

Wealth transfer and potential for philanthropy: Boston metropolitan area

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**Wealth Transfer and Potential for Philanthropy
Boston Metropolitan Area
Technical Report**

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We are grateful to the sponsors of this study (the Boston Foundation) for their support of our work on wealth transfer and the potential for charitable giving. We also wish to acknowledge the Impact Foundation of North Dakota for sponsoring the update of our Wealth Transfer Model in 2011 that facilitated the current study. We appreciate the efforts of Lisa Kaloostian, James Gu, Shelby Garber, and Alexandra Robbins – all working at the Center on Wealth and Philanthropy at Boston College - in the collection of data for the study and in the production of this report.

Introduction

This technical report documents work performed at the Center on Wealth and Philanthropy at Boston College from the summer of 2012 through October 2012. This study focuses on household wealth, its transfer, and the potential charitable giving for households residing in the Boston metropolitan area in 2007, the base year of the study. The timeframe of the transfer extends from 2007 through 2061.

In 2005 we completed a similar study sponsored and released in 2006 by the Boston Foundation that estimated wealth transfer in the Boston metropolitan area from 2001 through 2055. Adjusted for inflation to 2007 dollars, it found that aggregate household wealth in the Boston area was approximately \$1.06 trillion in 2001; aggregate wealth transfer from 2001 through 2055 was \$1.33 trillion if wealth grew at 2%, \$2.41 trillion if wealth grew at 3%, and \$4.56 trillion if wealth grew at 4%. Similarly, during the same period, potential giving to charity amounted to \$381 billion (2% growth), \$686 billion (3% growth), and \$1.387 trillion (4% growth).

In contrast, the current study finds that in 2007 that aggregate household wealth in the Boston metropolitan area had grown at an average annual real rate of 4.1% per year since 2001 to reach \$1.35 trillion; even at its recessionary nadir in 2009 it amounted to \$1.11 trillion (in 2007 dollars) – still above its 2001 level. Depending on estate tax policy and growth rates, we project that from 2007 through 2061 aggregate wealth transfer in the Boston area will range from \$0.95 trillion to \$0.97 trillion if wealth grows at 1%, \$1.47 trillion to \$1.52 trillion if wealth grows at 2%, \$2.35 trillion to \$2.44 trillion if wealth grows at 3%, and \$3.83 trillion to \$3.99 trillion if wealth grows at 4%. Moreover, we project that giving to charitable causes from household financial resources during lifetime will amount to \$297 billion to \$299 billion (1% growth), \$397 billion to \$400 billion (2% growth), \$541 billion to \$546 billion (3% growth), and \$751 billion to \$759 billion (4% growth).

This report focuses on household wealth transfer and presents three sets of findings:

1. the distribution of household wealth in the Boston (core based) metropolitan area in the baseline year of 2007 as well as the subsequent three years (2008, 2009, and 2010);
2. the transfer of wealth from Boston metropolitan area households and the distribution of that wealth to government, charitable causes, heirs, fees, and other entities (e.g., trusts) in the relatively near future (2007 through 2026) and during the longer time frame (2007 through 2061); and

3. the potential for charitable giving by Boston metropolitan area households both in the relatively near future (2007 through 2026) and during the longer time frame (2007 through 2061).

The transfer of wealth and the potential for charitable giving are developed for eight scenarios defined in terms of four long term growth rates (1%, 2%, 3%, and 4%) and two federal estate tax regimens (current law that sunsets at the end of 2012 and current rates that continue the estate tax provisions in place in 2012 indefinitely into the future). Each of the scenarios incorporates the major provisions (exemption level, charitable and spousal deductions, and marginal rates) of Massachusetts's estate tax in effect in 2012 in addition to corresponding provisions of the federal estate tax.

The effect of the recession is captured in the distribution of household wealth in the Boston area from 2007 through 2010. As in the nation as a whole, Boston area households in every level of household wealth lost at least 14% of their wealth from 2007 through 2009. Households near the bottom of the distribution lost proportionally more than those near the top of the distribution because their debt to asset ratio was higher than the same ratio among households at the upper end of the distribution.

In terms of the value of the losses, households near the bottom of the distribution lost smaller amounts per household than those near the top of the distribution, since households near the bottom of the distribution owned assets of lesser value, on average, as compared with households at the upper end of the distribution.

After adjustment for reduced valuations and portfolio composition, these distributions of household wealth were integrated into our analysis and the derivation of our findings. The findings were thus adjusted for the impact of the recession on the wealth of Boston metropolitan area households.

This study defines the Boston metropolitan area to be the geographic area designated by the U.S. Census and Office of Management and Budget as the Boston Core Based Statistical Area (CBSA) in 2007, which includes the counties of Bristol, Essex, Middlesex, Norfolk, Plymouth, Suffolk, and Worcester.

Unless otherwise noted, all dollar figures in this report have been adjusted for inflation to 2007 dollars.

Executive Summary

In 1999 the Center on Wealth and Philanthropy (CWP) released "Millionaires and the Millennium: New Estimates of the Forthcoming Wealth Transfer and the Prospect for a Golden Age of Philanthropy." In it we conservatively estimated that national wealth transfer in the 55-years from 1998 to 2052 would amount to \$40.6 trillion in 1998 dollars, which translates into \$52.0 trillion in 2007 dollars.

During the summer of 2011 the Center on Wealth and Philanthropy updated and extended our Wealth Transfer Microsimulation Model (WTMM) and used it to produce new national estimates of wealth transfer and household charitable giving for the 20-year period of 2007 through 2026 and also for the 55-year period from 2007 through 2061.

Estimates were produced for 8 scenarios defined in terms of four growth rates (1%, 2%, 3%, and 4%) and two estate tax policies (current law and current rates). The current law scenario reflects the Federal Estate Tax law on the books at the time of the analysis. It sunsets at the end of 2012 and rates and other provisions of the estate tax return to their 2001 values except the exemption is \$1 million. The current rates scenario continues the estate tax provisions that apply to estates during 2011 (pre sunset) into the future; there is no sun setting after 2012 so the \$5 million exemption adjusted for inflation continues after 2012.

Wealth Transfer and Potential Charitable Donations and Transfers in the Boston Metropolitan Area

We estimate that in the near-term period from 2007 through 2026, inclusive, the Boston metropolitan area households will transfer between \$407 billion to \$603 billion (2007 dollars) of wealth through bequests to heirs, estate taxes, charitable bequests, estate closing costs, and to other entities (e.g., trusts and partnership arrangements). In the longer period from 2007 through 2061, inclusive, the estimates range between \$950 billion to \$3.994 trillion (2007 dollars) in wealth transfer. The amount of the transfer depends primarily on the secular real rate of growth in wealth during each period (1%, 2%, 3%, or 4%) as well as the estate tax provisions in the scenario.

We also estimate that between \$168 billion and \$240 billion will be donated or transferred to charitable causes by Boston metropolitan area households in the near-term 20-year period and between \$419 billion and \$1.629 trillion will be donated or transferred to charitable causes by Bostonians in the longer-term 55-year period. These donations and transfers will consist of donations along baseline trend, accelerated giving, and charitable bequests.

Current patterns of inter vivos giving by Boston metropolitan households were projected along trend in an analysis independent of the wealth transfer model. We refer to this projection as donations along baseline trend. Accelerated giving consists of charitable contributions in addition to giving along trend. This giving is mostly done by affluent and wealthy donors through charitable and non-charitable trusts and family foundations in conjunction with estate planning and concomitant adjustments in portfolio composition. Charitable bequests are bequests made to charitable organizations through estates after the death of the donor.

The amount of each of these three categories of giving depends on both the secular rate of growth in wealth during each period and also on the provisions of the estate tax code in force at the time of death. Within each growth rate, current rates produce greater

amounts allocated to charitable causes as compared with current law (i.e., rates that apply after the sunset provisions of current estate tax law).

Impact of the Recession on Wealth Transfer

In Boston, the recession reduced the value of wealth transfer by 11 percent to 25 percent in the 20-year period and by 15 percent to 31 percent in the 55-year period. The difference in the percentage reduction was due both to the secular rates of growth and the degree to which the recession affected the initial distribution of household wealth in the Boston area. Depending on the scenario the Boston metropolitan area will lose between \$53 billion and \$202 billion in wealth transfer in the 20-year period due to the recession and between \$165 billion and \$1.796 trillion in the 55-year period, depending on the scenario.

From publicly available data we are able to estimate how the recession affected the distribution of wealth for Bostonians and how this reduction in their wealth subsequently affects the value of their assets transferred in the future.

The time frame of the study begins in the days immediately preceding the recession and the following loss of wealth, jobs, financial security, and consumer confidence that affected Boston area households as well as most households throughout the country. The back story that provides the context for the focus of the current study (wealth transfer and charitable giving) is the transition from the growth of household wealth, employment, and income¹ in 2007 to the precipitous decline in household wealth, the accelerated increase in unemployment, and the decline in both earned and unearned income (including capital gains among Boston area householders) of the Great Recession of 2007. Since this is a study of wealth transfer, we focus on household wealth rather than unemployment or income.

Assets owned by households fall into four categories: real estate, unincorporated business equity, financial assets, and other (e.g., vehicles, fine art, precious metals, options, and derivatives). The recession produced a steep decline in real estate, business equity, major components of financial assets, and contribution defined retirement funds. Some bonds (e.g., mortgage backed securities, issues of government sponsored enterprises) also declined in value. Lack of credit and reduced consumer demand resulted in lower market values for small, non-farm, unincorporated businesses and S-corporations.

¹ Wealth is different than income. We measure wealth as net worth: the market value of all assets of members of a household less all debt at a point in time. The value of a home, a 401k plan, a vehicle, or a mutual fund is examples of assets. Mortgages, credit card balances, and student loans are examples of debt. Income, on the other hand, is the flow of funds over a period of time. Examples of income include wages and salaries, interest, dividends, rents received, unemployment compensation, and Social Security income, among others.

Some bonds, used cars, and selected other tangible assets (excluding real estate) maintained or increased their value at the start of the recession, but not nearly enough to offset the decline in the other categories of assets.

In our analysis of wealth transfer, we tracked the value of assets and debt of all Boston area households in 2007, in 2008, in 2009, and in 2010 based on asset valuations and portfolio composition. In this way we adjusted for the impact of the recession.

On average, the aggregate value of household assets declined slightly more than 17 percent between 2007 and 2009 for the nation as a whole. At the same time, household debt increased, on average, by about 0.5 percent. Consequently, national household wealth (as measured by net worth) declined by about 21 percent both on average and in aggregate during the recession.

In the Boston area, the aggregate value of household assets declined between 2007 and 2009 by approximately 15 percent – slightly less than the national average. Household debt in the Boston metropolitan area increased about 5 percent during this period. The aggregate and average household net worth in the Boston area declined by 18 percent rather than the national decline of 21 percent.

By 2010 the value of household assets in the Boston area had started a slow recovery and increased from 15 percent below their pre-recession level to 11 percent below their pre-recession level; household debt had increased by 2.0 percent; and household net worth had recovered from 18 percent below its pre-recession level to 14 percent below its pre-recession level.

Scope of Reduction in Boston Metropolitan Area Wealth

Throughout the recession and early recovery (2007 through 2009), loss of household wealth was pervasive: more than 91 percent of Boston area households suffered a decline in their net worth, but some households lost more than others. In terms of the dollar value of the decline, households with \$1 million or more in wealth in 2007 lost \$689 thousand per household, on average, or more than \$164 billion in aggregate during the recession. In contrast, households with less than \$100 thousand net worth in 2007 lost an average of \$15.6 thousand per household (\$10.9 billion in aggregate) during the recession. In terms of dollar loss, therefore, the roughly 14 percent of households at the upper end of the wealth distribution lost substantially more (\$689 thousand per household more) than the roughly 41 percent of households in the lower end of the wealth distribution.

However, the impact of the loss was reversed if measured in terms of percentage of wealth. In this metric, the roughly 14 percent of Boston area households with net worth of \$1 million or more in 2007 lost about 15.9 percent of their wealth on average and in aggregate during the recession. In contrast, the roughly 41 percent of households with net worth less than \$100 thousand in 2007 lost slightly more than 76.7 percent of their wealth on average and in aggregate during the recession. It's worth repeating this

important finding: *41 percent of Boston area households lost more than three-quarters of their wealth during the recession*².

A major reason for this disparity in percentage loss of wealth among the metropolitan area households involves the debt to asset ratios of each of these groups. In 2007 the ratio was below 7.2 percent for the group of households at the upper 14 percent of the distribution but more than 71.3 percent for the group of households in the lower 41 percent of the distribution. As the value of assets declined during the recession, the value of debt did not. As a result, those households in the lower part of the distribution lost a much larger fraction of their wealth as compared with those at the upper end of the distribution – although households throughout the distribution lost wealth.

Recessionary Impact on Charitable Giving and Wealth Transfer in the Boston Metropolitan Area

The recession had a major impact on the charitable giving of Boston area households. In 2007 Bostonians donated an average of \$2,420 (21 percent above the national average of \$1,994 per household) to charity. By 2009 the Boston area average had declined by 23 percent to \$1,861 per household (9 percent above the national average of \$1,710 per household). Since the proportional reduction of wealth was smaller among the wealthy households that donate the most to charitable causes and that account for the majority of wealth transfer as compared with households at the lower end of the distribution, the recession's impact on wealth transfer and charitable giving was somewhat attenuated.

Incidence of Wealth Transfer before Death

In recent years there has been an increase in transfers of assets *during lifetime* in conjunction with estate planning and transfers to heirs and other entities. Based on analysis of successive independent samples of affluent individuals from the Federal Reserve, there is an increasing amount of assets transferred out of the household portfolios of affluent and wealthy households headed by people age 65 to 79. This transfer was not evident before the millennium. This pattern of transfer is increasing in frequency over time since then and also increasing in amount at successively higher levels of household wealth.

Anecdotal evidence supports the growth in this pattern. From wealth advisors and financial planners, we are told that more assets are being transferred via trusts, partnerships, direct gifts, and other vehicles of transfer during the lifetime of wealth holders than was the case 10 to 15 years ago. In addition, statistics indicate a major increase in the asset values of private foundations, donor advised funds, split-interest trusts, and living trusts from 1997 through 2007.

² Boston area households below the area's median (\$170,250) wealth in 2007 lost 51 percent of that wealth, on average, during the recession; Boston area households at or above the state's median lost 17 percent of that wealth (households above the median but below the wealthiest 10 percent lost an average of 20 percent).

We do not have good data on the final destination of these assets because they are not publicly available. We do have Federal Reserve data that indicates that inheritances received in recent years are consistently higher than is implied by estate tax data from the IRS. This fact supports the proposition that some assets are being transferred to heirs by means other than estates during the lifetime of wealth holders.

Although we cannot identify the recipients with precision, we can estimate the value of total lifetime transfers and we can also estimate the amount of this value that is donated to charitable causes. In our current analysis, we expanded the concept of wealth transfer to include these lifetime transfers of assets and we have expanded our wealth transfer model to include such transfers made in conjunction with major changes in the composition of the portfolios of wealth holders near traditional retirement age.

In the Boston metropolitan area the lifetime transfer of assets accounts for about 13 percent to 17 percent of the transfer; final estates (estates of never married, divorced, or widowed decedents) account for the remaining 83 percent to 87 percent of the transfer.

Final Estates

We use the term *final estate* to mean an estate with no surviving spouse. It is the same as the IRS designation of an estate with an unmarried decedent.

In all scenarios, the value of lifetime transfers plus accelerated lifetime giving is approximately 13 percent to 17 percent of the total wealth transfer in the Boston metropolitan area; the remaining 87 percent to 83 percent is transferred via final estates.

As shown in Table 14, at 1 percent growth from 2007 through 2061 we estimate the value of Boston metropolitan area final estates to be \$827.5 billion if estate taxes revert to 2001 provisions with \$1 million exemption after 2012 and \$842.6 billion if estate taxes remain at their 2011 provisions with a \$5 million exemption. At 2 percent growth, the corresponding estimates are \$1.258 trillion and \$1.290 trillion, respectively. At 3 percent growth, the corresponding estimates are \$1.983 trillion and \$2.048 trillion; and at 4 percent growth, the estimates are \$3.206 trillion and \$3.320 trillion.

The value of final estates is distributed to estate taxes (state and federal), charitable bequests, bequests to heirs, and estate closing costs. The estate tax provisions have a large impact on this distribution. In the 1 percent scenario, the distributed amounts are: \$36.1 billion in Massachusetts estate tax liabilities, \$165.7 billion to federal estate taxes, \$121.6 billion to charitable bequests, \$486.6 billion to heirs, and \$17.5 billion to estate closing costs – if estate taxes revert to 2001 levels after 2012. The distributed amounts are: \$36.9 billion in Massachusetts estate tax liabilities, \$50.5 billion to federal estate taxes, \$148.5 billion to charity, \$588.8 billion to heirs, and \$18.0 billion to estate closing costs – if estate tax provisions remain at their 2011 configuration after 2012. It should be noted that the current provisions of taxation lead to less transfer to the government and more to charity and heirs than is the case if estate taxes revert to their 2001 levels.

In the 2 percent scenario, the distributed amounts are: \$58.9 billion in Massachusetts estate tax liabilities, \$288.9 billion to federal estate taxes, \$175.2 billion to charitable causes, \$709.4 billion to heirs, and \$26.1 billion to estate closing costs – if estate taxes revert to 2001 levels after 2012. The distributed amounts are: \$60.9 billion to Massachusetts estate tax liabilities, \$72.2 billion to federal estate taxes, \$227.6 billion to charity, \$902.8 billion to heirs, and \$26.8 billion to estate closing costs – if estate taxes remain at their 2011 levels after 2012.

In the 3 percent scenario, the distributed amounts are: \$106.4 billion in Massachusetts estate tax liabilities, \$523.9 billion to federal estate taxes, \$322.0 billion to charitable causes, \$992.6 billion to heirs, and \$38.7 billion to estate closing costs – if estate taxes revert to 2001 levels after 2012. The distributed amounts are: \$111.1 billion in Massachusetts estate tax liabilities, \$130.7 billion to federal estate taxes, \$441.3 billion to charity, \$1.325 trillion to heirs, and \$39.9 billion to estate closing costs – if estate taxes remain at their 2011 levels after 2012.

In the 4 percent scenario, the distributed amounts are: \$200.4 billion in Massachusetts estate tax liabilities, \$933.7 billion to federal estate taxes, \$629.2 billion to charitable causes, \$1.385 trillion to heirs, and \$58.4 billion to estate closing costs – if estate taxes revert to 2001 levels after 2012. The distributed amounts are: \$209.7 billion in Massachusetts estate tax liabilities, \$269.8 billion to federal estate taxes, \$870.2 billion to charity, \$1.910 trillion to heirs, and \$60.4 billion to estate closing costs – if estate taxes remain at their 2011 levels after 2012. In each of the four growth current levels of taxation lead to less transfer to the government and more to charity and to heirs than is the case if estate taxes revert to their 2001 levels.

Potential for Charitable Donations and Transfers

In each scenario, we estimated the potential charitable giving during the 55-year period. There are three components to these estimates, one of which (baseline estimate along trend) was independent of the wealth transfer analysis and two of which (accelerated lifetime transfers to charity and charitable bequests) derived from the wealth transfer projections. In the 1% growth scenario the sum of the three components amounts to \$418.9 billion if estate taxes revert to their 2001 levels after 2012 and \$447.2 billion if estate tax provisions remain at their 2011 configuration. The corresponding estimates are \$572.3 billion and \$627.3 billion, respectively, at 2% growth; \$863.1 billion and \$987.2 billion at 3% growth; and \$1.380 trillion and \$1.629 trillion at 4% growth.

In each instance potential for charitable giving is greater under current estate tax provisions than were the provisions revert to their 2001 configuration (with \$1 million exemption).

In all scenarios, the value of lifetime giving (lifetime giving along trend plus accelerated lifetime giving) declines from 31 percent of wealth transfer in 1 percent growth scenarios to 19 percent in 4 percent growth scenarios.

Wealth Transfer is Top Heavy

It is important for the reader to note that in all scenarios the wealth transfer is wealth-dependent, in the sense that most of the transfer is made by a small percentage of households whose wealth was \$1 million or more at the time of the transfer or at the death of the wealth holder. In terms of final estates, 10 percent to 25 percent of these affluent or wealthy households account for roughly 79 percent to 93 percent of the wealth transfer through final estates in the 55-year time frame. Although wealth transfer will affect all households, most households will transfer a modest amount.

With respect to charitable bequests, in all scenarios, final estates valued at \$20 million or more bequeath the largest amounts and the largest percentages of their estates to charitable causes in comparison with final estates of lesser value. In general the greater the wealth of the decedent the greater the proportion of their wealth, on average, is transferred to charity, both during their lifetime and through their estates at death.

General Comments

Not surprisingly, the study found that lower estate taxes mostly affects the distribution of the value of estates and results in less of the transfer going to government through taxes and more to charity and heirs.

The analysis assumes that fundraisers and charitable causes continue their current level of effort to obtain charitable donations and bequests. If their approach to fundraising becomes more effective, they have an opportunity to increase the amount that goes to charity well above our estimates.

Households at all levels of income and wealth give to charitable causes. Roughly half the donations to charitable causes each year are made from households with less than \$1 million in wealth; the other half are made from households with \$1 million or more. The majority of charitable bequests and almost all the gifts made through split-interest trusts or similar vehicles of charitable giving are made by affluent or wealthy households. Americans at every income and wealth level tend to identify with the needs of others in society and try to help in ways that are appropriate to their circumstances.

Current Wealth Transfer Study

The current research study, conducted by the Center on Wealth and Philanthropy at Boston College for the Boston Foundation, uses a new and expanded version of its Wealth Transfer Microsimulation Model (WTMM) to provide estimates of wealth transfer and lifetime charitable giving for households in the Boston metropolitan area.

The wealth transfer model used in the current study of wealth transfer in the Boston area was updated and expanded during the spring and early summer of 2011 with support from the Impact Foundation of North Dakota. Some of the updates included laying the groundwork for expanding future capabilities. For example, mortality rates were updated and the number of categories was extended to include Latino as well as Caucasian, Black, and Other (Native American, Pacific Islander, and Asian).

Major Updates of the WTMM

There were four major areas for which the WTMM was updated:

1. Base Year Microdata File

The WTMM microdata file contains the representative sample of households and all relevant information for the base year (2007) of the analysis. The file contains a national sample of households, weighted to be representative of the population in the base year. Each record in the file contains data on household wealth, relevant components of that wealth, selected demographic characteristics, other household financial data, and selected family characteristics.

The WTMM relies on this file for the distribution of wealth in the base year and also the distribution of wealth by age in the base year. The first version of the file was based on the Survey of Consumer Finances (SCF) for 1998. We updated this file to the Survey of Consumer Finances for 2007, the most recent year for which the survey was available at the time of the update. In updating the file, we also updated the base year to 2007.

Sponsored by the Board of Governors of the Federal Reserve, the Survey of Consumer Finances is a triennial detailed survey of household wealth and components of wealth, household income and components of income, work history, employment status, inheritance, charitable donations, and demographic characteristics. The 2007 survey is based on a sample of 4,418 households consisting of a nationally representative sample of 2,915 households and a second oversample of 1,503 wealthy and very wealthy households. The Federal Reserve carefully weights the two parts of the sample to be representative of the full population of the country.

We calibrated the wealth in the SCF to match the aggregate estimate of household wealth published by the Federal Reserve. We also expanded the WTMM to adjust the wealth of each household in the microdata file in 2008, 2009, and 2010 to reflect the recession's impact on wealth – as described in the section, “Recent History of Household Wealth and the Recession.”

2. Mortality Rates

The WTMM uses mortality rates by age, race, and gender to actuarially determine the timing and number of final estates. The most recently available mortality rates (2007 Vital Statistics Report from the Centers for Disease Control and Prevention) by age, gender, and race were installed in the WTMM. The race variable was extended to include Latino along with Caucasian, Black, and Other (Native American, Pacific Islander, and Asian).

3. Lifecycle Saving Rates

The WTMM relies on lifecycle savings rates to augment the growth of wealth above the secular rate or to decrement the growth of wealth below the secular rate depending on lifecycle state and wealth of the household. These rates measure the average change in wealth for households at different periods of their lifecycle as captured by age of head. Based on data from successive SCF surveys we re-estimated the lifecycle savings rates by wealth of household and age of head. These rates were then installed in the WTMM.

4. Estate Tax Distribution Parameters

The WTMM uses the estate tax distribution parameters to distribute the value of final estates to estate taxes, charitable bequests, bequests to heirs, and estate closing costs in the base year of the study. Thereafter, it modifies these values based on an estate tax microsimulation sub-model.

The estate tax distribution parameters were updated to reflect the base year distribution based on data from the Statistics of Income Division of the Internal Revenue Service.

Major Expansions of the WTMM

The 2011 version of the WTMM contained five major expansions compared with the prior version of the model:

1. Asset Groupings

Assets were grouped into four categories: real estate, other tangible assets (mostly vehicles), business equity, and financial assets. In the expanded WTMM each asset category can be assigned its own secular growth rate that permits, for example, real estate to grow more slowly than business equity and business equity to grow more slowly than financial assets. At some future date, the secular rates in each category could be made time-dependent so that each asset category can be represented as a time-dependent profile of annual growth rates.

2. Wealth Adjustments for Recession

The WTMM was expanded to adjust the values of household assets and debt to historical values based primarily on changes in valuation of assets in each household portfolio. These adjusted values supersede the secular growth rates for the years in question. Thus the expanded model adjusts the valuation of each household's portfolio in 2008, 2009, and 2010 for the effects of the recession on both the value and distribution of household wealth. This modification permits the WTMM with a base year of 2007 to estimate wealth transfer during and after the recession. After 2010 the model uses its original secular growth rates to estimate household wealth.

3. Lifetime Transfers of Assets

The concept of wealth transfer was extended in the expanded version of the WTMM to include transfers made to heirs and other entities through trusts and other vehicles of asset transfer in conjunction with estate planning done during lifetime.

Similarly the model itself was expanded to calculate the amount of asset transfers during lifetime in addition to the amount of asset transfers at death. The sum of these two components constitutes the WTMM estimate of wealth transfer.

The asset transfers during lifetime were estimated from portfolio analyses of successive triennial Surveys of Consumer Finances. These transfers were further divided into known transfers to charitable organizations (including family foundations, charitable trusts, and donor advised funds) and transfers to other entities that may also have entailed gifts to charitable organizations³ in addition to transfers to financial vehicles such as trusts and limited family partnerships.

4. Estate Tax Simulation Sub-Model

An estate tax simulation sub-model was developed, tested, and installed in the WTMM. This sub-model estimates tax liability for final estates (estates with no surviving spouse) and also distributes the estate value among taxes, charitable bequests, bequests to heirs, and estate closing costs. The estimates and the distribution vary depending on the asset value of the estate.

This sub-model replaces the prior distribution algorithm that was based on historical patterns of tax liability and distribution in the base year. The new sub-model incorporates the base year distribution but modifies tax liability depending

³ The IRS data indicate that these trusts make charitable donations of several billion dollars per year and that some of them are reorganized as charitable trusts each year. The lifetime charitable estimate is therefore a conservative estimate.

on provisions of the estate tax law in effect at the time of death. Under current law, the estate taxes will revert to a \$1 million exemption, higher tax rates, and no portability at the end of 2012. The new sub-model takes these changes into account; the previous module did not.

5. Portfolio Reorganization

A portfolio reorganization module was developed, tested, and installed in the WTMM. Major changes in the composition of portfolios take place typically at ages 65 to 75 and mostly among affluent households. During this time, households divest themselves of substantial amounts of real estate and business equity and, to a lesser extent, financial assets as well. They also make major lifetime transfers during this period of portfolio reorganization. The portfolio reorganization module captures changes in portfolio composition as well as estimating lifetime transfers of assets.

Expansion of the Model for Boston Area Analysis

The WTMM was customized and calibrated for estimation of wealth transfer in the Boston Core Based Statistical Area (CBSA) as defined by the Bureau of the Census and the Office of Management and Budget. There were 4 major areas of expansion and calibration:

1. Boston CBSA Base Year Microdata File

The Boston area wealth transfer analysis relies on a microdata file that contains the initial population and wealth characteristics of the Boston metropolitan area. This file combines data from the Survey of Consumer Finances (SCF) sponsored by the Board of Governors of the Federal Reserve and data from the demographic supplement of the Current Population Survey (CPS), jointly conducted by the Bureau of Census and the Bureau of Labor Statistics. The procedure requires that both databases share a common year. The demographic supplement of the CPS is collected in March, annually; at the time the analysis was conducted the most recent survey data from the SCF was collected in 2007. Consequently 2007 is the base year of this analysis.

This file was calibrated to the demographic characteristics and wealth characteristics for the population of the Boston CBSA in 2007. It was subsequently calibrated for the impact of the recession on asset valuations in the state.

The resulting microdata file for the Boston CBSA forms the basis for estimation of the initial distribution of wealth in the Boston metropolitan area, the age

distribution of wealth, and the estimation of wealth transfer in the Boston metropolitan area.

2. Calibration for Recession

The WTTM was calibrated to the Boston CBSA based on data for 2007, 2008, 2009, and 2010 regarding real estate, home equity, and vehicles owned by households in the Boston metropolitan area. We used national valuations for publicly traded stocks, bonds, and other financial assets since their values tend to be determined in national and international markets.

3. Simulation of Massachusetts Estate Tax

Massachusetts has an estate tax that is decoupled from the federal estate tax. We developed a Massachusetts tax simulation module to estimate Massachusetts estate tax liability based on the provisions (exemptions, deductions, marginal rates, etc.) in place in 2011. This module was integrated with the federal estate tax module to estimate state and federal estate taxes.

4. Customization of Parameters

Age, race, education, and homeownership characteristics for the households in the Boston CBSA were adjusted to match their counterparts in Current Population Survey for the base year of 2007. Lifecycle savings rates were customized to the Boston CBSA by age, race/ethnicity, and wealth status.

5. Calibration of Charitable Giving

Independent estimates regarding charitable giving by residents of the Boston CBSA in 2006, 2007, 2008, 2009, and 2010 were used to calibrate household giving estimates produced by the model. These independent estimates were based primarily on data from itemized deduction data from the IRS and non-itemization data from the Panel Study of Income Dynamics for 2007 and 2009.

Scenarios of Wealth Transfer

The WTMM is a bottom up model: it generates its estimates on a household-by-household basis and adds the results together to obtain its aggregate estimates. In addition to expanding the model, we also added a 1% growth scenario to our analysis repertoire. We thus estimated and analyzed wealth transfer for growth scenarios of 1%, 2%, 3%, and 4% real rates of growth. There are separate sets of estimates for each scenario in the analysis.

Within each of the four growth scenarios there are two tax sub-scenarios: the current law in which the rates and provisions are sunset and revert to the 2001 tax code with \$1 million estate tax exemption after 2012, and a second tax sub-scenario in which the 2012 tax provisions (with \$5 million tax exemption) – current rates - remains in effect after 2012. Altogether we developed national wealth transfer estimates for 8 scenarios, 4 growth rate scenarios times two sub-scenarios of estate tax codes. It is not clear which scenario best portrays the future. We therefore present the estimates for all 8 scenarios.

Robust Economy in Massachusetts and Boston Metropolitan Area

Relative to the nation, the Massachusetts economy has been robust for most of the past 14 years, during which time real GDP rose from \$270.0 billion (2007 dollars) in 1997 to \$370.2 billion (2007 dollars) in 2011– an average real annual growth rate of 2.3%. This growth rate was sustained even though the dot com recession of 2001 and the recent 2007-2009 great recession occurred during this period. In fact, the growth in GDP was greater in Massachusetts in contrast to the 2.1% national growth in GDP during the same 14 years. Economic growth is important to wealth transfer because the long term rate of growth in GDP tends to coincide with the rate of growth in household wealth and wealth holders with at least \$1 million in wealth contribute roughly half of all charitable contributions nationally and more than half of all contributions in Massachusetts.

During the period from 1997 to 2011 the structure of the state's economy slowly shifted away from manufacturing and toward the research, technical, and scientific sector and the financial sector. Of course education, especially higher education, and health care services also grew proportionately larger. However, in recent years - since 2009 - manufacturing centered on computers, electronics, and high technology manufacturing has experienced a boom let in Massachusetts. The structure of the economy is important because employees in the research, technical, scientific, financial, education, and health care sectors tend to contribute more to charity than employees of other industries in the private sector.

The growth in the state's economy was reflected in the personal income of its residents. On average the state's real aggregate personal income (including capital gains) grew at an average annual rate of 1.7% from \$265 billion (\$42,520 per capita) in 1997 to \$337 billion (\$51,180 per capita) in 2011. Although the 2% rate of growth in real personal income was higher for the nation than the 1.7% experienced in Massachusetts, the real unearned income *per capita* was consistently higher in Massachusetts than in the nation during this period.

Personal income along with wealth comprise the financial resources that results in charitable contributions and charitable bequests. The unearned part of income (e.g., interest, dividends, rents, royalties, and capital gains) is more strongly related to the magnitude of charitable giving than other income components.

Real aggregate unearned income grew at an average annual rate of 0.5% from \$62 billion (\$9,961 per capita) in 1997 to \$66 billion (\$10,035 per capita) in 2011. The rate of

growth in aggregate unearned income was higher in Massachusetts (0.5%) as compared with the nation (0.2%). Throughout this period unearned income per capita was at least 20% higher in Massachusetts than in the nation.

In the 14 years from 1997 through 2011, the unemployment rate in Massachusetts averaged 5.1%, which was lower than the national average of 5.8% during this time. Low levels of unemployment are associated with higher levels of financial resources and higher rates of growth in those resources and higher amounts of charitable giving.

In 2007, the base year of the current study, two-thirds of the households in Massachusetts were residents of the Boston Metropolitan Area (i.e., the Boston CBSA). However, these residents received roughly 75% of the household income and slightly more than 75% of the household wealth of Massachusetts. Although less detail is available from federal data for the CBSA than for the state, the real GDP of the CBSA grew at 2.4% from 1997 through 2011. During this period income per capita was 7% to 8% greater in the CBSA than for the state, and income per capita grew at a real annual rate of 1.8% in comparison of 1.7% for the state. Moreover, the average unemployment rate was 4.8% for the CBSA in contrast to 5.1% for the state and 5.8% for the nation. These data serve to document that the Boston Metropolitan area is the center of economic vitality within the state.

Since 1987⁴ household wealth has grown nationally at a real rate of 2.4%, and real GDP has also grown nationally at 2.4%. As noted above household wealth and GDP tend to grow at similar rates over the long run, although the two rates are not always identical. they tend to be close to each other. Even during recessionary times, the real GDP in the Boston metropolitan area has grown also grown at 2.4% from 1997 through 2011. We therefore emphasize the 2% real growth scenario for Boston area, although this is a conservative choice. The lower 1% growth rate is likely pessimistic; the higher 3% growth rate is probably an optimistic choice; higher rates seem exuberantly optimistic.

Nevertheless, our Boston area estimates of wealth transfer during lifetime and through estates at death include estimates for all four growth rates. As in the nation, the more wealth Bostonians transfer during lifetime the less wealth they transfer through estates at death. Moreover, our portfolio analysis of successive Surveys of Consumer Finances indicates that the greater the wealth of a household the greater amounts of wealth are transferred during lifetime and thus less wealth is transferred through estates at death.

In the following sections we report our findings for the 20-year period from 2007 through 2026, inclusive, and also for the 55-year period from 2007 through 2061, inclusive.

Assumptions of the WTMM

The WTMM assumes that in the base year the distribution of household wealth in the Boston CBSA is represented in its micro data file. It further assumes that this wealth will

⁴ This is the earliest year for which GDP data series are available for Rhode Island; we report the national numbers starting with this year for comparability.

grow at a constant secular rate as stated in the scenario but that this rate will be adjusted for life cycle savings depending on the age of the head of household.

The model is based on the household population in the Boston CBSA in 2007. There are no marriages or new businesses created in the model; however, there are deaths of householders and limited divestiture of business assets in the WTMM through portfolio reorganization and lifetime transfers of assets. The model does not account for migration or immigration, although its estimates could be adjusted for independent estimates of such population flows.

The model assumes that assets of a married decedent pass to their spouse and are only distributed to government, charitable causes, heirs, and estate closing costs when the surviving spouse dies.

The original model assumed that estates would be distributed to estate taxes, charitable bequests, bequests to heirs, and estate closing fees based on IRS base year statistics by asset class. The expanded model starts with this same distribution for the base year but adjusts the values based on a new state and federal estate tax simulation sub-models, as described above.

Running the WTMM in Context of the Recession

In 2007, 1.723 million households in the Boston metropolitan area owned \$1.351 trillion in wealth: about 43% in tangible assets (mostly real estate), about 18% in business equity and 39% in financial assets. Household debt was approximately 13% of the value of assets. This compares with the national composition of household portfolios for 2007: 45% in tangible assets, 19% in business equity and 36% in financial assets. Nationally household debt was 16% the value of assets.

On a national basis wealth was growing robustly in 2007, but there were signs of the looming recession: the housing market was already in decline and housing prices were falling. However, offsetting the real estate market, financial markets were rising for most of the year. The DOW reached a peak of 14,164 on October 9, 2007. Thereafter the financial markets began their rapid slide down to a DOW floor of 6,547 on March 9, 2009. In addition, the housing market continued to deteriorate through this period and may only now be reaching bottom.

National trends in household wealth mirrored the real estate and financial markets. Federal Reserve data indicates that the amount of household wealth was fairly steady at \$58 trillion through the first three quarters of 2007 and then began sliding rapidly to a low of \$43 trillion (2007 dollars) in the first quarter of 2009 – a reduction of roughly 25 percent. Thereafter, household wealth began to climb slowly to a value of \$48.6 trillion (2007 dollars) in the second quarter of 2011. At that time, it was still 17% lower than its 2007 peak.

As indicated previously, the Boston area economy was robust before the recession – with strong professional, scientific, and technical sectors, strong institutions of higher education and health care, and a solid financial sector. It had a higher than average rate of growth before and during the recession and in general a lower than average rate of unemployment during most of the recession and recovery. Although its residents had a greater proportion of their assets in real estate as compared with business or financial equity, the proportion of their assets in real estate was below the national percentage and the proportion in financial equity was above the national average. The recession affected their net worth less than the national average for three reasons:

1. In the North East, including in the Boston area, real estate values, on average, were higher than the national average in 2007 and did not fall as much as in the nation; and this was more so among high valued property.

In the Boston metropolitan area owner-occupied units as a proportion of all housing units was below the national proportion (57.1% vs. 59.0% in 2007). However, according to the Census the median value of owner-occupied housing in the Boston area was substantially above the national median (\$448,737 vs. \$191,471 in 2007) and remains 135% **above** the national median at the current time. Moreover, the Case-Schiller Home Price Index indicates that housing prices in the Boston area fell less from since 2007 to 2012 than the average of the national index based on the 20 largest metropolitan areas (decline of 6.1% vs. 22.4%). This pattern is confirmed by data from the Federal Housing Financing Agency.

2. Financial markets began to recover in the second quarter of 2009 while other asset values continued to decline – the higher fraction of household assets in the financial sector tended to offset the continued decline in real estate and the slower decline in business equity.
3. In the Boston area, the ratio of household debt to household assets was lower than the national average and of the average of other New England cities and therefore net worth was less affected by the decline in asset valuation during the recession.

Still, the recession and its slow recovery was the major financial event affecting Bostonian's wealth and wealth transfer since 2007. It reduced aggregate wealth transfer by an average of 23 percent from what it would have been without the recession -- although the values vary from 15% to 31%, depending on the scenario.

The Boston area wealth transfer analysis is based on the distribution of wealth in the base year of 2007. To account for the impact of the recession we adjusted the wealth of each household in the Boston CBSA microdata file based on historical valuations of components of wealth during the recessionary years of 2008 through 2010.

In 2007 households in the Boston metropolitan area owned \$1.351 trillion of household wealth. In all growth scenarios, we adjusted its annual value to match the historical record. In 2008, our adjustments reduced household wealth to \$1.206 trillion; in 2009, to \$1.112 trillion; and in 2010 increased it to \$1.166 trillion. Thereafter, we applied the growth rate designated by the scenario in question. Through these adjustments, we account for the impact of the recession on household wealth⁵.

We did not adjust wealth at the aggregate level. Instead, we adjusted it by revaluating the asset structure of each household in our micro-data file and then adjusting the composition of household portfolios to match control totals from Federal Reserve data. For the years from 2007 through 2010, this yields annual distributions of wealth that vary depending on the initial level and composition of wealth in 2007, annual asset valuations, and compositional variations in portfolios.

It is important to emphasize that this reduction in wealth is accomplished for each household based on the composition of its portfolio. Thus a household with its entire portfolio in bonds would have had little if any reduction in wealth from 2007 through 2008. Those few Boston area households with all their assets in agricultural land actually saw an increase in their assets during this time. In contrast, households with their assets in housing and mutual funds generally suffered a substantial decline in their wealth during this period.

Household debt was similarly adjusted on a household basis. Again we used historical data and control totals from Federal Reserve and Bureau of Economic Analysis to adjust household debt. It should be noted that in the first year of the recession many households increased their credit card debt in response to losing income. Thereafter, households shed debt through a variety of mechanisms, such as paying off credit cards or paying down mortgages or buying less on credit. These adjustments were also made to each household in the analysis.

Boston Metropolitan Area Findings

There are two types of findings in this study. The first finding depicts the distribution of household wealth, its relationship to age, and how it was affected by the recession. These issues are important because the distribution of wealth and its relationship to age affect the amount and timing of wealth transfer. The recession reduced wealth of more than 90 percent of all households – in dollar terms more among wealthy households than among households in the lower half of the wealth distribution; but in percentage terms more among households in the lower half of the wealth distribution than among wealthy households.

The second type of finding projects the level and distribution of wealth transfer and charitable giving for the 20-year period from 2007 through 2026 and also for the 55-year

⁵ The aggregate figures in this paragraph are based on annual values from the Federal Reserve; the aggregate figures in the prior paragraph are quarterly figures from the Federal Reserve.

period from 2007 through 2061. We will see that the recession reduces the transfer by a substantial amount in all scenarios. Lifetime transfers move a portion of the total wealth transfer 15 to 20 years closer to current time. This is important because some charitable transfers will take place sooner than they otherwise would. More than 60 percent of wealth transfer is made by households that have \$1 million or more at the time of the transfer. The pattern is similar for charitable giving in that households with \$1 million or more at the time of the donation account for more than 50 percent of the annual donations..

The first set of findings involves the distribution of household wealth.

I. The Boston Metropolitan Area and National Distribution of Wealth

The amount of wealth and its distribution are important because they are major determining factors in the magnitude of national wealth transfer. The distribution of wealth by age is equally important because it is the major factor determining the timing of wealth transfer.

In 2007, the aggregate household wealth (net worth) of the 1,732 thousand Boston area households amounted to \$1.351 trillion (2007 constant dollars) as compared with \$58 trillion for the 116 million households in the United States as a whole. The 1.5% of the nation's households in the Boston metropolitan area owned 2.3 percent of the nation's household wealth, as measured by household net worth. Net worth is the market value of all assets owned by members of a household minus the values of all debt. On average Bostonians owned \$784 thousand per household as compared with \$501 thousand per household for the nation); for the Boston area the median net worth was \$170 thousand as compared with \$114 thousand for the nation.

Based on changes in prices from a variety of professional sources (e.g., Case-Schiller and the National Association of Realtors for housing values; the Wilshire 5000 for stock valuations, Lehman Brothers bond indices now maintained by Barclays Bank of London) and household portfolio compositional data from the Federal Reserve, the micro data file was adjusted for the recession for 2008, 2009, and 2010, as has been presented in a previous section of the report.

At the low point of the recession (2009), aggregate net worth for households in the Boston CBSA amounted to \$1.112 trillion (2007 dollars) with an average value of \$645 thousand per household and a median of \$120 thousand per household. From their 2007 values, the mean declined by 18%, the median by 29% - reflecting the fact that household wealth at the lower end of the wealth distribution suffered proportionally more in the recession than household wealth at the upper end.

By 2010, the economy was slowly starting to recover. Boston area's aggregate wealth grew to \$1.166 trillion (2007 dollars) with an average value of \$677 thousand per household and a median of \$132 thousand per household. The mean increased by 5% and the median by 10% from their 2009 low values. However, they both remained

significantly lower than their high values in 2007. The mean was 14% and the median 22% below their 2007 values.

Tables 1 through 4 portray the distributions of household wealth in constant 2007 dollars in the base year of 2007 (when household wealth was at its peak before the recession) as well as in 2009 (when household wealth was at its nadir during the recession), and 2010 (when household wealth had started to recover but was still well below its peak level).

In Table 1 through Table 4, household wealth categories are constant across years but households may fall into different wealth categories in successive years as compared with previous years because their wealth is different in these successive years. Taken jointly, these tables show the *distribution* of wealth shifted during the recession.

From Table 1, we see that in 2007 there were 239 thousand households with \$1 million or more in net worth in the Boston metropolitan area. They comprised 17% of all Boston area households and owned 74% of Boston area aggregate household wealth. At the lower end of the distribution there were 165 thousand households whose debt was at least as large as their assets. In addition, there were another 751 thousand households whose wealth was positive but less than \$200 thousand. Combined, these groups comprised 53% of the households and owned 4% of household wealth.

The recession shifted the entire distribution of wealth downward. In Table 2 through Table 4, this is reflected mostly in the number and percentage of households in different wealth levels for 2008, 2009, and 2010. The number and percentages of households in all categories above \$200 thousand declined from 2007 through 2009 and recovered only slightly between 2009 and 2010. For example, the number of millionaires fell 24% from 239 thousand in 2007 to 182 thousand in 2009 and recovered 10% to 201 thousand in 2010.

Although the upper end of the wealth distribution shifted substantially lower as a result of the recession, the lower end of the distribution was affected even more. Although there were 24% fewer millionaires in 2009 as compared with 2007, there were also 94 thousand (57%) more households with negative or zero net worth during this same timeframe.

Table 1 through Table 4 portray how the Boston metropolitan area distribution of wealth was affected by the recession – what historically happened to the distribution. But if the recession had not occurred, household wealth would have grown larger during this period. The impact of the recession on household wealth is not just the decline but also the foregone growth in wealth that would have occurred. Comparing Table 4 with Table 1 indicates that household wealth declined 13.7% in real terms between 2007 and 2010. If it had grown at 2% household wealth would have increased by roughly 6.1%. The total reduction in wealth and wealth transfer, including both the impact of the recession and foregone growth amounts to a loss of 19.8% of baseline wealth if wealth had grown at 2%, 16.7% if wealth had grown at 1%, 23.0% if wealth had grown at 3%, and 26.2% if wealth had grown at 4%.

II. The Distribution of Wealth by Age

The recession decreased the potential amount of Bostonian's wealth that will be transferred during the next several decades and even beyond. Given this reduction, the timing of the transfer is affected mostly by the age distribution of wealth.

Table 5 through Table 8 presents the distribution of average wealth per household (2007 dollars) by age of head of household for 2007, 2008, 2009, and 2010. As classified in 10-year age categories, the largest number of households (384 thousand in 2007) involves heads whose age is between 40 and 49 years. In Table 5, we find that the average wealth per household increases as age increases to a high value (\$1,380,651 in 2007) at age 60 to 69 years and declines as age increases to age 70 but increases again to its highest level (\$1,541,814 in 2007) at age 80 and older. It is important to note that young households are concentrated at the low end of the wealth distribution and often have significant amounts of installment loans on vehicles, student loans, and/or mortgage debt.

The recession lowered average wealth per household in all age brackets; however, in percentage terms the impact of the recession was twice as much at the youngest end of the age distribution in comparison to the oldest end. In 2009, for example, the average wealth per household declined 45% among households whose head was under age 30 as compared with a decline of 14% among households whose head was age 80 or older.

Table 9 through Table 12 presents the distribution of aggregate household wealth (2007 dollars) by age of head of household for 2007, 2008, 2009, and 2010. This data is the most relevant for the timing of wealth transfer. It indicates that the largest amount of aggregate wealth (\$355 billion in 2007) occurs among households whose head is in the 50 to 59 year range. These tables reveal that a smaller proportion of Bostonian's aggregate wealth (15 percent vs. 20 percent) is held by households age 70 or older as compared with similarly aged households in the nation. The average amount of wealth of these households is more than 75 percent greater than those in the national distribution (Table 5). Thus there will be a smaller proportion of older decedents in Boston relative to the nation in the next 20 years but their transfer will be larger. Thereafter, the disparity between Boston and the nation in terms of both proportions of decedents and their wealth will grow larger.

The impact of the recession again reduced the aggregate households wealth in all age categories but affected the younger households more than three times as much as the older households. This asymmetry in impact is a silver lining to the recession as far as it impacts wealth transfer. The older households will be transferring wealth near term and their aggregate wealth has declined less than average. Most of the wealth of younger households will not be transferred for decades. This delay in transfer allows younger households to recoup much of their wealth that was disproportionately diminished by the recession. They will have to increase their savings, consume less, invest more, work harder or otherwise arrange their finances to grow to do so. In fact there is evidence of higher levels of savings, paying down of debt, and slow growth of consumption since the

recession, according to personal income tabulations from the Bureau of Economic Analysis.

III. Boston Metropolitan Area Estimates of Wealth Transfer and Charitable Giving

Scenarios

The WTMM was run under four growth scenarios (1%, 2%, 3%, and 4% secular growth). The secular growth rates in all scenarios are activated in 2011. Between 2007 and 2011 the historical growth of wealth is used in each of the scenarios. The historical rates reflect the recession and generally result in substantially less wealth transfer than had wealth grown at the secular rates throughout the time period.

Within each growth scenario the model was run for two estate tax configurations – (1) current law with return to 2001 provisions with \$1 million exemption in 2013 and (2) extension of 2012 provisions with \$5 million exemption. Both estate tax configurations are assumed to hold from 2013 through 2061, that is, to the end of the period of the analysis. The current law consists of the provisions of the Economic Growth and Tax Relief Reconciliation Act of 2001 as subsequently amended by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010. In particular the law sunsets at the end of 2012 and reverts to the estate tax provisions in effect in 2001, except that the exemption level is set at \$1 million thereafter. The \$5 million exemption is based on the same provisions in effect in 2012 and keeps the \$5 million exemption and other provisions at their 2012 levels thereafter.

In total, there were eight scenarios: 4 growth models x 2 tax models=8 scenarios.

Summary of Results

The summary of findings for all scenarios are presented in Table 13 for the 20-year time frame from 2007 through 2026 and in Table 14 for the 55-year period from 2007 through 2061. Each column in these tables presents estimates for the scenario listed at the top of the column. The scenarios are defined in terms of both a rate of growth and an estate tax policy that is identified by its exemption level (either \$1 million after 2012 for current law with its sunset provision or \$5 million after 2012 if the provisions in effect in 2012 are extended).

Tables 13 and 14 are formatted identically.

The first row in the tables contains an estimate of the magnitude of wealth transfer for the period in question if there had been no recession. The second row contains our estimate of wealth transfer given that the recession occurred.

The next three rows break the total transfer into three components: accelerated lifetime giving (i.e. transfers of assets) to charitable causes; other lifetime transfers of assets usually to trusts, limited partnerships, or directly to heirs; and assets of final estates at death. It should be noted that other lifetime transfers of assets might also involve some transfers to charitable under certain contingencies.

The next five rows list estimates for the five distributional components of the value of final estates: Massachusetts estate taxes, federal estate taxes, bequests to charitable causes, bequests to heirs, and estate closing costs.

The next five rows define the potential funds allocated to charity during the period in question for each scenario and is demarcated by the sub-heading entitled, “Potential for Charity.”

The first row under this heading is an aggregate household giving along trend for the scenario in question. The second row lists additional accelerated giving estimated from the model as part of wealth transfer. The next row is the sum of the prior two and is labeled, “Total Lifetime Giving.”

The fourth row is the estimate of charitable bequests for the given scenario. The final row is the sum of Total Lifetime Giving and Charitable Bequests and is labeled, “Potential Total to Charity.”

Wealth Transfer for 20-Year Time Frame

Table 13 summarizes the national wealth transfer estimates as well as the potential giving to charity for all scenarios in the 20-year period from 2007 through 2026, inclusive. In the upper left corner, it indicates that in the 20-year period there will be 359,578 final estates generated by the 2007 population of households in the Boston CBSA.

The amount of wealth transfer, its distribution, and the potential charitable giving depends, among other factors, on the secular rate of growth and on the provisions of the estate tax laws. Of growth rates and tax provisions, the growth rate has the largest impact on these estimates. The estate tax provisions mainly affect distribution of final estates among taxes, charitable bequests, bequests to heirs, and estate closing costs. Through charitable bequests, the estate tax laws also affect the total potential for charity during the period in question.

Table 13 indicates that from 2007 through 2026 there will be 359,578 final estates. Between \$407 billion and \$603 billion of household wealth will be transferred during this period, depending on the scenario. Between \$41 billion and \$88 billion in assets will be transferred through accelerated giving and other lifetime transfers during the lifetime of

Boston area householders. The remaining \$366 billion to \$515 billion will be transferred through the 359,578 final estates of deceased householders in the Boston metropolitan area.

The value of final estates will be distributed to estates taxes, charitable bequests, bequests to heirs, and estate closing costs. Depending on the scenario, Massachusetts estate taxes will vary from \$21 billion to \$32 billion; federal estate taxes will vary from \$41 billion to \$115 billion; charitable bequests will vary from \$82 billion to \$132 billion; bequests to heirs, from \$183 billion to \$283 billion; and estate closing costs, from \$7 billion to \$10 billion.

The total potential for charity during this 20-year span will be a considerable \$168 billion to \$240 billion, again depending on the scenario. In all scenarios, however, roughly half the total (45% to 51%) will come from lifetime giving and the remainder from charitable bequests.

The rest of this section presents the 20-year findings in more detail than above. There are parallel sections for each growth scenario.

1% Growth 2007-2026

In the 1% growth scenario with sunset provisions taking place after 2012 and the \$1 million exemption reinstated, there will be \$407.19 billion of total wealth transfer from 2007 through 2026. There would have been \$459.84 billion had there been no recession. The \$407.19 billion is divided among accelerated lifetime giving (\$7.14 billion); other lifetime transfers (\$33.98 billion), and the value of final estates (\$366.07 billion). (Recall a final estate is the value of the estate when the surviving spouse dies – that is, when there is no surviving spouse).

The value of the final estate does not all go to heirs. It will be distributed to estate taxes: (\$21.16 billion in Massachusetts estate taxes and \$73.10 billion in federal estate taxes), charitable bequests (\$82.24 billion), bequests to heirs (\$182.55 billion), and estate closing costs (\$7.03 billion).

The bottom rows of Table 13 list the potential charitable giving for the period from 2007 through 2026, inclusive. We performed an independent estimate of baseline lifetime charitable giving using a trend analysis. For the 1% growth scenario the estimate was \$78.57 billion. To this we add the \$7.14 billion of accelerated giving for a total lifetime giving amount of \$85.72 billion. We then add the charitable bequests through estates to the charitable lifetime giving to obtain a potential total to charity of \$167.95 billion in this 20-year 1% growth scenario with \$1 million estate tax exemption level after 2012.

Within the 1% growth scenario, the main difference in findings between the \$1 million exemption scenario and the \$5 million exemption scenario lies in the amount of estate taxes paid upon death and the distribution of the value of final estates to charitable causes, to heirs, and to estate closing costs. Table 13 indicates that within the 1%

scenario, maintaining the estate tax provisions and estate tax exemption at \$5 million after 2012 will result in negligible changes in tax revenue for Massachusetts, \$32.26 billion less tax revenue for the federal government, \$10.84 billion more charitable bequests, and \$21.88 billion more bequests to heirs and small changes in estate closing costs during the period from 2007 through 2026. It also results in \$10.91 billion more in the potential amount allocated to charity during the period.

2% Growth 2007-2026

In the 2% growth scenario with sunset provisions taking place after 2012 and the \$1 million exemption reinstated, there will be \$461.51 billion of total wealth transfer from 2007 through 2026. There would have been \$546.92 billion had there been no recession. The \$461.51 billion is divided among accelerated lifetime giving (\$8.94 billion); other lifetime transfers (\$42.45 billion), and the value of final estates (\$410.12 billion).

The value of the final estate will be distributed to Massachusetts estate taxes (\$23.76 billion), federal estate taxes (\$84.02 billion), charitable bequests (\$89.99 billion), bequests to heirs (\$204.45 billion), and estate closing costs (\$7.91 billion).

The bottom rows of Table 13 again list the potential charitable giving for the period from 2007 through 2026, inclusive. For the 2% growth scenario the independent estimate of baseline lifetime charitable giving was \$83.38 billion. To this we add the \$8.94 billion of accelerated giving for a total lifetime giving amount of \$92.32 billion. We then add the charitable bequests through estates to the charitable lifetime giving to obtain a potential total to charity of \$182.31 billion in this 20-year 2% growth scenario with \$1 million estate tax exemption level after 2012.

Within the 2% growth scenario, the main difference in findings between the \$1 million exemption scenario and the \$5 million exemption scenario lies in the amount of estate taxes paid upon death and the distribution of the value of final estates to charitable causes, to heirs, and to estate closing costs. Table 13 indicates that within the 2% scenario, maintaining the estate tax provisions and exemption at \$5 million after 2012 will result in \$0.05 billion more tax revenue for Massachusetts, \$39.44 billion less revenue for the federal government, \$12.83 billion more charitable bequests, \$29.24 billion more bequests to heirs and \$.15 billion more in estate closing costs during the period from 2007 through 2026. It also results in \$12.94 billion more in the potential amount allocated to charity during the period.

3% Growth 2007-2026

In the 3% growth scenario with sunset provisions taking place after 2012 and the \$1 million exemption reinstated, there will be \$527.91 billion of total wealth transfer from 2007 through 2026. There would have been \$663.25 billion had there been no recession.

The \$527.91 billion is divided among accelerated lifetime giving (\$11.23 billion); other lifetime transfers (\$56.53 billion), and the value of final estates (\$460.15 billion).

The value of the final estate will be distributed to Massachusetts estate taxes (\$27.39 billion), federal estate taxes (\$98.29 billion), charitable bequests (\$100.55 billion), bequests to heirs (\$225.12 billion), and estate closing costs (\$8.80 billion).

The bottom rows of Table 13 again list the potential charitable giving for the period from 2007 through 2026, inclusive. For the 3% growth scenario the independent estimate of baseline lifetime charitable giving was \$88.62 billion. To this we add the \$11.23 billion of accelerated giving for a total lifetime giving amount of \$99.85 billion. We then add the charitable bequests through estates to the charitable lifetime giving to obtain a potential total to charity of \$200.40 billion in this 20-year 3% growth scenario with \$1 million estate tax exemption level after 2012.

Within the 3% growth scenario, the main difference in findings between the \$1 million exemption scenario and the \$5 million exemption scenario lies in the amount of estate taxes paid upon death and the distribution of the value of final estates to charitable causes, to heirs, and to estate closing costs. Table 13 indicates that within the 3% scenario, maintaining the estate tax provisions and exemption at \$5 million after 2012 will result in a negligible change in tax revenue for Massachusetts, \$47.79 billion less tax revenue for the federal government, \$15.42 billion more charitable bequests, \$33.23 billion more bequests to heirs and negligible changes in estate closing costs during the period from 2007 through 2026. It also results in \$15.54 billion more in the potential amount allocated to charity during the period.

4% Growth 2007-2026

In the 4% growth scenario with sunset provisions taking place after 2012 and the \$1 million exemption reinstated, there will be \$600.13 billion of total wealth transfer from 2007 through 2026. There would have been \$801.02 billion had there been no recession. The \$600.13 billion is divided among accelerated lifetime giving (\$14.04 billion); other lifetime transfers (\$72.68 billion), and the value of final estates (\$513.40 billion).

The value of the final estate will be distributed to Massachusetts estate taxes (\$31.78 billion), federal estate taxes (\$114.89 billion), charitable bequests (\$6113.37 billion), bequests to heirs (\$243.70 billion), and estate closing costs (\$9.66 billion).

The bottom rows of Table 4 again list the potential charitable giving for the period from 2007 through 2026, inclusive. For the 4% growth scenario the independent estimate of baseline lifetime charitable giving was \$94.34 billion. To this we add the \$14.04 billion of accelerated giving for a total lifetime giving amount of \$108.39 billion. We then add the charitable bequests through estates to the charitable lifetime giving to obtain a potential total to charity of \$221.76 billion in this 20-year 4% growth scenario with \$1 million estate tax exemption level after 2012.

Within the 4% growth scenario, the main difference in findings between the \$1 million exemption scenario and the \$5 million exemption scenario lies in the amount of estate taxes paid upon death and the distribution of the value of final estates to charitable causes, to heirs, and to estate closing costs. Table 13 indicates that within the 4% scenario, maintaining the estate tax provisions and exemption at \$5 million after 2012 will result in negligible changes to Massachusetts tax revenue, \$15.14 billion less federal tax revenue, \$18.51 billion more charitable bequests, \$39.46 billion more bequests to heirs and negligible changes in estate closing costs during the period from 2007 through 2026. It also results in \$2.15 billion more in the potential amount allocated to charity during the period.

Wealth Transfer for 55-Year Time Frame

Table 14 summarizes our new national wealth transfer estimates as well as the potential giving to charity for all scenarios in the 55-year period from 2007 through 2061, inclusive. The format of the table is the same as the format of Table 13. In the upper left corner it indicates that in the 55-year period there will be 1,421,598 final estates generated by the 2007 population of households in the Boston CBSA.

The amount of wealth transfer, its distribution, and the potential charitable giving depends, among other factors, on the secular rate of growth and on the provisions of the estate tax laws. The growth rate has a larger impact on these estimates than do provisions of the estate taxes. The estate tax provisions mainly affect distribution of final estates among taxes, charitable bequests, bequests to heirs, and estate closing costs. Through charitable bequests, the estate tax laws also affect the total potential for charity during the period in question.

The magnitude of the wealth transfer and of charitable giving will be more than proportionately larger in the 55-year period from 2007 through 2061 than in the first 20 years of this period due to two factors: (1) the magic of compound rates of growth will have more time to operate, and (2) inheritors will also grow their wealth and some of them will also transfer their wealth during this period.

Table 14 indicates that from 2007 through 2061 there will be 1,421,598 final estates in Massachusetts. Between \$949.77 billion and \$3.994 trillion of household wealth will be transferred during this period, depending on the growth scenario and estate tax regimen. Between \$122.26 billion and \$673.70 billion in assets will be transferred during the lifetime of the householders. The remaining \$827.50 billion to \$3.320 trillion will be transferred through the final estates of deceased householders.

The value of final estates will be divided among estate taxes, charitable bequests, bequests to heirs, and estate closing costs. Massachusetts estate tax liabilities vary from \$36.09 billion to \$209.72 billion; federal estate taxes from \$50.50 to \$933.66 billion; charitable bequests vary from \$121.62 billion to \$870.18 billion; bequests to heirs, from \$486.59 billion to \$1.910 trillion; and estate closing costs, from \$17.53 billion to \$60.36 billion.

The total potential for charity during this 55-year span will be a considerable \$418.89 billion to \$1.629 trillion, again depending on the scenario. In all scenarios, however, nearly half or more of the total (47% to 71%) will come from lifetime giving rather than charitable bequests.

The remainder of this section presents the 55-year findings in more detail than the summary above. There are parallel sections for each growth scenario.

1% Growth 2007-2061

In the 1% growth scenario with sunset provisions taking place after 2012 and the \$1 million exemption reinstated, there will be \$949.77 billion of total wealth transfer from 2007 through 2061. There would have been \$1.115 trillion had there been no recession. The \$949.77 billion is divided among accelerated lifetime giving (\$24.47 billion); other lifetime transfers (\$97.79 billion), and the value of final estates (\$827.50 billion).

The value of the final estate does not all go to heirs. It will be distributed to Massachusetts estate taxes (\$36.09 billion), federal estate taxes (\$165.66 billion), charitable bequests (\$121.62 billion), bequests to heirs (\$486.59 billion), and estate closing costs (\$17.53 billion).

The bottom rows of Table 14 list the potential charitable giving for the period from 2007 through 2061, inclusive. We performed an independent estimate of baseline lifetime charitable giving using a trend analysis. For the 1% growth scenario the estimate was \$272.80 billion. To this we add the \$24.47 billion of accelerated giving for a total lifetime giving amount of \$297.27 billion. We then add the charitable bequests through estates to the charitable lifetime giving to obtain a potential total to charity of \$418.89 billion in this 55-year 1% growth scenario with \$1 million estate tax exemption level after 2012.

Within the 1% growth scenario, the main difference in findings between the \$1 million exemption scenario and the \$5 million exemption scenario lies in the amount of estate taxes paid upon death and the distribution of the value of final estates to charitable causes, to heirs, and to estate closing costs. Table 14 indicates that within the 1% scenario, maintaining the estate tax exemption at \$5 million after 2012 will result in \$.79 billion more tax liability for Massachusetts decedents, \$115.16 billion less tax revenue for the federal government, \$26.91 billion more charitable bequests, and \$102.18 billion more bequests to heirs and \$.43 billion more in estate closing costs during the period from 2007 through 2061. It also results in \$28.26 billion more in the potential amount allocated to charity during the period.

2% Growth 2007-2061

In the 2% growth scenario with sunset provisions taking place after 2012 and the \$1 million exemption reinstated, there will be \$1.467 trillion of total wealth transfer from

2007 through 2061. There would have been \$1.808 trillion had there been no recession. The \$1.467 trillion is divided among accelerated lifetime giving (\$46.15 billion); other lifetime transfers (\$179.35 billion), and the value of final estates (\$1.258 trillion).

The value of the final estate will be distributed to Massachusetts estate tax liabilities (\$58.91 billion), federal estate taxes (\$288.90 billion), charitable bequests (\$175.18 billion), bequests to heirs (\$709.35 billion), and estate closing costs (\$26.13 billion).

The bottom rows of Table 14 again list the potential charitable giving for the period from 2007 through 2061, inclusive. For the 2% growth scenario the independent estimate of baseline lifetime charitable giving was \$353.58 billion. To this we add the \$43.57 billion of accelerated giving for a total lifetime giving amount of \$397.15 billion. We then add the charitable bequests through estates to the charitable lifetime giving to obtain a potential total to charity of \$572.33 billion in this 55-year 2% growth scenario with \$1 million estate tax exemption level after 2012.

Within the 2% growth scenario, the main difference in findings between the \$1 million exemption scenario and the \$5 million exemption scenario lies in the amount of estate taxes paid upon death and the distribution of the value of final estates to charitable causes, to heirs, and to estate closing costs. Table 14 indicates that within the 2% scenario, maintaining the estate tax provisions and \$5 million exemption after 2012 will result in \$2.03 billion more tax liability for Massachusetts decedents, \$116.75 billion less tax revenue for the federal government, \$52.40 billion more charitable bequests, \$193.43 billion more bequests to heirs and negligible changes in estate closing costs during the period from 2007 through 2061. It also results in \$54.97 billion more in the potential amount allocated to charity during the period.

3% Growth 2007-2061

In the 3% growth scenario with sunset provisions taking place after 2012 and the \$1 million exemption reinstated, there will be \$2.349 trillion of total wealth transfer from 2007 through 2061. There would have been \$3.143 trillion had there been no recession. The \$2.239 trillion is divided among accelerated lifetime giving (\$74.20 billion); other lifetime transfers (\$290.92 billion), and the value of final estates (\$1.983 trillion).

The value of the final estate will be distributed to Massachusetts estate tax liabilities (\$106.37 billion), federal estate taxes (\$523.85 billion), charitable bequests (\$321.99 billion), bequests to heirs (\$992.59 trillion), and estate closing costs (\$38.67 billion).

The bottom rows of Table 14 again list the potential charitable giving for the period from 2007 through 2061, inclusive. For the 3% growth scenario the independent estimate of baseline lifetime charitable giving was \$466.89 billion. To this we add the \$74.20 billion of accelerated giving for a total lifetime giving amount of \$541.09 billion. We then add the charitable bequests through estates to the charitable lifetime giving to obtain a potential total to charity of \$863.07 billion in this 55-year 3% growth scenario with \$1 million estate tax exemption level after 2012.

Within the 3% growth scenario, the main difference in findings between the \$1 million exemption scenario and the \$5 million exemption scenario lies in the amount of estate taxes paid upon death and the distribution of the value of final estates to charitable causes, to heirs, and to estate closing costs. Table 14 indicates that within the 3% scenario, maintaining the estate tax provisions and exemption at \$5 million after 2012 will result in \$4.69 billion more tax liability for Massachusetts decedents, \$393.19 billion less tax revenue for the federal government, \$119.27 billion more charitable bequests, and \$332.14 billion more bequests to heirs and \$1.20 billion more in estate closing costs during the period from 2007 through 2061. It also results in \$124.15 billion more in the potential amount allocated to charity during the period.

4% Growth 2007-2061

In the 4% growth scenario with sunset provisions taking place after 2012 and the \$1 million exemption reinstated, there will be \$3.826 trillion of total wealth transfer from 2007 through 2061. There would have been \$5.560 trillion had there been no recession. The \$3.826 trillion is divided among accelerated lifetime giving (\$124.13 billion); other lifetime transfers (\$495.25 billion), and the value of final estates (\$3.206 billion).

The value of the final estate will be distributed to Massachusetts estate tax liabilities (\$200.39 billion), federal estate taxes (\$933.66 billion), charitable bequests (\$629.20 billion), bequests to heirs (\$31.385 billion), and estate closing costs (\$58.37 billion).

The bottom rows of Table 14 again list the potential charitable giving for the period from 2007 through 2061, inclusive. For the 4% growth scenario the independent estimate of baseline lifetime charitable giving was \$626.99 billion. To this we add the \$124.13 billion of accelerated giving for a total lifetime giving amount of \$751.12 billion. We then add the charitable bequests through estates to the charitable lifetime giving to obtain a potential total to charity of \$1.380 trillion in this 55-year 4% growth scenario with \$1 million estate tax exemption level after 2012.

Within the 4% growth scenario, the main difference in findings between the \$1 million exemption scenario and the \$5 million exemption scenario lies in the amount of estate taxes paid upon death and the distribution of the value of final estates to charitable causes, to heirs, and to estate closing costs. Table 14 indicates that within the 4% scenario, maintaining the estate tax provisions and exemption at \$5 million after 2012 will result in \$9.33 billion more tax liabilities for Massachusetts decedents, \$663.88 billion less tax revenue for the federal government, \$240.98 billion more charitable bequests, and \$525.26 billion more bequests to heirs and \$1.99 billion more estate closing costs during the period from 2007 through 2061. It also results in \$248.89 billion more in the potential amount allocated to charity during the period.

Commentary on Wealth Transfer Findings

In all the scenarios there are some general points that are worth comment:

1. Massachusetts' wealth transfer would have been substantially greater had there been no recession. The recession led to negative growth in 2008 and again in 2009 due primarily to falling prices for equities and housing. In 2010 Massachusetts' aggregate household wealth remained 14% below its 2007 level although in aggregate Massachusetts' households experienced positive annual growth for the year.

In addition to a decline in wealth during the recession, wealth transfer suffered from the opportunity costs of not growing at the secular rates specified in each scenario. In other words if the recession had not occurred, not only would household wealth have avoided a downturn but it would have grown at a positive rate. The sum of these two components contribute to the difference between our estimates of wealth transfer had there been no recession and our estimates that are based on the realities of the recession.

2. The difference between our estimates of wealth transfer had there been no recession and those accounting for the recession increase both in the magnitude of the difference and in the percentage of difference with the secular rate of growth.
3. Within each secular growth rate there is a small positive impact in our estimates of wealth transfer between the current law with sunset clause and \$1 million estate tax exemption and the current 2012 rates and provisions with \$5 million estate tax exemption scenarios. This small impact is due to the fact that the higher exemption level leaves more wealth in the hands of heirs whose wealth, on average, also grows. Some of these heirs also transfer their wealth during the time frame of the scenario.
4. The federal estate tax liability will be substantial under current law (with sunset) but is 70% to 75% less under current rates with \$5 million exemption. The federal estate tax liability exceeds the Massachusetts estate tax liability both in the near (20-year) term and in the long (55-year) term regardless of the growth rate of the scenario and regardless of the tax regime.
5. Within each secular growth scenario, the major difference between the current law (\$1 million exemption) and the current rate (\$5 million exemption) lies in the distribution of final estates to estate taxes, charitable bequests, and heirs. The sun setting of the estate tax provisions leads to larger amounts of estate tax liabilities and smaller amounts to charitable bequests and bequests to heirs in comparison with the \$5 million estate tax exemption in place in 2011. These results are somewhat attenuated from what they would have been had there not been a Massachusetts estate tax.
6. The major impact on charitable giving is due to the different growth rates in wealth – which affect the overall capacity of Massachusetts households, especially wealthy households, to contribute to charity.

7. Within each 55 year growth scenario, however, differences in total charitable giving are due primarily to the larger aggregate charitable bequests (about 22% to 38% larger) under the \$5 million exemption as compared with the \$1 million exemption after 2012.
8. In all scenarios, wealth transfer will be concentrated among households at the upper end of the wealth distribution. The vast majority of the transfer will be made by the 15% to 20% of wealthy households that will have at least \$1 million in net worth at the time of the transfer. These households will transfer between 81% and 94% of the total wealth transfer. For example, in the 2% growth scenario, 16% of the affluent households will transfer 85% of the total wealth transfer. Some of the transfer will take place during the lifetime of the donors; the remainder will be transferred via their estates.
9. During the same time frame (2007 through 2061) these households will donate or bequeath \$289 billion to \$1.295 trillion to charitable causes, depending on the rate of growth in their wealth. Except for the 4% growth with current tax provisions and the \$5 million exemption, most of the charitable giving will take place during the donor's lifetime. However, both the amount and the proportion of the total potential giving bequeathed to charity through estates increase as the growth rate increases.

Impact of Estate Taxes on Wealth Transfer

In each growth scenario in Table 13 and Table 14, the estimates of wealth transfer are somewhat greater in the current provisions (\$5 million exemption) scenario than in the current law (\$1 million exemption) scenario, even though they share the same growth rate. This reflects the fact that heirs receive larger bequests in the \$5 million exemption than in the \$1 million exemption tax code – that is, less goes to the government. The larger amount of inheritance will contribute to the future wealth of the heirs. Some (a relatively small number) of these heirs will begin to transfer wealth in the timeframe of the study and this additional transfer results in higher estimates for the \$5 million exemption relative to the \$1 million exemption in each growth scenario.

Although there is an effect of estate taxes on the magnitude of wealth transfer the major impact of the taxes is on the distribution of the value of final estates among taxes, charitable bequests, bequests to heirs, and estate closing fees.

Boston Metropolitan Area Details of Distribution of Final Estates

In prior sections of this report we presented a summary of findings about wealth transfer and its components. One of the components is final estates. These estates are also distributed by the value of estate taxes, charitable bequests, bequests to heirs, and closing costs of the estate. They are also distributed by the net worth of the estate, itself.

In this section we present the details of the distribution of final estates by the original net worth of the estate. The distribution, of course, depends on the secular rate of growth as well as the tax policy. All the tables demonstrate some common patterns and some idiosyncratic patterns. We will discuss some of the common patterns next, and then present the eight detailed tables. For clarification, the reader should note that in the following “estate” means “final estate”.

The first common pattern: the transfer of wealth by estates is top heavy. A relatively small proportion of estates with high net worth accounts for the majority of the aggregate wealth transferred through estates. The aggregate transferred and the percentages of estates involved vary by growth rate and tax policy, but the pattern remains top heavy. This means that most inheritors will not receive a large inheritance during their lifetime from a secret treasure trove of their parents or grandparents.

Second, the value of the estates is not all transferred to heirs or to charity – the value is distributed to estate taxes, charitable bequests, heirs, and estate closing costs (mostly legal and burial costs). The multiplicity of beneficiaries of estates implies that wealth transfer diffuses the decedents’ wealth through a larger network than just their offspring. Like the transmission of electrical energy, some wealth is lost in the process of propagation to heirs.

Third, empirically, the percentage of the estate that is allocated to charity increases as the net worth of the estate increases; the percentage is above 30% for estates of \$20 million or more. A grossly simplified explanation involves the fact that wealth holders with enormous wealth will already have transferred some of their wealth during their lifetime, but there will still be more than enough remaining in their estates to allocate comfortable amounts to their heirs with a surplus left for charitable allocations. Many of the wealthiest people have a strong commitment to their philanthropic endeavors, and their allocations to philanthropy may have higher precedence in the division of their estate. The point is that the distribution of the value of charitable bequests is even more top heavy than the value of the final estates.

Detailed Distribution of Final Estates – 1% Secular Growth

Table 15 presents the detailed results of the sluggish (1%) secular growth scenario with \$1 million in estate tax exemption for the Boston metropolitan area. The total transfer and its distribution are located in the total column, which is the rightmost column in each panel.

Table 15 Panel 1 presents the estimates for the 20-year period from 2007 through 2026. Table 15 Panel 2 presents the corresponding estimates for the entire 55-year period from 2007 through 2061. Within each panel the columns define the value of the final estate, which is categorized by the net worth of the household when the final householder dies. The rows of the table define the number of final estates, the value in terms of net worth of final estates, estate fees, federal and state estate taxes, bequests to charity, and bequests to

heirs.

In the upper right corner of each cell there is a small percentage that is distributed across the estate net worth categories. They add to 100 percent across the columns. In any given column the percentage indicates the percentage of the row total that is due to final estates in the given net worth category specified by the column.

Similarly, at the bottom of each cell there is a percentage that is distributed across the recipient categories. They add to 100 percent down each column. In any given row, they indicate the percentage of the column total that is allocated to the recipient category specified by the row.

For the Boston area we estimate that 1,421,598 final estates will occur during the 55-year period from 2007 through 2061. These final estates will be valued at \$827.50 billion (2007 dollars) at the time of death if national wealth grows at an average real annual secular rate of 1% and there is \$1 million exemption in estate taxes. The model projects \$17.53 billion will be distributed to estate fees, \$36.09 billion to Massachusetts estate tax liabilities, \$165.66 to federal estate taxes, \$121.62 billion to charitable bequests, and \$586.49 billion to heirs. The \$121.62 billion of potential charitable bequests constitutes 15% of the \$827.50 billion value of final estates.

More than half the potential charitable bequests (73%) are generated by the 0.33% of final estates with value of \$20 million or more. On average, estates of \$20 million or more give the largest fraction (34%) of their value to charity in this growth scenario as compared with estates of lesser value.

The transfer of wealth is concentrated among wealthy final estates. Most (79%) of the \$827.50 billion of value of final estates in the 1% growth scenario occurs among the 10% of final estates with value of \$1 million or more. These estates pay 69% of the aggregate estate fees, 100.0% of the aggregate Massachusetts estate tax liabilities, 100% of the aggregate federal estate taxes, 92% of the aggregate charitable bequests, but only 66% of the aggregate bequests to heirs.

Panel 1 of Table 15 indicates that 44% (\$366.07 billion out of the 55 year total \$827.50 billion) value of final estates will occur before 2027. During the first 20 years from 2007 to 2026, 359,578 final estates will occur. These 359,578 final estates amount to 25% of the number of final estates generated during the entire 55-year period of the simulation. The aggregate value of these estates is \$366.07 billion (44% of the aggregate value during the entire 55 year period) with potential aggregate charitable bequests of \$82.24 billion (68% of the aggregate amount during the entire period). More than half of the value of final estates but only a third of charitable bequests will occur later than 2026 in this scenario.

Table 16 presents the detailed results of the sluggish (1%) secular growth scenario with \$5 million in estate tax exemption for the nation. The total transfer and its distribution are located in the total column, which is the rightmost column in each panel. The major

difference between Table 15 and Table 16 is in the distribution of the value of final estates to estate taxes, charitable bequests, bequests to heirs, and estate closing costs and fees. When the estate tax exemption is \$5 million, it generates slightly more (\$.79 billion) Massachusetts estate tax liability among Boston CBSA decedents, substantially less (\$115.16 billion) revenue for the federal government, and more for charitable bequests (\$26.90 billion) and heirs (\$102.17 billion) during the 55-year period. In this same time frame, the value of final estates is also \$315.13 billion more in the current provisions with \$5 million as compared with the current law with \$1 million tax exemption.

Change in Millionaire Households

In 2007 there were 238,887 households in the Boston metropolitan area with at least \$1 million in net worth. By the end of March, 2009 this number had dropped to 182,064 households, and by the end of 2010 it had increased somewhat to 200,896 households. During the full 55 years of the 1% growth scenario, approximately 83,369 households will lose their millionaire status for a total of 155,518 households with net worth of at least a million dollars.

Moderately Low (2%) Secular Growth Scenario

Table 17 presents the detailed national results of the middle (2%) secular growth scenario with \$1 million in estate tax exemption. It is formatted the same as Table 15. As in Table 15 the total transfer through final estates and its distribution are located in the total column, which is the rightmost column in each panel.

Panel 1 presents the estimates for the 20-year period from 2007 through 2026. Panel 2 presents the corresponding estimates for the entire 55-year period from 2007 through 2061. Within each panel the columns define the value of the final estate, which is categorized by the net worth of the household when the final householder dies. The rows of the table define the number of final estates, the value in terms of net worth of final estates, estate fees, federal and state estate taxes, bequests to charity, and bequests to heirs.

For the Boston CBSA we estimate that 1,421,598 final estates will occur during the 55-year period from 2007 through 2061. These final estates will be valued at \$1,258.46 billion (2007 dollars) at the time of death if wealth grows nationally at an average real annual secular rate of 2% and there is \$1 million exemption in estate taxes after 2012. The model projects \$26.13 billion will be distributed to estate fees, \$58.92 billion in Massachusetts estate tax liabilities, \$288.90 billion to federal estate taxes, \$175.18 billion to charitable bequests, and \$709.35 billion to heirs. The \$175.18 billion of potential charitable bequests constitutes 14% of the \$1,258.46 billion value of final estates – about 45% more than the comparable figure for the 1% growth scenario.

About two-thirds of the potential charitable bequests (66%) are generated by the 0.45%

of final estates with value of \$20 million or more. This proportion (66%) is large for two reasons: (1) final estates valued at \$20 million or more account for 28% of the \$1,258.46 billion in total value of final estates in the Boston metropolitan area; and (2) on average, estates of \$20 million or more give the largest fraction (33%) of their value to charity as compared with estates of lesser value.

For the Boston CBSA the transfer of wealth is concentrated among wealthy final estates. Most (82%) of the \$1,258.46 billion value of final estates in the 2% growth scenario occurs among the 15% of final estates with value of \$1 million or more. These estates pay 74% of the aggregate estate fees, 100% of federal estate taxes, 100.0% of the Massachusetts aggregate estate taxes, 93% of the aggregate charitable bequests, but only 71% of the aggregate bequests to heirs.

Panel 1 of Table 17 indicates that 33% (\$410.12 billion out of the 55 year total \$1,258.46 billion) of value of final estates in the Boston area will occur before 2027. During the first 20 years from 2007 to 2026, 359,578 final estates will occur. These 359,578 final estates amount to 25% of the number of final estates generated during the entire 55-year period of the simulation. The aggregate value of these estates is \$410.12 billion (33% of the aggregate value during the entire 55 year period) with potential aggregate charitable bequests of \$389.99 billion (51% of the aggregate amount during the entire period). About two-thirds of the value of final estates and nearly half the charitable bequests for the Boston metropolitan area will occur later than 2026 in the 2% growth scenario.

Table 18 presents the detailed national results of the moderately low (2%) secular growth scenario with \$5 million in estate tax exemption after 2012. The total transfer and its distribution are located in the total column, which is the rightmost column in each panel. The major difference between Table 17 and Table 18 is in the distribution of the value of final estates to estate taxes, charitable bequests, bequests to heirs, and estate closing costs and fees. When the estate tax exemption is \$5 million, it generates \$2.03 billion more Massachusetts estate tax liability, substantially less (\$216.75 billion) revenue for the federal government, and more for bequests to charity (\$52.40 billion) and heirs (\$193.43 billion) during the 55-year period. In this same time frame, the value of final estates is also \$31.83 billion more in the \$5 million as compared with the \$1 million tax exemption.

Change in Millionaire Households

In 2007 there were 238,887 households in the Boston metropolitan area with at least \$1 million in net worth. By the end of March, 2009 this number had dropped to 182,064 households, and by the end of 2010 it had increased somewhat to 200,896 households. During the 55 years of the 2% growth scenario, there will be a net gain of 1,419 households with millionaire status for a total of 240,306 households with net worth of at least a million dollars.

Middle (3%) Secular Growth Scenario

Table 19 presents the Boston metropolitan area detailed results of the middle (3%) secular growth scenario with \$1 million in estate tax exemption. It is formatted the same as Table 15. As in Table 15 the total transfer and its distribution are located in the total column, which is the rightmost column in each panel.

In the middle growth scenario for the Boston area we again estimate that 1,241,598 final estates will occur among the 2007 population of households during the 55-year period from 2007 through 2061. These final estates will be valued at \$1,983.46 billion at the time of death if wealth grows nationally at an average annual secular rate of 3% and there is \$1 million exemption in estate taxes after 2012. The model projects that \$38.67 billion will be distributed to estate fees, \$106.38 billion to Massachusetts estate tax liabilities, \$523.85 billion to federal estate taxes, \$321.99 billion to charitable bequests, and \$992.59 billion to heirs. The \$321.99 billion of potential charitable bequests constitutes 17% of the \$1,983.46 billion value of final estates – an additional 84% as compared with the 2% growth scenario.

Once again, most of the potential charitable bequests (72%) are generated by the 1% of final estates valued at \$20 million or more. This proportion (72%) is large for two reasons: (1) final estates with values of \$20 million or more account for 36% of the \$1,938.46 billion in the value of final estates; and (2) on average, estates of \$20 million or more give the largest fraction (33%) of their value to charity as compared with estates of lesser value.

The Boston area transfer of wealth is concentrated among wealthy final estates. Most (87%) of the 1,983.46 billion of wealth transfer in the middle (3%) growth scenario occurs among the 19% of final estates with value of \$1 million or more. These estates pay 80% of the aggregate estate fees, 100% of the Massachusetts estate tax liability 100% of the federal estate taxes, 96% of the aggregate charitable bequests, and contribute 76% of the aggregate bequests to heirs.

From Panel 1 of Table 19 we find that approximately 23% (\$460.15 billion out of the 55 year total \$1,983.46 billion) of the Boston metropolitan value of final estates will occur by the end of 2026. During the first 20 years from 2007 to 2026, we again estimate that 359,578 final estates will occur. These 359,578 final estates amount to 25% of final estates generated during the entire 55-year period of the simulation. The aggregate value of these estates is \$460.15 billion (23% of the aggregate value during the entire period) with potential aggregate charitable bequests of \$100.55 billion (31% of the aggregate amount during the entire period). Almost 77% of the wealth transfer and 69% of charitable bequests will occur later than 2026 – a greater percentage in the middle (3%) secular growth scenario than in the 1% and 2% growth scenarios.

Table 20 presents the detailed national results of the middle (3%) secular growth scenario with \$5 million in estate tax exemption after 2012. The total transfer and its distribution are located in the total column, which is the rightmost column in each panel.

The major difference between Table 19 and Table 20 are in the distribution of the value of final estates to estate taxes, charitable bequests, bequests to heirs, and estate closing costs and fees. When the estate tax exemption is \$5 million, it generates more liability (\$4.68 billion) for Massachusetts estate tax, substantially less (\$393.18 billion) revenue for the federal government, and more in bequests to charity (\$119.27 billion) and heirs (\$332.14 billion) during the 55-year period. In this same time frame, the value of final estates is also \$64.12 billion more in the current tax provisions with \$5 million exemption as compared with the current law with \$1 million tax exemption.

Change in Millionaire Households

In 2007 there were 238,887 households in the Boston metropolitan area with at least \$1 million in net worth. By the end of March, 2009 this number had dropped to 182,064 households, and by the end of 2010 it had increased somewhat to 200,896 households. During the 55 years of the 3% growth scenario, a net addition of 83,150 households will become millionaires, for a total of 322,037 households with net worth of at least a million dollars.

High (4%) Secular Growth Scenario

Table 21 presents the national detailed results of the high (4%) secular growth scenario with \$1 million in estate tax exemption after 2012. It is formatted the same as Table 15. As in Table 15 the total transfer and its distribution are located in the total column, which is the rightmost column in each panel.

In the high growth scenario for the nation we again estimate that 1,421,598 final estates will occur among the 2007 population of households during the 55-year period from 2007 through 2061. These final estates will be valued at \$3,206.48 billion at the time of death if wealth grows in the nation at an average annual secular rate of 4% and there is \$1 million exemption in estate taxes after 2012. The model projects \$58.38 billion will be distributed to estate fees, \$200.39 billion to Massachusetts estate tax liabilities, \$933.67 billion to federal taxes, \$629.20 billion to charitable bequests, and \$1,384.85 billion to heirs. The \$629.20 billion of potential charitable bequests constitutes 20% of the \$3,206.48 billion value of final estates – 95% more than the comparable figure from the middle growth scenario.

Once again, most of the potential charitable bequests (77%) are generated by the 2% of final estates valued at \$20 million or more. This proportion (77%) is large for two reasons: (1) final estates with values of \$20 million or more account for 47% of the \$3,206.48 billion in the value of final estates in the Boston metropolitan area, and (2) on average, estates of \$20 million or more give the largest fraction (32%) of their value to charity as compared with estates of lesser value.

The national transfer of wealth is concentrated among wealthy final estates. Most (93%)

of the \$3,206.48 billion of wealth transfer in the high (4%) growth scenario occurs among the 25% of final estates with value of \$1 million or more. These estates pay 88% of the aggregate estate fees, nearly 100% of Massachusetts estate tax liability, 100% of the federal estate taxes, 98% of the aggregate charitable bequests, and contribute 84% of the aggregate bequests to heirs.

From Panel 1 of Table 21 we find that approximately 16% (\$513.40 billion out of the 55 year total \$3,206.48 billion) of the value of final estates in the nation will occur by the end of 2026. During the first 20 years from 2007 to 2026, we again estimate that 86,906 final estates will occur. These 359,578 final estates amount to 25% of final estates generated during the entire 55-year period of the simulation. The aggregate value of these estates is \$513.40 billion (16.0% of the aggregate value during the entire period) with potential aggregate charitable bequests of \$113.37 billion (18.0% of the aggregate amount during the entire period). About 94% of the value of final estates and 92% of charitable bequests will occur later than 2026 – a greater percentage in the high (4%) secular growth scenario than in the 1%, 2%, and 3% growth scenarios.

Table 22 presents the detailed Boston area results of the high (4%) secular growth scenario with \$5 million in estate tax exemption after 2012. The total transfer and its distribution are located in the total column, which is the rightmost column in each panel. The major difference between Table 21 and Table 22 is in the distribution of the value of final estates to estate taxes, charitable bequests, bequests to heirs, and estate closing costs and fees. When the estate tax exemption is \$5 million, it generates more revenue (\$9.33 billion) in Massachusetts estate tax liabilities, substantially less (\$663.89 billion) revenue for the government and more in bequests for charity (\$240.98 billion) and heirs (\$525.26 billion) during the 55-year period. In this same time frame, the value of final estates is also \$113.66 billion more in the \$5 million as compared with the \$1 million tax exemption.

Change in Millionaire Households

In 2007 there were 238,887 households in the Boston metropolitan area with at least \$1 million in net worth. By the end of March, 2009 this number had dropped to 182,064 households, and by the end of 2010 it had increased somewhat to 200,896 households. During the 55 years of the 4% growth scenario, a net gain of 195,382 households will become millionaires, for a total of 434,269 households with net worth of at least a million dollars.

Concluding Comments

There are several issues concerning household wealth and its allocation that have not yet been discussed or sufficiently emphasized in the report. They will briefly be presented in this concluding section.

1. This study reflects an increasing pattern among affluent and wealthy households living in the Boston metropolitan area (i.e., CBSA) to begin transferring assets from the household portfolio to other entities as part of a general estate/legacy plan while the wealth holders are still living. As previously discussed these transfers tend to be larger among very wealthy households, occur when the householder approaches retirement age and for the decade thereafter, and generally increase as wealth increases. There are four issues related to lifetime transfers that have not yet been discussed:
 - a. The transfers made during this period of life often involve donations to non-profit organizations, family foundations, donor advised funds, and charitable trusts and present an opportunity for the potential donor to allocate even more than usual amounts to a broad range of charitable causes and to experience the results of these gifts during their lifetime.
 - b. The wealthy donor usually plans these donations years in advance. It is during this planning period that the discernment process is especially relevant to the donor and is when the donor is most appreciative of information and discussion with potential recipients; of course, many donors want to initiate the process on their own or through intermediaries.
 - c. From the non-profit viewpoint, the increasingly frequent shift of wealth transfer from giving through estates to transfers made during lifetime as part of an estate/legacy plan means that an increasing amount of the wealth transfer will occur earlier than if all the transfer occurred through estates.
 - d. Wealth transferred from the wealth holder to charity, to heirs, and to other entities (e.g., trusts) during the donor's lifetime reduces the value of the donor's final estate and thus reduces transfers through bequests.
2. As the value of final estates increase – especially to levels beyond \$20 million – the proportion of the estate value bequeathed to charity increases dramatically in all scenarios. In the current model, however, there are smaller proportions of final estates in this category in comparison to our prior model because many affluent/wealthy households transfer part of their assets to charity, to heirs, and to other entities during their lifetimes. On a national basis, the lower number of final estates estimated by the current model is in closer agreement with federal estate tax statistics than the corresponding estimate produced by our previous model.
3. The exemption levels and for that matter the existence of the estate tax has a major impact on potential for charitable giving, primarily in the form of charitable bequests. In all scenarios the extension of current rates and a \$5 million exemption after 2012 produces a major increase in the value of charitable bequests relative to the current law- which reverts to 2001 provisions with \$1

million exemption after 2012. The estate tax also has an additional relatively small effect on the total amount of wealth transfer through the amount of inheritance received by decedents while they are still living.

4. The Massachusetts estate tax is decoupled from the federal estate tax. It is thus an independent tax that is deductible from the federal taxable estate under current rates but is a credit after 2001 under current law.
5. The rate of growth in Gross Domestic Product is closely related to the growth of household wealth. The growth of household wealth, in turn, is closely related to the amount of wealth transfer and the potential for charitable giving. In the current study, the proportion of wealth transfer that goes to charity (through accelerated lifetime giving and charitable bequests) increases from 15% at 1% growth to 25% at 4% growth – the proportion of wealth transfer allocated to charity keeps increasing with increasing growth rates.

The growth rate of the economy is important to the strength of philanthropy in the nation because it increases the wealth and wealth transfer of its residents and also increases the fraction of their wealth that they contribute to charity. One implication: policies that strengthen economic growth also strengthen the long-term prospects for philanthropy.

6. In the Boston metropolitan area the long-term rate of growth since 1997 is 2.4% for real GDP, 1.8% for real personal income, and 0.6% for unearned income (inclusive of capital gains). During this period Boston's manufacturing sector shrank and its research, technical, scientific, and finance sectors grew. Boston's unemployment rate during this period was below the national average and remains so at the present time.

Our study presents findings for growth scenarios that range from 1% to 4%. In the past we felt that 2% was a conservative assumption regarding growth. It appears less conservative at the current juncture because of the slow rate of growth of the national economy. However, the Boston area has been growing above the national rate. *Consequently, we think that a conservative estimate of growth in the Boston area is likely to be close to the 2% scenario and not likely to exceed the 3% scenario during the 55-year time frame.*

7. The estimates in this report are approximations that depend not only on economic growth but also on the continued efforts of the Boston Foundation, other community foundations, non-profit organizations and other groups focused on supporting philanthropic efforts to work effectively to strengthen philanthropic initiatives. Our estimates will be too high if these efforts are not continued and our estimates will be too low if these efforts become even more effective and energetic.

8. In addition to the economy and organizations devoted to philanthropy, the state depends on the skills, character, and moral compass of its residents to devote their time and treasure in responsible ways to care for themselves and for each other. The wise use of their physical, financial, mental, and spiritual resources to extend care to others says more about the state and its residents than does the economy or even the charitable organizations.

Methodological Appendix

This appendix documents the details of how the estimates were determined. It explains an expansion in the conceptualization and definition of wealth transfer and how this affects the overall design of the model. It describes the microdata file for the Boston Core Based Metropolitan Area. It then continues with a description of the model and how it works. It concludes with a description of the method used to estimate and project national charitable giving.

Update Strategy

Our strategy to update the model was to use the most recent data available from the sources used in our original model to update the current version of the model. When we conducted this work in the spring of 2011, the most recent data for wealth and mortality data was for the year 2007; and 2007 thus became the base year of the model. We updated the model's microdata file based on data from the 2007 Survey of Consumer Finances, updated the model's mortality rates based on 2007 data from the Center on Disease Control and Preventions, updated life cycle savings rates based on federal reserve data for 1992 through 2007, and updated historical parameters regarding estate tax distribution based on 2006, 2007, and 2008 estate tax data from the Statistics of Income Division of the IRS.

Expansion Strategy

Our strategy to expand the model was to develop and test the relevant modules and then install them in the model. We developed separate modules for each area of expansion: categorization of assets, transfers of assets during lifetime, estate tax liability, and portfolio reorganization. Due to the recession we also expanded the model to adjust for the impact of the recession on wealth.

Wealth Transfer Estimation Strategy

Our strategy to arrive at projections of wealth transfer was to apply the model to a representative sample of household wealth in 2007. However, household wealth fell precipitously in 2008 and 2009, and recovered only slightly in 2010. We therefore used data from reliable sources to revalue household assets and portfolio compositions in each of the recessionary years to reflect the impact of the recession on household wealth.

Strategy for Projecting Charitable Giving

Our research strategy to project charitable giving was to develop an estimate of household giving along trend and augment it by the lifetime accelerated charitable giving (lifetime giving over and above the trend value) estimate and the charitable bequest estimate provided by the WTMM.

Expanded Conceptualization of Wealth Transfer

Since our original work on wealth transfer in 1998 we have found that as wealth holders planned for the eventual transfer of their assets their plans expanded from the confines of their will and their estate to include transfers of some of their household assets during their own lifetime - assets that would have been part of their estates in prior decades. This is reflected in the substantial growth in assets of foundations, donor advised funds, split-interest charitable trusts, non-charitable trusts, and limited partnerships –statistics we can track as reported by organizations that focus on these entities as well as in federal tax statistics for selected entities. Anecdotal evidence by those advising wealth holders in issues of estate planning and wealth transfer also confirms the increase in lifetime transfers as part of the planning process. We have therefore expanded our concept of wealth transfer to include both lifetime transfers made as part of a plan focused on transfer of assets and bequests made through estates at death. This is a broader conceptualization than that used in our earlier work and reflects the realities of the time. We used this broader conceptualization in expanding, updating, and applying our wealth transfer model as well as in our methodology to more accurately estimate potential charitable giving.

Survey of Consumer Finances

The wealth transfer microsimulation model (WTMM) was designed to use a subset of data from the Survey of Consumer Finances (SCF) as its national microdata file. The SCF is conducted every three years for the Board of Governors of the Federal Reserve [National Opinion Research Center, 1992, 1995, 1998, 2001, 2004, and 2007]. The most recent available survey at the time of the current study was conducted in 2007. Data from the 2010 survey was released in the summer of 2012 but would require extensive processing before installation in the model, and this processing was beyond the scope of both the timeline and the financial resources available.

There are 4,418 households in the 2007 survey sample: 2,915 households selected in a representative sample and 1,503 in an oversample of wealthy households, selected from IRS income tax returns. The staff of the Federal Reserve calculates weights that permit the two samples to be combined to represent the population of all households. With respect to content, the SCF contains detailed information concerning assets owned, income earned, debt owed, inheritance expected or received, employment history, and demographic characteristics. The SCF also contains a question concerning inter vivos giving of cash and in-kind charitable donations⁶ as well as questions concerning family foundations and their assets. The two most important characteristics of the SCF with respect to wealth transfer are: (1) it contains sufficient detail about the full portfolio of each household to support a reliable estimate of net worth at the household level, and (2) unlike most other surveys, it includes a large group of wealthy households that supports

⁶ The SCF ignores annual donations of less than \$500 per household. At CWP we developed a method to approximate the value of contributions of less than \$500 based on data from the General Social Survey conducted by the National Opinion Research Center.

reliable estimates for this group, which gives disproportionately large amounts to charity.

Boston CBSA Microdata File

Based on data from the Current Population Survey, the American Community Survey, and the Survey of Consumer Finances, we estimated the distribution of household wealth in the Boston metropolitan area in 2007. This process was the result of more than a decade's research on the relationships among assets and debt, on one hand, and components of income, economic characteristics, and sociodemographic characteristics on the other.

Imputation of Wealth

The key limitation to applying the WTMM to the Boston CBSA is the lack of data concerning the distribution of net worth of households in the Boston area. There is partial data on state and metropolitan area assets from a variety of sources but there is no sufficiently large representative sample of either Massachusetts or Boston area households with a reliable comprehensive distribution of household net worth.

Shortly before the turn of the century, we began to explore the possibility of using relationships among variables on the SCF to impute net worth to households in the Current Population Survey (CPS) based primarily on components of income, home ownership, and demographic characteristics. The 2007 March Supplement of the CPS is based on a sample of approximately 99 thousand households, representative by state and large metropolitan areas. It contains detailed information on income, household structure, employment, and demographic characteristics, but very sparse information on wealth.

In our exploration of the feasibility of imputing wealth to households in the CPS sample, we had the ambitious objective of estimating the distribution of household wealth within states and large metropolitan areas. At the national level the goal was to estimate the national distribution of household wealth based on the imputed measure in the CPS sample. The SCF provides an independent estimate of this distribution. Using the SCF distribution as a criterion, therefore, we wanted to develop, for each household on the CPS, an imputed measure of wealth whose distribution matched the distribution of wealth from the SCF.

We began our development efforts by adapting an approach used by the Federal Reserve to predict household wealth based on components of income [Frankel and Kennickell, 1995; Kennickell, 1993, 1999, and 2001] which the Fed uses to select its high wealth oversample based on income information from IRS income tax filings. The results were promising but not sufficiently reliable, especially at very high, lower middle, and low levels of wealth. We modified some of the variables we had been using (e.g. replaced median value of housing with average value of housing), added a number of demographic characteristics (e.g., marital status, age, education, race), and developed our own proprietary procedure to impute household wealth to households in the Current

Population Survey. In the process we gave more emphasis to macro level accuracy of the distribution than to micro level household accuracy of imputed wealth.

In 2010 we started to explore using the American Community Survey (ACS) as well as or as a replacement for the CPS. The ACS is a nationally representative sample of approximately 3 million households conducted annually by the Bureau of Census. It is representative by state, county, large cities, and metropolitan areas. It has extensive information concerning income and demographic characteristics. Other than housing it has little information about wealth. Although it measures most income categories, it groups interest, dividend, rent, royalty, and trust together in a single category.

We discovered that application of the methodology we had used for 2001 data was insufficient to attain the degree of accuracy we had previously achieved because some of the variables used in this methodology reflect transitory relationships that held in 2001 but no longer held in 2007. The difficulty manifested in both CPS and ACS data.

We had to back up a step from what we had anticipated to revisit the process by which we had developed the 2001 methodology. After several weeks we identified new transitory relationships in 2007 that could be used in place of the ones used in 2001 (both methods also relied on stable relationships but these proved insufficient by themselves to achieve the high degree of reliability required for state level estimation and analysis).

During this period it became clear that the more detailed number of components of income as well as the presence of other data in the CPS outweighed the larger sample size of the ACS for states with small populations. In small states we relied on CPS data augmented by the ACS to impute household wealth; in larger states we relied on ACS data augmented by CPS for the imputation.

Assessment of Imputation Measure

The goal of the imputation procedure is to estimate the distribution of wealth within states and large metropolitan areas. We succeeded in the sense that the national distribution of household wealth based on the imputed measure on the CPS/ACS sample has the same mean and nearly the same standard deviation as the national distribution based on the SCF; the median and quartiles of the imputed distribution are also within 1.5 percent of their counterparts in the wealth distribution from the SCF. Moreover, the age distribution of imputed wealth is within 3.5 percent of the age distribution of household wealth on the SCF. The means of the imputed wealth measure from the CPS/ACS are usually within 5 percent of the means of wealth on the SCF within categories of demographic characteristics not included in the imputation procedure. On a national basis for 2007, the imputed measure appears to have good national distributional properties in the base year.

Based on our previous work and confirmed by our current work, we conclude that it is necessary that the SCF, the CPS, and ACS be for the same year, since some of the relationships used in the imputation are more associational and transitory than behavioral

or causal. This is the reason that the base year of the imputation and the base year of the wealth transfer analysis is 2007, the most recent vintage of SCF data.

Although the imputation reproduces the distribution of wealth nationally, there was no guarantee that it would do so for states and metropolitan areas. Clearly, since the imputed measure is derived from the income, home ownership, and demographic characteristics specific to each state and metropolitan area, a case can be made that it should be a good estimate of the wealth of these states and metropolitan areas. We looked at work on the distribution of wealth by states conducted by Barry Johnson and his colleagues at the Statistics of Income (SOI) Division of the IRS [Johnson and Schreiber, 1998]. This work used the value of estates from federal estate filings together with mortality rates and state demographic profiles from the Bureau of Census to estimate wealth in the state of filing. The rank order correlation for state wealth generated by the SOI technique and our imputed measure was near zero – the two measures were uncorrelated. However, in 1996 Robert and Jon Haveman estimated wealth at the state level based on asset and debt information collected as part of the Survey of Income and Program Participation (SIPP) [Haveman and Haveman, 1996]. The rank order correlation between the Haveman measure from 1996 and our imputed measure for 2001 was 0.67 – a fairly close relationship given the intervening years and the fact that SIPP has oversamples of low income households but no oversample of high wealth households. The Haveman measure also had near zero rank order correlation with states ranked by the SOI measure of wealth. We concluded that the SOI measure may not be an effective measure for generating the entire distribution of wealth for the entire population of a state and that our imputed measure was superior at least with respect to generating state distributions.

As a final assessment of the imputed measure we applied it to states and metropolitan areas in New England. It agreed with our perceptions of wealth in these states and metropolitan areas. This constituted a minimal criterion rather than strong evidence of regional accuracy of the measure. However, the measure passed this minimal test.

In summary our imputed measure replicates the national distribution of household wealth very closely, is based on population and household characteristics measured in the CPS and ACS for states and metropolitan areas, and closely agrees with the only other study we found based on household survey data. We conclude the imputed measure appears to be a good measure for generating the distribution of household wealth for states and large metropolitan areas.

Calibrating the Microdata File to the Boston CBSA

The process of developing the microdata file for the Boston CBSA involves marrying the information from three sources: (1) the national relationships among wealth and inheritance variables from the 2007 SCF, (2) the wealth and demographic distributions for Massachusetts and the Boston CBSA from the CPS/ACS, and (3) the aggregate national wealth totals from the Flow of Funds Accounts published by the Federal Reserve.

In our estimates of wealth transfer we have reconciled the aggregate amount of household wealth derived from the SCF with an independent, more comprehensive estimate from the Flow of Funds Accounts. We assume that the Flow of Funds estimate is more accurate at the aggregate level than the survey estimate due to variations of sampling. Since very high wealth holders (households with more than \$50 million in wealth) are relatively rare, the proportion included in the sample varies from year to year, and their wealth is so large that even modest variations in the proportions of high wealth holders in the sample has an effect on the estimate of aggregate wealth derived from the survey. In 2007 we adjusted the shape of the extreme tails of the SCF wealth distribution to a weighted average shape of the distributions in 1992, 1995, 1998, 2001, and 2004. After this adjustment, the estimate of aggregate household wealth based on the survey estimate was within 2 percent of the estimate based on the Flow of Funds Accounts.

The imputed measure of wealth allowed us to estimate the overall distribution of household wealth for the Boston CBSA and breakdowns of this distribution by demographic characteristics important to the estimation of wealth transfer (i.e., age, marital status, race, and gender of not married). The imputed measure, however, is less accurate at the household level (since we had emphasized distributional accuracy over household accuracy when developing the imputation measure). In contrast, the SCF measures household wealth and household demographic characteristics at a national level, but its distributions of both household wealth and demographic characteristics do not match those for the Boston CBSA.

We wanted to calibrate the microdata file for the Boston CBSA in such a manner that it would combine the metropolitan distributional properties with the household accuracy of the SCF. Since the SCF and CPS/ACS were both describing the population in 2007, we married the data from both files by mapping the SCF into the Boston CBSA distributions as derived from the CPS/ACS (with the imputed measure of wealth). The resulting file, adjusted for different sample sizes, constitutes the Boston CBSA microdata file, which was used by the WTMM to produce the estimates of wealth transfer for the Boston metropolitan area. This method of marrying the two sets of data has three beneficial properties: (1) it reestablished the accuracy of wealth in relation to demographic characteristics at the household level; (2) it maintained the distributions based on the CPS/ACS; (3) it contained all the variables (in addition to wealth) that are required by the WTMM to estimate wealth transfer.

Assessment of Calibration

The two most important distributions for the estimate of wealth transfer in the Boston metropolitan area are (1) the distribution of household wealth in the Boston CBSA and (2) the distribution of average household wealth by age of head. These distributions were presented in the findings section. A comparison of these distributions for the Boston area reveals that the distributions based on the remapped file (used to produce the wealth transfer estimates) differ by less than 0.3% from the corresponding distributions based on the CPS data for the Boston metropolitan area. The remapped data faithfully reproduced

the distributions of household wealth based on the imputed wealth measures for Boston area households in the CPS sample.

Boston Metropolitan Area Charitable Giving along Trend

Independent of this study, we previously calculated total charitable giving by households in Massachusetts as part of the calculation of giving indices for each state in the nation. The Massachusetts value in 2007 was \$5.468 billion. From ACS data we determined that the Boston CBSA contained about 66% of the households and 73% of the state's household wealth in 2007. Household donations in the Boston CBSA was estimated to be \$4.016 billion in 2007. We projected these values along trend, or baseline of giving for each of the growth scenarios. In addition, the additional amount given to charitable organizations, family foundations, and donor advised funds in conjunction with estate planning was also estimated. These values are calculated by the expanded WTMM. The model also calculates charitable bequests. Thus, in each scenario, there are estimates of charitable baseline lifetime charitable giving, accelerated lifetime charitable transfers, and potential for charitable bequests. Their sum constitutes the estimate of potential total to charity.

Adjustment for Recession

The WTMM adjusts for the recession by adjusting the assets and debt of each household in its microdata file as it runs the simulation. It makes these valuations in a two step process: (1) adjust the individual assets in each household's portfolio for changes in asset prices and (2) adjust the revalued assets from step 1 for changes in portfolio composition

Independent price indices were used to adjust the prices. For the Boston metropolitan area the indices included the National Association of Realtors Housing and Real Estate indices, the DOW Wilshire 5000 index, the former Lehman Brothers Bond and Note Indices (now administered by Barclays Bank of London), the Manheim Used Car Index, the Bureau of Labor Statistics Vehicle Index, etc.

The changes in portfolio composition were based on aggregate changes derived from Federal Reserve data.

Areas of WTMM Expansion

As indicated in the body of the report, the 2012 version of the WTMM contained enhancements and expansions in five major areas:

1. Asset Groupings

Assets were grouped into four categories: real estate, other tangible assets (mostly vehicles), business equity, and financial assets. In the expanded WTMM each asset category can be assigned its own secular growth rate that permits, for

example, real estate to grow more slowly than business equity and business equity to grow more slowly than financial assets. At some future date, the secular rates in each category could be made time-dependent so that each asset category can be represented as a time-dependent profile of annual growth rates.

2. Wealth Adjustments for Recession

The WTMM was expanded to adjust the values of household assets and debt to historical values based primarily on changes in valuation of assets in each household portfolio. These adjusted values supersede the secular growth rates for the years in question. Thus the expanded model adjusts the valuation of each household's portfolio in 2008, 2009, and 2010 for the effects of the recession on both the value and distribution of household wealth. This modification permits the WTMM with a base year of 2007 to estimate wealth transfer during and after the recession. After 2010 the model uses its original secular growth rates to estimate household wealth.

3. Lifetime Transfers of Assets

The concept of wealth transfer was extended in the expanded version of the WTMM to include transfers made to heirs and other entities through trusts and other vehicles of asset transfer in conjunction with estate planning during lifetime.

Similarly the model itself was expanded to calculate the amount of asset transfers during lifetime in addition to the amount of asset transfers at death. The sum of these two components constitutes the WTMM estimate of wealth transfer.

The asset transfers during lifetime were estimated from portfolio analysis of successive triennial Surveys of Consumer Finances. These transfers were further divided into known transfers to charitable organizations (including family foundations, charitable trusts, and donor advised funds) and transfers to other entities that may also have entailed gifts to charitable organizations⁷ in addition to transfers to financial vehicles such as trusts and limited family partnerships.

4. Estate Tax Simulation Sub-Model

An estate tax simulation sub-model was developed, tested, and installed in the WTMM. This sub-model estimates tax liability for final estates (estates with no surviving spouse) and also distributes the estate value among taxes, charitable bequests, bequests to heirs, and estate closing costs. The estimates and the distribution vary depending on the asset value of the estate.

⁷ The IRS data indicate that these trusts make charitable donations of several billion dollars per year and that some of them are reorganized as charitable trusts each year. The lifetime charitable estimate is therefore a conservative estimate.

This sub-model replaces the prior distribution algorithm that was based on historical patterns of tax liability and distribution in the base year. The new sub-model incorporates the base year distribution but modifies tax liability depending on provisions of the estate tax law in effect at the time of death. Under current law the estate taxes will revert to a \$1 million exemption, higher tax rates, and no portability at the end of 2012. The new sub-model takes these changes into account; the previous module did not.

5. Massachusetts Estate Tax Module

New software to simulate the Massachusetts estate tax was developed, tested, and installed and integrated in the estate tax section of the WTMM. It used the parameters for Massachusetts as they existed in 2007 and subsequently modified through 2010. The provisions were assumed to remain constant during the time frames of the scenarios analyzed in this study. The software incorporated the major provisions of the Massachusetts estate law, the major allowed deductions, the exemption level, and the marginal rates.

6. Portfolio Reorganization

A portfolio reorganization module was developed, tested, and installed in the WTMM. Major changes in the composition of portfolios take place mostly at ages 65 to 75 and mostly among affluent or wealthy households. During this time households divest themselves of substantial amounts of real estate and business equity and to a lesser extent financial assets as well. They also make major lifetime transfers during this period of portfolio reorganization. The portfolio reorganization module captures changes in portfolio composition as well as estimating lifetime transfers of assets.

The WTMM and How it Works

The Wealth Transfer Microsimulation Model (WTMM) was designed and developed at the Center on Wealth and Philanthropy (CWP) (then known as the Social Welfare Research Institute) at Boston College. Updated and expanded in the past year, the model simulates wealth transfer, lifetime transfers of assets as part of wealth transfer, the number and value of final estates for households that existed in 2007 during a 20-year period, which in this analysis extends from 2007 through 2026, inclusive, and also during a 55-year period, which extends from 2007 through 2061.

The WTMM incorporates the concept of final estates. A final estate is an estate without a surviving spouse – that is, the estate of a widowed, divorced, or never married decedent. When one of two spouses die the WTMM assumes that the wealth of the decedent is transferred to the surviving spouse. In this case a final estate occurs only when the

surviving spouse dies. A final estate also occurs at the death of all other heads of household (i.e., never married, divorced, or widowed heads of household)

The WTMM assumes that household wealth grows along secular trends consistent with growth in the gross domestic product of the economy. The rates of growth define each of four scenarios (1%, 2%, 3%, and 4% rates of secular growth, respectively). A major assumption of the analysis is that there will be no sustained period of major economic downturn or upturn other than that captured by the growth rates during the 55-year period of the analysis (2007 through 2061). There will, of course, be economic cycles during this period. The WTMM assumes only that none of these cycles will result in a long period (5 years or more) of sustained economic depression below, or booming economic growth above, the secular rates.

The WTMM does not generate births, marriages, or divorces nor does it develop new household businesses, although it does divest some wealthy household of existing business assets in the course of the simulation. It assumes that people die at the 2007 national rates (by age, gender, and race) published by the National Center for Health Statistics based on data from the Center of Disease Control and Prevention.

The WTMM does assume that there are variations in the rate of growth in household wealth, depending on the age of head of household. These life cycle variations are due to periods of accelerated rates of accumulation, periods of distribution, variations in savings rates, variations in consumption rates, drawdown of assets at the end of their lifecycle for households of modest means, gifting of assets predominantly among affluent and wealthy households, and lifetime transfers of assets in connection with wealth transfer plans. The WTMM assumes that for the next 55 years the pattern of life cycle variations in the rate of growth in household wealth is represented by the current pattern estimated from data from the 1992, 1995, 1998, 2001, 2004, and 2007 SCF. The model has been modified to accommodate increases or decreases in the amounts or prevalence of selected inter vivos gifts (such as charitable remainder trusts and transfers to family foundations) among wealthy households during the period.

The WTMM applies the mortality rates, secular growth rates, and life cycle variations to each household to estimate both lifetime transfer of assets as part of wealth transfer as well as the number and value of final estates. For each final estate, its value is distributed to government, charity, heirs, and estate costs based on historical patterns. These patterns depend on the asset value of the estate. The patterns are based primarily on data from federal estate tax filings for 1998 through 2009. The pattern indicates that as asset levels of estates increase, the proportion of the value of the estate bequeathed to charity increases substantially, up to an average of 34% for estates with assets of \$20 million or more. The WTMM assumes that the national historical pattern, adjusted for changes in the estate tax law, holds for the nation during the period of the simulation.

The expanded version of the WTMM modifies the historical proportions of the value of estates distributed to government by an adjustment based on changed estate tax liability based on current estate tax law as reflected in The Economic Growth and Tax Relief

Reconciliation Act of 2001 and The Tax Relief, Unemployment Insurance Authorization and Job Creation Act of 2010. Specifically the WTMM estimates the government share of the estate based on its asset value and the historical proportion paid in estate taxes. Using an estate tax simulation sub-model the WTMM then calculates the estate tax liability under estate tax provisions in effect in 2007 and estate tax provisions in effect for the year being simulated. The proportion of new to old tax liability is applied to the historical estimate of estate taxes paid (which reduces this amount for estates that paid estate taxes). Adjusting for gift taxes, the resulting change (increase or reduction) in estate taxes paid is allocated as changes in the opposite direction (reduction or increase) to charity and heirs, proportional to the historical percentages distributed to charity and heirs for the given household. This allocation is consistent with the proposition that reductions in the estate tax will increase charitable giving [Schervish, 2001]. Since the WTMM does not support hysteresis (asymmetry of reaction, in this case to tax changes), the allocation also reflects the proposition that increases in the estate tax will decrease charitable giving.

With a few weeks additional work, the expanded WTMM can be further modified to estimate wealth transfer at the national level by race. Because of small sample sizes, however, breakdowns of wealth transfer estimates by race would be unreliable for states with modest populations, and the model has not yet been expanded to include this capability.

The WTMM runs in constant (inflation adjusted) dollars for 2007. All internal calculations and all estimates are calculated in 2007 dollars.

Lifetime Charitable Giving

The expanded WTMM estimates two components of potential charitable giving: charitable bequests through estates and transfer of assets made as part of wealth transfer. The third component, inter vivos charitable giving along secular trend, which we sometimes call lifetime baseline giving along trend, is estimated in a separate analysis independent of the model. The independent analysis is based on the aggregate amount of household giving 2007, as developed by CWP as part of our index of charitable giving relative to income, adjusted for taxes and cost of living. This baseline amount is projected along secular trend based on the growth rates used in each wealth transfer scenario.

Data and Parameters

Via its microdata file, WTMM uses the relevant demographic characteristics for United States households derived from the SCF and augmented by data from the ACS and CPS. It uses distribution of wealth in 2007 based primarily on the SCF, calibrated to independent estimates of household wealth from the Flow of Funds accounts of the Federal Reserve. For the recessionary years of 2008, 2009, and 2010, the WTMM adjusts the wealth for each household in the microdata file for historical changes in

valuation (as described above) and for changes in portfolio composition. Using this procedure it adjusts for the recession through 2010 and applies its secular growth rates thereafter.

The WTMM uses parameters based on national statistics. It uses the final mortality rates for 2007 published by the National Center for Health Statistics based on data from the Center of Disease Control and Prevention. It uses historical data from the Statistics of Income Division of the Internal Revenue Service. This data consists of average patterns (1998-2008) of distribution of estates, net of surviving spouse deductions, where the distributions are defined in terms of the percentage of the net value distributed to estate fees, charitable deductions, estate taxes, and heirs. The WTMM also uses life cycle variations in the growth of wealth calculated from the 1992, 1995, 1998, 2001, 2004 and 2007 SCF.

Scenarios

The national estimates of wealth transfer and national potential for charitable giving have been calculated for four scenarios, differentiated by the rate of secular growth in household wealth. The sluggish growth scenario assumes a 1% real (inflation adjusted) rate of secular growth and lower than average rates of life cycle savings. The moderately low growth scenario assumes a 2% real (inflation adjusted) rate of secular growth and also somewhat lower than average rates of life cycle savings. The middle growth scenario assumes a 3% real rate of secular growth and average rates of life cycle savings. The high growth scenario assumes a 4% real rate of secular growth and above average rates of life cycle savings.

Within each scenario there are two sub-scenarios: one reflects current law in which the tax provisions will revert to the 2001 version with a \$1 million exemption level beginning in 2013. The second is based on rates and provisions in effect in 2011 and envisions a \$5 million exemption level in effect in 2011 will be retained in 2013 and thereafter.

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Table 1: Distribution of Household Net Worth for Boston CBSA and the Nation in 2007
In Millions of Inflation-Adjusted 2007 Dollars
September 20, 2012

| Household Net Worth (2007 dollars) | Boston CBSA | | | | | | Nation | | | | | |
|------------------------------------|-------------|---------------|---------|----------------------|---------|-------------------|-------------|---------------|---------|----------------------|---------|-------------------|
| | Households | Percent of HH | Cum % | Net Worth (millions) | Cum % | Mean Net Worth/HH | Households | Percent of HH | Cum % | Net Worth (billions) | Cum % | Mean Net Worth/HH |
| Negative or Zero | 165,236 | 9.59% | 100.00% | -\$2,594 | 100.00% | -\$15,699 | 12,187,577 | 10.50% | 100.00% | -\$172 | 100.00% | -\$14,078 |
| \$1 to \$199,999 | 750,797 | 43.57% | 90.41% | \$48,423 | 100.19% | \$64,495 | 58,814,621 | 50.64% | 89.50% | \$3,670 | 100.30% | \$62,397 |
| \$200,000 to \$499,999 | 339,585 | 19.71% | 46.84% | \$106,924 | 95.73% | \$314,866 | 23,144,901 | 19.93% | 38.86% | \$7,293 | 93.98% | \$315,089 |
| \$500,000 to \$999,999 | 228,704 | 13.27% | 27.13% | \$160,478 | 86.28% | \$701,684 | 12,618,865 | 10.87% | 18.93% | \$8,766 | 81.43% | \$694,659 |
| \$1,000,000 to \$4,999,999 | 201,074 | 11.67% | 13.86% | \$392,841 | 73.91% | \$1,953,719 | 7,631,104 | 6.57% | 8.06% | \$14,982 | 66.35% | \$1,963,233 |
| \$5,000,000 to \$9,999,999 | 21,248 | 1.23% | 2.19% | \$149,471 | 44.54% | \$7,034,595 | 1,026,352 | 0.88% | 1.49% | \$7,340 | 40.58% | \$7,151,414 |
| \$10,000,000 to \$19,999,999 | 9,865 | 0.57% | 0.96% | \$134,857 | 29.01% | \$13,669,637 | 483,492 | 0.42% | 0.61% | \$6,427 | 27.95% | \$13,293,840 |
| \$20,000,000 or More | 6,700 | 0.39% | 0.39% | \$360,627 | 12.29% | \$53,826,275 | 215,216 | 0.19% | 0.19% | \$9,819 | 16.89% | \$45,624,369 |
| ALL | 1,723,209 | 100.00% | | \$1,351,027 | | \$784,018 | 116,122,126 | 100.00% | | \$58,125 | | \$500,549 |

Source: Calculated at the Center on Wealth and Philanthropy at Boston College based on federal data.

| | Adjusted for Cost of | | Adjusted for Cost of | |
|-----------------------|-----------------------------|----------------|-----------------------------|----------------|
| | 2007 Dollars | Living in 2007 | 2007 Dollars | Living in 2007 |
| Average HH Net Worth: | \$784,018 | \$670,101 | \$500,549 | \$500,549 |
| Median HH Net Worth: | \$170,250 | \$145,512 | \$114,380 | \$114,380 |
| Upper Decile: | \$1,237,320 | \$1,057,538 | \$833,000 | \$833,000 |
| Lower Decile: | \$100 | \$85 | \$0 | \$0 |
| Cost of Living: | 117.00% of national average | | 100.00% of national average | |

Table 2: Distribution of Household Net Worth for Boston CBSA and the Nation in 2008
In Millions of Inflation-Adjusted 2007 Dollars
September 20, 2012

| | Boston CBSA | | | | | | Nation | | | | | |
|------------------------------------|--------------------|---------------|---------|----------------------|---------|-------------------|---------------|---------------|---------|----------------------|---------|-------------------|
| Household Net Worth (2007 dollars) | Households | Percent of HH | Cum % | Net Worth (millions) | Cum % | Mean Net Worth/HH | Households | Percent of HH | Cum % | Net Worth (billions) | Cum % | Mean Net Worth/HH |
| Negative or Zero | 219,293 | 12.35% | 100.00% | -\$4,258 | 100.00% | -\$19,418 | 15,811,525 | 13.62% | 100.00% | -\$282 | 100.00% | -\$17,814 |
| \$1 to \$199,999 | 751,048 | 47.62% | 87.65% | \$46,776 | 100.35% | \$62,280 | 60,064,650 | 51.73% | 86.38% | \$3,637 | 100.56% | \$60,557 |
| \$200,000 to \$499,999 | 328,749 | 18.88% | 40.04% | \$103,948 | 95.24% | \$316,194 | 21,402,191 | 18.43% | 34.66% | \$6,785 | 93.37% | \$317,003 |
| \$500,000 to \$999,999 | 222,277 | 10.78% | 21.16% | \$156,716 | 84.83% | \$705,050 | 10,984,090 | 9.46% | 16.23% | \$7,613 | 79.98% | \$693,092 |
| \$1,000,000 to \$4,999,999 | 167,834 | 8.11% | 10.38% | \$335,129 | 71.83% | \$1,996,785 | 6,284,524 | 5.41% | 6.77% | \$12,538 | 64.95% | \$1,995,082 |
| \$5,000,000 to \$9,999,999 | 19,906 | 1.43% | 2.27% | \$139,872 | 43.62% | \$7,026,479 | 1,020,107 | 0.88% | 1.36% | \$7,197 | 40.19% | \$7,055,338 |
| \$10,000,000 to \$19,999,999 | 8,324 | 0.67% | 0.84% | \$115,899 | 26.02% | \$13,922,682 | 387,066 | 0.33% | 0.48% | \$5,279 | 25.98% | \$13,638,171 |
| \$20,000,000 or More | 5,776 | 0.17% | 0.17% | \$311,744 | 9.74% | \$53,969,405 | 167,975 | 0.14% | 0.14% | \$7,881 | 15.56% | \$46,917,422 |
| ALL | 1,723,209 | 100.00% | | \$1,205,826 | | \$699,756 | 116,122,126 | 100.00% | | \$50,648 | | \$436,165 |

Source: Calculated at the Center on Wealth and Philanthropy at Boston College based on federal data.

| | Adjusted for Cost of Living | | Adjusted for Cost of Living | |
|-----------------------|------------------------------------|-----------|------------------------------------|----------------|
| | 2007 Dollars | in 2008 | 2007 Dollars | Living in 2008 |
| Average HH Net Worth: | \$699,756 | \$603,238 | \$436,165 | \$436,165 |
| Median HH Net Worth: | \$139,082 | \$119,898 | \$87,380 | \$87,380 |
| Upper Decile: | \$1,137,938 | \$980,981 | \$737,812 | \$737,812 |
| Lower Decile: | -\$799 | -\$689 | -\$1,344 | -\$1,344 |
| Cost of Living: | 116.00% of national average | | 100.00% of national average | |

Source: Calculated at Center on Wealth and Philanthropy at Boston College based on CBSA Data and the CWP Wealth Transfer Microsimulation Model.

**Table 3: Distribution of Household Net Worth for Boston CBSA and the Nation in 2009
In Millions of Inflation-Adjusted 2007 Dollars
September 20, 2012**

| Household Net Worth (2007 dollars) | Boston CBSA | | | | | | Nation | | | | | |
|------------------------------------|-------------|---------------|---------|----------------------|---------|-------------------|-------------|---------------|---------|----------------------|---------|-------------------|
| | Households | Percent of HH | Cum % | Net Worth (millions) | Cum % | Mean Net Worth/HH | Households | Percent of HH | Cum % | Net Worth (billions) | Cum % | Mean Net Worth/HH |
| Negative or Zero | 259,090 | 14.82% | 100.00% | -\$6,294 | 100.00% | -\$24,293 | 18,702,934 | 16.11% | 100.00% | -\$416 | 100.00% | -\$22,240 |
| \$1 to \$199,999 | 763,304 | 47.70% | 85.18% | \$48,827 | 100.57% | \$63,968 | 60,672,626 | 52.25% | 83.89% | \$3,703 | 100.90% | \$61,036 |
| \$200,000 to \$499,999 | 315,366 | 18.13% | 37.48% | \$102,447 | 94.94% | \$324,852 | 19,690,010 | 16.96% | 31.64% | \$6,315 | 92.89% | \$320,708 |
| \$500,000 to \$999,999 | 203,385 | 9.91% | 19.36% | \$144,422 | 83.99% | \$710,093 | 10,091,537 | 8.69% | 14.69% | \$7,006 | 79.23% | \$694,254 |
| \$1,000,000 to \$4,999,999 | 150,080 | 7.37% | 9.44% | \$300,735 | 70.93% | \$2,003,828 | 5,535,530 | 4.77% | 6.00% | \$11,418 | 64.08% | \$2,062,685 |
| \$5,000,000 to \$9,999,999 | 19,320 | 1.36% | 2.07% | \$134,077 | 42.41% | \$6,939,716 | 937,280 | 0.81% | 1.23% | \$6,582 | 39.39% | \$7,022,979 |
| \$10,000,000 to \$19,999,999 | 7,051 | 0.57% | 0.72% | \$97,378 | 24.23% | \$13,810,183 | 340,392 | 0.29% | 0.42% | \$4,619 | 25.15% | \$13,570,968 |
| \$20,000,000 or More | 5,613 | 0.15% | 0.15% | \$290,738 | 9.22% | \$51,797,296 | 151,818 | 0.13% | 0.13% | \$7,012 | 15.16% | \$46,187,354 |
| ALL | 1,723,209 | 100.00% | | \$1,112,330 | | \$645,499 | 116,122,126 | 100.00% | | \$46,240 | | \$398,203 |

Source: Calculated at the Center on Wealth and Philanthropy at Boston College based on federal data.

| | Adjusted for Cost of Living | | Adjusted for Cost of Living | |
|-----------------------|-----------------------------|-----------|-----------------------------|-----------|
| | 2007 Dollars | in 2009 | 2007 Dollars | in 2009 |
| Average HH Net Worth: | \$645,499 | \$551,709 | \$398,203 | \$398,203 |
| Median HH Net Worth: | \$119,940 | \$102,513 | \$73,057 | \$73,057 |
| Upper Decile: | \$1,049,678 | \$897,161 | \$679,830 | \$679,830 |
| Lower Decile: | -\$3,964 | -\$3,388 | -\$5,935 | -\$5,935 |
| Cost of Living: | 117.00% of national average | | 100.00% of national average | |

Source: Calculated at Center on Wealth and Philanthropy at Boston College based on CBSA Data and the CWP Wealth Transfer Microsimulation Model.

Table 4: Distribution of Household Net Worth for Boston CBSA and the Nation in 2010
In Millions of Inflation-Adjusted 2007 Dollars
September 20, 2012

| | Boston CBSA | | | | | | Nation | | | | | |
|------------------------------------|--------------------|---------------|---------|----------------------|---------|-------------------|---------------|---------------|---------|----------------------|---------|-------------------|
| Household Net Worth (2007 dollars) | Households | Percent of HH | Cum % | Net Worth (millions) | Cum % | Mean Net Worth/HH | Households | Percent of HH | Cum % | Net Worth (billions) | Cum % | Mean Net Worth/HH |
| Negative or Zero | 244,043 | 13.60% | 100.00% | -\$5,821 | 100.00% | -\$23,853 | 17,152,469 | 14.77% | 100.00% | -\$371 | 100.00% | -\$21,630 |
| \$1 to \$199,999 | 738,037 | 47.08% | 86.40% | \$45,605 | 100.49% | \$61,792 | 60,106,144 | 51.76% | 85.23% | \$3,594 | 100.76% | \$59,799 |
| \$200,000 to \$499,999 | 323,503 | 19.06% | 39.32% | \$102,962 | 95.33% | \$318,272 | 20,804,540 | 17.92% | 33.47% | \$6,628 | 93.36% | \$318,571 |
| \$500,000 to \$999,999 | 216,730 | 10.29% | 20.26% | \$152,622 | 84.34% | \$704,202 | 10,623,306 | 9.15% | 15.55% | \$7,425 | 79.70% | \$698,904 |
| \$1,000,000 to \$4,999,999 | 167,555 | 7.82% | 9.97% | \$332,042 | 71.22% | \$1,981,695 | 5,943,694 | 5.12% | 6.40% | \$12,156 | 64.41% | \$2,045,164 |
| \$5,000,000 to \$9,999,999 | 19,745 | 1.37% | 2.14% | \$138,821 | 42.39% | \$7,030,545 | 968,865 | 0.83% | 1.28% | \$6,850 | 39.36% | \$7,070,417 |
| \$10,000,000 to \$19,999,999 | 7,953 | 0.62% | 0.77% | \$110,504 | 24.74% | \$13,893,804 | 366,362 | 0.32% | 0.45% | \$4,985 | 25.25% | \$46,366,004 |
| \$20,000,000 or More | 5,643 | 0.15% | 0.15% | \$289,745 | 8.97% | \$51,349,209 | 156,747 | 0.13% | 0.13% | \$7,268 | 14.97% | \$46,187,354 |
| ALL | 1,723,209 | 100.00% | | \$1,166,479 | | \$676,922 | 116,122,126 | 100.00% | | \$48,535 | | \$417,963 |

Source: Calculated at the Center on Wealth and Philanthropy at Boston College based on federal data.

| | Adjusted for Cost of | | Adjusted for Cost of | |
|-----------------------|-----------------------------|-----------------------|-----------------------------|-----------------------|
| | 2007 Dollars | Living in 2010 | 2007 Dollars | Living in 2010 |
| Average HH Net Worth: | \$676,922 | \$573,663 | \$417,963 | \$417,963 |
| Median HH Net Worth: | \$132,414 | \$112,215 | \$79,873 | \$79,873 |
| Upper Decile: | \$1,134,533 | \$961,468 | \$718,646 | \$718,646 |
| Lower Decile: | -\$2,592 | -\$2,197 | -\$3,868 | -\$3,868 |
| Cost of Living: | 118.00% of national average | | 100.00% of national average | |

Source: Calculated at Center on Wealth and Philanthropy at Boston College based on CBSA Data and the CWP Wealth Transfer Microsimulation Model.

Table 5: Average Household Net Worth by Age of Head for Boston CBSA and the Nation in 2007
In Millions of Inflation-Adjusted 2007 Dollars
September 20, 2012

| Age of Head of Household | Boston CBSA | | | | Nation | | | |
|--------------------------|--------------------|---------------|---------|-------------------|---------------|---------------|---------|----------------------|
| | Households | Percent of HH | Cum % | Mean NW per HH | Households | Percent of HH | Cum % | Average NW per HH |
| Under Age 30 | 210,942 | 12.24% | 100.00% | \$39,082 | 15,164,575 | 13.06% | 100.00% | \$65,864 |
| 30 to 39 years | 300,153 | 17.42% | 87.76% | \$336,596 | 21,031,067 | 18.11% | 86.94% | \$187,601 |
| 40 to 49 years | 383,910 | 22.28% | 70.34% | \$604,588 | 25,005,248 | 21.53% | 68.82% | \$425,443 |
| 50 to 59 years | 357,035 | 20.72% | 48.06% | \$994,403 | 22,022,510 | 18.96% | 47.29% | \$746,728 |
| 60 to 69 years | 218,460 | 12.68% | 27.34% | \$1,380,651 | 15,247,839 | 13.13% | 28.33% | \$949,369 |
| 70 to 79 years | 127,045 | 7.37% | 14.67% | \$1,253,425 | 9,685,828 | 8.34% | 15.20% | \$740,516 |
| 80 years or Older | 125,664 | 7.29% | 7.29% | \$1,541,814 | 7,965,062 | 6.86% | 6.86% | \$558,584 |
| ALL | 1,723,209 | 100.00% | | \$784,018 | 116,122,126 | 100.00% | | \$500,549 |

Source: Calculated at Center on Wealth and Philanthropy at Boston College based on CBSA Data and the CWP Wealth Transfer Microsimulation Model.

Table 6: Average Household Net Worth by Age of Head for Boston CBSA and the Nation in 2008
In Millions of Inflation-Adjusted 2007 Dollars
September 20, 2012

| Age of Head of Household | Boston CBSA | | | | Nation | | | |
|--------------------------|--------------------|---------------|---------|-------------------|---------------|---------------|---------|----------------------|
| | Households | Percent of HH | Cum % | Mean NW per HH | Households | Percent of HH | Cum % | Average NW per HH |
| Under Age 30 | 210,942 | 12.99% | 100.00% | \$28,204 | 15,164,575 | 13.06% | 100.00% | \$52,643 |
| 30 to 39 years | 300,153 | 15.92% | 87.01% | \$281,811 | 21,031,067 | 18.11% | 86.94% | \$148,303 |
| 40 to 49 years | 383,910 | 22.25% | 71.09% | \$529,718 | 25,005,248 | 21.53% | 68.82% | \$364,407 |
| 50 to 59 years | 357,035 | 20.83% | 48.84% | \$883,829 | 22,022,510 | 18.96% | 47.29% | \$652,908 |
| 60 to 69 years | 218,460 | 13.60% | 28.01% | \$1,273,465 | 15,247,839 | 13.13% | 28.33% | \$842,046 |
| 70 to 79 years | 127,045 | 7.59% | 14.40% | \$1,113,750 | 9,685,828 | 8.34% | 15.20% | \$657,761 |
| 80 years or Older | 125,664 | 6.81% | 6.81% | \$1,405,902 | 7,965,062 | 6.86% | 6.86% | \$505,961 |
| ALL | 1,723,209 | 100.00% | | \$699,756 | 116,122,126 | 100.00% | | \$436,165 |

Source: Calculated at Center on Wealth and Philanthropy at Boston College based on CBSA Data and the CWP Wealth Transfer Microsimulation Model.

Table 7: Average Household Net Worth by Age of Head for Boston CBSA and the Nation in 2009
In Millions of Inflation-Adjusted 2007 Dollars
September 20, 2012

| Age of Head of Household | Boston CBSA | | | | Nation | | | |
|--------------------------|--------------------|---------------|---------|-------------------|---------------|---------------|---------|----------------------|
| | Households | Percent of HH | Cum % | Mean NW per HH | Households | Percent of HH | Cum % | Average NW per HH |
| Under Age 30 | 210,942 | 12.99% | 100.00% | \$21,584 | 15,164,575 | 13.06% | 100.00% | \$44,979 |
| 30 to 39 years | 300,153 | 15.92% | 87.01% | \$247,318 | 21,031,067 | 18.11% | 86.94% | \$125,453 |
| 40 to 49 years | 383,910 | 22.25% | 71.09% | \$481,226 | 25,005,248 | 21.53% | 68.82% | \$328,553 |
| 50 to 59 years | 357,035 | 20.83% | 48.84% | \$812,326 | 22,022,510 | 18.96% | 47.29% | \$597,515 |
| 60 to 69 years | 218,460 | 13.60% | 28.01% | \$1,203,149 | 15,247,839 | 13.13% | 28.33% | \$778,476 |
| 70 to 79 years | 127,045 | 7.59% | 14.40% | \$1,023,276 | 9,685,828 | 8.34% | 15.20% | \$608,597 |
| 80 years or Older | 125,664 | 6.81% | 6.81% | \$1,320,392 | 7,965,062 | 6.86% | 6.86% | \$474,639 |
| ALL | 1,723,209 | 100.00% | | \$645,499 | 116,122,126 | 100.00% | | \$398,203 |

Source: Calculated at Center on Wealth and Philanthropy at Boston College based on CBSA Data and the CWP Wealth Transfer Microsimulation Model.

Table 8: Average Household Net Worth by Age of Head for Boston CBSA and the Nation in 2010
In Millions of Inflation-Adjusted 2007 Dollars
September 20, 2012

| Age of Head of Household | Boston CBSA | | | | Nation | | | |
|--------------------------|--------------------|---------------|---------|-------------------|---------------|---------------|---------|----------------------|
| | Households | Percent of HH | Cum % | Mean NW per HH | Households | Percent of HH | Cum % | Average NW per HH |
| Under Age 30 | 210,942 | 12.99% | 100.00% | \$25,243 | 15,164,575 | 13.06% | 100.00% | \$47,931 |
| 30 to 39 years | 300,153 | 15.92% | 87.01% | \$264,077 | 21,031,067 | 18.11% | 86.94% | \$134,737 |
| 40 to 49 years | 383,910 | 22.25% | 71.09% | \$513,506 | 25,005,248 | 21.53% | 68.82% | \$346,479 |
| 50 to 59 years | 357,035 | 20.83% | 48.84% | \$864,699 | 22,022,510 | 18.96% | 47.29% | \$627,245 |
| 60 to 69 years | 218,460 | 13.60% | 28.01% | \$1,213,633 | 15,247,839 | 13.13% | 28.33% | \$813,736 |
| 70 to 79 years | 127,045 | 7.59% | 14.40% | \$1,066,275 | 9,685,828 | 8.34% | 15.20% | \$637,684 |
| 80 years or Older | 125,664 | 6.81% | 6.81% | \$1,396,004 | 7,965,062 | 6.86% | 6.86% | \$491,237 |
| ALL | 1,723,209 | 100.00% | | \$676,922 | 116,122,126 | 100.00% | | \$417,963 |

Source: Calculated at Center on Wealth and Philanthropy at Boston College based on CBSA Data and the CWP Wealth Transfer Microsimulation Model.

Table 9: Aggregate Household Net Worth by Age of Head for Boston CBSA and the Nation in 2007
In Millions of Inflation-Adjusted 2007 Dollars
September 20, 2012

| Age of Head of Household | Boston CBSA | | | | Nation | | | |
|--------------------------|--------------------|----------------------------|----------------------------|---------|---------------|----------------------------|----------------------------|---------|
| | Households | Aggregate NW (Millions) | Percent of Aggregate NW | Cum % | Households | Aggregate NW (Millions) | Percent of Aggregate NW | Cum % |
| Under Age 30 | 210,942 | \$8,244 | 1.24% | 100.00% | 15,164,575 | \$998,806 | 1.72% | 100.00% |
| 30 to 39 years | 300,153 | \$101,030 | 5.42% | 98.75% | 21,031,067 | \$3,945,442 | 6.79% | 98.28% |
| 40 to 49 years | 383,910 | \$232,107 | 19.02% | 93.33% | 25,005,248 | \$10,638,303 | 18.30% | 91.49% |
| 50 to 59 years | 357,035 | \$355,037 | 32.95% | 74.30% | 22,022,510 | \$16,444,816 | 28.29% | 73.19% |
| 60 to 69 years | 218,460 | \$301,617 | 26.66% | 41.36% | 15,247,839 | \$14,475,832 | 24.90% | 44.89% |
| 70 to 79 years | 127,045 | \$159,241 | 10.87% | 14.70% | 9,685,828 | \$7,172,514 | 12.34% | 19.99% |
| 80 years or Older | 125,664 | \$193,750 | 3.83% | 3.83% | 7,965,062 | \$4,449,156 | 7.65% | 7.65% |
| ALL | 1,723,209 | \$1,351,027 | 100.00% | | 116,122,126 | \$58,124,869 | 100.00% | |

Source: Calculated at Center on Wealth and Philanthropy at Boston College based on CBSA Data and the CWP Wealth Transfer Microsimulation Model.

Table 10: Aggregate Household Net Worth by Age of Head for Boston CBSA and the Nation in 2008
In Millions of Inflation-Adjusted 2007 Dollars
September 20, 2012

| Age of Head of Household | Boston CBSA | | | | Nation | | | |
|--------------------------|--------------------|----------------------------|----------------------------|---------|---------------|----------------------------|----------------------------|---------|
| | Households | Aggregate NW (Millions) | Percent of Aggregate NW | Cum % | Households | Aggregate NW (Millions) | Percent of Aggregate NW | Cum % |
| Under Age 30 | 210,942 | \$5,949 | 1.16% | 100.00% | 15,164,575 | \$798,304 | 1.58% | 100.00% |
| 30 to 39 years | 300,153 | \$84,587 | 4.99% | 98.83% | 21,031,067 | \$3,118,973 | 6.16% | 98.42% |
| 40 to 49 years | 383,910 | \$203,364 | 18.66% | 93.84% | 25,005,248 | \$9,112,077 | 17.99% | 92.27% |
| 50 to 59 years | 357,035 | \$315,558 | 33.07% | 75.18% | 22,022,510 | \$14,378,680 | 28.39% | 74.27% |
| 60 to 69 years | 218,460 | \$278,201 | 27.11% | 42.12% | 15,247,839 | \$12,839,374 | 25.35% | 45.89% |
| 70 to 79 years | 127,045 | \$141,496 | 11.05% | 15.01% | 9,685,828 | \$6,370,962 | 12.58% | 20.54% |
| 80 years or Older | 125,664 | \$176,671 | 3.96% | 3.96% | 7,965,062 | \$4,030,014 | 7.96% | 7.96% |
| ALL | 1,723,209 | \$1,205,826 | 100.00% | | 116,122,126 | \$50,648,385 | 100.00% | |

Source: Calculated at Center on Wealth and Philanthropy at Boston College based on CBSA Data and the CWP Wealth Transfer Microsimulation Model.

Table 11: Aggregate Household Net Worth by Age of Head for Boston CBSA and the Nation in 2009
In Millions of Inflation-Adjusted 2007 Dollars
September 20, 2012

| Age of Head of Household | Boston CBSA | | | | Nation | | | |
|--------------------------|--------------------|----------------------------|----------------------------|---------|---------------|----------------------------|----------------------------|---------|
| | Households | Aggregate NW (Millions) | Percent of Aggregate NW | Cum % | Households | Aggregate NW (Millions) | Percent of Aggregate NW | Cum % |
| Under Age 30 | 210,942 | \$4,553 | 1.09% | 100.00% | 15,164,575 | \$682,085 | 1.48% | 100.00% |
| 30 to 39 years | 300,153 | \$74,233 | 4.69% | 98.90% | 21,031,067 | \$2,638,415 | 5.71% | 98.52% |
| 40 to 49 years | 383,910 | \$184,748 | 18.41% | 94.21% | 25,005,248 | \$8,215,550 | 17.77% | 92.82% |
| 50 to 59 years | 357,035 | \$290,029 | 33.13% | 75.80% | 22,022,510 | \$13,158,772 | 28.46% | 75.05% |
| 60 to 69 years | 218,460 | \$262,840 | 27.41% | 42.68% | 15,247,839 | \$11,870,071 | 25.67% | 46.59% |
| 70 to 79 years | 127,045 | \$130,002 | 11.21% | 15.26% | 9,685,828 | \$5,894,762 | 12.75% | 20.92% |
| 80 years or Older | 125,664 | \$165,926 | 4.06% | 4.06% | 7,965,062 | \$3,780,532 | 8.18% | 8.18% |
| ALL | 1,723,209 | \$1,112,330 | 100.00% | | 116,122,126 | \$46,240,185 | 100.00% | |

Source: Calculated at Center on Wealth and Philanthropy at Boston College based on CBSA Data and the CWP Wealth Transfer Microsimulation Model.

Table 12: Aggregate Household Net Worth by Age of Head for Boston CBSA and the Nation in 2010
In Millions of Inflation-Adjusted 2007 Dollars
September 20, 2012

| Age of Head of Household | Boston CBSA | | | | Nation | | | |
|--------------------------|--------------------|----------------------------|----------------------------|---------|---------------|----------------------------|----------------------------|---------|
| | Households | Aggregate NW (Millions) | Percent of Aggregate NW | Cum % | Households | Aggregate NW (Millions) | Percent of Aggregate NW | Cum % |
| Under Age 30 | 210,942 | \$5,325 | 1.10% | 100.00% | 15,164,575 | \$726,847 | 1.50% | 100.00% |
| 30 to 39 years | 300,153 | \$79,264 | 4.73% | 98.89% | 21,031,067 | \$2,833,661 | 5.84% | 98.50% |
| 40 to 49 years | 383,910 | \$197,140 | 18.49% | 94.16% | 25,005,248 | \$8,663,805 | 17.85% | 92.66% |
| 50 to 59 years | 357,035 | \$308,728 | 33.18% | 75.67% | 22,022,510 | \$13,813,503 | 28.46% | 74.81% |
| 60 to 69 years | 218,460 | \$265,130 | 27.30% | 42.50% | 15,247,839 | \$12,407,713 | 25.56% | 46.35% |
| 70 to 79 years | 127,045 | \$135,465 | 11.18% | 15.21% | 9,685,828 | \$6,176,493 | 12.73% | 20.79% |
| 80 years or Older | 125,664 | \$175,427 | 4.02% | 4.02% | 7,965,062 | \$3,912,736 | 8.06% | 8.06% |
| ALL | 1,723,209 | \$1,166,479 | 100.00% | | 116,122,126 | \$48,534,756 | 100.00% | |

Source: Calculated at Center on Wealth and Philanthropy at Boston College based on CBSA Data and the CWP Wealth Transfer Microsimulation Model.

Table 13: Approximate Boston Metropolitan Area Wealth Transfer Summary Table
20-Year Period (2007 through 2026)
In Billions of Inflation-Adjusted 2007 Dollars
October 31, 2012

Number of Final Estates **359,578**

| | 1% Growth Scenario | | 2% Growth Scenario | | 3% Growth Scenario | | 4% Growth Scenario | |
|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | \$1 M | \$5 M | \$1 M | \$5 M | \$1 M | \$5 M | \$1 M | \$5 M |
| | Exemption after 2012 | Exemption after 2012 | Exemption after 2012 | Exemption after 2012 | Exemption after 2012 | Exemption after 2012 | Exemption after 2012 | Exemption after 2012 |
| Total Wealth Transfer (Unadjusted for Recession) | \$ 459.84 | \$ 461.19 | \$ 546.92 | \$ 548.68 | \$ 663.25 | \$ 665.89 | \$ 801.02 | \$ 804.59 |
| Total Wealth Transfer (Adjusted for Recession) | \$ 407.19 | \$ 408.22 | \$ 461.51 | \$ 463.04 | \$ 527.91 | \$ 529.82 | \$ 600.13 | \$ 602.57 |
| Accelerated Lifetime Giving | \$ 7.14 | \$ 7.21 | \$ 8.94 | \$ 9.04 | \$ 11.23 | \$ 11.36 | \$ 14.04 | \$ 14.23 |
| Other Lifetime Transfers | \$ 33.98 | \$ 34.29 | \$ 42.45 | \$ 43.03 | \$ 56.53 | \$ 57.22 | \$ 72.68 | \$ 73.55 |
| Value of Final Estates | \$ 366.07 | \$ 366.73 | \$ 410.12 | \$ 410.96 | \$ 460.15 | \$ 461.25 | \$ 513.40 | \$ 514.78 |
| Massachusetts Estate Tax Liability | \$ 21.16 | \$ 21.20 | \$ 23.76 | \$ 23.81 | \$ 27.39 | \$ 27.47 | \$ 31.78 | \$ 31.89 |
| Federal Estate Tax Liability | \$ 73.10 | \$ 40.84 | \$ 84.02 | \$ 44.58 | \$ 98.29 | \$ 50.50 | \$ 114.89 | \$ 58.03 |
| Charitable Bequests | \$ 82.24 | \$ 93.08 | \$ 89.99 | \$ 102.82 | \$ 100.55 | \$ 115.97 | \$ 113.37 | \$ 131.88 |
| Bequests to Heirs | \$ 182.55 | \$ 204.43 | \$ 204.45 | \$ 231.69 | \$ 225.12 | \$ 258.35 | \$ 243.70 | \$ 283.16 |
| Estate Closing Fees | \$ 7.03 | \$ 7.17 | \$ 7.91 | \$ 8.06 | \$ 8.80 | \$ 8.96 | \$ 9.66 | \$ 9.82 |
| Potential for Charity | | | | | | | | |
| Baseline Lifetime Giving Trend | \$ 78.57 | \$ 78.57 | \$ 83.38 | \$ 83.38 | \$ 88.62 | \$ 88.62 | \$ 94.34 | \$ 94.34 |
| Accelerated Lifetime Giving | \$ 7.14 | \$ 7.21 | \$ 8.94 | \$ 9.04 | \$ 11.23 | \$ 11.36 | \$ 14.04 | \$ 14.23 |
| Total Lifetime Giving | \$ 85.72 | \$ 85.78 | \$ 92.32 | \$ 92.42 | \$ 99.85 | \$ 99.98 | \$ 108.39 | \$ 108.57 |
| Charitable Bequests | \$ 82.24 | \$ 93.08 | \$ 89.99 | \$ 102.82 | \$ 100.55 | \$ 115.97 | \$ 113.37 | \$ 131.88 |
| Potential Total to Charity | \$ 167.95 | \$ 178.86 | \$ 182.31 | \$ 195.25 | \$ 200.40 | \$ 215.94 | \$ 221.76 | \$ 240.45 |

Source: Calculated at Center on Wealth and Philanthropy at Boston College based on CBSA Data and the CWP Wealth Transfer Microsimulation Model.

Table 14: Approximate Boston Metropolitan Area Wealth Transfer Summary Table
55-Year Period (2007 through 2061)
In Billions of Inflation-Adjusted 2007 Dollars
October 31, 2012

Number of Final Estates **1,421,598**

| | 1% Growth Scenario | | 2% Growth Scenario | | 3% Growth Scenario | | 4% Growth Scenario | |
|--|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| | \$1 M Exemption after 2012 | \$5 M Exemption after 2012 | \$1 M Exemption after 2012 | \$5 M Exemption after 2012 | \$1 M Exemption after 2012 | \$5 M Exemption after 2012 | \$1 M Exemption after 2012 | \$5 M Exemption after 2012 |
| Total Wealth Transfer (Unadjusted for Recession) | \$ 1,114.86 | \$ 1,142.54 | \$ 1,808.00 | \$ 1,865.04 | \$ 3,142.99 | \$ 3,259.32 | \$ 5,559.89 | \$ 5,789.95 |
| Total Wealth Transfer (Adjusted for Recession) | \$ 949.77 | \$ 972.90 | \$ 1,467.31 | \$ 1,515.79 | \$ 2,348.58 | \$ 2,441.30 | \$ 3,825.86 | \$ 3,993.84 |
| Accelerated Lifetime Giving | \$ 24.47 | \$ 25.83 | \$ 43.57 | \$ 46.15 | \$ 74.20 | \$ 79.07 | \$ 124.13 | \$ 132.04 |
| Other Lifetime Transfers | \$ 97.79 | \$ 104.44 | \$ 165.27 | \$ 179.35 | \$ 290.92 | \$ 314.65 | \$ 495.25 | \$ 541.66 |
| Value of Final Estates | \$ 827.50 | \$ 842.63 | \$ 1,258.46 | \$ 1,290.29 | \$ 1,983.46 | \$ 2,047.58 | \$ 3,206.48 | \$ 3,320.14 |
| Massachusetts Estate Tax Liability | \$ 36.09 | \$ 36.88 | \$ 58.91 | \$ 60.94 | \$ 106.37 | \$ 111.06 | \$ 200.39 | \$ 209.72 |
| Federal Estate Tax Liability | \$ 165.66 | \$ 50.50 | \$ 288.90 | \$ 72.15 | \$ 523.85 | \$ 130.66 | \$ 933.66 | \$ 269.78 |
| Charitable Bequests | \$ 121.62 | \$ 148.53 | \$ 175.18 | \$ 227.58 | \$ 321.99 | \$ 441.26 | \$ 629.20 | \$ 870.18 |
| Bequests to Heirs | \$ 486.59 | \$ 588.77 | \$ 709.35 | \$ 902.78 | \$ 992.59 | \$ 1,324.73 | \$ 1,384.85 | \$ 1,910.11 |
| Estate Closing Fees | \$ 17.53 | \$ 17.96 | \$ 26.13 | \$ 26.84 | \$ 38.67 | \$ 39.87 | \$ 58.37 | \$ 60.36 |
| Potential for Charity | | | | | | | | |
| Baseline Lifetime Giving Trend | \$ 272.80 | \$ 272.80 | \$ 353.58 | \$ 353.58 | \$ 466.89 | \$ 466.89 | \$ 626.99 | \$ 626.99 |
| Accelerated Lifetime Giving | \$ 24.47 | \$ 25.83 | \$ 43.57 | \$ 46.15 | \$ 74.20 | \$ 79.07 | \$ 124.13 | \$ 132.04 |
| Total Lifetime Giving | \$ 297.27 | \$ 298.63 | \$ 397.15 | \$ 399.72 | \$ 541.09 | \$ 545.96 | \$ 751.12 | \$ 759.03 |
| Charitable Bequests | \$ 121.62 | \$ 148.53 | \$ 175.18 | \$ 227.58 | \$ 321.99 | \$ 441.26 | \$ 629.20 | \$ 870.18 |
| Potential Total to Charity | \$ 418.89 | \$ 447.15 | \$ 572.33 | \$ 627.30 | \$ 863.07 | \$ 987.22 | \$ 1,380.33 | \$ 1,629.22 |

Source: Calculated at Center on Wealth and Philanthropy at Boston College based on Federal Data and the CWP Wealth Transfer Microsimulation Model.

Table 15: Boston CBSA Final Estates by Net Worth
1% Growth Scenario
\$1 Million Exemption - Current Law
Adjusted for Recession
In Millions of Inflation - Adjusted 2007 Dollars
October 31, 2012

2007-2026

| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|-------|------------------|-------|---------------|--------|------------|---------|
| Number of Estates | 16,907 | 4.70% | 303,055 | 84.28% | 32,929 | 9.16% | 2,627 | 0.73% | 562 | 0.16% | 3,498 | 0.97% | 359,578 | 100.00% |
| Value of Estates | \$ (415) | -0.11% | \$ 64,072 | 17.50% | \$ 61,126 | 16.70% | \$ 18,617 | 5.09% | \$ 7,439 | 2.03% | \$ 214,801 | 58.68% | \$ 366,069 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 13 | 0.19% | \$ 1,901 | 27.05% | \$ 1,466 | 20.86% | \$ 357 | 5.08% | \$ 140 | 1.99% | \$ 3,150 | 44.83% | \$ 7,026 | 100.00% |
| | -3.18% | | 2.97% | | 2.40% | | 1.92% | | 1.88% | | 1.47% | | 1.92% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 1,005 | 4.75% | \$ 1,123 | 5.31% | \$ 626 | 2.96% | \$ 18,401 | 86.98% | \$ 21,156 | 100.00% |
| | 0.00% | | 0.00% | | 1.64% | | 6.03% | | 8.41% | | 8.57% | | 5.78% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 7,584 | 10.38% | \$ 6,707 | 9.17% | \$ 2,891 | 3.95% | \$ 55,920 | 76.50% | \$ 73,102 | 100.00% |
| | 0.00% | | 0.00% | | 12.41% | | 36.03% | | 38.86% | | 26.03% | | 19.97% | |
| Bequest to Charity | \$ - | 0.00% | \$ 3,237 | 3.94% | \$ 3,090 | 3.76% | \$ 1,398 | 1.70% | \$ 780 | 0.95% | \$ 73,732 | 89.66% | \$ 82,237 | 100.00% |
| | 0.00% | | 170.30% | | 5.06% | | 7.51% | | 10.48% | | 34.33% | | 22.46% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 58,936 | 32.29% | \$ 47,981 | 26.28% | \$ 9,031 | 4.95% | \$ 3,003 | 1.64% | \$ 63,598 | 34.84% | \$ 182,549 | 100.00% |
| | 0.00% | | 91.98% | | 78.49% | | 48.51% | | 40.37% | | 29.61% | | 49.87% | |

2007-2061

| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|--------|------------------|--------|---------------|--------|------------|---------|
| Number of Estates | 103,977 | 7.31% | 1,174,414 | 82.61% | 120,381 | 8.47% | 14,403 | 1.01% | 3,726 | 0.26% | 4,696 | 0.33% | 1,421,598 | 100.00% |
| Value of Estates | \$ (5,842) | -0.71% | \$ 181,493 | 21.93% | \$ 238,907 | 28.87% | \$ 99,933 | 12.08% | \$ 46,251 | 5.59% | \$ 260,878 | 31.53% | \$ 827,499 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 37 | 0.21% | \$ 5,382 | 30.71% | \$ 5,460 | 31.15% | \$ 1,925 | 10.98% | \$ 872 | 4.97% | \$ 3,852 | 21.98% | \$ 17,529 | 100.00% |
| | -0.63% | | 2.97% | | 2.29% | | 1.93% | | 1.88% | | 1.48% | | 2.12% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 4,366 | 12.10% | \$ 5,942 | 16.46% | \$ 3,745 | 10.38% | \$ 22,039 | 61.06% | \$ 36,092 | 100.00% |
| | 0.00% | | 0.00% | | 1.83% | | 5.95% | | 8.10% | | 8.45% | | 4.36% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 38,408 | 23.18% | \$ 38,221 | 23.07% | \$ 18,800 | 11.35% | \$ 70,233 | 42.40% | \$ 165,661 | 100.00% |
| | 0.00% | | 0.00% | | 16.08% | | 38.25% | | 40.65% | | 26.92% | | 20.02% | |
| Bequest to Charity | \$ - | 0.00% | \$ 9,172 | 7.54% | \$ 11,974 | 9.84% | \$ 7,316 | 6.02% | \$ 4,706 | 3.87% | \$ 88,455 | 72.73% | \$ 121,624 | 100.00% |
| | 0.00% | | 5.05% | | 5.01% | | 7.32% | | 10.18% | | 33.91% | | 14.70% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 166,940 | 34.31% | \$ 178,698 | 36.72% | \$ 46,529 | 9.56% | \$ 18,127 | 3.73% | \$ 76,298 | 15.68% | \$ 486,593 | 100.00% |
| | 0.00% | | 91.98% | | 74.80% | | 46.56% | | 39.19% | | 29.25% | | 58.80% | |

Source: Calculated at the Center of Wealth and Philanthropy at Boston College using the 2011 version of the Wealth Transfer Microsimulation Model based primarily on CBSA data.

**Table 16: Boston CBSA Final Estates by Net Worth
1% Growth Scenario
\$5 Million Exemption - Not Current Law
Adjusted for Recession
In Millions of Inflation - Adjusted 2007 Dollars
October 31, 2012**

2007-2026

| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|-------|------------------|-------|---------------|--------|------------|---------|
| Number of Estates | 16,906 | 4.70% | 302,939 | 84.25% | 33,037 | 9.19% | 2,633 | 0.73% | 564 | 0.16% | 3,499 | 0.97% | 359,578 | 100.00% |
| Value of Estates | \$ (415) | -0.11% | \$ 64,084 | 17.47% | \$ 61,321 | 16.72% | \$ 18,680 | 5.09% | \$ 7,477 | 2.04% | \$ 215,151 | 58.67% | \$ 366,727 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 13 | 0.18% | \$ 1,901 | 26.51% | \$ 1,475 | 20.56% | \$ 360 | 5.03% | \$ 141 | 1.97% | \$ 3,281 | 45.75% | \$ 7,171 | 100.00% |
| | -3.18% | | 2.97% | | 2.40% | | 1.93% | | 1.89% | | 1.53% | | 1.96% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 1,008 | 4.75% | \$ 1,128 | 5.32% | \$ 630 | 2.97% | \$ 18,435 | 86.96% | \$ 21,200 | 100.00% |
| | 0.00% | | 0.00% | | 1.64% | | 6.04% | | 8.42% | | 8.57% | | 5.78% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 187 | 0.46% | \$ 335 | 0.82% | \$ 481 | 1.18% | \$ 39,835 | 97.54% | \$ 40,838 | 100.00% |
| | 0.00% | | 0.00% | | 0.30% | | 1.80% | | 6.44% | | 18.51% | | 11.14% | |
| Bequest to Charity | \$ - | 0.00% | \$ 3,237 | 3.48% | \$ 3,661 | 3.93% | \$ 2,268 | 2.44% | \$ 1,283 | 1.38% | \$ 82,634 | 88.77% | \$ 93,084 | 100.00% |
| | 0.00% | | 5.05% | | 5.97% | | 12.14% | | 17.16% | | 38.41% | | 25.38% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 58,948 | 28.83% | \$ 54,990 | 26.90% | \$ 14,588 | 7.14% | \$ 4,942 | 2.42% | \$ 70,966 | 34.71% | \$ 204,433 | 100.00% |
| | 0.00% | | 91.98% | | 89.68% | | 78.10% | | 66.09% | | 32.98% | | 55.75% | |

2007-2061

| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|--------|------------------|--------|---------------|--------|------------|---------|
| Number of Estates | 103,977 | 7.31% | 1,171,819 | 82.43% | 121,876 | 8.57% | 15,334 | 1.08% | 3,814 | 0.27% | 4,778 | 0.34% | 1,421,598 | 100.00% |
| Value of Estates | \$ (5,841) | -0.69% | \$ 182,653 | 21.68% | \$ 241,903 | 28.71% | \$ 106,733 | 12.67% | \$ 47,362 | 5.62% | \$ 263,945 | 31.32% | \$ 842,635 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 37 | 0.20% | \$ 5,417 | 30.16% | \$ 5,529 | 30.79% | \$ 2,058 | 11.46% | \$ 892 | 4.97% | \$ 4,026 | 22.42% | \$ 17,959 | 100.00% |
| | -0.63% | | 2.97% | | 2.29% | | 1.93% | | 1.88% | | 1.53% | | 2.13% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 4,417 | 11.98% | \$ 6,356 | 17.23% | \$ 3,825 | 10.37% | \$ 22,283 | 60.42% | \$ 36,881 | 100.00% |
| | 0.00% | | 0.00% | | 1.83% | | 5.95% | | 8.08% | | 8.44% | | 4.38% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 187 | 0.37% | \$ 1,453 | 2.88% | \$ 1,791 | 3.55% | \$ 47,072 | 93.21% | \$ 50,503 | 100.00% |
| | 0.00% | | 0.00% | | 0.08% | | 1.36% | | 3.78% | | 17.83% | | 5.99% | |
| Bequest to Charity | \$ - | 0.00% | \$ 9,230 | 6.21% | \$ 15,086 | 10.16% | \$ 13,218 | 8.90% | \$ 8,498 | 5.72% | \$ 102,494 | 69.01% | \$ 148,526 | 100.00% |
| | 0.00% | | 5.05% | | 6.24% | | 12.38% | | 17.94% | | 38.83% | | 17.63% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 168,007 | 28.54% | \$ 216,685 | 36.80% | \$ 83,648 | 14.21% | \$ 32,356 | 5.50% | \$ 88,070 | 14.96% | \$ 588,766 | 100.00% |
| | 0.00% | | 91.98% | | 89.57% | | 78.37% | | 68.32% | | 33.37% | | 69.87% | |

Source: Calculated at the Center of Wealth and Philanthropy at Boston College using the 2011 version of the Wealth Transfer Microsimulation Model based primarily on CBSA data.

**Table 17: Boston CBSA Final Estates by Net Worth
2% Growth Scenario
\$1 Million Exemption - Current Law
Adjusted for Recession
In Millions of Inflation - Adjusted 2007 Dollars
October 31, 2012**

2007-2026

| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|--------|------------------|-------|---------------|--------|------------|---------|
| Number of Estates | 16,520 | 4.59% | 296,276 | 82.40% | 38,718 | 10.77% | 3,515 | 0.98% | 976 | 0.27% | 3,573 | 0.99% | 359,578 | 100.00% |
| Value of Estates | \$ (312) | -0.08% | \$ 68,713 | 16.75% | \$ 70,969 | 17.30% | \$ 24,221 | 5.91% | \$ 12,628 | 3.08% | \$ 233,570 | 56.95% | \$ 410,120 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 16 | 0.21% | \$ 2,039 | 25.78% | \$ 1,717 | 21.71% | \$ 465 | 5.88% | \$ 237 | 2.99% | \$ 3,435 | 43.43% | \$ 7,909 | 100.00% |
| | -5.26% | | 2.97% | | 2.42% | | 1.92% | | 1.87% | | 1.47% | | 1.93% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 1,114 | 4.69% | \$ 1,432 | 6.03% | \$ 1,040 | 4.38% | \$ 20,170 | 84.90% | \$ 23,756 | 100.00% |
| | 0.00% | | 0.00% | | 1.57% | | 5.91% | | 8.24% | | 8.64% | | 5.79% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 8,727 | 10.39% | \$ 8,910 | 10.61% | \$ 4,986 | 5.93% | \$ 61,392 | 73.07% | \$ 84,016 | 100.00% |
| | 0.00% | | 0.00% | | 12.30% | | 36.79% | | 39.48% | | 26.28% | | 20.49% | |
| Bequest to Charity | \$ - | 0.00% | \$ 3,471 | 3.86% | \$ 3,573 | 3.97% | \$ 1,832 | 2.04% | \$ 1,348 | 1.50% | \$ 79,768 | 88.64% | \$ 89,992 | 100.00% |
| | 0.00% | | 5.05% | | 5.03% | | 7.56% | | 10.67% | | 34.15% | | 21.94% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 63,205 | 30.92% | \$ 55,837 | 27.31% | \$ 11,582 | 5.67% | \$ 5,017 | 2.45% | \$ 68,805 | 33.65% | \$ 204,447 | 100.00% |
| | 0.00% | | 91.98% | | 78.68% | | 47.82% | | 39.73% | | 29.46% | | 49.85% | |

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| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|--------|------------------|--------|---------------|--------|--------------|---------|
| Number of Estates | 97,003 | 6.82% | 1,111,317 | 78.17% | 171,830 | 12.09% | 23,630 | 1.66% | 11,401 | 0.80% | 6,416 | 0.45% | 1,421,598 | 100.00% |
| Value of Estates | \$ (3,734) | -0.30% | \$ 226,848 | 18.03% | \$ 366,536 | 29.13% | \$ 164,068 | 13.04% | \$ 154,685 | 12.29% | \$ 346,251 | 27.51% | \$ 1,258,464 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 75 | 0.29% | \$ 6,724 | 25.74% | \$ 8,119 | 31.08% | \$ 3,160 | 12.09% | \$ 2,895 | 11.08% | \$ 5,153 | 19.73% | \$ 26,126 | 100.00% |
| | -2.00% | | 2.96% | | 2.22% | | 1.93% | | 1.87% | | 1.49% | | 2.08% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 7,128 | 12.10% | \$ 9,722 | 16.50% | \$ 12,940 | 21.96% | \$ 29,124 | 49.44% | \$ 58,914 | 100.00% |
| | 0.00% | | 0.00% | | 1.94% | | 5.93% | | 8.37% | | 8.41% | | 4.68% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 67,243 | 23.28% | \$ 63,328 | 21.92% | \$ 61,921 | 21.43% | \$ 96,405 | 33.37% | \$ 288,897 | 100.00% |
| | 0.00% | | 0.00% | | 18.35% | | 38.60% | | 40.03% | | 27.84% | | 22.96% | |
| Bequest to Charity | \$ - | 0.00% | \$ 11,472 | 6.55% | \$ 18,781 | 10.72% | \$ 12,142 | 6.93% | \$ 17,050 | 9.73% | \$ 115,735 | 66.07% | \$ 175,181 | 100.00% |
| | 0.00% | | 5.06% | | 5.12% | | 7.40% | | 11.02% | | 33.43% | | 13.92% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 208,653 | 29.41% | \$ 265,265 | 37.40% | \$ 75,716 | 10.67% | \$ 59,879 | 8.44% | \$ 99,833 | 14.07% | \$ 709,345 | 100.00% |
| | 0.00% | | 91.98% | | 72.37% | | 46.15% | | 38.71% | | 28.83% | | 56.37% | |

Source: Calculated at the Center of Wealth and Philanthropy at Boston College using the 2011 version of the Wealth Transfer Microsimulation Model based primarily on CBSA data.

**Table 18: Boston CBSA Final Estates by Net Worth
2% Growth Scenario
\$5 Million Exemption - Not Current Law
Adjusted for Recession
In Millions of Inflation - Adjusted 2007 Dollars
October 31, 2012**

2007-2026

| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|-------|------------------|-------|---------------|--------|------------|---------|
| Number of Estates | 16,519 | 4.59% | 296,119 | 82.35% | 38,848 | 10.80% | 3,518 | 0.98% | 998 | 0.28% | 3,575 | 0.99% | 359,578 | 100.00% |
| Value of Estates | \$ (311) | -0.08% | \$ 68,697 | 16.72% | \$ 71,160 | 17.32% | \$ 24,185 | 5.88% | \$ 12,859 | 3.13% | \$ 234,042 | 56.95% | \$ 410,961 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 16 | 0.20% | \$ 2,039 | 25.30% | \$ 1,726 | 21.42% | \$ 466 | 5.79% | \$ 242 | 3.00% | \$ 3,569 | 44.29% | \$ 8,058 | 100.00% |
| | -5.26% | | 2.97% | | 2.43% | | 1.93% | | 1.88% | | 1.53% | | 1.96% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 1,116 | 4.68% | \$ 1,427 | 5.99% | \$ 1,057 | 4.44% | \$ 20,214 | 84.88% | \$ 23,813 | 100.00% |
| | 0.00% | | 0.00% | | 1.57% | | 5.90% | | 8.22% | | 8.64% | | 5.79% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 187 | 0.42% | \$ 441 | 0.99% | \$ 666 | 1.49% | \$ 43,286 | 97.10% | \$ 44,580 | 100.00% |
| | 0.00% | | 0.00% | | 0.26% | | 1.82% | | 5.18% | | 18.49% | | 10.85% | |
| Bequest to Charity | \$ - | 0.00% | \$ 3,471 | 3.38% | \$ 4,218 | 4.10% | \$ 3,001 | 2.92% | \$ 2,301 | 2.24% | \$ 89,831 | 87.37% | \$ 102,822 | 100.00% |
| | 0.00% | | 5.05% | | 5.93% | | 12.41% | | 17.89% | | 38.38% | | 25.02% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 63,190 | 27.27% | \$ 63,914 | 27.59% | \$ 18,849 | 8.14% | \$ 8,593 | 3.71% | \$ 77,142 | 33.30% | \$ 231,688 | 100.00% |
| | 0.00% | | 91.98% | | 89.82% | | 77.94% | | 66.83% | | 32.96% | | 56.38% | |

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| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|--------|------------------|--------|---------------|--------|--------------|---------|
| Number of Estates | 96,996 | 6.82% | 1,104,882 | 77.72% | 176,813 | 12.44% | 24,198 | 1.70% | 12,124 | 0.85% | 6,585 | 0.46% | 1,421,598 | 100.00% |
| Value of Estates | \$ (3,733) | -0.29% | \$ 224,764 | 17.42% | \$ 378,399 | 29.33% | \$ 167,777 | 13.00% | \$ 165,237 | 12.81% | \$ 354,036 | 27.44% | \$ 1,290,290 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 75 | 0.28% | \$ 6,662 | 24.82% | \$ 8,379 | 31.22% | \$ 3,234 | 12.05% | \$ 3,093 | 11.52% | \$ 5,399 | 20.11% | \$ 26,842 | 100.00% |
| | -2.01% | | 2.96% | | 2.21% | | 1.93% | | 1.87% | | 1.53% | | 2.08% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 7,391 | 12.13% | \$ 9,937 | 16.31% | \$ 13,853 | 22.73% | \$ 29,763 | 48.84% | \$ 60,945 | 100.00% |
| | 0.00% | | 0.00% | | 1.95% | | 5.92% | | 8.38% | | 8.41% | | 4.72% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 187 | 0.26% | \$ 1,300 | 1.80% | \$ 11,602 | 16.08% | \$ 59,058 | 81.86% | \$ 72,148 | 100.00% |
| | 0.00% | | 0.00% | | 0.05% | | 0.78% | | 7.02% | | 16.68% | | 5.59% | |
| Bequest to Charity | \$ - | 0.00% | \$ 11,366 | 4.99% | \$ 25,006 | 10.99% | \$ 21,226 | 9.33% | \$ 30,224 | 13.28% | \$ 139,755 | 61.41% | \$ 227,576 | 100.00% |
| | 0.00% | | 5.06% | | 6.61% | | 12.65% | | 18.29% | | 39.47% | | 17.64% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 206,737 | 22.90% | \$ 337,436 | 37.38% | \$ 132,080 | 14.63% | \$ 106,466 | 11.79% | \$ 120,060 | 13.30% | \$ 902,779 | 100.00% |
| | 0.00% | | 91.98% | | 89.17% | | 78.72% | | 64.43% | | 33.91% | | 69.97% | |

Source: Calculated at the Center of Wealth and Philanthropy at Boston College using the 2011 version of the Wealth Transfer Microsimulation Model based primarily on CBSA data.

Table 19: Boston CBSA Final Estates by Net Worth
3% Growth Scenario
\$1 Million Exemption - Current Law
Adjusted for Recession
In Millions of Inflation - Adjusted 2007 Dollars
October 31, 2012

2007-2026

| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|--------|------------------|-------|---------------|--------|------------|---------|
| Number of Estates | 14,668 | 4.08% | 294,879 | 82.01% | 40,779 | 11.34% | 3,931 | 1.09% | 1,610 | 0.45% | 3,711 | 1.03% | 359,578 | 100.00% |
| Value of Estates | \$ (220) | -0.05% | \$ 71,944 | 15.63% | \$ 79,213 | 17.21% | \$ 27,001 | 5.87% | \$ 21,263 | 4.62% | \$ 260,718 | 56.66% | \$ 460,153 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 11 | 0.13% | \$ 2,135 | 24.24% | \$ 1,895 | 21.52% | \$ 518 | 5.89% | \$ 398 | 4.52% | \$ 3,848 | 43.70% | \$ 8,804 | 100.00% |
| | -5.08% | | 2.97% | | 2.39% | | 1.92% | | 1.87% | | 1.48% | | 1.91% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 1,343 | 4.90% | \$ 1,586 | 5.79% | \$ 1,760 | 6.42% | \$ 22,706 | 82.89% | \$ 27,394 | 100.00% |
| | 0.00% | | 0.00% | | 1.69% | | 5.87% | | 8.28% | | 8.71% | | 5.95% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 10,585 | 10.77% | \$ 10,007 | 10.18% | \$ 8,441 | 8.59% | \$ 69,258 | 70.46% | \$ 98,292 | 100.00% |
| | 0.00% | | 0.00% | | 13.36% | | 37.06% | | 39.70% | | 26.56% | | 21.36% | |
| Bequest to Charity | \$ - | 0.00% | \$ 3,636 | 3.62% | \$ 3,997 | 3.98% | \$ 2,055 | 2.04% | \$ 2,322 | 2.31% | \$ 88,537 | 88.06% | \$ 100,547 | 100.00% |
| | 0.00% | | 5.05% | | 5.05% | | 7.61% | | 10.92% | | 33.96% | | 21.85% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 66,176 | 29.40% | \$ 61,394 | 27.27% | \$ 12,835 | 5.70% | \$ 8,342 | 3.71% | \$ 76,369 | 33.92% | \$ 225,116 | 100.00% |
| | 0.00% | | 91.98% | | 77.50% | | 47.54% | | 39.23% | | 29.29% | | 48.92% | |

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| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|--------|------------------|--------|---------------|--------|--------------|---------|
| Number of Estates | 69,971 | 4.92% | 1,078,152 | 75.84% | 197,829 | 13.92% | 42,083 | 2.96% | 18,135 | 1.28% | 15,429 | 1.09% | 1,421,598 | 100.00% |
| Value of Estates | \$ (1,761) | -0.09% | \$ 260,003 | 13.11% | \$ 478,777 | 24.14% | \$ 286,736 | 14.46% | \$ 252,678 | 12.74% | \$ 705,218 | 35.55% | \$ 1,983,459 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 46 | 0.12% | \$ 7,674 | 19.85% | \$ 10,127 | 26.19% | \$ 5,512 | 14.26% | \$ 4,681 | 12.11% | \$ 10,626 | 27.48% | \$ 38,667 | 100.00% |
| | -2.60% | | 2.95% | | 2.12% | | 1.92% | | 1.85% | | 1.51% | | 1.95% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 11,110 | 10.44% | \$ 16,635 | 15.64% | \$ 20,948 | 19.69% | \$ 57,682 | 54.22% | \$ 106,375 | 100.00% |
| | 0.00% | | 0.00% | | 2.32% | | 5.80% | | 8.29% | | 8.18% | | 5.36% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 104,021 | 19.86% | \$ 112,208 | 21.42% | \$ 99,922 | 19.07% | \$ 207,694 | 39.65% | \$ 523,845 | 100.00% |
| | 0.00% | | 0.00% | | 21.73% | | 39.13% | | 39.55% | | 29.45% | | 26.41% | |
| Bequest to Charity | \$ - | 0.00% | \$ 13,174 | 4.09% | \$ 25,550 | 7.94% | \$ 21,993 | 6.83% | \$ 30,830 | 9.57% | \$ 230,439 | 71.57% | \$ 321,986 | 100.00% |
| | 0.00% | | 5.07% | | 5.34% | | 7.67% | | 12.20% | | 32.68% | | 16.23% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 239,157 | 24.09% | \$ 327,969 | 33.04% | \$ 130,388 | 13.14% | \$ 96,296 | 9.70% | \$ 198,777 | 20.03% | \$ 992,586 | 100.00% |
| | 0.00% | | 91.98% | | 68.50% | | 45.47% | | 38.11% | | 28.19% | | 50.04% | |

Source: Calculated at the Center of Wealth and Philanthropy at Boston College using the 2011 version of the Wealth Transfer Microsimulation Model based primarily on CBSA data.

Table 20: Boston CBSA Final Estates by Net Worth
3% Growth Scenario
\$5 Million Exemption - Not Current Law
Adjusted for Recession
In Millions of Inflation - Adjusted 2007 Dollars
October 31, 2012

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| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|-------|------------------|-------|---------------|--------|------------|---------|
| Number of Estates | 14,664 | 4.08% | 294,705 | 81.96% | 40,927 | 11.38% | 3,956 | 1.10% | 1,611 | 0.45% | 3,715 | 1.03% | 359,578 | 100.00% |
| Value of Estates | \$ (219) | -0.05% | \$ 71,905 | 15.59% | \$ 79,488 | 17.23% | \$ 27,170 | 5.89% | \$ 21,299 | 4.62% | \$ 261,373 | 56.67% | \$ 461,248 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 11 | 0.12% | \$ 2,133 | 23.81% | \$ 1,905 | 21.27% | \$ 524 | 5.84% | \$ 400 | 4.46% | \$ 3,986 | 44.49% | \$ 8,959 | 100.00% |
| | -5.09% | | 2.97% | | 2.40% | | 1.93% | | 1.88% | | 1.53% | | 1.94% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 1,346 | 4.90% | \$ 1,596 | 5.81% | \$ 1,764 | 6.42% | \$ 22,766 | 82.87% | \$ 27,473 | 100.00% |
| | 0.00% | | 0.00% | | 1.69% | | 5.87% | | 8.28% | | 8.71% | | 5.96% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 187 | 0.37% | \$ 843 | 1.67% | \$ 1,248 | 2.47% | \$ 48,217 | 95.49% | \$ 50,495 | 100.00% |
| | 0.00% | | 0.00% | | 0.24% | | 3.10% | | 5.86% | | 18.45% | | 10.95% | |
| Bequest to Charity | \$ - | 0.00% | \$ 3,633 | 3.13% | \$ 4,806 | 4.14% | \$ 3,366 | 2.90% | \$ 3,876 | 3.34% | \$ 100,286 | 86.48% | \$ 115,968 | 100.00% |
| | 0.00% | | 5.05% | | 6.05% | | 12.39% | | 18.20% | | 38.37% | | 25.14% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 66,140 | 25.60% | \$ 71,243 | 27.58% | \$ 20,842 | 8.07% | \$ 14,011 | 5.42% | \$ 86,118 | 33.33% | \$ 258,354 | 100.00% |
| | 0.00% | | 91.98% | | 89.63% | | 76.71% | | 65.78% | | 32.95% | | 56.01% | |

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| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|--------|------------------|--------|---------------|--------|--------------|---------|
| Number of Estates | 69,885 | 4.92% | 1,072,241 | 75.43% | 200,639 | 14.11% | 43,824 | 3.08% | 18,714 | 1.32% | 16,294 | 1.15% | 1,421,598 | 100.00% |
| Value of Estates | \$ (1,758) | -0.09% | \$ 257,454 | 12.57% | \$ 489,479 | 23.91% | \$ 298,927 | 14.60% | \$ 259,641 | 12.68% | \$ 742,029 | 36.24% | \$ 2,047,578 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 46 | 0.11% | \$ 7,600 | 19.06% | \$ 10,339 | 25.93% | \$ 5,749 | 14.42% | \$ 4,818 | 12.09% | \$ 11,316 | 28.38% | \$ 39,869 | 100.00% |
| | -2.60% | | 2.95% | | 2.11% | | 1.92% | | 1.86% | | 1.53% | | 1.95% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 11,490 | 10.35% | \$ 17,361 | 15.63% | \$ 21,553 | 19.41% | \$ 60,655 | 54.61% | \$ 111,059 | 100.00% |
| | 0.00% | | 0.00% | | 2.35% | | 5.81% | | 8.30% | | 8.17% | | 5.42% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 187 | 0.14% | \$ 4,597 | 3.52% | \$ 16,909 | 12.94% | \$ 108,972 | 83.40% | \$ 130,665 | 100.00% |
| | 0.00% | | 0.00% | | 0.04% | | 1.54% | | 6.51% | | 14.69% | | 6.38% | |
| Bequest to Charity | \$ - | 0.00% | \$ 13,044 | 2.96% | \$ 35,695 | 8.09% | \$ 39,397 | 8.93% | \$ 51,336 | 11.63% | \$ 301,786 | 68.39% | \$ 441,257 | 100.00% |
| | 0.00% | | 5.07% | | 7.29% | | 13.18% | | 19.77% | | 40.67% | | 21.55% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 236,813 | 17.88% | \$ 431,767 | 32.59% | \$ 231,823 | 17.50% | \$ 165,026 | 12.46% | \$ 259,300 | 19.57% | \$ 1,324,728 | 100.00% |
| | 0.00% | | 91.98% | | 88.21% | | 77.55% | | 63.56% | | 34.94% | | 64.70% | |

Source: Calculated at the Center of Wealth and Philanthropy at Boston College using the 2011 version of the Wealth Transfer Microsimulation Model based primarily on CBSA data.

**Table 21: Boston CBSA Final Estates by Net Worth
4% Growth Scenario
\$1 Million Exemption - Current Law
Adjusted for Recession
In Millions of Inflation - Adjusted 2007 Dollars
October 31, 2012**

2007-2026

| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|--------|------------------|-------|---------------|--------|------------|---------|
| Number of Estates | 13,425 | 3.73% | 291,351 | 81.03% | 44,165 | 12.28% | 4,626 | 1.29% | 2,037 | 0.57% | 3,974 | 1.11% | 359,578 | 100.00% |
| Value of Estates | \$ (188) | -0.04% | \$ 69,299 | 13.50% | \$ 87,687 | 17.08% | \$ 32,211 | 6.27% | \$ 27,835 | 5.42% | \$ 296,357 | 57.72% | \$ 513,400 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 9 | 0.10% | \$ 2,056 | 21.28% | \$ 2,066 | 21.38% | \$ 619 | 6.40% | \$ 522 | 5.40% | \$ 4,390 | 45.44% | \$ 9,662 | 100.00% |
| | -4.94% | | 2.97% | | 2.36% | | 1.92% | | 1.87% | | 1.48% | | 1.88% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 1,536 | 4.83% | \$ 1,914 | 6.02% | \$ 2,355 | 7.41% | \$ 25,979 | 81.74% | \$ 31,783 | 100.00% |
| | 0.00% | | 0.00% | | 1.75% | | 5.94% | | 8.46% | | 8.77% | | 6.19% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 12,177 | 10.60% | \$ 11,998 | 10.44% | \$ 11,028 | 9.60% | \$ 79,684 | 69.36% | \$ 114,887 | 100.00% |
| | 0.00% | | 0.00% | | 13.89% | | 37.25% | | 39.62% | | 26.89% | | 22.38% | |
| Bequest to Charity | \$ - | 0.00% | \$ 3,502 | 3.09% | \$ 4,403 | 3.88% | \$ 2,436 | 2.15% | \$ 3,007 | 2.65% | \$ 100,025 | 88.23% | \$ 113,372 | 100.00% |
| | 0.00% | | 5.05% | | 5.02% | | 7.56% | | 10.80% | | 33.75% | | 22.08% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 63,742.54 | 26.16% | \$ 67,505 | 27.70% | \$ 15,245 | 6.26% | \$ 10,924 | 4.48% | \$ 86,279 | 35.40% | \$ 243,696 | 100.00% |
| | 0.00% | | 91.98% | | 76.98% | | 47.33% | | 39.24% | | 29.11% | | 47.47% | |

2007-2061

| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|--------|------------------|--------|---------------|--------|--------------|---------|
| Number of Estates | 59,290 | 4.17% | 1,004,799 | 70.68% | 233,389 | 16.42% | 63,154 | 4.44% | 32,363 | 2.28% | 28,603 | 2.01% | 1,421,598 | 100.00% |
| Value of Estates | \$ (1,247) | -0.04% | \$ 234,463 | 7.31% | \$ 584,399 | 18.23% | \$ 442,082 | 13.79% | \$ 447,884 | 13.97% | \$ 1,497,618 | 46.71% | \$ 3,206,484 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 37 | 0.06% | \$ 6,902 | 11.82% | \$ 12,163 | 20.84% | \$ 8,478 | 14.52% | \$ 8,086 | 13.85% | \$ 22,710 | 38.90% | \$ 58,375 | 100.00% |
| | -2.98% | | 2.94% | | 2.08% | | 1.92% | | 1.81% | | 1.52% | | 1.82% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 14,226 | 7.10% | \$ 25,977 | 12.96% | \$ 34,805 | 17.37% | \$ 125,381 | 62.57% | \$ 200,388 | 100.00% |
| | 0.00% | | 0.00% | | 2.43% | | 5.88% | | 7.77% | | 8.37% | | 6.25% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 134,921 | 14.45% | \$ 174,206 | 18.66% | \$ 173,928 | 18.63% | \$ 450,610 | 48.26% | \$ 933,665 | 100.00% |
| | 0.00% | | 0.00% | | 23.09% | | 39.41% | | 38.83% | | 30.09% | | 29.12% | |
| Bequest to Charity | \$ - | 0.00% | \$ 11,938 | 1.90% | \$ 31,972 | 5.08% | \$ 35,259 | 5.60% | \$ 67,431 | 10.72% | \$ 482,606 | 76.70% | \$ 629,204 | 100.00% |
| | 0.00% | | 5.09% | | 5.47% | | 7.98% | | 15.06% | | 32.22% | | 19.62% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 215,625 | 15.57% | \$ 391,117 | 28.24% | \$ 198,162 | 14.31% | \$ 163,635 | 11.82% | \$ 416,313 | 30.06% | \$ 1,384,852 | 100.00% |
| | 0.00% | | 91.97% | | 66.93% | | 44.82% | | 36.54% | | 27.80% | | 43.19% | |

Source: Calculated at the Center of Wealth and Philanthropy at Boston College using the 2011 version of the Wealth Transfer Microsimulation Model based primarily on CBSA data.

**Table 22: Boston CBSA Final Estates by Net Worth
4% Growth Scenario
\$5 Million Exemption - Not Current Law
Adjusted for Recession
In Millions of Inflation - Adjusted 2007 Dollars
October 31, 2012**

2007-2026

| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|-------|------------------|-------|---------------|--------|------------|---------|
| Number of Estates | 13,421 | 3.73% | 291,092 | 80.95% | 44,391 | 12.35% | 4,651 | 1.29% | 2,040 | 0.57% | 3,982 | 1.11% | 359,578 | 100.00% |
| Value of Estates | \$ (188) | -0.04% | \$ 69,170 | 13.44% | \$ 88,086 | 17.11% | \$ 32,366 | 6.29% | \$ 27,890 | 5.42% | \$ 297,261 | 57.74% | \$ 514,784 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 9 | 0.09% | \$ 2,052 | 20.89% | \$ 2,079 | 21.17% | \$ 624 | 6.35% | \$ 524 | 5.33% | \$ 4,533 | 46.16% | \$ 9,822 | 100.00% |
| | -4.94% | | 2.97% | | 2.36% | | 1.93% | | 1.88% | | 1.53% | | 1.91% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 1,541 | 4.83% | \$ 1,922 | 6.03% | \$ 2,363 | 7.41% | \$ 26,063 | 81.73% | \$ 31,889 | 100.00% |
| | 0.00% | | 0.00% | | 1.75% | | 5.94% | | 8.47% | | 8.77% | | 6.19% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 187 | 0.32% | \$ 1,377 | 2.37% | \$ 2,079 | 3.58% | \$ 54,391 | 93.72% | \$ 58,033 | 100.00% |
| | 0.00% | | 0.00% | | 0.21% | | 4.25% | | 7.45% | | 18.30% | | 11.27% | |
| Bequest to Charity | \$ - | 0.00% | \$ 3,495 | 2.65% | \$ 5,337 | 4.05% | \$ 3,940 | 2.99% | \$ 4,911 | 3.72% | \$ 114,199 | 86.59% | \$ 131,882 | 100.00% |
| | 0.00% | | 5.05% | | 6.06% | | 12.17% | | 17.61% | | 38.42% | | 25.62% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 63,624 | 22.47% | \$ 78,942 | 27.88% | \$ 24,503 | 8.65% | \$ 18,013 | 6.36% | \$ 98,076 | 34.64% | \$ 283,158 | 100.00% |
| | 0.00% | | 91.98% | | 89.62% | | 75.71% | | 64.59% | | 32.99% | | 55.01% | |

2007-2061

| | Neg or Zero | | \$1 to \$.9M | | \$1M to \$4.9M | | \$5M to \$9.9M | | \$10M to \$19.9M | | \$20M or more | | Total | |
|--------------------------|-------------|--------|--------------|--------|----------------|--------|----------------|--------|------------------|--------|---------------|--------|--------------|---------|
| Number of Estates | 59,274 | 4.17% | 1,000,345 | 70.37% | 232,620 | 16.36% | 65,280 | 4.59% | 33,940 | 2.39% | 30,139 | 2.12% | 1,421,598 | 100.00% |
| Value of Estates | \$ (1,247) | -0.04% | \$ 233,014 | 7.02% | \$ 583,631 | 17.58% | \$ 457,215 | 13.77% | \$ 468,368 | 14.11% | \$ 1,577,875 | 47.52% | \$ 3,320,142 | 100.00% |
| | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | | 100.00% | |
| Estate Fees | \$ 37 | 0.06% | \$ 6,863 | 11.37% | \$ 12,157 | 20.14% | \$ 8,771 | 14.53% | \$ 8,470 | 14.03% | \$ 24,063 | 39.87% | \$ 60,360 | 100.00% |
| | -2.98% | | 2.95% | | 2.08% | | 1.92% | | 1.81% | | 1.53% | | 1.82% | |
| Boston CBSA Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 14,263 | 6.80% | \$ 26,880 | 12.82% | \$ 36,475 | 17.39% | \$ 132,097 | 62.99% | \$ 209,715 | 100.00% |
| | 0.00% | | 0.00% | | 2.44% | | 5.88% | | 7.79% | | 8.37% | | 6.32% | |
| Fed. Est. Tax Receipts | \$ - | 0.00% | \$ - | 0.00% | \$ 187 | 0.07% | \$ 7,563 | 2.80% | \$ 26,951 | 9.99% | \$ 235,075 | 87.14% | \$ 269,776 | 100.00% |
| | 0.00% | | 0.00% | | 0.03% | | 1.65% | | 5.75% | | 14.90% | | 8.13% | |
| Bequest to Charity | \$ - | 0.00% | \$ 11,847 | 1.36% | \$ 44,501 | 5.11% | \$ 62,937 | 7.23% | \$ 112,568 | 12.94% | \$ 638,331 | 73.36% | \$ 870,184 | 100.00% |
| | 0.00% | | 5.08% | | 7.62% | | 13.77% | | 24.03% | | 40.46% | | 26.21% | |
| Bequest to Heirs | \$ - | 0.00% | \$ 214,306 | 11.22% | \$ 512,523 | 26.83% | \$ 351,064 | 18.38% | \$ 283,906 | 14.86% | \$ 548,309 | 28.71% | \$ 1,910,108 | 100.00% |
| | 0.00% | | 91.97% | | 87.82% | | 76.78% | | 60.62% | | 34.75% | | 57.53% | |

Source: Calculated at the Center of Wealth and Philanthropy at Boston College using the 2011 version of the Wealth Transfer Microsimulation Model based primarily on CBSA data.