

## 4E: Federal Income Taxes

## Group Activity

Separate the tax table page and calculate the values for each household and determine the amount they owe or will be refunded.

Choose the larger of these

<b>2017 Tax Year</b>	Dakota and Avery (no children)	Letitia (2 children)
<b>Filing Status</b>	Married Filing Jointly	Single (Single means she is not claiming her kids on her return, another parent is)
<b>Adjusted Gross Income</b>	\$93,700	\$42,600
<b>Itemized Deductions</b>	\$17,200	\$5,700
<b>Standard Deduction</b>	\$12,700	\$6,350
<b>Personal Exemption for each person claimed</b>	\$4,050 x 2 = \$8,100	\$4,050 x 1 = \$4,050
<b>Taxable Income</b>	$  \begin{array}{r}  \$93,700 \\  -17,200 \\  \hline  -8,100 \\  \hline  = \$68,400  \end{array}  $	$  \begin{array}{r}  \$42,600 \\  -6,350 \\  \hline  -4,050 \\  \hline  = \$32,200  \end{array}  $
<b>Tax from Table</b>	$  \$1,865 + .15(68,400 - 18,650) \\  = \$9,327.50  $	$  \$932.50 + .15(32,200 - 9,325) \\  = \$4,363.75  $
<b>Tax Credits</b>	\$0	\$426
<b>Tax Amount after Credits</b>	$  \$9,327.50 - 0 \\  = \$9,327.50  $	$  \$4,363.75 - 426 \\  = \$3,937.75  $
<b>Federal Taxes Withheld</b>	\$14,570	\$4,230
<b>Federal Tax Owed or Refund</b>	$  \begin{array}{r}  \text{Refund} \\  \$14,570 \\  -\$9,327.50 \\  \hline  = 5,242.50  \end{array}  $	$  \begin{array}{r}  \text{Refund} \\  \$4,230.00 \\  -\$3,937.75 \\  \hline  = \$292.25  \end{array}  $
<b>Effective Rate (Tax amount after credits ÷ taxable income)</b>	$\$9,327.50 / 68,400 = 13.6\%$	$\$3,937.75 / 32,200 = 12.2\%$

Choose the larger of these

<b>2017 Tax Year</b>	Joshua (3 children)	Karalene (no children)
<b>Filing Status</b>	Head of Household	Married Filing Separately
<b>Adjusted Gross Income</b>	\$38,200	\$125,400
<b>Itemized Deductions</b>	\$7,800	\$8,500
<b>Standard Deduction</b>	\$9,350	\$6,350
<b>Personal Exemption for each person claimed</b>	\$4,050 x 4 = \$16,200	\$4,050 x 1 = \$4,050
<b>Taxable Income</b>	$  \begin{array}{r}  \$38,200 \\  -9,350 \\  \hline  -16,200 \\  \hline  = \$12,650  \end{array}  $	$  \begin{array}{r}  \$125,400 \\  -8,500 \\  \hline  -4,050 \\  \hline  = \$112,850  \end{array}  $
<b>Tax from Table</b>	$  \begin{array}{r}  .10(12,650) \\  = \$1,265  \end{array}  $	$  \begin{array}{r}  \$14,876.25 + .28(112,850 - 76,550) \\  = \$25,040.25  \end{array}  $
<b>Tax Credits</b>	\$2,049	\$0
<b>Tax Amount after Credits</b>	$  \begin{array}{r}  \$1,265 - 2,049 \\  = -\$784  \end{array}  $	$  \begin{array}{r}  \$25,040.25 - 0 \\  = \$25,040.25  \end{array}  $
<b>Federal Taxes Withheld</b>	\$3,850	\$23,490
<b>Federal Tax Owed or Refund</b>	$  \begin{array}{r}  \text{Refund} \\  \$3,850 \\  -(-\$784) \\  \hline  = \$4,634  \end{array}  $	$  \begin{array}{r}  \text{Owe} \\  \$25,040.25 \\  -\$23,490.00 \\  \hline  = \$1,550.25  \end{array}  $
<b>Effective Rate (Tax amount after credits ÷ taxable income)</b>	$-\$784/12,650 = -6\%$	$\$25,040.25/112,850 = 22.2\%$

<b>2018 Tax Year</b>	Dakota and Avery (no children)	Letitia (2 children)
<b>Filing Status</b>	Married Filing Jointly	Single (Single means she is not claiming her kids on her return, another parent is)
<b>Adjusted Gross Income</b>	\$93,700	\$42,600
<b>Itemized Deductions</b>	\$17,200	\$5,700
<b>Standard Deduction</b>	<b>\$24,000</b>	<b>\$12,000</b>
<b>Personal Exemption for each person on the return</b>	The personal exemption was removed for 2018	The personal exemption was removed for 2018
<b>Taxable Income</b>	$\begin{array}{r} \$93,700 \\ -24,000 \\ \hline = \$69,700 \end{array}$	$\begin{array}{r} \$42,600 \\ -12,000 \\ \hline = \$30,600 \end{array}$
<b>Tax from Table</b>	$\$1,905 + .12(69,700 - 19,050) = \$7,983$	$\$952.50 + .12(30,600 - 9,525) = \$3,481.50$
<b>Tax Credits</b>	\$0	\$426
<b>Tax Amount after Credits</b>	\$7,983	$\$3,481.50 - 426 = \$3,055.50$
<b>Federal Taxes Withheld</b>	\$14,570	\$4,230
<b>Federal Tax Owed or Refund</b>	$\begin{array}{r} \text{Refund} \\ \$14,570 \\ -\$7,983 \\ \hline = 6,587 \end{array}$	$\begin{array}{r} \text{Refund} \\ \$4,230.00 \\ -\$3,055.50 \\ \hline = \$1,174.50 \end{array}$
<b>Effective Rate (Tax amount after credits ÷ taxable income)</b>	$\$7,983 / 69,700 = 11.5\%$	$\$3,055.50 / 30,600 = 10\%$

<b>2018 Tax Year</b>	Joshua (3 children)	Karalene (no children)
<b>Filing Status</b>	Head of Household	Married Filing Separately
<b>Adjusted Gross Income</b>	\$38,200	\$125,400
<b>Itemized Deductions</b>	\$7,800	\$8,500
<b>Standard Deduction</b>	<b>\$18,000</b>	<b>\$12,000</b>
<b>Personal Exemption for each person on the return</b>	The personal exemption was removed for 2018	The personal exemption was removed for 2018
<b>Taxable Income</b>	$\begin{array}{r} \$38,200 \\ -18,000 \\ \hline = \$20,200 \end{array}$	$\begin{array}{r} \$125,400 \\ -12,000 \\ \hline = \$113,400 \end{array}$
<b>Tax from Table</b>	$\begin{array}{r} \$1360 + .12(20,200-13,600) \\ = \$2,152 \end{array}$	$\begin{array}{r} \$14,089.50 + .24(113,400-82,500) \\ = \$21,505.50 \end{array}$
<b>Tax Credits</b>	\$2,049	\$0
<b>Tax Amount after Credits</b>	$\$2,152 - 2,049 = \$103$	$\$21,505.50$
<b>Federal Taxes Withheld</b>	\$3,850	\$23,490
<b>Federal Tax Owed or Refund</b>	$\begin{array}{r} \text{Refund} \\ \$3,850 \\ -103 \\ \hline = \$3,747 \end{array}$	$\begin{array}{r} \text{Owe} \\ \$21,505.50 \\ -\$23,490.00 \\ \hline = \$1,984.50 \end{array}$
<b>Effective Rate (Tax amount after credits ÷ taxable income)</b>	$\$103 / 20,200 = 0.5\%$	$\$21,505.50 / 113,400 = 19\%$

Below is a portion of the 2017 tax year tax schedule from the form 1040 booklet.

a. Find the tax amount for a single person with a taxable income of \$39,890.

**The taxes from the table would be \$5,708.**

b. Find the tax amount for a married couple filing jointly with a taxable income of \$45,350.

**The taxes from the table would be \$5,874.**

c. Find the tax amount for a single dad filing as head of household with a taxable income of \$42,102.

**The taxes from the table would be \$5,651.**

2017 Tax Table — Continued

If line 43 (taxable income) is—		And you are—				If line 43 (taxable income) is—		And you are—				If line 43 (taxable income) is—		And you are—			
At least	But less than	Single	Married filing jointly *	Married filing separately	Head of a household	At least	But less than	Single	Married filing jointly *	Married filing separately	Head of a household	At least	But less than	Single	Married filing jointly *	Married filing separately	Head of a household
		Your tax is—						Your tax is—						Your tax is—			
<b>39,000</b>						<b>42,000</b>						<b>45,000</b>					
39,000	39,050	5,495	4,921	5,495	5,186	42,000	42,050	6,245	5,371	6,245	5,636	45,000	45,050	6,995	5,821	6,995	6,086
39,050	39,100	5,508	4,929	5,508	5,194	42,050	42,100	6,258	5,379	6,258	5,644	45,050	45,100	7,008	5,829	7,008	6,094
39,100	39,150	5,520	4,936	5,520	5,201	42,100	42,150	6,270	5,386	6,270	5,651	45,100	45,150	7,020	5,836	7,020	6,101
39,150	39,200	5,533	4,944	5,533	5,209	42,150	42,200	6,283	5,394	6,283	5,659	45,150	45,200	7,033	5,844	7,033	6,109
39,200	39,250	5,545	4,951	5,545	5,216	42,200	42,250	6,295	5,401	6,295	5,666	45,200	45,250	7,045	5,851	7,045	6,116
39,250	39,300	5,558	4,959	5,558	5,224	42,250	42,300	6,308	5,409	6,308	5,674	45,250	45,300	7,058	5,859	7,058	6,124
39,300	39,350	5,570	4,966	5,570	5,231	42,300	42,350	6,320	5,416	6,320	5,681	45,300	45,350	7,070	5,866	7,070	6,131
39,350	39,400	5,583	4,974	5,583	5,239	42,350	42,400	6,333	5,424	6,333	5,689	45,350	45,400	7,083	5,874	7,083	6,139
39,400	39,450	5,595	4,981	5,595	5,246	42,400	42,450	6,345	5,431	6,345	5,696	45,400	45,450	7,095	5,881	7,095	6,146
39,450	39,500	5,608	4,989	5,608	5,254	42,450	42,500	6,358	5,439	6,358	5,704	45,450	45,500	7,108	5,889	7,108	6,154
39,500	39,550	5,620	4,996	5,620	5,261	42,500	42,550	6,370	5,446	6,370	5,711	45,500	45,550	7,120	5,896	7,120	6,161
39,550	39,600	5,633	5,004	5,633	5,269	42,550	42,600	6,383	5,454	6,383	5,719	45,550	45,600	7,133	5,904	7,133	6,169
39,600	39,650	5,645	5,011	5,645	5,276	42,600	42,650	6,395	5,461	6,395	5,726	45,600	45,650	7,145	5,911	7,145	6,176
39,650	39,700	5,658	5,019	5,658	5,284	42,650	42,700	6,408	5,469	6,408	5,734	45,650	45,700	7,158	5,919	7,158	6,184
39,700	39,750	5,670	5,026	5,670	5,291	42,700	42,750	6,420	5,476	6,420	5,741	45,700	45,750	7,170	5,926	7,170	6,191
39,750	39,800	5,683	5,034	5,683	5,299	42,750	42,800	6,433	5,484	6,433	5,749	45,750	45,800	7,183	5,934	7,183	6,199
39,800	39,850	5,695	5,041	5,695	5,306	42,800	42,850	6,445	5,491	6,445	5,756	45,800	45,850	7,195	5,941	7,195	6,206
39,850	39,900	5,708	5,049	5,708	5,314	42,850	42,900	6,458	5,499	6,458	5,764	45,850	45,900	7,208	5,949	7,208	6,214
39,900	39,950	5,720	5,056	5,720	5,321	42,900	42,950	6,470	5,506	6,470	5,771	45,900	45,950	7,220	5,956	7,220	6,221
39,950	40,000	5,733	5,064	5,733	5,329	42,950	43,000	6,483	5,514	6,483	5,779	45,950	46,000	7,233	5,964	7,233	6,229
<b>40,000</b>						<b>43,000</b>						<b>46,000</b>					
40,000	40,050	5,745	5,071	5,745	5,336	43,000	43,050	6,495	5,521	6,495	5,786	46,000	46,050	7,245	5,971	7,245	6,236

Here are some scenarios that compare 2017 taxes (labeled “Current Law” below), with the new tax law that takes effect in the 2018 tax year (labeled “Proposed” below).

<https://taxfoundation.org/final-tax-cuts-and-jobs-act-taxpayer-impacts/>

## Impacts of the Tax Cuts and Jobs Act

								
	James	Jason	Amber	Kavya and Nick	Sophie and Chad	Soren and Linnea	Laura and Seth	Joe and Ethan
Ordinary Income	\$30,000	\$52,000	\$75,000	\$85,000	\$165,000	\$325,000	\$2,000,000	\$48,000
Marital Status	Single	Single	Single	Married	Married	Married	Married	Married
Earners	1 earner	1 earner	1 earner	1 earner	2 earners	2 earners	1 earner	Retired
Children	No kids	2 kids	No kids	2 kids	2 kids	3 kids	2 kids	n/a
Tax-Deferred Retirement Contributions	\$2,600	\$4,000	\$5,500	\$5,500	\$20,000	\$37,000	\$18,500	\$0
Itemization	Std. Ded.	Std. Ded.	Std. Ded.	Std. Ded.	Itemizing	Itemizing	Itemizing	Std. Ded.
Current Law	\$4,331	\$5,198	\$16,104	\$11,035	\$29,345	\$71,629	\$713,234	\$3,497
Proposed	\$3,953	\$3,306	\$14,327	\$8,782	\$27,122	\$62,012	\$694,330	\$3,227
Tax Liability Change	-\$379	-\$1,892	-\$1,777	-\$2,254	-\$2,224	-\$9,617	-\$18,904	-\$270
% Tax Liability Change	-9%	-36%	-11%	-20%	-8%	-13%	-3%	-8%
% Change in After Tax Earnings	1.26%	3.64%	2.37%	2.65%	1.35%	2.96%	0.95%	0.56%

Note: Tax burden figures do not include employer-side payroll taxes. These results are for 2018, and do not reflect the expiration of many individual provisions.  
Source: Tax Foundation calculations.

a. Look at the “Tax Liability Change” row. Who saves the most money under the new plan? Who saves the least?

**Laura and Seth save the most money and they make \$2 million. Then Soren and Linnea. The people who save the least are the retired couple.**

b. Look at the “% Tax Liability Change” row. Who saves the largest percentage on their taxes? Who saves the smallest percentage?

**Jason, with 2 kids saves the largest percentage, then Kavya and Nick, then Soren and Linnea. Laura and Seth save the smallest percentage.**