Example 17.1
Who Underpays
Income Taxes in the U.S.?

U.S. taxpayers are not always on their best behavior when it comes to paying taxes. Noncompliance with the tax laws is a big problem, whether intentional *(i.e.*, tax evasion) or accidental. In 1998, the Internal Revenue Service (IRS) estimated that the combined tax liabilities due from all federal taxes was $1,817.4 billion, but that only $1,534.9 billion was paid voluntarily and in a timely fashion[1]. The so-called gross tax gap of unpaid taxes was $282.5 billion, equal to 15.5% of the tax liabilities. $218.5 billion of the $282.5 billion was due to underreporting, $39.7 billion to underpayment, and $24.3 billion to nonfiling. The IRS managed to collect approximately $50 billion of these taxes through its auditing programs, leaving a net tax gap of $232 billion in uncollected liabilities, 12.7% of the total liabilities.

      Noncompliance under the individual income tax is even worse than the overall average. Individual income tax liabilities were $945.0 billion in 1998 and the gross tax gap was $166.4 billion, or 17.6% of the liabilities. The breakdown was $119.6 billion due to underreporting, $24.2 billion to underpaying, and $22.6 billion to nonfiling[2]. With the sharp reductions in IRS auditing rates that began in the 1990s and the steady increase in the number of taxpayers since 1998, one can assume that noncompliance has only increased, perhaps markedly so[3].

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[1] The data in the first two paragraphs are from the Statement of Leonard E. Burman, Senior Fellow, the Urban Institute, Codirector, the Tax Policy Center, Research Professor, Georgetown Public Policy Institute, Before the Committee on the Budget, United States House of Representatives, On Waste, Fraud, and Abuse in Federal Mandatory Programs, July 9, 2003, Figure 1. The data on the tax liabilities under the individual income tax combine the unpaid liabilities from Burman's Figure 1 and the individual income tax collections reported in the *Budget of the United States Government, Fiscal Year 2009* (Washington, D.C.: Government Printing Office, 2008), Part Five: Historical Tables, Table 2.1. Burman notes that the 1998 data are just rough estimates, because the IRS stopped measuring noncompliance carefully for all but the working poor in 1988. (p. 2).

[2] We have no data on how much of the $50 billion in unreported liabilities collected by the IRS came from the individual income tax, and thus no estimate of the net tax gap for the income tax.

[3] See Burman, *op. cit*., pp. 2–3 for a discussion of IRS auditing reductions and the dramatic growth in tax returns since 1998.

Brian Erard and Chih-Chin Ho (EH) analyzed who is more or less likely to underpay their income taxes in terms of the jobs that they hold, along with the factors that determine the amount of nonpayment. They obtained a sample of detailed, line-by-line tax returns from two separate studies conducted by the IRS Taxpayer Compliance Measurement Program in 1988, one for filers and one for nonfilers[4]. The nonfilers' tax returns are from individuals or households that should have filed a return, were discovered to be delinquent by the IRS, and subsequently filed a return. EH compiled random samples of 2,195 nonfiler returns and approximately 54,000 returns from filers, which they considered to be representative of the 109 million filers and the estimated 9 million nonfilers that year[5]. The returns listed the taxpayers' occupations, so they were able to group the returns into 34 separate occupations (one category is for the retired and disabled), and they computed the mean amounts of underpayment and income for each occupation. For filers, the underpayment was the actual tax liability (less any credits) minus the amount of tax liability reported on the return. For nonfilers, the underpayment was the actual tax liability (less credits) minus any taxes prepaid through withholding or estimated tax payments. The mean amount of underpayment was $607 for filers, $1,215 for nonfilers, and $655 for both groups combined, equal to 14.9% of their average income.

Who Underpays?

EH report noncompliance by dollar amounts and by percentage of income. The five least and most compliant taxpayers under each measure are listed below:

Dollar amounts (means in parentheses)
- *Least compliant*:
    1. Vehicle sales ($6,406)
    2. Investors ($4,398)
    3. Informal suppliers[6] ($4,011)
    4. Lawyers and judges ($2,273)
    5. Doctors and dentists ($2,181)
- *Most compliant*:
    1. Other – the residual category ($47)
    2. Military ($131)
    3. Administrative support ($176)

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[4] As noted in footnote 1, 1988 was the last year that the IRS engaged in detailed analyses of noncompliance.

[5] B. Erard and C-C Ho: 'Explaining the U.S. Income Tax Continuum', *eJournal of Tax Research*, 2003, http://austlii.law.uts.edu.au/au/journals/eJTR/2003/5.html, pp. 2–3.

[6] Informal suppliers are those who supply services on an occasional or informal basis, often for cash, such as self-employed domestics, moonlighting tradesmen, and street-side vendors. EH had to impute additional income for these people (also for tip earners) using aggregate data collected by the Bureau of Economic Analysis. See the article for details.

4. Retired and disabled ($281)

5. Production/manufacturing ($296)

Percentage of income

- *Least compliant*:
  1. Vehicle sales (51.1%)
  2. Tip earners (49.8%)
  3. Informal suppliers (44.1%)
  4. Farm and agricultural related (33.0%)
  5. Social and religious workers (23.4%)
- *Most compliant*:
  1. Accountants, auditors, and tax preparers (5.4%)
  2. Non-government officials and administrators (6.0%)
  3. Post-secondary teachers (6.3%)
  4. Technologists and technicians – non health (6.7%)
  5. Social scientists and doctors and dentists (both 7.0%)[7]

People in vehicle sales and informal sellers are among the more serious offenders, regardless of whether you prefer the dollar or percentage of income measure of noncompliance. In contrast, doctors and dentists are among the least compliant in terms of dollar amounts of underpayment, but since they have such high incomes they move to the most compliant list as a percentage of income. And you may be somewhat comforted to know that lawyers and judges are also relatively compliant by the percentage of income measure, at 8.9%. One wonders where the multimillion and billion dollar Wall Street financiers would rank on both lists if they had been compiled in the 2000s.

Why Do Taxpayers Underpay?

EH undertook a regression analysis across the 34 occupations to determine which factors lead people to underpay. The left-hand-side dependent variable is the mean dollar amount of underpayment for each occupation. The seven right-hand-side explanatory variables are:

1. The occupation mean proportion of income subject to third party information, such as withholding of wages and salaries and reporting by companies of interest and dividend income paid on IRS 1099 forms.
2. The IRS audit rate of tax returns for each occupation
3. The occupation mean adjusted gross income (AGI)
4. The occupation mean marginal tax rate

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[7] *Ibid.*, Table 1, pp. 9-10.

5. The occupation mean time burden of preparing the return (calculated using an IRS formula for the time it takes to prepare a return that is based on the items reported on the tax form)
6. The proportion of the taxpayers within each occupation who are ≥ 65 years of age
7. The proportion of the taxpayers within each occupation who are married.

The analysis found that the two most important explanatory variables in terms of their policy relevance are the proportion of income subject to third party information and the time burden of preparing the return. A one percentage point decrease in the proportion of income subject to third party information leads to a $34 (or 5%) increase in underpayment, and a one hour increase in the time burden leads to a $119 (or 18%) increase in underpayment. Both effects are quite large and in the expected direction. The proportion of taxpayers within an occupation ≥ 65 years of age and the proportion of married taxpayers are also statistically significant and negative, as expected. Many studies of tax compliance find that the elderly are the most honest age group in paying their taxes and that married taxpayers are more honest than unmarried taxpayers. This is true for most countries, not just the U.S.

Somewhat surprisingly, the estimated coefficients on the audit rate, the mean AGI, and the marginal tax rate are not statistically different from zero. The first two estimates are inconsistent with the model of tax evasion in Chapter 17, which predicts that increases in the audit rate and the taxpayer's AGI should increase the amount of undeclared income. But increases in the marginal tax rate may or may not increase undeclared income in the model, so that the insignificant estimate on the marginal tax rate is not inconsistent with the theoretical prediction.[8]

The message from EH's regression analysis is clear. The most effective ways for the IRS to reduce underpayment of taxes under the individual income tax is to require third party verification of income whenever possible and to simplify the tax code to reduce the time that taxpayers need to compute their tax liabilities. EH speculates that the biggest gain to simplification would come from removing instances of legal ambiguity in the tax laws that often generate no fine if the IRS uncovers them in a tax audit. Knowing that there will be no fine, taxpayers may be more aggressive in taking their chances and not declaring some or all of the income associated with these ambiguities.[9]

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[8] The regression analysis is described in *Ibid.*, p. 7 and the coefficients estimates for the combined sample of filers and nonfilers are in Table 3, p. 12. The same pattern of results applies when EH ran the regression on the filers only, with one exception: the coefficient estimate on the proportion of married taxpayers is no longer statistically different from zero. (It is only marginally significant in the combined regression, whereas the coefficient on the elderly is highly statistically significant in both regressions.) The filer-only estimates are reported in Table 4, pp. 12–13.

[9] *Ibid.*, p. 8.