Analysis of Revenue Proposals

FY 2023-24 EXECUTIVE BUDGET

Independent Fiscal Office

May 2023

Independent Fiscal Office
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INDEPENDENT FISCAL OFFICE

May 3, 2023

The Honorable Members of the Pennsylvania General Assembly:

This report provides an analysis of the tax and revenue proposals included in the *2023-24 Executive Budget* released in March 2023. The Independent Fiscal Office (IFO) publishes this report to fulfill its statutory duties as provided under Section 604-B (a)(4) of the Administrative Code of 1929. The statute requires that the IFO "provide an analysis, including economic impact, of all tax and revenue proposals submitted by the Governor or the Office of the Budget."

This report uses various data sources to derive estimates of the revenue proposals included in the budget. All data sources and methodologies used to derive those estimates are noted in the relevant sections of this document.

The IFO would like to thank the various agencies and organizations that provided data or input for this report. Questions or comments regarding the contents of this report can be submitted to contact@ifo.state.pa.us.

Sincerely,

Matthew J. Knittel
Director

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Introduction

This report provides revenue estimates for the tax and revenue proposals contained in the *2023-24 Executive Budget* released in March 2023. The Independent Fiscal Office (IFO) publishes this report to fulfill its statutory duties as provided under Section 604-B (a)(4) of the Administrative Code of 1929. The statute requires that the IFO "provide an analysis, including economic impact, of all tax and revenue proposals submitted by the Governor or the Office of the Budget."

The report contains two sections. The first section analyzes General Fund tax and revenue proposals, including the proposal to legalize cannabis for adult use. The second section analyzes the proposal to increase the state minimum wage.

The analyses contained in this report are based on descriptions from the *2023-24 Executive Budget* and, where applicable, legislative language or supporting documentation provided by the administration. As necessary, assumptions to assess the potential revenue implications of the proposals are noted in the text.

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Tax and Revenue Proposals

Adult Use Cannabis

The Executive Budget proposes to legalize cannabis for adult use and impose a 20% excise tax on the wholesale price of the product. The revenue estimate assumes an effective date of January 1, 2025, and that retail sales of cannabis would also be subject to sales and use tax (SUT). The IFO projects the proposal could generate $43 million in fiscal year (FY) 2024-25 and $253 million in FY 2027-28. (See **Table 1.1**.) The projections are based on an estimate of the average dollar amount of cannabis purchased per adult (age 21 or older) per year applied to Pennsylvania's adult population. Because recreational cannabis remains illegal under federal law, all cannabis sold in Pennsylvania must be grown in state (no imports).

Table 1.1
Legalize and Tax Adult Use Cannabis

	2023-24	2024-25	2025-26	2026-27	2027-28
Wholesale Tax	--	$27	$105	$144	$147
Sales Tax	--	16	76	103	106
Total	**--**	**43**	**181**	**247**	**253**

Note: Millions of dollars. Assumes sales begin January 1, 2025.

Several states near Pennsylvania recently enacted legislation to legalize (and tax) recreational marijuana. New Jersey and New York began sales of recreational marijuana in 2022 and Maryland and Virginia are expected to start by 2024. (See **Table 1.2**.)

Table 1.2
Recreational Marijuana Taxes in Surrounding States

State	Year	Unit or Wholesale Tax	Excise Tax	Sales Tax
Maryland	2022	--	--	9.00%
New Jersey	2021	$1.52/oz sold by Class 1 cultivators	--	6.625%
New York	2021	$0.005/mg of THC in flower $0.008/mg of THC in concentrates $0.03/mg in THC in edibles	9%	Exempt
Virginia	2021	--	21%	5.30%

Note: Local sales taxes may also apply. Retail sales of recreational marijuana began on April 21, 2022 in New Jersey and on December 29, 2022 in New York. Sales have not started in Maryland or Virginia.

Source: Various state websites.

Table 1.3 displays tax collections for select other states that have legalized marijuana for adult recreational use.

Table 1.3
Recreational Marijuana Tax Collections

States	Fiscal Year ($ millions)					
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Alaska	$1.7	$11.1	$19.2	$24.5	$28.9	$28.9
California[1]	--	401.6	646.8	1,136.4	1,362.0	1,085.9
Colorado[1]	247.4	266.5	302.5	387.5	423.5	325.1
Maine[1]	--	--	--	1.2	12.4	--
Massachusetts	--	--	22.1	81.7	176.7	--
Nevada	--	69.8	99.2	105.2	157.8	152.3
Oregon	70.3	82.2	102.1	133.2	178.3	170.6
Washington	315.2	362.0	390.4	469.2	555.4	511.1

1 Represent calendar year data.

Source: Various state websites.

Mobile Telecommunications Service Exemption

The Executive Budget proposes to eliminate the gross receipts tax (GRT) and SUT levied on mobile telecommunications services effective January 1, 2024. The GRT (5.0%) is levied on the gross receipts of companies that provide mobile telephone services and the SUT (6.0%) is levied on the retail sale of mobile telecommunications services provided to end users. The proposal is projected to reduce GRT revenues by $45 million and non-motor vehicle SUT revenues by $23 million in FY 2023-24. (See **Table 1.4**.) The GRT estimate assumes that taxpayers adjust their estimated payment for tax year (TY) 2024 for the full impact of the proposal. The estimate declines over time consistent with recent trends in GRT collections on mobile telecommunications services.

Table 1.4
Tax Exemption for Mobile Telecommunications

	2023-24	2024-25	2025-26	2026-27	2027-28
Non-Motor Vehicle SUT	-$23	-$52	-$46	-$42	-$38
Gross Receipts	-45	-41	-37	-33	-30
Total	**-68**	**-92**	**-83**	**-75**	**-67**

Note: Millions of dollars.

Data from the Consumer Expenditure Survey (CES) show that lower-income households spend a higher share of pre-tax income on cell phone services than higher-income households.[1] Specifically, the CES data indicate that the average household in the bottom income quintile spends roughly six times the share of income on cellular service than the average household in the top income quintile. This result demonstrates that the tax is regressive and in percentage terms, an exemption provides relatively more tax relief to lower-income households. **Table 1.5** displays (1) average expenditures for cellular service, (2) the share of income spent on service and (3) the average annual projected tax cut by income quintile. The average tax cut estimate assumes that the proposal reduces the average bill for cellular service by roughly 9%.

Table 1.5
Average Expenditures for Cellular Service (2021)

Income Quintile	Avg. Income	Avg. Expense	% Income	Avg. Tax Cut
Top	$226,386	$1,814	0.8%	$160
Fourth	100,527	1,534	1.5	135
Third	61,214	1,262	2.1	111
Second	34,767	957	2.8	84
Bottom	13,165	646	4.9	57

Note: Cellular Expense is assumed to include some equipment charges that remain taxable under the proposal.

Source: Consumer Expenditure Survey, U.S. Bureau of Labor Statistics (2021). Calculations by the IFO.

Recruitment and Retention Tax Credit

The Executive Budget proposes a Recruitment and Retention Tax Credit (RRTC) for newly certified nurses, teachers and police officers. This personal income tax (PIT) credit is equal to 3.07% of wages earned from nursing, teaching or policing during the tax year. The credit is capped at $2,500 annually and is available for up to three years (total maximum award of $7,500).

Eligible applicants must provide (1) certification from the Pennsylvania State Board of Nursing or the Pennsylvania Department of Education or (2) a training certificate issued by the Municipal Police Officers' Education and Training Commission or the Pennsylvania State Police Academy. Applicants must be certified on or after January 1, 2023, and employed in the applicable field to be eligible for the tax credit.

No other state offers a tax credit for newly certified and employed professionals. However, some states offer tax credits for workers in specific fields. As these programs are relatively new, no studies are available to assess their effectiveness. These tax credits include:

- **Colorado's Early Childhood Educator Tax Credit** is for early childhood educators who earn less than $75,000 (single) or $150,000 (joint) in federal adjusted gross income. The credit amount ranges from $750 to $1,500, based on credential level. The credit is refundable and is adjusted annually for inflation.[2]

[1] Consumer Expenditure Survey (2021), U.S. Bureau of Labor Statistics.
[2] See: https://cdec.colorado.gov/early-childhood-educator-income-tax-credit.

- **Delaware** offers an annual $1,000 nonrefundable tax credit for active volunteer firefighters.[3]
- The **Georgia Teacher Tax Credit Program** provides a $3,000 annual credit to eligible teachers hired to teach in a high-need subject area at qualified rural or low-performing schools. The credit is available annually for up to five years if employment at the qualified school is maintained.[4]
- The **New Mexico 2022 Nurse's Credit** was a one-time $1,000 tax credit available to all hospital nurses working full time in the state throughout TY 2022.[5]

Based on historical certification data supplied by the applicable agencies and the state Occupational Employment and Wage Statistics dataset for workers in the specified occupations, approximately 19,000 newly certified professionals will claim the RRTC in the first year (61,000 by year 3) and the average PIT credit will be roughly $1,600, increasing to $1,800 by year 3.[6] The RRTC would increase refunds by $33 million in FY 2023-24 and by $114 million in FY 2024-25. Note that the estimate excludes any nurses certified by an authority other than the State Board of Nursing (e.g., nurse midwives).

Deposit of Funds in the Public Safety and Protection Fund (PSPF)

The Executive Budget proposes the creation of the PSPF to provide funding for the Pennsylvania State Police (PSP). Funding PSP through the PSPF would reduce that agency's reliance on the Motor License Fund (MLF) and enable those MLF funds to be used for traditional highway/bridge projects.

Beginning July 1, 2023, liquor tax and the tax on other tobacco products would be deposited into the new fund. In addition, revenues from motor vehicle SUT would be transferred into the PSPF. The proposed transfer is $400 million in FY 2023-24 and increases by $50 million annually until it reaches $600 million in FY 2027-28. These provisions would reduce General Fund revenues but would have no impact on total collections.

Table 1.6
General Fund Impact of New Public Safety Protection Fund

	2023-24	2024-25	2025-26	2026-27	2027-28
Motor Vehicle SUT	-$400	-$450	-$500	-$550	-$600
Liquor	-463	-481	-501	-521	-541
Other Tobacco Products	-159	-165	-173	-180	-189
Total	**-1,022**	**-1,096**	**-1,174**	**-1,251**	**-1,330**

Note: Millions of dollars.

[3] See: https://legis.delaware.gov/BillDetail/78929.
[4] "HB 32 Teacher Tax Credit Program," Georgia Department of Education.
[5] "2022 Nurse's Credit Statement," New Mexico Taxation and Revenue Department.
[6] May 2022 Pennsylvania State Occupational Employment and Wage Estimates, U.S. Bureau of Labor Statistics.

Elimination of the Enhanced Revenue Collections Account (ERCA)

Under current law, General Fund revenue transferred monthly to ERCA provides supplemental funds for the Department of Revenue's (DOR) collection activities. The proposal eliminates ERCA transfers and adds supplemental funding to DOR's General Government Operations appropriation. The proposal would increase revenues by $22 million annually (CNIT +$9 million, PIT +$7 million, SUT +$5 million and inheritance tax +$1 million) but have no impact on overall collections.

Medical Marijuana Program Fund Transfer to the General Fund

The proposal transfers the unexpended fund balance of the Medical Marijuana Program Fund to the General Fund to offset Department of Health expenditures (as authorized under Act 16 of 2016). The proposal would increase FY 2023-24 nontax revenues by $32 million.

Cigarette Tax Transfer to Tobacco Settlement Fund

The proposal transfers cigarette tax revenues to the Tobacco Settlement Fund (TSF) for debt service payments and would reduce FY 2023-24 cigarette tax revenues by $115 million.

If not provided for from cigarette tax collections, the TSF debt service payments are transferred from SUT. Therefore, the most recent IFO revenue estimates already incorporate this proposed transfer from cigarette tax.

Personal Income Tax Transfer to Environmental Stewardship Fund

The proposal transfers PIT revenues to the Environmental Stewardship Fund for Growing Greener debt service payments and would reduce FY 2023-24 PIT withholding revenues by $11 million.

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Raise the Minimum Wage

The Executive Budget proposes to raise the state minimum wage from $7.25 per hour to $15 per hour on January 1, 2024. The proposal is unclear on the treatment of tipped workers and the analysis assumes that the tipped wage remains at the current rate of $2.83 per hour. (Note that employers are required to ensure that most tipped workers receive at least the regular minimum wage after accounting for tips earned.)

The analysis that follows includes four subsections.

- Comparison of State Minimum Wage Rates: Compares Pennsylvania's current minimum wage rate with other states.
- Distribution of Hourly Wage Rates: Describes the data used to inform this analysis and the methodology used to estimate the current distribution of hourly wage rates.
- Employment Impact: Estimates the total number of jobs that are projected to be paid a higher hourly wage and the potential employment contraction due to the increase in the minimum wage.
- Income and Revenue Impacts: Estimates the net income gains from the proposed $15 minimum wage and related implications for General Fund tax revenues.

Comparison of State Minimum Wage Rates

As of January 1, 2023, Pennsylvania and 19 other states do not require employers to pay a wage that exceeds the federal minimum of $7.25 per hour. (See **Table 2.1**.) By contrast, three states (Washington, California and Massachusetts) and the District of Columbia require employers to pay an hourly wage of $15 or more. By January 1, 2025, nine states (additional states of New Jersey, Connecticut, Maryland, Rhode Island, Illinois and Delaware) and the District of Columbia will require employers to pay an hourly wage of $15 or more under current law.

The federal minimum wage was last raised to $7.25 per hour in 2009. Due to inflation, the real value of the wage rate has eroded over time. From January 2009 through January 2023, the Philadelphia CPI-U increased by 36.6%, an average rate of 2.3% per annum. If the minimum wage had been adjusted for inflation through the current year, then the wage rate would be $9.90 in 2023.

Currently, all border states have an hourly minimum wage that exceeds Pennsylvania by at least $1.50, and four states (New York, Maryland, New Jersey and Delaware) have a minimum wage that is at least $2.85 higher. If Pennsylvania increases the hourly minimum wage to $15 in 2024, it would be exceeded by only four states and the District of Columbia.

Table 2.1

Minimum Wage Rates by State (As of January 1st)

State	2023 Rank	2023	2024	2025
Washington D.C.	1	$16.10	$16.55	$16.95
Washington	2	15.74	16.18	16.59
California	3	15.50	15.93	16.33
Massachusetts	4	15.00	15.00	15.00
New York	5	14.20	14.60	14.96
New Jersey	6	14.13	15.00	15.38
Connecticut	7	14.00	15.30	15.68
Arizona	8	13.85	14.25	14.60
Maine	9	13.80	14.20	14.55
Colorado	10	13.65	14.05	14.40
Oregon	11	13.50	13.88	14.22
Maryland	12	13.25	14.00	15.00
Vermont	13	13.18	13.55	13.89
Rhode Island	14	13.00	14.00	15.00
Illinois	14	13.00	14.00	15.00
Hawaii	16	12.00	14.00	14.00
Virginia	16	12.00	12.00	13.50
Missouri	16	12.00	12.35	12.65
New Mexico	16	12.00	12.00	12.00
Delaware	20	11.75	13.25	15.00
Florida	21	11.00	12.00	13.00
Arkansas	21	11.00	11.00	11.00
Alaska	23	10.85	11.15	11.43
South Dakota	24	10.80	11.10	11.40
Minnesota	25	10.59	10.85	11.13
Nebraska	26	10.50	12.00	13.50
Nevada	26	10.50	11.25	12.00
Michigan	28	10.10	10.33	10.56
Ohio	28	10.10	10.40	10.65
Montana	30	9.95	10.25	10.50
West Virginia	31	8.75	8.75	8.75
Pennsylvania	**32**	**7.25**	**7.25**	**7.25**
Other	32	7.25	7.25	7.25

Note: Over 50 localities have adopted a minimum wage above their state's minimum wage.

1 Inflation adjustments use an estimated 2.8% for 2024 for 2.5% for 2025.

Source: The Economic Policy Institute. Minimum Wage Tracker (as of January 1, 2023).

Distribution of Hourly Wage Rates

Since 2015, the IFO has published numerous analyses of various minimum wage proposals, with the most recent analysis released April 2022. This analysis primarily utilizes May 2022 data (released April 2023) from the U.S. Bureau of Labor Statistics' (BLS) Occupational Employment and Wage Statistics (OEWS). The OEWS produces employment and wage estimates based on a survey of business establishments (employers) for both wage and salary workers in nonfarm establishments by occupation. It excludes self-employed, owners and partners in unincorporated firms, household workers and unpaid family workers.

The OEWS program data include the total number of jobs and hourly wage rates for the 10th, 25th, 50th (median), 75th and 90th percentile and mean by occupation. This analysis uses these data to create estimated log-normal distribution models for each of the 22 major occupations in Pennsylvania. Minor calibrations are then made within each occupation distribution so that the mean hourly wage is close to the published mean hourly wage from the OEWS data. The OEWS data also include detail that allow occupations primarily comprised of tipped workers to be removed from the primary model and examined separately.[7] Additional detail on hours worked and full-time/part-time splits is from the 2022 Current Population Survey (CPS).[8] The analysis then projects the 2022 wage distribution to 2024 based on actual and assumed growth rates for employment and wages.

Although the hourly minimum wage is $7.25 for Pennsylvania employers, based on the projected wage distribution for 2024, over 99.6% of non-tipped jobs will earn more than $9 per hour, and roughly 99% will earn more than $10 per hour.[9] Therefore, the data suggest that the effective market minimum wage is roughly $10 per hour, so that an increase to $10 per hour would have a negligible impact on employment and earnings.

Table 2.2 provides a breakdown of hourly wage rates below $18 with tipped workers displayed separately. Directly impacted jobs include any job paid less than $15 per hour. Indirect jobs are those earning between $15 to $17.99 per hour as research finds that employers would likely need to increase compensation for employees within this wage range to maintain pay differentials with less-experienced or lower-skilled staff. For 2024, the analysis estimates that 1.01 million non-tipped jobs will be directly impacted and 778,000 will be indirectly impacted by an increase in the minimum wage to $15 per hour.

The share of non-tipped jobs that are part-time are weighted heavier towards lower-wage workers. For 2024, the analysis estimates that part-time employment comprises nearly 73% of jobs that earn less than $12 per hour, roughly 53% of jobs that earn between $12 and $14.99 per hour and nearly 36% of jobs that earn between $15 and $17.99 per hour.

[7] These tipped occupations include: (1) bartenders; (2) waiters and waitresses; (3) hosts and hostesses in restaurants, lounges and coffee shops; (4) food preparation and serving-related workers (all other); (5) gambling dealers; (6) hairdressers, hairstylists and cosmetologists; (7) shampooers; (8) baggage porters and bellhops and (9) personal care and service workers (all other).

[8] The CPS is jointly sponsored by the U.S. Census Bureau and the U.S. Bureau of Labor Statistics. It provides data on the labor force, employment levels, unemployment rates and various demographic characteristics.

[9] Jobs include non-tipped positions within nonfarm establishments and excludes self-employed, owners and partners in unincorporated firms, household workers and unpaid family workers. Tipped workers are excluded because existing data on tipped workers only include reported wages and tips, and it is likely that there could be significant under-reporting of tipped income.

Table 2.2
Pennsylvania Employment Distribution by Hourly Wage Rates (<$18/hour, 000s)

	2022			IFO Projected January 2024		
	Full-time	Part-time	Total	Full-time	Part-time	Total
Directly Impacted Employment[1]						
<$10	26	95	121	15	60	75
$10 - $10.99	40	97	136	26	72	98
$11 - $11.99	66	118	184	51	116	168
$12 - $12.99	86	106	192	81	123	204
$13 - $13.99	136	142	279	91	108	198
$14 - $14.99	152	107	259	144	124	268
Total[1]	**506**	**665**	**1,171**	**408**	**603**	**1,011**
Indirectly Impacted Employment[1]						
$15 - $15.99	177	96	273	149	102	251
$16 - $16.99	182	87	270	178	91	268
$17 - $17.99	188	74	262	175	84	259
Total[1]	**548**	**257**	**805**	**502**	**277**	**778**
Tipped Employment[2]						
<$15	48	54	102	40	50	90
$15 - $17.99	15	1	15	16	1	17

1 Excludes tipped workers and self-employed.

2 Tipped employment includes occupations such as waiters and waitresses; hosts and hostesses; gambling dealers; hairdressers, hairstylists and cosmetologists; shampooers; and baggage porters and bellhops. The estimated wage is the employer-reported wage with reported tips included. It is likely that wages with non-reported tips are higher.

Source: Total employment by wage category are estimates by IFO based on May 2022 Occupational Employment and Wage Statistics (OEWS) Survey data produced by U.S. Bureau of Labor Statistics (BLS). Full-time/part-time splits are estimates by the IFO based on U.S. Labor Force Statistics from the U.S. BLS Current Population Survey applied to Pennsylvania by occupation. January 2024 data are estimates by IFO.

For 2024, it is also estimated that 107,000 tipped jobs (bottom of Table 2.2) could be directly or indirectly impacted by the higher minimum wage, but it is unclear how they would be impacted. Currently, employers are required to ensure most tipped staff earn at least the regular hourly minimum wage with their wages and tips combined. Some tipped workers claim or report tips to meet the regular hourly minimum wage but fail to report all tips. Because the OEWS data include only reported wages and tips, it is unclear how many tipped jobs would be impacted. If a tipped worker has enough unreported tips to cover the difference between what they currently report and $15 per hour, it is likely that reported wage and tip income would increase with a potential decline in the worker's overall take-home pay since they will remit tax on previously unreported tip income. However, if a tipped worker does not have enough unreported tips to cover the difference between their current wages plus tips and $15 per hour, their overall take-home pay will likely increase as employers must make up the difference.

Employment Impact

Table 2.3 displays the projected employment impact due to the enactment of a $15 minimum wage. The first three columns display the total number of jobs, average hourly wage and the percentage increase in the hourly wage if the $15 minimum wage is implemented within each wage group. For the lowest paid workers (<$10 per hour), the proposal increases the hourly wage by nearly 54%. For the highest paid workers directly affected (those earning between $14 and $14.99), the increase is only 3.7%. While not directly affected by the proposal, the analysis assumes that workers earning between $15 to $17.99 per hour would also realize a modest wage increase of 2% to 4%.

Column four (elasticity) is the employment response parameter used for each wage group and is based on a review of minimum wage studies. An elasticity or response parameter of -0.125 implies a 1.25% employment reduction for a 10.0% increase in the effective wage paid. Lower-wage workers are disproportionately younger (e.g., high school and college age), so the analysis assumes higher (larger negative) elasticities at lower wage rates. Research finds that employment of younger workers is more sensitive to changes in wage rates because those workers are generally part-time, less experienced and have a higher degree of turnover. Moreover, the percentage wage increase for lower-wage workers is considerably higher, and employers would be more sensitive to their employment compared to other groups under a $15 minimum.

A 2022 National Bureau of Economic Research (NBER) working paper reviewed 70 minimum wage analyses published since 1992. For each of the 70 studies included, the working paper's authors requested from the original researchers the preferred (i.e., most pertinent or relevant) elasticity that should be used from their analysis. From those responses, the working paper found a mean employment elasticity of -0.125 and a median of -0.110 across all studies, and -0.27 (mean) and -0.13 (median) for studies that focused on directly affected workers only.[10] Those elasticities are consistent with this analysis.

A 2019 Congressional Budget Office report examined increasing the U.S. minimum wage from $7.25 to $15 and assumed a median employment elasticity for directly affected workers of -0.269 (adults) and -0.829 (teenagers).[11] While those elasticities are much higher than parameters utilized by this analysis, the current labor market is much different than it was prior to 2019. Due to a contraction of the labor force participation rate and historically low unemployment, some employers may be more reluctant to reduce staff in response to a higher mandatory minimum wage. Moreover, Pennsylvania demographics suggest that the labor market will remain tight, due to a contracting working age cohort (age 20 to 64), which implies lower employment elasticities.

Prior to application of the noted employment elasticities, two caveats are noted. First, prior minimum wage studies were generally based on modest or moderate increases in the statutory minimum wage, such as an increase of $1.00 per hour. There are no relevant studies that examine a proposed immediate increase from an effective market minimum wage of roughly $10 per hour to $15 per hour, an increase of 50% for the lowest paid workers. Second, this analysis disregards geographic location. Employers in urban areas

[10] Neumark, David and Peter Shirley. "Myth or Measurement: What Does the New Minimum Wage Research Say about Minimum Wages and Job Loss in the United States," National Bureau of Economic Research (NBER) Working Paper 28388 (January 2021, revised March 2022).

[11] Congressional Budget Office (CBO). "The Effects on Employment and Family Income of increasing the Federal Minimum Wage," page 25 (July 2019). An updated analysis in February 2021 found similar results. In both studies, CBO found roughly a 7% reduction in directly affected workers from a phase-in to a $15 minimum wage.

such as Philadelphia and Pittsburgh are more likely to pay a minimum wage that approaches $15 per hour due to higher cost of living. Rural and small employers are more likely to be impacted by the proposal.

Table 2.3
Employment After Minimum Wage Increase to $15/hour

	# Jobs (000s)	Avg. Hourly Wage	% Increase in Wage	Elasticity	Job Contraction (000s)	% Contraction	# Higher Wage (000s)
Directly Impacted							
<$10	75	$9.76	53.7%	-0.200	-8	-10.7%	67
$10 - $10.99	98	10.56	42.1	-0.175	-7	-7.4	91
$11 - $11.99	168	11.51	30.4	-0.150	-8	-4.6	160
$12 - $12.99	204	12.54	19.6	-0.125	-5	-2.5	199
$13 - $13.99	198	13.54	10.8	-0.075	-2	-0.8	197
$14 - $14.99	268	14.47	3.7	-0.050	*	-0.2	267
Total[1,2]	**1,011**	**12.68**	**18.3**	**-0.162**	**-30**	**-3.0**	**981**
Indirectly Affected							
$15 - $15.99	251	$15.50	4.0%	0.000	--	--	251
$16 - $16.99	268	16.50	3.0	0.000	--	--	268
$17- $17.99	259	17.49	2.0	0.000	--	--	259
Total[1,2]	**778**	**16.50**	**3.0**	**0.000**	**--**	**--**	**778**
Tipped Workers with Reported Wages (Including Tips)[2]							
<$15/hour	90	$11.32	--	--	--	--	--
$15 - $17.99	17	16.29	--	--	--	--	--

* Rounds to 0.

1 Excludes tipped workers and self-employed.

2 Tipped workers include waiters and waitresses; hosts and hostesses; gambling dealers; hairdressers, hairstylists and cosmetologists; shampooers; and baggage porters and bellhops. The estimated wage is the employer-reported wage with reported tips included. It is likely that their actual wages with non-reported tips are higher.

Source: Total employment and average hourly wages by wage category are January 2024 estimates by IFO based on May 2022 Occupational Employment and Wage Statistics (OEWS) Survey data produced by U.S. Bureau of Labor Statistics (BLS). Elasticities and percentage increase in wages for indirectly affected estimated by IFO.

The projected employment impact is displayed in column five (job contraction) and is equal to: number of jobs (column 1) * percent increase in wage (column 3) * elasticity (column 4). The analysis finds a contraction of 21,000 part-time jobs and 9,000 full-time jobs (part-time/full-time split not shown in table), for an overall contraction of 30,000 (-3.0% of directly affected workers). The proposal disproportionately affects part-time jobs because the data illustrate that nearly 73% of jobs that pay under $12 per hour were part-time. The final two columns display the percentage contraction within each wage group and the number of jobs that receive a wage increase.

One important caveat is that the projected employment contraction would not all occur at the same time or in the same manner. Studies find that some of the negative employment impact may manifest itself as reduced work hours for multiple employees instead of the loss of one job. While some part-time workers might experience layoffs, other firms might simply defer filling vacant positions or not replace workers who

depart or retire. Some studies also find that higher minimum wages can have a material negative impact on certain new entrants to the labor market (i.e., young and lower-skilled workers).

Income and Revenue Impacts

Table 2.4 displays the projected impact on income from the higher minimum wage for affected workers. For ease of calculation and display, the wage groups have been consolidated from prior tables. The analysis assumes all jobs currently earning less than $15 per hour would earn $15 per hour under the proposal. In practice, while there would be some "wage compression" due to the higher minimum wage, employers would likely attempt to maintain some of the wage differentials that were effective prior to the higher minimum. Therefore, the estimates in Table 2.4 could be viewed as a lower bound. However, to the extent those wages are raised above $15.00 per hour, it would also imply a larger negative employment response. Table 2.4 does assume that workers indirectly affected (earn between $15 and $17.99 per hour) would receive a slightly higher wage.

Excluding tipped employment, the minimum wage proposal is projected to increase net after-tax wage income by $3.3 billion. The higher minimum wage and commensurate wage gains are projected to increase net tax revenue collections by $77 million in the first full year (+$82 million in net PIT, -$61 million in corporate net income tax and +$56 million in SUT). (For a more detailed itemization of this computation, see the IFO *Analysis of Revenue Proposals* released in April 2021.)

Table 2.4
Full-Year Impact of Minimum Wage Increase on Total State Wages

Summary	<$11	$11 - $12.99	$13 - $14.99	Sub-total	Indirect. Affected $15 - $17.99	Grand Total
Employment Retained						
Jobs Paid Higher Wage (000s)[1]	157.9	358.6	464.1	980.6	778.3	1,758.8
New Average Hourly Wage	$15.00	$15.00	$15.00	$15.00	$16.99	$15.88
Average Hourly Gain	$4.78	$2.91	$0.92	$2.21	$0.49	$1.45
Typical Workweek Hours[2]	30.1	31.6	33.5	32.3	35.4	33.7
Average Annual Wage Gain per Job	$7,474	$4,787	$1,605	$3,713	$893	$2,534
Gross Annual Income Gain ($ millions)	**$1,180**	**$1,717**	**$745**	**$3,641**	**$695**	**$4,337**
Employment Lost						
Employment Contraction (000s)[1]	-15.3	-12.6	-2.1	-30.0	--	-30.0
Former Average Hourly Wage	$10.14	$11.91	$13.76	$11.14	--	$11.14
Typical Workweek Hours[2]	30.0	31.4	33.2	30.8	--	30.8
Gross Annual Income Loss ($ millions)	**-$242**	**-$246**	**-$50**	**-$538**	**$0**	**-$538**
Total Net Income Change ($ millions)[3]	**$823**	**$1,291**	**$610**	**$2,724**	**$610**	**$3,334**

Notes: Estimates by IFO based on calculation from Table 2.2 and excludes tipped workers.

1 See Table 2.3 for details.

2 The number of hours worked increases as the wage increases because there is a higher concentration of part-time workers within the lower wage groups.

3 Calculation: The difference between Gross Annual Income Gain and Gross Annual Income Loss multiplied by 12.22% in taxes (includes 7.65% in Social Security and Medicare taxes, 3.07% in state income taxes and 1.5% in local wage taxes (varies by local municipality)).