Tax Year 2006 Tax Gap Estimate – Summary of Estimation Methods

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This summary explains the methods used to estimate the TY2006 tax gap and the changes in data and adjustment to methods employed since the estimation of the TY2001 tax gap.

Beginning with TY2006, the IRS is undertaking each year approximately 14,000 returns for individual income tax research audits (that is, random audits.) The annual samples are representative of the population, and can be combined over multiple years to reap the benefits of a larger sample.

Because the results of the TY2006 NRP individual income tax reporting compliance study were recently made available for analysis (Results from the TY2007 NRP compliance study are also available.) and because the most recent operational audits used to supplement estimation methods were also based on TY2006, the updated tax gap estimate is based in TY2006. The new tax gap estimates benefit from both newly available data and improved estimation methods. Those are summarized here.

The TY2006 tax gap estimate is compared to the TY2001 estimate below. Estimates of the major components of the tax gap are compared in the summary.

Tax Gap: 2006 Compared to 2001

[Money amounts are in billions of dollars]

	TY 2006	TY 2001
Gross tax gap	**450**	**345**
Voluntary compliance rate	83.1%	83.7%
Net tax gap	385	290
Net compliance rate	85.5%	86.3%
Difference between gross and net tax gap	65	55
Total tax liability	2,660	2,112

A. Underreporting Gap: Estimates and Estimation Methods

Of the $450b gross tax gap in TY2006 (tax year 2006), $376b (approximately 84%) is estimated to result from the underreporting of tax liabilities.

Individual Income Tax Underreporting Gap

	TY2001	TY2006
Total ($billions)	**197**	**235**

The individual underreporting gap for TY2006 is estimated to be $235b. The estimate is based on TY2006 National Research Program (NRP) individual income tax reporting compliance study data. As with the TY2001 estimate, the TY2006 estimate makes use of Detection-Controlled Estimation (DCE) to account for income that taxpayers do not report on their tax returns, and the NRP auditors could not detect. Because insufficient NRP data has been accumulated for TY2006 and later years for full DCE analysis, an improved DCE was undertaken using TY2001 NRP data and adjusted using other information to estimate undetected income for TY2006 NRP returns. In contrast to the original DCE methodology, which required grouping income items together, the improved DCE methodology was applied to each income line item separately. In addition, tax liability for each return was estimated using a tax calculator rather than the estimated average marginal tax equation used to compute the TY2001 individual income tax underreporting gap.

Corporation Income Tax Underreporting Gap

	TY2001	TY2006
Total ($billions)	**30**	**67**
Small Corporations (Assets under $10M)	5	19
Large Corporations (Assets over $10M)	25	48

The corporation underreporting gap for TY2006 is estimated to be $67b. While the TY2001 estimates were projections from earlier published estimates (reflecting no new compliance behaviors), the TY2006 corporation income tax underreporting gap estimates are based on a combination of new data and new methodologies. Much of the increase in the small corporation estimate reflects the new methodologies and more recent data. Recent research has suggested that the TY2001 underreporting gap estimate was underestimated; therefore, the increase in the gap estimate for TY2006 over that for TY2001 represents a correction to that underestimate and does not indicate an increase in noncompliance of that magnitude between TY2001 and TY2006.

Lacking NRP research audit data, data from operational audit results were used to estimate the TY2006 corporation underreporting gap. For small corporations, a yield curve model was used in which tax change is a function of audit coverage. That approach captures the amount of noncompliance auditors would detect were they to audit 100% of corporations.

Estimation of the small corporation gap was supplemented with a second estimation method to add information and provide a means of evaluating the yield curve model outcome. The supplemental method consisted of an econometric model that adjusted for the fact that operational audits are not selected randomly, but rather are selected when noncompliance is suspected. Operational audits for TY2004 were merged with a random sample of unaudited TY2004 small corporation returns to estimate compliance rates. The estimated compliance rates were then applied to TY2006 reported tax. This supplemental method produced an estimate similar to that produced by the yield curve method.

The methodology adopted for the large corporation income tax underreporting gap is based on audit experience suggesting that the majority of underreporting is concentrated in a relatively small number of firms. Using this distribution of audit adjustments, the extreme values of noncompliance among large corporations can be used to estimate the noncompliance of the rest of the population. Operational audit data for large corporations for tax years 2001 through 2006 were employed to identify audits with extreme values, and that information was used to estimate the noncompliance in the rest of the population. The aggregate reporting compliance rate for 2001 through 2006 was estimated and applied to TY2006 reported tax liabilities for all large corporations. The same method was used to estimate noncompliance among mid-size corporations.

The corporate tax gap estimate also grew between 2001 and 2006 because corporate income tax liabilities increased substantially, more than doubling over the period.

Employment Tax Underreporting Gap

	TY2001	TY2006
Total ($billions)	**54**	**72**
FICA & Unemployment Tax	15	15
Self-Employment Tax	39	57

The TY2006 employment tax underreporting gap is estimated to be $72B. The self-employment tax estimate is based on newly available data from the TY2006 NRP individual reporting compliance study. That estimate reflects the effect of the DCE adjustment for undetected income and also results from the use of the return-level tax calculator. The TY2001 estimate employed a similar DCE adjustment. However, as with the individual income tax underreporting gap, the TY2006 self-employment tax gap estimate utilized a return-based tax calculator rather than a less-detailed average marginal tax rate.

Lacking NRP research audit data, the estimates for both FICA and unemployment taxes are projections based on applying the estimated compliance rates for 1984 to currently reported taxes.

Estate Tax Underreporting Gap

	TY2001	TY2006
Total ($billions)	**4**	**2**

The TY2006 estate tax underreporting gap is estimated to be $2b, a reduction from the estimated $4b gap for TY2001. The TY2006 estimate resulted from the application of the TY2001 estimation method to newly available data. Both operational audit data and a random sample of estate tax returns filed in calendar year 2004 were used. The econometric model controlled for the non-random nature of the operational audits. The 2004 estimate was projected to TY2006 using the assumption that the compliance rate remained at the 2004 level.

B. Nonfiling Gap: Estimates and Estimation Methods

Of the $450b gross tax gap in TY2006, $28b (approximately 6%) is estimated to be associated with tax returns that were filed after the filing deadline (or valid extension date)--or were not filed at all.

Individual Income Tax Nonfiling Gap

	TY2001	TY2006
Total ($billions)	**25**	**25**

The TY2006 individual nonfiling gap is estimated to be $25b. The TY2006 estimate incorporates a different methodology than used in the past; however, the estimate is virtually unchanged from the TY2001 estimate. Whereas the TY2001 estimate was based on the Census Exact Match study, the new estimation method relies more on IRS administrative data. TY2005 data from third-party information returns was used to identify income unreported on the late returns as well as income that should have been reported on unfiled (but required) returns. A tax calculator was utilized to determine the tax gap associated with those two groups of people. The TY2005-based estimates were projected to TY2006. The late filers and the no-return people ended up contributing about equally to the estimated total nonfiling gap.

Estate Tax Nonfiling Gap

	TY2001	TY2006
Total ($billions)	**2**	**3**

The TY2006 estate tax nonfiling gap is estimated to be $3b. The TY2001 estimate was a projection of a prior TY1992 estimate by the IRS. The new estimate reflects the application of the existing methodology to new data with one exception (explained below.) Data from the 2000 University of Michigan Health and Retirement Study (HRS) and pre-2000 data from the National Center for Health Statistics (NCHS) are used to estimate the relationship between wealth and mortality and to predict the number of expected calendar year 2001 filers. The estimated number of filers is compared to aggregate data on actual return filings and tax receipts to estimate the number of returns not filed and the associated tax liabilities.

An additional component of the nonfiling gap is associated with estates that file returns after the due date of the return or after the date of any valid extensions. The methodology for estimating the TY2001 nonfiling gap did not include late-filed estate tax returns; therefore a separate estimate of the tax gap associated with late filed returns was added for the TY2006 estimate. The amount of tax reported on late filed returns (but presumably not paid on time) summed to $1B for TY2006. The TY2001 gap estimate did not include that component.

C. Underpayment Gap: Estimates and Estimation Methods

Total Underpayment Gap

	TY2001	TY2006
Total ($billions)	**33**	**46**

For TY2006, $46b of taxes reported on time were not paid when due. The calculations for TY2001 and TY2006 are both based on actual tabulations of taxpayer account transactions (both the amounts reported and the amounts paid are observed). Therefore, unlike the other components of the tax gap, the underpayment gap is directly observed. The only exception is a relatively small amount of withheld income tax that is not reported on time by employers, but is reported on time by the affected employees. The amount of such withholdings that are recovered through enforcement is used to estimate that portion of the underpayment gap.

D. Enforced and Other Late Payments: Estimates and Estimation Methods

Total Enforced and Other Late Payments

	TY2001	TY2006
Total ($billions)	**55**	**65**

Given that the gross tax gap is defined on a tax year basis, the net tax gap must be on the same basis. That is derived by subtracting from the gross tax gap an estimate of the amount of the tax gap estimated to be collected for the tax year in question through enforcement and other late payments. Interest payments and penalties collected are not included in the tax gap estimate.

Other late payments are defined as payments made by taxpayers without any IRS intervention. These include amounts for timely balance-due returns that are paid after the due date, but before IRS sends an assessment notice, amounts paid with returns that are filed late or even before an extended filing due date, amounts paid with amended returns, and certain other late payments.

For TY2006, the amount of enforced and other late payments the IRS will eventually collect is estimated to be $65b. Both types of payments are estimated using IRS administrative data. And amounts to be collected in future years are estimated using data on payment patterns from earlier years.
