

THE DISTRIBUTION OF THE ESTATE TAX AND REFORM OPTIONS

*Leonard E. Burman, Urban Institute
William G. Gale, Brookings Institution
Jeffrey Rohaly, Urban Institute**

THIS PAPER DESCRIBES THE DEVELOPMENT OF A microsimulation model that estimates the distributional effects of the estate tax and reforms. Consistent with several other studies, we assume the estate tax is borne by the individuals who accumulate the estate. We merge information from several sources to develop household-level data on wealth, demographics, income, and taxes, with special efforts to represent wealth patterns among high-income and high-wealth households, and households with family-owned farms and businesses. With these data, household-specific mortality probabilities, and an estate tax calculator, we estimate the revenue and distributional effects of the estate tax and alternatives.

We find that the estate tax is highly progressive and significantly more progressive than the individual income tax. Under 2001 law, about 98 percent of the estate tax is paid by those in the top quintile of the economic income distribution; almost two-thirds is paid by those in the top one percent. By 2009, when the exempt amount is raised to \$3.5 million, almost 95 percent of the estate tax would be paid by the top one percent and more than half by the top 0.1 percent. We also examine the revenue and distributional implications of numerous reform options and show that it is possible to drastically reduce the already small number of farms and businesses that are subject to the estate tax without repealing the tax altogether.

*Leonard Burman is Senior Fellow at the Urban Institute, Co-Director of the Tax Policy Center, and Visiting Professor at Georgetown University; William Gale is Arjay and Frances Fearing Miller Chair at the Brookings Institution and Co-Director of the Tax Policy Center; Jeffrey Rohaly is Research Associate at the Urban Institute and Director of Modeling for the Tax Policy Center. This paper is a sharply abbreviated version of Burman, Gale and Rohaly (2004), which lays out the supporting detail, motivations, and results in far more extensive fashion. We are grateful to Adam Carasso, Julie-Anne Cronin, Martha Eller, Barry Johnson, David Jouffai, Rob McClelland, Janet McCubbin, John O'Hare, Gene Steuerle, and David Weiner for helpful advice. Jim Poterba and Scott Weisbenner very generously shared the code for their estate tax model. Adeel Saleem and Deborah Kobes provided expert research assistance. The views expressed are those of the authors and do not necessarily reflect the views of any of the organizations noted above.

ESTATE TAX RULES

The executor of an estate must file a federal estate tax return within nine months of a person's death if the gross estate exceeds an exempt amount—\$675,000 in 2001.¹ The estate tax allows deductions for transfers to a surviving spouse, charitable gifts, debts, funeral expenses, and administrative fees. A unified credit exempted taxes on the first \$675,000 of taxable transfers in 2001 (including both gifts made during life and transfers at death), a figure that was scheduled to rise to \$1 million by 2006 under pre-EGTRRA law. Family-owned farms and closely held businesses benefit from a number of special provisions.² For estates above the exempt amounts, the tax rate in 2001 began at 37 percent and rose to 55 percent on taxable transfers above \$3 million. A 5-percent surtax applied to returns with adjusted taxable estates between \$10 million and \$17.184 million. Estate tax rates represent combined federal and state tax rates, since the federal estate tax includes a credit for state death taxes. In 2001, the credit effectively refunded the state taxes at rates up to 16 percent of the taxable estate. Almost all states levied estate or inheritance taxes large enough to qualify for the maximum federal credit. Under pre-EGTRRA law, capital gains on appreciated assets are not subject to income tax at death and heirs must pay tax only on gains earned since they inherited the asset.

EGTRRA raises the effective estate tax exemption from \$675,000 in 2001 to \$1 million in 2002, and in stages to \$3.5 million by 2009. The highest effective marginal tax rate fell from 60 percent in 2001 to 50 percent in 2002. The rate then drops gradually to 45 percent by 2007. The credit for state estate taxes is phased out between 2002 and 2005, the year when it is replaced by a deduction for state taxes. In 2004, the special deduction for family-owned businesses and farms (QFOBI) is repealed. In 2010, the estate and generation-skipping transfer taxes are repealed, and the gift tax rate is set equal to the top individual income tax rate (35 percent). The step-up in basis for inherited assets that have capital gains is repealed, subject

to a very large exemption.³ The law reverts to its pre-EGTRRA form in 2011 (exempting \$1 million of assets with a top marginal effective tax rate of 60 percent).

MODELING ESTATE TAX BURDENS

Consistent with Cronin (1999), Feenberg, Mitrusi and Poterba (1997), and Poterba and Weisbenner (2001), we allocate the burden of the estate tax to decedents. Imposing the burden on either decedents or recipients (or in differing shares on each) is likely to yield a very progressive tax for the simple reason that the recipients are well off even before considering their inheritance (Joulfaian, 1998).

The Tax Policy Center uses a large microsimulation model of the federal individual income tax system that is similar to the U.S. Treasury's and that is based on a public-use version of the same underlying database of tax returns. The TPC model also includes "non-filers"—those individuals, primarily low-income and elderly, who do not file individual income tax returns—and demographic information obtained through a statistical match of the public-use file (PUF) with the Current Population Survey (CPS). These data provide no direct information on wealth holding, but we would like to be able to calculate the distribution of estate tax liabilities on the same model that calculates income tax liabilities, both for comparability and to be able to simulate the effects of policies that change both income and estate tax rules. To do this, we use wealth information from the Survey of Consumer Finances and then impute wealth patterns on to the PUF/CPS matched file that forms the core of the TPC microsimulation model.⁴

The modeling procedure is straightforward. First, we estimate the determinants of whether a household owns a particular asset or liability and, conditional on ownership, the amount that is held. This is done for each household in a pooled dataset consisting of both the 1998 and 2001 Surveys of Consumer Finances (SCFs). Using two waves of the SCF doubles the sample size and helps smooth some of the temporal variation in asset values. We use a two-step estimation procedure: probit maximum likelihood to estimate the probability of having each particular item, and ordinary least squares regression to estimate the amount. In each case, we use a lengthy list of explanatory variables that are available in both the SCF and the tax model database.

Second, we use the coefficients from the probits and regressions estimated on the SCF, along with the values of the explanatory variables in the PUF/CPS matched file to impute ownership probabilities and asset and liability amounts to records in the tax model. After this is done, we apply adjustment factors that differ by marital status to each individual asset and liability so that the aggregate amount and distribution matches that on the SCF.⁵ After our adjustments, the share of assets held by the top one percent of the income distribution in the tax model is significantly higher than in the SCF. We do not believe this is a problem with the tax model database but rather reflects the exclusion of the Forbes 400 from the SCF. Top incomes in the PUF are significantly higher than top incomes in the SCF, and we believe it is appropriate to attribute greater wealth to these individuals.

Third, we develop an estate tax calculator, which incorporates the rules regarding the estate tax in each year. Fourth, each record's expected value of gross estate and net estate tax is calculated by applying mortality probabilities. Following Poterba and Weisbenner (2001), we use the annuitant mortality tables, which are designed to be appropriate for higher income individuals, who tend to be healthier and live longer than average. For married couples, we calculate the expected value of gross estate twice to account for two possible outcomes: (1) only one spouse dies, in which case we assume that half of the couple's net worth is left as an estate; and (2) both spouses die, leaving their entire net worth as an estate.⁶

Finally, we align the distributions of the number of estate tax filers and expected gross estate with SOI data in two steps. First, we adjust the amounts of each component of gross estate by fixed percentages so that the averages in our data more closely resemble those in the actual data.⁷ Second, we use a linear programming algorithm to re-weight the records to ensure that our estimates of the distribution and aggregate values for the number of estate tax returns and for gross estate match the published data from SOI.

RESULTS

Baseline Distribution in 2001

We project that about 102,000 returns will be filed for 2001 decedents, representing 0.07 percent of tax filing units. Of these, 51,000 (0.04 percent

of filing units) owe estate tax. The estate tax would raise \$21.7 billion. (Note that these estimates do not include the gift tax.) The average tax per tax unit is \$157; the average per taxable estate tax return is \$427,000.

The estate tax is highly progressive: About 96 percent of the tax is paid by tax units in the top decile of the economic income distribution, more than 90 percent is paid by the top 5 percent, and 64 percent is paid by the top one percent.⁸ According to our estimates, half of estate tax returns filed for 2001 decedents owed no estate tax. Nearly one quarter of the tax was paid by about 400 tax returns (0.4 percent of the total), and over 60 percent was paid by the less than 5,000 returns (4.5 percent) with estate tax over \$1 million. The distribution is more skewed for married decedents, among whom 87 percent owed no estate tax, and almost one-third of the tax was paid by about 100 returns with liability over \$5 million.

A key issue in the policy debate has been the effect of the estate tax on small businesses and family-owned farms. Very few decedents that look like family farmers or small business owners pay much estate tax. For example, out of 3,860 returns where farm and business assets make up at least half of the estate and those assets are worth less than \$5 million, almost three-quarters (74 percent) owed no estate tax and 70 percent of those who owed estate tax owed less than \$100,000. Among all returns where farm or business assets make up at least half of gross estate, about 4,000 had to file estate tax returns, but more than 70 percent of them owed no tax, and fewer than 500 owed more than \$100,000 in estate tax. More than 60 percent of the tax paid by such estates was paid by the 30 largest estates that each had more than \$5 million in estate tax liability.

Projections

Table 1 shows our aggregate projections for estate tax returns, taxable returns, and tax liability under pre-EGTRRA law and current law. The number of returns and estate tax liability would have declined through 2006 even absent a change in law because of the scheduled increase in the unified credit. Beyond 2006, the number of estate tax returns would have increased because of increases in estate values due to inflation and real growth so that by 2009, the number would exceed its 2001 level. The number of taxable returns would not reach its 2001 level until 2010, however. On the

other hand, because the estate tax was so steeply progressive, growth in asset values would have caused estate tax liability to decline very little. By 2013, it would have been more than twice its nominal 2001 value.

EGTRRA reduces both returns and revenues. In 2004, EGTRRA reduces the number of taxable returns by 40 percent and estate tax liability by 24 percent. In 2005, estate tax liability rises due to the elimination of the state death tax credit, but the higher exempt threshold cuts the estate tax in 2006. Tax liability creeps back up through 2008, but is cut sharply in 2009 when the exempt amount increases from \$2 million to \$3.5 million. In 2010, the estate tax is eliminated, a tax cut worth over \$35 billion. After 2010, the estate tax is scheduled to return to its pre-EGTRRA levels.⁹

Reform Options

Table 2 examines reforms under three sets of assumptions: (a) EGTRRA and the reform options sunset after 2010, so there is no change in tax revenues after 2010; (b) EGTRRA sunsets but the reforms are permanent, so the reforms lose revenue after 2010; and (c) EGTRRA and the reforms are made permanent, so the reforms raise revenue relative to the baseline after 2010. The estimates assume that the state death tax credit expires as scheduled in 2005. The last column of the table shows how the ten-year cost would change if the state death tax credit were retained and states maintained their pre-EGTRRA estate and inheritance taxes.¹⁰

The table shows that the dramatic estate tax cuts scheduled for 2009 could be made effective in 2004 for a cost of about \$19 billion as compared with the current law baseline. That cost increases to \$48 billion if the state death tax credit is restored. As compared with permanent repeal starting in 2010, Option 1 actually saves revenue, almost \$60 billion if the state death tax credit is allowed to expire and about \$4 billion otherwise. If a permanent version of Option 1 is compared to current law, however, the revenue cost would be large, more than \$120 billion over ten years. Option 2 shows that indexing the exempt threshold for inflation would add about \$4 billion to the 10-year revenue cost if the change expires after 2010 (\$14 billion if it is permanent compared with current law), but would again raise revenue if repeal would otherwise be permanent. Option 3 would raise the exemption from \$3.5 million to \$5 million and cut the top rate to the top

Table 1
Aggregate Projections: Estate Tax Returns and Liability, 2001-14¹

	Calendar Year													
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Pre-EGTRRA Law														
Number of Returns (thousands)	101.6	100.0	106.2	90.9	85.5	84.9	91.7	97.3	107.0	108.6	118.3	124.6	132.4	140.1
Number of Taxable Returns (thousands)	50.8	51.3	52.9	43.3	37.9	37.0	40.3	43.4	47.6	49.3	54.3	57.0	61.1	64.7
Estate Tax Liability (\$millions)	21.7	22.3	23.1	22.6	23.3	24.8	27.1	29.7	33.0	35.4	39.2	42.9	47.0	51.7
Current Law														
Number of Returns (thousands)	101.6	63.1	67.2	37.2	39.9	28.7	31.4	34.5	15.8	0.0	118.3	124.6	132.4	140.1
Number of Taxable Returns (thousands)	50.8	28.5	31.5	19.1	20.5	13.1	14.5	15.9	7.2	0.0	54.3	57.0	61.1	64.7
Estate Tax Liability (\$millions)	21.7	17.9	19.7	17.6	19.4	17.1	18.3	20.1	15.0	0.0	39.2	42.9	47.0	51.7
Change Due to EGTRRA²														
Number of Returns (thousands)	0.0	-36.9	-39.0	-53.7	-45.6	-56.2	-60.3	-62.8	-91.2	-108.6	0.0	0.0	0.0	0.0
Number of Taxable Returns (thousands)	0.0	-22.8	-21.4	-24.2	-17.4	-23.9	-25.8	-27.5	-40.4	-49.3	0.0	0.0	0.0	0.0
Estate Tax Liability (\$millions)	0.0	-4.4	-3.5	-5.1	-4.0	-7.7	-8.8	-9.6	-18.0	-35.4	0.0	0.0	0.0	0.0

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0304-2).

(1) Calendar years.

(2) Change in estate tax liability is a static estimate that does not include behavioral response. Change does not include the effects of the gift tax or income tax.

Table 2
Estate Tax Reform Options
Static Impact on Estate Tax Liability (\$ billions), 2004-14¹

	Change in Estate Tax Liability Relative to Baseline (\$ billions) ²											With State Death Tax Credit 2004-14			
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		2004-14		
Current Law Baseline	17.6	19.4	17.1	18.3	20.1	15.0	0.0	15.7	0.0	39.2	42.9	47.0	51.7	288.4	288.4
Options Sunset 12/13/10															
1: \$3.5M Exemption, 45% Top Rate	-8.3	-8.9	-5.7	-5.8	-6.4	0.0	15.7	0.0	0.0	0.0	0.0	0.0	0.0	-19.3	-48.4
2: Option 1 Plus Indexing Exemption ³	-8.3	-9.0	-5.9	-6.3	-7.1	-1.1	14.4	0.0	0.0	0.0	0.0	0.0	0.0	-23.3	-51.8
3: \$5M Exemption, 35% Top Rate	-12.2	-13.3	-10.5	-11.1	-12.2	-6.3	9.1	0.0	0.0	0.0	0.0	0.0	0.0	-56.5	-82.1
4: \$5M Exemption, 45% Top Rate	-10.6	-11.4	-8.4	-8.8	-9.7	-3.6	11.9	0.0	0.0	0.0	0.0	0.0	0.0	-40.6	-65.3
5: \$10M Exemption, 35% Top Rate	-14.5	-15.8	-13.1	-14.0	-15.4	-9.8	5.4	0.0	0.0	0.0	0.0	0.0	0.0	-77.3	
6: \$1.5M Exemption, 48% Top Rate	0.0	0.3	4.5	5.4	5.9	14.0	31.2	0.0	0.0	0.0	0.0	0.0	0.0	61.3	
7: Option 1 Plus \$5M Maximum QFOBI ⁴	-8.3	-9.0	-5.7	-5.9	-6.4	-0.1	15.6	0.0	0.0	0.0	0.0	0.0	0.0	-19.9	
8: Option 1 Plus \$10M Maximum QFOBI ⁵	-8.5	-9.1	-5.9	-6.0	-6.6	-0.3	15.4	0.0	0.0	0.0	0.0	0.0	0.0	-21.0	
9: Option 1 Plus Unlimited QFOBI	-9.0	-9.7	-6.5	-6.7	-7.3	-1.1	14.5	0.0	0.0	0.0	0.0	0.0	0.0	-25.8	
10: \$2M Exemption, 48% Top Rate, \$5M QFOBI ⁴	0.0	-3.3	0.6	1.1	1.2	8.8	25.5	0.0	0.0	0.0	0.0	0.0	0.0	33.9	2.5
Current Law Baseline	17.6	19.4	17.1	18.3	20.1	15.0	0.0	15.7	0.0	39.2	42.9	47.0	51.7	288.4	288.4
Options are Permanent															
1: \$3.5M Exemption, 45% Top Rate	-8.3	-8.9	-5.7	-5.8	-6.4	0.0	15.7	-22.0	-24.1	-26.4	-29.2	-32.7	-35.2	-121.0	-176.4
2: Option 1 Plus Indexing Exemption ³	-8.3	-9.0	-5.9	-6.3	-7.1	-1.1	14.4	-23.8	-26.3	-29.2	-32.7	-35.2	-38.9	-135.4	-187.9
3: \$5M Exemption, 35% Top Rate	-12.2	-13.3	-10.5	-11.1	-12.2	-6.3	9.1	-29.3	-32.1	-35.2	-38.9	-42.2	-45.7	-192.0	-240.2
4: \$5M Exemption, 45% Top Rate	-10.6	-11.4	-8.4	-8.8	-9.7	-3.6	11.9	-26.2	-28.7	-31.5	-35.0	-38.9	-42.2	-162.0	-208.6
5: \$10M Exemption, 35% Top Rate	-14.5	-15.8	-13.1	-14.0	-15.4	-9.8	5.4	-33.4	-36.5	-40.1	-44.2	-47.7	-51.2	-231.5	
6: \$1.5M Exemption, 48% Top Rate	0.0	0.3	4.5	5.4	5.9	14.0	31.2	-4.8	-5.1	-5.4	-5.7	-6.0	-6.3	40.4	
7: Option 1 Plus \$5M Maximum QFOBI ⁴	-8.3	-9.0	-5.7	-5.9	-6.4	-0.1	15.6	-22.1	-24.2	-26.5	-29.3	-32.7	-35.2	-122.1	
8: Option 1 Plus \$10M Maximum QFOBI ⁵	-8.5	-9.1	-5.9	-6.0	-6.6	-0.3	15.4	-22.4	-24.4	-26.8	-29.6	-32.7	-35.2	-124.1	
9: Option 1 Plus Unlimited QFOBI	-9.0	-9.7	-6.5	-6.7	-7.3	-1.1	14.5	-23.3	-25.4	-27.8	-30.7	-33.9	-37.0	-133.0	
10: \$2M Exemption, 48% Top Rate, \$5M QFOBI ⁴	0.0	-3.3	0.6	1.1	1.2	8.8	25.5	-11.2	-12.0	-13.1	-14.2	-15.3	-16.6	-81.0	

Table 2 (continued)
Estate Tax Reform Options
Static Impact on Estate Tax Liability (\$ billions), 2004-14¹

	Change in Estate Tax Liability Relative to Baseline (\$ billions) ²											With State Death Tax Credit 2004-14	
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		2004-14
EGTRRA Permanent Baseline	17.6	19.4	17.1	18.3	20.1	15.0	0.0	0.0	0.0	0.0	0.0	107.5	107.5
Options are Permanent													
1: \$3.5M Exemption, 45% Top Rate	-8.3	-8.9	-5.7	-5.8	-6.4	0.0	15.7	17.2	18.8	20.6	22.6	59.8	4.5
2: Option 1 Plus Indexing Exemption ³	-8.3	-9.0	-5.9	-6.3	-7.1	-1.1	14.4	15.4	16.6	17.8	19.0	45.5	-7.0
3: \$5M Exemption, 35% Top Rate	-12.2	-13.3	-10.5	-11.1	-12.2	-6.3	9.1	9.9	10.8	11.8	12.8	-11.2	-59.4
4: \$5M Exemption, 45% Top Rate	-10.6	-11.4	-8.4	-8.8	-9.7	-3.6	11.9	13.0	14.2	15.4	16.8	18.8	-27.7
5: \$10M Exemption, 35% Top Rate	-14.5	-15.8	-13.1	-14.0	-15.4	-9.8	5.4	5.8	6.4	6.9	7.6	-50.6	
6: \$1.5M Exemption, 48% Top Rate	0.0	0.3	4.5	5.4	5.9	14.0	31.2	34.5	37.8	41.6	46.1	221.2	
7: Option 1 Plus \$5M Maximum QFOBI ⁴	-8.3	-9.0	-5.7	-5.9	-6.4	-0.1	15.6	17.1	18.7	20.4	22.4	58.7	
8: Option 1 Plus \$10M Maximum QFOBI ⁵	-8.5	-9.1	-5.9	-6.0	-6.6	-0.3	15.4	16.9	18.5	20.2	22.1	56.7	
9: Option 1 Plus Unlimited QFOBI	-9.0	-9.7	-6.5	-6.7	-7.3	-1.1	14.5	15.9	17.5	19.2	21.0	47.8	
10: \$2M Exemption, 48% Top Rate, \$5M QFOBI ⁴	0.0	-3.3	0.6	1.1	1.2	8.8	25.5	28.0	30.9	33.9	37.5	164.2	99.8

Source: Urban-Brookings Tax Policy Center; Microsimulation Model (version 0304-2).

(1) Calendar years. Options 1 through 9 are effective 01/01/04. Option 10, the Kerry Plan, is effective 01/01/05.

(2) Change in estate tax liability is a static estimate that does not include behavioral response. Estimate does not include the effects of the gift tax or income tax.

(3) The exemption would be indexed for inflation after the 2004 calendar year.

(4) The combined amount of gross estate excluded by the unified credit and QFOBI could not exceed \$5 million.

(5) The combined amount of gross estate excluded by the unified credit and QFOBI could not exceed \$10 million.

Table 3
Effects of Reform Options, 2004¹
Number of Estate Taxpayers and Distribution of Estate Tax Burden

	Number of Estate Taxpayers			Percent of Estate Tax Paid by ⁴				
	All (1,000s)	Small Farms and Businesses ²	All Farms and Businesses ³	Top 0.1 Percent	Top 1 Percent	Top 5 Percent	Top 20 Percent	Small Farms and Businesses ²
Current Law Baseline	19.1	340	440	37.5	83.2	98.7	99.7	0.5
1: \$3.5M Exemption, 45% Top Rate	4.5	30	110	57.7	97.4	99.6	99.7	0.2
3: \$5M Exemption, 35% Top Rate	2.5	10	90	69.4	98.9	99.6	99.6	0.1
4: \$5M Exemption, 45% Top Rate	2.5	10	90	69.2	98.9	99.6	99.6	0.1
5: \$10M Exemption, 35% Top Rate	0.6	0	30	90.6	99.5	99.5	99.5	0.0

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0304-2).

(1) Figures are for estate tax returns filed for 2004 decedents.

(2) Estate tax returns where farm and business assets represent at least half of gross estate and these assets are no more than \$5 million.

(3) Estate tax returns where farm and business assets represent at least half of gross estate.

(4) Percentiles refer to the distribution of economic income.

individual income tax rate of 35 percent. That option would cost more than twice as much as Option 2 assuming everything sunsets in 2010. Assuming everything would be extended permanently, Option 3 would reduce revenues by about \$11 billion (or \$59 billion if the state death tax credit is retained). Option 4 is the same as Option 3, but the top rate would remain at 45 percent. That change saves about \$16 billion in the first scenario and over \$29 billion in the third.

Option 5 would raise the exemption to \$10 million and cut the top rate to 35 percent. It is the most expensive reform option, reducing revenues by about \$77 billion in the first scenario and by \$51 billion in the third. Option 6 would freeze parameters at 2004 levels and would raise substantial revenue—\$61 billion in the first scenario, \$40 billion in the second, and \$221 billion in the third. Options 7-9 show that adding a large QFOBI deduction would add very little to the cost of Option 1, but it would exempt virtually all small farms and business from the estate tax if heirs were willing to keep them going. The unlimited QFOBI would, in reality, be quite expensive, because many wealthy people would choose to convert financial assets into assets that would qualify for the exclusion. (Ironically, this could actually undermine small farms, as they would become sought-after assets for billionaires interested in estate tax avoidance.) This tax avoidance effect is not reflected in our static estimates. Option 10 would create a \$2 million exemption, 48 percent top rate, and a \$5 million QFOBI deduction, and would be permanent. This would reduce estate tax revenues by \$16 billion relative to current law. But relative to permanent repeal, it would raise \$164 billion.¹¹

As shown in Table 3, Option 1 would reduce the number of estate taxpayers from 19,100 to about 4,500. Only 30 small farms and businesses would owe any tax (they would pay about 0.2 percent of all estate taxes under this option). Only 110 farms and businesses of any size would be subject to the estate tax, even including those larger than \$5 million. All of the options would shift almost all of the tax liability onto the top 5 percent of estates. Options 2 and 3 would reduce the number of taxable estates to about 2,500, and the number of small farms and businesses to about 10. Fewer than 100 farms and businesses of any size would be subject to the estate tax with the \$5 million exemption. Option 4—the \$10 million exemption—would reduce the number of estate taxpayers to fewer than 1,000.

No small farms and businesses would be taxable, and only 30 farms and businesses of any size would be subject to the tax.

CONCLUSION

This paper describes the development and application of a new estate tax module in the Tax Policy Center microsimulation model. The module is used to examine the revenue and distributional implications of the estate tax and options for reform. We show that even before the changes enacted by EGTRRA, the estate tax is highly progressive, significantly more so than the individual income tax. The paper illustrates that there are numerous options to relieve the small number of farms and businesses who are subject to the estate tax without repealing the tax altogether.

Notes

- ¹ For a more detailed summary of the rules in effect before 2001 and a discussion of the estate tax data, see Johnson, Mikow and Eller (2001).
- ² See Durst, Monke, and Maxwell (2002) for a detailed summary of rules that affect farmers (most of which also apply to family owned businesses as well).
- ³ An estate can erase \$1.3 million of capital gains on bequeathed assets. In addition, there is a \$3 million exemption for capital gains on transfers to a spouse. Thus, with careful planning, a couple could eliminate capital gains tax liability on \$5.6 million of gains (\$1.3 million for each spouse, plus \$3 million for the transfer from the first decedent to the second).
- ⁴ The U.S. Treasury Department (Cronin, 1999) and Poterba and Weisbenner (2001) have published methodologies for estimating the distribution of estate tax burdens by income. Our approach shares elements in common with each of these methods. Citizens for Tax Justice (2001) also published estimates of the distribution of estate tax liability, but they have not documented their methodology for those estimates.
- ⁵ One exception is for farm assets. Because there are fewer than 100 observations reporting farm assets in the pooled SCF dataset, we calibrate the totals for the number of returns reporting farm assets and the aggregate amount of farming assets to data obtained from the U.S. Department of Agriculture (USDA).
- ⁶ We assume independence of mortality rates when calculating the probability that both spouses die.
- ⁷ These adjustments are performed separately by marital status and for each of six categories of gross estate size.
- ⁸ These results are similar to those in Poterba and Weisbenner (2001), Feenberg, Mitrusi and Poterba (1997)

and Cronin (1999), but they are less skewed than Citizens for Tax Justice (2001). Although not shown here, the estate tax is significantly more progressive than the individual income tax (Burman, Gale and Rohaly 2004).

- ⁹ Note that this calculation ignores the gift tax, which has averaged about 16 percent of estate tax liability, and which would be retained under EGTRRA and the president's proposal. It also ignores any income tax offsets. EGTRRA would enact carryover basis for capital gains, which in principle could generate some more income tax revenue in later years. However, some legal experts doubt the workability of the new regime and suspect that eliminating the estate tax would result in a sharp reduction in capital gains realizations (and thus tax revenues) as individuals hold more assets until death to avoid tax altogether. In that case, the revenue loss from the income tax would exacerbate the budget pressure created by eliminating the estate tax. It appears that the revenue estimates of the Joint Committee on Taxation reflect such a behavioral response.
- ¹⁰ All of the options are effective as of January 1, 2004, except for Option 10, Senator John Kerry's proposal, which is effective January 1, 2005.
- ¹¹ Note also that this proposal would save revenues lost from the gift tax and individual income tax so that on net it would be about revenue neutral relative to current law, and a much bigger revenue raiser relative to permanent repeal once these effects are taken into account. (See Burman and Rohaly, 2004.)

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Table 1
Aggregate Projections: Estate Tax Returns and Liability, 2001-14¹

	Calendar Year													
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Pre-EGTRRA Law														
Number of Returns (thousands)	101.6	100.0	106.2	90.9	85.5	84.9	91.7	97.3	107.0	108.6	118.3	124.6	132.4	140.1
Number of Taxable Returns (thousands)	50.8	51.3	52.9	43.3	37.9	37.0	40.3	43.4	47.6	49.3	54.3	57.0	61.1	64.7
Estate Tax Liability (\$billions)	21.7	22.3	23.1	22.6	23.3	24.8	27.1	29.7	33.0	35.4	39.2	42.9	47.0	51.7
Current Law														
Number of Returns (thousands)	101.6	63.1	67.2	37.2	39.9	28.7	31.4	34.5	15.8	0.0	118.3	124.6	132.4	140.1
Number of Taxable Returns (thousands)	50.8	28.5	31.5	19.1	20.5	13.1	14.5	15.9	7.2	0.0	54.3	57.0	61.1	64.7
Estate Tax Liability (\$billions)	21.7	17.9	19.7	17.6	19.4	17.1	18.3	20.1	15.0	0.0	39.2	42.9	47.0	51.7
Change Due to EGTRRA²														
Number of Returns (thousands)	0.0	-36.9	-39.0	-53.7	-45.6	-56.2	-60.3	-62.8	-91.2	-108.6	0.0	0.0	0.0	0.0
Number of Taxable Returns (thousands)	0.0	-22.8	-21.4	-24.2	-17.4	-23.9	-25.8	-27.5	-40.4	-49.3	0.0	0.0	0.0	0.0
Estate Tax Liability (\$billions)	0.0	-4.4	-3.5	-5.1	-4.0	-7.7	-8.8	-9.6	-18.0	-35.4	0.0	0.0	0.0	0.0

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0304-2)

(1) Calendar years.

(2) Change in estate tax liability is a static estimate that does not include behavioral response. Change does not include the effects of the gift tax or income tax.

Table 2
Estate Tax Reform Options
Static Impact on Estate Tax Liability (\$ billions), 2004-14¹

	Change in Estate Tax Liability Relative to Baseline (\$ billions) ²												With State Death Tax Credit 2004-14
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2004-14	
Current Law Baseline	17.6	19.4	17.1	18.3	20.1	15.0	0.0	39.2	42.9	47.0	51.7	288.4	259.5
Options Sunset 12/13/10													
1: \$3.5M Exemption, 45% Top Rate	-8.3	-8.9	-5.7	-5.8	-6.4	0.0	15.7	0.0	0.0	0.0	0.0	-19.3	-48.4
2: Option 1 Plus Indexing Exemption ³	-8.3	-9.0	-5.9	-6.3	-7.1	-1.1	14.4	0.0	0.0	0.0	0.0	-23.3	-51.8
3: \$5M Exemption, 35% Top Rate	-12.2	-13.3	-10.5	-11.1	-12.2	-6.3	9.1	0.0	0.0	0.0	0.0	-56.5	-82.1
4: \$5M Exemption, 45% Top Rate	-10.6	-11.4	-8.4	-8.8	-9.7	-3.6	11.9	0.0	0.0	0.0	0.0	-40.6	-65.3
5: \$10M Exemption, 35% Top Rate	-14.5	-15.8	-13.1	-14.0	-15.4	-9.8	5.4	0.0	0.0	0.0	0.0	-77.3	
6: \$1.5M Exemption, 48% Top Rate	0.0	0.3	4.5	5.4	5.9	14.0	31.2	0.0	0.0	0.0	0.0	61.3	
7: Option 1 Plus \$5M Maximum QFOBI ⁴	-8.3	-9.0	-5.7	-5.9	-6.4	-0.1	15.6	0.0	0.0	0.0	0.0	-19.9	
8: Option 1 Plus \$10M Maximum QFOBI ⁵	-8.5	-9.1	-5.9	-6.0	-6.6	-0.3	15.4	0.0	0.0	0.0	0.0	-21.0	
9: Option 1 Plus Unlimited QFOBI	-9.0	-9.7	-6.5	-6.7	-7.3	-1.1	14.5	0.0	0.0	0.0	0.0	-25.8	
10: \$2M Exemption, 48% Top Rate, \$5M QFOBI ⁴	0.0	-3.3	0.6	1.1	1.2	8.8	25.5	0.0	0.0	0.0	0.0	33.9	2.5
Current Law Baseline	17.6	19.4	17.1	18.3	20.1	15.0	0.0	39.2	42.9	47.0	51.7	288.4	259.5
Options are Permanent													
1: \$3.5M Exemption, 45% Top Rate	-8.3	-8.9	-5.7	-5.8	-6.4	0.0	15.7	-22.0	-24.1	-26.4	-29.2	-121.0	-176.4
2: Option 1 Plus Indexing Exemption ³	-8.3	-9.0	-5.9	-6.3	-7.1	-1.1	14.4	-23.8	-26.3	-29.2	-32.7	-135.4	-187.9
3: \$5M Exemption, 35% Top Rate	-12.2	-13.3	-10.5	-11.1	-12.2	-6.3	9.1	-29.3	-32.1	-35.2	-38.9	-192.0	-240.2
4: \$5M Exemption, 45% Top Rate	-10.6	-11.4	-8.4	-8.8	-9.7	-3.6	11.9	-26.2	-28.7	-31.5	-35.0	-162.0	-208.6
5: \$10M Exemption, 35% Top Rate	-14.5	-15.8	-13.1	-14.0	-15.4	-9.8	5.4	-33.4	-36.5	-40.1	-44.2	-231.5	
6: \$1.5M Exemption, 48% Top Rate	0.0	0.3	4.5	5.4	5.9	14.0	31.2	-4.8	-5.1	-5.4	-5.7	40.4	
7: Option 1 Plus \$5M Maximum QFOBI ⁴	-8.3	-9.0	-5.7	-5.9	-6.4	-0.1	15.6	-22.1	-24.2	-26.5	-29.3	-122.1	
8: Option 1 Plus \$10M Maximum QFOBI ⁵	-8.5	-9.1	-5.9	-6.0	-6.6	-0.3	15.4	-22.4	-24.4	-26.8	-29.6	-124.1	
9: Option 1 Plus Unlimited QFOBI	-9.0	-9.7	-6.5	-6.7	-7.3	-1.1	14.5	-23.3	-25.4	-27.8	-30.7	-133.0	
10: \$2M Exemption, 48% Top Rate, \$5M QFOBI ⁴	0.0	-3.3	0.6	1.1	1.2	8.8	25.5	-11.2	-12.0	-13.1	-14.2	-16.6	-81.0
EGTRRA Permanent Baseline	17.6	19.4	17.1	18.3	20.1	15.0	0.0	0.0	0.0	0.0	0.0	107.5	78.6
Options are Permanent													
1: \$3.5M Exemption, 45% Top Rate	-8.3	-8.9	-5.7	-5.8	-6.4	0.0	15.7	17.2	18.8	20.6	22.6	59.8	4.5
2: Option 1 Plus Indexing Exemption ³	-8.3	-9.0	-5.9	-6.3	-7.1	-1.1	14.4	15.4	16.6	17.8	19.0	45.5	-7.0
3: \$5M Exemption, 35% Top Rate	-12.2	-13.3	-10.5	-11.1	-12.2	-6.3	9.1	9.9	10.8	11.8	12.8	-11.2	-59.4
4: \$5M Exemption, 45% Top Rate	-10.6	-11.4	-8.4	-8.8	-9.7	-3.6	11.9	13.0	14.2	15.4	16.8	18.8	-27.7
5: \$10M Exemption, 35% Top Rate	-14.5	-15.8	-13.1	-14.0	-15.4	-9.8	5.4	5.8	6.4	6.9	7.6	-50.6	
6: \$1.5M Exemption, 48% Top Rate	0.0	0.3	4.5	5.4	5.9	14.0	31.2	34.5	37.8	41.6	46.1	221.2	
7: Option 1 Plus \$5M Maximum QFOBI ⁴	-8.3	-9.0	-5.7	-5.9	-6.4	-0.1	15.6	17.1	18.7	20.4	22.4	58.7	
8: Option 1 Plus \$10M Maximum QFOBI ⁵	-8.5	-9.1	-5.9	-6.0	-6.6	-0.3	15.4	16.9	18.5	20.2	22.1	56.7	
9: Option 1 Plus Unlimited QFOBI	-9.0	-9.7	-6.5	-6.7	-7.3	-1.1	14.5	15.9	17.5	19.2	21.0	47.8	
10: \$2M Exemption, 48% Top Rate, \$5M QFOBI ⁴	0.0	-3.3	0.6	1.1	1.2	8.8	25.5	28.0	30.9	33.9	37.5	164.2	99.8

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0304-2)

(1) Calendar years. Options 1 through 9 are effective 01/01/04. Option 10, the Kerry Plan, is effective 01/01/05.

(2) Change in estate tax liability is a static estimate that does not include behavioral response. Estimate does not include the effects of the gift tax or income tax.

(3) The exemption would be indexed for inflation after the 2004 calendar year.

(4) The combined amount of gross estate excluded by the unified credit and QFOBI could not exceed \$5 million.

(5) The combined amount of gross estate excluded by the unified credit and QFOBI could not exceed \$10 million.

Table 3
Effects of Reform Options, 2004¹
Number of Estate Taxpayers and Distribution of Estate Tax Burden

	Number of Estate Taxpayers			Percent of Estate Tax Paid by ⁴				Small Farms and Businesses ²
	All (1,000s)	Small Farms and Businesses ²	All Farms and Businesses ³	Top 0.1 Percent	Top 1 Percent	Top 5 Percent	Top 20 Percent	
Current Law Baseline	19.1	340	440	37.5	83.2	98.7	99.7	0.5
1: \$3.5M Exemption, 45% Top Rate	4.5	30	110	57.7	97.4	99.6	99.7	0.2
3: \$5M Exemption, 35% Top Rate	2.5	10	90	69.4	98.9	99.6	99.6	0.1
4: \$5M Exemption, 45% Top Rate	2.5	10	90	69.2	98.9	99.6	99.6	0.1
5: \$10M Exemption, 35% Top Rate	0.6	0	30	90.6	99.5	99.5	99.5	0.0

Source: Urban-Brookings Tax Policy Center Microsimulation Model (version 0304-2)

(1) Figures are for estate tax returns filed for 2004 decedents.

(2) Estate tax returns where farm and business assets represent at least half of gross estate and these assets are no more than \$5 million.

(3) Estate tax returns where farm and business assets represent at least half of gross estate.

(4) Percentiles refer to the distribution of economic income.