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The Effects on Employment and Family Income of Increasing the Federal Minimum Wage: A Presentation

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William J. Carrington

Microeconomic Studies Division

The Policy Options That CBO Analyzed

Current Policy

- Federal minimum wage of \$7.25 per hour for most workers
- For workers who get tips, “cash” wages paid by employer must equal or exceed \$2.13 per hour, and total wages (including “cash” and tips) must equal or exceed \$7.25 per hour
- Not indexed to inflation in prices or wages

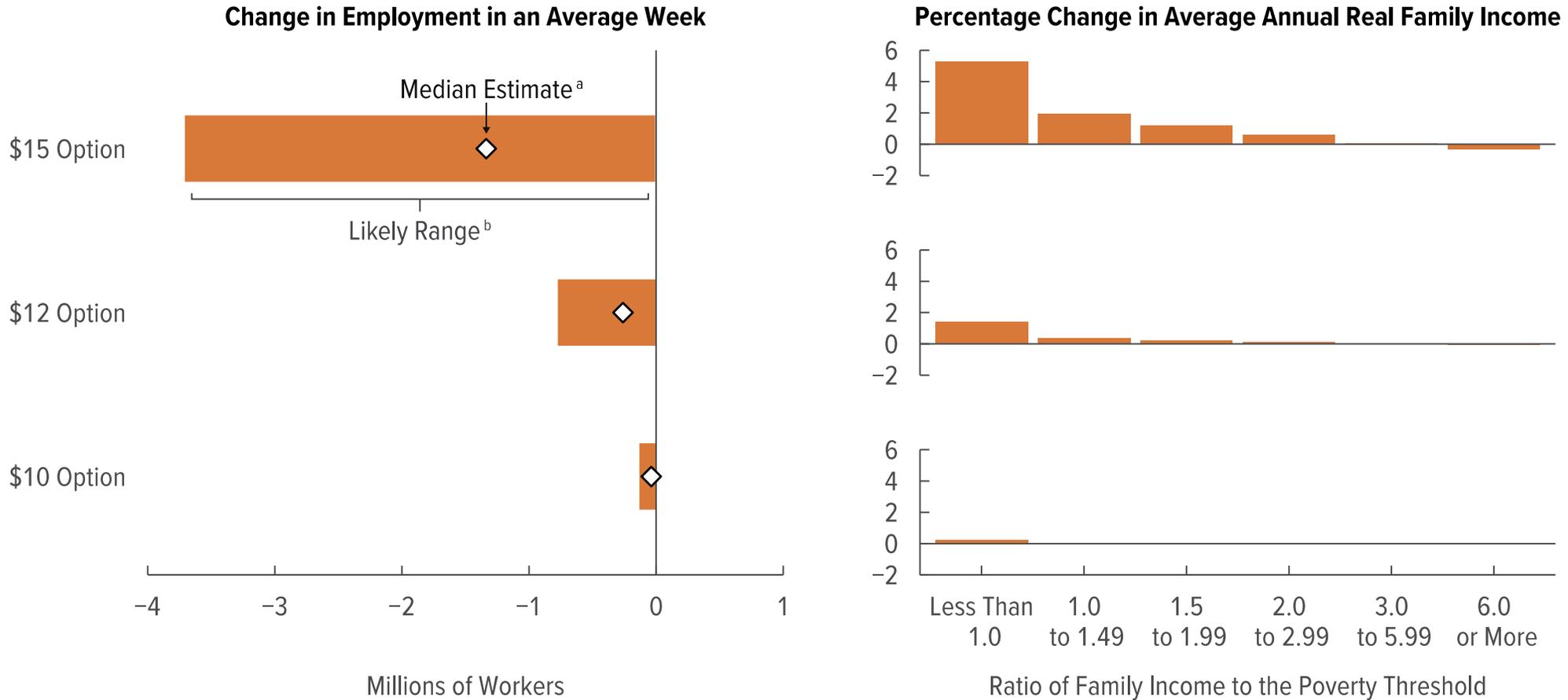
The \$15 Option

- Moves federal minimum wage to \$15 by 2025 in yearly steps
- Indexed thereafter to changes in median hourly earnings
- Cash minimum for workers who get tips gradually moves to the regular minimum wage

The \$12 and \$10 Options

- Moves federal minimum wage to \$12 or \$10 by 2025 in yearly steps
- Not indexed thereafter
- No change for workers who get tips

Effects of Increases in the Federal Minimum Wage on Employment and Family Income, 2025



a. Median estimates are calculated using median values of likely ranges for wage growth and the responsiveness of employment to changes in wages.

b. In CBO's assessment, there is a two-thirds chance that the effect would be within this range.

Current Minimum-Wage Proposals in Historical Context

Workers' Hourly Wages and the Federal Minimum Wage, 1973 to 2029

2018 Dollars



a. The hourly wage of workers who did not report an hourly wage was estimated as their weekly earnings divided by their usual hours worked per week. Values beyond 2018 are projected under current law.

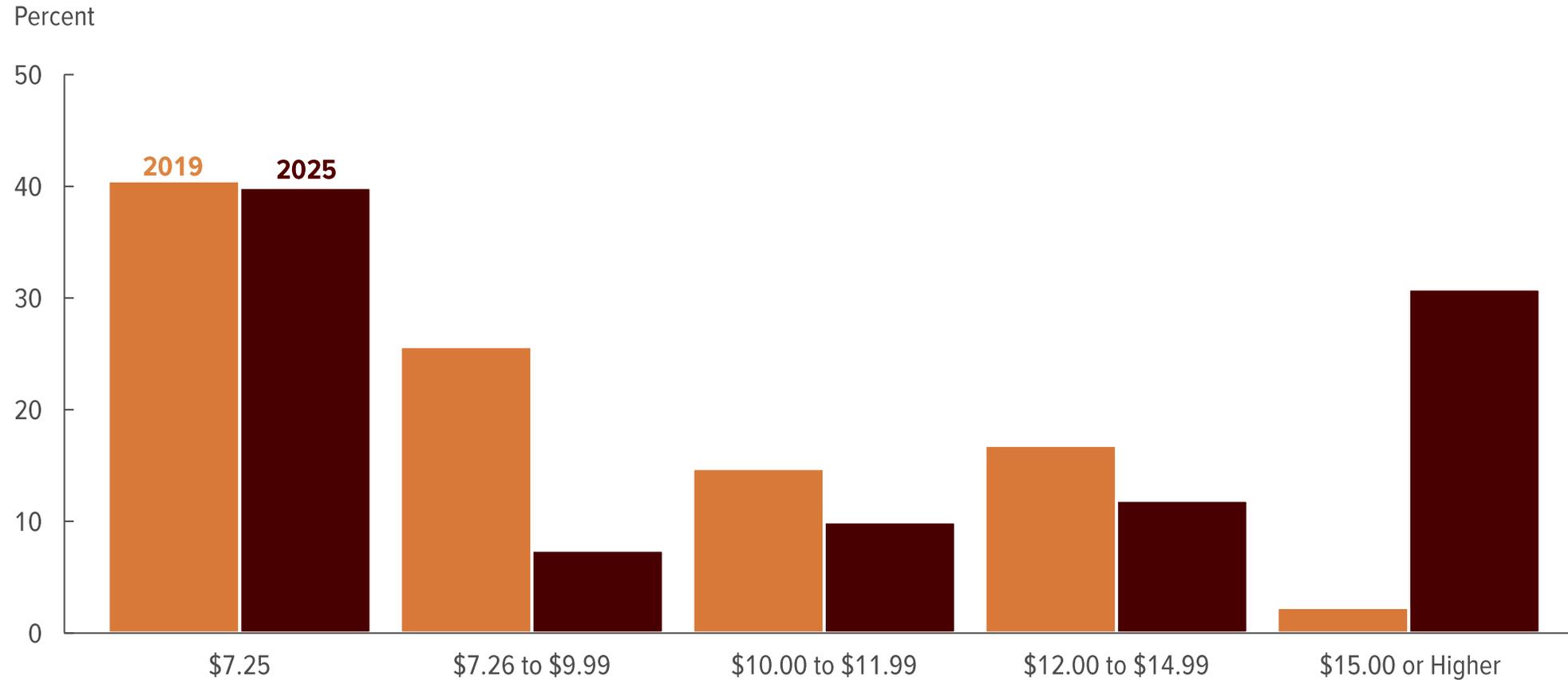
Magnitude of Historical and Proposed Increases in the Federal Minimum Wage

Average Mandated Percentage Increase in Wages for Directly Affected Workers



Characteristics of Low-Wage Workers

Shares of Workers, by States' Applicable Minimum Wage



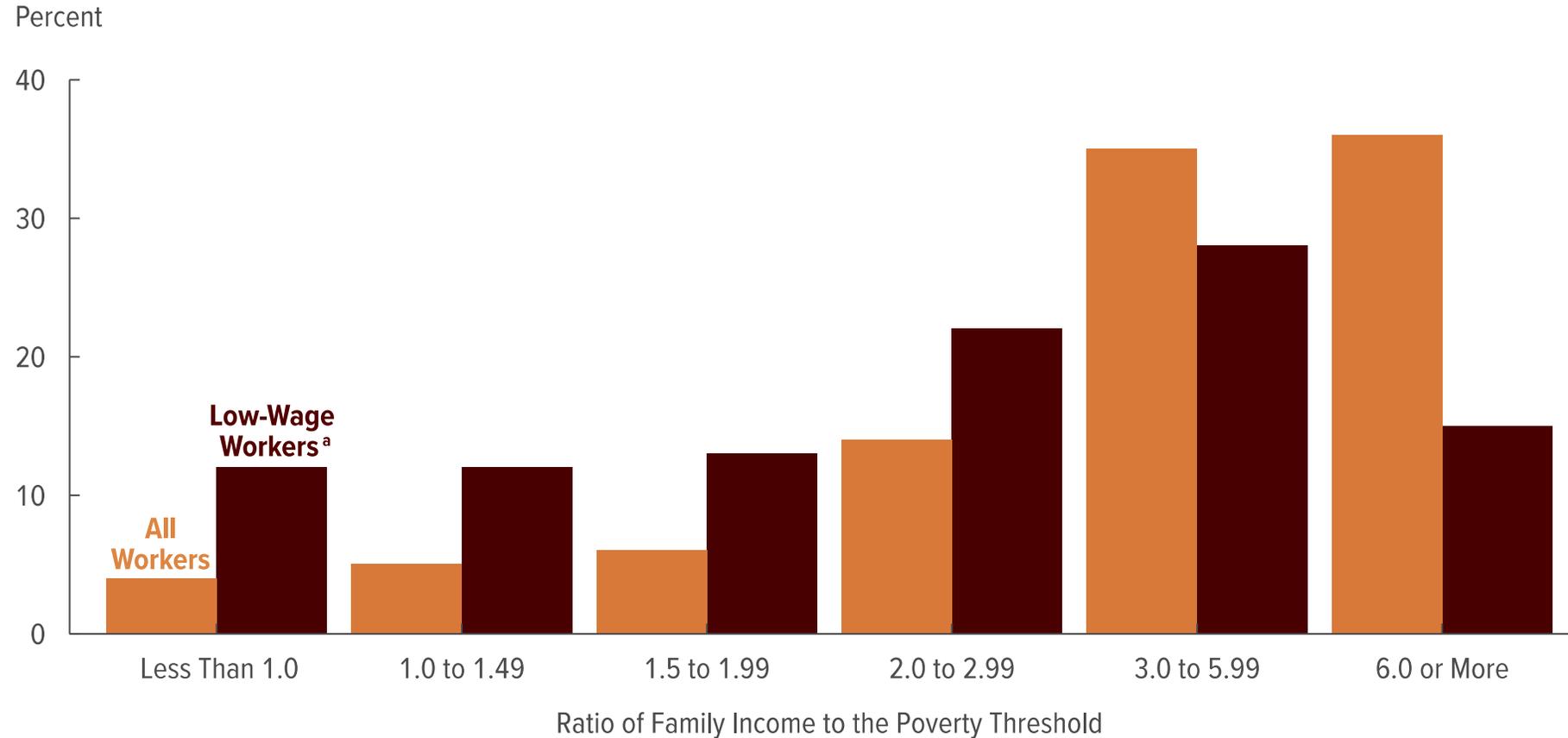
Projected Shares of Low-Wage Workers, by Group, 2025

Group	Percentage Who Are Low-Wage Workers	Percentage of All Low-Wage Workers
Age		
16 to 19	94	10
20 or older	30	<u>90</u>
All	32	100
Sex		
Female	37	56
Male	27	<u>44</u>
All	32	100
Educational Attainment		
Less than high school	69	16
High school diploma or some college	44	71
Bachelor's degree or more	11	<u>13</u>
All	32	100

Projected Shares of Low-Wage Workers, by Group, 2025 (Continued)

Group	Percentage Who Are Low-Wage Workers	Percentage of All Low-Wage Workers
Hours Worked per Week		
Fewer than 35	62	44
35 or more	23	<u>56</u>
All	32	100
Family Income		
Below the poverty threshold	90	12
Between one and three times the poverty threshold	59	46
Three or more times the poverty threshold	19	<u>42</u>
All	31	100

Shares of Workers, by Family Income Group, 2025



a. Low-wage workers are people who are projected, under current law, to be paid less than \$19 per hour.

How the Employment of Affected Workers Responds to Changes in the Minimum Wage

Employment Elasticities for All Directly Affected Workers, by Study

Study	Short-Run Elasticities	Ratio of Long-Run to Short-Run Elasticities
Cengiz and others (2019)	0.4	1.0
Cengiz (2019)	0.3	1.0
Derenoncourt and Montialoux (2018)	0.2	1.0
Bailey, DiNardo, and Stuart (2018)	-0.1	2.0
Aaronson, French, and Sorkin (2018)	-0.2	2.0
Neumark, Schweitzer, and Wascher (2004)	-0.2	n.a.
CBO's Median Estimate	-0.25	1.5
Gopalan and others (2018)	-0.9	n.a.
Monras (2019)	-1.0	1.5
Meer and West (2015)	-1.2	1.7
Jardim and others (May 2018)	-1.7	n.a.
Clemens and Wither (2016)	-1.7	n.a.

Employment Elasticities Estimated by CBO for 2025, by Age Group

	Adults			Teenagers		
	\$15 Option	\$12 Option	\$10 Option	\$15 Option	\$12 Option	\$10 Option
Employment Elasticities for All Workers in an Age Group With Respect to the Change in the Minimum Wage						
Median Estimate	-0.004	-0.004	-0.003	-0.128	-0.111	-0.100
Likely Range ^a						
Low end	*	*	*	*	*	*
High end	-0.013	-0.011	-0.010	-0.255	-0.222	-0.201
Employment Elasticities for Directly Affected Workers in an Age Group With Respect to the Change in Their Own Wage						
Median Estimate	-0.269	-0.234	-0.212	-0.829	-0.721	-0.653
Likely Range ^a						
Low end	*	*	*	*	*	*
High end	-0.806	-0.701	-0.635	-1.658	-1.442	-1.306

* = between -0.0005 and 0.0005.

a. In CBO's estimation, there is a two-thirds chance that the elasticity would be within this range.

Effects of Increases in the Federal Minimum Wage on Employment, 2025

	Option		
	\$15	\$12	\$10
Change in Employment in an Average Week (Millions of workers)			
Median estimate ^a	-1.3	-0.3	*
Likely range ^b			
Low end	*	*	*
High end	-3.7	-0.8	-0.1

* = between -0.05 million and 0.05 million.

a. Median estimates are calculated using median values of likely ranges for wage growth and the responsiveness of employment to changes in wages.

b. In CBO's assessment, there is a two-thirds chance that the effect would be within this range.

Effects of Increases in the Federal Minimum Wage on Employment, by Group, 2025

Group	Option		
	\$15	\$12	\$10
	Change in Employment in an Average Week (Millions of workers)		
All	-1.3	-0.3	*
Age			
16 to 19	-0.6	-0.1	*
20 or older	-0.7	-0.1	*
Sex			
Female	-0.8	-0.2	*
Male	-0.5	-0.1	*
Educational Attainment			
Less than high school	-0.5	-0.1	*
High school diploma or some college	-0.8	-0.1	*
Bachelor's degree or more	-0.1	*	*
Hours Worked per Week			
Fewer than 35	-0.9	-0.2	*
35 or more	-0.4	-0.1	*

* = between -0.05 million and 0.05 million.

How Family Income Responds to Changes in the Minimum Wage

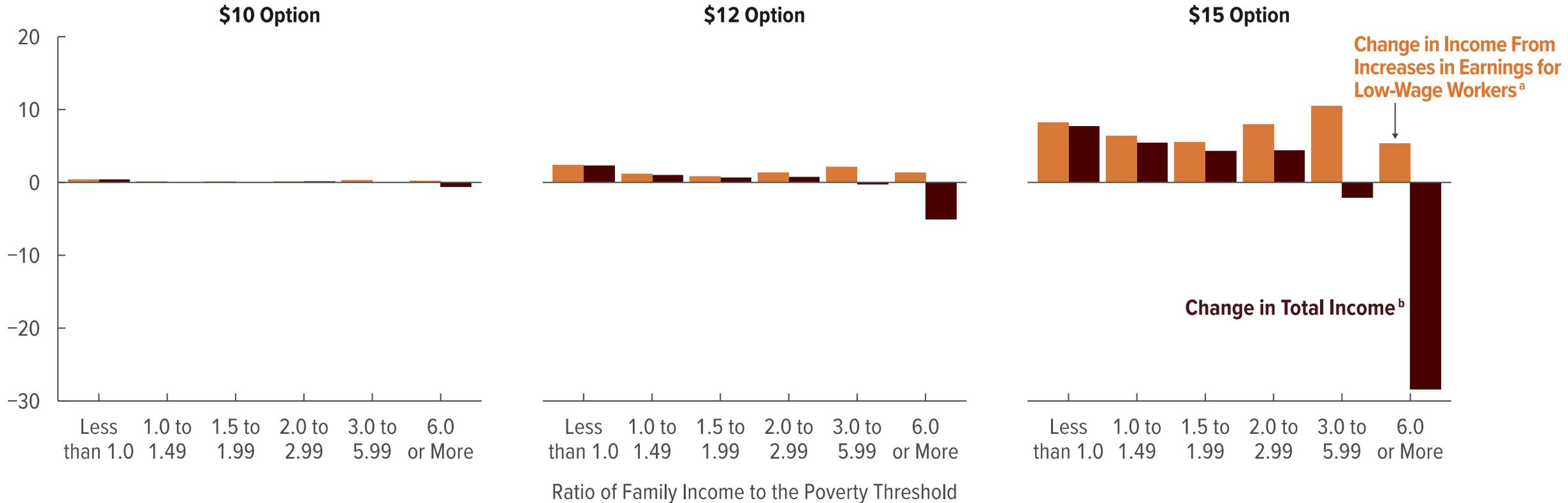
Effects of Increases in the Federal Minimum Wage on Weekly Earnings, by Group, 2025

Group	Option		
	\$15	\$12	\$10
Change in Weekly Earnings Among Directly Affected Workers (Percent)^a			
All	11.8	9.0	5.4
Age			
16 to 19	0.1	4.4	3.6
20 or older	13.6	10.3	6.3
Sex			
Female	12.3	9.0	5.4
Male	11.2	9.1	5.3
Educational Attainment			
Less than high school	9.2	7.3	4.4
High school diploma or some college	12.3	9.6	5.9
Bachelor's degree or more	12.2	9.4	5.9
Hours Worked per Week			
Fewer than 35	11.8	8.8	5.1
35 or more	11.8	9.3	5.9

a. Includes the effect of joblessness.

Effects of Increases in the Federal Minimum Wage on Real Family Income, 2025

Billions of 2018 Dollars



a. Low-wage workers are people who are projected, under current law, to be paid less than \$19 per hour in 2025.

b. Values reflect changes in real (inflation-adjusted) income. Those changes include increases in earnings for workers who would receive a higher wage, decreases in earnings for workers who would become jobless, losses in income for business owners, and decreases in income because of increases in prices.

Effects of Increases in the Federal Minimum Wage on Income, 2025

	Option		
	\$15	\$12	\$10
Number of Workers Who Could See Increases in Their Earnings in an Average Week (Millions)			
Directly affected workers ^a	17.0	5.0	1.5
Potentially affected workers ^b	10.3	6.4	1.9
Change in Real Annual Income			
Families with income below the poverty threshold			
Billions of 2018 dollars	7.7	2.3	0.4
Percentage	5.2	1.6	0.3
Families with income between one and three times the poverty threshold			
Billions of 2018 dollars	14.2	2.3	0.3
Percentage	3.5	0.6	*

* = between -0.05 percent and 0.05 percent; ** = between -0.05 billion and 0.05 billion.

a. Directly affected workers are those whose hourly wage, in the absence of the change in the minimum wage, would range from just below the old minimum to the new, higher minimum. All of those workers would either be jobless or see increases in their earnings in an average week.

b. Potentially affected workers are those whose hourly wages are above the proposed minimum wage—specifically, between the proposed minimum and that amount plus 50 percent of the increase in their applicable minimum wage. Only some of those workers would have increased earnings under the options.

c. Calculated using before-tax family cash income.

Effects of Increases in the Federal Minimum Wage on Income, 2025 (Continued)

	Option		
	\$15	\$12	\$10
Families with income between three and six times the poverty threshold			
Billions of 2018 dollars	-2.2	-0.3	**
Percentage	-0.1	*	*
Families with income more than six times the poverty threshold			
Billions of 2018 dollars	-28.4	-5.0	-0.6
Percentage	-0.3	-0.1	*
All families			
Billions of 2018 dollars	-8.8	-0.7	**
Percentage	-0.1	*	*

* = between -0.05 percent and 0.05 percent; ** = between -0.05 billion and 0.05 billion.

a. Directly affected workers are those whose hourly wage, in the absence of the change in the minimum wage, would range from just below the old minimum to the new, higher minimum. All of those workers would either be jobless or see increases in their earnings in an average week.

b. Potentially affected workers are those whose hourly wages are above the proposed minimum wage—specifically, between the proposed minimum and that amount plus 50 percent of the increase in their applicable minimum wage. Only some of those workers would have increased earnings under the options.

c. Calculated using before-tax family cash income.

Effects of Increases in the Federal Minimum Wage on Average Annual Real Family Income, 2025

Ratio of Family Income to the Poverty Threshold	Average Real Family Income (2018 Dollars)	Change in Average Annual Real Family Income					
		\$15 Option		\$12 Option		\$10 Option	
		Dollars	Percent	Dollars	Percent	Dollars	Percent
Less Than 1.0	10,700	600	5.3	200	1.4	*	0.2
1.0 to 1.49	28,900	600	1.9	100	0.4	*	**
1.5 to 1.99	39,200	500	1.2	100	0.2	*	**
2.0 to 2.99	55,700	300	0.6	100	0.1	*	**
3.0 to 5.99	95,300	*	**	*	**	*	**
6.0 or More	232,800	-700	-0.3	-100	-0.1	*	**

* = between -\$50 and \$50; ** = between -0.05 percent and 0.05 percent.

Effects of Increases in the Federal Minimum Wage on the Number of People in Poverty, by Group, 2025

Group	Option		
	\$15	\$12	\$10
All	-1.3	-0.4	*
Age			
0 to 18	-0.6	-0.1	*
19 to 64	-0.7	-0.2	*
65 or older	*	*	*
Sex			
Female	-0.7	-0.2	*
Male	-0.6	-0.2	*
Educational Attainment			
Less than high school	-0.8	-0.2	*
High school diploma or some college	-0.5	-0.2	*
Bachelor's degree or more	-0.1	*	*
Hours Worked per Week			
Fewer than 35	-0.3	*	*
35 or more	-0.4	-0.2	*
None (Children and nonworking adults)	-0.7	-0.2	*

* = between -0.05 million and 0.05 million.

Related Publications

Congressional Budget Office, *How Increasing the Federal Minimum Wage Could Affect Employment and Family Income* (November 2019), www.cbo.gov/publication/55681.

Interactive tool

Congressional Budget Office, *The Effects on Employment and Family Income of Increasing the Federal Minimum Wage* (July 2019), www.cbo.gov/publication/55410.

Report