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Occupy the Tax Code: Using the Estate Tax to Reduce Inequality and Spur Economic Growth

Paul L. Caron & James R. Repetti*

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I. INTRODUCTION

Tax policy is broken in Washington, D.C. The recent “negotiations” surrounding the “fiscal cliff” are merely the latest play in the long-running theater starring the Democratic and Republican parties. In crude terms, the Democratic position advocates tax increases and resists spending cuts to address the growing inequality in America. The Republican position, in contrast, resists tax increases because of concerns about economic growth and advocates spending cuts to address the federal government’s exploding national debt. The parties’ positions have become entrenched in recent years, with politicians increasingly catering to the extreme wings of their parties and eschewing compromise. We argue that one way to break the impasse currently entangling tax policy is through pro-growth tax reform that reduces both inequality and budget deficits. Although much maligned, the estate tax is an ideal place to begin this effort because it can address inequality concerns more efficiently than the income tax.

Part II of this Article summarizes the data that show that income and wealth inequality has increased dramatically in the United States over the past thirty years. It also reviews studies that demonstrate that we should care about inequality because it contributes to a variety of adverse social consequences that persist across generations. There is also substantial empirical evidence that inequality has a long-term negative impact on economic growth.

Part III explores whether taxes can help to reduce inequality. Several studies show that federal tax policy has played an important role in reducing inequality. We argue that the estate tax is a particularly apt reform vehicle because inherited assets are a major source of wealth among the rich, and studies suggest that inherited wealth has a more deleterious impact on economic growth than inequality caused by self-made wealth. Although there are loopholes in the estate tax, it is still effective in moderating the amount of wealth that is passed from generation to generation.

Part IV examines the major criticism about the estate tax—that it discourages savings. This part shows that standard tax theory cannot predict the impact of the estate tax on savings and that the empirical evidence is mixed. It also argues that the estate tax has a less harmful

1. See infra Part II.
2. See infra Part II.A–B.
3. See infra Part II.C.
4. See infra Part III.
5. See infra Part III.A.
6. See infra Part III.B.
7. See infra Part III.B.
8. See infra Part IV.
impact on savings than the income tax for two reasons. First, the event that triggers estate tax liability—death—is ignored by taxpayers during the period of life in which they are likely to be most productive. Second, the expected value of the estate tax’s effective rate is quite low during the period of life in which most taxpayers create wealth. As a result, we propose that Congress restore the wealth transfer tax exemption level ($3,500,000) and top rate (45%) as in effect in 2009 and as proposed by President Obama in his 2014 federal budget.

II. INEQUALITY MATTERS

A. Societal Effects of Inequality

As has been extensively chronicled elsewhere, it is indisputable that there is growing income and wealth inequality in the United States. For example, as shown in Chart 1, the Congressional Budget Office reports that for the period 1979 to 2009, after-tax inflation-adjusted household income of the top 1% of households grew 155%, the next 19% grew 58%, the middle 60% grew 37%, and the bottom 20% grew 45%.


Similarly, Emmanuel Saez reports that, as shown in Table 1, a majority of the income gains over the past eighteen years has been captured by the top 1\%.\textsuperscript{11} Over the entire period, 52\% of the income gains went to the top 1\%, who experienced 58\% income growth (compared to 6.4\% income growth of the bottom 99\%).\textsuperscript{12} During the Clinton (1993–2000) and Bush (2002–2007) economic expansions, 45\% and 65\%, respectively, of the income gains went to the top 1\%.\textsuperscript{13} During the Obama economic recovery (2007–2009) an astounding 93\% of the income gains went to the top 1\%.\textsuperscript{14} During the two economic recessions in this period (2000–2002, 2007–2009), 57\% and 49\%, respectively, of the income losses were borne by the top 1\%.\textsuperscript{15}

\begin{thebibliography}{9}
\bibitem{Saez14} Saez, supra note 9, at 3.
\bibitem{Id14} Id.
\bibitem{Id13} Id.
\bibitem{Id14} Id. at 4.
\bibitem{Id15} Id. at 3.
\end{thebibliography}
TABLE 1

<table>
<thead>
<tr>
<th></th>
<th>Average Income Real Growth</th>
<th>Top 1% Incomes Real Growth</th>
<th>Bottom 99% Incomes Real Growth</th>
<th>% of Growth or Loss Captured by Top 1%</th>
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</thead>
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<tr>
<td><strong>Full Period 1993–2010</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinton Expansion 1993–2000</td>
<td>31.5%</td>
<td>98.7%</td>
<td>20.3%</td>
<td>45%</td>
</tr>
<tr>
<td>Recession 2000–2002</td>
<td>(11.7%)</td>
<td>(30.8%)</td>
<td>(6.5%)</td>
<td>57%</td>
</tr>
<tr>
<td>Bush Expansion 2002–2007</td>
<td>16.1%</td>
<td>61.8%</td>
<td>6.8%</td>
<td>65%</td>
</tr>
<tr>
<td>Recession 2007–2009</td>
<td>(17.4%)</td>
<td>(36.3%)</td>
<td>(11.6%)</td>
<td>49%</td>
</tr>
<tr>
<td>[Obama] Recovery 2009–2010</td>
<td>2.3%</td>
<td>11.6%</td>
<td>0.2%</td>
<td>93%</td>
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</tbody>
</table>


Edward N. Wolff documents the growing concentration of wealth in the United States from 1983 to 2010 in Table 2. In these years, the share of wealth of the top 20% rose from 82.3% (the sum of 33.8% plus 47.5% in 1983) to 88.9% (the sum of 35.4% plus 53.5% in 2010):

TABLE 2

<table>
<thead>
<tr>
<th>Year</th>
<th>Top 1%</th>
<th>Next 19%</th>
<th>Bottom 80%</th>
</tr>
</thead>
<tbody>
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<td>33.8%</td>
<td>47.5%</td>
<td>18.7%</td>
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<td>1989</td>
<td>37.4%</td>
<td>46.2%</td>
<td>16.4%</td>
</tr>
<tr>
<td>1992</td>
<td>37.2%</td>
<td>46.6%</td>
<td>16.2%</td>
</tr>
<tr>
<td>1995</td>
<td>38.5%</td>
<td>45.4%</td>
<td>16.1%</td>
</tr>
<tr>
<td>1998</td>
<td>38.1%</td>
<td>45.3%</td>
<td>16.6%</td>
</tr>
<tr>
<td>2001</td>
<td>33.4%</td>
<td>51.0%</td>
<td>15.6%</td>
</tr>
<tr>
<td>2004</td>
<td>34.3%</td>
<td>50.3%</td>
<td>15.3%</td>
</tr>
<tr>
<td>2007</td>
<td>34.6%</td>
<td>50.5%</td>
<td>15.0%</td>
</tr>
<tr>
<td>2010</td>
<td>35.4%</td>
<td>53.5%</td>
<td>11.1%</td>
</tr>
</tbody>
</table>


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The concentration is more pronounced in the case of financial wealth (excluding homes), as shown in Table 3. \(^{17}\) From 1983 to 2010, the share of wealth of the top 20% rose from 91.3% to 95.3%:

<table>
<thead>
<tr>
<th>Year</th>
<th>Top 1%</th>
<th>Next 19%</th>
<th>Bottom 80%</th>
</tr>
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<tbody>
<tr>
<td>1983</td>
<td>42.9%</td>
<td>48.4%</td>
<td>8.7%</td>
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<tr>
<td>1989</td>
<td>46.9%</td>
<td>46.5%</td>
<td>6.6%</td>
</tr>
<tr>
<td>1992</td>
<td>45.6%</td>
<td>46.7%</td>
<td>7.7%</td>
</tr>
<tr>
<td>1995</td>
<td>47.2%</td>
<td>45.9%</td>
<td>7.0%</td>
</tr>
<tr>
<td>1998</td>
<td>47.3%</td>
<td>43.6%</td>
<td>9.1%</td>
</tr>
<tr>
<td>2001</td>
<td>39.7%</td>
<td>51.5%</td>
<td>8.8%</td>
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<tr>
<td>2004</td>
<td>42.2%</td>
<td>50.3%</td>
<td>7.5%</td>
</tr>
<tr>
<td>2007</td>
<td>42.7%</td>
<td>50.3%</td>
<td>7.0%</td>
</tr>
<tr>
<td>2010</td>
<td>42.1%</td>
<td>53.3%</td>
<td>4.7%</td>
</tr>
</tbody>
</table>


The Organisation for Economic Cooperation and Development (OECD) also collects detailed data on income inequality across countries. \(^{18}\) In *Divided We Stand: Why Inequality Keeps Rising*, the OECD documents the increasing income inequality in OECD countries, with the richest 10% in these countries having average incomes approximately nine times that of the poorest 10%. \(^{19}\) The United States has the fourth-highest inequality in the OECD (after Chile, Mexico, and Turkey), rising 25% since 1980. \(^{20}\)

As discussed extensively in a variety of sources, inequality has significant adverse societal consequences. \(^{21}\) In *The Spirit Level: Why Greater Equality Makes Societies Stronger*, \(^{22}\) for example, Richard Wilkinson and Kate Pickett argue that a variety of health and social

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\(^{17}\) Id. at 11–12.


\(^{20}\) OECD, *Divided We Stand*, supra note 19.


\(^{22}\) RICHARD WILKINSON & KATE PICKETT, *THE SPIRIT LEVEL: WHY GREATER EQUALITY MAKES SOCIETIES STRONGER* (2009). Wilkinson and Pickett use as their measure of income inequality the ratio of the income received by the richest twenty percent to the poorest twenty percent. Id. at 17–18.
problems (life expectancy, math and literacy, infant mortality, homicides, imprisonment, teenage births, level of trust, obesity, mental illness (including drug and alcohol addiction), and social mobility) are worse in countries with greater income inequality. This is shown below:

CHART 2


Wilkinson and Pickett note that these adverse health and social problems persist regardless of the level of average income (richer countries do not achieve better outcomes). Moreover, they find similar results across the fifty states in the United States. As shown in Chart 3, health and social problems are strongly related to the level of income inequality in each state, regardless of level of average income:

23. Id. at 19–20.
24. Id. at 20.
25. Id. at 21–22.
26. Id. at 22; see also Richard G. Wilkinson & Kate E. Pickett, Income Inequality and Social
B. Generational Effects of Inequality

The adverse effects of inequality are especially pernicious because they persist across generations. Economists use an elasticity measure on a scale of zero to one to measure intergenerational income mobility. An elasticity of zero indicates that parents’ income is not at all related to their adult children’s income, while an elasticity of one indicates that adult children end up in exactly the same income class as their parents. A November 2012 Congressional Research Service report surveyed the economic literature and concluded that “[e]mpirical analyses have estimated a strong positive relationship—about 0.5—between parent and child income in the United States.” This means that:

If the income of a child’s parents was 30% higher than the average income of families in the parents’ generation, then the child’s
income will be 15% above the average for his/her generation. In other words, in the United States, about 50% of the (dis)advantage of growing up in a (low) high income family may be inherited.32

Another recent study by the OECD measured the earnings intergenerational elasticity for the United States to be 0.47.33 Other economists using a different data set have found intergenerational earnings elasticity of 0.6, suggesting that a family earning half the national average income could expect to take five generations to reach the average income level.34

The strong intergenerational effect may be attributable to the health issues that are associated with inequality discussed above. In addition, inequality also impairs educational opportunities. Many have noted that the children of lower income parents tend to perform more poorly in standardized tests and to obtain lower levels of education than children of higher income parents.35 Bruce Ackerman and Anne Alstott succinctly summarized the studies when they stated:

The statistics are strikingly consistent. Children who grow up in poor households are more likely to become teen mothers, to drop out of high school, to accumulate fewer years of education, and to perform worse on cognitive tests. Children whose parents did not complete high school are much more likely to become dropouts themselves. The adult children of the poor are more likely to be unemployed as young adults and more likely to be on welfare.

32. Id.
35. See, e.g., OECD, Economic Policy, supra note 33, at 189–97; see also Repetti, Democracy, Taxes, and Wealth, supra note 21, at 837–40 (summarizing the studies).
Although there is significant controversy over the role of money in causing these divergent outcomes, the correlation is strong and widely acknowledged.  

C. Economic Effects of Inequality

1. Theory of Economic Effects of Inequality

Thirty years ago, most economists believed that a trade-off existed between equity and efficiency. It was often said that “greater equality of income can only be bought at the cost of lower productivity.” The conventional view was that inequality should increase growth because (1) the poor would be motivated to work harder; (2) the wealthy had a higher marginal propensity to save than the poor; and (3) only the wealthy could make the large capital commitment necessary for industrial growth.

As discussed below, however, the long-term empirical studies unanimously suggest that rather than help growth, inequality hurts long-term growth. Several theories have been suggested to explain these empirical results. Some have argued that nations with high concentrations of wealth experience poor growth rates because such countries seek to redistribute wealth by using progressive tax rates and taxing income from capital. The theory is that the majority of voters will derive small amounts of income from labor and capital, and, therefore, will favor higher tax rates on higher amounts of income. The high tax rates will in turn discourage capital investment and impair growth.

39. See Repetti, Democracy, Taxes, and Wealth, supra note 21, at 836–40, for an earlier and more detailed review of these theories.
41. See Alesina & Rodrik, Distributive Politics, supra note 40, at 476–78; Persson & Tabellini, Inequality, supra note 40, at 604.
42. Alesina & Rodrik, Distributive Politics, supra note 40, at 476–78; Persson & Tabellini, Inequality, supra note 40, at 604.
This explanation initially seemed to be supported by the findings of Alesina and Rodrik that countries with high inequality have low investment in capital as a percentage of their gross domestic product. However, studies that included tax rates directly in their regression models found that high tax rates do not play a negative role. Charles Garrison and Feng-Yao Lee included sixty-three countries (forty-five low income and eighteen industrial) in their study and found no support for the hypothesis that increases in tax rates adversely affect economic activity. Similarly, Roberto Perotti found no empirical evidence that taxes adversely affected the growth rate of the sixty-seven countries in his sample. Using the average marginal tax rate as the tax variable in his regression models, Perotti found that the coefficient for tax was positive and highly significant, suggesting that higher tax rates correlate with higher growth. There are many potential explanations for these findings. Perotti suggests that they indicate that the countries with higher tax rates are engaging in redistributive policies that enhance social consensus and thereby increase productivity, or, alternatively, that such countries engage in policies that increase investment in education. Not surprisingly, other studies have confirmed that the impact of taxes cannot be studied in isolation. Instead, to determine accurately the impact on growth, it is necessary to analyze both governmental taxes and governmental expenditures because both can have positive and negative effects.

Other studies suggest that different sociopolitical and economic factors contribute to the negative impact of inequality on growth. For example, several have suggested that the failure of countries with inequality to invest

43. Alesina & Rodrik, Distribution, supra note 40, at 43.
45. Roberto Perotti, Growth, Income Distribution and Democracy: What the Data Say, 1 J. ECON. GROWTH 149, 151 (1996) [hereinafter Perotti, Growth]. One study that has found statistical support for the argument that higher taxes are responsible for slower growth in countries with concentrated wealth, Reinhard Koester & Roger C. Kormendi, Taxation, Aggregate Activity and Economic Growth: Cross-Country Evidence on Some Supply Side Hypothesis, 27 ECON. INQUIRY 367, 367 (1989), has been challenged as resulting from skewed data. See also Garrison & Lee, supra note 44.
46. Perotti, Growth, supra note 45, at 170.
47. Id. at 171.
adequately in providing educational opportunities is a factor.\textsuperscript{50} Others posit that the presence of social unrest caused by inequality contributes to poor economic growth.\textsuperscript{51} Moreover, the difficulty of enforcing property rights in polarized societies also seems to be a mechanism through which inequality hurts economic growth.\textsuperscript{52}

2. The Long-Term Empirical Studies (Fifteen Years Through Thirty-five Years)

There is substantial empirical evidence suggesting that inequality has a long-term negative impact on economic growth.\textsuperscript{53} A 1999 survey of the studies stated that “several studies have examined the impact of inequality upon economic growth. The picture they draw is impressively unambiguous, since they all suggest that greater inequality reduces the rate of growth.”\textsuperscript{54} As shown in Table 4, this relationship still holds today. All of the empirical studies that have examined the impact of inequality on growth in the long run suggest that high concentrations of wealth correlate with poor economic performance.\textsuperscript{55} Because wealth is often difficult to measure, most of the studies use concentrations of income as a proxy for wealth.\textsuperscript{56} Many economists believe that this may not affect the results because concentrations of income follow the same patterns as concentrations of wealth,\textsuperscript{57} but a recent study has concluded—after examining data from countries that collect data on both distributions of income and wealth—that the distribution of wealth in those countries is more concentrated than the distribution of income.\textsuperscript{58}

\begin{table}
\caption{Table 4: Inequality and Economic Growth}
\begin{tabular}{|c|c|}
\hline
Inequality Measure & Impact on Economic Growth \\
\hline
Wealth & Decreased \\
Income & Increased \\
\hline
\end{tabular}
\end{table}

\begin{thebibliography}{99}
\bibitem{53}For earlier discussions of this point see Repetti, \textit{Democracy, Taxes, and Wealth}, supra note 21, at 831–40; Repetti, \textit{Democracy and Opportunity}, supra note 21, at 1147–52.
\bibitem{54}Aghion, Caroli & García-Peñola, supra note 38, at 1617.
\bibitem{55}See infra Table 4.
\bibitem{56}See Aghion, Caroli & García-Peñola, supra note 38, at 1617.
\bibitem{57}Id. at 1617–18.
\bibitem{58}See, e.g., James B. Davies, Susanna Sandström, Anthony Shorrocks & Edward N. Wolff, \textit{The World Distribution of Household Wealth} 1, 7 (United Nations Univ. World Inst. for Dev’t Econ.}

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### TABLE 4

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<th>Author</th>
<th>Time Period between Measure Date of Inequality and Growth</th>
<th>Negative Correlation between Inequality and Growth</th>
<th>Positive Correlation between Inequality and Growth</th>
<th>No Relationship between Inequality and Growth</th>
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</table>

1. Found a negative relationship between initial inequality and subsequent growth in rural states, but found that inequality in urban states had no effect.
2. Inequality measured as inequality in human capital.
3. Found inverted U relationship. When income inequality is low, further redistribution hurts economic growth. When initial income inequality is high, income redistribution enhances economic growth.
4. Inequality hinders growth in poor countries, but helps growth in rich countries.
5. Inequality measured by concentration of billionaires.
6. Found that changes in inequality (decreases or increases) slow growth.
7. Found negative relationship using household data, but no relationship using county data.
8. Inequality at the top end of the distribution is positively associated with growth, while inequality lower down the distribution is negatively related to subsequent growth.
9. Concentration of billionaires who inherited their wealth correlates negatively with economic growth, but concentration of self-made billionaires concentrates positively with growth.
10. Inequality has complex wave-like relationship to growth.

In Table 4, all nineteen of the published studies that have examined the relationship of high concentrations of income to economic growth at the beginning of a period that extends fifteen years or longer have found that high income concentration correlates with poor economic growth. For example, Alesina and Rodrik found that growth rates in per capita gross


In contrast, the results of studies that have used shorter time periods are mixed. For a survey of the studies, see Lloyd-Ellis, supra note 37, at S66 (2003); Repetti, Democracy, Taxes, and Wealth, supra note 21, at 831–35. As discussed in Repetti, Democracy, Taxes, and Wealth, supra note 21, at 836, and Lloyd-Ellis, supra note 37, at S77, it is likely that the long-term studies reflect a more accurate picture because the factors that hurt productivity growth are most likely to manifest themselves over a long period of time.
domestic product for the period 1960 through 1985 in sixty-five countries that are democracies correlated negatively with the portion of national income earned by the top five percent and twenty percent of earners in 1960.\textsuperscript{60} The more concentrated income was in a small group, the lower the growth rate in productivity. Another study by Persson and Tabellini of eighty countries consisting of democracies and non-democracies found that an unequal distribution of income at the beginning of a twenty-five year period was “bad for growth in democracies,” while concentrated land ownership at the start of the period was “bad for growth everywhere” during the ensuing twenty-five years.\textsuperscript{61} A similar study of sixty-seven countries for the period 1960 through 1985 also found that unequal income distribution at the beginning of the period correlated with poor economic growth during the twenty-five year period.\textsuperscript{62}

Another study of nine European countries and the United States that divided data from the years 1830 to 1985 into seven twenty-year periods and one fifteen-year period (1970–1985) found that concentrated income distribution at the start of each period correlated with poor economic growth during that period.\textsuperscript{63} Similarly, a study found that income inequality in 1970 correlated with poor growth for the period of 1970 to 1988.\textsuperscript{64} Another study used local panel data to examine the effect of inequality in rural villages in China on income for the subsequent fifteen years for households in the villages.\textsuperscript{65} The study found that higher inequality at the start of the fifteen-year period resulted in lower economic growth.\textsuperscript{66}

One other long-term study has found a more complex relationship. Chen, using cross-country data for a twenty-two-year period, found that when income equality is low, further redistribution hurts economic growth.\textsuperscript{67} In contrast, however, when initial income inequality is high, income redistribution enhances economic growth.\textsuperscript{68}

\begin{itemize}
\item \textsuperscript{60} Alesina & Rodrik, \textit{Distributive Politics}, supra note 40.
\item \textsuperscript{61} Persson & Tabellini, \textit{Growth}, supra note 40, at 18; see also Deininger & Squire, \textit{supra note 59}, at 268–69 (finding that concentrated land ownership in 1960 correlated with poor economic growth for the period 1960 to 1992).
\item \textsuperscript{62} Perotti, \textit{Growth}, supra note 45.
\item \textsuperscript{63} Persson & Tabellini, \textit{Inequality}, supra note 40, at 601, 607.
\item \textsuperscript{64} Clarke, \textit{supra note 59}, at 403.
\item \textsuperscript{65} Benjamin, Brandt & Giles, \textit{supra note 59}, at 1281.
\item \textsuperscript{66} \textit{Id.} at 1294.
\item \textsuperscript{67} Been-Lon Chen, \textit{An Inverted-U Relationship Between Inequality and Long-Run Growth}, \textit{78 Econ. Letters} 205, 206 (2003).
\item \textsuperscript{68} \textit{Id.}.
\end{itemize}
Some of the foregoing studies have been criticized because they used inconsistent or approximate measures for wealth distribution. Wealth distribution can be approximated based on the distribution of pre-tax income, after-tax income or consumption. Noting that many of the studies had mixed the types of measurement, Knowles in a 2005 study used personal consumption to measure the impact of inequality on growth over a thirty-year period and also found a negative relationship in a sample of less developed countries.69

3. The Short-Term Studies (Ten Years and Less)

Although the long-term studies have uniformly found a relationship between inequality and poor growth, the results involving periods of ten years or fewer have been quite contradictory. A study of sixteen industrial nations found that nations with the greatest income inequality in 1980 tended to have the lowest labor productivity growth during the ensuing ten years.70 Yet another study conducted by Barro, which used ten-year periods but included different countries, concluded that initial high inequality at the start of a ten-year period correlated with higher GDP growth during that ten-year period for wealthy countries, but correlated with lower economic growth for poor countries.71 In contrast, a study by Thewissen, which also used ten-year periods from 1970 to 2009 for OECD countries, found no relationship between inequality and growth.72 The study used a different econometric method for testing the relationship than that used in the previously discussed Barro ten-year study.73

69. Id.
73. The study used the least squares dummy variable fixed effects method of estimation to test the relationship using panel data. This method is used in order to avoid problems of heterogeneity bias, that is unobserved variables correlating with the observed variables. Id. at 6–8; CHRISTOPHER DOUGHERTY, INTRODUCTION TO ECONOMETRICS 520–22 (4th ed. 2011). While this method reduces the heterogeneity problem, it is more sensitive to measurement error than ordinary least squares. In contrast, Barro used the three stage least squares regression method. Barro, Inequality, supra note 71, at 11.
Some studies have started to use panel data for U.S. states to explore the relationship between inequality and growth. An interesting study using panel data was published by Mark D. Partridge. He tested whether inequality in the forty-eight contiguous states affected economic growth by comparing the level of income inequality at the start of a ten-year period with the economic growth during that ten-year period for the forty-eight states. He found that inequality was associated with greater growth, not lesser growth. Interestingly, he also found, however, that the larger the share of income by the middle quintile, the greater economic growth was during the period. He suggests that these two seemingly contradictory results might be reconciled by the fact that inequality creates economic incentives to earn more while having a large middle class creates socioeconomic benefits, such as stable social and economic environment, that also increase growth. A subsequent study of fifty states in the U.S. for periods of ten years by another economist, however, found no evidence of a relationship between inequality and growth. The author noted that small changes in the measure of inequality and the method used to regress the data could result in the estimated relationship between inequality and growth for this measure of time.

Shorter time periods have also been contradictory. Using panel data for five-year periods, Forbes found a positive correlation between the state of inequality in the prior five-year period and the amount of growth in the current five-year period. She noted that this might be the result of using relatively short time periods. When she ran the same regressions for ten years the results were statistically insignificant, although the sign was still positive. Voitchovsky also examined five-year periods and found that inequality at the top end of the distribution was positively associated with

75. Id. at 1022.
76. Id. at 1025.
77. Id. at 1030–31.
79. Id.
81. Forbes, supra note 80, at 878.
growth, while inequality lower down the distribution is negatively related to subsequent growth.82

Ravallion has argued that the aggregation of data may hide the effect of inequality in the short-term studies.83 He examined 6,651 farm households in 131 counties in rural China and found a significant negative relationship between the level of inequality in the county and the economic growth of the household (measured in consumption).84 He found that the greater the inequality at the start of a five-year period, the less the growth.85 Yet when he ran regressions for inequality and growth in the county as a whole, he found no relationship.86 He argues that the relationship between inequality and growth may be nonlinear and as a result become lost in aggregation.87

Another source of controversy has been the measure of inequality. Most of the studies discussed so far have used the Gini coefficient as the measure of inequality. But this may be misleading. A 2012 study by Sutirtha Bagchi used a different measure of inequality by comparing the amount of wealth held by billionaires in a country to that country’s GDP.88 Using panel data for five years, he found that the higher the concentration of wealth held by billionaires, the lower the annual growth rate in GDP.89

Another study used another more refined measure of billionaire wealth. Morck, Strangeland and Yeung examined whether inherited wealth has a different impact than self-made wealth for a three-year period.90 They found that a country’s per capita GDP grows faster compared to other countries at a similar level of development if self-made billionaire wealth is a larger fraction of a nation’s GDP and slower if inherited wealth is a larger fraction


84. Id. at 76.

85. Id. at 77.

86. Id.

87. Id.


89. Id.

of GDP.  The authors suggest that slow growth results from inefficiencies arising from entrenched corporate control by heirs, excessive capital market power by heirs that can restrict access by others, and barriers against outside investment.

4. What is the Explanation for the Difference in the Long-Term and Short-Term Studies?

There are two potential explanations for the difference between the short-term and the long-term studies. First, different types of data are used. Panel data is usually used in the short-term studies and cross-country data is used for the long-term studies. Panel data consists of information on several variables for several countries usually for a relatively short period of time. In contrast, the long-term studies generally use cross-country data that consists primarily of the measure of inequality for each country at the start of the period and the growth rate for the country during a lengthy period of time. One advantage of the panel data is that it helps reduce bias that may arise from omitted variables. As Forbes explains:

\[\text{[p]anel estimation controls for differences in time-variant, unobservable country characteristics, thereby removing any bias resulting from the correlation of these characteristics with the explanatory variables. This technique does not adjust for omitted variables that change over time, but papers estimating the . . . growth model show that using panel estimation can significantly change coefficient estimates.}^{93}\]

Thus, the panel data may be providing a more accurate picture of the relationship between inequality and growth.

The difficulty with this explanation, however, is that the short-term studies are, to date, quite contradictory. As shown on Table 4, some short-term studies suggest a positive correlation between inequality and growth, others a negative relationship, and still others a more complex nonlinear relationship where high inequality may be associated with slow growth in some situations and high growth in others. The disparate results cast some doubt on the notion that the panel data is providing a more accurate picture.

The simpler explanation for the contradictory short-term studies may be that that the short-term studies fail to capture the true relationship between

91. Id. at 327.
92. Id. at 362.
93. Forbes, supra note 80, at 872.
inequality and poor growth because the relationship is not a short-term relationship. As mentioned earlier, the long-term studies strongly challenge the conventional textbook maxim that “inequality is good for incentives and, therefore, good for growth.”94 The conventional wisdom was that inequality should increase growth because (1) the wealthy had a higher marginal propensity to save than the poor; (2) only the wealthy could make the large capital commitment necessary for industrial growth; and (3) the poor would be motivated to work harder.95 The long-term studies suggest that other forces may be involved. The explanations with the most support—the failure of countries with inequality to invest adequately in education,96 the presence of social unrest,97 and the difficulty of enforcing property rights in polarized societies98—are also the explanations most likely to manifest themselves over a long period of time, not a short period.99 Indeed, Lloyd-Ellis has suggested that the short-term and long-term studies may not in fact be contradictory.100 He argues that the incentive effect of inequality (that is, inequality motivates low income individuals to work harder) may be the dominant effect in the short term, while the other deleterious effects arising from inadequate education and social unrest may dominate in the long run.101

III. THE ROLE OF TAXES

A. Federal Taxes—In General

It is clear that taxes have played a role in equalizing wealth. For example, the federal income tax reduced inequality by 8.47% in 1978 and 7.3% in 1998.102 A recent 2011 report by the Congressional Research Service found that in 1996, federal taxes (income and payroll) reduced income inequality by 5%.103 (Note that inclusion of the payroll taxes reduces inequality and poor growth because the relationship is not a short-term relationship. As mentioned earlier, the long-term studies strongly challenge the conventional textbook maxim that “inequality is good for incentives and, therefore, good for growth.”94 The conventional wisdom was that inequality should increase growth because (1) the wealthy had a higher marginal propensity to save than the poor; (2) only the wealthy could make the large capital commitment necessary for industrial growth; and (3) the poor would be motivated to work harder.95 The long-term studies suggest that other forces may be involved. The explanations with the most support—the failure of countries with inequality to invest adequately in education,96 the presence of social unrest,97 and the difficulty of enforcing property rights in polarized societies98—are also the explanations most likely to manifest themselves over a long period of time, not a short period.99 Indeed, Lloyd-Ellis has suggested that the short-term and long-term studies may not in fact be contradictory.100 He argues that the incentive effect of inequality (that is, inequality motivates low income individuals to work harder) may be the dominant effect in the short term, while the other deleterious effects arising from inadequate education and social unrest may dominate in the long run.101

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94. Aghion, Caroli & García-Peñalosa, supra note 38.
95. Id. at 1620.
96. See, e.g., Galor & Zeira, supra note 50, at 35–51; Perotti, Growth, supra note 45, at 152-53; Sylwester, supra note 50, at 388.
97. See, e.g., Perotti, Growth, supra note 45, at 173–75 (finding that social and political instability decrease economic growth); Carolyn B. Rodriguez, supra note 51, at 310–11 (asserting that inequality results in higher incidence of property and violent crime).
98. Keefer & Knack, supra note 52, at 128.
99. See Repetti, Democracy, Taxes, and Wealth, supra note 21, at 836; Lloyd-Ellis, supra note 37, at S77.
100. Lloyd-Ellis, supra note 37, at S77–78.
101. Id.
the effectiveness of taxes in reducing inequality because the payroll taxes are regressive.)\textsuperscript{104} In 2006, federal taxes reduced income inequality by slightly less than 4\%.\textsuperscript{105} This can be observed by examining the last row of the following Table 5.\textsuperscript{106}

<table>
<thead>
<tr>
<th></th>
<th>Share of Income Received and Taxes Paid by Tax Filers in Various Income Categories, 1996 and 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1996</td>
</tr>
<tr>
<td></td>
<td>Before-Tax Income</td>
</tr>
<tr>
<td>Bottom 20%</td>
<td>3.0</td>
</tr>
<tr>
<td>Second 20%</td>
<td>8.3</td>
</tr>
<tr>
<td>Middle 20%</td>
<td>13.7</td>
</tr>
<tr>
<td>Fourth 20%</td>
<td>21.2</td>
</tr>
<tr>
<td>Top 20%</td>
<td>54.0</td>
</tr>
<tr>
<td>Top 5%</td>
<td>29.0</td>
</tr>
<tr>
<td>Top 1%</td>
<td>15.4</td>
</tr>
<tr>
<td>Top 0.1%</td>
<td>6.6</td>
</tr>
<tr>
<td>Gini Coefficient</td>
<td>0.532</td>
</tr>
</tbody>
</table>


Other studies have also shown that while federal taxes help to reduce inequality in the United States, the impact of federal taxes on inequality has been declining. In 2011, Olivier Bargain et al. examined the impact of federal taxation during the period 1978 to 2009 and found that policy changes implemented in 1982, 1987, and the early 2000s contributed to inequality, while the reforms of the late 1970s, early 1990s, and 2009 made income taxes more redistributive and reduced inequality.\textsuperscript{107} The study notes that “[t]hese sub-periods can be broadly classified by Republican and

\textsuperscript{104} Id. at 7–8.

\textsuperscript{105} Id. at 7.

\textsuperscript{106} In 1996, the Gini coefficient of before-tax income was 0.532 and taxes reduced it to 0.503—a 5% reduction. In 2006, however, taxes reduced the Gini coefficient by less than 4% (from 0.582 to 0.560). The study concludes that taxes played a greater equalizing effect in 1996 than in 2006 because they were more progressive in 1996. Id. at 8. It is particularly interesting to note that while the average tax rate declined for filers in the top 80% of income from 1996 to 2006, filers in the lowest quintile (the bottom 20%) saw their average rate increase slightly from 5.24% to 5.68%. Id. at 7–8. The average rate increased for the bottom quintile because of an increase in the average payroll tax rate. Id. at 8.

Democrat administrations. Our counterfactual simulations also show that during Republican administrations average tax rates fell strongest for high income, but very little for low income households." 108 Similarly, a recent study by Cooper, Lutz, and Palumbo of the Federal Reserve Bank also found that federal taxes during the period 1944 to 2008 helped reduce inequality for wage income, although such taxes have less of an effect currently than they had previously. 109

B. The Federal Wealth Transfer Tax

The impact of the federal wealth transfer tax has been somewhat controversial for two reasons. First, it is not entirely clear what percentage of national wealth is received through gifts and bequests versus having been created by the taxpayer. As a result it is unclear what impact the wealth transfer tax would have on inequality. Second, some have challenged the efficacy of the Federal wealth transfer tax in taxing those transfers.

Inherited wealth constitutes a significant portion of wealth in the United States. In 2012, 102 of The Forbes 400 Richest Americans were designated as having inherited their wealth. 110 In 1999, 149 of the Forbes 400 had inherited their wealth. 111 Economists estimate that anywhere from twenty percent to eighty percent of the wealth in the United States has been inherited. 112 The differing amounts are attributable to disagreements about which types of transfers should be counted and the use of different databases. 113

108. Id. at 19.
110. The Forbes 400 Richest People in America, FORBES (Sept. 19, 2012), www.forbes.com/forbes-400/#page:1_sort:0_direction:asc_search:_filter:All%20industries_filter:All%20states_filter:Self-Made. The website designates the source of the wealth of 298 of the richest 400 as being self-made, suggesting that the other 102 were given their wealth.
112. See Henry J. Aaron & Alicia H. Munnell, Reassessing The Role For Wealth Transfer Taxes, 45 NAT’L TAX J. 119, 131 (1992) (finding that 52% of wealth is inherited); William G. Gale & John Karl, Intergenerational Transfers and the Accumulation of Wealth, 8 J. ECON. PERSP. 145, 154 (1994) (finding that intergenerational transfers account for 51% of wealth when bequests are included in the transferred amount); Lawrence J. Kotlikoff & Lawrence H. Summers, The Role of Intergenerational Transfers In Aggregate Capital Accumulation, 89 J. POL. ECON. 706 (1981) (determining that 78% of wealth is received from parents). But see Franco Modigliani, The Role of Intergenerational Transfers and Life Cycle Saving in the Accumulation of Wealth, 2 J. ECON. PERSP. 15 (1988) (arguing that only twenty percent is inherited).
113. For an analysis of the reasons that the estimates differ so greatly see Lawrence J. Kotlikoff, Intergenerational Transfers and Savings, 2 J. ECON. PERSP. 41 (1988).
As discussed earlier, the large portion of inherited wealth may be deleterious, since there is evidence that inequality attributable to inherited wealth is more harmful than self-earned wealth. Morck, Strangeland, and Yeung examined whether inherited wealth has a different impact than self-made wealth for a three-year period. They found that a country’s per capita GDP grows faster compared to other countries at a similar level of development if self-made billionaire wealth is a larger fraction of a nation’s GDP and slower if inherited billionaire wealth is a larger fraction of GDP.

Given that large amounts of wealth are received through transfers, the question becomes whether the federal wealth transfer tax is helping to reduce inequality. We think that it is, because the federal wealth transfer tax clearly reduces the amount of wealth transferred by the largest estates to heirs. In a recent article, *The Estate Tax Non-Gap, Why Repeal a “Voluntary” Tax?*, we showed that many of the assumptions underlying George Cooper’s seminal work, *A Voluntary Tax? New Perspectives on Sophisticated Estate Tax Avoidance*, are no longer applicable. For example, estate freezes that involve preferred stock recapitalizations can no longer transfer untaxed value to heirs by failing to make dividend payments on preferred stock held by the older generation. Unless the preferred stock pays dividends, it is assigned a zero value, which means that the older generation is treated as having made a taxable transfer of all the value in the corporation. Similarly, qualified pension plans are no longer excluded from a decedent’s gross estate. We concluded:

The result of these and other legislative changes since the publication of Cooper’s article is that taxpayers now can reduce the value of assets subject to transfer tax in many instances only if they are willing to assume the risk that the reduction may be economically real and reduce the actual value of assets transferred.

115. *Id.* at 327.
119. *Id.* at 767–68.
120. *Id.* at 333–34.
to heirs or, alternatively, in narrow situations if they are willing to incur some tax risk.121

The evidence suggests that the current estate tax is in fact contributing to the breakup of large accumulations of wealth by encouraging charitable contributions and imposing a significant tax burden.122 As shown in Table 6, the largest estates transferred roughly one third of the gross estate to either charities or the Federal government in the 2002 to 2011 period, even with the increase in the exemption amount from $1 million to $5 million and the decrease in the highest estate tax rate from fifty percent to thirty-five percent.123

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122. See infra Table 6.

Moreover, as shown in Table 7, below, the effective tax rate, measured as a percentage of the net estate, was consistently quite high in the largest estates, ranging from 35.08% to 43.99% in the 2002 to 2011 period. These numbers suggest that the tax is imposing a significant burden on accumulated wealth. Indeed, if the tax were not imposing a burden, one would have to wonder why eighteen wealthy families contributed nearly $500 million dollars to bankroll a campaign to repeal the estate tax.

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Source: Authors’ calculations from Internal Revenue Serv., SOI Tax Stats—Estate Tax Statistics

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TABLE 6

<table>
<thead>
<tr>
<th>Year</th>
<th>Size of Gross Estate</th>
<th>Effective Estate Tax Rate (Revenue as % of Gross Estate)</th>
<th>Percent of Gross Estate Contributed to Charity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>$5 to 10 million</td>
<td>16.64%</td>
<td>7.40%</td>
</tr>
<tr>
<td>2002</td>
<td>$10 to 20 million</td>
<td>17.30%</td>
<td>9.40%</td>
</tr>
<tr>
<td>2002</td>
<td>$20+ million</td>
<td>12.35%</td>
<td>22.30%</td>
</tr>
<tr>
<td>2003</td>
<td>$5 – 10 million</td>
<td>16.99%</td>
<td>6.67%</td>
</tr>
<tr>
<td>2003</td>
<td>$10 – 20 million</td>
<td>16.88%</td>
<td>8.92%</td>
</tr>
<tr>
<td>2003</td>
<td>$20+ million</td>
<td>12.40%</td>
<td>15.24%</td>
</tr>
<tr>
<td>2004</td>
<td>$10 – 20 million</td>
<td>18.00%</td>
<td>8.12%</td>
</tr>
<tr>
<td>2004</td>
<td>$20+ million</td>
<td>13.47%</td>
<td>17.62%</td>
</tr>
<tr>
<td>2005</td>
<td>$5 – 10 million</td>
<td>15.99%</td>
<td>7.03%</td>
</tr>
<tr>
<td>2005</td>
<td>$10 – 20 million</td>
<td>17.56%</td>
<td>8.51%</td>
</tr>
<tr>
<td>2005</td>
<td>$20+ million</td>
<td>15.39%</td>
<td>24.30%</td>
</tr>
<tr>
<td>2006</td>
<td>$5 – 10 million</td>
<td>15.23%</td>
<td>6.05%</td>
</tr>
<tr>
<td>2006</td>
<td>$10 – 20 million</td>
<td>17.30%</td>
<td>7.80%</td>
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<tr>
<td>2006</td>
<td>$20+ million</td>
<td>15.57%</td>
<td>17.83%</td>
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<td>2007</td>
<td>$5 to 10 million</td>
<td>14.06%</td>
<td>6.02%</td>
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<td>2007</td>
<td>$10 to 20 million</td>
<td>17.30%</td>
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</tr>
<tr>
<td>2007</td>
<td>$20+ million</td>
<td>13.74%</td>
<td>21.24%</td>
</tr>
<tr>
<td>2008</td>
<td>$5 – 10 million</td>
<td>12.96%</td>
<td>5.94%</td>
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<tr>
<td>2008</td>
<td>$10 – 20 million</td>
<td>16.23%</td>
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<tr>
<td>2008</td>
<td>$20+ million</td>
<td>13.72%</td>
<td>27.27%</td>
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<tr>
<td>2009</td>
<td>$5 – 10 million</td>
<td>11.92%</td>
<td>6.37%</td>
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<tr>
<td>2009</td>
<td>$10 – 20 million</td>
<td>15.13%</td>
<td>6.96%</td>
</tr>
<tr>
<td>2009</td>
<td>$20+ million</td>
<td>14.81%</td>
<td>15.78%</td>
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<td>2010</td>
<td>$5 – 10 million</td>
<td>8.93%</td>
<td>5.38%</td>
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<td>2010</td>
<td>$10 – 20 million</td>
<td>13.79%</td>
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<td>2010</td>
<td>$20+ million</td>
<td>13.33%</td>
<td>14.50%</td>
</tr>
<tr>
<td>2011</td>
<td>$5 – 10 million</td>
<td>4.09%</td>
<td>6.59%</td>
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<td>2011</td>
<td>$10 – 20 million</td>
<td>8.21%</td>
<td>11.94%</td>
</tr>
<tr>
<td>2011</td>
<td>$20+ million</td>
<td>8.39%</td>
<td>24.55%</td>
</tr>
</tbody>
</table>

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</thead>
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<tr>
<td>2002</td>
<td>$5 – 10 million</td>
<td>35.12%</td>
</tr>
<tr>
<td>2002</td>
<td>$10 – 20 million</td>
<td>39.50%</td>
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<tr>
<td>2002</td>
<td>$20+ million</td>
<td>39.91%</td>
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<tr>
<td>2003</td>
<td>$5 – 10 million</td>
<td>32.99%</td>
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<td>2003</td>
<td>$10 – 20 million</td>
<td>36.95%</td>
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<tr>
<td>2003</td>
<td>$20+ million</td>
<td>38.06%</td>
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<td>2004</td>
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<td>33.13%</td>
</tr>
<tr>
<td>2004</td>
<td>$10 – 20 million</td>
<td>38.00%</td>
</tr>
<tr>
<td>2004</td>
<td>$20+ million</td>
<td>39.95%</td>
</tr>
<tr>
<td>2005</td>
<td>$5 – 10 million</td>
<td>31.76%</td>
</tr>
<tr>
<td>2005</td>
<td>$10 – 20 million</td>
<td>38.84%</td>
</tr>
<tr>
<td>2005</td>
<td>$20+ million</td>
<td>42.94%</td>
</tr>
<tr>
<td>2006</td>
<td>$5 – 10 million</td>
<td>29.73%</td>
</tr>
<tr>
<td>2006</td>
<td>$10 – 20 million</td>
<td>38.06%</td>
</tr>
<tr>
<td>2006</td>
<td>$20+ million</td>
<td>43.99%</td>
</tr>
<tr>
<td>2007</td>
<td>$5 – 10 million</td>
<td>26.99%</td>
</tr>
<tr>
<td>2007</td>
<td>$10 – 20 million</td>
<td>35.69%</td>
</tr>
<tr>
<td>2007</td>
<td>$20+ million</td>
<td>42.67%</td>
</tr>
<tr>
<td>2008</td>
<td>$5 – 10 million</td>
<td>24.36%</td>
</tr>
<tr>
<td>2008</td>
<td>$10 – 20 million</td>
<td>34.10%</td>
</tr>
<tr>
<td>2008</td>
<td>$20+ million</td>
<td>41.57%</td>
</tr>
<tr>
<td>2009</td>
<td>$5 – 10 million</td>
<td>23.07%</td>
</tr>
<tr>
<td>2009</td>
<td>$10 – 20 million</td>
<td>33.19%</td>
</tr>
<tr>
<td>2009</td>
<td>$20+ million</td>
<td>41.55%</td>
</tr>
<tr>
<td>2010</td>
<td>$5 – 10 million</td>
<td>15.16%</td>
</tr>
<tr>
<td>2010</td>
<td>$10 – 20 million</td>
<td>27.62%</td>
</tr>
<tr>
<td>2010</td>
<td>$20+ million</td>
<td>39.03%</td>
</tr>
<tr>
<td>2011</td>
<td>$5 – 10 million</td>
<td>6.92%</td>
</tr>
<tr>
<td>2011</td>
<td>$10 – 20 million</td>
<td>19.23%</td>
</tr>
<tr>
<td>2011</td>
<td>$20+ million</td>
<td>35.08%</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations from Internal Revenue Serv., SOI Tax Stats—Estate Tax Statistics

Thus, it appears that the estate tax is playing a significant role in dispersing concentrations of wealth. The remaining issue is whether the estate tax is economically efficient. As discussed below, we believe that it is likely that the estate tax is more efficient than the income tax because it has less impact on taxpayer behavior than the income tax.

III. THE EFFICIENCY OF THE ESTATE TAX

The major criticism of taxing wealth transfers is that it reduces social welfare because it discourages savings. This criticism is important since, as stated earlier, bequests and gifts account for twenty to eighty percent of all

126. See infra Part III.
wealth accumulation in the United States. The difficulty is that this criticism is not supported by theory or by the empirical evidence. Theory does not predict the effect of a tax on savings, and the majority of the statistical studies indicate that taxes have little or no impact.

A. Theory

Theory proposes two opposite effects about how savings may respond to taxes. The first, the income effect, occurs where taxpayers increase savings to offset the effect of the tax. The second, the substitution effect, occurs where taxpayers reduce savings and increase current consumption in response to a tax. The result is that it is difficult to predict a priori what the effect of a tax will be on savings and investment by the donors.

In addition, a complete picture of the tax also requires analysis of the impact of the receipt of the gift or bequest by the heir. Gale and Perozek have developed a model indicating that in situations where transferors reduce bequests in response to taxes, the transferees may increase savings to offset the shortfall. Thus, even if the estate tax discourages savings by donors, there may be an offsetting effect on heirs pursuant to which transfer taxes encourage heirs to save more. They suggest that “estate tax changes will typically generate opposing impacts on the donor and recipient,” and as a result, not impact savings.

The analysis is further complicated by uncertainty about what motivates taxpayers to make bequests and gifts. There are several potential models

127. See Aaron & Munnell, supra note 112, at 131 (finding that fifty-two percent of wealth is inherited); Gale & Karl, supra note 112, at 146; Kotlikoff & Summers, supra note 112, at 715, 721–22 (determining that eighty-one percent of wealth is inherited). But see Modigliani, supra note 112, at 36 (arguing that only thirty percent is inherited).


129. See, e.g., B. Douglas Bernheim, Taxation and Saving (Nat’l Bureau of Econ. Research, Working Paper No. 7061, 1999) (“There is no theoretical presumption that either effect dominates.”).

130. Id.


132. See Gale & Perozek, supra note 131, at 235–37.

133. Id.
that likely apply to some taxpayers some of the time that can result in differing impacts on savings. What follows is a brief summary of these models and the proposed effects on savings that have been suggested by Marples and Gravelle in a 2009 Congressional Research Service report applying the model developed by Gale and Perozek.\textsuperscript{134}

In the altruistic model, parents make bequests solely to help their children.\textsuperscript{135} The effect of a transfer tax on the donors is ambiguous because it is not clear whether the income or substitution effect will dominate.\textsuperscript{136} At the same time, Marples and Gravelle suggest that the estate tax tends to increase savings on the part of the recipient of the gift or bequest, apparently because it reduces the amount they receive.\textsuperscript{137}

In the accidental bequest model, taxpayers save for retirement and to meet unexpected contingencies.\textsuperscript{138} Only unexpended amounts that remain because of the uncertainties of life result in bequests.\textsuperscript{139} If bequests are accidental, merely representing amounts left over because the decedent had expected to live longer or because the decedent was saving for contingencies, estate taxes will have minimal impact on savings by parents,\textsuperscript{140} but again the heirs may increase their savings to counteract the decrease in the amount they receive attributable to the tax.\textsuperscript{141}

In the strategic bequest model, parents make bequests and gifts as rewards for service obtained from their children.\textsuperscript{142} The impact of a tax on parents making gifts or bequests is ambiguous because it will depend on whether the parents will save more (the income effect) to make up for the tax or instead substitute the services they had hoped to have received from their children with services from others (the substitution effect).\textsuperscript{143} Marples and Gravelle suggest that the estate tax will not affect the donors because the transfer really represents a payment for services that would have been subject to the income tax in any event.\textsuperscript{144}

Another motivation for gifts and bequests may be the joy derived from giving.\textsuperscript{145} Marples and Gravelle have suggested that, “If the parent focuses

\begin{footnotesize}
134. MARPLES & GRAVELLE, supra note 131.
136. MARPLES & GRAVELLE, supra note 131, at 10.
137. Id.
138. Gale & Karl, supra note 112; Hurd, supra note 131.
139. See Gale & Karl, supra note 112, at 147.
141. MARPLES & GRAVELLE, supra note 131, at 10.
143. MARPLES & GRAVELLE, supra note 131, at 10.
144. Id.
145. Id.
\end{footnotesize}
on the before-tax bequest, the estate tax will have no effect on his or her behavior, but will reduce the inheritance and theoretically increase the saving of children.”146

Lastly it has been suggested that bequests and gifts are made because the taxpayer has satiated all his or her consumption needs.147 In that case the tax would have no impact on the donor. Moreover, Marples and Gravelle argue that the tax may increase the savings of the recipients again to make up for the reduction for the tax,148 or, alternatively, have no impact, presumably because the needs of the heirs may already have been satiated.

After reviewing the various motives for bequests and the impact on heirs, Marples and Gravelle suggest that there may in fact be “a tendency for estate taxes to increase savings, not decrease it.”149 The following table summarizes their analysis:

<table>
<thead>
<tr>
<th>Bequest Motive</th>
<th>Effect on Decedent Saving</th>
<th>Effect on Heir Saving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altruism</td>
<td>Ambiguous</td>
<td>Increases</td>
</tr>
<tr>
<td>Accidental</td>
<td>None</td>
<td>Increases</td>
</tr>
<tr>
<td>Strategic</td>
<td>Ambiguous</td>
<td>None</td>
</tr>
<tr>
<td>Joy of Giving</td>
<td>Ambiguous</td>
<td>Increases</td>
</tr>
<tr>
<td>Satiation</td>
<td>Increases</td>
<td>Increases or None</td>
</tr>
</tbody>
</table>


B. Empirical Analysis

Only three studies have examined the effect of estate taxes directly. Perhaps reflecting the theoretical ambiguity about the impact on savings, the studies reach differing conclusions. In a 1966 study, Seymour Fiekowsky found no evidence that the sharp increase in estate tax rates that occurred in the 1930s and early 1940s resulted in a decrease in the size of estates.150

However, two more recent studies have found an impact. A 2000 study by Kopczuk and Slemrod uncovered some evidence that the estate tax may

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146. *Id.* at 11.
147. *Id.* at 9.
148. *Id.*
149. *Id.* at 10.
affect the size of estates reported by decedents on their estate tax returns. The study’s findings suggest that taxpayers at age forty-five respond to an estate tax rate of 50% by adjusting their reportable net worth in such a way that the amount they will report at death is 10.5% less than what it would have been without the tax.

Another 2006 study by Joulfaian also found that the estate tax may cause the size of reported bequests to be 9.4% smaller than they would be without an estate tax. The Joulfaian study employed an interesting methodology to analyze the estate tax effect. He converted the estate tax burden on bequests into a comparable income tax burden by applying a tax rate to the annual return on a taxpayer’s assets for the fifteen-year period prior to the taxpayer’s death that results in the taxpayer possessing at death the same amount of assets at death that she would have possessed after application of the estate tax. He found that viewed this way, the estate tax resulted in estates that were about 9.4% smaller than they would have been without an estate tax. Interestingly, he also found that when he included in his regression a variable for the estate tax itself, instead of the income tax proxy, no relationship was evident.

As Joulfaian, Kopczuk, and Slemrod observe, it is not clear whether their observed impact is the result of actual dissaving by taxpayers or the taxpayers’ use of valuation techniques designed to reduce the value of reported assets. This decrease may be explained by the use of valuation devices, such as family limited partnerships, which routinely result in discounts in the reported value of assets by thirty percent. In an analogous area, many studies of the effect of the income tax have found that high-income taxpayers do not reduce their economic income in response to increased rates, but rather shift the income into tax-preferred forms.

152. Id.
154. Id. at 255, 260, 262.
155. Id. at 266.
156. Id.
Similarly, studies on the effect of tax incentives for savings found that such incentives do not increase aggregate savings, but rather cause taxpayers to switch saving into tax-favored vehicles (such as 401(k) plans) from taxable investments.¹⁶⁰

Indeed, most studies that have examined the effect of income taxes on savings have found zero or minimal impact.¹⁶¹ After reviewing the failure of taxpayer savings to respond to income tax rate changes in periods that experienced significant rate changes—1981 and 1986—two authors concluded that the “historical record seems quite clear in indicating little effect on saving of the aftertax real interest rate.”¹⁶²

There are strong arguments that a tax on wealth transfers should have less of an impact than a tax on income.¹⁶³ The estate tax differs from the income tax in two significant ways. First, death, which is the triggering event for the estate tax, is something that most people spend the majority of their lives denying.¹⁶⁴ Although the reasons for the denial of death are debated,¹⁶⁵ it seems widely accepted that we tend to ignore our mortality in conducting our daily lives.¹⁶⁶ The propensity to ignore our mortality may


¹⁶². Skinner & Feenberg, supra note 161, at 72. But see Michael Boskin, Taxation, Saving, and the Rate of Interest, 86 J. POL. ECON. 53 (1978) (one of the few studies finding that income tax rates impact saving).


¹⁶⁶. See, e.g., AVERY D. WEISMAN, ON DYING AND DENYING: A PSYCHIATRIC STUDY OF TERMINALITY 13 (1972) (stating, “[t]he primary paradox is that while man recognizes that death is universal, he cannot imagine his own death. The belief is illogical, but persistent . . . .”); Sigmund
mean that taxpayers also ignore the estate tax for a significant portion of their lives. To prove this assertion, ask yourself if your decision to work or make an investment today was influenced by the thought of your mortality. Probably not. Also, how many businesses include the effective estate tax rate in their yield calculations? We are not aware of any. In contrast, the triggering event for the income tax, the recognition of taxable income, is something on which most persons regularly focus. The result may be that individuals respond more strongly to income tax changes than to estate tax changes. As the great economist Joseph Pechman explained:

Opinions about death taxes vary greatly in a society relying on private incentives for economic growth. Some believe that these taxes hurt economic incentives, reduce saving, and undermine the economic system. But even they would concede that death taxes have less adverse effects on incentives than do income taxes of equal yield. Income taxes reduce the return from effort and risk taking as income is earned, whereas death taxes are paid only after a lifetime of work and accumulation and are likely to be given less weight by individuals in their work, saving, and investment decisions.167

The second reason that the effect of a tax on wealth transfers may be less harmful than a tax on income as it is realized is that, in any given year, the expected value of the estate tax is a function of the probability of death occurring in that year. This means that during taxpayers’ most productive years, the effective estate tax rate is minimal.168 James Poterba explored this in a paper that attempted “to place the estate tax in context, so that it could be considered, along with taxes on interest, dividends and capital gains, as an investor-level tax on capital income.”169 To calculate the estate tax’s effective rate on capital income, he estimated the expected value of net federal estate tax liabilities for taxpayers of different ages in the 1995 Survey of Consumer Finances.

The expected value was a function of the taxpayer dying during the year based upon actuarial tables.170 He then divided the expected value of the tax

Freud, Thoughts For The Times On War And Death, in IV COLLECTED WORKS 288 (1915).
Economists have also noted that individuals tend to heavily discount future events. David I. Laibson, Andrea Repetto & Jeremy Tobacman, Self-Control and Savings For Retirement, in BROOKINGS PAPERS ON ECONOMIC ACTIVITY 91, 92–93 (1998).
168. See Repetti, Entrepreneurs and the Estate Tax, supra note 177, at 1541–42; Repetti, The Case for the Estate and Gift Tax, supra note 140, at 1502–03.
170. Id. at 12.
liability by an estimate of the return on household net worth to calculate the effective tax rate. Assuming an average annual real return of six percent, he found the effective estate tax rate on capital income for persons in different age groups to be as set forth in Table 9.

Table 9 presents two sets of estimates. The first set is the estimated effective tax rate for different age groups using actuarial statistics from the Population Life Table, which is reported by the Social Security Administration Office of the Actuary. The second set uses actuarial statistics from the Individual Annuitant Life Table, which describes the mortality experience of individuals who purchase single premium annuities from life insurance companies. Poterba suggests that the probabilities in the Annuitant Mortality Table may be more accurate for individuals likely to pay an estate tax because that Table reflects life expectancies of individuals affluent enough to purchase a single premium annuity.171

Table 9

<table>
<thead>
<tr>
<th>Age of Household Head</th>
<th>Effective Federal Estate Tax Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Population Life Table</td>
<td></td>
</tr>
<tr>
<td>&lt;50</td>
<td>0.1%</td>
</tr>
<tr>
<td>50-59</td>
<td>0.3%</td>
</tr>
<tr>
<td>60-69</td>
<td>1.0%</td>
</tr>
<tr>
<td>70-79</td>
<td>2.7%</td>
</tr>
<tr>
<td>&gt;80</td>
<td>19.0%</td>
</tr>
<tr>
<td>B. Annuitant Mortality Table</td>
<td></td>
</tr>
<tr>
<td>&lt;50</td>
<td>0.1%</td>
</tr>
<tr>
<td>50-59</td>
<td>0.2%</td>
</tr>
<tr>
<td>60-69</td>
<td>0.5%</td>
</tr>
<tr>
<td>70-79</td>
<td>1.7%</td>
</tr>
<tr>
<td>&gt;80</td>
<td>13.9%</td>
</tr>
</tbody>
</table>


Note that using the Annuitant Mortality Table, the effective estate tax rates are quite small for taxpayers under age seventy. The rates are .1% for taxpayers under age fifty, .2% for taxpayers between ages fifty and sixty, and .5% for taxpayers between ages sixty and sixty-nine. These figures suggest that the failure of taxpayers to factor in the estate tax liability in their younger years may be based on more than the irrational denial of death. It may also be a reaction to the low expected value of the effective rates at the

171. *Id.* at 14–15.
time the taxpayers are generating wealth. The greatest distortive impact of
the estate tax would be on persons who are focusing on passing wealth to
their families upon their death at the same time that they are generating the
wealth. But, the number of these persons is likely to be small. Persons
generating wealth are likely to be under the age of seventy, and, therefore,
subject to a low effective estate tax rate.

It is interesting to note that Joulfaian\textsuperscript{172} measured the income tax
equivalent of the estate tax by looking at a fifteen-year period prior to death,
which he reported to be a weighted average of 81.7 years of age for his data
in 1998.\textsuperscript{173} As a result, Joulfaian was in effect examining the impact of the
income tax equivalent for taxpayers in their sixties, an age during which
Poterba’s study suggests taxpayers experience relatively low expected
effective estate tax rates. This may explain why Joulfaian’s results for the
impact of the estate tax, as opposed to the income tax equivalent, found no
impact.\textsuperscript{174}

In summary, theory is ambiguous about whether an estate tax will affect
savings. The few empirical studies that examine the estate tax suggest that
the tax may cause the reported value of estates to decrease by about ten
percent. In contrast, the studies that have examined the effect of the income
tax on savings suggest no effect. There is a strong theoretical argument that
the estate tax should have much less of an impact on savings than the
income tax because of our psychological tendency to deny death and
because the expected value of the estate tax’s effective rate is small during
the period of life that taxpayers are creating wealth.

If the estate tax is to be used to help decrease inequality in America,
how should it be deployed? Our take on the political environment in
Washington, D.C.—now and for the foreseeable future—is that attempts to
“go big” and pursue dramatic reform have little chance for success. The
push in this symposium and elsewhere for wholesale changes in the form of
inheritance taxes, wealth taxes, and taxation of capital
gains/realization/carryover basis at death deserve more attention than they
are likely to receive by today’s lawmakers. Instead, we believe a “go small”
approach has the greatest chance for political success and would win a small
but significant battle in the long war against inequality in America.

Returning to the estate tax law in effect in 2009 (President Obama’s
previous position)—with a $3.5 million exemption and a 45% top rate—
would make a much-needed $72 billion down payment (over ten years).\textsuperscript{175}

\textsuperscript{172} See supra text accompanying notes 168–71.
\textsuperscript{173} Joulfaian, supra note 153, at 261.
\textsuperscript{174} See supra text accompanying notes 170–71.
\textsuperscript{175} DEP’T. OF THE TREASURY, GENERAL EXPLANATIONS OF THE ADMINISTRATION’S FY 2014
Tax policy perfection must not be the enemy of the tax reform good that is politically achievable.\textsuperscript{176}

\section*{V. CONCLUSION}

Inequality has been increasing in the United States. We should care about this increase because inequality contributes to a variety of adverse social consequences that persist across generations. There is also substantial empirical evidence that inequality has a long-term negative impact on economic growth.

For many decades, federal tax policy has played an important role in reducing inequality, although the impact of federal taxes on inequality has waxed and waned depending on the focus of elected officials. We argue that the estate tax is a particularly apt vehicle to reduce inequality because inheritances are a major source of wealth among the rich, and studies suggest that inherited wealth has a more deleterious impact on economic growth than inequality caused by self-made wealth. Although there are loopholes in the estate tax, it is still effective in moderating the amount of wealth that is passed within a family from generation to generation.

The major criticism about the estate tax—that it discourages savings—is inaccurate. Standard tax theory cannot predict the impact of the estate tax on savings and the empirical evidence is mixed. Moreover, the estate tax has a less harmful impact on savings than the income tax for two reasons. First, the event that triggers estate tax liability—death—is ignored by taxpayers during the period of life in which they are likely to be most productive. Second, the expected value of the estate tax’s effective rate is quite low during the period of life in which most taxpayers create wealth. Thus, a very strong case exists for returning the estate tax law to that in effect in 2009 with a $3.5 million exemption and a 45\% top rate.
