industry in New Jersey and Pennsylvania (September 1994). American Economic Review, 84:4.
[8] Neumark, David and William Wascher, Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania: Comment (December 2000). American Economic Review, 90:5.
[9] Card, David and Alan Krueger, Minimum Wages and Employment: A Case Study of the Fast Food Industry in New Jersey and Pennsylvania: Reply (December 2000). American Economic Review, 90:5.

Belmand and Wilson (2014) conclude that moderate increases in the minimum wage raise wages in the lower part of the wage distribution with little evidence of labor market impacts.[10]

Allegretto, et al. (2018) used event study and synthetic control methods to examine the impacts of minimum wage policies on food service workers in Chicago, Washington, DC, Oakland, San Francisco, San Jose, and Seattle through 2016. They found that the minimum wages (in the $10 to $13 range) had positive impacts on earnings with no negative significant impacts on employment.[11] The results for Seattle contrast with Jardem et al. (2022), however, which use Washington State employment microdata and found that Seattle's 2015 and 2016 minimum wage increases boosted hourly wages among the low-wage workers but resulted in a reduction in hours worked. Jardim et al. (2022) cautioned that the results of local (city level) minimum wage increases should not be generalized to the state or federal level as it is easier at the local level to relocate businesses or outsource work to areas that are not impacted by minimum wage increases. Yu et al. (2023) examined the impact of minimum wage increases on fashion retail stores in California. The authors found that minimum wage increases did not impact the total labor hours used, on average, by stores but increased the number of workers scheduled per week with a reduction in weekly hours per worker, potentially reducing total compensation per worker and benefits eligibility.[12]

Most recently, Wiltshire et al. (2024) found that state minimum wage increases of up to $15 in California and New York increased wages in the fast food industry with no disemployment.[13] Research on the early impacts of California's increase of the fast food industry sectoral minimum wage to $20 per hour effective April 1, 2024 also did not find evidence of negative employment impacts.[14]

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[10] In "What Does the Minimum Wage Do?" (Belmand, Dale and Paul Wolfson, 2014. Upjohn Institute.), the authors review over 200 articles on the minimum wage, mostly dated from 2000 forward, concluding that results on the sensitivity of labor demand to the minimum wage are "are either statistically nonsignificant or are too small in magnitude to be economically meaningful" (p.15).

[11] Allegretto, Sylvia; Anna Godoey, Carl Nadler, and Michael Reich, The New Wave of Local Minimum Wage Policies: Evidence from Six Cities, University of California, Berkeley Institute for Research on Labor and Employment, Center on Wage and Employment Dynamics (CWED) Policy Report (September 6, 2018).

[12] Yu, Qiuping, Shawn Mankad and Masha Shunko. (2023) Evidence of The Unintended Labor Scheduling Implications of The Minimum Wage. *Manufacturing & Service Operations Management, forthcoming*, http://dx.doi.org/10.2139/ssrn.3863757

[13] Wiltshire, Justin, Carl McPherson, Michael Reich, and Denis Sosinskiy. (2024) "Minimum Wage Effects and Monopsony Explanations, IRLE Working Paper. https://irle.berkeley.edu/wp-content/uploads/2023/09/Minimum-Wage-E%E2%80%82ects-and-Monopsony-Explanations-Revised-December-2024.pdf *forthcoming, Journal of Labor Economics*.

[14] Reich and Sosinsky (2024) do find that the increase in the fast food minimum wage appears to modestly increase fast food prices. Michael Reich and Denis Sosinskiy. (2024) "Sectoral Wage-Setting in California". IRLE Working Paper No. 104-24. http://irle.berkeley.edu/publications/working-papers/sectoral-wage-setting-in-california/

Daniel Schneider, Kirsten Harknett, and Kevin Bruey. (2024) "Early Effects of California's $20 Fast Food Minimum Wage: Large Wage Increases with No Effects on Hours, Scheduling, or Benefits," The Shift Project (blog), October 9, 2024. https://shift.hks.harvard.edu/early-effects-of-californias-20-fast-food-minimum-wage-large-wage-increases-with-no-effects-on-hours-scheduling-or-benefits/

3. The Effects of Increasing the Minimum Wage in Hawai‘i

The minimum wage in Hawai‘i has increased several times since the year 2000:

- From $5.25 to $5.75 in 2002, and to $6.25 in 2003 (Act 279, Session Laws of Hawai‘i 2001)
- From $6.25 to $6.75 in 2006, and to $7.25 in 2007 (Act 240, Session Laws of Hawai‘i 2005)
- From $7.25 to $7.75 in 2015, to $8.50 in 2016, to $9.25 in 2017, and to $10.10 in 2018 (Act 82, Session Laws of Hawai‘i 2014)
- From $10.10 to $12.00 in 2022, to $14.00 in 2024, to $16.00 in 2026, and to $18.00 in 2028 (Act 114, Session Laws of Hawai‘i 2022)

Most increases in the minimum wage were mandated as of January 1 except for the 2022 increase (from $10.10 to $12.00) which was effective October 1, 2022.

A. Impacts based on Historical Data

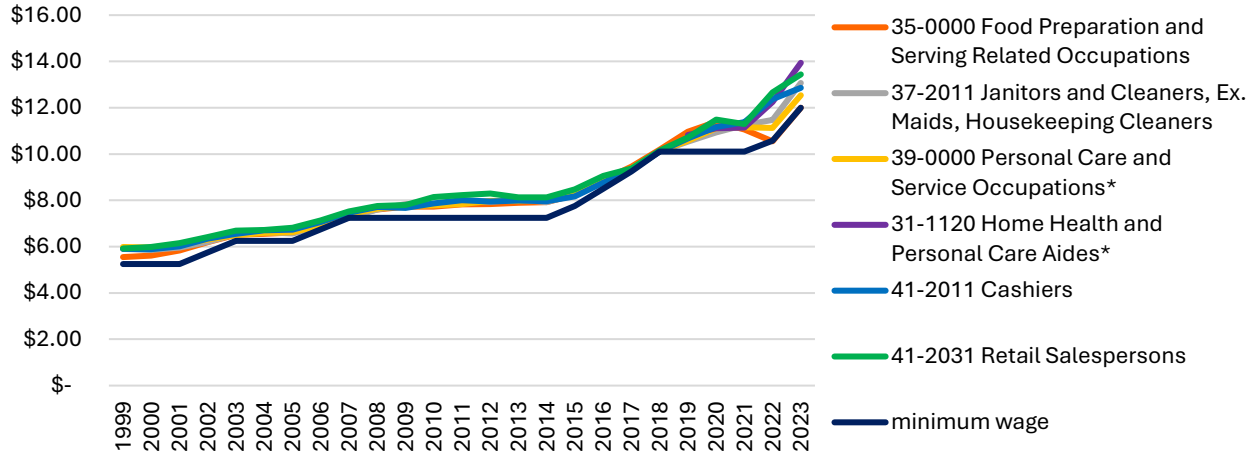
Impacts on Wages

Figure 5 and Figure 6 show how wages in certain low-wage occupational groups have been affected by Hawai‘i’s minimum wage increases. The data used is from the U.S. Bureau of Labor Statistics’ Occupational Employment and Wage Statistics (OEWS) program, which compiles total employment, median and mean wages, and wages in the 10th, 25th, 75th, and 90th percentile, for both major and detailed occupation titles. Due to changes in occupational groupings and labeling, consistent data is only available from 1999. As in the 2020 DBEDT Minimum Wage Report, the low-wage occupation groups examined include two major occupation groups (food preparation and serving related occupations and personal care and service operations[15]) where most of the detailed occupation grouping have similar wage distributions, and three detailed occupation groups (janitors and cleaners, except maids and housekeeping cleaners; cashiers; and retail salespersons) that have a higher number of workers.

Figure 5 shows the 10th percentile of wages for the five low-wage occupation groups. As shown, the gap between the 10th percentile wages for these occupations and the minimum wage tends to widen during periods of no minimum wage increases and tightens during periods of minimum wage increases. Wage growth appears to increase more as the minimum wage starts pushing up against the 10th percentile wages.

[15] Personal care aides were included under Standard Occupational Classification (SOC) code 39-0000 through 2018 but were reclassified and reported under a new category of Home Health and Personal Care Aides (SOC 31-1120) from 2019 through 2023. To adjust for this, 48.6 percent of the employment in Home Health and Personal Care Aides between 2019 and 2023 was assumed to be Personal Care Aides based on historical data. This is added to the employment in SOC code 39-0000 for the years 2019 through 2023. 10th percentile and 25th percentile wages are reported for both categories.

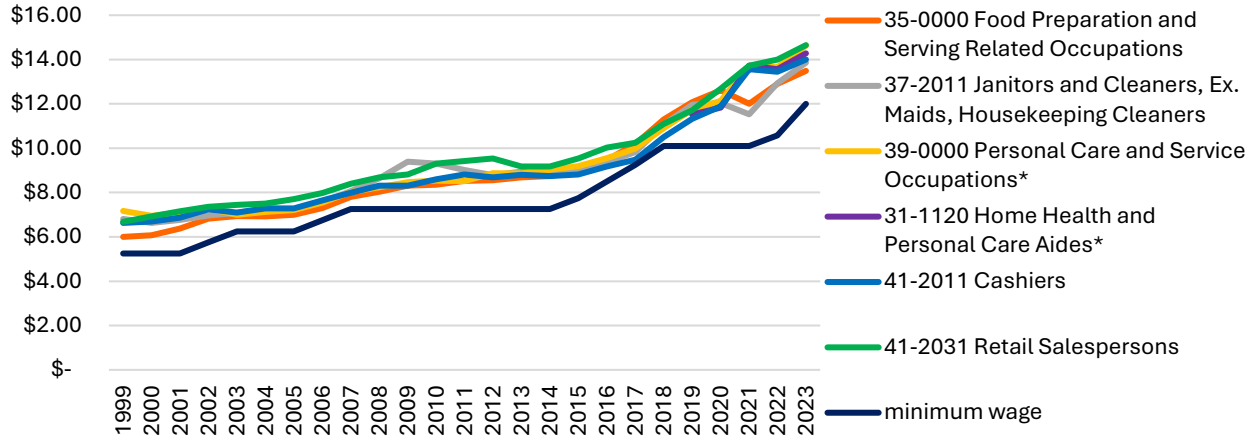
Figure 5. Wages, 10th Percentile, for Low-Wage Occupations



Source: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics. Since the minimum wage increase in 2022 did not occur until October, the 2022 minimum wage reflects a weighted average of the effective minimum wage for the year. * Personal care aides were included in code 39-0000 through 2018 but have been counted as part of 31-1120 since 2019.

Figure 6 shows the 25th percentile of wages for the five occupation groups. Wage growth is similar to the growth for the 10th percentile wages. Minimum wage increases appear to increase the growth rates for 25th percentile wages despite these wages being higher than the minimum wage.

Figure 6. Wages, 25th Percentile, Low-Wage Occupations



Source: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics. Since the minimum wage increase in 2022 did not occur until October, the 2022 minimum wage reflects a weighted average of the effective minimum wage for the year. * Personal care aides were included in code 39-0000 through 2018 but have been counted as part of 31-1120 since 2019.

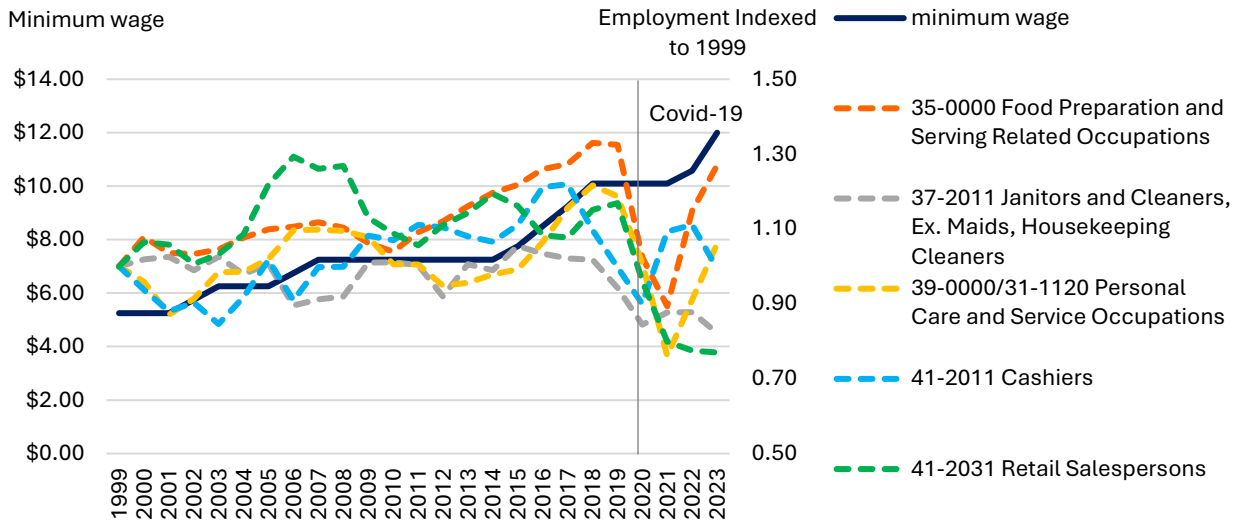
Impacts on Employment

Figure 7 shows employment over time for these occupation groups scaled to employment in 1999. Most groups showed overall growth in employment through 2019, though employment in janitors and cleaners, except maids and housekeeping cleaners slightly declined over this period. Note that

the OEWS only measures the number of employees in an occupation and does not account for changes in work hours. As a result, even if there is employment growth for some occupations when the minimum wage increases, workers could be working fewer hours, which would offset some of the gains from a higher wage rate. That said, if workers are earning the same income (and benefits) while working fewer hours, this would be considered an improvement in wellbeing.

In 2020, the COVID-19 pandemic occurred. Employment decreased across all five occupation groups, with the most severe decreases in food preparation and serving related occupations (decline of -23% between 2019 and 2020), retail salespersons (decline of -18% between 2019 and 2020) and personal care and service occupations (decline of -15% between 2019 and 2020). This is consistent with the statewide "stay-at-home" order that went into effect on March 23, 2020 and subsequent restrictions on gatherings and travel.[16] Hawai'i's economy, particularly in the tourism related sectors, continued to recover from the impacts of the pandemic in 2021 and 2022 but was impacted again in August 2023 by the Maui wildfire tragedy.

Figure 7. Minimum Wage vs. Employment in Low-Wage Occupations (Indexed to 1999)



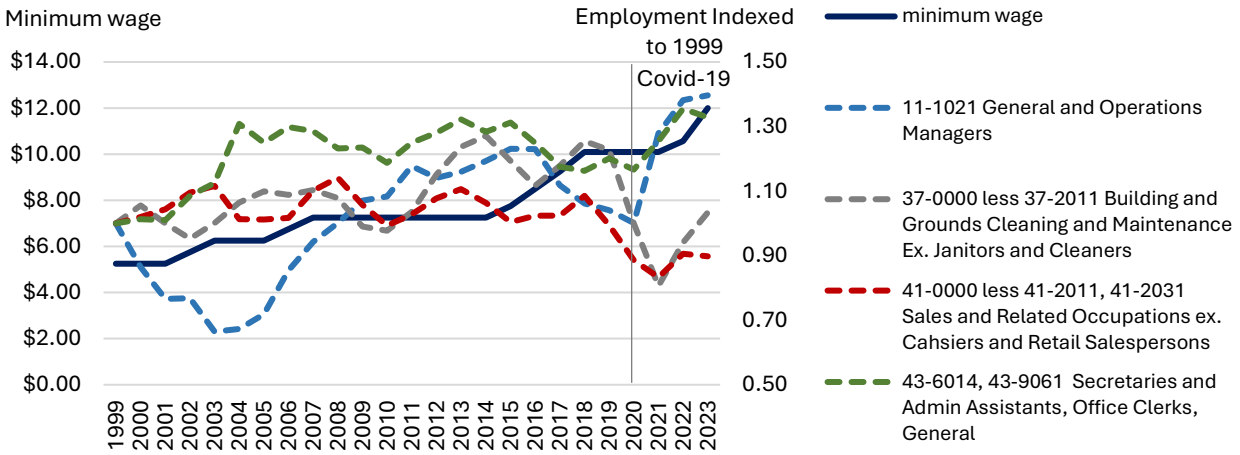
Source: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics. Calculations by DBEDT. Since the minimum wage increase in 2022 did not occur until October, the 2022 minimum wage reflects a weighted average of the effective minimum wage for the year.

Employment is clearly impacted by factors beyond the minimum wage, including but not limited to the impacts of natural disasters, government policies, and other market conditions. In periods of rising employment and increases in the minimum wage, it may be argued that employment would have grown faster but for the increases in minimum wage. In periods where employment is falling, the impact of the minimum wage should be assessed controlling for reductions in demand that are due to other factors. Ideally, to better evaluate the effect of previous minimum wage increases in Hawai'i, a control group that is similar in all other respects but unaffected by minimum wage increases should be used as a comparison.

[16] See, for example, https://health.hawaii.gov/news/files/2020/03/COVID-19-Daily-Update-March-25-2020.pdf.

Figure 8 shows employment trends for four occupation groups that are related to the low-wage occupations identified earlier. These include building and grounds cleaning and maintenance occupations except janitors and cleaners and sales and related occupations except cashiers and retail salespersons. These occupation groups would be subject to similar shocks but include higher paid occupations that are not as likely to be impacted by minimum wage increases. Two groups, general and operations managers and secretaries and administrative assistants and office clerks, have large numbers of workers and varying degrees of relatedness to the low-wage occupation groups (e.g., reporting to general and operations managers or in the case of secretaries and administrative assistants, and office clerks, possibly working for the same or similar employers). Outside of the large decrease in general and operations managers after 2000, employment outcomes appear somewhat similar through 2019. Employment for general and operations managers and secretaries and administrative assistants and office clerks was less impacted by the pandemic, likely due to greater ability to work remotely and less exposure to tourism-related businesses.[17]

Figure 8. Minimum Wage vs. Employment at Comparison Occupations (Indexed to 1999)



Source: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics. Calculations by DBEDT. Since the minimum wage increase in 2022 did not occur until October, the 2022 minimum wage reflects a weighted average of the effective minimum wage for the year.

Table 1 shows the results of regression analyses to quantify the impact that the minimum wage had on employment in the low-wage occupations and comparison groups over time. Fixed effects for each year and for each occupation group were included in all specifications except specification (iii) where fixed effects are included for only the years following the pandemic (2020 through 2023). The inclusion of fixed effects by occupation group captures the variation in employment size among occupation groups. The inclusion of fixed effects for each year allows for a common set of factors that influence employment across all occupation groups, including but not limited to labor force growth, inflation and changes in the state's overall economy.

[17] The 2020 DBEDT Minimum Wage Report also included occupation codes 29-1111/29-1141 (Registered Nurses) as a comparison group. Registered nurses, healthcare support, and community and social service occupations were explored as potential comparison groups but were not included as their employment trends were disparately impacted by the COVID-19 pandemic.

As shown in Table 1, the minimum wage has a positive impact on employment across all specifications but is only statistically significant in specifications (iii) through (v). The impacts are highest in specification (iii), but this specification does not include a full set of year fixed effects, giving rise to the concern that overall increases in employment associated with the minimum wage could be driven by other time-varying factors. When the full set of year fixed effects is included, the coefficient drops from 910.8 jobs per dollar increase in minimum wage to 315.9 jobs per dollar increase in minimum wage. When the coefficient on the minimum wage is allowed to vary for low-wage and "comparison" groups, the coefficient is slightly larger (355.7 jobs per dollar increase in the minimum wage) for low-wage groups and significant at the 10 percent level. The coefficient for the comparison groups is smaller (266.0 jobs per dollar increase in the minimum wage) and not statistically significant. The results suggest that increases in the state's minimum wage between 1999 and 2023 have not had negative impacts on employment for the groups considered and may be associated with modest positive impacts for the low-wage occupation groups.

Table 1. Regression analysis of minimum wage on employment: OEWS data, 1999 - 2023

Occupation groups	Low-wage occupation groups	Comparison groups	Low-wage and comparison groups		
	(i)	(ii)	(iii)	(iv)	(v)
Minimum wage	336.277	290.37	910.837***	315.8742*	
	(301.274)	(187.213)	(137.048)	(184.054)	
Minimum wage x Low-wage group					355.748*
					(203.580)
Minimum wage x Comparison group					266.032
					(213.597)
Constant	8490.447***	6247.756***	3042.096***	5859.695***	6245.425***
	(2849.007)	(1761.343)	(1113.365)	(1775.635)	(1964.966)
Year fixed effects included	yes	yes	2020 - 2023	yes	yes
Occupation group fixed effects included	yes	yes	yes	yes	yes
No. of observations	125	100	225	225	225
Adjusted R^2	0.9802	0.9058	0.9796	0.9787	0.9786

*** statistically significant at 1 percent, ** statistically significant at 5 percent, *statistically significant at 10 percent. Robust standard errors in parentheses.

Low wage occupation groups: food preparation and serving related (35-0000), janitors and cleaners except maids and housekeeping cleaners (37-2011), personal care and service (39-0000/31-1120), cashiers (41-2011), and retail salespersons (41-2031). Comparison occupation groups: general and operations managers (11-1021), building and grounds cleaning and maintenance except janitors and cleaners (37-0000 except 37-2011), sales and related occupations except cashiers and retail salespersons (41-0000 except 41-2011 and 41-2031), and secretaries and administrative assistants (43-6014) and office clerks, general (43-9061).

A Synthetic Hawai‘i

As an alternative method, and following the 2020 DBEDT Minimum Wage Report, we also conducted an analysis that creates a "synthetic" Hawai‘i using other localities to compare with actual outcomes (synthetic control method or SCM). Weights are assigned to each locality's data to contribute to the synthetic Hawai‘i, with the weights adding up to 100 percent. Localities that are not very similar are assigned smaller weights (a weight of zero in many cases) and localities that are more similar are assigned higher weights. As such, the synthetic Hawai‘i is constructed to closely follow Hawai‘i's labor market outcomes prior to the minimum wage increase.

The analysis focuses on one specific industry, the Food Services and Drinking Places industry (NAICS code 722), using data from the Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW) program. The QCEW provides quarterly employment and wage data reported by covered employers, available at the county, metropolitan statistical (MSA), state, and national levels by industry. The QCEW covers over 95 percent of U.S. jobs.

To construct a synthetic Hawai‘i that reflects labor market outcomes absent increases in the minimum wage, we compile data on states that have not had state minimum wages that exceeded the federal minimum wage. The federal minimum wage last increased in July 2009. There are twenty states whose state minimum wages do not exceed the federal minimum wage.[18]

As noted in the 2020 DBEDT Minimum Wage Report, Hawai‘i's high cost of living and concentration in the visitor and service industry means that finding combinations of localities to closely follow the actual Hawai‘i is not possible in some cases. Hawai‘i's wages in the food services are higher than the average food service wages in the 20 states, so no combination of the states to create a synthetic Hawai‘i will come close to the actual Hawai‘i's wages. To address this issue, a synthetic Honolulu County is created instead, using counties in the 20 states as its donor pool. This works because large, populous counties with high wages can contribute to creating a synthetic Honolulu, whereas the high wages in these counties would be offset by smaller, lower-wage counties in the state, thereby lowering the state's average wages to an amount that is too low to compare to the state of Hawai‘i's wages. Many of the states are larger than Hawai‘i, though, so it is feasible to use synthetic controls to look at the number of workers in Hawai‘i.

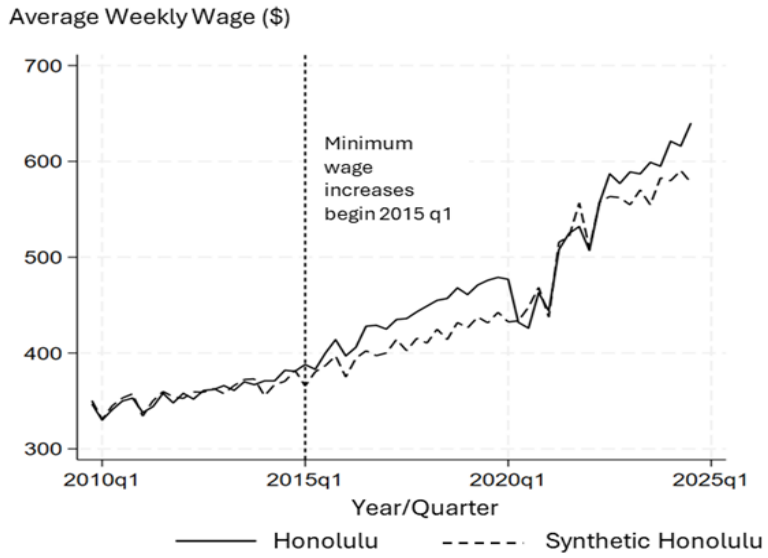
The counties that make up the donor pool for the synthetic Honolulu are counties from the aforementioned 20 states that have, on average, more than 500 private establishments over the sample period, leaving 83 counties to use for creating the synthetic Honolulu. To measure earnings data, the QCEW's average weekly wage is used. Unfortunately, hourly wages cannot be determined, as the QCEW does not include measures of hours worked. That said, an increase in the average weekly wage would suggest that even if employers are cutting some hours for workers due to needing to pay a higher wage, workers are still earning more than before the minimum wage increase. To measure employment data, QCEW's total quarterly wages are divided by the average weekly wage to find the total number of employment weeks in the quarter, a measure of the total number of weeks workers were employed during the quarter (one worker working two weeks or two

[18] Alabama, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Mississippi, New Hampshire, North Carolina, North Dakota, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Utah, Wisconsin, and Wyoming.

workers each working one week would both equal two total employment weeks). This is used instead of the number of employees as a compromise between the extensive margin (whether workers remain employed or are laid off) and intensive margin (whether workers are assigned fewer hours).

Figure 9 and Figure 10 compare actual and synthetic Honolulu's average weekly wage and total employment weeks, respectively. Six counties were used to generate the synthetic Honolulu's average weekly wage. Six counties were also used to generate the synthetic Honolulu's total employment weeks for each quarter.[19] As shown in Figure 9, there is a modest increase in the average weekly wage for Honolulu compared to synthetic Honolulu between the first quarter of 2015 through the first quarter of 2020. This period saw four increases in the state minimum wage: from $7.25 to $7.75 in 2015, to $8.50 in 2016, to $9.25 in 2017, and to $10.10 in 2018. The impacts of the COVID-19 pandemic can be seen in the second quarter of 2020, with the average weekly wage for Honolulu falling from $477 per week in the first quarter of 2020 to $432 in the second quarter of 2020. The average weekly wages for Honolulu and synthetic Honolulu were largely similar between the second quarter of 2020 and the second quarter of 2022. The decline in the average weekly wage would be consistent with a shift from full-time to more part-time workers during the pandemic. Between the third quarter of 2022 and the third quarter of 2024, the average weekly wage for Honolulu exceeded the average weekly wage for synthetic Honolulu. There were two state minimum wage increases during this period, from $10.10 to $12.00 in October 2022 and to $14.00 in January 2024.

Figure 9. Honolulu Synthetic Control Average Weekly Wage Analysis, NAICS 722 Food Services and Drinking Places Industry, 2009Q4 – 2024Q3



The impacts of the state's minimum wage increases on Food Services and Drinking Places employment in Honolulu County are less clear. Synthetic Honolulu has more pronounced seasonal variation in employment, however, the overall employment trends are fairly similar for Honolulu and Synthetic Honolulu. Honolulu shows slightly higher employment compared to Synthetic

[19] See Appendix B for the counties that make up each synthetic control.

Honolulu during 2017, though this trend flattens in 2018. Synthetic Honolulu shows a somewhat more rapid recovery from the COVID-19 pandemic. In 2023 and 2024, Synthetic Honolulu shows slightly more total employment weeks compared to Honolulu, however, lower employment may also be attributed to tourism's ongoing recovery. Compared to 2019, visitor arrivals by air to Honolulu were down 9 percent compared to 2023 and down 5 percent in 2024.[20]

Figure 10. Honolulu Synthetic Control Total Employment Weeks Analysis, NAICS 722 Food Services and Drinking Places Industry, 2009Q4 – 2024Q3

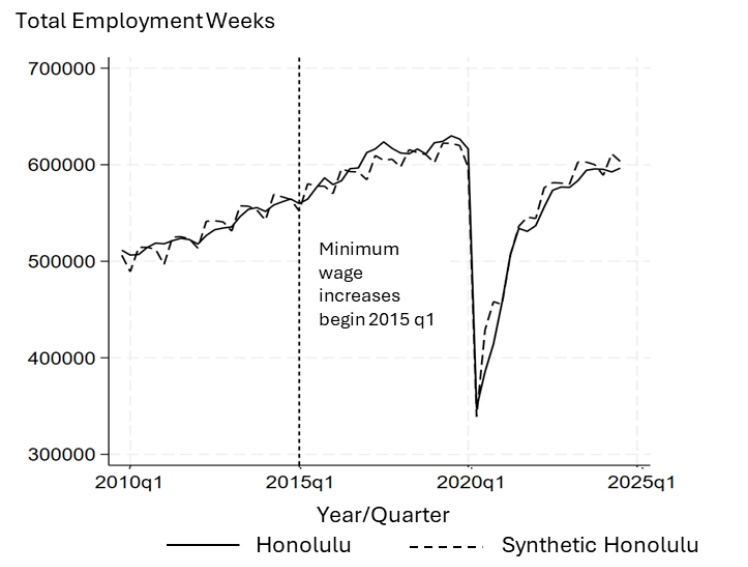


Figure 11 shows total employment weeks for the State of Hawai'i and its synthetic control. Figure 11 suggests that employment increased during the period of minimum wage increases before the pandemic but decreased in the period following the pandemic. In the post-pandemic period, however, lower employment is likely caused by a combination of the impacts of the COVID-19 pandemic including government policy (e.g., stay at home and safer at home proclamations) and travel restrictions, tourism's slow recovery from the pandemic, and the impact of the Maui wildfires, which occurred in August 2023.

Figure 12, for example, shows the impact of the pandemic and the wildfires on Maui County total employment weeks.

[20] Based on visitor arrivals data from DBEDT's Tourism Data Warehouse. https://dbedt.hawaii.gov/visitor/tourismdata/

Figure 11. Hawai'i State Synthetic Control Total Employment Weeks Analysis, NAICS 722 Food Services and Drinking Places Industry, 2009Q4 – 2024Q3

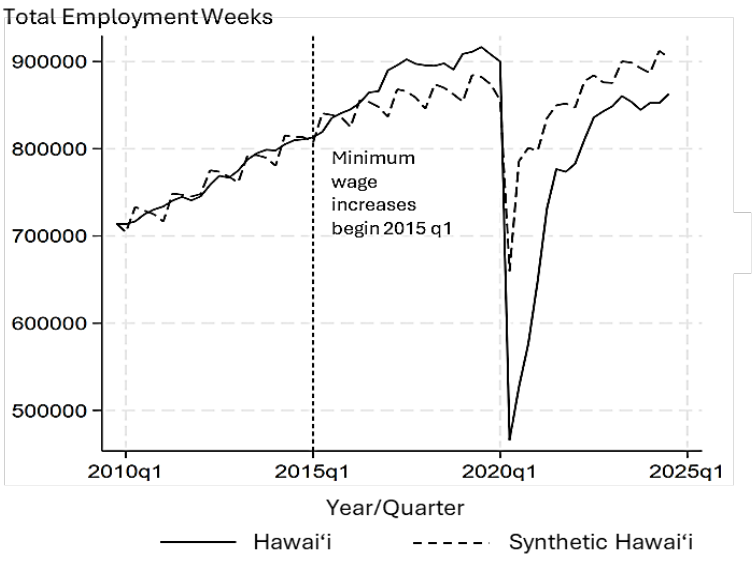
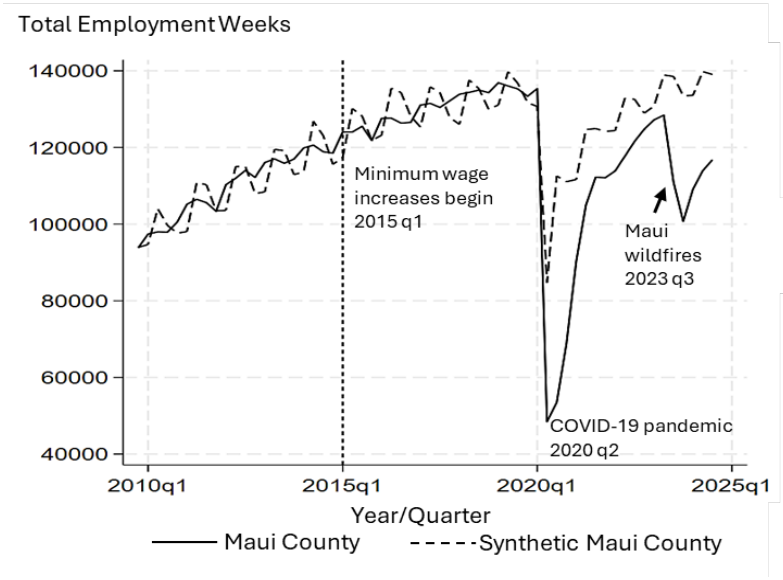


Figure 12. Maui County Synthetic Control Total Employment Weeks Analysis, NAICS 722 Food Services and Drinking Places Industry, 2009Q4 – 2024Q3



In summary, results from the synthetic analysis suggest that employment may have slightly increased for food services and drinking places employees during the period of minimum wage increases that occurred prior to the pandemic. Employment in the post-pandemic period appears lower compared to synthetic state and county controls. It is unclear, however, what impacts should be attributed to increases in the minimum wage vs. other factors that have negatively impacted the state's economy since the pandemic.

Modeling Worker Outcomes Based on Individual Characteristics

Data from the Annual Social and Economic Supplement of the Current Population Survey (CPS ASEC) and American Community Survey Public Use Microdata Sample (ACS or ACS PUMS) were used to estimate how the minimum wage affects labor market outcomes at the individual level. While the ACS has a much larger sample (annual sample size of 3.5 million households surveyed across the U.S. compared to about 95,000 households for the CPS-ASEC), which allows for more precise estimates, the CPS-ASEC has more detailed information on income and hours worked. Both samples were used to provide as much depth to the analysis as possible.

Impacts of the minimum wage were measured in three ways: the impact of the minimum wage on all workers, the impact of the minimum wage on workers in low-wage occupations, and the impact of the minimum wage on workers who are not in low-wage occupations but are in industries with a large percentage of low-wage occupation workers. Other characteristics considered to impact labor market outcomes were age, gender, and education, including whether the person is attending school or not.

Occupation fixed effects were included to ensure that changes in labor market outcomes are due to changes in the minimum wage variables and not characteristics inherent to an occupation. Year effects were included for each of the years from 2020 onward to capture impacts from the Covid-19 pandemic, the state's ongoing recovery from the pandemic, and impact of the Maui wildfires.

Table 2 provides a summary of the regression results. Regressions were run for each of five outcome variables: family total income, a worker's total income, a worker's income from salary and wages, the worker's hourly wage[21], and whether the respondent was employed or not. Income and wage variables were converted into real terms (2024 dollars) and the natural log of real income and hourly wages were used in the regressions. The sample for wage and income regressions was limited to employed workers aged 16 to 65 while the sample for the employment regressions was restricted to all persons aged 16 to 65 years old. The ACS regressions included occupation group fixed effects and time effects for the years 2020 through 2023 (most recent year of data available); the CPS ASEC regressions include occupation fixed effects and time effects for the years 2020 through 2024.

Based on the ACS 2005 – 2023 sample, increases in the minimum wage appear to have had positive impacts on total family income, individual income, individual income from wages, and hourly wage. Employees in low-wage occupations experienced larger impacts while workers who were not in low-wage occupations but were employed in industries with large shares of low-wage ("spillover" industries) saw more modest impacts. For example, a one dollar increase in the minimum wage is estimated to increase the hourly wage by 2.5 percent, individual wage income by 3.3 percent, individual total income by 2.8 percent, and total family income by 4.2 percent across all workers. Low wage workers experience further increases while workers who are not in low-wage

[21] Hourly wage is imputed from (1) income from salary and wages, (2) weeks worked (last year), and (3) hours usually worked per week. In the ACS sample, weeks worked is recorded in intervals; the weeks worked variable is set to the midpoint of each interval. Regressions were restricted to workers earning positive wages.

occupations but are employed in "spillover" industries experience more muted impacts.[22] The impact of the minimum wage on employment is positive but economically small (less than one percent increase for every one dollar increase in the minimum wage).

Based on the CPS-ASEC sample for 2005 through 2024, the impacts of minimum wage increases on income, wages, and employment for all workers are positive though several of the impacts are smaller than the ACS estimates and several of the coefficients are not statistically significant. In contrast to the ACS estimates, none of the minimum wage coefficients for workers in low-wage occupations are statistically significant, suggesting no incremental benefit from minimum wage increases for low-wage occupations compared to all workers. The minimum wage coefficients for workers in spillover industries are negative (similar to the ACS results), indicating that the impacts for those workers are not as large as the impacts for all workers. The effect of the minimum wage on employment is positive but still relatively small.

Detailed regression results are in Appendix C.

Table 2. Summary of Worker Outcome Regression Results

Model and minimum wage variables	Log total family income (2024$)	Log individual total income (2024$)	Log individual income from wages (2024$)	Log hourly wage (2024$)	Employed
	(i)	(ii)	(iii)	(iv)	(v)
ACS PUMS, 2005 – 2023					
Minimum wage (real), all workers	0.0420***	0.0280***	0.0328***	0.0253***	0.00908***
	(0.00541)	(0.00411)	(0.00427)	(0.00328)	(0.00142)
Minimum wage (real), workers in low wage occupations	0.0494***	0.0356***	0.0337***	0.0173**	-0.00208
	(0.0130)	(0.0109)	(0.0115)	(0.00853)	(0.00433)
Minimum wage(real), workers not low-wage in "spillover" industries	-0.0166***	-0.0184***	-0.0211***	-0.0103***	-0.00371***
	(0.00134)	(0.00109)	(0.00116)	(0.000907)	(0.000460)
CPS ASEC, 2005 – 2024					
Minimum wage (real), all workers	0.0440***	0.0157	0.0154	0.0118	0.0126***
	(0.00961)	(0.0108)	(0.0100)	(0.00806)	(0.00197)
Minimum wage (real), workers in low wage occupations	0.0165	0.0192	0.0249	0.0165	-0.00180
	(0.0167)	(0.0190)	(0.0160)	(0.0122)	(0.00399)
Minimum wage(real), workers not low-wage in "spillover" industries	-0.0120***	-0.0129***	-0.0146***	-0.00923***	-0.000559
	(0.00207)	(0.00217)	(0.00199)	(0.00156)	(0.000554)

Notes: All regressions included variables for age, education, and whether the person is in school. Occupation fixed effects and time effects beginning in the year 2020 forward were also included. See Appendix C.

In sum, individual level data on worker outcomes from the ACS and CPS-ASEC indicate that the minimum wage has generally had a neutral to positive impact on income and wages. Whether

[22]The negative minimum wage "spillover" industry coefficients should be added to the larger positive minimum wage all workers coefficients. The net result is a smaller positive number.

workers in low-wage occupations benefit more from minimum wage increases compared to all workers is unclear. Employment effects appear positive but small.

B. A Look Forward: Increasing the Minimum Wage to $16 or higher

Under state law, the minimum wage is set to increase to $16 in 2026 and to $18 in 2028. This section examines the number of workers estimated to be directly impacted by different levels of minimum wage increases. While modeling labor market decisions is difficult, due to the difficulty of modeling worker, firm, and consumer decisions, counting the number of workers who earn below a proposed minimum wage, and are thus "directly" affected by a minimum wage increase, is more straightforward. This sets a baseline as to how many workers are affected; these workers will either receive a higher wage, face reduced hours, or be laid off.

We first use data from the Bureau of Labor Statistics' Occupational Employment Statistics (OES) program to estimate wage distributions and count how many workers currently earn below some dollar amount. OES not only has median and mean wages, but wages in the 10th, 25th, 75th, and 90th percentile as well, for detailed occupation titles, allowing for a reasonable approximation of wage distributions.

Household surveys, such as the American Community Survey or the Current Population Survey, may also be used to estimate those impacted by increases in the minimum wage. This strategy involves counting the number of respondents who have wages below a particular amount and using survey weights to calculate how many total people are affected. One advantage to using household surveys over the OES data is that surveys contain demographic information, allowing for a breakdown of workers affected by variables like age and education. However, wage information may be imprecise, as the surveys typically ask respondents to recall how much they worked and earned over a certain time period, as opposed to asking for the respondents' hourly wage. Even small errors to these responses can affect imputations of the workers' wage.

Minimum wage increases, particularly those with higher dollar amounts, tend to be phased in over time. For the purposes of this analysis, we do not model wage growth, which would require assumptions regarding the rate at which wages would otherwise be expected to grow absent an increase in the minimum wage. As such, these estimates will likely overstate the workers impacted by wage increases. As wages grow over time, this will decrease the number of workers that fall below these cutoffs in the future.

Occupational Employment Statistics Estimate

Table 3 presents the results using the May 2024 OES data to estimate the number (and percentage) of workers estimated to be affected by minimum wage levels of $14, $16, $18, $20, and $22. As indicated earlier, the minimum wage is already set to increase from $14 to $16 in 2026 and to $18 in 2028. The table provides estimates when the calculation is done by detailed occupation group.[23] Because data for some detailed occupation groups are withheld due to small sample size, this may

[23] Calculations were done under major and detailed occupation groups. Detailed occupation groups provide more precise estimates of wage distributions than major occupation groups. Based on the May 2024 OES data, analysis using detailed occupation groups identified greater numbers of workers affected by the minimum wage increases than analysis using major occupation groups.

underestimate the number of workers affected. OES provides a breakdown of employment and wages by state, metropolitan area (Honolulu, i.e., Oʻahu; Kahului-Wailuku, i.e., Maui); and Hawaiʻi/Kauaʻi nonmetropolitan area.

Based on the OES data, approximately 3.5 percent of workers in 2024 earned the current minimum wage of $14, 11.7 percent earn less than $16 per hour, 19.8 percent earn less than $18 per hour, 27.4 percent earn less than $20 per hour, and 31.6 percent earn less than $22 per hour. Maui has the lowest percentage of workers earning less than these rates. Honolulu has highest percentage of workers earning $14, less than $16, and less than $18 per hour while Hawaiʻi and Kauaʻi have the highest percentage of workers earning less than $20 and less than $22 per hour.

Table 3. Number and Percentage of Workers Directly Affected by Minimum Wage Increases, 2024

Area	Minimum wage levels				
	$14.00	**$16.00**	**$18.00**	**$20.00**	**$22.00**
State	21,463 3.5%	72,642 11.7%	122,742 19.8%	170,190 27.4%	196,242 31.6%
Honolulu	15,989 3.6%	54,146 12.2%	90,327 20.4%	123,704 27.9%	142177 32.1%
Maui	1,371 1.9%	5,155 7.2%	10,785 15.0%	16,454 22.9%	20,054 27.9%
Hawaiʻi/Kauaʻi	3,630 3.5%	10,976 10.5%	20,529 19.7%	29,428 28.2%	34,926 33.5%

Source: Bureau of Labor Statistics, Occupational Employment Statistics, May 2024 State Occupational and Wage Estimates for Hawaii. Calculations by DBEDT.

Among the major occupation groups, food preparation and serving related occupations have the highest percentage of workers that would be directly impacted by an increase in the minimum wage to $16 per hour (34.9%), followed by personal care and service occupations (32.4%), sales and related occupations (21.5%), building and grounds cleaning and maintenance (17.2%), healthcare support occupations (15.6%) and production occupations (15.5%). Over half of the workers in personal care and service occupations (65.7%), food preparation and serving related occupations (62.4%), sales and related occupations (61.5%), healthcare support occupations (57.1%), and farming, fishing, and forestry occupations (55.5%) earn less than $22 an hour.

Among detailed occupation groups with over 1,000 workers, 61.2 percent of the 25,850 fast food and counter workers earn less than $16. Over half of parking attendants (56.4%), office and administrative support workers, all other (56.0%), and recreation workers (51.6%) earn less than $16; these groups have fewer than 2,000 workers each. A table describing the percentage of workers directly affected by the various minimum wage increases for select major and detailed occupation groups is provided in Appendix D.

American Community Survey Estimates

Several organizations have estimated the direct effect of minimum wage increases using household surveys. These estimates take annual income from wages and divide by the respondent's weeks worked and usual hours worked per week to impute hourly wage. The

Economic Policy Institute (EPI), for example, has used data from the American Community Survey (ACS) and the Current Population Survey (CPS) to estimate the effect of gradually increasing the federal minimum wage to $15.[24] The Center on Wage and Employment Dynamics (CWED) uses data from the ACS to find the direct effect of various minimum wage proposals, which are then incorporated with their model to forecast a total effect of the minimum wage increase.[25]

This section provides estimates calculated by DBEDT on the effect of increasing the $12 minimum wage that prevailed in 2023 (latest year of ACS data available) to $14, $16, $18, $20, and $22. DBEDT's approach generally follows the strategy used by EPI and CWED, but differs in that it focuses on direct impacts and does not include the spillover modeling done by EPI and CWED.[26] DBEDT's analysis also focuses on an immediate increase and thus does not model wage growth. Imputed wages that fall significantly below the current minimum wage are likely due to reporting errors; imputed wages below $5 are not considered affected by increases in the minimum wage.

Figure 13 shows the percentage of workers directly affected by increasing the minimum wage to various levels and how this varies by certain demographic characteristics. Females are more likely than males to be affected by an increase in the minimum wage, by between 4.5-8.8 percentage points. Based on the ACS data, 39 percent of young adults aged 16-24 years old were impacted by the increase in minimum wage to $14; if the minimum wage were increased to $22 almost three quarters of these young adults would be affected. In contrast, the share of older adults expected to have been impacted by the $14 minimum wage ranged between 12.1 to 15.1 percent, depending on the age bracket. Families earning $25,000 or less had the highest percentage of workers (37.5%) affected by a $14 minimum wage, but this bracket has by far the fewest number of workers (less than half the number of workers of any other income category), so the bracket is combined with the $25,000-to-$49,999 family income bracket in Figure 13.

Almost a third of workers without a high school degree are expected to have been affected by the increase to a $14 minimum wage. A little less than a quarter of those with a high school degree and about one fifth of those who have some college would be affected. The demographic least affected by minimum wage increases are those with a bachelor's degree or higher; less than 10% would be affected by a $14 minimum wage. Less than a third would be affected by a $22 minimum wage.

Appendix E provides the demographic breakdown of affected workers. While younger people, workers from poorer families, and workers with no high school degree are far more likely to be affected, their small population size means they do not make up a plurality of affected workers. The large number of workers with a family income above $100,000 means that even though these workers are less likely to be affected, the majority of affected workers come from this family income bracket.

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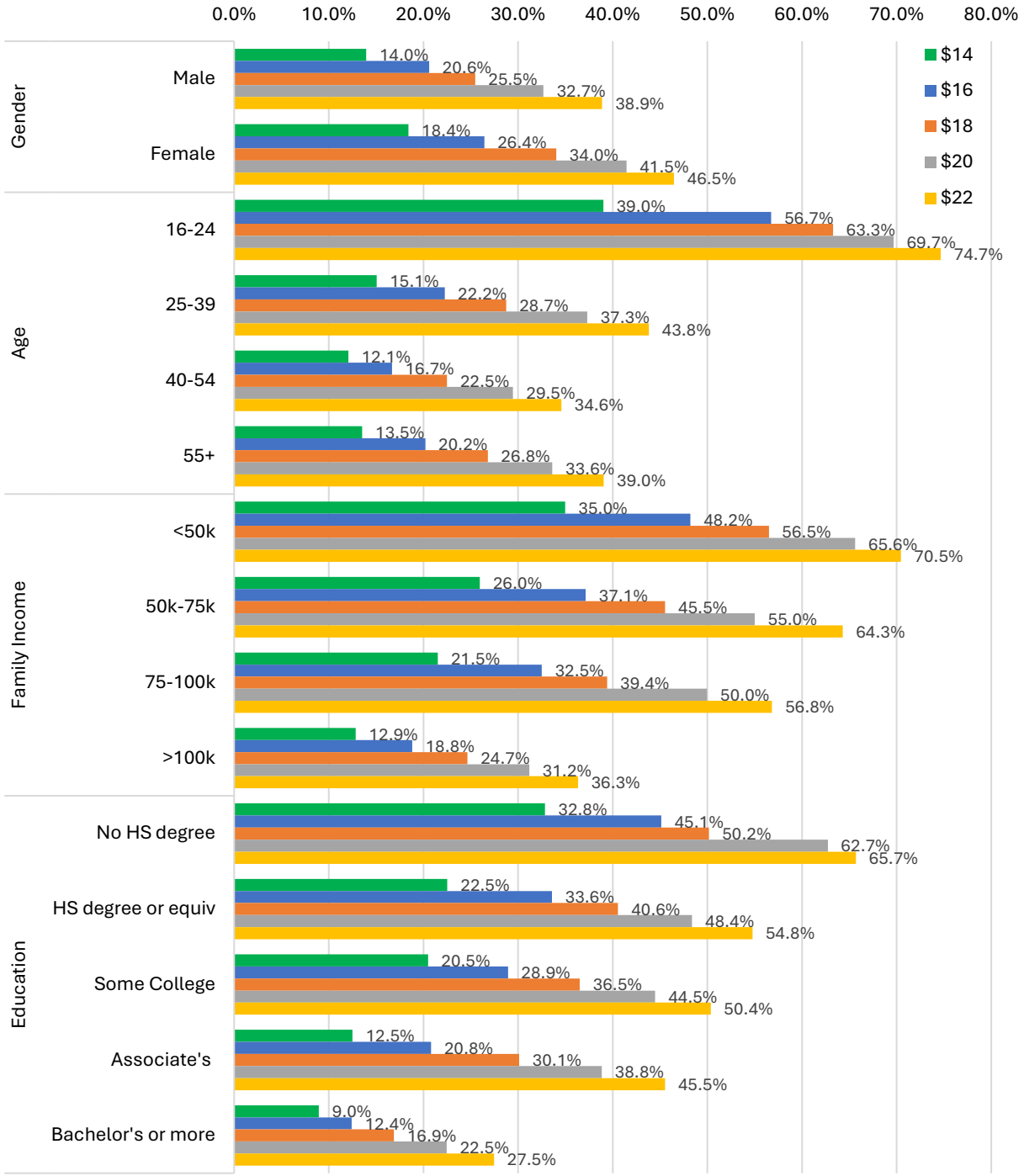
[24] Cooper, David. (2019) Raising the Federal Minimum Wage to $15 by 2024 would Lift Pay for Nearly 40 Million Workers, Economic Policy Institute, February 2019.

[25] Perry, Ian, Sarah Thomson, and Annette Bernhardt, (2016) Data and Methods for Estimating the Impact of Proposed Local Minimum Wage Laws, Center on Wage and Employment Dynamics, University of California, Berkeley, June 2016.

[26] Both EPI and CWED consider workers who have wages up to 15 percent higher than the minimum wage to be indirectly affected by the increases, as those workers may need slight wage increases to maintain wages higher than the workers who fall below the proposed minimum wage,

Figure 13. Percentage of Workers Directly Affected by Minimum Wage Increase, by Demographics, 2023



Source: American Community Survey. Calculations by DBEDT.

4. Conclusion

The federal minimum wage, adjusted for inflation and unchanged since 2010, is among its historic lows. While Hawai‘i’s minimum wage, which increased in 2024 to $14 per hour, is relatively high by comparison, Hawai‘i workers also face a high cost of living. When minimum wage levels are adjusted for the cost of living, Hawai‘i’s minimum wage ranks 25th compared to other states and the District of Columbia. Some localities with high living costs have higher minimum wages. Seattle, for example, currently has a minimum wage of $18 per hour. In 2023, the state of Washington was ranked fifth highest in regional price levels, closely behind Hawai‘i.

Labor market models indicate that the impacts of increasing the minimum wage are ambiguous. The classical labor market model under perfect competition suggests that a binding minimum wage will lower employment, but other labor market models have been developed showing that employment does not necessarily decrease in response to increasing the minimum wage. Empirical evidence also provides mixed results. While some analyses of minimum wage increases found that small increases to the minimum wage lead to small increases in unemployment, a growing body of evidence that suggests increasing the minimum wage might have no effect on unemployment, and in some cases, actually increase employment.

Analyses examining the impacts of historical minimum wage increases in Hawai‘i generally did not find negative impacts on employment, with the caveat that it is difficult to separate the impacts of minimum wage increases from the impacts of other economic conditions in the post COVID-19 period. A “high level” comparison of wages and employment for several low-wage occupation groups using the Bureau of Labor Statistics’ Occupational Employment Statistics suggests that minimum wage increases in Hawai‘i did not negatively affect employment. Analysis comparing food service and drinking places employment to a “synthetic” Hawai‘i shows decreased employment following the COVID-19 pandemic, however, it is difficult to distinguish the extent to which these effects are driven by increases to the minimum wage vs. the state’s ongoing recovery from the pandemic and the Maui wildfires. Finally, several regressions that model workers’ labor market outcomes (income, wages, employment) using worker characteristics and changes to the minimum wage suggest that increases in the minimum wage are correlated with small, positive impacts on employment.

In examining the number of workers directly affected by further increases to the minimum wage, DBEDT estimates that increasing the current minimum wage to $16 would affect 11.7 percent of workers, $18 would affect 19.8 percent of workers, $20 would affect 27.4 percent of workers, and $22 would affect 31.6 percent of workers. These workers would be directly affected because their current wage falls below these thresholds; they would either receive a raise, face reduced hours, or be laid off. Increases in the minimum wage would have larger effects among workers in low-wage occupations, female workers, younger workers, workers with lower family incomes, and those with less education.

Appendix A: State Minimum Wages

Table A-1. State Minimum Wages, as of March 1, 2025

Federal minimum wage (FLSA): $7.25

State	Minimum wage ($)	State (cont.)	Minimum wage ($)
Alabama	...	Nevada	12.00
Alaska	11.91	New Hampshire	7.25
Arizona	14.70	New Jersey[2]	15.49
Arkansas	11.00	New Mexico	12.00
California	16.50	New York[3]	15.50 or 16.50
Colorado	14.81	North Carolina	7.25
Connecticut	16.35	North Dakota	7.25
Delaware	15.00	Ohio[4]	10.70
Florida	13.00	Oklahoma	7.25
Georgia	...	Oregon[5]	13.70 to 15.95
Hawai'i	14.00	Pennsylvania	7.25
Idaho	7.25	Rhode Island	15.00
Illinois	15.00	South Carolina	...
Indiana	7.25	South Dakota	11.50
Iowa	7.25	Tennessee	...
Kansas	7.25	Texas	7.25
Kentucky	7.25	Utah	7.25
Louisiana	...	Vermont	14.01
Maine	14.65	Virginia	12.41
Maryland	15.00	Washington	16.66
Massachusetts	15.00	West Virginia	8.75
Michigan	12.48	Wisconsin	7.25
Minnesota	11.13	Wyoming	...
Mississippi	...	District of Columbia	17.5
Missouri	13.75		
Montana[1]	10.55		
Nebraska	13.50		

... indicates no state minimum wage or state minimum wage below the federal minimum wage.

[1] A Montana business not covered by the federal Fair Labor Standards Act whose gross annual sales are $110,000 or less may pay $4.00 per hour.

[2] Based on employers with 6 or more employees.

[3] The minimum wage in New York City, Nassau County, Suffolk County, and Westchester County is $16.50 per hour. The minimum wage in the remainder of the state is $15.50 per hour.

[4] Based on employers with annual gross receipts of $394,000 or more.

[5] The standard minimum wage in Oregon is $14.70 per hour. The minimum wage in the Portland metro area is $15.95 per hour and the minimum wage in nonurban counties is $13.70 per hour.

Source: U.S. Department of Labor, Consolidated Minimum Wage Table, accessed March 7, 2025. Consolidated Minimum Wage Table | U.S. Department of Labor

Appendix B: Synthetic Control Weights

Assigned weights in the following tables might not sum to 1 due to rounding.

Table B-1. Synthetic Control Weights – Honolulu Average Weekly Wage

County, State	Assigned Weight
Orleans Parish, Louisiana	0.321
Philadelphia County, Pennsylvania	0.008
Charleston County, South Carolina	0.218
Horry County, South Carolina	0.135
Dallas County, Texas	0.271
Travis County, Texas	0.047

Table B-2. Synthetic Control Weights – Honolulu Total Employment Weeks per Quarter

County, State	Assigned Weight
Fulton County, Georgia	0.148
Allegheny County, Pennsylvania	0.424
Bucks County, Pennsylvania	0.194
Horry County, South Carolina	0.004
Davidson County, Tennessee	0.131
Shelby County, Tennessee	0.099

Table B-3. Synthetic Control Weights – Hawai‘i Total Employment Weeks per Quarter

State	Assigned Weight
Kansas	0.117
Mississippi	0.438
North Dakota	0.445

Table B-4. Synthetic Control Weights – Maui County Total Employment Weeks per Quarter

County, State	Assigned Weight
Baldwin County, Alabama	0.378
Orleans Parish, Louisiana	0.013
Northampton County, Pennsylvania	0.598
Spartanburg County, South Carolina	0.011

Appendix C: Worker Outcome Regression Results

Each labor market outcome (log real total family income, log real individual total income, log real individual income from wages, log real hourly wage, or whether the person is employed or not) for person i in year t is modeled as a function of several individual level characteristics and the minimum wage. Impacts are allowed to further vary for workers in minimum wage occupations as well as for workers who are not in minimum wage occupations but work in industries with a high proportion of minimum wage workers.

The equation for estimating the regressions is:

$$y_{i,t} = \alpha + \beta_1 X_{i,t} + \beta_2 MWAll_t + \beta_3 MWLowWage_t + \beta_4 MWSpill_t + \gamma_o + d_{2020} \dots d_{2024} + \varepsilon_{i.t}$$

where $y_{i,t}$ is the labor market outcome for individual i and time t; α is the constant term; $X_{i,t}$ is a vector of individual level characteristics that includes worker age, age squared, gender, education, and whether individual i is attending school or not at time t; γ_o is a vector occupation-specific fixed effects, and d_{2020} though d_{2024} are year-specific variables equal to one in 2020, 2021, 2022, 2023, and 2024 respectively, and zero otherwise.

$MWAll_t$ is equal to the minimum wage at time t for all workers. $MWLowWage_{i,t}$ is equal to the minimum wage for workers in low wage occupations and zero otherwise, and $MWSpill_{i,t}$ is equal to the minimum wage for workers who are not in low-wage occupations but who work in industries with a high proportion of low wage occupations and zero otherwise. The error term is $\varepsilon_{i,t}$.

Data used in the ACS PUMS regressions are based on annual ACS PUMS data for the years 2005 through 2023 (latest year available) compiled through the IPUMS USA database.[27] Data used in the CPS ASEC regressions are based on annual CPS ASEC data for 2005 through 2024 compiled through the IPUMS CPS database.[28]

Low-wage occupations are based on the IPUMS OCC2010 variable and include: food preparation and serving occupations *except* for chefs and cooks and first line supervisors of food preparation and serving workers (4030-4150); janitors and building cleaners (4220); personal care and service occupations *except* for first line supervisors of gaming workers and first-line supervisors of personal service workers (4340-4650); and cashiers, counter and rental clerks, parts salespersons, and retail salespersons (4720-4760).

Spillover industries are industries (based on the IPUMS IND 1990 variable) where 40 percent or more of the sampled workers have low-wage occupations. Spillover industries are primarily in retail trade, personal services, and entertainment and recreation services.[29]

[27] Steven Ruggles, Sarah Flood, Matthew Sobek, Daniel Backman, Grace Cooper, Julia A. Rivera Drew, Stephanie Richards, Renae Rodgers, Jonathan Schroeder, and Kari C.W. Williams. IPUMS USA: Version 16.0 [dataset]. Minneapolis, MN: IPUMS, 2025. https://doi.org/10.18128/D010.V16.0

[28] Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles, J. Robert Warren, Daniel Backman, Annie Chen, Grace Cooper, Stephanie Richards, Megan Schouweiler, and Michael Westberry. IPUMS CPS: Version 12.0 [dataset]. Minneapolis, MN: IPUMS, 2024. https://doi.org/10.18128/D030.V12.0

[29] Results are similar if a 25 percent low-wage occupation threshold is used.

Table C-1. Worker Outcome Regression Results, ACS PUMS, 2005 - 2023

Variables	Log total family income (2024$)	Log individual total income (2024$)	Log individual income from wages (2024$)	Log hourly wage (2024$)	Employed
	(1)	(2)	(3)	(4)	(5)
Minimum wage (real), all workers	**0.0420*** (0.00541)**	**0.0280*** (0.00411)**	**0.0328*** (0.00427)**	**0.0253*** (0.00328)**	**0.00908*** (0.00142)**
Minimum wage (real), workers in low-wage occupations	**0.0494*** (0.0130)**	**0.0356*** (0.0109)**	**0.0337*** (0.0115)**	**0.0173** (0.00853)**	**-0.00208 (0.00433)**
Minimum wage(real), non-low-wage workers in "spillover" industries	**-0.0166*** (0.00134)**	**-0.0184*** (0.00109)**	**-0.0211*** (0.00116)**	**-0.0103*** (0.000907)**	**-0.00371*** (0.000460)**
Age	-0.0558***	0.105***	0.114***	0.0595***	0.0143***
	(0.00244)	(0.00174)	(0.00184)	(0.00133)	(0.000587)
Age^2	0.000644***	-0.00104***	-0.00117***	-0.000578***	-0.000185***
	(2.75e-05)	(2.00e-05)	(2.14e-05)	(1.56e-05)	(6.91e-06)
Female	-0.0603***	-0.220***	-0.208***	-0.130***	-0.0361***
	(0.00919)	(0.00717)	(0.00756)	(0.00566)	(0.00237)
HS degree or equivalent	0.154***	0.225***	0.227***	0.0644***	0.0167***
	(0.0188)	(0.0161)	(0.0167)	(0.0116)	(0.00444)
Some college	0.0952***	0.299***	0.284***	0.114***	0.0210***
	(0.0197)	(0.0167)	(0.0172)	(0.0121)	(0.00459)
Associate's degree	0.0526**	0.347***	0.330***	0.137***	0.0438***
	(0.0207)	(0.0177)	(0.0183)	(0.0129)	(0.00521)
Bachelor's degree	0.114***	0.448***	0.421***	0.225***	0.0453***
	(0.0200)	(0.0171)	(0.0177)	(0.0127)	(0.00483)
Master's/Professional/Doctoral	0.238***	0.631***	0.586***	0.354***	0.0533***
	(0.0223)	(0.0188)	(0.0196)	(0.0142)	(0.00563)
Attending school	-0.0404**	-0.435***	-0.436***	-0.0833***	-0.0481***
	(0.0172)	(0.0125)	(0.0128)	(0.00869)	(0.00408)
Occupation Fixed Effects?	Y	Y	Y	Y	Y
Year Fixed Effects	2020 - 2023	2020 - 2023	2020 - 2023	2020 - 2023	2020 - 2023
Constant	12.87***	8.679***	8.477***	2.143***	0.545***
	(0.0880)	(0.0692)	(0.0721)	(0.0568)	(0.0225)
Observations	114,390	114,384	114,398	114,398	162,576
R-squared	0.119	0.446	0.417	0.318	0.471

Columns (1) through (4): All employed workers 16 – 65 years old. Column (5): all individuals 16-65 years old.

Dollars deflated using the Urban Hawaii CPI-U.

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table C-2. Worker Outcome Regression Results, CPS ASEC, 2005 - 2024

Variables	Log total family income, 2024$	Log individual total income, 2024$	Log individual income from wages, 2024$	Log hourly wage, 2024$	Employed
	(1)	(2)	(3)	(4)	(5)
Minimum wage (real), all workers	**0.0440*** (0.00961)**	**0.0157 (0.0108)**	**0.0154 (0.0100)**	**0.0118 (0.00806)**	**0.0126*** (0.00197)**
Minimum wage (real), workers in low-wage occupations	**0.0165 (0.0167)**	**0.0192 (0.0190)**	**0.0249 (0.0160)**	**0.0165 (0.0122)**	**-0.00180 (0.00399)**
Minimum wage(real), non-low-wage workers in "spillover" industries	**-0.0120*** (0.00207)**	**-0.0129*** (0.00217)**	**-0.0146*** (0.00199)**	**-0.00923*** (0.00156)**	**-0.000559 (0.000554)**
Age	0.000102	0.0820***	0.0819***	0.0403***	0.00788***
	(0.00356)	(0.00411)	(0.00355)	(0.00261)	(0.000794)
Age^2	0.000103**	-0.000784***	-0.000834***	-0.000388***	-0.000141***
	(4.09e-05)	(4.73e-05)	(4.12e-05)	(3.08e-05)	(9.39e-06)
Female	-0.110***	-0.242***	-0.220***	-0.137***	-0.0659***
	(0.0143)	(0.0160)	(0.0134)	(0.0108)	(0.00315)
HS degree or equivalent	0.169***	0.258***	0.245***	0.146***	0.0451***
	(0.0346)	(0.0371)	(0.0336)	(0.0247)	(0.00639)
Some college	0.277***	0.288***	0.265***	0.201***	0.0704***
	(0.0366)	(0.0392)	(0.0352)	(0.0261)	(0.00702)
Associate's degree	0.272***	0.333***	0.302***	0.221***	0.0781***
	(0.0378)	(0.0404)	(0.0363)	(0.0270)	(0.00751)
Bachelor's degree	0.447***	0.515***	0.495***	0.395***	0.0836***
	(0.0371)	(0.0401)	(0.0359)	(0.0269)	(0.00706)
Master's/Professional/Doctoral	0.636***	0.743***	0.723***	0.587***	0.111***
	(0.0413)	(0.0453)	(0.0413)	(0.0311)	(0.00875)
HS full time attendance	0.772***	-1.268***	-1.142***	0.0784	-0.157***
	(0.0812)	(0.136)	(0.0990)	(0.0728)	(0.00958)
HS part time attendance	-0.0839	-0.886	-0.925*	-0.00145	-0.147**
	(0.179)	(0.541)	(0.550)	(0.599)	(0.0633)
College/university full time	0.117**	-0.388***	-0.599***	-0.101***	-0.177***
	(0.0481)	(0.0490)	(0.0439)	(0.0336)	(0.00787)
College/university part time	0.0206	-0.257***	-0.303***	-0.143***	-0.136***
	(0.0650)	(0.0587)	(0.0584)	(0.0431)	(0.0125)
Not attending school	0.00862	-0.0751***	-0.0642***	-0.0291**	-0.111***
	(0.0169)	(0.0171)	(0.0161)	(0.0128)	(0.00424)
Occupation Fixed Effects?	Y	Y	Y	Y	Y
Time Fixed Effects	2020 - 2024	2020 - 2024	2020 - 2024	2020 - 2024	2020 - 2024
Constant	11.09***	9.161***	9.184***	2.468***	0.795***
	(0.141)	(0.162)	(0.147)	(0.132)	(0.0288)
Observations	27,302	26,932	26,601	26,601	38,833
R-squared	0.166	0.350	0.406	0.314	0.737

Columns (1) through (4): All employed workers 16 – 65 years old. Column (5): all individuals 16-65 years old.
Dollars deflated using the Urban Hawaii CPI-U. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Appendix D: Percentage of Workers in Hawai‘i Earning Less than or Equal to $16, $18, $20, and $22, Selected Occupations

Occupations included in the following table are those that have more than 1,000 workers and are estimated to have a higher percentage of workers earning less than $16, $18, $20, or $22 when compared to the state average.

Table D-1.Percentage of Workers Directly Affected by Minimum Wage Levels, Select Occupation Groups

Occupation	Group type	Total no. of workers	Percentage of workers directly affected by a minimum wage of:			
			$16.00	$18.00	$20.00	$22.00
All Occupations	**total**	**620,930**	**11.7%**	**19.8%**	**27.4%**	**31.6%**
Educational Instruction and Library Occupations	major	38,710	8.1%	20.2%	29.8%	29.8%
Healthcare Support Occupations	major	20,980	15.6%	26.3%	41.4%	57.1%
Food Preparation and Serving Related Occupations	major	82,980	34.9%	49.3%	56.1%	62.4%
Building and Grounds Cleaning and Maintenance Occupations	major	31,230	17.2%	26.2%	37.1%	37.1%
Personal Care and Service Occupations	major	17,680	32.4%	49.2%	57.6%	65.7%
Sales and Related Occupations	major	49,490	21.5%	41.8%	54.5%	61.5%
Office and Administrative Support Occupations	major	76,210	8.4%	20.6%	32.3%	32.3%
Farming, Fishing and Forestry Occupations	major	1,150	12.2%	30.7%	44.5%	55.5%
Production Occupations	major	14,100	15.5%	26.3%	36.3%	36.3%
Transportation and Material Moving Occupations	major	48,380	13.3%	25.4%	36.1%	36.1%
Market Research Analysts and Marketing Specialists	detailed	1,520	12.8%	16.4%	20.0%	23.6%
Life, Physical, and Social Science Technicians, All Other	detailed	1,130	17.8%	28.9%	39.5%	50.1%
Social and Human Service Assistants	detailed	2,630	0.0%	21.5%	43.1%	63.6%
Preschool Teachers, Except Special Education	detailed	1,370	0.0%	26.8%	40.0%	55.1%
Tutors	detailed	2,250	38.3%	53.6%	63.8%	74.1%
Educational Instruction and Library Workers, All Other	detailed	1,170	15.2%	23.2%	37.7%	52.3%
Merchandise Displayers and Window Trimmers	detailed	1,100	13.1%	46.0%	59.2%	69.7%
Pharmacy Technicians	detailed	1,820	0.0%	23.8%	38.0%	51.5%
Home Health and Personal Care Aides	detailed	6,260	34.0%	57.4%	87.9%	100.0%
Nursing Assistants	detailed	4,620	1.5%	16.7%	34.2%	53.7%

Table D-1, continued

Occupation	Group type	Total no. of workers	Percentage of workers directly affected by a minimum wage of:			
			$16.00	$18.00	$20.00	$22.00
Dental Assistants	detailed	1,610	14.6%	28.7%	40.6%	57.2%
Security Guards	detailed	9,790	17.0%	28.5%	49.2%	67.9%
First-Line Supervisors of Food Preparation and Serving Workers	detailed	6,590	0.0%	16.6%	30.2%	30.2%
Cooks, Institution and Cafeteria	detailed	1,270	0.0%	14.4%	33.1%	33.1%
Cooks, Restaurant	detailed	12,190	17.4%	24.9%	39.2%	52.4%
Food Preparation Workers	detailed	4,780	28.1%	50.6%	63.0%	75.1%
Bartenders	detailed	3,640	13.3%	16.6%	19.9%	23.2%
Fast Food and Counter Workers	detailed	25,850	61.2%	77.4%	85.6%	75.5%
Waiters and Waitresses	detailed	13,830	30.3%	35.7%	41.0%	41.0%
Dining Room and Cafeteria Attendants and Bartender Helpers	detailed	4,460	30.5%	36.3%	42.2%	42.2%
Dishwashers	detailed	4,510	38.5%	53.7%	64.6%	75.2%
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	detailed	2,320	30.7%	38.9%	47.1%	57.4%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	detailed	10,010	36.9%	50.8%	60.9%	71.0%
Landscaping and Groundskeeping Workers	detailed	7,070	10.2%	25.9%	39.5%	55.3%
Amusement and Recreation Attendants	detailed	4,240	36.6%	50.2%	59.8%	69.3%
Tour and Travel Guides	detailed	1,150	20.9%	32.0%	42.4%	53.6%
Childcare Workers	detailed	1,860	30.4%	75.1%	88.1%	100.0%
Recreation Workers	detailed	1,590	51.6%	62.0%	72.3%	100.0%
Cashiers	detailed	11,240	40.3%	70.2%	82.5%	64.9%
Counter and Rental Clerks	detailed	1,540	0.0%	27.4%	41.2%	53.7%
Retail Salespersons	detailed	18,140	32.9%	54.7%	68.6%	78.1%
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	detailed	3,150	13.1%	16.5%	20.0%	23.4%
Tellers	detailed	1,660	0.0%	12.6%	55.9%	74.3%
Customer Service Representatives	detailed	7,460	16.5%	31.9%	52.7%	64.3%
Receptionists and Information Clerks	detailed	3,250	19.0%	39.5%	59.2%	73.6%
Reservation and Transportation Ticket Agents and Travel Clerks	detailed	1,770	3.1%	25.7%	46.0%	54.5%
Cargo and Freight Agents	detailed	1,900	8.5%	34.6%	56.4%	70.6%
Shipping, Receiving, and Inventory Clerks	detailed	1,740	0.0%	20.2%	36.7%	50.6%
Office Clerks, General	detailed	13,720	18.9%	31.1%	49.6%	61.0%

Table D-1, continued

Occupation	Group type	Total no. of workers	Percentage of workers directly affected by a minimum wage of:			
			$16.00	$18.00	$20.00	$22.00
Office and Administrative Support Workers, All Other	detailed	1,850	56.0%	65.5%	75.0%	78.8%
Bakers	detailed	1,400	17.5%	40.6%	56.3%	65.2%
Laundry and Dry-Cleaning Workers	detailed	1,560	40.3%	56.3%	66.6%	76.5%
Light Truck Drivers	detailed	2,800	13.3%	27.6%	41.1%	53.8%
Shuttle Drivers and Chauffeurs	detailed	1,240	24.6%	40.6%	53.1%	60.7%
Parking Attendants	detailed	1,460	56.4%	75.2%	82.1%	89.0%
Cleaners of Vehicles and Equipment	detailed	1,980	28.5%	56.5%	74.6%	80.6%
Laborers and Freight, Stock, and Material Movers, Hand	detailed	9,150	13.3%	26.3%	41.2%	56.8%
Packers and Packagers, Hand	detailed	2,280	45.1%	62.4%	75.7%	79.2%
Stockers and Order Fillers	detailed	8,690	9.0%	37.5%	61.4%	76.1%

Source: Bureau of Labor Statistics, Occupational Employment Statistics, May 2024 State Occupational and Wage Estimates for Hawaii. Calculations by DBEDT.

Appendix E: Demographic Breakdown of Hawai‘i Workers Earning Less than or Equal to $14, $16, $18, $20, and $22, as of 2023

Table E-1. Demographic Breakdown of Workers Directly Affected by Minimum Wage Increases

	$14	$16	$18	$20	$22
By gender					
Male	41.1%	41.8%	40.8%	42.1%	43.5%
Female	58.9%	58.2%	59.2%	57.9%	56.5%
By age					
16-24 years old	26.4%	26.4%	23.3%	20.6%	19.2%
25-39 years old	28.7%	29.2%	29.8%	31.0%	31.7%
40-54 years old	23.3%	22.2%	23.7%	24.9%	25.4%
55 years old and over	21.6%	22.2%	23.3%	23.5%	23.7%
By family income					
Less than $50,000	15.7%	14.9%	13.8%	12.8%	12.0%
$50,000 to $74,999	12.4%	12.2%	11.8%	11.4%	11.6%
$75,000 to $99,999	13.1%	13.6%	13.0%	13.3%	13.1%
$100,000 or more	58.9%	59.3%	61.4%	62.4%	63.2%
By education					
No high school degree	11.2%	10.6%	9.3%	9.3%	8.5%
H.S. degree or equiv.	34.4%	35.3%	33.7%	32.3%	31.8%
Some college	24.6%	23.9%	23.9%	23.3%	23.0%
Associate's degree	9.1%	10.4%	11.9%	12.3%	12.6%
Bachelor's degree or higher	20.8%	19.8%	21.3%	22.8%	24.2%

Source: American Community Survey. Calculations by DBEDT.