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Tax Gap Projections Methodology

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Tax Gap Projections Methodology

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Contents

DATA AND METHODOLOGY	4
<i>Nonfiling Tax Gap</i>	4
<i>Underpayment Tax Gap</i>	5
<i>Underreporting Tax Gap</i>	5
<i>Enforced and Other Late Payments</i>	5
TABLE 1. TY 2020, 2021 AND 2022 TAX GAP PROJECTION DATA AND METHODOLOGY SUMMARY	6
TABLE 2. TY 2014-2016 TAX GAP ESTIMATION DATA AND METHODOLOGY SUMMARY	7
DATA AND MODELING LIMITATIONS	8
INDIVIDUAL INCOME TAX UNDERREPORTING TAX GAP DATA AND MODELING LIMITATIONS	8
<i>Sampling Error</i>	9
<i>Measurement Error</i>	9
<i>Estimation Error</i>	9
<i>Coverage Error</i>	9
PROJECTION ERROR	11
BIBLIOGRAPHY	12

Tax Gap Projections Methodology

Data and Methodology

This report documents the data and methodology for the TY 2022 and revised TY 2020 and TY 2021 tax gap projections. These figures are called projections instead of estimates to highlight the differences between the projection and estimation methodologies. The methods and data are different enough that the numbers have different interpretations. The differences vary by tax gap component and reflect the timing in which compliance data become available for use in estimation. For the largest components of the tax gap, compliance data for the projection years are not yet available. The projections for those components were developed to capture the growth in the reported tax or the reported amount of each line item, under assumptions of constant compliance. Thus, the projections reflect the level of the tax gap assuming compliance behavior has not changed from prior years. The prior TY 2014–2016 estimates for those components, however, are based on actual compliance data for the years of the estimates and are a measurement of compliance behavior.¹ The projections will be updated as additional compliance data become available and as the methodologies improve.

The primary focus of tax gap estimation is to measure compliance behavior as manifested in tax paid voluntarily and timely. To be most informative—and consistent with tax gap concepts and objectives—the methodology for measuring the tax gap should be grounded in data on actual compliance behavior for the years being estimated. For the tax gap *estimates*, with the exception of the large corporation income tax and the FICA and FUTA tax underreporting tax gap estimates, the estimation methodologies for all major tax gap components are based on compliance data for the tax years being estimated.

The extent of the differences between the tax gap *projection* methodologies and the tax gap *estimation* methodologies varies by tax gap component. Table 1 presents an overview of the data and methods used for the TY 2020, TY 2021 and TY 2022 tax gap projections. Table 2 provides a similar overview for the TY 2014–2016 tax gap estimates on which many of the projections are based.

Nonfiling Tax Gap

The individual income tax and self-employment tax nonfiling tax gap projections use a different method than the one used for the TY 2014–2016 tax gap estimation. Specifically, the projections use the “Administrative Data Method” instead of the “Census Method,” which was used for the TY 2014–2016 estimation. The “Administrative Data Method” was used for the projections because the relevant tax administrative data and Census survey data (the Current Population Survey (CPS) Annual Social and Economic Supplement) were not available to be linked anonymously at the U.S. Census Bureau for all the years needed for making comparable projections. However, the Administrative Data Method has consistently provided similar estimates to the Census Method over time.² The estate tax nonfiling tax gap projection uses the same methodology that was used for the TY 2014–2016 tax gap estimate.

¹ One exception is the large corporation underreporting tax gap for which sufficiently complete examination data are not yet available. For more detail on the TY 2014–2016 tax gap estimates and methodology, refer to: Internal Revenue Service. Tax Gap Estimates for Tax Years 2014–2016, IRS Publication 1415 (Rev. 10-2022), Washington, D.C. 2022. <https://www.irs.gov/pub/irs-pdf/p1415.pdf>

² For more information on each of these estimation methods and a discussion of key differences, refer to: Hertz, Thomas, Pat Langetieg, Mark Payne, Alan Plumley, and Margaret Jones (2022). “The Individual Income Tax and Self-Employment Tax Nonfiling Tax Gaps for Tax Years 2014–2016.” Research, Applied Analytics & Statistics Technical Paper, IRS Publication 5785, Washington, DC, October 2022. <https://www.irs.gov/pub/irs-pdf/p5785.pdf>

Underpayment Tax Gap

Since the amounts reported on timely returns and the amounts paid are observed, we are generally able to tabulate payment compliance measures from IRS systems for each tax year and each type of tax without estimation.³ However, we modify these tabulations for individual income tax and employment tax to account for employer underdeposits of withheld income tax.

Underreporting Tax Gap

For the small corporation income tax underreporting tax gap and the estate tax underreporting tax gap, the projections are developed by applying the TY 2014–2016 estimated overall compliance rates for those components to the associated reported tax for TY 2020, TY 2021 and TY 2022; this is equivalent to growing the TY 2014–2016 tax gap estimates by the growth in reported tax.⁴ Thus, the projections reflect a tax gap under the assumption that overall compliance rates for TY 2020, TY 2021 and TY 2022 are the same as those estimated for TY 2014–2016. For the individual income tax underreporting tax gap and self-employment tax underreporting tax gap, the projections are done at the line-item level and then summed under the assumption that the estimated compliance rates and average marginal tax rates at the line-item level are applicable to the associated TY 2020, TY 2021 and TY 2022 line items. The result of the assumptions is that the tax gap for a line item grows at the same rate as the growth in the absolute value of the reported amount for the line item.

The TY 2014–2016 FICA and FUTA underreporting tax gap estimates themselves are projections based on applying the compliance rates from the National Research Program (NRP) TY 2008–2010 study to reported data for TY 2014–2016. The projections assume the same compliance rates applied to TY 2020, TY 2021 and TY 2022 reported data. The projection for the large corporation income tax underreporting tax gap uses the estimated compliance rate developed for the TY 2014–2016 estimate. That rate was estimated from TY 2005–2011 compliance data for the largest corporations. This rate is applied to reported tax data for TY 2014–2016 and for TY 2020, TY 2021 and TY 2022 to develop the estimates and projections. Thus, the large corporation income tax underreporting tax gap estimate and projection use the same compliance rate assumption.

Enforced and Other Late Payments

The enforced and other late payments projections use the same approach as the TY 2014–2016 tax gap estimates, but the projections have fewer years of actual payments than the estimates and so they include more years that are forecasts of eventual payments.⁵ The historical payment tabulations were available only through Fiscal Year 2020 at the time of this report. The projection methodology for the revised TY 2020 and TY 2021 projections and the new TY 2022 projections were updated to account for the historical relationship between late payments and underpayments on timely filed returns. When underpayments increase, late payments within the first three years post-filing typically increase as well.

³ For more on the underpayment tax gap methodology, refer to: Plumley, Alan and Eric Spitzer (2022). “The Underpayment Gap for Tax Years 2014–2016.” Research, Applied Analytics & Statistics Technical Paper, Internal Revenue Service, IRS Publication 5783, Washington, DC, revised October 2022. <https://www.irs.gov/pub/irs-pdf/p5783.pdf>

⁴ For more on the TY 2014–2016 underreporting tax gap *estimation* methodology on which the projections are based, refer to: Internal Revenue Service (2022). “Estimation of the Underreporting Tax Gap for Tax Years 2014–2016: Methodology.” IRS Publication 5784, Washington, DC, revised October 2022. <https://www.irs.gov/pub/irs-pdf/p5784.pdf>

⁵ For more information on the general approach for estimating enforced and other late payments, refer to: Plumley, Alan (2022). “The Net Tax Gap for Tax Years 2014–2016.” Internal Revenue Service Research, Applied Analytics & Statistics Technical Paper, IRS Publication 5786, Washington, DC, revised October 2022. <https://www.irs.gov/pub/irs-pdf/p5786.pdf>

Table 1. TY 2020, 2021 and 2022 Tax Gap Projection Data and Methodology Summary

Tax Gap Component		TY 2020, 2021 and 2022 Tax Gap Projection Approach	
Nonfiling Tax Gap	Individual Income Tax & Self-employment Tax	Data	<ul style="list-style-type: none"> IRS administrative data for TY 2020, 2021 and 2022
		Method	<ul style="list-style-type: none"> Administrative Data Method: Use IRS administrative data (information documents) for income and impute demographics (based on aggregate Census data) for those who did not file on time Subtract tax that was timely paid when calculating the tax gap
	Estate Tax	Data	<ul style="list-style-type: none"> IRS administrative data for TY 2020, 2021 and 2022
		Method	<ul style="list-style-type: none"> Late Filers Reported tax liability on late filed returns minus tax that was timely paid
Underreporting Tax Gap	Individual Income Tax & Self-employment Tax	Data	<ul style="list-style-type: none"> TY 2020, 2021 and 2022 IRTF data
		Method	<ul style="list-style-type: none"> Assumes line-item compliance rates and average marginal tax rates are constant Assumes that the TY 2014–2016 tax gap for a line item grew at the rate of growth in the absolute value of the reported amount for the line item.
	Corporation Income Tax	Data	<ul style="list-style-type: none"> BRTF data for TY 2020, 2021 and 2022
		Method	<p>Small (assets < \$10 million):</p> <ul style="list-style-type: none"> Assumes VRR from small corporation TY 2014–2016 estimate, which is an estimate from 2009–2016 compliance data, applies to TY 2020, 2021 and 2022. This is equivalent to assuming the TY 2014–2016 tax gap grew at the rate as the growth in the rate of reported tax.
			<p>Large (assets ≥ \$10 million):</p> <ul style="list-style-type: none"> Assumes VRR from large corporation TY 2014–2016 estimate, which is an estimate from 2005–2011 compliance data, applies to TY 2020, 2021 and 2022. This is equivalent to assuming the TY 2014–2016 tax gap grew at the rate of growth in reported tax.
		FICA & FUTA Tax	Data
Method	<ul style="list-style-type: none"> VRR estimated from NRP data for TY 2008–2010 applied to TY 2020, 2021 and 2022 reported tax liability. This is equivalent to assuming the tax gap grew at the rate of growth in reported tax. 		
Estate Tax	Data	<ul style="list-style-type: none"> TY 2020, 2021 and 2022 BRTF data 	
	Method	<ul style="list-style-type: none"> Assumes VRR from estate tax TY 2014–2016 estimate applies to TY 2020, 2021 and 2022. This is equivalent to assuming the TY 2014–2016 tax gap grew at the rate of growth in reported tax. 	
Underpayment Tax Gap	All	Data	<ul style="list-style-type: none"> TY 2020–2022 IRS administrative data
		Method	<ul style="list-style-type: none"> Actual amounts calculated from IRS tax modules
Enforced & Other Late Payments	All	Data	<ul style="list-style-type: none"> FY 1995–2020 IRS administrative data: IRS Master File tabulations including all late payments by type of tax, tax year of liability, and fiscal year of payment.
		Method	<ul style="list-style-type: none"> Projection of future payments for a given TY was based on the average historical flow of TY payments across successive FYs.

Notes:

BRTF—Business Returns Transaction File: IRS administrative data containing return information for originally filed business returns

NRP—National Research Program

IRTF—Individual Returns Transaction File: IRS administrative data containing return information for originally filed individual income tax returns

VRR—Voluntary Reporting Rate

Table 2. TY 2014–2016 Tax Gap Estimation Data and Methodology Summary

Tax Gap Component		TY 2014–2016 Tax Gap Estimation Approach	
Nonfiling Tax Gap	Individual Income Tax & Self-employment Tax	Data	<ul style="list-style-type: none"> Census survey data linked to expanded IRS data for TY 2014–2016
		Method	<ul style="list-style-type: none"> Improved Census Method: Use IRS administrative data (information documents) for income and Census data for demographics for those who did not file on time Subtract tax that was timely paid when calculating the tax gap
	Estate Tax	Data	<ul style="list-style-type: none"> IRS administrative data for TY 2014–2016 National Center for Health Statistics (NCHS) and University of Michigan Health and Retirement Survey (HRS) data from 2014–2016.
Underreporting Tax Gap	Individual Income Tax & Self-employment Tax	Data	<ul style="list-style-type: none"> TY 2014–2016 NRP data with pooled TY 2011–2015 NRP data used to estimate DCE (Detection Controlled Estimation) TY 2016 NRP study was limited to returns that claimed certain tax credits
		Method	<ul style="list-style-type: none"> NRP individual income tax reporting compliance sample data weighted to population estimates and adjusted for non-detection measurement error through DCE Line-item DCE estimates Tax calculator (recomputes tax with DCE adjustment and determines underreporting tax gap for total and by line item)
	Corporation Income Tax	Data	<ul style="list-style-type: none"> AIMS closed case audit data & tax return data for TYs 2005–2016
		Method	<p>Small (assets < \$10 million)</p> <ul style="list-style-type: none"> Econometric model using audit & tax return data from TY 2009–2016 to calculate a VRR which is applied to TY 2014–2016 BRTF reported tax <p>Large (assets ≥: \$10 million)</p> <ul style="list-style-type: none"> Extreme value VRR from Large Corps; uses audit data from TY 2005–2011 to estimate a VRR which is applied to TY 2014–2016 BRTF reported tax
	FICA & FUTA Tax	Data	<ul style="list-style-type: none"> NRP Employment Tax Study for TY 2008–2010 and TY 2014–2016 BRTF data
		Method	<ul style="list-style-type: none"> VRR estimated from NRP for TY 2008–2010 and applied to TY 2014–2016 BRTF reported tax liability
Estate Tax	Data	<ul style="list-style-type: none"> Operational audit data for TY 2014–2016. 	
	Method	<ul style="list-style-type: none"> Econometric model used to calculate voluntary reporting rate which is applied to TY 2014–2016 BRTF reported tax 	
Underpayment Tax Gap	All	Data	<ul style="list-style-type: none"> TY 2014–2016 IRS administrative data
		Method	<ul style="list-style-type: none"> Actual amounts calculated from IRS tax modules
Enforced & Other Late Payments	All	Data	<ul style="list-style-type: none"> IRS administrative data—IRS Master File tabulations including all late payments by type of tax, tax year of liability, and fiscal year of payment
		Method	<ul style="list-style-type: none"> Estimate for a given type of tax & tax year is the sum of late payments to date plus a projection of future late payments based on payment patterns observed for earlier tax years

Notes:

AIMS—Audit Information Management System: IRS administrative data containing information on audits

BRTF—Business Returns Transaction File: IRS administrative data containing return information for originally filed business returns

NRP—National Research Program

IRTF—Individual Returns Transaction File: IRS administrative data containing return information for originally filed individual income tax returns

VRR—Voluntary Reporting Rate

Data and Modeling Limitations

Given the complexity of the tax system and available data, no single approach can be used for estimating each component of the tax gap. Each approach is subject to measurement or nonsampling error; the component estimates that are based on samples are also subject to sampling error. Due to the heterogenous nature of the estimation methodology, no standard errors are reported; however, the user should be mindful of these limitations when using these estimates. Since the underreporting projections in this report are projections assuming compliance rates have not changed from prior tax gap estimates, they are subject to the same data limitations as the tax gap estimates.

For the individual income tax underreporting tax gap, DCE is used to adjust for measurement errors that result when some existing noncompliance is not detected during an audit.⁶ The individual income tax underreporting tax gap estimates are the only estimates in which adjustments are made for this type of measurement error. All of the estimates based on audits, including cases where taxpayers did not respond to the audit, assume that the examiner recommended adjustments do not *overstate* the true amount of underreporting. The final amount of tax assessed after appeals and any potential litigation may be less than the examiner recommended amount; in particular for large corporations and higher income taxpayers. Other statistical techniques are used to control for statistical bias in estimates based on operational audit data; there would be estimation error associated with these methods.⁷

Given available data and current methods, these are the best possible projections of the tax gap components presented. However, the projections cannot fully represent noncompliance in some components of the tax system, particularly as relates to corporation income tax, income from flow-through entities, foreign or illegal activities, and digital assets. For example, the IRS does not have a reliable method for estimating the corporation income tax nonfiling tax gap, the excise tax underreporting and nonfiling tax gap and the estate tax nonfiling tax gap.⁸ Some return types are also not captured by the current estimates. For example, the individual underreporting tax gap estimates do include the tax gap associated with international returns and the corporation income tax underreporting tax gap estimates only reflect Form 1120, U.S. Corporation Income Tax Return, and Form 1120-L, U.S. Life Insurance Company Income Tax Return.

The tax gap associated with illegal activities has been outside the scope of tax gap estimation. With respect to noncompliance associated with digital assets and other emerging issues, it takes time to develop the expertise to uncover associated noncompliance and for examinations to be completed that can be used to measure the extent of that noncompliance. The IRS is actively working on new methods for estimating and projecting the tax gap to better reflect changes in taxpayer behavior as they emerge.

Individual Income Tax Underreporting Tax Gap Data and Modeling Limitations

The individual income tax underreporting tax gap makes up the largest component of the gross tax gap. Its estimates and projections are subject to various types of error, like all estimates. This section provides details on the sampling error, measurement error, estimation error, and coverage error associated with this tax gap component.

⁶ Detection Controlled Estimation is an econometric technique used to estimate unreported income that was not detected on the examinations used to estimate the individual income tax underreporting tax gap.

⁷ Operational audits are selected based on compliance risk; therefore, operational audits tend to reflect more noncompliance than the overall population. Statistical methods are needed to “control” for this statistical bias so that estimates based on operational data better reflect the compliance of the overall population.

⁸ The current estimates and projections for the estate tax nonfiling tax gap only reflect late filed returns; they do not include the tax gap associated with estate tax returns that are never filed.

Sampling Error

Since the individual income tax underreporting tax gap estimates are based on stratified random samples, there is sampling error. Sampling error occurs whenever the measure of interest for the sample differs from the true measure in the population. In particular, sampling error may arise from small sample sizes among the very high income (reported TPI greater than or equal to \$5 million) possibly understating the tax gap associated with those subpopulations. Irrespective of the challenges of detecting noncompliance on complex issues, if the distribution of the noncompliance is highly skewed among the very high income, then a small sample may not select any of the relatively small number of very large noncompliant returns.

Measurement Error

Measurement error with respect to the individual income tax underreporting tax gap estimates typically refers to the correctness and completeness of the examiner's determination of what should have been reported. Tax gap estimation assumes that the recommended adjustments made by the examiners are correct and appropriate, meaning that the examiner did not make adjustments that should not have been made during the examination. Tax gap estimates, however, do assume that there may be income that examiners did not detect that impacts the completeness of the examiner's determination.

In order to address the measurement error introduced by the possibility of undetected income, tax gap estimation uses the DCE methodology. The DCE methodology produces micro-level estimates that are added to the examiner recommended adjustment that then become the final data used to estimate the individual income tax underreporting tax gap. The final estimates with undetected income range from two to four times as large as estimates based solely on what the examiner determined.

The tax gap estimates may be understated with respect to flow-through income (S corporation and partnership income) and income from offshore accounts because of the difficulty in detecting sophisticated forms of noncompliance by NRP examinations. If examinations fail to provide adequate information about these forms of noncompliance, one might expect that there are other complex issues or types of noncompliance that are yet to be identified. If top examiners detect these forms of noncompliance (DCE estimates depend heavily on what top examiners can detect and how that differs from other examiners), it's possible that the current estimates reasonably account for misreported income from these sources. However, the complex nature of these issues and the resources required to examine them suggests that even the top examiners might not be able to consistently detect all noncompliance.

Estimation Error

The adjustments made to correct for measurement error may introduce estimation error, where the adjustment does not reflect the true measurement error. For example, the specific implementation of the DCE methodology used to adjust for measurement error could understate noncompliance at the top of the income distribution. If detection and noncompliance are heteroskedastic, for example, and the variance increases with income, then the DCE estimation could result in undetected income estimates that are biased downwards.

Coverage Error

The tax gap estimates might not sufficiently cover certain issues or types of noncompliance. The question as to whether specific issues or types of noncompliance are "included" in the individual income tax underreporting tax gap estimates does not always have a simple answer. The fact that a separate tax gap

estimate of a specific issue is not possible or not currently available does not necessarily mean that the tax gap related to that issue is not accounted for in the estimates. In some situations, the data are not collected at the level of detail necessary for reporting on an issue. In other situations, the issue may be rare and therefore there may not be sufficient data to provide an estimate with an acceptable level of precision. Some complex issues that are covered by the tax gap estimates may only be partially accounted for due to the earlier discussed measurement error.

Emerging issues is one area where there might be coverage error with respect to projections of the tax gap. For example, digital assets experienced significant growth, in terms of both the market capitalization and transaction volume. Until third-party information reporting on digital asset transactions is fully available, it is challenging to assess the amount of taxable income that is derived by a taxpayer from transactions of digital assets.

Illegally sourced income is generally outside the scope of the tax gap estimates, primarily because the overall goal of the government is to stop the illegal activity, not to tax it. However, some portion of the tax gap likely includes misreporting associated with illegal activities because taxpayers who engage in illegal activities potentially commingle their illegal activities with their legal activities.⁹ Although income generated by illegal activities is generally outside the scope of the tax gap estimates, it is plausible that some illegal activity is reflected in the tax gap estimates.

The TY 2020 and TY 2021 projections do not reflect noncompliance associated with certain temporary refundable tax credits that were introduced to provide income support in response to the COVID-19 pandemic. The IRS does not have compliance data on which to base any projections related to these refundable tax credits. Refundable tax credits not covered by these projections include the Recovery Rebate Credit (RRC) for TY 2020 and TY 2021, Qualified Sick and Family Leave Credits for TY 2020 and TY 2021 and the TY 2021 Refundable Child Care Credit. Advance payments of the Child Tax Credit for TY 2021 and Economic Impact Payments (EIP) that are advance payments of the RRC for TY 2020 and TY 2021 are also not included in these projections.

⁹ An individual or business could be engaged in illegal activities and use the legal aspects of the business to launder a portion of illegally sourced income.

Projection Error

There are several sources of potential error with respect to the projections and estimates that are themselves projections. If the compliance rate for the projection year is different than the estimated historical compliance rate on which the underreporting tax gap projections are based, then underreporting tax gap projections will differ from the final estimates based on contemporaneous compliance data for the projected tax year.

For the individual income tax underreporting tax gap, the projections are at the line-item level. The tax gap associated with each line item is assumed to grow at the same rate as the growth in the absolute value of the amounts reported for that line item. For line items that could be positive or negative, the sum of the absolute values of the reported amounts may differ substantially from the sum of the net amounts reported for those lines. If the tax gap for each line item grew at the same rate as the growth in the net amounts, then the individual income tax underreporting tax gap projections would be \$3 billion higher for TY 2020, \$20 billion lower for TY 2021 and \$39 billion lower in TY 2022.

For Tax Year 2022, there is additional projection error related to the projected tax base. Not all TY 2022 tax returns, including timely filed returns, have been filed and processed at the time these estimates were produced. These current projections do not adjust the underreporting tax gap estimates for returns that had not yet been filed. Historically for the individual income tax and self-employment tax, over 99.8 percent of tax reported on timely filed returns would have been filed and processed when these projections were developed.¹⁰ However, the historical pattern of return filing and processing was affected by the COVID-19 pandemic. For the TY 2012 to 2016 time period, about 94 percent of tax reported on small corporation income tax returns would have been processed and about 88 percent of tax reported on large corporation income tax returns. Those shares have fluctuated in recent years.

¹⁰ Processed tax return data is typically available through the 17th to the 24th processing cycles of the second processing year when tax gap projections are developed.

Bibliography

- Hertz, Thomas, Pat Langetieg, Mark Payne, Alan Plumley, and Margaret Jones (2022). “The Individual Income Tax and Self-Employment Tax Nonfiling Tax Gaps for Tax Years 2014–2016.” *Research, Applied Analytics & Statistics Technical Paper, IRS Publication 5785, Washington, DC, October 2022.*
- Internal Revenue Service (2022). “Estimation of the Underreporting Tax Gap for Tax Years 2014–2016: Methodology.” *IRS Publication 5784, Washington, DC, revised October 2016.*
- Internal Revenue Service (2024). “Tax Gap Projections for Tax Years 2022.” *IRS Publication 5869, Washington, DC, October 2024.*
- Plumley, Alan (2022). “The Net Tax Gap for Tax Years 2014–2016.” Internal Revenue Service Research, Applied Analytics & Statistics Technical Paper, IRS Publication 5786, Washington, DC, revised October 2022.
- Plumley, Alan and Eric Spitzer (2022). “The Underpayment Gap for Tax Years 2014–2016.” *Research, Applied Analytics & Statistics Technical Paper, Internal Revenue Service, IRS Publication 5783, Washington, DC, revised October 2022.*