Jensen, Matt; Gorry, Aspen

**Working Paper**

# A simple measure of the distributional burden of debt accumulation

AEI Economics Working Paper, No. 2012-04

**Provided in Cooperation with:**
American Enterprise Institute (AEI), Washington, DC

*Suggested Citation:* Jensen, Matt; Gorry, Aspen (2012) : A simple measure of the distributional burden of debt accumulation, AEI Economics Working Paper, No. 2012-04, American Enterprise Institute (AEI), Washington, DC

This Version is available at:
https://hdl.handle.net/10419/280506

# A Simple Measure of the Distributional Burden of Debt

**By Aspen Gorry and Matthew H. Jensen**


Aspen Gorry


Matthew H. Jensen

Aspen Gorry is an assistant professor at the University of California, Santa Cruz, and a research fellow at the American Enterprise Institute, where Matthew H. Jensen is a research associate. The authors thank Alan Viard and William Gale for helpful comments. Regan Kuchan provided excellent research assistance.

This article proposes a measure of the distributional burden of servicing the federal government's debt. The distributional burden depends on the level of interest rates and how the debt service is financed. The authors assess the distributional burden of the current government debt and of future debt projected to accumulate under current law and current policy.

The views expressed herein are solely the authors' and do not reflect those of any other person or institution.



## A. Introduction

Since 2001, large annual deficits have increased the nation's debt to its highest level as a share of GDP since World War II. Future prospects for the budget are even worse. While recent increases in the debt were driven by sluggish economic activity and fiscal policy stimulus associated with the recent recession, demographic shifts put additional pressure on entitlement spending. Large structural deficits are manifest in nearly every budget outlook.

Motivated by these problems, a large amount of literature assesses the role of fiscal policy and the costs of sustained deficits on the economy's performance. The primary macroeconomic consequences of unchecked debt are a reduction in national savings and future national income and a potential increase in interest rates.[1]

These macroeconomic consequences have received significant study, while less attention has been paid to the debt's distributional impact. In this article, we develop a measure of the burden of debt service across income groups and use it to assess the distributional impact of current debt and projected debt accumulations. Our main results can be interpreted as showing how much of each income group's annual tax burden is attributable to the debt service on a given amount of accumulated debt. In other words, we show how much lower taxes could be, given a desired level of deficits, if that debt accumulation did not occur.

Our method has two primary applications. First, it offers a measure of the costs of debt that is easily understood. Knowing that government debt forces taxes to be roughly $3,841 higher every year for households earning $100,000 to $200,000, according to our method, is more interesting than knowing the typical factoid that debt per household is approximately $71,000. In an era of high deficits, debt increases can seem ordinary. The household burden of debt service is likely more visceral.

Second, distributional analysis of debt accumulation is necessary to calculate the overall distributional impact of changes to spending and taxes that affect the level of debt. Although the Congressional Budget Office and the Joint Committee on Taxation

[1]For surveys of the literature, see Douglas W. Elmendorf and N. Gregory Mankiw, "Government Debt," in *Handbook of Macroeconomics* 1615 (1999); William G. Gale and Peter R. Orszag, "Economic Effects of Sustained Budget Deficits," 53 *Nat'l Tax J.* 463 (2003); and John J. Seater, "Ricardian Equivalence," 31 *J. Econ. Literature* 142 (1993). Although the empirical evidence on increasing interest rates is mixed, recent studies that include information about expected future deficits find significant effects on long-term bond yields. *See, e.g.*, Eric M. Engen and R. Glenn Hubbard, "Federal Government Debt and Interest Rates," in *NBER Macroeconomics Annual* 83 (2004); Thomas Laubach, "New Evidence on the Interest Rate Effects of Budget Deficits and Debt," 7 *J. European Econ. Assoc.* 858 (2009); Jose Tavares and Rossen Valkanov, "The Neglected Effect of Fiscal Policy on Stock and Bond Returns," FEUNL Working Paper Series no. 413 (Oct. 2001); and Matthew B. Canzoneri et al., "Should the European Central Bank and the Federal Reserve Be Concerned About Fiscal Policy?" (2002) (paper presented at the Federal Reserve Bank of Kansas City's symposium on Rethinking Stabilization Policy, Kansas City, Mo., Aug. 29-31, 2002). Gale and Orszag (2003), *supra*, provide a summary.

estimate the distributional effects of most spending and tax changes, their estimates do not account for increases or decreases in the level of debt. If, for example, Congress were to pass a law that lowered everyone's tax bill by one dollar but kept spending constant, the government's distributional scorekeepers would report that everyone gains a dollar of after-tax income and that the law is highly progressive, even though it is paid for with debt. Instead, those dollars must be paid for as debt service, and the progressivity of the bill depends on how the debt service is financed.

**B. Method**

A commonly reported method for attributing the burden of debt is to divide the total accumulated debt by the number of households in the United States. Currently, this measure yields a burden of about $71,000 of debt per household. Although it is easier to think about numbers in the thousands than in the trillions, the burden of the debt will certainly not be split evenly among the living population. Instead, the burden will have different impacts on individuals of different incomes and, in all likelihood, be shared by future generations.

This article employs a method similar to that used in Elmendorf and Mankiw (1999)[2] to assess the deadweight loss of servicing the debt discussed. In their framework, the deadweight loss of servicing the debt is computed by multiplying the real interest rate by an estimate of the deadweight loss of raising a dollar of tax revenue. Rather than focusing on the aggregate deadweight loss, we compute the distributional cost to representative households at various income levels.

To assess the distributional impact of the debt, one must make assumptions regarding the timing of payments and the method of finance. To deal with the issue of timing, we measure the cost of servicing the debt in each year by paying the real interest costs. This is the annual cost of a given level of debt assuming that none of the real balance of the debt is paid off. We use real interest rate projections, which include nominal interest and inflation, so that the costs we measure are not degraded by expected levels of inflation. For example, if the government has $100 of debt, the government's nominal interest rate is 5 percent, and inflation is 2 percent, then the real interest rate is 3 percent, and the real cost of servicing the debt next year is $3.

We consider four assumptions regarding how the burden of servicing the debt is distributed across households of various income groups. We list these here in order of decreasing progressivity. In the first scenario, debt service is financed with proportionately higher individual income taxes across the board, so the progressivity of the financing burden matches that of the code as it applies to individual income taxation. In the second scenario, debt service is financed with proportionately higher federal taxes, so the financing burden matches the progressivity of the overall federal tax code. In the third scenario, the debt is serviced with revenue from households proportional to their pretax income, so the financing burden matches the progressivity of a flat rate income tax. In the fourth scenario, the debt service is financed by a uniform dollar payment from all taxpayers, so the financing burden matches the progressivity of a lump sum charge.

Much of the discussion in this article will focus on cases in which the debt is serviced with proportionately higher federal taxes, across the board. This financing method provides an intermediate level of progressivity; it is more progressive than when debt is serviced in proportion to income and less progressive than proportionately higher individual income taxes.[3] Moreover, because government expenditures are financed with taxes or debt and debt service is a government expenditure, this assumption has some inherent appeal. This assumption would fail if government spending or revenues are fixed at a percent of GDP, in which case debt service costs might crowd out other spending. Following Elmendorf, Furman, Gale, and Harris (2008)[4] and Gale, Orszag, and Shapiro (2004),[5] we include the equal-dollar financing mechanism as a proxy for assessing the distributional burden of lower spending,[6] and we include the proportional-to-income financing mechanism as a very rough proxy for the case in which debt service is financed with a mix of lower spending and higher taxes. There is little historical evidence to indicate how debt service is financed in the real world, and even if there were, it

[2]Elmendorf and Mankiw, *supra* note 1.

[3]There are recent historical examples in which taxes other than individual income taxes were increased to cover general spending. The top statutory corporate income tax rate, for example, was increased from 34 to 35 percent in the Omnibus Budget Reconciliation Act of 1993. Even payroll taxes, which are earmarked to pay for Social Security and Medicare Part A, have been changed in response to general budgetary pressures. Most recently, the employee Medicare payroll tax was increased, effective in 2013, from 1.45 to 2.35 percent for high-income earners to offset part of the cost of the Affordable Care Act.

[4]Elmendorf et al., "Distributional Effects of the 2001 and 2003 Tax Cuts: How Do Financing and Behavioral Responses Matter?" 61 *Nat'l Tax J.* 365 (2008).

[5]Gale et al., "Distribution of the 2001 and 2003 Tax Cuts and Their Financing," *Tax Notes*, June 21, 2004, p. 1539.

[6]Depending on which programs are reduced, spending cuts could be even more regressive than this assumption would indicate, as Congress could reduce programs that primarily benefit low-income groups.

would seem imprudent to extrapolate policymakers' decisions in the future. For this reason, our results might be viewed as describing a range of possible outcomes.

Looking at the dollar cost of servicing the debt each year is a reasonable measure of the cost of debt because there is no plan to reduce the real level of debt under current government trajectories. Under our assumptions, the real burden of servicing a dollar of debt issued today remains steady over time. The burden as a share of GDP falls over time, however, because of the growth of real GDP. It is worth noting that issuing debt without paying down the principal amounts to a large transfer of wealth from future generations to current generations. If principal reduction occurred, the current generation would bear a much higher annual household burden, the magnitude of which would depend on how quickly the principal was paid down.

It is useful to emphasize our major assumptions. First, we ignore any macroeconomic consequences of changes in the debt level. This assumption could understate the total debt burden if increases in debt lead to substantially lower national savings, increased interest rates, a heightened risk of financial crisis, or a higher probability of a U.S. government default. The distributional impact of these effects would be, at best, a matter for speculation.

Second, the distributional impact of debt depends on the progressivity of the policy instruments used to service the debt. To highlight the sensitivity of our results to assumptions regarding levels of progressivity, we consider four scenarios of how the debt service is financed.

Finally, all our measures of progressivity are based on the current distribution of household incomes and the current tax code, as set forth in the Urban-Brookings Tax Policy Center's distributional tables for 2013.[7] In actuality, however, the distribution of tax incidence could change substantially over time, either because of changes in the tax code or shifts in the distribution of income. In this light, the results should be interpreted as the distributional impact of additional debt for the 2013 distribution of taxes and income.

### C. $1 Trillion of Debt: An Illustrative Example

This section computes the distributional impact of an increase in the national debt by $1 trillion. Although interesting in its own right, the calculation illustrates the method we use to compute the distributional impact of an increased amount of debt. For this example, we consider the scenario in which marginal interest costs are paid for by higher federal taxes. We also limit the example to the case in which the future tax code is determined by current policy (extending into 2013 all 2012 policies, except a few provisions intended to be temporary).

Column 1 of Table 1 displays the 2013 share of federal taxes paid by different income groups.[8] These shares reflect the average tax rates paid per household as well as the number of households in each income group. The number of households per income group is important for constructing the average tax burden per household, and it is included in column 2 of Table 1. As expected, the shares indicate that high-income groups bear large shares of the federal tax burden. This is the case both because they earn more — as the income distribution has become more skewed in recent decades, the share of the total federal tax burden paid by the wealthiest individuals has increased — and because of the progressivity of the federal tax system.

For example, column 1 of Table 1 shows that households earning $10,000 to $20,000 per year are responsible for 0.26 percent of the tax burden, households earning from $50,000 to $75,000 are responsible for 11.73 percent, and households that earn from $200,000 to $500,000 per year are responsible for 15.27 percent of the total tax burden.[9]

We use the distributional shares of the tax system from column 1 to distribute the cost of a $1 trillion increase in the debt across income groups. Column 3 shows in billions of dollars how much of the $1 trillion each group would pay if the debt were to be

[7]Tax Policy Center, "Table T12-0042 Administration's FY2013 Budget Proposals Major Individual Income and Corporate Tax Provisions Baseline: Current Law Distribution of Federal Tax Change by Cash Income Level, 2013 Summary Table" (2012); TPC, "Table T12-0182 Baseline Distribution of Cash Income and Federal Taxes Under Current Law — All Tax Units by Cash Income Level, 2013" (2012); TPC, "Table T12-0198 Share of Federal Taxes — All Tax Units by Cash Income Level, 2013 Baseline: Current Law" (2012); TPC, "Table T12-0203 Share of Federal Taxes — All Tax Units by Cash Income Level, 2013 Baseline: Current Policy" (2012).

[8]The TPC excludes tax units with negative cash income from the "less than 10" income class, but it includes them in the totals. This makes comparing the results for households with incomes less than $10,000 slightly less accurate, so we will focus our comparisons for low-income groups on households earning $10,000 to $20,000 per year.

[9]In the text we focus the analysis on three groups of households: those earning $10,000 to $20,000, $50,000 to $75,000, and $200,000 to $500,000 per year, which allows us to highlight outcomes for groups representing the working poor, middle-income, and upper-income groups. As shown in column 2 of Table 1, these groups each have a substantial number of households, which should make them fairly representative.

**Table 1. One Trillion Dollars: An Illustrative Example**

| Cash Income Level (dollars in thousands) | (1) Share of Total Taxes (percentage) (Current Policy) | (2) Number of Tax Units (thousands) | (3) One Trillion Dollars Distributed Across Income Groups (in billions) | (4) Household Shares of One Trillion Dollars (dollars) | (5) Expected Annual Household Cost of Servicing One Trillion Dollars of Debt (dollars) |
|---|---|---|---|---|---|
| Less than 10 | 0.1% | 16,041 | $1.1 | $69 | $2 |
| 10-20 | 0.3% | 24,243 | $2.6 | $107 | $3 |
| 20-30 | 1.4% | 19,317 | $14.2 | $735 | $20 |
| 30-40 | 3.1% | 17,482 | $31.0 | $1,773 | $48 |
| 40-50 | 3.8% | 13,879 | $38.2 | $2,752 | $74 |
| 50-75 | 11.7% | 25,633 | $117.3 | $4,576 | $124 |
| 75-100 | 10.7% | 14,610 | $107.1 | $7,331 | $198 |
| 100-200 | 25.6% | 20,204 | $256.3 | $12,686 | $343 |
| 200-500 | 15.3% | 4,780 | $152.7 | $31,946 | $863 |
| 500-1,000 | 6.6% | 728 | $66.3 | $91,071 | $2,459 |
| More than 1,000 | 21.2% | 433 | $211.6 | $488,684 | $13,194 |
| **Total/mean** | **100%** | **158,260** | **$1,000** | **$6,319** | **$171** |

*Source*: Urban-Brookings Tax Policy Center tables T12-0198, T12-0203, T12-0182, and T12-0042; Congressional Budget Office "The 2012 Long-Term Budget Outlook"; and authors' calculations.

paid off in 2013. To pay off $1 trillion of debt, the group of households making $10,000 to $20,000 per year would pay $2.6 billion. The groups of households earning from $50,000 to $75,000 and $200,000 to $500,000 would be responsible for $117.3 billion and $152.7 billion, respectively.

A major problem with interpreting the magnitude of the numbers in column 3 is that there are different numbers of households in each income group. Column 4 divides by the number of households to show the debt per household for each income group in dollars. For example, each household making from $10,000 to $20,000 would pay $107 as their share of reducing the debt by $1 trillion. Each household making from $50,000 to $75,000 would pay $4,576, and those making from $200,000 to $500,000 per year would each pay $31,946.

Column 4 provides an interesting way to view the distributional burden of the debt. Instead of just dividing the total debt by the population, it reports the average burden of paying off $1 trillion of debt by households of different incomes. This is the net present value of all future interest payments on the debt. As the bottom entry of column 4 shows, the simple method of dividing the total debt burden by the number of households would indicate that for $1 trillion of debt, each household would owe approximately $6,319. In contrast, the distributional analysis suggests that each household earning less than $30,000 per year would be responsible for less than $1,000 of the debt reduction. High-income households would end up paying substantially larger portions.

Our preferred measure of the annual cost of servicing the debt is presented in Table 1, column 5. To compute the annual cost, we use the long-run average effective real interest rate on U.S. debt from the CBO. According to the CBO, the average effective real interest rate on U.S. debt will be 2.7 percent in 2025 and remain at approximately the same level until their projections end in 2087.[10] To avoid having our results hinge on the year of analysis, we use the long-run average of 2.7 percent. There are two important caveats. As real income grows over time, a fixed cost of debt service becomes less burdensome. Second, interest rates are currently much lower. Using the long-run average implies that the results should be interpreted as a long-run expected cost of servicing the debt.[11]

At the 2.7 percent rate, the cost of servicing $1 trillion of debt costs $27 billion each year. Column 5 is computed by multiplying each number in column 4 by the interest rate. The results imply that servicing $1 trillion of debt for one year requires a tax

[10]The 2012 CBO long-term budget outlook supplemental tables show average real annual interest rates for 10-year Treasury bonds leveling out at 3 percent starting in 2025. CBO, "The 2012 Long-Term Budget Outlook" (June 1, 2012), *Doc 2012-12113, 2012 TNT 109-23*. A footnote indicates that the average effective rate is 0.3 percentage points below the 10-year Treasury rate.

[11]In an earlier version of this paper, we show results for current policy using the CBO's lower interest rate projections for 2012 through 2025. *See* Aspen Gorry and Matthew H. Jensen, "A Simple Measure of the Distributional Burden of Debt Accumulation," AEI Economic Policy Studies Working Paper (Oct. 2012).

increase of $3 for households earning from $10,000 to $20,000 of income, $124 for households earning $50,000 to $75,000, and $863 for households earning $200,000 to $500,000.

**D. Historical and Future Debt Accumulation**

In this section, we use the method outlined in Section C to compute the distributional burden of historically accumulated debt and of future projected debt for the current policy and current law budget scenarios. Under both current law and current policy, debt will continue to grow, although under current law, the fiscal cliff implies a large reduction in the rate of growth of nominal debt due to spending cuts and tax increases. Maintaining current policy implies that debt will grow more rapidly.[12]

The tables in this section report all four scenarios regarding the marginal source of revenue used to service the debt. However, the text highlights the results implied by the scenario with proportionately higher federal taxes.

**1. All current debt.** According to TreasuryDirect,[13] the government has $11.254 trillion of net debt outstanding as of September 26, 2012. Table 2 distributes the interest costs of servicing that debt by households across income groups. Assuming the 2.7 percent long-run interest rate, the debt will require interest payments of approximately $304 billion per year. Current payments are much lower because interest rates are at historically low levels.

Columns 1 and 2 of the table assume that, on the margin, interest costs are funded by proportionately increasing all federal taxes. Column 1 assumes that the tax code follows current law (notably, allowing provisions in the Bush tax cuts to expire from no agreement on the fiscal cliff), and column 2 assumes that the tax code follows current policy (extending 2012 policies to 2013). Columns 3 and 4 assume that interest costs are funded, on the margin, through proportionately higher individual income taxes.[14] Column 3 assumes the tax code follows current law, and column 4 assumes the tax code follows current policy. Column 5 assumes that interest costs are funded by a charge proportional to pretax income, and column 6 assumes they are funded by an equal charge for all households.[15]

Comparing the columns in the table shows that individual income taxes are most progressive, followed by all federal taxes, proportional-to-income financing, and equal-dollar-charge financing. Moreover, columns 1 and 2 show the tax portion of current policy is more progressive than that of current law.

Focusing on the scenario in which debt service is financed with all federal taxes under current law, households with cash income from $10,000 to $20,000 will bear $69 per year of the interest payments on today's debt. Households with cash income from $50,000 to $75,000 will bear $1,366 of annual costs, and households with cash income from $200,000 to $500,000 will bear $9,586. Under a current policy distribution, these income groups would bear $33, $1,390, and $9,707 of the interest costs, respectively.

**2. Distributions of the projected accrual of net debt from 2013 to 2022 under current law and current policy.** This section uses the method described in this article to examine the distributional burdens from projected accrual of debt under current law and current policy budget outlooks. We use the CBO's projections of net debt levels at the end of fiscal 2022 under current law and current policy.[16] In addition to distributing both of the debt accumulations proportionally to income and in an equal-dollar manner, the current law increase in debt of $3.21 trillion from September 26, 2012, through 2022 is distributed according to the Tax Policy Center's distributional analysis for current law. The current policy net debt increase of $10.927 trillion is distributed according to the TPC's distributional analysis for current policy.

The interest costs of these plans, distributed to households by income group, are included in Table 3. The annual long-run interest costs associated with the projected accrual $3.21 trillion of debt under current law, assuming that debt service is financed with proportionately higher federal taxes, are included in column 1. It would be $20 for households with $10,000 to $20,000 of cash income, $390 for households with $50,000 to $75,000 of cash income, and $2,734 for households with $200,000 to $500,000 of cash income.

---

[12]Gorry and Jensen, *supra* note 11, provide distributional analysis of past presidents' debt accumulation and projections for the Obama administration's budget.

[13]TreasuryDirect, "The Debt to the Penny and Who Holds It" (2012).

[14]A lower bound is set at zero for the share of taxes paid by any income group. The negative shares reported by the TPC for the bottom three groups are distributed to the other income groups.

[15]We include households with negative cash income.

[16]CBO, "An Update to the Budget and Economic Outlook: Fiscal Years 2012 to 2022" (Aug. 2012), *Doc 2012-17803, 2012 TNT 164-13*.

**Table 2. Expected Annual Household Costs of Servicing All Government Net Debt (dollars)**

| Cash Income Level (dollars in thousands) | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| | All Federal Taxes | | Individual Income Taxes | | Proportional to Income | Equal Dollar |
| | Current Law | Current Policy | Current Law | Current Policy | All | All |
| Less than 10 | $34 | $21 | $0 | $0 | $149 | $1,920 |
| 10-20 | $69 | $33 | $0 | $0 | $417 | $1,920 |
| 20-30 | $275 | $223 | $0 | $0 | $693 | $1,920 |
| 30-40 | $568 | $539 | $242 | $76 | $983 | $1,920 |
| 40-50 | $843 | $836 | $514 | $381 | $1,260 | $1,920 |
| 50-75 | $1,366 | $1,390 | $1,029 | $950 | $1,714 | $1,920 |
| 75-100 | $2,184 | $2,227 | $1,832 | $1,760 | $2,437 | $1,920 |
| 100-200 | $3,841 | $3,855 | $3,690 | $3,559 | $3,694 | $1,920 |
| 200-500 | $9,586 | $9,707 | $11,385 | $12,046 | $7,835 | $1,920 |
| 500-1,000 | $26,921 | $27,673 | $35,739 | $39,506 | $18,868 | $1,920 |
| More than 1,000 | $148,420 | $148,490 | $194,801 | $205,364 | $91,005 | $1,920 |
| **Mean** | **$1,920** | **$1,920** | **$1,920** | **$1,920** | **$1,920** | **$1,920** |

*Source*: TPC tables T12-0198, T12-0203, T12-0182, and T12-0042; CBO 2012 Long-Term Budget Outlook; and authors' calculations.

**Table 3. Expected Annual Costs of Servicing Government Net Debt Expected to Accrue Between September 26, 2012, and 2022 Under Current Law and Current Policy (dollars)**

| Cash Income Level (dollars in thousands) | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| | Current Law | | | | Current Policy | | | |
| | All Federal Taxes | Individual Income Taxes | Proportional to Income | Equal Dollar | All Federal Taxes | Individual Income Taxes | Proportional to Income | Equal Dollar |
| Less than 10 | $10 | $0 | $42 | $548 | $20 | $0 | $145 | $1,864 |
| 10-20 | $20 | $0 | $119 | $548 | $32 | $0 | $405 | $1,864 |
| 20-30 | $79 | $0 | $198 | $548 | $217 | $0 | $673 | $1,864 |
| 30-40 | $162 | $69 | $280 | $548 | $523 | $74 | $954 | $1,864 |
| 40-50 | $240 | $147 | $359 | $548 | $812 | $370 | $1,223 | $1,864 |
| 50-75 | $390 | $294 | $489 | $548 | $1,350 | $922 | $1,664 | $1,864 |
| 75-100 | $623 | $523 | $695 | $548 | $2,163 | $1,709 | $2,366 | $1,864 |
| 100-200 | $1,096 | $1,053 | $1,054 | $548 | $3,743 | $3,456 | $3,587 | $1,864 |
| 200-500 | $2,734 | $3,247 | $2,235 | $548 | $9,425 | $11,696 | $7,608 | $1,864 |
| 500-1,000 | $7,679 | $10,194 | $5,382 | $548 | $26,869 | $38,358 | $18,320 | $1,864 |
| More than 1,000 | $42,334 | $55,563 | $25,958 | $548 | $144,176 | $199,397 | $88,361 | $1,864 |
| **Mean** | **$548** | **$548** | **$548** | **$548** | **$1,864** | **$1,864** | **$1,864** | **$1,864** |

*Source*: TPC tables T12-0198, T12-0203, T12-0182, and T12-0042; CBO 2012 Long-Term Budget Outlook; CBO Updated Budget and Economic Outlook; and authors' calculations.

Column 5 shows that the $10.927 trillion of net debt projected to accrue under current policy would lead to long-run average household interest costs of $32 for the $10,000 to $20,000 income group, $1,350 for the $50,000 to $75,000 income group, and $9,425 for the $200,000 to $500,000 income group.

Although the current policy outlook is more progressive than the current law outlook, the dollar burden for low-income households is smaller under current law because the deficit is lower. This illustrates the importance of combining distributional analysis of debt accumulation with distributional analyses of changes to taxes and spending.

## E. Conclusion

This article proposes a simple measure to compute the distributional burden of federal debt. The measure is the real annual cost of servicing the debt and can easily be computed using the level of government debt and expected real interest rates. The distributional impact then can be computed using assumptions about the method by which debt

service is financed. Using this method, we compute the average annual cost for each income group for $1 trillion of debt and apply the method to the current debt and to projected accumulations of debt under current law and current policy. Given high current and future deficits, understanding the distributional burden of servicing debt is important.