Federal Personal Income Tax Liabilities and Payments, 1992–95

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THIS ARTICLE presents revised estimates of Federal personal income tax liabilities on a national income and product accounts (NIPA) basis for 1993–94 and new estimates for 1995 (table 1).[1] The NIPA estimates incorporate the results of the annual revision released in July 1997 and newly available tax return data from the Internal Revenue Service.[2] Revised estimates of Federal personal income taxes on a payments basis for 1993–96 were also released as part of the annual NIPA revision.[3]

1. For the estimates before 1993, see "Federal Personal Income Tax Liabilities and Payments, 1959–94," SURVEY OF CURRENT BUSINESS 76 (August 1996): 127–132.

2. See Internal Revenue Service, *Statistics of Income Bulletin* (Fall 1997).

3. For a discussion of the annual revisions to personal income for 1993–96, see Robert P. Parker and Eugene P. Seskin, "Annual Revision of the National Income and Product Accounts," SURVEY 77 (August 1997): 22–23.

Table 1.—Federal Personal Income Tax Liabilities and Payments, 1992–95

[Billions of dollars; quarterly data are seasonally adjusted at annual rates]

	Federal personal income taxes			Disposable personal income (DPI)	
	Liabilities basis[1]	Payments basis[2]	Difference	Alternative DPI with NIPA Federal personal income taxes on a liabilities basis	Published DPI with NIPA Federal personal income taxes on a payments basis[3]
1992	484.5	478.1	6.4	4,620.3	4,626.7
1993	509.5	508.1	1.4	4,827.9	4,829.2
1994	540.4	545.3	–4.9	5,057.6	5,052.7
1995	594.2	588.7	5.5	5,350.1	5,355.7
1992:I	467.5	468.4	–.9	4,528.4	4,527.5
II	478.1	469.7	8.4	4,589.3	4,597.7
III	484.0	477.8	6.2	4,620.9	4,627.1
IV	508.5	496.6	11.9	4,742.5	4,754.5
1993:I	483.1	487.2	–4.1	4,711.1	4,707.0
II	507.4	505.0	2.4	4,816.1	4,818.5
III	513.1	512.8	.3	4,848.4	4,848.7
IV	534.3	527.5	6.8	4,935.9	4,942.8
1994:I	513.2	524.8	–11.6	4,915.0	4,903.4
II	537.9	556.3	–18.4	5,034.5	5,016.1
III	547.2	545.3	1.9	5,096.2	5,098.2
IV	563.2	554.8	8.4	5,184.7	5,193.1
1995 I	576.9	565.2	11.7	5,274.8	5,286.6
II	587.3	592.0	–4.7	5,324.3	5,319.6
III	599.7	590.0	9.7	5,370.5	5,380.2
IV	613.0	607.7	5.3	5,431.0	5,436.2

1. This series is derived by the Bureau of Economic Analysis based on data from *Statistics of Income: Individual Income Tax Returns*.
2. This series appears in table 3.2 of the "Selected NIPA Tables" in the SURVEY OF CURRENT BUSINESS.
3. This series appears in table 2.1 of the "Selected NIPA Tables" in the Survey.
NIPA National income and product account

The first section of the article discusses the use of the tax liabilities estimates and the sources of the differences between liabilities and payments. The second section presents estimates of tax liabilities for 1992–95 and discusses the sources of the differences for these years. The third section discusses the sources of the revisions to the estimates for 1993–94. The appendix describes the methods used to prepare the series for Federal personal income tax payments and liabilities.

Payments and liabilities

In the NIPA's, Federal personal income tax payments are recorded on a payments basis. As shown below, these payments have three components: Withheld income taxes; declarations and settlements, or "nonwithheld" taxes; and refunds.[4]

Federal Personal Income Tax Payments

[Billions of dollars]

	1992	1993	1994	1995
Federal personal income taxes	478.1	508.1	545.3	588.7
Withheld	409.4	434.8	466.4	501.6
Declarations and settlements	149.3	149.4	157.2	174.6
Less: Refunds	80.6	76.1	78.3	87.5

Withhelx income taxes are those withheld at the source of the income, mainly on wage and salary income. Declarations are estimated tax payments, mostly on income that is not subject to withholding, such as capital gains and self-employment income. Settlements are additional taxes that are paid when tax returns are filed or as the result of audits. Refunds of excess payments, including excess social security taxes, are recorded as negatives in the payments series when the refunds are made.

For certain purposes, payments data may not be the most appropriate basis of measurement. For example, households may base their consumption decisions, especially about major purchases, on their disposable income calculated net

4. The estimates of these components are published annually in NIPA table 3.4, most recently in the August 1997 SURVEY. Quarterly estimates of Federal personal income taxes are published monthly in NIPA table 3.2 in the section "BEA Current and Historical Data."

of tax liabilities rather than net of tax payments. As a result, liabilities may be the more appropriate basis for analyzing the impact of taxes on consumption and for analyzing fiscal policy.[5]

The following paragraphs identify the sources of differences between liabilities and payments both for income that is subject to withholding and for income that is not subject to withholding.

Income subject to withholding.—For wages and salaries that are subject to withholding, differences between liabilities and payments arise for several reasons. The most important of these reasons is that the withholding tables that are issued by the Internal Revenue Service and that are used by employers to calculate the amounts to be withheld on wages and salaries are based on two simplifying assumptions.

The first assumption is that taxpayers use the standard deduction in calculating their income tax liabilities. However, for taxpayers who itemize deductions, overwithholding will occur if they underestimate the number of additional withholding allowances that are necessary to offset the excess of their estimated itemized deductions over the standard deduction.[6]

The second assumption is that wages are constant throughout the year. Overwithholding may result when wages vary widely within the year and are therefore subject to varying withholding rates.

There are several other reasons for the differences between liabilities and payments. Overwithholding can occur because of the use of withholding for forced savings and the failure to estimate growth in itemized deductions.

Overwithholding may also occur because, for certain payments, withholding is based on flat rates rather than on the withholding-table rates. At the option of the employer, withholding may be based on a flat 28 percent for supplemental wages (such as bonuses, commissions, and overtime pay) and on a flat 20 percent for taxable fringe benefits. For interest, dividends, and certain other types of income, 31 percent is withheld if the recipient fails to furnish an accurate taxpayer identification number (this withholding was initiated in 1984 as a compliance measure). For certain gambling winnings of more than $5,000, withholding must be at a flat 28 percent. These treatments will cause overwithholding when the income is actually taxed at a lower rate.

Payments and liabilities may differ because withholding tables may not always be updated to coincide with changes in liabilities: Tax law provisions are usually effective on January 1, but the tables are sometimes updated later. The tables are usually updated to reflect changes in the standard deduction, exemptions, and tax rates, but they are not usually updated to reflect changes in the provisions affecting itemized deductions or adjustments to gross income.

Differences may also arise because, for pensions and annuities and for sick pay from other than an employer, withholding is at the taxpayer's option.

For all these reasons, there has been persistent overwithholding of taxes on income subject to withholding despite an attempt to reduce overwitholding through the redesign of the withholding tables in 1992. Much of this overwithholding on withheld income may not, on net, represent overwithholding on total income (that is, total payments in excess of total liabilities). Individuals may choose to withhold more than would be required on the basis of their wage and salary income and other withheld income in order to offset expected taxes on capital gains and other nonwithheld income; as a result, payments and liabilities on total income will be roughly equal at the end of the quarter or the tax year. This type of overwithholding may help explain the tendency for withheld income taxes to rise in relation to wage and salary income during periods of rapid appreciation in the stock market.

Income not subject to withholding.—For income that is not subject to withholding (such as self-employment income, capital gains, taxable social security benefits, and most interest, dividends, and pensions and annuities), differences arise for two reasons. First, the proportion of the current year's liabilities that must be paid in estimated taxes to avoid a penalty is less than 100 percent. Second, settlements and the last installment of quarterly estimated taxes are due in the year after the liabilities were incurred. Refunds also are made in the year after the liabilities were incurred. Quarterly estimated taxes, settlements, and refunds are recorded in the payments series in the calendar months in which they are received or paid by the Treasury Department. As a result, payments of nonwithheld taxes during a year may not reflect that year's income.

5. The BEA series for Federal personal income tax liabilities is derived primarily from the estimates of "total income tax" from the Internal Revenue Service's, *Statistics of Income: Individual Income Tax Returns (SOI)*. The SOI's total income tax is the sum of income tax after credits and the alternative minimum tax and is on a liabilities basis.

6. Employees must fill out "Employee's Withholding Allowance Certificate" (Form W-4) so that their employers can withhold the correct amount of Federal income tax from their pay. The number of withholding allowances may be based on estimated itemized deductions or adjustments to gross income, in addition to the number of personal and dependency exemptions and filing status.

As a result of these factors, nonwitheld tax payments (declarations and settlements) tend to be less than liabilities. However, as noted earlier, overwitholding on wage and salary income tends to offset much of this shortfall, and the net difference between total payments and total liabilities is smaller than the difference that would be expected by an examination of only withheld income taxes or nonwitheld income taxes.

In addition to the timing differences between payments and liabilities in withheld and nonwithheld income taxes, there are measurement errors that cannot be isolated from the timing-basis differences just discussed. These errors include sampling and nonsampling errors with the *Statistics of Income (SOI)* sample, reporting and processing errors with the financial statements for the Federal Government and with employment tax return tabulations from the Social Security Administration, and estimating errors with the NIPA payments series and with the liabilities series.

Tax liabilities for 1992–95

Liabilities exceeded payments in 1992, 1993, and 1995, and payments exceeded liabilities in 1994.[7] The excess of liabilities for 1992 was partly due to the introduction of "new" withholding tables that reduced the extent of overwithholding. The new tables, which became effective for wages paid after February 1992, did not affect 1992 tax liabilities, but they reduced 1992 tax payments.

Both the excess of liabilities for 1993 and the excess of payments for 1994 were partly due to provisions of the Omnibus Budget Reconciliation Acx of 1993; retroactive to January 1, 1993, these provisions increased the marginal tax rates for high-income individuals, but they did not update the withholding tables to reflect the changes in liabilities. These individuals were given the option to pay their additional 1993 income taxes in three equal annual installments in 1994, 1995, and 1996. The SOI data show that about $4 billion of the 1993 income taxes was deferred to each year.

For 1995, tax liabilities exceeded tax payments by $5.5 billion. The excess reflected a large increase in nonwage income. Because most of this income is not subject to withholding, much of the increase in income tax liabilities on this income was paid when tax returns were filed in 1996. The SOI data show that nonwage income increased 11.9 percent in 1995, compared with a 5.8-percent increase in wage income; taxable interest increased 22.7 percent, and capital gains increased 16.4 percent. (In 1994, nonwage income increased 4.7 percent, and wage income increased 6 percent; in 1993, nonwage income increased 3.1 percent, and wage income increased 1 percent.)

Sources of revisions for 1993–94

The revisions to the annual liabilities and payments series for 1993–94 reflect the incorporation of revised estimates from the annual revision of the NIPA's. The revision to the annual tax liabilities for 1994 also reflects the incorporation of revised SOI data. The revisions to the annual liabilities and the annual payments are largely offsetting, so the revisions to the difference between the two series are small (table 2). The revisions to the quarterly liabilities reflect the pattern of the revisions to the quarterly NIPA estimates of personal income.

7. The differences for prior years are explained in various SURVEY articles. For example, see "Federal Income Tax Liabilities and Payments, 1986–91," SURVEY 72 (August 1992): 34–35; and "Federal Personal Income Tax Liabilities and Payments, 1990–92," SURVEY 73 (November 1993): 67.

Table 2.—Revisions to Federal Personal Income Tax Liabilities and Payments, 1993–94

[Billions of dollars; quarterly data are seasonally adjusted at annual rates]

	Liabilities basis			Payments basis			Difference		
	Previously published	Revised	Revision	Previously published	Revised	Revision	Previously published	Revised	Revision
1993	510.4	509.5	–0.9	509.2	508.1	–1.1	1.2	1.4	0.2
1994	539.2	540.4	1.2	544.5	545.3	.8	–5.3	–4.9	.4
1993:I	486.3	483.1	–3.2	487.8	487.2	–.6	–1.5	–4.1	–2.6
II	506.6	507.4	.8	506.7	505.0	–1.7	–.1	2.4	2.5
III	514.2	513.1	–1.1	514.7	512.8	–1.9	–.5	.3	.8
IV	534.3	534.3	0	527.6	527.5	–.1	6.7	6.8	.1
1994:I	508.6	513.2	4.6	522.6	524.8	2.2	–14.0	–11.6	2.4
II	539.3	537.9	–1.4	553.0	556.3	3.3	–13.7	–18.4	–4.7
III	546.9	547.2	.3	544.0	545.3	1.3	2.9	1.9	–1.0
IV	562.1	563.2	1.1	558.4	554.8	–3.6	3.7	8.4	4.7

Appendix: Estimating Methods

The appendix describes the methods used to derive the Federal personal income tax payments and liabilities series.

Tax payments

The series for Federal personal income tax payments is presented in NIPA tables 3.2 and 3.4. As mentioned earlier, Federal personal income taxes consists of three components: Withheld taxes, declarations and settlements, and refunds.

The NIPA series is derived primarily from financial statements for the Federal Government and from tabulations of employment tax returns from the Social Security Administration.[8] The three components of the payments series are estimated separately.

The NIPA estimates of withheld income taxes are based on data on withheld taxes from the *Monthly Treasury Statement of Receipts and Outlays of the United States Government (MTS)* and from other Treasury Department sources. The Treasury Department's data are on a collections (when-received) basis and are the combination of withheld individual income taxes and withheld social security taxes (including employer taxes). BEA makes quarterly adjustments to account for the lag between the date that the taxes are paid by individuals (payday) and the date that the payment is received by the Treasury Department from employers. The NIPA estimates of withheld income taxes are derived from the adjusted data by subtracting (1) estimates of withheld social security taxes from Social Security Administration tabulations of employment tax returns filed by employers, (2) estimates of interest charges on late taxes from the Internal Revenue Service (IRS), and (3) estimates from BEA's balance of payments accounts of withheld taxes paid by taxpayers who are considered nonresidents of the United States.

The NIPA estimates of nonwithheld income taxes are based on *MTS* data on the collections of "other" individual income taxes, contributions to presidential election campaign funds, and social security taxes under the Self-Employment Contributions Act (SECA). (No timing adjustment is made for nonwithheld taxes, because it is assumed that they are paid when received by the Treasury.) The NIPA estimates of nonwithheld income taxes are derived from this total by subtracting (1) estimates of SECA taxes from the Social Security Administration, (2) estimates of interest charges on late taxes from the IRS, and (3) estimates from BEA's balance of payments accounts of nonwithheld taxes paid by nonresidents of the United States and by adding a small amount of "excise" taxes paid by exempt organizations.

The NIPA estimates of refunds are also based on *MTS* data.

Tax liabilities

The BEA series for Federal personal income tax liabilities is derived primarily from *SOI* estimates of "total income tax," which are based on a sample of individual income tax returns before audits. The *SOI* estimates are adjusted as follows so that the coverage of the liabilities series will be comparable with that of the NIPA payments series (table 3).

8. The U.S. Department of the Treasury, Financial Management Service, *Monthly Treasury Statement of Receipts and Outlays of the United States Government* and unpublished detail; and U.S. Department of Health and Human Services, Social Security Administration, *Social Security Bulletin: Annual Statistical Supplement*.

Table 3.—Coverage Adjustments in the Derivation of BEA Federal Personal Income Tax Liabilities, 1992–95

[Billions of dollars]

		Plus:						Less:				
	SOI total income tax [1]	Recapture tax [2]	Penalties related to retirement plans and other taxes [3]	Estimated tax penalty [4]	Exempt organizations excise tax [5]	Fiduciary income tax	Additional assessments net of refunds	EIC used to offset nonincome taxes	Excess social security taxes withheld	Taxes paid by nonresident U.S. citizens abroad	Rebate	Equals: BEA Federal personal income tax liabilities
1992	476.2	0	1.5	0.6	0.3	6.1	2.6	1.0	0.8	1.0	....	484.5
1993	502.8	0	1.4	.6	.3	6.0	1.8	1.2	.9	1.4	....	509.5
1994	534.9	0	1.5	.7	.2	6.2	1.2	1.7	.9	1.7	....	540.4
1995	588.4	0	1.9	.9	.3	5.2	2.4	2.0	1.1	1.8	....	594.2

1. *SOI* estimates of total income tax are the sum of income tax after credits and the alternative minimum tax (or the additional tax for tax preferences).
2. Recapture taxes from recomputing prior year investment, work inventive, and other recapture credits.
3. Includes penalty tax on early or excess distributions from individual retirement accounts, from qualified employer plans, from qualified annuity plans, and from tax-sheltered annuity plans. Also includes uncollected social security taxes on tips and on group-term life insurance, penalty tax on excess golden parachute payments, and Sec 72(m)(5) penalty taxes on excess distributions from qualified pensions or annuity plans of the self-employed.
4. Predetermined penalty for underpaying estimated taxes, calculated by the taxpayer when the return was initially filed.
5. Includes a 2-percent excise tax on the net investment income of private foundations and other penalty taxes of private foundations.

BEA Bureau of Economic Analysis
EIC Earned income credit
SOI *Statistics of Income*

First, recapture taxes, penalties and other taxes (related to retirement plans, to the underpayment of estimated taxes, to uncollected employee social security taxes on tips and on group-term life insurance, and to excess "golden parachute payments"), and exempt organizations excise taxes are added to the *SOI* estimates; excess social security taxes and the earned income credit (EIC) that is used to offset nonincome taxes are then subtracted.[9] Second, fiduciary income taxes are added, because personal income includes fiduciary income.[10]

Third, additional assessments from audits, net of refunds on amended returns (Form 1040X), are added because they are excluded from the *SOI* estimates. Fourth, income taxes paid by U.S. citizens living abroad for more than a year are subtracted, because these citizens are considered nonresidents of the United States. The *SOI* estimates include these taxes, because these citizens are generally taxed on their worldwide income regardless of the geographic sources of their income and regardless of how long they have been living abroad.

The quarterly estimates of personal income tax liability are derived by interpolation of the annual estimates; quarterly estimates of selected components of NIPA personal income are used as indicators. The quarterly estimates of withheld personal income tax payments are interpolated using quarterly NIPA wage and salary disbursements as an indicator. The combined quarterly estimates of declarations and settlements less refunds are interpolated without an indicator, but allowances are made for changes in tax laws.

9. The EIC is available to low-income workers whose earned income and adjusted gross income are both less than certain threshold levels ($9,230 with no children, $24,396 with one qualifying child, and $26,673 with more than one qualifying child for 1995); the EIC is intended primarily to offset the social security taxes on these workers. The EIC is first used to reduce income taxes, and then, if it is large enough, it is used to reduce nonincome taxes. Any EIC in excess of total tax liability is refundable. The refundable portion is included in the transfer payments component of personal income rather than as a negative income tax in the payments series.

10. In the NIPA's, persons consist of individuals, nonprofit institutions that primarily serve individuals, private noninsured welfare funds, and private trust funds.