9-Jan-23

Average Federal Tax Rates for All Households,
by Comprehensive Household Income Quintile, 1979-2019

Year	Lowest Quintile	Second Quintile	Middle Quintile	Fourth Quintile	Highest Quintile	All Quintiles	81st - 90th Percentiles	91st - 95th Percentiles	96th - 99th Percentiles	Top 1%
Average Total Federal Tax Rate (percent)										
1979	11.6	16.0	19.4	21.6	26.6	22.4	23.6	25.2	27.1	35.1
1980	11.7	15.8	19.5	21.7	26.4	22.4	24.0	25.5	27.4	33.1
1981	12.8	16.5	20.1	22.2	25.9	22.6	24.5	25.8	27.2	30.5
1982	12.6	15.3	18.7	20.6	23.5	20.9	22.6	23.7	24.5	26.8
1983	13.7	15.3	18.0	20.1	23.0	20.5	22.0	22.9	23.5	26.8
1984	14.6	16.0	18.6	20.3	23.2	20.9	22.3	23.0	23.5	27.0
1985	14.9	16.0	18.8	20.4	23.1	21.0	22.4	23.3	23.6	26.1
1986	14.5	16.1	18.8	20.5	23.0	21.0	22.7	23.4	23.5	24.7
1987	13.3	15.4	18.1	20.3	25.1	21.8	23.0	24.5	25.9	30.1
1988	13.0	15.7	18.6	20.6	25.0	21.9	23.3	24.3	25.4	28.6
1989	12.4	15.5	18.5	20.6	24.6	21.6	23.1	24.2	25.2	27.9
1990	13.7	16.2	18.6	20.5	24.5	21.7	23.1	24.1	25.2	27.7
1991	13.5	15.8	18.4	20.2	24.7	21.6	22.9	24.2	25.4	28.9
1992	13.3	15.5	18.0	20.1	24.9	21.6	22.8	24.0	25.5	29.6
1993	13.5	15.5	18.0	20.0	26.0	22.1	22.7	24.3	26.4	33.2
1994	12.3	15.2	18.1	20.2	26.6	22.5	23.2	24.8	26.8	34.4
1995	12.1	15.4	18.2	20.2	27.0	22.7	23.3	25.1	27.2	34.9
1996	11.6	15.3	18.1	20.2	27.3	22.9	23.2	25.1	27.5	34.8
1997	11.9	15.5	18.3	20.3	27.3	23.0	23.5	25.3	27.6	33.8
1998	11.3	14.9	17.6	20.3	26.9	22.7	23.5	25.1	27.4	32.4
1999	11.5	15.0	17.6	20.5	27.4	23.0	23.7	25.5	27.9	32.6
2000	11.1	14.8	17.4	20.7	27.4	23.1	23.7	25.5	27.9	32.3
2001	9.3	13.2	16.2	19.0	26.2	21.6	22.5	24.6	26.7	32.0
2002	9.0	12.6	15.6	18.3	25.4	20.8	21.8	23.9	26.1	31.9
2003	8.8	11.7	14.8	17.5	24.4	19.9	20.7	22.8	25.0	30.3
2004	8.5	12.0	15.0	17.7	24.7	20.3	20.9	22.9	25.4	30.0
2005	8.9	12.0	15.3	18.0	25.2	20.8	21.1	23.0	25.9	30.2
2006	9.2	12.3	15.2	18.0	25.2	20.9	21.2	23.1	25.9	29.8
2007	8.6	12.6	15.3	17.8	24.4	20.5	20.9	22.7	25.4	28.2
2008	5.0	9.3	12.7	15.8	23.3	18.5	19.3	21.8	24.6	28.1
2009	4.3	8.8	12.3	15.2	22.8	17.9	18.9	21.3	24.2	28.7
2010	5.0	9.1	12.6	15.6	23.5	18.6	19.4	21.7	24.7	29.3
2011	5.3	9.1	12.4	15.4	23.1	18.3	18.9	21.2	24.2	29.0
2012	5.4	9.1	12.6	15.7	23.6	18.9	19.2	21.6	24.7	28.6
2013	7.1	10.8	14.1	17.2	25.7	20.7	20.9	23.1	26.2	33.6
2014	7.4	11.0	14.3	17.5	26.2	21.2	21.1	23.5	26.7	33.6
2015	7.3	11.1	14.3	17.6	26.2	21.1	21.3	23.5	26.7	33.3
2016	7.5	11.2	14.3	17.5	25.9	20.9	21.2	23.5	26.6	33.1
2017	7.1	11.1	14.2	17.5	25.6	20.7	21.2	23.4	26.4	31.7
2018	6.1	9.7	13.0	16.3	24.0	19.3	20.0	21.9	24.2	30.2
2018	6.7	10.3	13.3	16.4	24.0	19.4	20.0	22.1	24.4	30.2
Average Individual Income Tax Rate (percent)										
1979	1.0	4.8	7.7	10.1	15.6	11.1	12.3	14.1	16.8	21.7
1980	1.5	5.2	8.3	10.7	16.3	11.8	13.1	15.1	17.9	21.9
1981	1.9	5.7	8.7	11.1	16.3	12.1	13.5	15.4	18.2	20.8
1982	1.7	5.0	7.9	10.0	15.0	11.1	12.2	13.8	16.6	19.6
1983	1.6	4.5	7.0	9.1	13.8	10.3	11.1	12.6	14.8	19.1
1984	1.9	4.7	6.9	8.8	13.6	10.1	10.8	12.3	14.6	18.8
1985	1.9	4.6	6.9	8.8	13.7	10.2	10.8	12.5	14.6	18.6
1986	1.6	4.6	6.8	8.8	13.9	10.4	10.8	12.5	14.8	18.1
1987	0.2	3.8	6.0	8.1	14.7	10.3	10.7	12.8	15.9	21.5
1988	-0.3	3.7	6.1	8.2	14.8	10.5	10.7	12.6	15.5	20.9
1989	-0.7	3.6	6.1	8.3	14.5	10.3	10.8	12.6	15.6	20.1
1990	0.3	4.0	6.2	8.2	14.3	10.2	10.7	12.4	15.3	19.9
1991	-0.2	3.6	6.0	8.0	14.2	10.0	10.5	12.2	15.0	20.7
1992	-0.6	3.3	5.7	7.7	14.3	10.0	10.2	12.0	15.0	21.4
1993	-0.7	3.2	5.5	7.6	14.8	10.1	10.1	11.9	15.1	23.4
1994	-2.1	2.8	5.4	7.6	15.0	10.1	10.3	12.2	15.5	23.4
1995	-2.4	2.8	5.4	7.5	15.4	10.3	10.4	12.4	15.9	24.1
1996	-2.8	2.7	5.4	7.6	16.0	10.7	10.4	12.7	16.5	24.6
1997	-2.5	2.8	5.6	7.8	16.3	11.1	10.7	13.0	16.9	24.2
1998	-3.0	2.3	5.1	7.8	16.5	11.0	10.8	13.2	17.2	23.6
1999	-2.7	2.2	5.1	7.9	17.1	11.5	11.0	13.6	17.7	24.2
2000	-2.6	2.2	5.1	8.1	17.4	11.9	11.3	13.7	18.1	24.4
2001	-4.0	1.0	4.1	7.1	16.3	10.5	10.3	13.0	17.1	24.4
2002	-4.1	0.5	3.7	6.7	15.5	9.7	9.8	12.3	16.3	23.9
2003	-4.5	-0.3	3.0	5.7	13.7	8.5	8.6	10.9	14.6	20.8
2004	-4.4	-0.1	3.0	5.8	13.9	8.8	8.7	10.9	15.0	20.1
2005	-4.7	-0.3	3.1	5.9	14.1	9.1	8.6	10.9	15.3	19.7
2006	-4.8	-0.1	3.1	5.9	14.2	9.2	8.8	11.1	15.3	19.3
2007	-4.8	0.3	3.4	6.1	14.4	9.4	8.9	11.2	15.6	19.4
2008	-7.9	-2.4	1.5	4.7	13.9	8.0	8.0	10.8	15.4	20.2
2009	-8.4	-2.4	1.5	4.6	13.3	7.5	7.8	10.4	14.7	20.8
2010	-7.9	-2.3	1.7	4.9	13.7	7.9	8.2	10.8	15.2	20.0
2011	-6.4	-1.2	2.6	5.8	14.1	8.7	8.9	11.4	15.7	20.1

Average Federal Tax Rates for All Households,
by Comprehensive Household Income Quintile, 1979-2019

Year	Lowest Quintile	Second Quintile	Middle Quintile	Fourth Quintile	Highest Quintile	All Quintiles	81st - 90th Percentiles	91st - 95th Percentiles	96th - 99th Percentiles	Top 1%
2012	-6.3	-1.2	2.8	6.0	14.6	9.2	9.1	11.6	16.1	19.8
2013	-6.3	-0.9	2.9	6.1	15.4	9.6	9.3	11.7	16.1	23.4
2014	-6.0	-1.0	2.8	6.2	15.9	10.0	9.5	12.0	16.6	23.7
2015	-5.7	-0.8	2.9	6.4	16.1	10.1	9.8	12.2	16.9	23.7
2016	-5.2	-0.6	3.0	6.5	15.9	10.0	9.8	12.3	16.9	23.5
2017	-5.4	-0.4	3.2	6.7	16.4	10.5	10.1	12.6	17.3	24.1
2018	-6.3	-1.7	2.0	5.6	15.3	9.4	9.1	11.4	15.5	23.2
2019	-5.8	-1.1	2.3	5.8	15.2	9.3	9.1	11.6	15.7	23.0
					Average Payroll Tax Rate (percent)					
1979	7.1	8.1	8.6	8.4	5.3	6.9	7.9	7.1	4.4	1.0
1980	7.4	8.0	8.7	8.3	5.3	7.0	7.9	7.0	4.7	1.1
1981	8.3	8.7	9.3	8.9	5.8	7.5	8.6	7.7	5.2	1.3
1982	8.6	8.6	9.2	8.9	6.0	7.6	8.6	8.1	5.6	1.6
1983	8.9	8.5	9.0	8.9	6.0	7.5	8.8	7.9	5.7	1.5
1984	9.1	8.9	9.4	9.1	6.0	7.7	9.1	8.1	5.7	1.4
1985	9.7	9.2	9.7	9.4	6.1	7.9	9.4	8.5	5.9	1.4
1986	9.6	9.3	9.8	9.6	5.8	7.8	9.7	8.6	5.7	1.1
1987	9.4	9.1	9.6	9.5	6.5	8.1	9.7	8.7	6.0	1.6
1988	9.9	9.4	10.0	9.9	6.3	8.2	10.1	8.9	6.1	1.3
1989	10.0	9.5	10.1	9.8	6.4	8.2	9.8	8.8	6.0	1.5
1990	10.3	9.9	10.2	9.9	6.6	8.4	10.1	9.0	6.4	1.6
1991	10.5	9.7	10.0	9.9	7.1	8.7	10.1	9.4	7.1	2.2
1992	10.5	9.7	9.9	9.9	6.9	8.5	10.1	9.2	7.0	1.9
1993	10.5	9.5	9.9	9.7	7.0	8.5	10.0	9.3	7.2	2.1
1994	10.4	9.5	9.9	9.8	7.2	8.6	10.1	9.4	7.3	2.7
1995	10.7	9.7	10.0	9.8	7.0	8.5	10.0	9.3	6.9	2.4
1996	10.8	9.8	9.9	9.8	6.6	8.3	9.8	9.1	6.7	2.3
1997	10.9	10.0	10.0	9.8	6.4	8.2	9.9	9.0	6.4	2.1
1998	11.0	10.0	9.9	10.1	6.3	8.2	10.0	8.9	6.4	2.0
1999	10.7	10.1	9.9	10.1	6.2	8.1	9.9	8.9	6.4	2.0
2000	10.5	10.1	9.9	10.2	6.1	8.0	9.9	8.9	6.4	1.9
2001	10.5	10.1	10.1	10.0	6.8	8.5	10.3	9.6	7.0	2.4
2002	10.4	10.0	9.9	9.8	7.0	8.5	10.1	9.6	7.4	2.5
2003	10.3	9.8	9.7	9.7	6.9	8.4	10.1	9.6	7.4	2.4
2004	10.0	9.7	9.8	9.7	6.4	8.1	9.9	9.3	6.9	2.0
2005	10.3	9.8	9.7	9.5	5.9	7.7	9.7	8.9	6.3	1.7
2006	10.7	9.8	9.6	9.4	5.7	7.5	9.5	8.7	6.1	1.6
2007	10.7	10.1	9.7	9.4	5.6	7.5	9.5	8.6	6.0	1.6
2008	10.6	9.9	9.6	9.4	6.3	8.0	9.7	9.1	6.8	2.0
2009	10.4	9.6	9.3	9.2	6.9	8.3	9.7	9.3	7.5	2.5
2010	10.4	9.5	9.2	9.1	6.4	7.9	9.5	9.0	7.1	2.2
2011	9.0	8.3	8.0	7.9	5.7	6.9	8.2	7.9	6.2	2.1
2012	9.0	8.2	8.0	7.9	5.3	6.7	8.2	7.8	5.9	1.7
2013	10.4	9.7	9.3	9.1	6.4	7.9	9.4	9.0	6.8	2.4
2014	10.4	9.7	9.4	9.2	6.1	7.7	9.3	8.8	6.6	2.1
2015	10.2	9.8	9.3	9.2	6.1	7.8	9.4	8.8	6.6	2.2
2016	10.2	9.7	9.4	9.2	6.2	7.8	9.4	8.9	6.6	2.3
2017	10.2	9.7	9.4	9.2	6.2	7.8	9.4	8.9	6.7	2.2
2018	10.2	9.7	9.5	9.2	6.1	7.8	9.4	8.7	6.5	2.2
2019	10.4	9.8	9.5	9.2	6.2	7.8	9.3	8.7	6.6	2.3
					Average Corporate Income Tax Rate (percent)					
1979	1.7	1.8	1.9	2.2	5.1	3.4	2.7	3.1	5.2	10.9
1980	1.4	1.4	1.6	1.9	4.1	2.8	2.2	2.8	4.2	8.6
1981	1.1	1.1	1.2	1.5	3.3	2.2	1.7	2.1	3.3	6.9
1982	0.7	0.6	0.8	0.9	2.0	1.4	1.1	1.2	1.8	4.3
1983	0.9	0.9	1.0	1.2	2.5	1.8	1.4	1.6	2.4	5.2
1984	1.1	1.0	1.2	1.4	2.8	2.0	1.5	1.8	2.6	5.6
1985	1.0	0.9	1.1	1.2	2.6	1.9	1.4	1.6	2.4	5.1
1986	1.0	0.9	1.1	1.3	2.6	1.9	1.4	1.6	2.4	4.6
1987	1.3	1.2	1.4	1.7	3.3	2.4	1.8	2.2	3.3	6.2
1988	1.2	1.2	1.4	1.6	3.3	2.4	1.7	2.1	3.1	5.8
1989	1.2	1.1	1.3	1.6	3.2	2.3	1.7	2.1	3.1	5.7
1990	1.1	1.0	1.2	1.5	3.0	2.2	1.6	2.0	2.9	5.5
1991	1.0	1.0	1.2	1.4	2.8	2.0	1.5	1.8	2.6	5.3
1992	1.1	1.0	1.2	1.4	3.0	2.2	1.6	2.0	2.9	5.7
1993	1.2	1.2	1.4	1.6	3.5	2.5	1.8	2.3	3.3	6.9
1994	1.3	1.2	1.5	1.7	3.7	2.7	1.9	2.3	3.4	7.6
1995	1.4	1.3	1.5	1.8	4.0	2.8	2.1	2.6	3.7	7.7
1996	1.4	1.3	1.5	1.8	4.0	2.9	2.1	2.7	3.7	7.4
1997	1.4	1.2	1.5	1.8	4.0	2.9	2.1	2.6	3.7	7.0
1998	1.2	1.1	1.4	1.5	3.6	2.6	1.9	2.3	3.2	6.3
1999	1.2	1.1	1.4	1.5	3.5	2.5	1.8	2.3	3.2	5.9
2000	1.1	1.1	1.3	1.5	3.3	2.4	1.7	2.2	3.0	5.5
2001	0.8	0.8	0.9	1.0	2.5	1.8	1.2	1.5	2.1	4.8
2002	0.7	0.7	0.8	0.9	2.3	1.6	1.1	1.3	1.8	4.9
2003	1.0	0.9	1.0	1.2	3.2	2.2	1.4	1.7	2.5	6.7

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2004	1.1	1.0	1.2	1.4	3.8	2.6	1.6	2.0	3.0	7.5
2005	1.4	1.3	1.5	1.7	4.7	3.3	2.1	2.6	3.9	8.4
2006	1.5	1.4	1.6	1.9	4.9	3.5	2.3	2.8	4.1	8.5
2007	1.2	1.2	1.4	1.6	4.1	3.0	1.9	2.4	3.4	7.0
2008	0.8	0.7	0.8	1.0	2.7	1.9	1.1	1.4	2.0	5.4
2009	0.6	0.6	0.7	0.8	2.2	1.5	0.9	1.1	1.6	5.0
2010	0.8	0.8	0.9	1.0	3.0	2.1	1.2	1.4	2.0	6.6
2011	0.8	0.8	0.9	1.0	2.9	2.0	1.2	1.5	2.0	6.4
2012	0.9	0.8	0.9	1.1	3.3	2.3	1.3	1.6	2.3	6.7
2013	1.0	0.9	1.1	1.2	3.6	2.5	1.6	1.9	2.8	7.2
2014	1.1	1.0	1.1	1.3	3.8	2.7	1.7	2.1	3.1	7.3
2015	1.0	0.9	1.0	1.2	3.5	2.5	1.5	1.9	2.8	6.9
2016	0.9	0.9	1.0	1.1	3.4	2.3	1.4	1.8	2.6	6.8
2017	0.7	0.7	0.8	0.9	2.6	1.8	1.2	1.4	2.1	5.0
2018	0.6	0.6	0.7	0.8	2.2	1.6	1.0	1.2	1.8	4.2
2019	0.6	0.6	0.7	0.8	2.2	1.5	1.0	1.2	1.8	4.3
					Average Excise Tax Rate (percent)					
1979	1.8	1.3	1.1	0.9	0.7	1.0	0.8	0.8	0.7	0.5
1980	1.5	1.1	0.9	0.8	0.6	0.8	0.7	0.7	0.6	0.4
1981	1.5	1.0	0.9	0.7	0.6	0.8	0.7	0.6	0.5	0.4
1982	1.6	1.1	0.9	0.8	0.6	0.8	0.7	0.6	0.5	0.3
1983	2.2	1.3	1.0	0.9	0.7	0.9	0.8	0.7	0.6	0.4
1984	2.4	1.4	1.1	1.0	0.7	1.0	0.8	0.8	0.7	0.4
1985	2.4	1.4	1.1	0.9	0.7	0.9	0.8	0.7	0.6	0.4
1986	2.2	1.3	1.1	0.9	0.6	0.9	0.8	0.7	0.6	0.4
1987	2.4	1.4	1.1	0.9	0.7	0.9	0.8	0.8	0.6	0.4
1988	2.2	1.4	1.1	0.9	0.6	0.9	0.8	0.7	0.6	0.4
1989	1.9	1.3	1.0	0.9	0.6	0.8	0.8	0.7	0.6	0.3
1990	2.0	1.3	1.0	0.9	0.6	0.9	0.8	0.7	0.6	0.3
1991	2.2	1.5	1.2	1.0	0.7	1.0	0.8	0.7	0.6	0.4
1992	2.3	1.5	1.2	1.0	0.7	1.0	0.9	0.8	0.6	0.3
1993	2.4	1.6	1.2	1.0	0.7	1.0	0.9	0.8	0.7	0.4
1994	2.6	1.7	1.3	1.1	0.7	1.1	0.9	0.8	0.7	0.4
1995	2.4	1.6	1.3	1.1	0.7	1.0	0.9	0.8	0.6	0.3
1996	2.2	1.5	1.2	0.9	0.6	0.9	0.8	0.7	0.6	0.3
1997	2.1	1.5	1.1	0.9	0.6	0.9	0.8	0.7	0.6	0.3
1998	2.1	1.5	1.2	0.9	0.6	0.9	0.8	0.7	0.6	0.2
1999	2.2	1.6	1.2	1.0	0.6	1.0	0.9	0.8	0.6	0.3
2000	2.1	1.4	1.2	0.9	0.5	0.9	0.8	0.7	0.5	0.2
2001	2.0	1.4	1.1	0.9	0.5	0.9	0.8	0.7	0.5	0.2
2002	2.0	1.4	1.1	0.9	0.5	0.9	0.7	0.6	0.5	0.3
2003	2.0	1.4	1.1	0.9	0.5	0.8	0.7	0.6	0.5	0.3
2004	1.8	1.3	1.1	0.9	0.5	0.8	0.7	0.6	0.5	0.3
2005	1.9	1.3	1.0	0.8	0.5	0.8	0.7	0.6	0.5	0.2
2006	1.9	1.2	0.9	0.7	0.4	0.7	0.6	0.5	0.4	0.2
2007	1.4	1.0	0.8	0.7	0.4	0.6	0.6	0.5	0.4	0.1
2008	1.6	1.0	0.8	0.6	0.4	0.6	0.5	0.5	0.4	0.2
2009	1.6	1.0	0.8	0.6	0.4	0.6	0.5	0.5	0.4	0.2
2010	1.7	1.1	0.9	0.6	0.4	0.6	0.5	0.4	0.4	0.2
2011	1.8	1.2	0.9	0.7	0.4	0.7	0.5	0.5	0.4	0.2
2012	1.9	1.2	0.9	0.7	0.4	0.7	0.6	0.5	0.4	0.2
2013	1.9	1.2	0.9	0.7	0.4	0.7	0.6	0.5	0.4	0.2
2014	1.9	1.3	1.0	0.8	0.5	0.7	0.7	0.6	0.4	0.2
2015	1.8	1.2	1.0	0.8	0.5	0.7	0.7	0.6	0.4	0.2
2016	1.6	1.2	0.9	0.7	0.4	0.7	0.6	0.5	0.4	0.2
2017	1.6	1.0	0.8	0.6	0.4	0.6	0.5	0.5	0.4	0.2
2018	1.6	1.1	0.9	0.7	0.4	0.6	0.6	0.5	0.4	0.2
2019	1.4	1.0	0.8	0.7	0.4	0.6	0.6	0.5	0.4	0.2

Source: Congressional Budget Office, https://www.cbo.gov/publication/58353

Notes: Effective tax rates are calculated by dividing taxes by comprehensive household income; * = between -0.05 and 0.05 percent.

Comprehensive household income equals pretax cash income plus income from other sources. Pretax cash income is the sum of wages, salaries, self-employment income, rents, taxable and nontaxable interest, dividends, realized capital gains, cash transfer payments, and retirement benefits plus taxes paid by businesses (corporate income taxes and the employer's share of Social Security, Medicare, and federal unemployment insurance payroll taxes) and employee contributions to 401(k) retirement plans. Other sources of income include all in-kind benefits (Medicare, Medicaid, employer-paid health insurance premiums, food stamps, school lunches and breakfasts, housing assistance, and energy assistance).

Income categories are defined by ranking all people by their comprehensive household income adjusted for household size—that is, divided by the square root of the household's size. (A household consists of the people who share a housing unit, regardless of their relationships.) Quintiles, or fifths, contain equal numbers of people. Households with negative income (business or investment losses larger than other income) are excluded from the lowest income category but are included in totals.

Individual income taxes are attributed directly to households paying those taxes. Social insurance, or payroll, taxes are attributed to households paying those taxes directly or paying them indirectly through their employers. Corporate income taxes are attributed to households according to their share of capital income. Federal excise taxes are attributed to them according to their consumption of the taxed good or service.