TAX EVASION BY SMALL BUSINESS

by

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OTA Paper 77 June 1998

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* A revised version of the paper was published under the title "Differential Taxation and Tax Evasion by Small Business" in the National Tax Journal, Volume LI, No. 4, December 1998, 675-687.

** This paper was written while the author was on the staff of the Office of Tax Analysis. The authors would like to thank Robert Carroll, Lowell Dworin, Doug Holtz-Eakin, Karl Scholz, and Janet Speyer for useful comments.

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ABSTRACT

This paper examines the compliance pattern of small businesses. Specifically, it focuses on the voluntary reporting of income from proprietorship, farm, and rental real estate activities. Using pooled 1985 and 1988 data, we find that differential taxation due to self-employment taxes (SECA) plays an important role in explaining the observed pattern of noncompliance. This finding supports the notion that under reporting of income is positively correlated with tax rates.

I. Introduction

It is commonly believed that the self-employed exhibit lower rates of voluntary compliance than taxpayers whose primary source of income are wages and salaries. For example, the Internal Revenue Service (IRS, 1988) estimates that the voluntary reporting percentage for wages and salaries is over 99 percent for filers, while the percentage for all other income is 80 percent. In large part this disparity in reporting compliance is attributed to the lower probability of detecting unreported self-employment income; or conversely stated, the higher cost of detecting unreported self-employment income due to the absence of third-party reporting of income and income tax withholding. In contrast, we observe nearly complete reporting of wage income which is subject to third-party reporting and withholding.

There are also substantial differences in the rates of voluntary reporting compliance among sources of self-employment income. For example, the IRS (1988) estimates that the voluntary reporting percentage for filers ranges from approximately 41 to 84 percent for proprietorship, and rent and royalty incomes, respectively. By analogy to the disparity in wage and business income reporting compliance, one could conclude that reporting compliance disparities among sources of self-employment income are due to differences in detection probabilities as well. Although there are certainly some differences in the probability of detecting unreported self-employment income by source, it is important to recognize that their federal tax treatment varies as well.

Specifically, proprietorship and farm income below a certain income threshold is subject to the self-employment tax (SECA); while income from rental real estate is not.[1] Therefore, the total tax liability on proprietorship income is likely to be higher than the liability on the same level of income from rental real estate. We believe that this differential tax treatment contributes to the disparities in the voluntary reporting of income from different self-employment activities. Indeed for the tax filing universe, the IRS (1988) estimates that only about 50 percent of the SECA tax is voluntarily reported, compared to about 84 percent for the personal income tax. Also, differential taxation of business income allows us to take advantage of variation in the tax rates that is independent of the level of income.[2]

In order to isolate the effect of tax rates on business income reporting compliance, we focus on a number of self-employment activities that are subject to different tax rates with limited third party reporting. Specifically, we distinguish among three sources of income: (1) proprietorship, (2) farm, and (3) rental real estate. We use pooled data drawn from the 1985 and 1988 Taxpayer Compliance Measurement Program (TCMP) files. These data consist of detailed information reported on tax returns that have been subject to intensive line-by-line review by experienced auditors of the Internal Revenue Service. Furthermore, the data straddle the Tax Reform Act of 1986 (TRA 1986), which provides considerable variation in marginal tax rates.

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[1] In 1985, for example, the tax rate was 0.141 on self-employment income below $39,600.

[2] This also helps reduce the identification problem. See Feenberg (1997) and Poterba (1987).

We proceed with a brief review of the tax compliance literature. Next we describe the data and construction of the variables used in our analysis. Then we report our empirical results. In order to demonstrate the importance of differential tax treatment by source of self-employment income, we estimate the empirical model using two different measures of the tax rate. One measure is just the federal individual income tax rate; while the alternative measure also accounts for the SECA rate. We find that the estimated tax rate effect is sensitive to the tax rate measure employed. We also discuss a number of alternate specifications to examine the robustness of our results. Based on this evidence we conclude that differential taxation of self-employment income is an important additional explanation of the disparities in voluntary reporting compliance among small businesses. Finally, we conclude with a summary of our findings and suggestions for further research.

II. Review of the Literature

Since the seminal papers by Allingham and Sandmo (1972) and Yitzhaki (1974), a large body of literature has addressed the determinants of individual income tax compliance. In theoretical models of tax compliance, standard comparative static analysis shows that reported income varies positively with income, detection rate, and penalties, however, the tax rate effect is ambiguous. The effects of the latter depend on attitudes toward risk and the penalty structure. If the penalty is based on the amount of taxes understated, then lower taxes may lead to more evasion (Yitzhaki, 1974) and Graetz and Wilde (1985). Pencavel (1979) and Pestieau and Possen (1991) extend this class of models by incorporating labor supply with non-linear taxes and occupational choice, respectively.

A game-theoretic literature examines several aspects of tax compliance. Erard and Feinstein (1994), who extend the work of Reinganum and Wilde (1986a and 1986b), formally incorporate honest taxpayers in their analysis. They find that policies designed to promote an increase in the proportion of honest taxpayers can have a beneficial impact on voluntary compliance. But the resulting increase in tax revenue may be offset to a substantial extent by a decline in enforcement yield.

Alm, Jackson, and McKee (1992) add to a model of taxpayer compliance the provision of a public good financed with taxes subject to non-compliance. They show that policies designed to increase tax and audit rate uncertainty have a generally ambiguous effect on compliance. Using an experimental design with student subjects to simulate taxpayer responses, they find that the tax and audit rate response depends upon the presence or absence of a public good. When individuals perceive that they receive a public good in exchange for their taxes, uncertainty always lowers compliance. Last, but not least, Sansing (1993) examines the effect of information that helps the tax enforcement authority predict tax evasion on the strategic choices made by the taxpayer and the enforcement authority. He finds that such strategic behavior can increase tax evasion.

In general the theoretical literature shows that tax rates have an ambiguous effect on compliance, depending upon taxpayer attitudes toward risk, audit selection criteria, among others. Unfortunately the empirical literature reports mixed results on the compliance effect of taxes as well. Using 1979 TCMP data, Clotfelter (1983), for instance, finds a negative

correlation between marginal tax rates and income reporting compliance; while Feinstein (1991), using pooled 1979 and 1982 TCMP data, finds the opposite.[3]

A number of significant differences in their empirical strategies prevent a direct comparison of their results. First, Clotfelter (1983) not only accounts for federal individual income tax rates, but also includes FICA, SECA and state income tax rates in his measure of the marginal tax rate. Feinstein (1991), consistent with much of the literature, restricts the tax rate measure to the ordinary federal income tax rate. Second, Clotfelter uses a single TCMP cross-section and Feinstein uses pooled TCMP data. Third, Clotfelter provides separate estimates for the self-employed; while Feinstein includes a dummy variable for the presence of certain sources of income.[4]

The most significant difference between the two approaches, however, lies in their empirical models. Clotfelter estimates Tobit regressions on a variety of subsamples and employs a number of different definitions of the income gap. In an important contribution, Feinstein argues that even the most thorough audits, like the TCMP audit, can not uncover every dollar of unreported income. If the auditor's ability to uncover unreported income varies with the level and/or source of income then failing to account for partial detection may result in biased estimates. In order to eliminate this potential source of bias he estimates a simultaneous model of partial detection and income reporting. Thus it is not clear which of these many

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[3] The ambiguity of the compliance response to an increase in marginal tax rates is also observed for small corporations. Rice (1992) finds taxes have a small effect on income under reporting.

[4] Joulfaian and Rider (1996) also include SECA rates. Although they focus on low income filers, their results are qualitatively similar to Clotfelter (1983).

differences in their empirical implementation accounts for the difference in their results on the effect of taxes on reported income.

A number of studies report that differences in the probability of detection account for the reporting disparities between wage and salary versus self-employment income. Clotfelter (1983) finds that the compliance pattern of sole proprietors (Schedule C filers) is considerably different from that of wage earners. Feinstein (1991) also finds that sole proprietors and farmers are less compliant than other taxpayers. More recently Erard (1992), using 1982 and 1985 cross-sectional data, reports higher levels of income under reporting for Schedule C and F filers. Focusing on the reporting of incomes from various sources, Klepper and Nagin (1989) document that voluntary reporting compliance is lower for self-employment income than for wages and salary. In fact, they attribute the lower rate of income reporting by the self-employed to the difficulty of uncovering unreported self-employment income.

While there seems to be a consensus that the self-employed have a greater propensity to under report income, the literature does not provide much insight into why income reporting varies by source of business income. Furthermore, there is little acknowledgment that differential taxation of business income may play a role in influencing the observed pattern of reporting compliance.

III. Description of the Data and Construction of the Variables

The data used in this study are drawn from the IRS's Taxpayer Compliance

Measurement Program (TCMP) pooled over the years 1985 and 1988.[5] TCMP data are stratified random samples of individual tax returns subject to intensive line-by-line examinations. These data provide information as reported by the taxpayer and as corrected upon audit for most entries on IRS Form 1040 and the accompanying schedules. The 1985 file consists of about 49,000 records and reflect pre-TRA 86 law where the top statutory ordinary marginal tax rate is 50 percent. The 1988 TCMP file consists of about 54,000 records and reflects post-TRA 86 law where the top statutory marginal tax rate is 28 percent. The data are augmented by the age of the taxpayer, obtained from administrative records.

We focus on noncompliance for three sources of self-employment income: proprietorship, farm, and rental real estate. We use two different measures of noncompliance, the income gap, defined as the amount of income understated, and the income gap ratio, defined as the fraction of income understated. In order to demonstrate the importance of differential taxation on compliance, our primary interest, we compute the applicable marginal federal individual income tax rate with and without the SECA rate. Two sets of variables are used to control for the pattern of noncompliance; a set of economic variables suggested by the theory and a set of variables to control for unobserved tastes and preferences for evasion and attitudes toward risk. The economic variables consist of income, tax rate, and audit rate. The taste variables include age and age-squared; family size; regional dummy variables; and the presence of Schedules C and F on a tax return. In addition, we also include a dummy variable

[5] See Long (1992), for a critique of TCMP data.

for 1988 to account for year specific effects. Below is a brief description of the variables and their construction.

Income Gap: The income gap is measured as the difference between corrected and reported net business income by source in 1988 dollars.[6] Proprietorship income is obtained from Schedule C; farm income from Schedule F; and rental income from Schedule E. Ideally, we would have included partnership income as well. However, we are unable to distinguish between partnership income subject to and exempt from the SECA tax.

Income: Income is defined as corrected net business income by source.

Marginal Tax Rate: We compute the ordinary marginal tax rate by adding $100 to corrected net business income by source. The computation of the ordinary tax rate, denoted τ_1, incorporates virtually all of the complexities of the tax code including the earned income tax credit which produces negative tax rates. We also compute a second variant of the tax rate, τ_2, which accounts for the self-employment tax, or $\tau_2 = \tau_1 + \text{SECA}$.[7]

In 1985, the statutory SECA rate was 0.141, partially offset by a credit of 0.023 resulting in a rate of 0.118, on combined wages and self-employment earnings under $39,600. In 1988, the SECA rate was 0.1502, or 0.1302 after applying a credit of 0.02, on combined wages and self-employment earnings under $45,000.

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[6] A distinction should be maintained between corrected income and true income. Even if a return is audited, IRS examiners may not be able to uncover every dollar of unreported income.

[7] As discussed below we also estimate a number of specifications that account for state income tax rates.

Probability of Detection: Following Erard (1992) we impute the taxpayer's objective audit probability using a Probit equation estimated from tax year 1987 examination information provided in the 1988 TCMP file. The explanatory variables include adjusted gross income (AGI) and indicator variables for the presence on the taxpayer's return of proprietorship, farm, partnership, rental income, S-corporations, and capital gains. The estimated Probit equation is then used to impute a taxpayer's audit probability in 1985 and 1988 using the taxpayer's reported attributes.

There are several potential limitations to this approach. First, in principle we should use the taxpayer's perceived probability of detection which is not known in TCMP data. Instead we use an estimate of the taxpayer's objective audit probability as a proxy, albeit imperfect, for the perceived detection rate. This measure is imperfect because audit probabilities and detection probabilities are not identical and perceived probabilities may differ from objective probabilities. And, second, since the IRS uses non-random audit selection criteria, the taxpayer's objective audit probability depends, in part, on the taxpayer's income compliance. Thus the audit probability is potentially endogenous to the size of income not reported. We believe that this problem is mitigated somewhat because the regressors in the audit probability model are likely to be exogenous. Finally, we would have preferred to use pre-1985 examination history to impute the audit probabilities for the 1985 returns in the sample. Unfortunately such data are not available in our version of the 1985 TCMP file.

Demographic Variables: We employ a number of demographic variables to control for otherwise unobservable preferences, such as tastes and attitudes toward risk. These

include age, family size, region, and two dichotomous variables; one for the presence of a Schedule C and the other for the presence of Schedule F on the return. Family size is computed using filing status and the number of dependents. Regional dummy variables are based on the zip code reported with the filer's address. We also include a dummy variable for 1988 to account for changes in tax administration and TRA 1986.

Description of the Sample

We drop all observations with negative corrected income so that we can construct variables, such as the income gap ratio and natural logarithm of income. We also exclude joint returns to allow for precise measurement of the SECA rate. In order to compute the SECA rate for married filing joint returns information is required on the earnings of each spouse, which is not available in our data. The resulting sample consists of 8,341 taxpayers for a total of 9,023 observations with 5,976 representing proprietorship income, 1,090 farm income, and 1,957 representing rental income.[8] It is important to note that the unit of observation is the income gap by source and not the taxpayer.

Table 1 provides sample means for selected variables. The average amount of income understated, reported on line 1, is $5,094 or 25 percent of the average business income of $20,123 in the sample. For proprietorship income, the average amount understated is $5,894 or 26.6 percent of the average reported income, for farm income $7,377, or 30.2 percent, and $1,378, or 11.9 percent, for rental income. The average fraction of income understated,

[8] Note that individuals may report more than one source of business income. The number of individuals with only proprietorship income is 5,502, only farm income 826, and 1,345 with only rental income, for a total of 7,673 taxpayers. Another 668 taxpayers have 2 to 3 sources of income, or an average of 2.02 sources.

reported on line 2, is 82 percent and, except for farm income, is invariant to the source of income. The disparity in the average share of income understated simply reflects a number of outliers as suggested by the large standard deviation for farmers.[9] Under the first measure, using the amount of income understated, the same compliance pattern is observed for proprietorship and farm income, with the most compliance observed for rental income. In contrast, and under the second measure, using the fraction of income understated, proprietorship and rental incomes exhibit the same pattern of compliance, with the least compliance observed for farm income.

The average ordinary federal income tax rate is 19.9 percent for the sample. Proprietorship and farm incomes face an average marginal rate of approximately 19 percent which is lower than that faced by recipients of rental income (24.2 percent). In part, the lower tax rates reflect the effect of the earned income tax credit which creates negative rates for some proprietors and farmers. The average SECA rate is 8 percent for the sample; and approximately 10 percent for proprietorship and farm income, and zero for rental income. The average combined ordinary and SECA tax rates are 28 percent for the sample.

The predicted probability of an audit is 4.6 percent for the sample and ranges from 4.3 to 5.7 percent for the separate sources of income. Average business income is about $20,000. Finally, the average age is about 45 years old; and rental income recipients are older than proprietorship and farm income recipients.

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[9] The share of income understated may exceed 100 percent if an individual reports a loss instead of business profits. For example, the share of income understated for an individual with a profit of $100 who reports a loss of $100 is 200 percent.

IV. Empirical Results

Basic Statistics

Table 2 provides the frequency and relative frequency of misreporting income for four classes of tax rates. Two measures of the tax rate are used in the analysis. The first panel of Table 2 provides the distribution of observations in our sample using a federal marginal income tax that excludes the SECA rate. In the second panel of Table 2 the marginal tax rate includes the SECA rate.

Beginning with the first panel of Table 2, there is no clear pattern in the relative frequency of evasion. If we exclude the $\tau \leq 0$ group, however, there is a negative relationship between the relative frequency and the tax rate. In contrast, a clear pattern is evident in the second panel, where the relative frequency increases with the tax rate. For example, focusing on the second column of the first panel, we see that 57 percent of the taxpayers with $\tau \leq 0$ under report income, which is almost equal to the relative frequency for the $\tau > 0.28$ range. But when the definition of the tax rate is modified to include the SECA rate, as in the second column of the first panel of Table 2, 39 percent of the taxpayers in the $\tau \leq 0$ range under report income. This is substantially less than the relative frequency of 0.72 observed in the $\tau > 0.28$ range.

By including SECA in the measurement of the tax rate, a clear pattern of income reporting emerges: the probability of evasion is positively correlated with the tax rate. By ignoring the SECA rate one invariably misclassifies individuals. Referring to the second column of the first panel, which excludes the SECA rate, in the $\tau \leq 0$ we see that 13.5 percent, or 812 of the 5,931 observations in our sample under report self-employment income. In

contrast after adjusting the tax rates to include the SECA rate, the frequency of understating income drops to 3.2 percent, or 191 of the 5,931 observations.

Multivariate Analysis

Now we turn to the multivariate analysis in order to shed further light on the influence of differential taxes on income reporting compliance among sources of self-employment income. Because a number of taxpayers in our sample correctly report income, as shown in Table 2, we resort to Tobit estimates in modeling the determinants of the size of income under reported.

Table 3 provides Tobit estimates where the dependent variable is the natural logarithm of the income gap. Estimates are provided for two measures of the marginal tax rate. In equation 1 the marginal tax rate is the ordinary federal individual income tax rate: it does not account for the SECA rate. In equation 2, the marginal tax rate includes the SECA rate as well as the federal income tax rate. Otherwise the regressors are identical in equations 1 and 2. The means of the regressors are provided in the first column.

Beginning with equation 1, which is reported in column 2 of Table 3, we find that the income gap varies with age, region, income, tax rate, and audit rate. The estimated audit rate coefficient is negative and statistically significant. The corresponding elasticity evaluated at the mean is approximately -0.70, implying that a 10 percent increase in the probability of an audit reduces the income gap by 7 percent.[10] This result is qualitatively consistent with the

[10] All reported elasticities are calculated at the mean.

theoretical and empirical findings on the audit rate effect. The estimated income coefficient is positive and statistically significant with an estimated elasticity of 0.80.

Turning to the tax rate effect, the estimated coefficient is negative and statistically significant, with a value of -1.029 and standard error (S.E.) of 0.511. The implied elasticity is -0.16, which means that an increase in the tax rate leads to a decrease in the amount of income under reported. An inverse relationship between the tax rate and income reporting does not contradict the predictions of theory, which generally report an ambiguous tax rate effect (see, for example, Allingham and Sandmo, 1982). This finding is also consistent with some empirical findings (Feinstein, 1991), but not all.

In equation 2 of Table 3, in which the tax rate variable accounts for the SECA rate, the estimated coefficients are similar to those obtained with equation 1 with one notable exception. The tax coefficient is positive and significant rather than negative and significant. The estimated coefficient is 2.222 (S.E. = 0.527), which suggests that higher marginal tax rates increase the under reporting of self-employment income. The corresponding elasticity is 0.48.

This sign reversal is consistent with the descriptive statistics reported in Table 2.[11] In the first panel of Table 2 the tax rate measure omits the SECA tax. Comparing the upper half of the first panel with the lower half implies that under reporting of income is higher for

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[11] One would expect that a progressive income tax, like the federal individual income tax, would give rise to a high degree of linear correlation between income and the tax rate. The resulting multicollinearity may lead to unstable estimates that switch sign and significance. To address this concern we estimate the simple correlation coefficients for the tax rate with respect to income. They are $r_{ln(y),\,t1} = 0.32$, $r_{ln(y),\,t2} = 0.42$, $r_{y,\,t1} = 0.28$, and $r_{y,\,t2} = 0.19$; where the subscripts y, *ln*(y), t1, and t2 indicate self-employment income; the log of self-employment income; ordinary individual income tax rate; and the ordinary federal income tax rate plus the SECA rate. Not surprisingly, they are positively correlated, but the correlation is low.

taxpayers facing lower ordinary tax rates than for those facing higher rates. This could lead one to suppose that tax rates and under reporting are negatively correlated. In the second panel of Table 2 we include the SECA rate and then we see a clear pattern between higher marginal tax rates and the incidence of income reporting.

The relative frequency distributions in Table 2 and the estimated tax effects in Table 3 are telling the same story: the effect of taxes on income reporting by small businesses is influenced by differential taxation of self-employment income.

Alternative Specifications

Next we explore the robustness of this finding to alternative specifications of the empirical model. We discuss, in turn, the effect of using an alternative measure of reporting compliance as the dependent variable, estimating the model with weighted data, accounting for state tax rates in both tax rate measures, and controlling for the balance due (refund due or amount owed) effect.

Rather than using the log of the income gap as the measure of reporting compliance on the left-hand-side, we use the income gap ratio, or the fraction of income understated, by type of activity. This specification resembles the one employed by Klepper and Nagin (1989) using aggregate data. The estimates for this specification are reported in Table 4. In general the results are similar to those reported in Table 3. When the tax rate measure does not account for the SECA rate, the estimated tax rate coefficient is 1.698 (S.E. = 1.089), as reported in column 2 of Table 4. In this case the estimated tax rate coefficient is not statistically significantly different than zero. When we account for the SECA rate in column 3 of Table 4, the estimated tax rate coefficient is 5.646 (S.E. = 1.810) and the implied tax elasticity is 0.75.

In summary, when we account for the SECA tax the estimated tax effect is positive and statistically, as well as economically significant.

In order to account for potential bias from the sampling design, we re-estimate the canonical specifications reported in Tables 3 and 4 using weighted data.[12] The estimated tax rate coefficients are 0.127 (S.E. = 0.569) and 1.963 (S.E. = 0.581) when we use weighted data to re-estimate equations 1 and 2 of Table 3, respectively. Similarly for equations 1 and 2 in Table 4, the estimated tax rate coefficients are 0.408 (S.E.=0.844) and 1.735 (S.E.=0.824), respectively. Using weighted data renders the estimated tax rate coefficients on the ordinary tax rate insignificant, but the specifications that account for the SECA rate remain positive and significant.

Since many states tie their tax policy and administration to the federal system, federal reporting compliance may be influenced by state rates.[13] Therefore, we include state income tax rates in both tax rate measures. After accounting for state income tax rates the estimated tax coefficients corresponding to equations 1 and 2 of Table 3, are slightly smaller with reported values of -1.205 (S.E. = 0.477) and 1.609 (S.E. = 0.494), respectively. Likewise, the estimated coefficients are 1.247 (S.E. = 1.688) and 4.707 (S.E. = 1.696) for equations 1 and 2

[12] The probability of being included in the sample depends on income. If the income gap and tax rates are correlated with income, then using unweighted data may lead to biased estimates.

[13] After accounting for the state rates, the means of the two tax rate measures are 0.222 (S.D. = 0.141) and 0.302 (S.D. = 0.132), respectively. In addition to the SECA rate, and using pooled data which straddle TRA86, state tax rates may also help reduce any identification problem.

of Table 4, respectively. Including state tax rates has a small effect on the estimated coefficients.

Finally, there is some evidence (Jackson and Spicer, 1986; Yaniv, 1988; Chang and Schultz, Jr., 1990; and Martinez-Vazquez et al., 1992) that tax evasion is influenced, at least in part by the amount of the final payment or refund, which is referred to as the balance due effect. Accounting for this potential effect is particularly important in this context because the SECA tax is not due until April 15th, the deadline for making final payments for federal individual income taxes. Thus taxpayers subject to the SECA tax may be more likely to have a balance due when they file their federal income tax. In this case, the SECA rate may be merely picking up the balance due effect. In order to distinguish between the tax rate effect and the balance due effect we include a balance due variable in our four canonical specifications. We define this variable as the difference between the taxpayer's corrected tax liability less any estimated tax payments, withheld taxes, and payments with filing extensions.

The estimated coefficients on the balance due variable are positive and significant in the canonical specifications. In the specification corresponding to equation 2 of Table 3, for example, the estimated balance due coefficient is $0.97 \cdot 10^{-5}$ (S.E. = $0.26 \cdot 10^{-5}$). In other words, the greater the balance due the lower the rate of voluntary reporting compliance. Nevertheless, the estimated tax rate coefficients are invariant to the inclusion of the balance due variable. The estimated tax rate coefficients corresponding to the two specifications reported in Table 3 are -1.306 (S.E. = 0.511) and 2.027 (S.E. = 0.527) for equations 1 and 2, respectively. Likewise for Table 4, the estimated tax rate coefficients are 1.314 (S.E. = 1.817) and 5.313 (S.E. =

1.817), respectively. Accounting for the balance due effect does not appear to change our substantive findings.

V. Conclusion

This paper examines the pattern of income reporting by small businesses. Using pooled TCMP data for tax years 1985 and 1988, and taking advantage of the SECA tax, we focus on the effect of tax rates on the misreporting of proprietorship, farm, and rental income.

Both the frequency distribution, reported in Table 2, and multivariate analysis demonstrate that taxes play an important role in explaining differences in voluntary reporting compliance among sources of self-employment income. We also demonstrate the importance of correctly measuring major features of the tax system. In particular, failure to incorporate the SECA rate risks biasing the estimated effects of tax rates. Our finding supports the notion that under reporting of income is positively correlated with tax rates.

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Table 1

Sample Means for Selected Variables
(standard deviations in parentheses)

Variable	All	Source of Income		
		Proprietorship	Farm	Rental
Income gap	5,094 (28,636)	5,894 (24,368)	7,377 (54,402)	1,378 (12,049)
Income gap ratio	0.817 (14.547)	0.700 (6.712)	1.719 (38.011)	0.672 (5.795)
Ordinary tax rate (τ_1)	0.199 (0.132)	0.186 (0.123)	0.192 (0.134)	0.242 (0.143)
Ordinary + SECA tax rates (τ_2)	0.279 (0.123)	0.288 (0.111)	0.293 (0.134)	0.242 (0.143)
SECA tax rate	0.080 (0.060)	0.102 (0.049)	0.101 (0.051)	0 0
Audit rate	0.046 (0.035)	0.043 (0.032)	0.047 (0.035)	0.057 (0.041)
Business income	20,123 (52,360)	22,142 (54,165)	24,397 (59,944)	11,577 (39,838)
Age	45.3 (16.7)	41.1 (13.9)	46.3 (18.6)	57.3 (17.6)
Observations	9,023	5,976	1,090	1,957

Table 2

Frequency and Relative Frequency of Income Reporting by Tax Rate

	Tax Rate excluding SECA		Tax Rate including SECA	
Tax Rate (τ)	Correct Income	Income Understated	Correct Income	Income Understated
$\tau \leq 0$	610 (0.43)	812 (0.57)	301 (0.61)	191 (0.39)
$0 < \tau \leq 0.15$	827 (0.28)	2,167 (0.72)	566 (0.40)	833 (0.60)
$0.15 < \tau \leq 0.28$	858 (0.33)	1,867 (0.66)	739 (0.39)	1,167 (0.61)
$\tau > 0.28$	797 (0.40)	1,085 (0.60)	1,486 (0.28)	3,740 (0.72)
Total Observations	3,092	5,931	3,092	5,931

Table 3

Tobit Estimates of the *ln* of the Business Income Gap
(standard errors are provided in parentheses)

Variable	Mean	Equation 1	Equation 2
Constant	1.000	-8.626 (0.534)	-8.515 (0.531)
Dummy 1988	0.569	-0.411 (0.116)	-0.332 (0.115)
Age*10^{-2}	0.453	15.342 (1.917)	14.892 (1.912)
Age^2*10^{-4}	0.233	-18.054 (1.928)	-17.657 (1.924)
Family size	1.245	-0.134 (0.091)	-0.115 (0.090)
South	0.314	-0.130 (0.154)	-0.119 (0.154)
West	0.251	0.217 (0.163)	0.247 (0.163)
North	0.183	0.053 (0.179)	0.032 (0.179)
Ordinary tax rate (τ_1)	0.199	-1.029 (0.511)	-- --
Ordinary + SECA tax rates (τ_2)	0.279	-- --	2.222 (0.527)
Audit rate	0.046	-28.380 (1.856)	-30.302 (1.795)
ln Income	8.764	1.118 (0.040)	1.012 (0.040)
Schedule F present	0.181	0.917 (0.200)	1.053 (0.197)
Schedule C present	0.735	2.349 (0.185)	2.481 (0.179)
σ	N.A.	5.060 (0.051)	5.053 (0.051)
Log likelihood		-20,782	-20,775
Observations		9,023	9,023
Positive Observations		5,931	5,931

Table 4

Tobit Estimates of the Business Income Gap Ratio
(standard errors are provided in parentheses)

Variable	Mean	Equation 1	Equation 2
Constant	1.000	-12.171 (1.745)	-13.217 (1.775)
Dummy 1988	0.569	0.131 (0.428)	0.168 (0.427)
Age*10^{-2}	0.453	30.154 (7.183)	29.607 (7.182)
Age^2*10^{-4}	0.233	-37.504 (7.253)	-36.864 (7.255)
Family size	1.245	-0.379 (0.335)	-0.352 (0.336)
South	0.314	0.313 (0.571)	0.327 (0.571)
West	0.251	1.034 (0.604)	1.056 (0.604)
North	0.183	0.484 (0.663)	0.444 (0.663)
Ordinary tax rate (τ_1)	0.199	1.698 (1.809)	-- --
Ordinary + SECA tax rates (τ_2)	0.279	-- --	5.646 (1.810)
Audit rate	0.046	-44.174 (7.057)	-45.109 (6.892)
Income*10^{-3}	20.123	84.378 (43.047)	72.358 (42.647)
Schedule F present	0.181	2.971 (0.743)	2.935 (0.735)
Schedule C present	0.735	4.309 (0.679)	4.181 (0.668)
σ	N.A.	18.149 (0.168)	18.158 (0.168)
Log likelihood		-27,328	-27,324
Observations		9,023	9,023
Positive Observations		5,931	5,931