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Analyzing Charitable Giving Using SOI Tax Return Data by Gerald Auten and David Joulfaian

T tatistics on charitable giving are important in measuring the level of charitable contributions, as well as the size of the non-profit sector. Charitable giving data also reveal trends in the nonprofit sector. In evaluating the effects of tax policy on the level and distribution of giving, as well as the activities of non-profit organizations, such data are vital. However, data on donations and non-profit organizations are relatively scarce in government and private sector statistics. As a result, the data gleaned from Federal tax returns by the Statistics of Income (SOI) Division of the Internal Revenue Service (IRS) often provide the only source of information on the magnitude of charitable and nonprofit activities. SOI's tax data not only provide information on annual receipts of nonprofit organizations and private foundations, but also provide information on contributions by corporations, individuals and estates.

The use of tax data to measure and analyze the size of the non-profit sector has a number of important advantages, as well as a few limitations. SOI's tax data are based on large samples (more than 100,000 returns, in the cases of individual and corporate contributions), and this is an important advantage. In contrast to most non-tax data sources. SOI data sets contain large numbers of observations on wealthy individuals and large corporations, because such individuals and businesses are over-sampled. Tax data are also available on a fairly consistent basis over relatively long time periods. In some cases, such as the estate tax and corporate tax areas, tax data are essentially the only comprehensive sources of statistics. Tax data do have limitations, however. There may be some bias toward the overstatement of donations to the extent that taxpayers overvalue property gifts or claim deductions for money paid to ineligible organizations or for ineligible

Gerald Auten and David Joulfaian are on the staff of the Office of Tax Analysis, U.S. Department of the Treasury purposes. In addition, some important data are missing from SOI's tax statistics, such as the donations of non-itemizers and the receipts and expenditures of religious organizations.

Annual cross-section samples of Federal tax returns have been used by a number of researchers to examine the responsiveness of individuals to the deduction allowed for contributions. A recurring concern, however, is that annual data may provide a distorted view of contributions, as well as other aspects of taxpaver behavior, such as the realization of capital gains and income measurement. In response to this concern, SOI has constructed a number of panel data sets from individual income tax returns. One early study by Auten and Rudney (1990) used an SOI panel of tax returns for 1971-1975 and found that high-income taxpayers were much more likely to concentrate their giving, while lower and middle-income taxpavers tended to give more stable amounts from year to year. Auten, Clotfelter and Schmalbeck (2000) found similar patterns using an overlap panel of tax returns for 1991-1995.

These findings suggest that annual observations on high-income individuals could provide a misleading picture of both their giving over time and their responses to tax law changes. That is, taxpayers' behavioral responses may differ between the shortand long-term. Panels of tax returns allow us to observe individuals' giving both before and after tax law changes, including any transitory acceleration or delay of income reporting or contributions made. The "natural experiments" from tax law changes allow us to observe changes in individual giving in response to exogenous changes in tax price. Two recent examples of panel studies are those by William Randolph (1995) and Gerald Auten, Holger Sieg and Charles Clotfelter (forthcoming), who employed variants of the 1979 forward tax panel with 10 or more years of data spanning several major tax law changes. Both studies find that charitable contributions respond differently to current (transitory) income and tax price than to the corresponding longrun (permanent) variables, thereby demonstrating the importance of panel data for analysis.

During recent debates that took place about the Federal estate tax and its possible repeal, charitable bequests have attracted considerable attention. While charitable transfers at death represent less than 10 percent of aggregate lifetime giving, they potentially account for a sizeable amount of total giving by the wealthy. A number of researchers have examined Federal estate tax data to measure the response of charitable giving to estate taxation. Beginning in 1982, SOI has provided estate tax data on wealthy decedents for every filing year; year-ofdeath data are available on a tri-annual basis. Available information includes the size and composition of wealth at death, demographic data on the deceased, and the disposition of the estate. Examples of studies that examine estate tax and charitable bequest data include Joulfaian (2000a, 1999, and 1991), Clotfelter (1985), and Boskin (1976).

Several SOI studies have linked information on charitable bequests from estate tax returns to information on lifetime charitable contributions from the income tax returns of the decedents. This is done by matching estate tax returns to the universe of income tax returns filed for the year prior to the date of death. Some of the earliest work was undertaken by Eugene Steuerle (1987), who employed the 1976 Collation Study (CS) to study differences in the pattern of giving during life and at death. This CS data linked estate tax returns. Auten and Joulfaian (1996) extended this work by employing the 1982 CS data and found that the estate tax influences lifetime charitable contributions, not just charitable bequests.

A file that matches estate tax returns to income tax panel data is one of the more interesting of SOI's new products. Focusing on the 1987-96 panel of income tax returns, SOI extracts the estate tax returns of panel members as they die. Thus, we observe not only the pattern of lifetime contributions, but also the patterns of wealth disposal at death. In a recent paper, Joulfaian (2000b) employed this matched panel to study how the wealthy allocate their transfers between lifetime contributions and bequests, as well as how estate taxation affects charitable giving.

The federal taxation of corporate income and charitable giving by corporations is an area that seems to have received much less attention. In part, this can be explained by the limited number of major changes in corporate tax provisions that affect contributions. The lack of tax law changes makes it difficult for researchers to examine how taxes influence corporate giving. Given that the tax rate is likely to be determined by profits or income, it is not an easy task to separately identify the effects of income and taxes (price). Beginning in 1991, however, SOI began capturing the contributions reported by S corporations. Because these entities are not subject to a corporate level tax, Carroll and Joulfaian (1997) used them as a control group in examining the effects of the corporate income tax.

In conclusion, data on charitable transfers derived from individual, corporate, and estate tax returns are instrumental in analyzing the effects of tax law changes on giving. These data are useful for scholarly research and for purposes of making revenue estimates and evaluations of policy proposals. Indeed, tax records often provide the only source of information to interested analysts. Without SOI's efforts in constructing and maintaining these data, it would be very difficult to gauge the effects of taxes and make informed policy recommendations. With over \$100 billion in annual transfers, the importance of such studies and the necessity of SOI data cannot be understated.

National Center for Charitable Statistics and SOI Collaboration on Nonprofit Organization Research *by Linda M. Lampkin* 

In the nine years since the last volume in this series, the changes that have taken place in the availability of data on nonprofit organizations for researchers, particularly in the past three years, have been dramatic. The data made available and the work completed by the Statistics of Income (SOI) staff have helped scholars and policymakers to better understand the nonprofit sector and its myriad activities and contributions to American society. The articles and the papers included here illustrate the great advances in the development of information on this sector.

The National Center for Charitable Statistics (NCCS), now a program of the Center on Nonprofits and Philanthropy at the Urban Institute, has worked with SOI for nearly two decades. Through this collaboration. NCCS has been able to use the data files that are the sampling frames for the annual SOI studies of Internal Revenue Code Section 501(c)(3) organizations and construct a dataset for in-depth analysis of the sector by researchers. This database contains about 60 financial variables for all Internal Revenue Service Form 990 filers (those that have more than \$25,000 in annual gross receipts), as compared to the 300 variables analyzed in the SOI sample. NCCS checks the data, incorporates corrections from the SOI Form 990 study sample, and checks and completes the classification of all organizations in the file. This comprehensive dataset (called NCCS Core Data) is produced annually and is available to researchers through NCCS. Using this information, NCCS published its first book, State Nonprofit Almanac 1997: Profiles of Charitable Organizations, providing a level of detail and precise definitions on the sector available for the first time. These profiles are now updated annually and available on the NCCS website (nccs.urban.org).

Linda M. Lampkin is Program Director of the National Center for Charitable Statistics at the Urban Institute's Center on Nonprofits and Philanthropy A recent NCCS-SOI project also helped ensure the quality of the coding of the organizations in the SOI Form 990 study sample. SOI had long used the National Taxonomy of Exempt Entities (NTEE) to group charities by purpose, type, and major function. This classification system was developed by NCCS, with the guidance of leading nonprofit scholars and practitioners. By 1998, the Internal Revenue Service was using three systems — the Standard Industrial Classification (SIC) system, supplemented with a system of Activity Codes (to better describe the varied activities of the charities), and NTEE codes to classify nonprofit organizations.

When the SIC coding system was replaced by the North American Industry Classification System (NAICS) in 1997, the Service seized the opportunity to simplify and consolidate its coding. NCCS was asked to create NTEE-Core Codes (NTEE-CC), a more concise and easier-to-use version of NTEE. This new version eliminated little-used categories, created full definitions, and developed rules for coding to ensure higher consistency, as well as aligning the system with NAICS. The expertise and input of the SOI Form 990 study editors at IRS's Ogden Submission Processing Center in Utah were invaluable as NCCS worked to develop the new NTEE. SOI staff also are part of the NTEE Oversight Committee that made the final decisions on the changes, and they participate in the on-going maintenance of the system.

Now the Service uses only NTEE-CC to code tax-exempt organizations as they apply for taxexempt status, and that code is electronically crosswalked into a NAICS classification. Government reports are now completed using the required NAICS classifications, but the more comprehensive portrait of the sector is also available using the NTEE-CC.

With a revision of the NTEE-CC came an opportunity for NCCS to work with SOI to verify the classifications of the 1994 Form 990 SOI study sample (Stengel, Lampkin, and Stevenson 1999 and in this volume). This project served to permanently improve both the codes and the system for coding for the future. Codes for large organizations that were

difficult to classify were hard-coded, so that they would never need to be classified again. Also, an analysis of common pitfalls was used to develop prescriptive rules to increase the accuracy and consistency of classification. One of the NCCS findings was that the SOI editors were producing quality codes using a system that, at the time, was less than ideal.

At the conclusion of the verification project, about 88 percent of the file records were deemed as coded with "high or fair confidence." This is a big achievement for a sector that formerly used codes that were based only on information from one Form 990 or all too often, just the organization name. For the larger organizations (with assets of \$10 million or more), 93 percent were coded with "high or fair confidence." A detailed description of the project is included in this compendium. We are proud that our work with SOI has resulted in the best classified and most completely documented dataset of charities ever assembled.

A second project that has had a phenomenal impact on the availability of nonprofit data is cosponsored by NCCS and Philanthropic Research, Inc. (PRI, with its GuideStar web site) and involves collaboration with IRS staff in SOI, the Tax Exempt/ Government Entities (TE/GE) Division, and the Submission Processing Center in Ogden. The Forms 990 and 990-PF received in Ogden are scanned and stored on CD-ROMs or tapes and sent to NCCS/ PRI. Well over 20 million pages of the forms and their attachments have been scanned as you read this. The images are then made available on a web site (at <u>www.guidestar.org</u> or <u>www.nccs.urban.org</u>) for instant and easy access. The forms have become a valuable resource for researchers and policymakers, as well as potential donors and the general public. The nonprofits themselves are learning that the Form 990 on the web can be used as a communication tool as they comply with the requirements for disclosure of this information. This increased scrutiny has worked to increase the quality of reporting by nonprofits, as a Form 990 may be a first introduction to potential donors.

Only a few years ago, nonprofit researchers spent most of their time, money, and energy just collecting data and checking their quality and usefulness. Now easy access makes the information truly widely available. The giant steps that have been taken to increase the quality and quantity of data on charities would not have happened without the support and cooperation of SOI and the Service, and we look forward to future collaboration.

# Research on Nonprofit Organization Behavior: The SOI Data by Burton A. Weisbrod

As the nonprofit sector has grown, so has the importance of understanding nonprofit organization behavior. The data made available by the Statistics of Income (SOI) Division of the Internal Revenue Service (IRS) are valuable aids for research, making use of information from IRS Forms 990, 990-PF, and 990-T returns for thousands of individual nonprofit organizations. Aided by the industry classifications of the National Taxonomy of Exempt Entities (NTEE), these data permit identification and analysis of behavioral patterns within specific industries – e.g., health, education, and anti-poverty activities – and over time.

Form 990 informational returns are required to be filed by all nonprofit organizations, except for religious organizations, having gross revenue in excess of \$25,000. Data from Form 990 are public information, available in the annual SOI study samples as well as on the Web at www.guidestar.org, and directly from each nonprofit organization. The Form 990-T tax return, by contrast, is required only if a nonprofit has \$1,000 or more of gross "unrelated business income" (UBI) that is, income from activities that are not substantially related to the nonprofit's tax-exempt mission. Information for specific organizations reported on these returns by law cannot be disclosed to the public. For analytic purposes, the SOI Division has developed annual samples of Form 990-T unrelated business income tax (UBIT) returns from which it publishes aggregate statistics. In addition to independently selected Forms 990-T, the SOI sample also includes any Form 990-T tax return filed by an organization whose information return was selected for the SOI sample of Forms 990/EZ.

Through an agreement with the IRS, which allows academic researchers to access otherwise nondisclosable tax return data from SOI samples

Burton A. Weisbrod is a John Evans Professor of Economics and Fellow, Institute for Policy Research, Northwestern University (and requires strict accordance with disclosure provisions pertaining to taxpayer confidentiality), I analyzed one element of nonprofit organization behavior that has puzzled students of nonprofit organizations and tax policy: how to explain the SOI findings that the aggregate profit reported on the more than 30,000 Form 990-T UBIT returns is *negative* year after vear (Riley 1995, 1996, 1997, 1998, 1999, and 2000, and in this volume). Since, by definition, UBI involves activities that are unrelated to the nonprofit's tax-exempt mission, why would a nonprofit undertake such an activity unless it generated profit for crosssubsidizing the mission? Research now in progress (by Weisbrod) is examining a large data set of matched Forms 990 and 990-T returns to see whether there is evidence that much of the explanation rests on the use of Generally Accepted Accounting Principles for allocating joint costs. Earlier research produced evidence, though from relatively small samples of hospitals, colleges, and museums, that is consistent with the hypothesized cost-allocation explanation. The true profit on unrelated business activities in all three industries, if profit is measured by the difference between revenue and incremental costs, is significantly greater than the re*ported* profit, which reflects allocation of joint costs that contribute to both related and unrelated activities. (See Cordes and Weisbrod 1998, and elsewhere in this volume.) The new research extends the earlier work to larger samples, more industries, and multiple years, to identify the forms of cost-shifting.

In addition to the question of how costs are allocated between the untaxed, mission-related, activities and the taxed, unrelated business activities, another research question is how the choice of cost categories can affect a nonprofit organization's revenue – particularly from donations ("contributions, gifts, and grants" – CGG). When expenses are reported as for "management" rather than for "fundraising," the nonprofit may be seen by donors as having a low fundraising ratio. This might increase donations, in light of the growing "guidance" that prospective donors are receiving to give to organizations with low fundraising percentages. Changes

over time in the reporting of fundraising costs would pose problems for researchers.

The SOI annual samples of Form 990 data present an unparalleled, though imperfect, source of research data on behavior of individual nonprofit organizations over time. The data are currently available for every IRS reporting year between 1982 and 1998, except for 1984. Segal and Weisbrod (1998 and included in this volume) utilized these data, creating a panel of nonprofits that were in the SOI samples for multiple years-primarily the larger organizations, with assets of \$10 million or more. The objective was to study the extent to which revenues from CGG and from sales ("program service revenues") are substitutes, complements, or independent revenue sources. The SOI data permit analysis of individual organization behavior over time and in each of a number of industries. We studied the effects of an exogenous change in CGG in one year on an organization's program service revenues in subsequent years.

In another study of nonprofits' revenue sources and their interdependencies, Okten and Weisbrod (2000, and in this volume) also took advantage of the multiple years of SOI data. We focused on the forces affecting nonprofit organization revenues from private CGG, examining the influences of such variables as the organization's age, the level of its fundraising expenses (notwithstanding their limitations as noted above), and revenue from other sources such as government grants and program service revenues in prior years. The analyses covered a number of industries including hospitals, colleges, museums, scientific research organizations, libraries, and organizations serving the poor.

The SOI Division performs a valuable function for researchers studying the financing and expenditure policies of nonprofit organizations. By making available, electronically, detailed data on each of thousands of nonprofit organizations over time, and by encouraging analysis of the data, the SOI continues its tradition of advancing public policy through research.