meaningful measures of individual economic well-being are essential for the equitable administration of Government social and economic policies. Realized income, which includes both wage and property income, is a frequently cited measure of both economic well-being and inequality, chiefly because wage income, the largest component for most households, is relatively easy to observe and measure (Steuerle, 1985). Some researchers, however, have argued that the “stock dimension” of asset ownership provides economic advantages, such as economic security, political privilege, and power that should also be considered in any study of well-being (Wolfe and Zacharias, 2006). Policymakers, the media, and the general public often incorrectly conflate income and wealth, using them interchangeably when trying to make inferences about the well-being of various segments of the population. This is particularly problematic because these two are not as closely correlated as is generally assumed, particularly among the very wealthy.

For the very wealthy, the discordant relationship between income and wealth is the result of the dynamic nature of the income reported by this segment of the population. Two studies using panel data from U.S. Federal income tax returns have shown that the composition of the group of individuals whose incomes place them near the top of the income distribution changes dramatically over time (Frenze, 1992; U.S. Treasury, 2007). The U.S. Treasury Department study found, for example, that fewer than half of those in the top 1 percent of the income distribution in 1996 were still in the top 1 percent in 2005. This volatility increased at the very top of the distribution, so that only about 25 percent of the individuals in the top 1/100th percent in 1996 remained in the top 1/100th percent in 2005. The Treasury report concluded that the income of many of the highest-income taxpayers is transitory and generally declines over time (U.S. Treasury, 2007).
The transitory composition of income quintiles over time can be partially attributed to decreases in wage income for individuals above retirement age. Also, for wealthier individuals, return on capital becomes an increasingly important source of income. For the very wealthy, however, income from capital can be particularly susceptible to manipulation to minimize tax liability. For example, it has been shown that rates of return on investments decline as wealth increases among the very wealthy (Steuerle, 1985; Wahl and Johnson, 2004). If this is the case, then, for these very wealthy individuals, measures of well-being that focus solely on realized income will understate their true economic status.

This paper is intended to add to the understanding of the ways in which income from various sources changes with age for the very wealthy. It makes use of a special longitudinal panel of U.S. income tax data linked to wealth data reported on U.S. estate tax returns filed for wealthy decedents. The relatively high estate tax filing threshold places these individuals at the top of the U.S. wealth distribution. Combined income and wealth data in the Statistics of Income Family Panel Decedent Dataset (FPDD) allow investigation of changes in the composition of realized income over time and also provide insights into asset management strategies employed by this elite group. In addition, this paper investigates the relationship between income and end-of-life wealth through the use of the portfolio data reported on the estate tax returns. Due to the limitations of the tax data, it incorporates data from the U.S. Survey of Consumer Finances to estimate these panel members’ place in the overall U.S. distributions of income and wealth.

**Tax Return Data**

The Statistics of Income Division (SOI) of the United States Internal Revenue Service collects statistical data from most major Federal tax and information returns. These data are used by both the U.S. Congress and the Executive Branch of the Government to evaluate and develop tax and economic policy. Among these are annual studies of the *United States Estate (and Generation–Skipping Transfer) Tax Return* (Form 706) and the *U.S. Individual Income Tax Return* (Form 1040).

A Federal Estate Tax Return, Form 706, must be filed for every U.S. decedent whose gross estate, valued on the date of death, combined with certain lifetime gifts made by the decedent, equals or exceeds the filing threshold applicable for the decedent’s year of death.1 The return must be filed within

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1 The estate tax filing thresholds for 1994–2003 are listed in Table 1.
9 months of a decedent’s death, although a 6-month extension is frequently granted. All of a decedent’s assets, as well as the decedent’s share of jointly owned and community property assets, are reported on Form 706. Also reported are most life insurance proceeds, property over which the decedent possessed a general power of appointment, and certain transfers made during life.

Form 1040 is filed by individuals or jointly by couples to report annual income, including wages, interest, dividends, capital gains, and some types of business income. The Statistics of Income Division of the Internal Revenue Service conducts annual studies of these filings, extracting detailed information from a statistical sample of returns as they are filed and producing microdata sets and tabulations that are widely used to evaluate and manage the U.S. tax system and the economy. The SOI stratified sample design oversamples high-income taxpayers to ensure accurate estimates of the often unique financial characteristics of this elite group. In 1987, SOI incorporated a panel component, the Family Panel, into its annual cross-sectional samples in order to include all members of a tax family (primary and secondary filers and their dependents) in a panel that represented the cohort of tax families filing returns in 1988 for Tax Year 1987 (Schirm and Czajka, 1991). For the initial year, the Family Panel included 89,755 returns, not counting returns filed by dependents.

The Tax Family Concept

The unit of observation for the SOI 1987 Family Panel was defined as a tax family, which included an income taxpayer, spouse, and all dependents (not limited to children) claimed by either. Thus, a tax family could represent single income tax filers, as well as joint filers and their dependents. An interesting complication of the tax family concept is the treatment of married couples who, for various reasons, elected to file income taxes separately. For the purposes of the followup in the later years of the panel, only a partner whose separately filed return was selected into the 1987 panel sample was permanently included in the panel; the only way for both spouses of a married couple filing separately in 1988 to have been permanently included in the Family Panel was for returns filed by each spouse to have been

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2 Dependents did not need to live in the same household as the parent to be included in the tax family. However, information on dependents whose incomes fell below the filing threshold was generally not available unless reported on the parent’s return. Coresident family members who were not claimed as dependents were not included in the tax family. No dependents are included in the analysis presented in this paper.
independently selected. Thus, the tax family differs significantly from the more common “household” measure used by many national surveys (Czajka and Schirm, 1993).

Assets are valued on the day of the decedent’s death, although an estate is also allowed to value assets on a date up to 6 months after a decedent’s death if market values decline. Special valuation rules and a tax deferral plan are available to an estate that is primarily composed of a family-owned small business or farm. Expenses and losses incurred in the administration of the estate, funeral costs, the decedent’s debts, bequests to a surviving spouse, and bequests to qualified charities are all allowed as deductions against the estate for the purpose of calculating the tax liability.

**Survey of Consumer Finances**

The Survey of Consumer Finances (SCF) is a survey of household balance sheets conducted by the Board of Governors of the Federal Reserve System in cooperation with the SOI division of the IRS. Besides collecting information on assets and liabilities, the SCF collects information on household demographics, income, relationships with financial institutions, attitudes toward risk and credit, current and past employment, and pensions (Bucks; Kennickell; Mach; and Moore, 2009).

The SCF uses a dual frame sample design to provide adequate representation of the financial behavior of all households in the United States. One part of the sample is a standard multistage national area probability sample (Tourangeau et al., 1993), while the list sample uses the SOI individual income tax data file to oversample wealthy households (Kennickell, 2001). Wealth data from the SCF are widely regarded as the most comprehensive household-level data available for the United States. Sample weights constructed for the SCF allow aggregation of estimates to the U.S. household population level in a given survey year (Kennickell and Woodburn, 1999; Kennickell, 1999).

**The Data**

Starting in 1994, the sample for SOI’s annual estate tax studies included any Form 706 filed for a deceased 1987 Family Panel member. The Family Panel Decedent Dataset (FPDD) was begun in 1994 as a combination of these estate tax returns and their corresponding individual income tax return.
data. Between 1994 and 2003, there were 5,557 estate tax returns identified as having been filed for 1987 Family Panel members who died.\(^3\)

The FPDD includes income data spanning 1987 to 2003 and estate tax data ranging from 1994 to 2003.\(^4\) A total of 72,373 income tax returns were available for the members of FPDD. Table 1 presents the distribution of decedents by year of death, along with the applicable estate tax filing threshold. The rightmost column shows only those 5,162 decedents whose gross estates at the time of death were at least $1 million in constant 2003 dollars and for whom a Form 1040 was filed in the last year prior to death.

For 98.2 percent of decedents captured in the FPDD, income tax data were available for each tax year between 1987 and the last full year prior

### Table 1. Filing Threshold and Number of Decedents, by Year of Death

<table>
<thead>
<tr>
<th>Year of Death</th>
<th>Number of decedents</th>
<th>Filing threshold in nominal dollars</th>
<th>Number of decedents with assets of $1M or more in constant 2003 dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>417</td>
<td>600,000</td>
<td>385</td>
</tr>
<tr>
<td>1995</td>
<td>480</td>
<td>600,000</td>
<td>440</td>
</tr>
<tr>
<td>1996</td>
<td>521</td>
<td>600,000</td>
<td>478</td>
</tr>
<tr>
<td>1997</td>
<td>574</td>
<td>600,000</td>
<td>520</td>
</tr>
<tr>
<td>1998</td>
<td>538</td>
<td>625,000</td>
<td>487</td>
</tr>
<tr>
<td>1999</td>
<td>635</td>
<td>650,000</td>
<td>586</td>
</tr>
<tr>
<td>2000</td>
<td>609</td>
<td>675,000</td>
<td>559</td>
</tr>
<tr>
<td>2001</td>
<td>667</td>
<td>675,000</td>
<td>605</td>
</tr>
<tr>
<td>2002</td>
<td>636</td>
<td>1,000,000</td>
<td>630</td>
</tr>
<tr>
<td>2003</td>
<td>480</td>
<td>1,000,000</td>
<td>572</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,557</strong></td>
<td><strong>N/A</strong></td>
<td><strong>5,162</strong></td>
</tr>
</tbody>
</table>

\(^3\) An additional 755 Estate tax returns were filed for decedents who died prior to 1994, the date that SOI began collecting these data for panel members, so that these decedents are excluded from this analysis. Estate returns of visitors to the panel (individuals who were married to existing panel members for periods after 1987) were not included in the final dataset since income data were only available for those years that they were associated with an original panel member. Estate returns of dependents were also excluded.

\(^4\) Up until 1996, individual income tax data were collected and edited by SOI. Starting in 1996, a reduced set of data collected by IRS for administrative purposes was available. These data were not subject to the edit review that is routinely part of SOI data collection and may be subject to additional nonsampling error and subtle differences in data definitions (see Johnson and Schreiber, 2006).
to death. For an additional 1.3 percent of all decedents, only one return was missing from this time series, leaving only a handful of decedents for whom more than one return was missing from the panel.\(^5\)

The design of the FPDD poses several analytical challenges. Longitudinality introduces problems with the tax family concept because, over time, a filing unit may change composition, and this change is usually accompanied by changes in filing status (Czajka and Schirm, 1993). In addition, the selection criteria for inclusion in the FPDD changed during the sample period due to changes in the estate tax filing threshold. Another important consideration is that an estate tax return includes only a decedent’s share of a married couple’s assets, while income tax returns for married couples who file jointly report income attributable to both partners. Finally, with a few exceptions, such as tax-exempt interest income, only income subject to taxation is reported on a tax return, and that reported income may be subject to both accidental and intentional misreporting by the taxpayer.

Although the income tax filing status reported for members of the FPDD was much more stable over time than that of the general population, changes are inevitable. In particular, married persons may divorce, single persons may marry, couples who customarily file jointly may elect to file separately or vice versa, or one or both spouses of a married couple may die. The longer the time series, the greater the possibility for one of these events to occur. Table 2 shows panel members for whom a tax return was filed in the last year prior to death and compares each panel member’s filing status in the year prior to death with that reported for earlier

**Table 2. Filing Status Stability of Panel Members for Whom a Form 1040 was Filed 1 Year Prior to Death**

Includes only those panel members who died between 1994 and 2003 with gross assets valued at $1 million or more in constant 2003 dollars

<table>
<thead>
<tr>
<th>Filing Status</th>
<th>Number</th>
<th>Number of years prior to death filing status unchanged</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Single</td>
<td>1,688</td>
<td>1,421</td>
</tr>
<tr>
<td>Joint</td>
<td>3,474</td>
<td>3,399</td>
</tr>
<tr>
<td>Total</td>
<td>5,162</td>
<td>4,820</td>
</tr>
</tbody>
</table>

\(^5\) Missing returns can occur either because a taxpayer was not required to file in a given year, or because of an error in reporting a taxpayer’s Social Security number (SSN)—a unique personal identifier used for tax administration. The latter occurred mainly in the case of secondary SSNs in the 1987 panel. After the period covered by this study, the IRS implemented processing improvements that greatly reduced the chances of SSN errors in the data.
tax periods. Filers are grouped into two broad categories, single filers and joint filers. Using this classification, filing status was constant for 67 percent of all panel members over the 9 years preceding death. Individuals who were single filers at death were much more likely to have changed filing status in the years preceding death than those who were joint filers. Only 45 percent of all individuals who were single filers in the year prior to death had been single over at least the 9 years examined. This result is influenced by couples for whom one spouse died and those who divorced or separated during the period. Of individuals who were joint filers at death, 78 percent had been married for at least the previous 9 years. Filing status was significantly more static over the 7 years preceding death for both groups, with no change for 85 percent of all filers, 63 percent of single filers, and 95 percent of joint filers. This paper focuses on filers with constant filing status for the 7 years prior to death and at least $1 million (in constant 2003 dollars) in gross wealth as reported in estate tax filings.

### Income Components

The filers in the sample used in this analysis are a very selective slice of all taxpayers in any given year. Many members of the sample have a high level of total income, but, owing to the nature of the sample selection, it is difficult to gauge where these filers fall in the overall distribution of income. One possibility is to compare weighted mean total income by year in the FPDD to the distribution of a comparable total income measure constructed from SCF data. The comparison reveals that weighted mean total income by year from the FPDD is above the 95th percentile of the SCF income distribution in each year in which the two data sources overlap (Tax Years 1988, 1991, 1994, 1997, 2000, and 2003).

Figure 1 provides some basic information on the fraction of filers with different types of income, by the number years prior to death. The most striking point to note from this Figure, but hardly surprising, is the extremely high incidence of income derived from various assets, regardless of filing status or the number of years prior to death. Over 96 percent of both types of filers have taxable interest and dividend income, and about one-half have

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6 The category “single” includes individual income tax return filers who were unmarried, widowed, or married but filing separately.

7 All estimates are weighted using weights that reflect the original family panel selection probabilities of the primary and, if present, secondary filer. All dollar values are reported in constant 2003 dollars.

8 In comparable years, weighted median total income in the FPDD falls between the 70th and 90th percentiles of the SCF income distribution.
tax-exempt interest income. For single filers, about 65 percent have net capital gains or losses. Over 70 percent of joint filers report this type of income. About 35 percent of single filers and 65 percent of joint filers also receive income from noncorporate businesses. Given that the average age at death in the sample is 77, it is not surprising that taxable Social Security, pension, and annuity income is common among both groups of filers, while wage income is the least common type of income received.

Figures 2a–c present the (unconditional) mean values of various types of income by filing status, years prior to death, and end of life wealth category. The most striking feature of the Figures is the difference in mean total income across wealth groups. Depending on filing status and number of years prior to death, mean total income is 5 to 10 times larger for the $10 and $20 million wealth group (Figure 2b) than for the less than $10 million wealth group (Figure 2a). Somewhat smaller differences exist between the middle and the top wealth groups. Mean total income for the $20 million or more wealth group (Figure 2c) is only 2 to 6 times larger.

The Figures also reveal that income derived from taxable interest and dividends, tax-exempt interest, and capital gains is an important source

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9 Gross estate valued on the date of a decedent’s death is used as the measure of wealth throughout this analysis.

10 Similar results are found when comparing the median and the 75th and 95th percentile values of total income across wealth groups.