by Charles W. Christian

ecent studies in the *Bulletin* point out the importance of profiling delinquent returns to support Internal Revenue Service (IRS) outreach, education, and enforcement initiatives directed toward nonfilers [1]. Delinquent filers also represent an important segment to study because the number of delinquent returns as a percentage of all individual income tax returns processed increased significantly over the decade of the '80's. A sharp increase in delinquent returns was observed in the 1984 Processing Year, when almost 2 million of the processed returns were from tax years prior to 1983. As of 1991, delinquent returns comprised 2.4 percent of total filings when over 2.7 million delinquent returns were processed [2].

A study of the filing history of taxpayers also determined that many delinquent filers have a history of late filing. Almost 33 percent of the delinquent returns processed during 1989 were filed by taxpayers who had previously filed one or more delinquent returns during the period 1980-1988. Only 5.1 percent of the timely filers had a history of delinquency during the same period. This suggests that the factors associated with delinquent filing persist over time.

Background

The returns used in this study are from a random sample of the Forms 1040, 1040A, and 1040EZ selected by Taxpayer Identification Number, or TIN. The sample is representative of both the timely filed returns for Tax Years 1979-1988 and of the delinquent returns filed during Processing Years 1980-1989 (a return is classified as delinquent if it is not processed in the year following the tax year covered by the return).

The sample is unusual because it may be used to study the filing history of taxpayers over the 10-year period. This filing history may reveal associations between filing patterns and taxpayer characteristics that cannot be observed in conventional samples. For example, it is plausible that taxpayers who have recently moved or changed marital status are more likely to be delinquent in filing, but conventional samples usually do not contain information from prior year returns. In contrast, changes in circumstances may be detected by studying returns filed over time for the same taxpayers.

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Trends in Delinquent Returns

Figure A documents the growth in delinquent returns over the decade 1980-1989, for taxpayers in general. It also provides a comparison with the unemployment rate and the rate of economic growth measured by the change in inflation-adjusted gross domestic product (GDP) [3]. Proportion of returns that was filed delinquently has a noticeable upward trend, and a sharp increase was observed between 1983 and 1984. While the delinquency rate in the first 4 years averaged less than 1.0 percent, it increased to 2.1 percent in 1984. When compared to the unemployment rate and the rate of economic growth, it appears that the 1983-1984 increase followed the large decline in economic growth and the increase in unemployment between 1981 and 1982. This explanation is consistent with the observation that the majority of the delinquent returns filed in 1984 were for Tax Year 1982. However, the steady decline in unemployment between 1983 and 1989 was not associated with a decline in delinquent filing, which suggests that additional factors must be considered.

Two demographic characteristics may be observed from the sample, marital status and age. Figure B presents delinquency rates by marital status (based on filing status). The delinquency rate for single taxpayers is higher than the rate for married taxpayers filing jointly in 8 of the 10 years. Figure C compares delinquency rates of elderly taxpayers to all others. Returns are classified as elderly if the taxpayer (or the taxpayer's spouse) claimed the additional exemption available to those age 65 or older. Again, the association is not consistent over time. However, the delinquency rate for elderly taxpayers is lower than all others in 7 of the 10 years, and it is much lower after 1987.

Two economic factors that may be associated with delinquency also are observable from the sample returns, the source of income and the balance due upon filing. The delinquency rate for business or farm returns compared to all others is presented in Figure D. Returns are classified as business or farm returns based on the presence of a Schedule C, Profit or Loss From Business (Sole Proprietorship) or Schedule F, Farm Income and Expenses. A strong association between business or farm returns and filing delinquency is evident. The rate is higher compared to all other returns in every year and double the general rate in several years. Figure E compares the delinquency rates for refund versus balance-due returns. As with the presence of Schedule C or F, returns that have a balance due are much more likely to be delinquent than those claiming a refund. Their rate averages between two and

Figure A Delinquent Returns as Percentages of Returns Processed, Changes in Real Gross Domestic Product (GDP) and Unemployment Rates, Processing Years 1980-1989 Percentage of Returns 10 Unemployment 8 Change in real GDP 6 2 Delinquent return -2 1983 1980 1981 1982 1984 1985 1986 1988 1987 1989

Processing Year

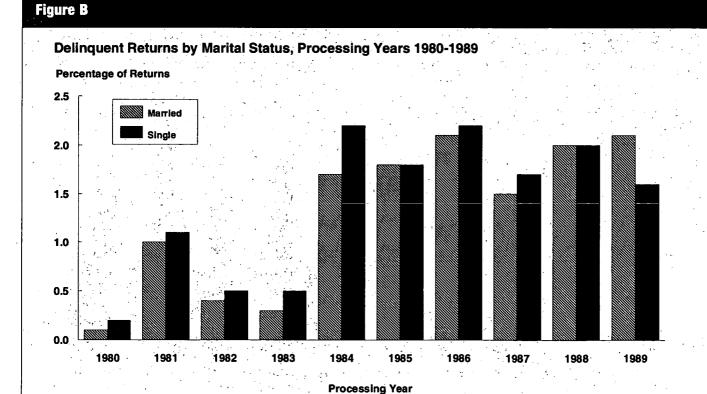
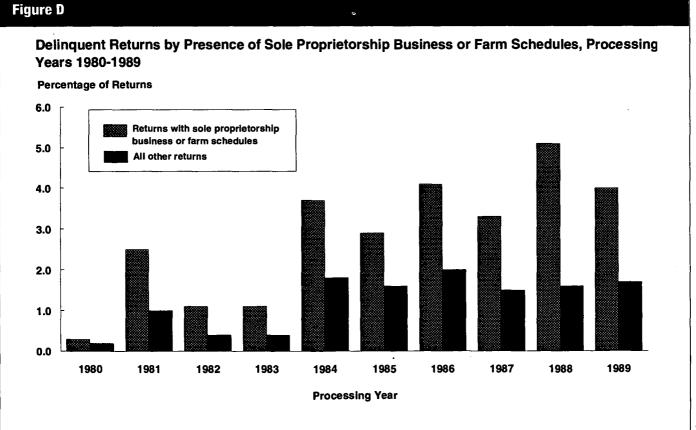
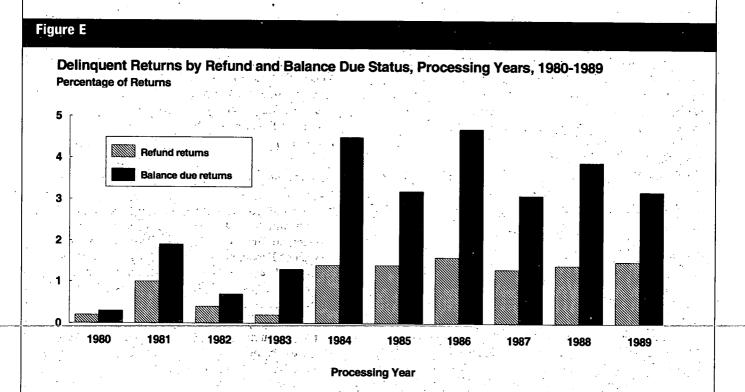


Figure C Delinquent Returns by Age of Taxpayer, Processing Years 1980-1989 Percentage of Returns 2.5 Age 65 or over 2.0 All other ages 1.5 1.0 0.5 0.0 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 **Processing Year**





three times the rate for refund returns and is often more than double the rate for the general population.

Filing History of Delinquent Taxpayers

Examining the filing history of the same delinquent taxpayers reveals that delinquent filers are much more likely to be delinquent in prior years than taxpayers who filed timely returns in 1989. Almost 33 percent of the delinquent returns processed during 1989 were filed by taxpayers who had previously filed one or more delinquent returns during the period 1980-1988. Only 5.1 percent of the timely filers had a history of delinquency during the period [4]. This suggests that the factors associated with delinquent filing persist over time.

It is also worth noting that less than one-fourth of those filing a delinquent return during 1989 filed a return during 1988. This may be explained in part by the fact that over 30 percent of these taxpayers filed more than one return during 1989, commonly including the 1987 return that should have been filed in 1988.

The recent 1988 individual nonfiler survey conducted by the IRS indicates that the most popular reason given for not filing was "procrastination" (24 percent), but the proportion giving "other reasons" was almost as large (22 percent) [5,6]. The sample of returns contains data on two factors that potentially may be associated with procrastination, changes in marital status and changes in State of residence. The disruption caused by these events could

easily delay filing.

An analysis of the sample indicates that 12.2 percent of the delinquent returns filed in 1989 indicated a new State of residence since their last return was filed, and 5.1 percent indicated a new filing status. This compares to 4.7 percent and 6.1 percent, respectively, for timely filed returns. It appears that moving is associated with delinquent filing, but the higher percentage of change in marital status for timely returns is not consistent with the procrastination suggestion. Also, the time lapse between the 1989 filing and the last return filed is longer for delinquent returns than timely ones, so the chance of a change in State of residence or marital status is greater for delinquent returns, all else being equal.

Data Sources

The sample used in this study is a proper subset of the Individual Public Use Tax File (formerly called the Tax Model File), which is produced annually by the IRS Statistics of Income organization. It represents a simple random sample of returns based on the TIN. Although identifiers have been deleted and extensive safeguards have been taken to protect taxpayer confidentiality, each record contains a code based on the TIN that allows tracking the same taxpayers over time.

The sample contains 249,311 returns filed during Processing Years 1980-1989. These returns are associated with 61,885 unique TIN's (i.e., most taxpayers filed more

than one return during the decade, but not all filed in all 10 years). Only 5,315 TIN's appear in every year, 1980-1989. These 5,315 TIN's represent a population of over 53 million taxpayers that can be followed over the 10-year period. Substantially larger groups of taxpayers may be followed for shorter periods. For example, 19,294 TIN's representing over 96 million taxpayers appear in both the 1988 and 1989 files.

This sample differs from most samples used in special studies because it is provided for public use by Statistics of Income, Internal Revenue Service, through the Office of Tax Policy Research at the University of Michigan [7].

Limitations

Although the sample contains a large number of returns, for any given year it contains fewer returns than the regular Statistics of Income Public Use Tax File, so sampling variability generally is higher. This implies that (1) estimates based on the Statistics of Income Public Use Tax File are more precise, and (2) small differences observed in the sample may not be indicative of differences in the population.

Also, in this sample it is not possible to distinguish between the delinquent returns that were filed "voluntarily" and those that were filed subsequent to "enforcement action," such as taxpayer delinquency investigations [8]. Therefore, some part of the variation in delinquency rates over time may reflect variation in enforcement activity rather than "voluntary" filing behavior. In a similar vein, the returns in the sample have not been subject to IRS audit, so some portion of the reported changes in circumstances may reflect misreporting.

Finally, consistent with previous studies, a return was classified as delinquent if it was not processed in the year following the tax year covered by the return, e.g., a return processed during 1989 was classified as delinquent if it was for a tax year prior to 1988. However, it is possible that some returns classified as "delinquent" were filed by taxpayers who were under no legal obligation to file. A recent report estimates that 1.5 million returns were filed "unnecessarily" in 1990 [9]. It is difficult to determine from this sample (or from most return archives) whether a filing requirement existed because not all forms are included for each return in the sample. For example, taxpayers are required to file Form 2119 following the sale of a principal residence, but data from this form were not included in the sample. Therefore, the taxpayers may not appear to have a filing requirement when in fact they did.

Notes and References

- [1] Daronco, Karla M., "Nonfiler Profiles, Processing Year 1991," Statistics of Income Bulletin, Summer 1993, Volume 13, Number 1, 1993; and Rosage, Laura R., "Self-Employed Nonfilers, 1988," Statistics of Income Bulletin, Summer 1993, Volume 13, Number 1, 1993.
- [2] Daronco, op. cit.
- [3] The unemployment rate and the rate of economic growth, which is based on the gross domestic product, are from U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts of the United States, Volume 2, 1959-88 and Survey of Current Business, Volume 73, Number 3, March 1993.
- [4] For joint returns, the match to prior years returns is based solely on the "primary" TIN, so this proportion is probably larger than one-third.
- [5] The 1988 individual nonfiler survey is part of the IRS Taxpayer Compliance Measurement Program (Phase IX, Cycle 2), and is base on a stratified random sample of Tax Year 1988 returns.
- [6] Graeber, Michael J., Nichols, Bonnie L., and Sparrow, D. Arthur, "Characteristics of Delinquent Returns," *The IRS Research Bulletin* Internal Revenue Service, U.S. Department of the Treasury, 1992.
- [7] The sample may be obtained by writing the Office of Tax Policy Research, Graduate School of Business Administration, University of Michigan, Ann Arbor, MI 48109-1234. It is commonly referred to as the SOI Individual Panel File.
- [8] Using "transaction codes" from the IRS Individual Master File, Daronco (see footnote 1) demonstrates substantial differences between voluntarily filed delinquent returns and those filed subsequent to enforcement action.
- [9] O'Connor, Michael R., and Noble, Helene M., "Reduce Unnecessary Filing (RUF) Project," *The IRS Research Bulletin*, Internal Revenue Service, U.S. Department of the Treasury, 1992.