



## **Sentier Research Bulletin (updated)** **(For Immediate Release)**

# **Estimated Effects of the Proposed Reductions in the Social Security Payroll Tax Rate for 2011 and 2012**

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Below are key findings based on an analysis by Sentier Research of data released from the U.S. Census Bureau's March 2011 Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC). The CPS ASEC collected data covering household income received in calendar year 2010 and is the official source of income and poverty statistics for the Nation. The following analysis discusses the effects of the reduction in Social Security payroll taxes that actually occurred in 2011, and proposals for further reduction in the payroll tax rate for 2012. Data are provided on the effects across various levels of the income distribution and for various different characteristics of households. (All income amounts in the following analysis are expressed in terms of 2010 constant dollars.)

### **Introduction**

- At the time of the survey in March 2011 there were 118.7 million households in the U.S.
- About 91 million of these households had one or more members paying Social Security payroll taxes in 2010.
- The average amount of Social Security tax paid in 2010 by households that owed at least some Social Security payroll tax was \$5,185 (includes both the OASDI and HI components of the overall tax)
- Following the payroll tax rate reduction for 2011 to 4.2 percent, we estimate that the average amount of taxes paid by households will be \$3,900 for that year, adding an average of \$1,285 to the income of each household subject to the tax.
- The addition of \$1,285 for each household resulting from the tax cut for 2011 has been offset by the termination of the Making Work Pay tax credit by an average of \$594 per household for 2011, yielding an average net saving of about \$691 per household.

- For 2012, the proposed further reduction in the tax rate to 3.1 percent, and the scheduled increase in the maximum taxable earnings amount from \$106,800 to \$110,200, will yield an average of \$3,127 in payroll taxes per household paying that tax.
- The estimated average savings for households paying Social Security payroll taxes in 2012 over 2010 would be \$1,464, after accounting for the elimination of the Making Work Pay tax credit.
- We estimate that the aggregate payroll tax paid by households in 2010 (our base year where the standard OASDHI rate of 6.2 percent was in place) was \$472 billion; in 2011 (4.2 percent rate) will be \$355 billion; and in 2012 (3.1 percent rate) will be \$285 billion.

### **Distributional Effects**

- Table 1 provides data on the distributional effects, by income deciles, for the base year (6.2 percent payroll tax rate), the current year's reduced rate (4.2 percent payroll tax rate), and the proposed 3.1 percent payroll tax rate (for 2010, 2011, and 2012, respectively).
- As shown in Table 1, the proportion of the total payroll tax paid by the bottom half of the household income distribution and the top half of the distribution varies little from the base year of 2010, regardless of the payroll tax rate that is used; households above the median pay approximately 85 percent of the aggregate payroll tax bill and households below the median pay approximately 15 percent of the total.
- As shown in Figure 1, when examining the proportion of earnings paid in Social Security payroll taxes by household income decile, we find the highest proportion paid in the bottom decile and the lowest in the highest decile. The proportions paid within second through ninth deciles are roughly comparable.
- At the 6.2 percent payroll tax rate, households in the bottom decile pay 8.4 percent of their earnings in payroll taxes and households in the top decile pay 5.9 percent. At a 3.1 percent tax rate, households in the bottom decile pay 5.1 percent of their earnings in payroll taxes compared to 3.9 percent in the top decile (see Figure 1).
- The higher proportion paid by the bottom decile reflects the larger proportion of earnings from self-employment income that are subject to both the employee and employer components of the overall payroll tax. The lower proportion of payroll taxes paid by households in the highest decile reflects the provision that limits the amount of earnings subject to tax (\$106,800 in 2010 and 2011 and \$110,200 in 2012).
- As shown in Figure 2, after taking account of the termination of the Making Work Pay tax credit at the end of 2010 and the reduction of the Social Security payroll tax from 6.2 percent to 4.2 percent that occurred during 2011, the largest tax savings went to households in the highest income deciles and losses actually occurred for the bottom three deciles; households in the middle-income deciles gained very little, casting doubt on the often-heard assertion that this was a "middle-class tax cut."

- As shown in Figure 3, after taking account of the reduction in Social Security payroll taxes from 6.2 percent to 4.2 percent that occurred during 2011, but not taking account of the Making Work Pay tax credit that was terminated at the end of 2010, the tax savings that went to the highest income deciles are even larger. Comparing the payroll tax savings under this scenario, the amount saved by the top decile (\$2,990) is more than four times higher than the amount saved the fifth decile (\$733), and almost twenty-five times higher than the amount saved by the bottom decile (\$122).
- Figure 4 shows the expected tax savings of reducing the Social Security payroll tax rate from 6.2 percent to 3.1 percent for 2012, a reduction that was proposed in earlier deliberations on the matter. Under this payroll tax scenario, but not taking account of the Making Work Pay tax credit that was terminated at the end of 2010, the amount saved by highest income deciles is still larger. The savings received by the top decile (\$4,722) would be nearly four times higher than the amount saved the fifth decile (\$1,187), and more than twenty times higher than the amount saved by the bottom decile (\$212).
- Table 2 shows the average amount of payroll taxes and tax savings under the base year 2010 and the two alternative tax scenarios for 2011 and 2012 by type of household, age of householder, number of earners, race and ethnicity of householder, educational attainment of householder, employment sector of householder, and region of residence.
- As expected, the tax savings, both existing for 2011 and proposed for 2012, are larger for households having social, demographic, and economic characteristics that are generally associated with higher incomes (see Table 2).

\* \* \*

The estimates in the report are based on the Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC), the source of the Nation's official estimates of income and poverty. The CPS ASEC samples approximately 75,000 households each year. As is the case with all surveys, the estimates are subject to sampling and nonsampling errors.

The U.S. Census Bureau regularly creates estimates of taxes paid by households using programs that compute estimated federal and state income taxes and payroll taxes based on the income and household composition information obtained in the annual supplement. The results of their tax simulation models form an important component of this analysis. The U.S. Census Bureau uses these tax estimates in the new Supplemental Poverty Measurement program to develop the level of resources required for the determination of poverty status.

Household income is defined as the sum of the incomes of all household members. The definition of income used here covers sources of money income including earnings from work, Social Security, interest, dividends, cash welfare, retirement pensions, unemployment

compensation, veterans' benefits, etc. Income excludes capital gains and losses, and lump-sum payments. It also includes the value of food stamps.

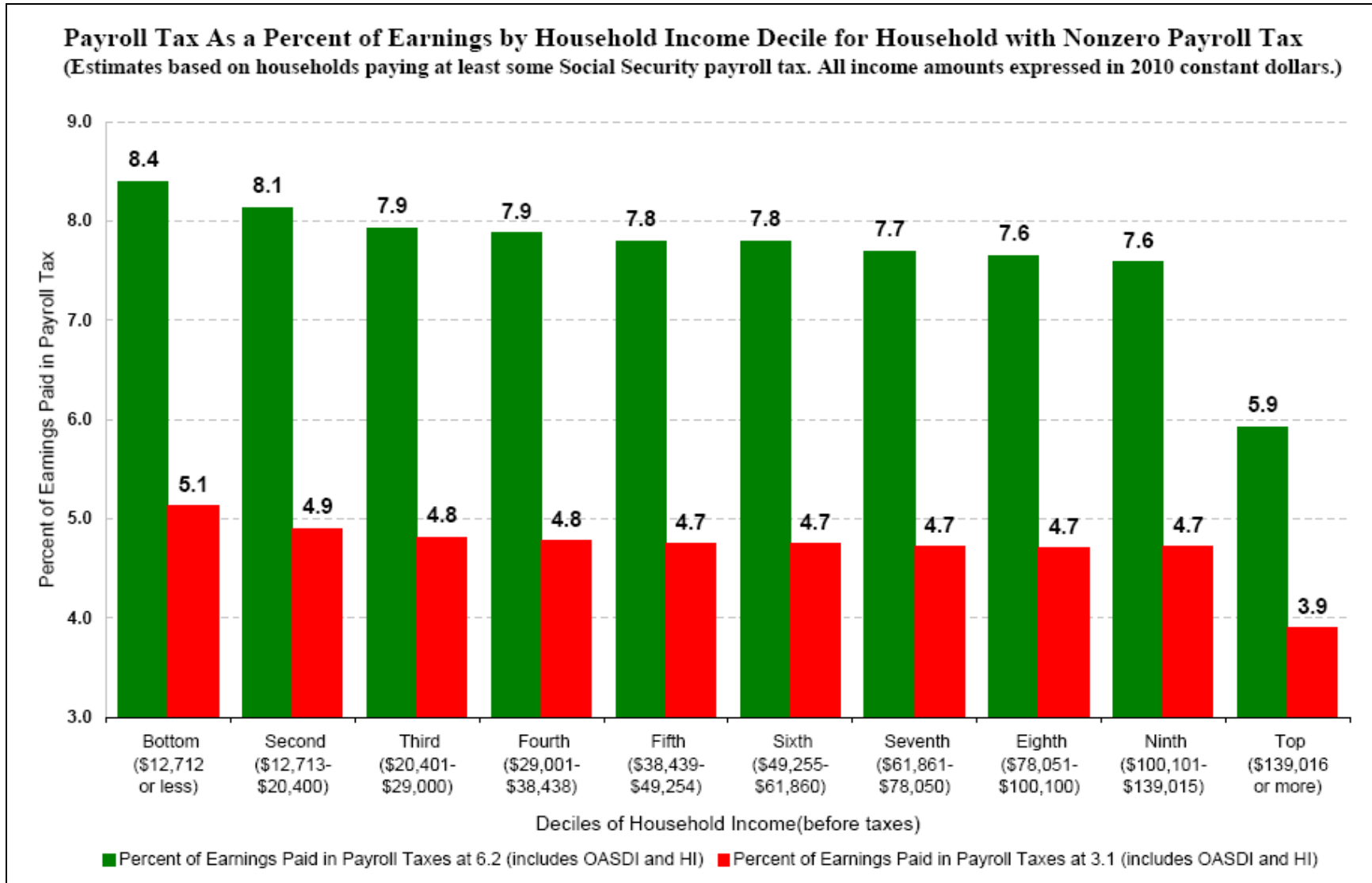
The estimates in the report include both components of the payroll tax, the OASDI piece and the HI piece. The OASDI (Old Age Survivor and Disability Insurance) rates were 6.2 percent in 2010, 4.2 percent in 2011 and a proposed 3.1 percent for 2012. The HI (Hospital Insurance) rate was 1.45 percent for 2010 and 2011 with no proposed change for 2012. The payroll tax that applies to self-employment income requires that the self-employed individual pay both the employee and employer sides of the payroll tax.

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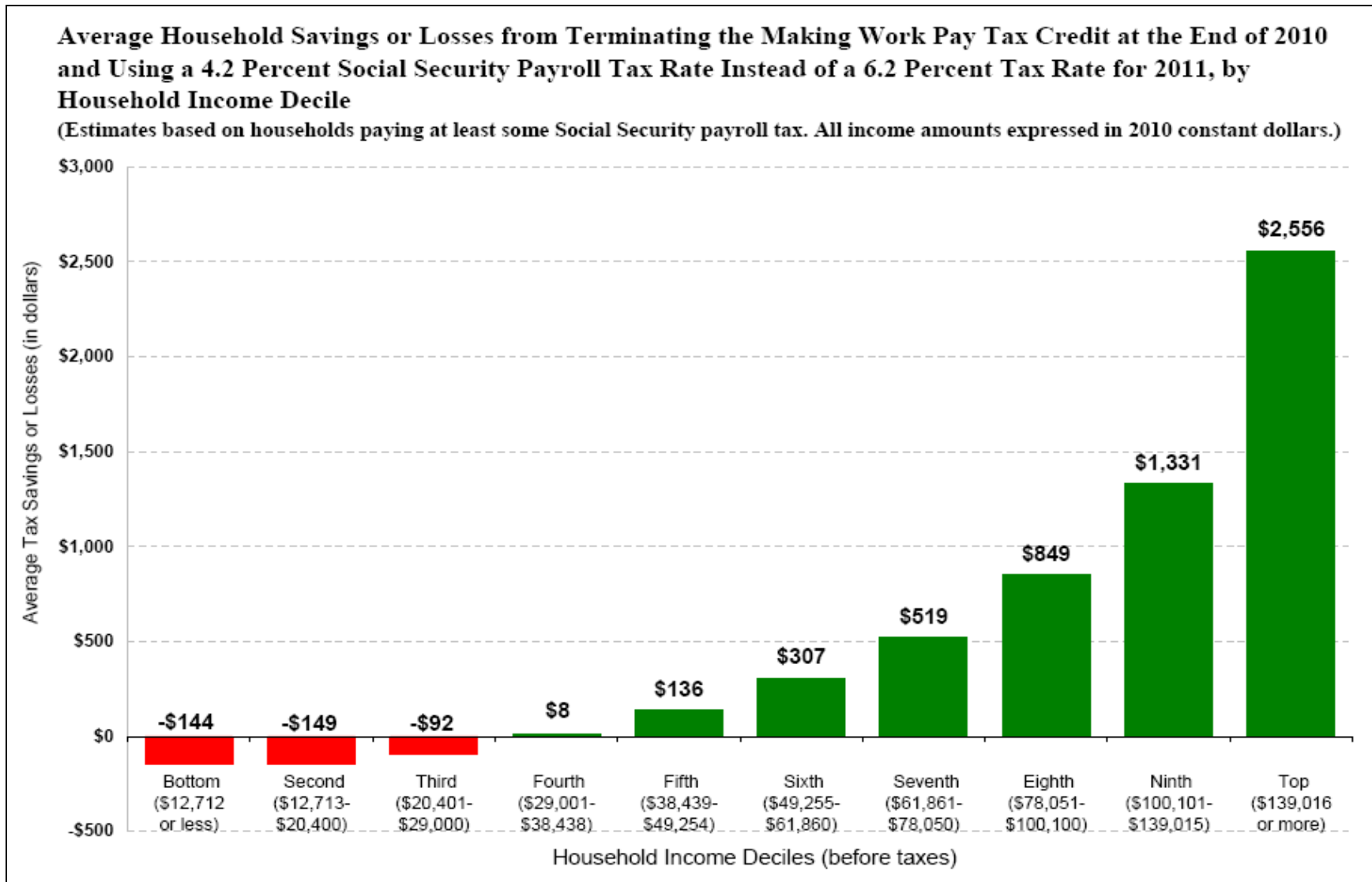
(Figures and tables to follow.)

**Figure 1.**



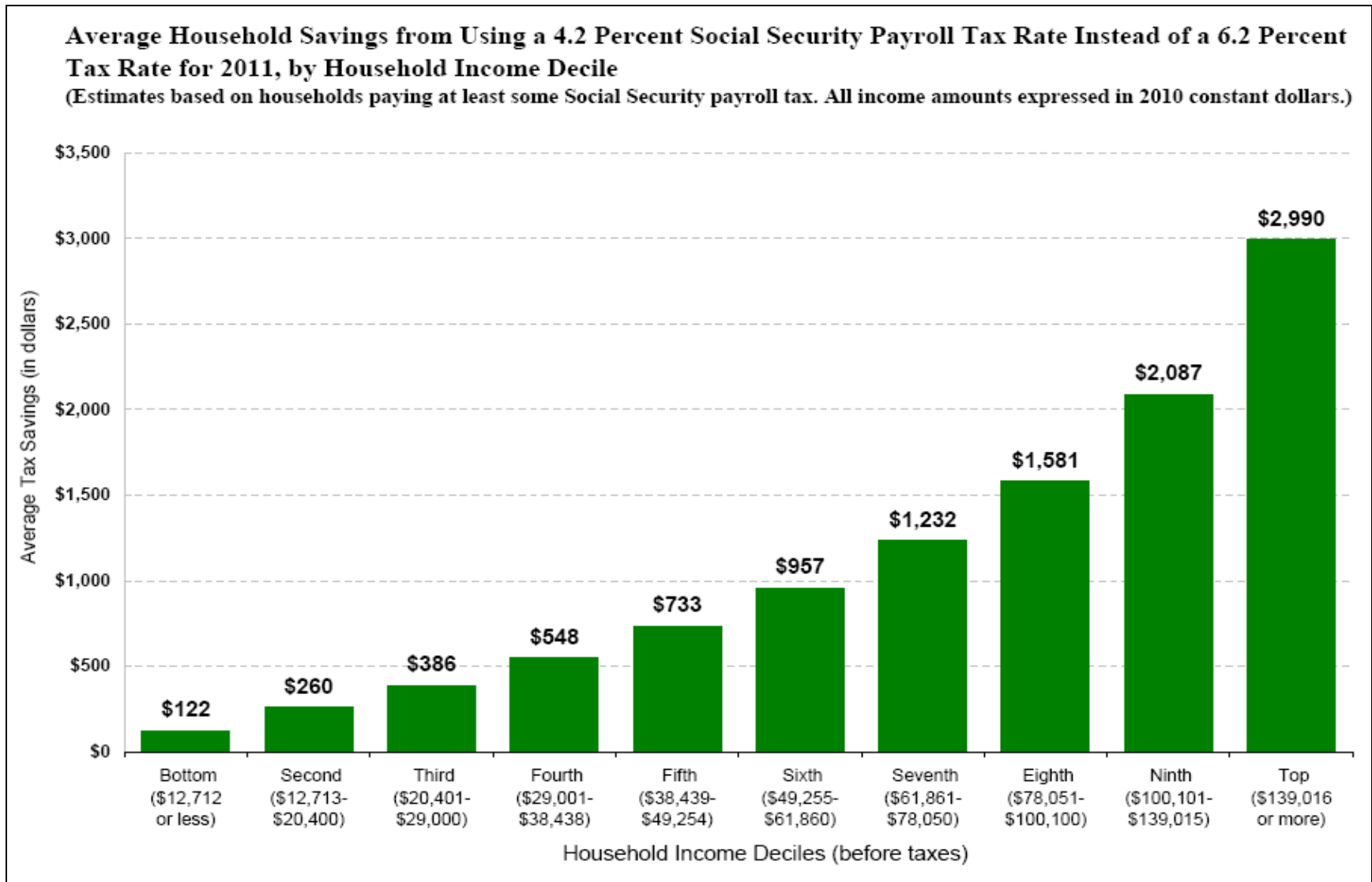
Sources: Sentier Research and U.S. Census Bureau, March 2011 Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC)

Figure 2.



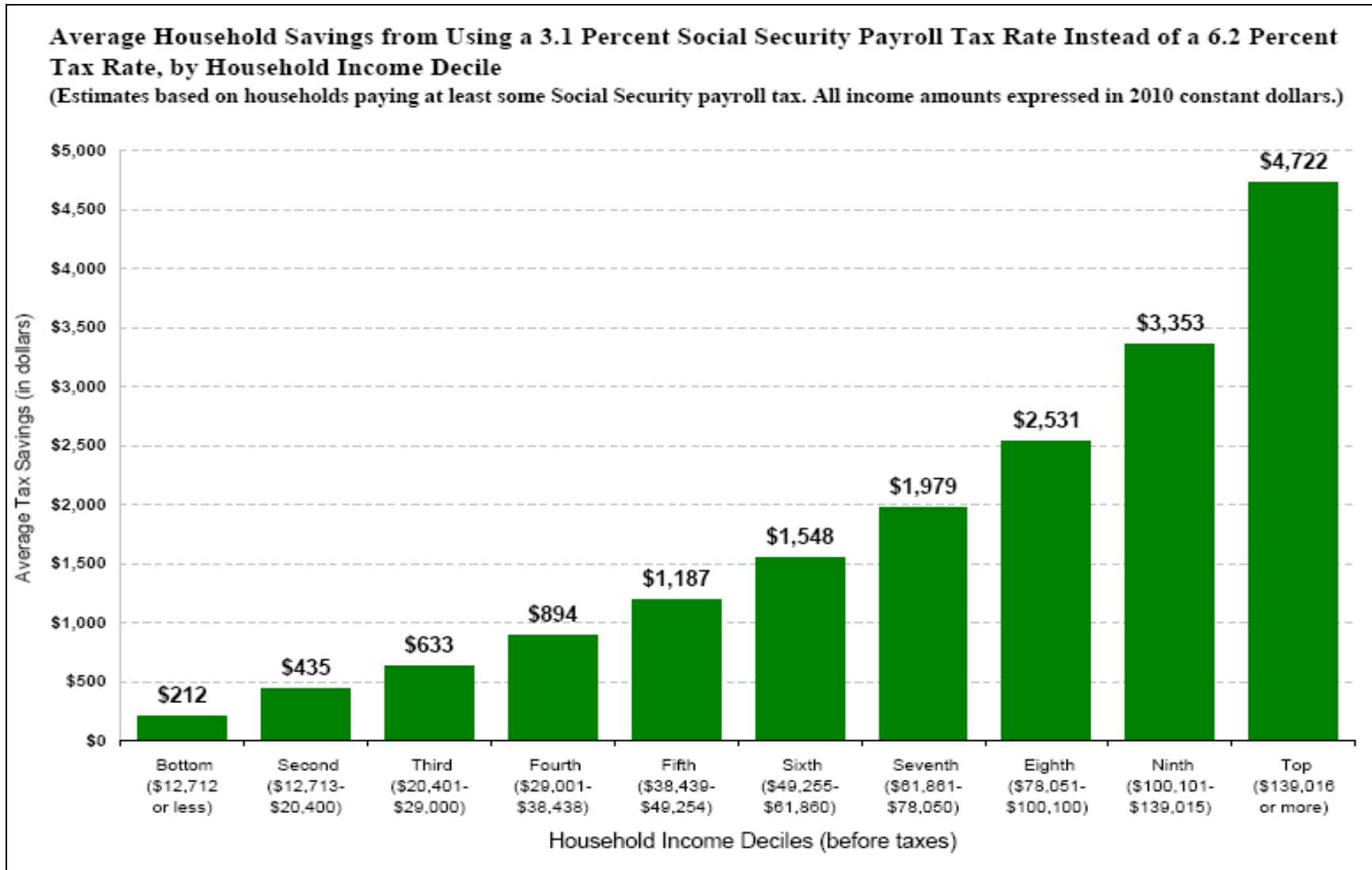
Sources: Sentier Research and U.S. Census Bureau, March 2011 Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC).

**Figure 3.**



Sources: Sentier Research and U.S. Census Bureau, March 2011 Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC).

Figure 4.



Sources: Sentier Research and U.S. Census Bureau, March 2011 Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC).

**Table 1. Estimated Social Security Payroll Taxes Paid by Households for Recently Proposed Alternative Payroll Tax Rates by Total Household Income Deciles: 2010,2011, and 2012 (payroll taxes include both OASDI and HI components)**

Deciles of Total Household Income Before Taxes	Upper Limit of the Specified Decile	Number of Households as of March 2011	Number of Households WITH Nonzero Payroll Tax ( Census Bureau Tax Simulation Model)	Aggregate Payroll Tax at 6.2% for 2010 Census Bureau Tax Simulation Model (millions of dollars)	Aggregate Payroll Tax at 4.2% for 2011 (millions of dollars)	Aggregate Payroll Tax at 3.1% for 2012 (millions of dollars)	Mean Payroll Tax Paid for Households Using 6.2% (Census Bureau Tax Simulation Model) for 2010	Mean Payroll Tax Paid for Households Using 4.2% for 2011	Mean Payroll Tax Paid for Households Using 3.1% for 2012	Mean Household "Making Work Pay" for Households WITH Nonzero Payroll Tax for 2010	Aggregate Amount of "Making Work Pay" for Households WITH Nonzero Payroll Tax for 2010 (millions of dollars)
<b>Total households</b>	(x)	118,682,616	91,023,368	\$471,914	\$355,026	\$284,610	\$5,185	\$3,900	\$3,127	\$594	\$54,068
<b>Household Income Decile</b>											
Bottom	\$12,712	11,868,237	3,435,130	\$1,788	\$1,369	\$1,062	\$521	\$399	\$309	\$266	\$914
Second	\$20,400	11,866,926	5,309,573	\$5,689	\$4,311	\$3,382	\$1,072	\$812	\$637	\$409	\$2,172
Third	\$29,000	11,868,212	7,517,125	\$11,729	\$8,829	\$6,969	\$1,560	\$1,174	\$927	\$478	\$3,593
Fourth	\$38,438	11,869,436	9,067,625	\$19,967	\$14,993	\$11,858	\$2,202	\$1,653	\$1,308	\$540	\$4,897
Fifth	\$49,254	11,866,690	9,828,531	\$28,711	\$21,508	\$17,046	\$2,921	\$2,188	\$1,734	\$597	\$5,868
Sixth	\$61,860	11,869,404	10,614,586	\$40,399	\$30,238	\$23,967	\$3,806	\$2,849	\$2,258	\$650	\$6,899
Seventh	\$78,050	11,866,393	10,939,729	\$53,230	\$39,754	\$31,578	\$4,866	\$3,634	\$2,887	\$713	\$7,800
Eighth	\$100,100	11,869,415	11,323,612	\$70,440	\$52,540	\$41,788	\$6,221	\$4,640	\$3,690	\$732	\$8,289
Ninth	\$139,015	11,869,092	11,363,449	\$94,018	\$70,299	\$55,915	\$8,274	\$6,186	\$4,921	\$756	\$8,591
Top	(x)	11,868,811	11,624,008	\$145,942	\$111,185	\$91,045	\$12,555	\$9,565	\$7,833	\$434	\$5,045
<b>SHARES AND RELATIVES</b>											
<b>Total households</b>	(x)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Household Income Decile</b>											
Bottom	(x)	10.0	3.8	0.4	0.4	0.4	10.0	10.2	9.9	44.8	1.7
Second	(x)	10.0	5.8	1.2	1.2	1.2	20.7	20.8	20.4	68.9	4.0
Third	(x)	10.0	8.3	2.5	2.5	2.4	30.1	30.1	29.6	80.5	6.6
Fourth	(x)	10.0	10.0	4.2	4.2	4.2	42.5	42.4	41.8	90.9	9.1
Fifth	(x)	10.0	10.8	6.1	6.1	6.0	56.3	56.1	55.5	100.5	10.9
Sixth	(x)	10.0	11.7	8.6	8.5	8.4	73.4	73.1	72.2	109.4	12.8
Seventh	(x)	10.0	12.0	11.3	11.2	11.1	93.8	93.2	92.3	120.0	14.4
Eighth	(x)	10.0	12.4	14.9	14.8	14.7	120.0	119.0	118.0	123.2	15.3
Ninth	(x)	10.0	12.5	19.9	19.8	19.6	159.6	158.6	157.4	127.3	15.9
Top	(x)	10.0	12.8	30.9	31.3	32.0	242.1	245.3	250.5	73.1	9.3
Total Household Income includes the value of food stamps.											
Source: U.S Bureau of the Census Public Use Microdata File from the March 2011 CPS ASEC and Computations by Sentier Research for 2011 and 2012.											
All amounts in 2010 dollars.											

**Table 2. Estimated Social Security Payroll Taxes Paid by Households by Selected Household Characteristics for Recently Proposed Alternative Payroll Tax Rates: 2010,2011, and 2012 (payroll tax estimates include both the OASDI and HI components)**

Selected Household Characteristics	Number of Households WITH Nonzero Payroll Tax 2010 (Census Bureau Tax Simulation Model)	2010		2011		2012		Mean Household "Making Work Pay" for Households WITH Nonzero Payroll Tax for 2010
		Aggregate Payroll Tax at 6.2% for 2010 (millions of dollars)	Mean Payroll Tax Paid for Households at 6.2% for 2010	Aggregate Payroll Tax at 4.2% for 2011 (millions of dollars)	Mean Payroll Tax Paid for Households at 4.2% for 2011	Aggregate Payroll Tax at 3.1% for 2012 (millions of dollars)	Mean Payroll Tax Paid for Households at 3.1% for 2012	
<b>All households</b>	91,023,368	\$471,914	\$5,185	\$355,026	\$3,900	\$284,610	\$3,127	\$594
<b>Type of Household</b>								
<b>Family households, total</b>	66,454,019	\$377,502	\$5,681	\$284,145	\$4,276	\$227,853	\$3,429	\$667
<b>Married couples households</b>	49,349,768	\$317,850	\$6,441	\$239,441	\$4,852	\$192,149	\$3,894	\$722
<b>Female householder, with children present</b>	7,528,363	\$21,101	\$2,803	\$15,775	\$2,095	\$12,615	\$1,676	\$447
<b>Other family households</b>	9,575,888	\$38,550	\$4,026	\$28,929	\$3,021	\$23,089	\$2,411	\$556
<b>Nonfamily households, total</b>	24,569,349	\$94,413	\$3,843	\$70,881	\$2,885	\$56,757	\$2,310	\$398
<b>Women living alone</b>	9,575,888	\$38,550	\$4,026	\$28,929	\$3,021	\$23,089	\$2,411	\$556
<b>Men living alone</b>	8,683,337	\$26,833	\$3,090	\$20,026	\$2,306	\$16,084	\$1,852	\$322
<b>Other nonfamily households</b>	9,359,102	\$33,743	\$3,605	\$25,544	\$2,729	\$20,436	\$2,184	\$303
<b>Age of Householder</b>								
<b>Under 25 years old</b>	5,297,604	\$15,972	\$3,015	\$11,978	\$2,261	\$9,573	\$1,807	\$599
<b>25 to 34 years old</b>	18,232,137	\$84,483	\$4,634	\$63,170	\$3,465	\$50,671	\$2,779	\$613
<b>35 to 44 years old</b>	19,744,225	\$112,284	\$5,687	\$84,546	\$4,282	\$68,013	\$3,445	\$602
<b>45 to 54 years old</b>	21,964,642	\$131,092	\$5,968	\$98,558	\$4,487	\$79,113	\$3,602	\$623
<b>55 to 64 years old</b>	17,357,677	\$97,440	\$5,614	\$73,405	\$4,229	\$58,759	\$3,385	\$584
<b>65 years old and over</b>	8,427,083	\$30,645	\$3,636	\$23,369	\$2,773	\$18,481	\$2,193	\$478
<b>Number of Earners</b>								
<b>One earner</b>	44,671,771	\$148,886	\$3,333	\$112,317	\$2,514	\$90,268	\$2,021	\$425
<b>Two earners</b>	37,449,044	\$250,283	\$6,683	\$188,182	\$5,025	\$150,701	\$4,024	\$688
<b>Three earners or more</b>	8,902,553	\$72,746	\$8,171	\$54,528	\$6,125	\$43,641	\$4,902	\$1,050
Source: U.S Bureau of the Census Public Use Microdata File from the March 2011 CPS ASEC and Computations by Sentier Research for 2011 and 2012								
All amounts in 2010 dollars.								

**Table 2 continued. Estimated Social Security Payroll Taxes Paid by Households by Selected Household Characteristics for Recently Proposed Alternative Payroll Tax Rates: 2010,2011, and 2012 (payroll tax estimates include both the OASDI and HI components)**

Selected Household Characteristics	Number of Households WITH Nonzero Payroll Tax 2010 (Census Bureau Tax Simulation Model)	2010		2011		2012		Mean Household "Making Work Pay" for Households WITH Nonzero Payroll Tax for 2010
		Aggregate Payroll Tax at 6.2% for 2010 (millions of dollars)	Mean Payroll Tax Paid for Households at 6.2% for 2010	Aggregate Payroll Tax at 4.2% for 2011 (millions of dollars)	Mean Payroll Tax Paid for Households at 4.2% for 2011	Aggregate Payroll Tax at 3.1% for 2012 (millions of dollars)	Mean Payroll Tax Paid for Households at 3.1% for 2012	
<b>All households</b>	91,023,368	\$471,914	\$5,185	\$355,026	\$3,900	\$284,610	\$3,127	\$594
<b>Race and Ethnicity of Householder</b>								
White alone, not Hispanic	63,117,221	\$352,798	\$5,590	\$265,885	\$4,213	\$213,215	\$3,378	\$587
Black alone, not Hispanic	10,574,058	\$38,872	\$3,676	\$28,990	\$2,742	\$23,238	\$2,198	\$541
Other race combinations, not Hispanic	5,712,782	\$33,690	\$5,897	\$25,257	\$4,421	\$20,297	\$3,553	\$610
Hispanic	11,619,307	\$46,555	\$4,007	\$34,894	\$3,003	\$27,860	\$2,398	\$676
<b>Educational Attainment of Householder</b>								
Not a high school graduate	8,326,973	\$24,119	\$2,896	\$18,183	\$2,184	\$14,385	\$1,728	\$623
High school graduate (includes equivalency)	24,584,505	\$99,322	\$4,040	\$74,601	\$3,034	\$59,285	\$2,411	\$632
Some college, no degree	17,391,517	\$78,175	\$4,495	\$58,633	\$3,371	\$46,812	\$2,692	\$618
Associate degree	9,472,168	\$48,130	\$5,081	\$36,019	\$3,803	\$28,716	\$3,032	\$630
Bachelor's degree or more	31,248,205	\$222,169	\$7,110	\$167,591	\$5,363	\$135,413	\$4,333	\$532
<b>Householder Sector of Employment</b>								
Private sector wage or salary worker (includes nonprofi	56,643,327	\$287,386	\$5,074	\$214,506	\$3,787	\$173,735	\$3,067	\$615
Government sector wage or salary worker	13,253,630	\$76,794	\$5,794	\$56,219	\$4,242	\$45,294	\$3,418	\$617
Self-employed (includes incorporated)	8,411,081	\$61,312	\$7,289	\$49,333	\$5,865	\$37,393	\$4,446	\$409
Householder did not work for pay	12,715,330	\$46,422	\$3,651	\$34,968	\$2,750	\$28,188	\$2,217	\$601
<b>Region</b>								
Northeast	16,317,956	\$93,369	\$5,722	\$70,332	\$4,310	\$56,568	\$3,467	\$582
North Central	20,393,493	\$100,102	\$4,909	\$75,307	\$3,693	\$60,326	\$2,958	\$608
South	33,601,368	\$165,676	\$4,931	\$124,144	\$3,695	\$99,581	\$2,964	\$594
West	20,710,551	\$112,768	\$5,445	\$85,244	\$4,116	\$68,135	\$3,290	\$590
Source: U.S Bureau of the Census Public Use Microdata File from the March 2011 CPS ASEC and Computations by Sentier Research for 2011 and 2012								
All amounts in 2010 dollars.								