

Section 3

Individual Income Tax Rates, 2016

This section discusses the individual income tax rates and the computation of “total income tax” for 2016. It provides explanations of selected terms and describes the income tax structure, certain tax law changes, income and tax concepts (“modified” taxable income and marginal tax rates), and the computation of “alternative minimum taxable income.”

Income Tax Rates

This part focuses on two distinct tax rates: average tax rates and marginal tax rates. *Average tax rates* are calculated by dividing some measure of tax by some measure of income. For the statistics provided here within, the average tax rate is “total income tax” (see Explanation of Terms section) divided by adjusted gross income (AGI) reported on returns showing income tax liability.

Measures of marginal tax rates focus on determining the tax rate imposed on the last (or next) dollar of income received by a taxpayer. The *marginal tax rate* is the statutory rate at which the last dollar of taxable income received by a taxpayer is taxed. (See Income and Tax Concepts in this section for a more detailed explanation.) Below is a more detailed description of the measurement of average and marginal tax rates and a discussion of the statistics based on these rates for 2016.

Figure A presents statistics for 1986 through 2016 on income (based on each year’s definition of AGI) and taxes reported. These tax years can be partitioned into nine distinct periods:

Tax Year 1986—This was the last year under the Economic Recovery Tax Act of 1981 (ERTA81). The tax bracket boundaries, personal exemptions, and standard deductions were indexed for inflation, and the maximum tax rate was 50 percent.

- 1) **Tax Year 1987**—This was the first year under the Tax Reform Act of 1986 (TRA86). For 1987, a 1-year, transitional, five-rate tax bracket structure was established with a partial phase-in of new provisions that broadened the definition of AGI. The maximum tax rate was 38.5 percent.
- 2) **Tax Years 1988 through 1990**—During this period there was effectively a three-rate tax bracket structure.¹ The phase-in of the provisions of TRA86 continued with a maximum tax rate of 33 percent.
- 3) **Tax Years 1991 and 1992**—These years brought a three-rate tax bracket structure (with a maximum tax rate of 31 percent), a limitation on some itemized deductions, and a phase-out of personal exemptions for some upper-income taxpayers.
- 4) **Tax Years 1993 through 1996**—This period had a five-rate tax bracket structure (with a maximum statutory tax rate of 39.6 percent), a limitation on some itemized deductions, and a phase-out of personal exemptions for some upper-income taxpayers.
- 5) **Tax Years 1997 through 2000**—These years were subject to the Taxpayer Relief Act of 1997, which added three new capital gain tax rates to the previous rate structure to form a new eight-rate tax bracket structure (with a maximum statutory tax rate of 39.6 percent). For a more detailed description of the capital gain rates, see Income and Tax Concepts below.
- 6) **Tax Years 2001 through 2008**—This period was affected mainly by two new laws, the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) and the Jobs and Growth Tax Relief Reconciliation

¹ For Tax Years 1988 through 1990, the tax rate schedules provided only two basic rates: 15 percent and 28 percent. However, taxable income over certain levels was subject to a 33-percent tax rate to phase out the benefit of the 15-percent tax bracket (as compared to the 28-percent rate) and the deduction for personal exemptions. At the taxable income level where these benefits were completely phased out, the tax rate returned to 28 percent.

Figure A. Total Number of Returns, and Selected Income and Tax Items for Taxable Returns, Tax Years 1986–2016

[Money amounts are in billions of dollars, except where indicated]

Tax year	Total number of returns	Taxable returns								
		Number of returns	As a percentage of total returns [1]	Adjusted gross income (less deficit)	Total income tax	Average tax rate (percent) [2],[3]	Average per return (whole dollars) [3]			
							Current dollars		Constant dollars [4]	
							Adjusted gross income (less deficit)	Total income tax	Adjusted gross income (less deficit)	Total income tax
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
Using each tax year's adjusted gross income (less deficit)										
1986	103,045,170	83,967,413	81.5	2,440	367	15.1	29,062	4,374	26,516	3,991
1987	106,996,270	86,723,796	81.1	2,701	369	13.7	31,142	4,257	27,414	3,747
1988	109,708,280	87,135,332	79.4	2,990	413	13.8	34,313	4,738	29,005	4,005
1989	112,135,673	89,178,355	79.5	3,158	433	13.7	35,415	4,855	28,560	3,915
1990	113,717,138	89,862,434	79.0	3,299	447	13.6	36,711	4,976	28,088	3,807
1991	114,730,123	88,733,587	77.3	3,337	448	13.4	37,603	5,054	27,609	3,711
1992	113,604,503	86,731,946	76.3	3,484	476	13.7	40,168	5,491	28,630	3,914
1993	114,601,819	86,435,367	75.4	3,564	503	14.1	41,233	5,817	28,535	4,026
1994	115,943,131	87,619,446	75.6	3,737	535	14.3	42,646	6,104	28,776	4,119
1995	118,218,327	89,252,989	75.5	4,008	588	14.7	44,901	6,593	29,463	4,326
1996	120,351,208	90,929,350	75.6	4,342	658	15.2	47,750	7,239	30,433	4,614
1997	122,421,991	93,471,200	76.4	4,765	731	15.3	50,980	7,824	31,763	4,875
1998	124,770,662	93,047,898	74.6	5,160	789	15.3	55,458	8,475	33,836	5,171
1999	127,075,145	94,546,080	74.4	5,581	877	15.7	59,028	9,280	35,431	5,570
2000	129,373,500	96,817,603	74.8	6,083	981	16.1	62,832	10,129	36,488	5,882
2001	130,255,237	94,763,530	72.8	5,847	888	15.2	61,702	9,370	34,840	5,291
2002	130,076,443	90,963,896	69.9	5,641	797	14.1	62,015	8,762	34,472	4,870
2003	130,423,626	88,921,904	68.2	5,747	748	13.0	64,625	8,412	35,122	4,572
2004	132,226,042	89,101,934	67.4	6,266	832	13.3	70,318	9,337	37,225	4,943
2005	134,372,678	90,593,081	67.4	6,857	935	13.6	75,687	10,319	38,754	5,284
2006	[5] 138,394,754	92,740,927	67.0	7,439	1,024	13.8	80,218	11,041	39,791	5,477
2007	[6] 142,978,806	96,272,958	67.3	8,072	1,116	13.8	83,851	11,588	40,449	5,590
2008	142,450,569	90,660,104	63.6	7,583	1,032	13.6	83,647	11,379	38,851	5,285
2009	140,494,127	81,890,189	58.3	6,778	866	12.8	82,765	10,575	38,579	4,929
2010	142,892,051	84,475,933	59.1	7,246	952	13.1	85,778	11,266	39,338	5,166
2011	145,370,240	91,694,201	63.1	7,693	1,046	13.6	83,901	11,402	37,299	5,069
2012	144,928,472	93,109,721	64.2	8,442	1,188	14.1	90,669	12,759	39,491	5,557
2013	147,351,299	94,532,494	64.2	8,426	1,235	14.7	89,133	13,065	38,261	5,608
2014	148,606,578	96,544,079	65.0	9,103	1,378	15.1	94,285	14,271	39,827	6,028
2015	150,493,263	99,040,729	65.8	9,551	1,458	15.3	96,433	14,720	40,686	6,211
2016	150,272,157	100,052,490	66.6	10,226	1,446	14.1	102,206	14,453	42,584	6,022

[1] Number of taxable returns (column 2) divided by total number of returns (column 1).

[2] Average tax rate is "total income tax" (column 5) divided by "adjusted gross income (less deficit)" (column 4).

[3] The average adjusted gross income (less deficit), average total income tax, and average tax rate were calculated from unrounded data.

[4] Constant dollars were calculated using the U.S. Bureau of Labor Statistics' consumer price index for urban consumers (CPI-U, 1982-84=100). For 2016, the CPI-U = 240.008.

[5] Includes 742,859 Form 1040 EZ-T returns. This form existed for only Tax Year 2006.

[6] The total number of returns does not include the returns filed by individuals only to receive the economic stimulus payment and who had no other reason to file.

SOURCE: IRS, Statistics of Income Division, Publication 1304, August 2018.

Act of 2003 (JGTRRA). EGTRRA included a new 10-percent tax rate bracket, as well as reductions in tax rates for brackets higher than 15 percent of one-half percentage point for 2001 and 1 percentage point for 2002. It also included increases in the child tax credit and an increase in alternative minimum tax exemptions. Under JGTRRA, Tax Year 2003 saw additional rate reductions (accelerations of EGTRRA's phased-in reductions) in ordinary marginal tax rates higher than the 15-percent rate, as well as expansions to particular income thresholds in the rates from 15 percent and below. The rate for most long-term capital gains was reduced from 20 percent to 15 percent; further, qualified dividends were taxed at this same 15-percent rate. Beginning in 2004, the Working Families Tax Relief Act increased the additional child tax credit

refundable rate from 10 percent to 15 percent. Under EGTRRA, beginning in 2006, the complete phase-out of personal exemptions and the limitation on some itemized deductions for upper-income taxpayers were modified to limit the maximum phase-out to two-thirds of both the exemption amount and the itemized deduction limitation amount. For 2008, the limit was changed to one-third.

- 7) Tax Years 2009 through 2012—Beginning in 2009, the American Recovery and Reinvestment Act (ARRA) temporarily increased the earned income credit by modifying calculations on qualifying earned income amounts and phase-out ranges. The Act increased eligibility for receiving the refundable portion of the child tax credit for 2009 and 2010 by lowering the

earned income floor from \$8,500 to \$3,000. For 2009 and 2010 the ARRA provided an American opportunity tax credit of up to \$2,500 per student of the cost of tuition and related expenses. For those same years, ARRA also included other selected major individual income tax provisions: a temporary refundable first-time homebuyers credit of up to \$8,000, which expired July 31, 2011; a temporary suspension of Federal income tax on the first \$2,400 of unemployment compensation for 2009; an additional deduction for State sales and excise taxes on the purchase of certain motor vehicles; a \$250 credit for certain government retirees; an aggregate cap of \$1,500 on residential energy credits for 2009 and 2010; and a 2-year making-work-pay refundable tax credit of up to \$400 for working individuals and \$800 for working families. For 2011, the Tax Relief and Job Creation Act (TRJCA) of 2010 continued both the American Opportunity credit and increased eligibility for receiving the refundable portion of the child tax credit. At the same time, TRJCA reduced the maximum amount for residential energy credits from \$1,500 to a lifetime limit of \$500. The other provisions of the ARRA cited above have been eliminated for 2011 and beyond.

- 8) Tax Years 2013 through 2016—Beginning in 2013, a new tax law reinstated the top tax bracket of 39.6 percent. The 15-percent maximum tax rate on net capital gain and qualified dividends increased to 20 percent for certain high taxable income taxpayers. Additionally, in this period a new net investment income tax was created. Taxpayers paid a net investment income tax of 3.8 percent on the smaller of (a) net investment income or (b) the excess of the taxpayer's modified adjusted gross income over \$125,000 for married filing separately filers, \$250,000 for married filing jointly filers, and \$200,000 for single taxpayers or heads of household.

Marginal Tax Rate Classifications

A return's marginal tax rate is the highest statutory tax rate bracket applicable to that tax return. The marginal tax rate statistics presented in this publication are based on all individual income tax returns, as well as returns that show a positive taxable income amount based on "tax generated" (see Explanation of Terms section) and items of income that were subject to the regular income tax, generally those included in AGI (Figure B, Table 3.4).^{2,3} Income and Tax Concepts (below) provides an

example showing how different portions of taxable income are taxed at different rates and explains the determination of the marginal tax rate bracket into which a return is assumed to fall. Table 3.5 contains additional data based on ordinary tax rates and presents statistics on the income and tax generated at each ordinary tax rate by size of AGI.

Figure B presents the amounts and percentages of modified taxable income and income tax generated (before alternative minimum tax and reduction by tax credits, including the earned income credit) by the marginal tax rate categories (defined in Income and Tax Concepts, below).

Returns in the "15-percent" (ordinary income) marginal tax rate bracket made up the largest share of returns for 2016 (29.4 percent). These returns reported 18.6 percent of modified taxable income for 2016 and generated 11.9 percent of income tax (before credits and excluding the AMT). Conversely, taxpayers' highest "39.6-percent" (ordinary income) marginal rate accounted for only 0.7 percent of returns but reported 18.5 percent of the modified taxable income and 30.4 percent of the tax generated (the largest of any tax bracket). The "0-percent" (ordinary income) marginal rate bracket had the second largest share of returns at 23.1 percent. These returns had no modified taxable income and consequently generated zero tax dollars. The "10-percent" (ordinary income) marginal rate bracket reported the third largest share of returns at 18 percent. However, such returns accounted for only 2.3 percent of modified income and 1.1 percent of income tax generated. With a 17.5-percent share of returns, the "25-percent" (ordinary income) marginal rate bracket reported the largest percentage (29.4) of total modified taxable income and second highest percentage of income tax generated (24.9). Returns in the "28-percent" (ordinary income) marginal rate bracket represented only 3.6 percent of the total share of returns, and accounted for 12.1 percent of the modified taxable income and 12.7 percent of generated income tax. Returns in the "33-percent" (ordinary income) marginal rate bracket represented only 1.4 percent of returns, but accounted for 8.9 percent of the modified taxable income and 10.9 percent of the tax generated. Returns in the "35-percent" (ordinary income) marginal rate bracket represented the smallest share of ordinary tax rate returns at 0.1 percent, and accounted for 1.3 percent of the modified taxable income and 1.8 percent of the tax generated. Returns in the capital gain and dividends 0-percent, 15-percent, 20-percent, 25-percent, and 28-percent tax brackets represented 5.9 percent of returns and reported a total of 8.7 percent of modified taxable income and 6.2 percent of the tax.

² Marginal tax rate as cited in this article is the highest statutory rate on taxable income. It includes ordinary tax rates and capital gains tax rates. This concept does not include the effects of AMT, net investment tax, or tax credits.

³ Tax generated does not include certain other taxes reported on the individual income tax return, such as self-employment tax (the Social Security and Medicare tax on income from self-employment); the Social Security tax on certain tip income; household employment taxes; tax from the recapture of prior-year investment, low-income housing, or other credits; penalty tax applicable to early withdrawals from an individual retirement arrangement (IRA) or other qualified retirement plans; and tax on trusts, accumulation, and distributions. The statistics for "total tax liability," shown in Table 3.3, include these taxes.

Figure B. All Returns: Tax Generated at All Rates on Returns with the Indicated Marginal Tax Rate, Tax Years 2015 and 2016

[Money amounts are in thousands of dollars]

Marginal tax rate classes [1]	Number of returns		Modified taxable income [2]		Tax generated	
	Number	Percent of total	Amount	Percent of total	Amount	Percent of total
	(1)	(2)	(3)	(4)	(5)	(6)
Tax Year 2016						
All tax rates	150,272,157	100.0	7,330,698,852	100.0	1,470,665,532	100.0
0 percent	34,769,282	23.1	0	0.0	0	0.0
0 percent (capital gains)	906,588	0.6	8,365,866	0.1	0	0.0
10 percent	27,090,135	18.0	170,948,932	2.3	16,133,685	1.1
10 percent (Form 8814) [3]	1,252	[4]	3,920	[4]	195	[4]
15 percent	44,228,318	29.4	1,364,893,117	18.6	175,649,166	11.9
15 percent (capital gains) [5]	7,540,254	5.0	389,248,564	5.3	45,495,578	3.1
20 percent (capital gains) [5]	53,492	[4]	164,811,905	2.2	31,325,043	2.1
25 percent	26,305,749	17.5	2,151,687,693	29.4	366,272,084	24.9
25 percent (capital gains)	396,637	0.3	70,320,890	1.0	12,541,993	0.9
28 percent	5,381,785	3.6	889,344,280	12.1	187,446,393	12.7
28 percent (capital gains)	16,313	[4]	6,239,437	0.1	1,321,641	0.1
33 percent	2,089,734	1.4	654,324,627	8.9	160,649,622	10.9
35 percent	210,110	0.1	98,729,577	1.3	26,501,228	1.8
39.6 percent	1,017,009	0.7	1,358,020,521	18.5	446,515,296	30.4
Form 8615 [6]	265,500	0.2	3,759,522	0.1	813,606	0.1
Tax Year 2015						
All tax rates	150,494,271	100.0	7,352,216,671	100.0	1,482,757,584	100.0
0 percent	35,634,760	23.7	0	0.0	0	0.0
0 percent (capital gains)	988,488	0.7	9,053,292	0.1	0	0.0
10 percent	27,388,292	18.2	172,051,761	2.3	16,119,726	1.1
10 percent (Form 8814) [3]	8,348	[4]	28,804	[4]	1,654	[4]
15 percent	43,633,721	29.0	1,343,687,510	18.3	172,916,378	11.7
15 percent (capital gains) [5]	7,734,073	5.1	403,566,160	5.5	46,925,763	3.2
20 percent (capital gains) [5]	61,706	[4]	180,708,899	2.5	34,311,572	2.3
25 percent	25,858,585	17.2	2,119,271,992	28.8	360,341,545	24.3
25 percent (capital gains)	315,481	0.2	63,584,136	0.9	11,460,964	0.8
28 percent	5,303,948	3.5	878,811,659	12.0	184,940,984	12.5
28 percent (capital gains)	13,610	[4]	7,679,602	0.1	1,682,480	0.1
33 percent	2,005,840	1.3	631,469,388	8.6	154,687,424	10.4
35 percent	205,676	0.1	98,172,917	1.3	26,176,085	1.8
39.6 percent	1,026,445	0.7	1,439,032,486	19.6	472,161,104	31.8
Form 8615 [6]	315,298	0.2	5,098,064	0.1	1,031,906	0.1

[1] For explanation of marginal tax rate, see Income and Tax Concepts, below.

[2] More information about modified taxable income is provided below under Income and Tax Concepts.

[3] Form 8814 was filed for a dependent child, meeting certain age requirements, for whom the parents made an election to report the child's investment income on the parents' tax return. This rate classification is comprised of those returns with a tax liability only from the dependent's income.

[4] Less than 0.05 percent.

[5] The 15 and 20 percent capital gains rates also include qualified dividends.

[6] Form 8615 was filed for a child meeting certain age requirements, to report the child's investment income. The returns in this category are not distributed by tax rate.

NOTE: Detail may not add to totals because of rounding.

SOURCE: IRS, Statistics of Income Division, Publication 1304, August 2018.

Components of Total Income Tax

Regular Tax

Regular tax is generally tax determined from a taxpayer's taxable income based on statutory tax rates. It does not include the alternative minimum tax (AMT), nor does it exclude allowable tax credits. Figure C illustrates the derivation of the aggregate tax generated for 2015 and 2016 returns. Table 3.4 includes two tax amounts: "tax generated" and "income tax after credits." Figure A includes an additional measure of tax, "total income tax," which also includes distributed tax on trust accumulations and the net investment income tax.

In 2016, the tax generated by applying statutory ordinary income and capital gain tax rates to modified taxable income

was \$1.47 trillion, a 0.8-percent decrease from 2015 (Figure C and column 5 of Table 3.4). For most taxpayers, tax generated was equal to income tax before credits. However, for some taxpayers, income tax before credits included the AMT, an excess advance premium tax credit repayment, and/or special taxes on lump-sum distributions from qualified retirement plans (when a 10-year averaging method was used) (see Alternative Minimum Tax, below, for explanation).⁴

For returns with modified taxable income, Table 3.1 shows estimates of income tax before credits by type of tax computation. It compares the amount of tax before credits—assuming that all taxable income is subject to regular tax rates—with the amount of tax before credits actually computed after reflecting

⁴ The income amounts on which these special computations for lump-sum distributions were based were not reflected in current-year AGI or current-year taxable income.

Figure C. Derivation of Total Income Tax as Shown in Statistics of Income Data, Tax Years 2015 and

[Money amounts are in billions of dollars]

Item	2015	2016	Percentage change
	(1)	(2)	(3)
Tax generated from tax rate schedules or tax table	1,482.8	1,470.7	-0.8
PLUS:			
Tax on lump-sum distributions from qualified retirement plans	[1]	[1]	[2]
Alternative minimum tax	31.2	31.0	-0.5
Excess advance premium tax credit repayment	2.7	3.1	16.6
EQUALS:			
Income tax before credits	1,516.2	1,504.9	-0.7
LESS: Tax credits, total [3]	77.9	75.4	-3.3
Child-care credit	3.6	3.6	1.4
Child tax credit [3]	27.1	26.8	-1.1
Nonrefundable education credit	10.2	9.7	-5.7
Foreign tax credit	22.6	20.1	-10.9
General business credit	3.6	4.1	14.2
Earned income credit (limited to the amount needed to reduce total income tax to zero)	1.5	1.4	-5.8
Credit for prior-year minimum tax	1.0	0.9	-6.8
Retirement savings contribution credit	1.4	1.5	6.6
Other credits [4]	6.9	7.2	4.3
EQUALS:			
Income tax after credits [5]	1,435.8	1,426.6	-0.6
PLUS:			
Trusts accumulation distribution (Form 4970)	[1]	[1]	[2]
Net investment income tax	22.0	19.5	-11.8
EQUALS:			
Total income tax	1,457.9	1,446.0	-0.8
LESS: Refundable credits [6]	99.7	101.9	2.3
Total income tax minus refundable credits [5]	1,358.2	1,344.1	-1.0

[1] Less than \$0.05 billion.

[2] Percentage not computed.

[3] Does not include the additional child tax credit. For 2016 it was \$25.4 billion which was refunded to taxpayers and not included in total income tax.

[4] Includes credits listed separately in Table 3.3 of Publication 1304.

[5] Does not include excess advance premium tax credit repayment amount.

[6] Includes credits used to offset other taxes.

NOTE: Detail may not add to totals because of rounding.

SOURCE: IRS, Statistics of Income Division, Publication 1304, August 2018.

both regular tax rates and any special tax computations that the taxpayer is either permitted or required to make. In particular, qualified dividends and long-term capital gains are generally subject to lower tax rates, and certain dependent tax filers are required to compute their tax as if their income were the marginal income of their parents or guardian.⁵ The capital gain computations generally reduce taxes; the special provision for certain dependent filers can only increase taxes.

For 2016, some 92.6 million returns had their tax before credits computed using only regular income tax rates; this was an increase of 1.2 percent over the 91.5 million for 2015 that used only regular tax computations. The top portion of Table 3.1 shows the data for these returns. Since these returns did not use any special tax computations, the difference due to special computation (shown in columns 4 and 8) is zero.

As shown in the bottom portion of Table 3.1, for 2016, the tax liability for 22.7 million returns decreased by Schedule

D (capital gains) and dividend tax computations. Taxpayers filing these tax returns paid \$118.0 billion (column 8) less in tax before credits than they would have paid if they had not received the benefits of the lower tax rates for qualified dividends and capital gains. For these taxpayers, the average tax savings was \$5,206.

As shown in the middle portion of Table 3.1, for 2016, the number of tax returns filed by dependents under age 18 (or under 24 for full-time students) with Form 8615, *Tax for Certain Children Who Have Unearned Income*, for reporting investment income greater than \$2,100 was 0.3 million. Form 8615 was used to compute the dependents' tax as if the dependents' income was the marginal income of the parent or guardian. This mandatory calculation can result in no change or an increase in tax before credits; it cannot lower the dependent's tax before credits. Thus, for Form 8615 filers, the difference in tax before credits due to special computations (column 8)

⁵ Dependents with income over \$2,100 other than earned income could file their own returns but were required to calculate their tax on other than earned income in excess of \$2,100, as if it were their parent's or guardian's marginal income. Form 8615 was used to compute the higher tax. For dependents with only modest amounts of investment income (less than \$10,500), the parent or guardian could elect to include the dependent's income on the parent's tax return and fill out Form 8814 for the dependent's income, relieving the dependent of having to file his or her own tax return.

reflects the combination of the lower tax from use of the special tax rates for dividends and capital gains and the possibly higher tax from the required Form 8615 tax computation. The combination of the two offsetting provisions increased taxes by \$41.6 million for 2016. As shown in Table 3.1A, the net tax increase was due to a tax reduction of \$205.7 million from use of dividend and capital gains, and a tax increase of \$247.3 million from the Form 8615 tax computation.

Alternative Minimum Tax

The Revenue Act of 1978 established the alternative minimum tax (AMT) to ensure that taxpayers who might otherwise be able to legally reduce or eliminate their tax burdens, paid a minimum amount of income tax. The AMT provisions may

recapture some of the tax reductions under the ordinary income tax. Form 6251, *Alternative Minimum Tax—Individuals*, is used to calculate AMT. (See Computation of Alternative Minimum Taxable Income, below, for an explanation of the computation of income for AMT purposes.)

Some taxpayers included, or were required to include, Form 6251 with their individual income tax returns, even though their tax liability was not increased due to the AMT (Figure D). For 2016, AMT liability decreased 0.5 percent to \$31 billion, from \$31.2 billion in 2015. The number of returns subject to paying the AMT increased by 0.2 million for the period.⁶ Alternative minimum taxable income (AMTI) for all returns filing a Form 6251 decreased 2.2 percent to \$2.8 trillion for 2016.

Figure D. Returns with Alternative Minimum Tax Computation Reported on Form 6251: Total Adjustments and Preferences, and Alternative Minimum Taxable Income and Tax, by Size of Adjusted Gross Income, Tax Years 2015 and 2016

[Money amounts are in thousands of dollars]

Size of adjusted gross income	Total AMT adjustments and preferences [1]		Alternative minimum taxable income [1]		Alternative minimum tax	
	Number of returns	Amount	Number of returns	Amount	Number of returns	Amount
	(1)	(2)	(3)	(4)	(5)	(6)
Tax Year 2016						
All returns	8,585,850	280,246,849	10,209,764	2,756,729,838	4,634,301	31,016,377
Under \$1 [2]	147,466	4,081,058	191,142	-21,087,029	6,636	152,121
\$1 under \$10,000	128,257	347,593	418,580	1,550,479	50	865
\$10,000 under \$20,000	157,968	693,142	348,667	4,273,377	8,226	6,651
\$20,000 under \$30,000	148,444	680,795	302,126	6,323,291	4,415	8,163
\$30,000 under \$40,000	186,428	1,006,168	329,470	10,057,433	2,419	18,739
\$40,000 under \$50,000	175,185	1,042,344	299,906	11,950,574	2,597	4,835
\$50,000 under \$75,000	562,664	5,013,950	795,482	44,914,798	41,640	80,448
\$75,000 under \$100,000	591,785	6,125,104	750,320	60,088,016	69,550	86,275
\$100,000 under \$200,000	1,937,606	35,980,304	2,118,303	284,231,086	684,765	1,624,983
\$200,000 under \$500,000	3,686,093	105,103,761	3,769,755	1,076,157,429	3,312,722	16,948,193
\$500,000 under \$1,000,000	608,338	36,566,926	623,240	381,955,135	421,262	5,367,526
\$1,000,000 or more	255,616	83,605,704	262,774	896,315,250	80,016	6,717,578
Tax Year 2015						
All returns	8,561,635	280,017,652	10,295,679	2,820,017,174	4,467,806	31,165,616
Under \$1 [2]	158,145	4,276,991	197,511	-17,989,851	7,177	263,639
\$1 under \$10,000	115,125	440,733	431,163	1,662,236	2,178	10,093
\$10,000 under \$20,000	187,219	641,964	414,905	5,143,371	2,048	2,272
\$20,000 under \$30,000	184,017	975,283	363,409	7,876,346	3,685	13,648
\$30,000 under \$40,000	174,220	852,599	318,687	9,851,047	3,577	9,877
\$40,000 under \$50,000	198,836	1,016,792	342,210	14,029,212	2,279	10,880
\$50,000 under \$75,000	556,648	4,723,744	797,565	45,536,347	33,879	51,299
\$75,000 under \$100,000	635,629	6,517,071	776,831	60,646,628	83,418	115,377
\$100,000 under \$200,000	1,909,962	33,996,517	2,101,445	281,975,815	617,682	1,490,373
\$200,000 under \$500,000	3,579,418	102,271,485	3,665,942	1,050,031,998	3,220,348	16,510,191
\$500,000 under \$1,000,000	594,847	36,276,113	610,656	379,190,669	407,046	5,414,951
\$1,000,000 or more	267,569	88,028,361	275,357	982,063,357	84,489	7,273,017

[1] See Figures F and G for the calculation of alternative minimum taxable income and the list of alternative minimum tax adjustments and preferences. See also Form 6251, *Alternative Minimum Tax—Individuals*.

[2] Includes returns with adjusted gross deficit.

NOTE: Detail may not add to totals because of rounding.

SOURCE: IRS, Statistics of Income Division, Publication 1304, August 2018.

⁶ Other tax returns may not have had AMT liability, but the size of their tax credits, for example their general business credits, may have been reduced because of the AMT.

Net Investment Tax

In 2013, the Affordable Care Act created a new net investment income tax. Taxpayers paid a net investment income tax of 3.8 percent on the smaller of (a) net investment income or (b) the excess of the taxpayer's modified adjusted gross income over \$125,000 for married filing separately filers, \$250,000 for married filing jointly filers, and \$200,000 for single filers or heads of household. For 2016, the net investment income tax totaled \$19.5 billion dollars and was taken on 3.9 million returns.

Income Tax Structure

Taxpayers must file an income tax return if they meet certain minimum filing requirements. The filing requirements for 2016 were generally based on the amount of "gross income," filing status, age, dependency, and blindness (see Introduction and Changes in Law, section 1). Generally, the minimum level of income for which a return was required to be filed equaled the sum of the standard deduction for the particular filing status and the amount of the personal exemption deduction allowed for the taxpayer or taxpayers (but not for any dependents). In addition to the general filing requirements, individuals were required to file a return for Tax Year 2016 if they had net earnings from self-employment of at least \$400; liability for Social Security or Medicare tax on unreported tip income; Social Security, Medicare, or Railroad Retirement tax on reported tip income or group-term life insurance; "alternative minimum tax"; tax on qualified retirement plan distributions, including an individual retirement arrangement (IRA) or a medical savings account (MSA); tax on the recapture of investment credit, education credit, low-income housing credit, or a few other business credits; recapture tax on the disposition of a home purchased with a Federally subsidized mortgage; wages of \$108.28 or more from a church or qualified church-controlled organization that was exempt from Social Security taxes; or had advance payments of the premium tax credit made for the taxpayer, their spouse, or a dependent who enrolled in coverage through the Health Insurance Marketplace.

Gross income includes all income received as money, goods, property, or services that was not expressly exempt from tax.⁷ Adjusted gross income (AGI) is equal to gross income less deductions for certain expenses. "Taxable income," the base on which income tax before credits is computed, equals AGI less the amount for personal exemptions and less either total allowable itemized deductions for taxpayers who itemize deductions or the standard deduction (including the additional amounts for age and blindness) for all other taxpayers. Income

tax before credits is calculated from taxable income using: tax tables or tax rate schedules, both of which vary with taxpayer filing status (single, married filing jointly, surviving spouse, married filing separately, and head of household); Form 8615 or Form 8814 for children's investment income; Schedule J for farmers and fishermen to income-average; foreign-earned income worksheet; Schedule D and Qualified Dividends worksheet for net long-term capital gains and qualified dividends; or some combination of the above (see Explanation of Terms for definitions for above items). For 2016, the tax rates for each filing status were 0 percent, 10 percent, 15 percent, 25 percent, 26 percent, 28 percent, 33 percent, 35 percent, and a top tax of 39.6 percent. The tax rates of 0 percent, 15 percent, 20 percent, 25 percent, and 28 percent were used for qualified dividends and net long-term capital gains (in excess of net short-term capital losses), as well as ordinary income. The 26-percent tax rate was only for the alternative minimum tax. Income tax before credits includes any alternative minimum tax.⁸

To calculate their Federal income tax liability for 2016, taxpayers used either the tax table or the tax rate schedules. Taxpayers with taxable income less than \$100,000 were required to use the tax table, whereas those with taxable income of \$100,000 or more were required to use the tax rate schedules. The tax table was based on income tax "brackets" up to \$50 wide.⁹ The tax within each bracket was based on the tax calculated at the midpoint of the bracket and then rounded to the nearest whole dollar. As a result, the tax tables and the tax rate schedules could produce different amounts of tax for the same amount of taxable income. Use of the tax tables could have produced either a slightly higher or lower amount of tax than that produced by the tax rate schedules.

Income and Tax Concepts

As discussed in Income Tax Structure above, gross income is all income received that is not specifically excluded. Total income is the net amount of gross income after certain expenses (e.g., business or rent and royalty expenses) have been deducted. Adjusted gross income (AGI) is total income less statutory adjustments to income (e.g., deductible contributions to an IRA or Keogh plan).

Modified Taxable Income

This concept is relevant only for "prior-year returns" (about 4.0 million returns), certain farm sole proprietor returns using income-averaging on Schedule J, *Income Averaging for Farmers and Fishermen* (about 60,000 returns), those returns with

⁷ As defined under section 61 of the Internal Revenue Code, gross income includes amounts from wages and salaries, interest and dividends, alimony, bartering income, canceled debt income, gambling winnings, rents and royalties, and gains from property sales or exchanges, as well as gross income from sole proprietorships and farming, income from partnerships and S corporations, and distributions from estates and trusts. This definition of gross income is slightly different from that of Form 1040, *U.S. Individual Income Tax Return*, and the concept of "total income," which is a component of the adjusted gross income (AGI) calculation on Form 1040. Total income includes net amounts rather than gross amounts (income prior to deductions) from such items as business income and rents and royalties.

⁸ Income tax before credits includes tax on lump-sum distributions from qualified retirement plans and excess advance premium tax credit repayment.

⁹ For taxable income between \$0 and \$5 and between \$5 and \$25, the tax brackets were \$5 and \$10 wide, respectively. For taxable income between \$25 and \$3,000, the brackets were \$25 wide. For taxable income above \$3,000, the brackets were \$50 wide.

foreign-earned income having to use a worksheet to determine their taxes (about 176,000 returns), or returns with Form 962 election for domestic shareholder of foreign controlled corporations (about 2,000 returns). For all other returns, modified taxable income is identical to taxable income.

This is the term used in the statistics to describe “income subject to tax,” the actual base on which tax is computed. Each year, a small number of returns for prior tax years are filed during the same calendar year in which the tax returns for the current tax year are being selected for the Statistics of Income sample. Some of these returns are selected for the sample and act as proxies for returns for the current tax year that will be filed during a later calendar year. The tax on these returns is based on a previous year’s tax law (which may reflect different tax rates and income concepts). For the statistics in this publication, the taxable incomes reported on these prior-year returns and those filed with a Schedule J or foreign-earned income are modified to equal an amount necessary to generate the tax shown on these returns using current-year rates.

Marginal Tax Rates

Under the progressive U.S. income tax rate structure, different portions of taxable income are taxed at different rates. Figure E illustrates how income tax is determined for a single taxpayer with AGI of \$485,000 who used the standard deduction. As shown in the example, seven different tax rates were applied to the taxable income to arrive at total tax. For purposes of this article, the tax rate applied to the last dollar of income (given certain assumptions about which source of income provided the last dollar of income subject to tax) is the marginal tax rate for that return. In the example, the marginal tax rate is 39.6 percent.

Figure E. Income Tax Calculation for a Single Taxpayer With One Exemption Who Used the Standard Deduction, Tax Year 2016

[Money amounts are in whole dollars]

Item	Amount
Adjusted gross income	485,000
Less: Exemption	4,050
Standard deduction	6,300
Equals: Taxable income	474,650
Tax based on tax rates for single taxpayers:	
First \$9,275 taxed at 10 percent	928
Next \$28,375 taxed at 15 percent	4,256
Next \$53,500 taxed at 25 percent	13,375
Next \$99,000 taxed at 28 percent	27,720
Next \$223,200 taxed at 33 percent	73,656
Next \$1,700 taxed at 35 percent	595
Next \$63,650 taxed at 39.6 percent	25,205
Total tax from tax rate schedule	145,735

NOTE: Detail may not add to total because of rounding.

SOURCE: IRS, Statistics of Income Division, Publication 1304, August 2018.

Since the individual income tax structure includes various types of income, deductions, exclusions, credits, and taxes that are not subject to the same treatment under tax laws, the marginal tax rate is not always apparent. For instance, investment income of a dependent under age 18 in excess of a specific amount is treated differently than salaries and wages of the same dependent (see Introduction and Changes in Law, section 1, on tax on child’s investment income). The investment income in excess of \$2,100 was taxed at the marginal tax rate of the parents, whereas the salaries and wages were taxed at the dependent’s own rate.

Calculating marginal tax rates for a specific individual income tax return generally depends both on the types and amounts of income reported and the assumptions made about the order in which the income is taxed, in particular, which type of income is assumed to be received “last.” Additional complexity is added by the presence of such items as the alternative minimum tax and various tax credits.

For this article, it is assumed that the income taxed at the marginal (highest) rate was the “last” income received. The alternative minimum tax and income tax credits, such as the earned income credit, are excluded in determining the marginal tax rates. The marginal tax rate is defined as follows:

- 1) If a return showed taxable income, the marginal tax rate of the return was the highest statutory rate at which any amount of taxable income reported on the return was taxed.
- 2) If the return had no taxable income except for net long-term capital gains or qualified dividends and that amount was less than or equal to the 15-percent tax bracket limit, the return was defined as having a “0-percent” marginal tax rate. If the return had taxable income (from other than net long-term capital gains) to which only the 15-percent tax rate applied, as well as net long-term capital gains to which the 20-percent or 25-percent rate on the net gain applied, the return was defined as having a marginal tax rate equal to the maximum rate at which the net gains were taxed. If the return had taxable income (from other than net long-term capital gains) to which the 25-percent tax rate applied as the highest rate, as well as net long-term capital gains to which the maximum 28-percent rate on net gain applied, the return was defined as having a “28-percent” marginal tax rate. However, if the return had taxable income (from other than net long-term capital gains) above the maximum amount to which the 25-percent rate applied, as well as net long-term capital gains to which the 28-percent rate on the net gain applied, the return was classified as having the highest rate at which any amount of taxable income reported on the return was taxed.

Figure G. Alternative Minimum Tax Adjustments and Preferences, Tax Year 2016

- Medical and dental expenses from Schedule A (if the taxpayer or their spouse was 65 or older, the lesser of deductible medical and dental expenses or 2.5 percent of adjusted gross income (AGI))
- Deductions for State and local income, sales, real estate, personal property, and foreign taxes
- Subtraction of taxable refund reported on Form 1040
- Home mortgage interest adjustment on the worksheet from the Form 6251, *Alternative Minimum Tax-Individuals*, instructions
- Miscellaneous itemized deductions subject to the 2-percent-of-AGI limitation
- Subtraction of overall limit on itemized deductions
- Investment interest expense (the result could be negative)
- Excess of percentage depletion deduction for sections 611 and 613 property over the adjusted basis (the result could be negative)
- Deduction for net operating loss from Form 1040, *U.S. Individual Income Tax Return*
- Tax-exempt interest from private activity bonds issued before 2009 and after August 7, 1986, or after 2010
- Excluded gain, under the section 1202 gain on qualified small business stock held more than 5 years, multiplied by 7 percent if sold after May 5, 2003
- Incentive stock options which were exercised after 1987 (the amount by which the value of the option when exercised exceeded the price paid by the taxpayer; the result could be negative)
- Difference between income distributions to beneficiaries of estates and trusts for regular tax purposes and the amounts refigured for alternative minimum tax (AMT) purposes (the result could be negative)
- Electing large partnerships, enter the amount from Schedule K-1 (Form 1065-B), box 6.
- Adjustment of gain or loss on property, the basis of which was affected by accelerated depreciation or rapid amortization and which was reduced for AMT purposes (the result could be negative)
- Excess of depreciation on property placed in service after 1986 over less liberal methods allowed for AMT purposes (straight-line or 150-percent declining balance method, depending on the type of property; the result could be negative)
- Passive activity gains and losses allowed for regular tax purposes for activities acquired before October 23, 1986, taking into account AMT adjustments and preference items and any AMT prior-year unallowed losses (the result could be negative)
- Adjustment for refigured loss from activities in which allowable losses from partnerships or S Corporations were limited by "at-risk" and other rules, taking into account AMT adjustments and preference items (the result could be negative)
- Excess of circulation expenditures paid or incurred after 1986 over allowable amortization if the expenditures were capitalized (the result could be negative)
- Deferred income from long-term contracts entered into after February 28, 1986, with certain exceptions and limitations (the result could be negative)
- Excess of mining exploration and development costs paid or incurred after 1986 over allowable amortization if the expenditures were capitalized (the result could be negative)
- Excess of research and experimental expenditures paid or incurred after 1986 over allowable amortization if the expenditures were capitalized (the result could be negative)
- Adjustment from disallowing the installment sales method of accounting for sales of inventory and stock in trade after March 1, 1986, with certain exceptions (the result is negative)
- Amount by which excess intangible drilling costs deducted currently over allowable amortization (if these costs were capitalized) was more than 65 percent of the taxpayer's "net income" from oil, gas, and geothermal wells, with exceptions for independent oil producers and royalty owners
- Excess of accelerated depreciation on property placed in service using pre-1987 rules over straight-line depreciation as refigured for AMT purposes
- Adjustment for taxable distributions received from a cooperative (total AMT patronage dividend and per-unit retain allocation adjustment)
- Excess of rapid amortization of pollution control facilities placed in service after 1986 over otherwise allowable depreciation (the result could be negative)
- Adjustment for charitable contributions of certain property for which section 170(e) of the Internal Revenue Code applies
- Adjustment for alcohol and cellulosic biofuel fuels credit and biodiesel and renewable diesel fuels credit included in taxable income (the amount is included as a negative)
- Adjustment for refigured tax shelter farm gains or losses, taking into account AMT adjustments and preference items (the result could be negative)
- Related adjustments, refigured for AMT purposes, including section 179 expense deduction, expenses for business or rental use of the home, conservation expenses, taxable Individual Retirement Arrangement (IRA) distributions, self-employed health insurance deduction, Keogh retirement plan or self-employed SEP deduction, and IRA deductions (the result could be negative)
- Subtraction for alternative tax net operating loss deduction

SOURCE: IRS, Statistics of Income Division, Publication 1304, August 2018.

- 3) For returns of dependents with a Form 8615 attached when use of this form resulted in taxation of some of the dependent's income as if it were that of the parents, the return was classified as having a "Form 8615" marginal tax rate (the returns in the Form 8615 classification are not distributed by tax rate).
- 4) For returns of parents choosing to report interest, dividend, and capital gain distribution income of their dependents under age 18 (or under 24 if students) on their own (i.e., the parents') return using Form 8814, when the dependent's income generated the only tax liability on the parents' return, the return was classified with a "Form 8814" marginal tax rate of 10 percent.

The classification of returns into marginal tax rate categories for Statistics of Income purposes was essentially a function of filing status, size of taxable income, presence of net long-term capital gains (in excess of net short-term capital losses) and/or qualified dividends, and presence of Form 8615 or Form 8814. Returns were classified into one of the following 15 mutually exclusive marginal tax rate categories: (1) 0-percent rate; (2) 0 percent (capital gains); (3) 10-percent rate; (4) Form 8814 (10-percent rate with no tax liability other than that generated by the dependent's income); (5) 15-percent rate; (6) 15 percent (capital gains); (7) 20-percent rate (capital gains); (8) 25-percent rate; (9) 25 percent (capital gains); (10) 28-percent rate; (11) 28 percent (capital gains); (12) 33-percent rate; (13) 35-percent rate; (14) 39.6-percent rate; and (15) Form 8615 (with income taxed at any rate).

Table 3.4 presents statistics by marginal tax rate classification and filing status for returns with modified taxable income. For each marginal rate classification, modified taxable income and "income tax generated" were computed "at all rates" and "at marginal rate." The "at all rates" computations (columns 3 and 5) show the total amount of modified taxable income or tax generated, tabulated by the marginal tax rate specified; each tax rate classification is mutually exclusive. The "at marginal rate" computations (columns 4 and 6) report the specific amounts of modified taxable income taxed and the tax generated at the marginal tax rate shown, for all returns in each of the marginal rate classifications. Although the alternative minimum tax (AMT) was not included in the determination of the marginal tax rate, we show at what rate individuals with AMT have been classified and the amount of AMT that was paid (columns 10 and 11).

For example, consider returns in the "returns of married persons filing jointly and returns of surviving spouses" filing status that were included in the "33-percent" marginal tax rate classification. The total modified taxable income for the estimated 1,598,838 returns in this classification "at all rates" was \$521.2 billion (column 3), and the total tax generated was \$126.4 billion (column 5). Approximately \$109.3 billion

(column 4) of the modified taxable income were subject to tax at the marginal tax rate of 33 percent. This modified taxable income generated \$36.1 billion (column 6) in tax at the 33-percent tax rate with the remainder generated at some or all of the lower tax rates. Some 82.2 percent of these returns, or 1,315,071, paid AMT.

Table 3.5 provides statistics on the tax generated (regular tax before credits), in total and at each tax rate bracket, for returns with modified taxable income. Returns in this table are classified by size of AGI. The tax generated at each tax rate was computed based on the modified taxable income for each individual return.

For example, the 5.6 million returns included in the "\$200,000 under \$500,000" income-size classification showed total modified taxable income of \$1,305.1 billion and generated total tax of \$293.8 billion. Of this \$1,305.1 billion of modified taxable income, \$95.2 billion were taxed at 10 percent (ordinary tax rate); \$287.8 billion were taxed at 15 percent (ordinary tax rate); \$384.1 billion were taxed at the 25-percent (ordinary tax) rate; \$278.7 billion were taxed at the 28-percent (ordinary tax) rate; \$153.1 billion were taxed at the 33-percent rate; \$2.9 billion were taxed at the 35-percent rate; and \$2.2 billion were taxed at the 39.6-percent rate. Approximately \$7.2 billion were taxed at the 0-percent (capital gains) rate; \$88.0 billion were taxed at the 15-percent capital gain rate and qualified dividend rate; \$0.6 billion were taxed at the 20-percent capital gain rate; \$4.4 billion were taxed at the 25-percent capital gain rate; \$0.1 billion were taxed at the 28-percent capital gain rate; and the remainder from tax related to Forms 8814 and 8615.

Table 3.6 presents statistics on the income and tax generated at each tax rate, by filing status, for returns with modified taxable income. Just over 2.6 million of the 46.1 million returns of married persons filing jointly (including surviving spouses) with modified taxable income had some income taxed at the 33-percent tax rate. For these returns, the taxable income subject to this rate was \$297.9 billion, and the tax generated was \$98.3 billion.

Computation of Alternative Minimum Taxable Income

Alternative Minimum Taxable Income (AMTI) was computed by adding certain "tax preferences" (i.e., deduction or exclusion amounts identified as potential sources of tax savings disallowed for AMT purposes) and "adjustments" (i.e., regular tax deduction amounts recomputed or excluded for AMT purposes) to taxable income before any deductions were taken for personal exemptions (Figures F and G). The "net operating loss deduction" was recomputed to allow for the exclusion of the "tax preference items" and "adjustments" used to reduce regular tax liability. The recomputed net operating loss deduction, termed the "alternative net operating loss deduction," was

limited to 90 percent of AMTI (with certain minor exceptions for 2016).

AMTI was reduced by an exemption amount that depended on the filing status of the individual and was subject to phase-out at higher AMTI levels (see Alternative Minimum Tax definition in Explanation of Terms). After reduction by the exemption, the first \$186,300 (\$93,150 if married filing separately) of the remaining AMTI was subject to tax at a 26-percent rate, with any excess taxed at a 28-percent rate. However, capital gains and qualified dividends (recalculated for AMT purposes) that were taxed at lower rates (0 percent, 15 percent, 20 percent, and 25 percent) were taxed at these same rates for the AMT, with the rest of AMTI being taxed at the rates mentioned above (26 percent or 28 percent). The resulting tax was reduced by the “alternative minimum tax foreign tax credit,” which produced a “tentative minimum tax.” Tentative minimum tax was further reduced by the individual’s regular tax before credits

(excluding tax on lump-sum distributions from qualified retirement plans) less the foreign tax credit (for regular tax purposes) to yield the alternative minimum tax.

Dependents under the age of 18 and certain children under 24 with investment income over a certain amount who filed their own returns were subject to special rules for AMT purposes. These rules required that the dependents pay the same amount of AMT as their parents would have paid if the parents included the dependents’ incomes on their own tax returns. (Dependents filing their own returns were limited to an AMT exemption of \$7,400 plus their “earned incomes.” The dependent’s AMT could be reduced if the parents had regular tax greater than the child’s own tentative minimum tax, or if any other dependent under age 18 and certain children under 24 of the same parents had regular tax greater than this dependent’s own tentative minimum tax.)