



**The Feasibility of Producing Personal Income to Adjusted Gross Income (PI-AGI)
Reconciliations by State**

Robert L. Brown, Ann E. Dunbar, and Adrienne T. Pilot

WP2006-05
January 12, 2006

*The views in this paper are solely those of the authors and not necessarily those of the U.S.
Bureau of Economic Analysis or the U.S. Department of Commerce*

**The Feasibility of Producing Personal Income to Adjusted Gross Income (PI-AGI)
Reconciliations by State**

Robert L. Brown, Ann E. Dunbar, and Adrienne T. Pilot
January 12, 2006

Abstract:

This paper studied the feasibility of reconciling BEA state personal income (SPI) and IRS adjusted gross income (AGI) at the state level. After reviewing data sources from BEA, IRS, and other agencies, it was concluded that it is feasible to prepare accurate reconciliations of state level wages and salaries. Further work is needed to determine the feasibility and value of reconciling BEA SPI and IRS AGI for other components of personal income—such as proprietors' income, personal current transfer receipts, and dividends, interest, and rent. A limitation in reconciling these other income components is that BEA relies heavily upon IRS data to make its estimates. Thus, only limited insights might be obtained from the reconciliation.

Introduction

The purpose of this study was to assess the feasibility of developing a reconciliation of BEA state personal income (SPI) and IRS adjusted gross income (AGI).^{*} The study used the framework of the 2000 national levels as published in Table 2, “Comparison of Personal Income With Adjusted Gross Income (AGI) by Type of Income, for 2000,” that appeared in the April 2004 *Survey of Current Business*.¹ The table is shown in Appendix A. For those cells in Table 2 that were not already estimated as part of producing state personal income, the feasibility study examined the quality of available data sources that would be needed to allocate to the states the national level AGI-PI reconciling items by type of income. The quality of available data were examined for each non-zero cell in Table 2, except the misreporting adjustment on line 31 and those items already estimated as part of the production of state personal income.

Results are organized by Table 2 income column categories: wage and salary disbursements, farm proprietors’ income, nonfarm proprietors’ income, rental income of persons, personal dividend income, personal interest income, taxable pensions and annuities, unemployment compensation, taxable Social Security, other personal income, and income not included in personal income. Within each income category, sources of data for each non-zero cell are discussed. For non-zero cells that cannot be filled from the published state personal income estimates (and the unpublished underlying detail), a description of the non-zero cell is followed by one or more potential data sets that could be used to allocate the national level reconciling item to the states. The quality of those data sets is evaluated and a recommendation is made as to which data set is best suited for allocating the reconciling item. To the extent that it is necessary to reconcile below the published level, those findings are provided as well.

The study provides SPI-derived estimates of AGI wage and salary disbursements. The estimates and a detailed description of sources and methods are provided in the Wages and Salaries section below.

^{*} This study was a collaborative effort between the staffs of the Regional Economic Measurement Division and the Government Division. The authors wish to thank Brooks Robinson, Mark Ledbetter, Steven Payson, Robert Kornfeld, and David Lenze for their efforts and input into this study.

¹ Mark A. Ledbetter, “Comparison of BEA Estimates of Personal Income and IRS Estimates of Adjusted Gross Income,” *Survey of Current Business* Volume 84 (April 2004): 8-24.

The study does not provide state estimates for the nonwage income pieces, but discusses the feasibility of producing such estimates. Discussion of each nonwage income category begins with the state personal income definition. (BEA state personal income sources and methods are provided in the SPI State Personal Income 1929-2004 CD which accompanies this report.) A description of each non-zero cell reconciliation item within the category follows, using the titles and sequence in Table 2: the portion of personal income not included in AGI that must be removed; the portion of AGI not in personal income that must be added; items to be reallocated by type of National Income and Product Accounts (NIPA) income; and items to be reallocated by type of IRS income. National levels cited are published calendar year 2000 data. Potential state-level data sources for each reconciliation item are described.

Each income category is introduced with a reconciliation table for 2000 limited to that specific type of income. National data are as published in BEA's national PI-AGI reconciliation and sum-of-states data are based on a combination of published and unpublished BEA and IRS sources. Sum-of-states totals may vary from national totals.

BEA personal income at the national and sum-of-states levels vary because of differences in the treatment of the income of U.S. residents who are working abroad and the income of foreign residents who are working in the United States. State estimates consist of the income earned by persons who live in the United States and of foreign residents who work in the United States. The national measure is broader. It includes the earnings of Federal civilian and military personnel stationed abroad and of U.S. residents on foreign assignment for less than a year. Earnings of foreign residents are included in the national total only if they live and work in the United States for a year or more. In 2000, state personal income is \$7.6 billion lower than personal income in the NIPAs.

IRS AGI national and sum-of-states levels differ because of geographic scope. In addition to income reported by individuals from the 50 states and District of Columbia, the IRS national AGI includes data from Puerto Rico, Army Post Office and Fleet Post Office (APO/FPO) addresses, and U.S. citizens abroad. In 2000, the sum-of-states AGI total is \$29.9 billion lower than the national AGI total. Both national and sum-of-state totals are based on IRS SOI sample data.

National and sum-of-states levels may also vary for other income items needed to reconcile PI to the AGI concept. Sources used for the national reconciliation may not have corresponding state level data for certain income items. For example, IRS SOI sample data are not available at the state level for all income categories published at the national level. Even when state-level SOI sample data are available, they may not be the best source available. In size and design, the SOI sample is intended to provide a national estimate; the sample size is inadequate for reliable state-level estimates, especially for smaller states.

IRS state sources used in this study are:

- *Individual Master File (IMF) data*—tabulations from the universe of individual returns published in *Statistics of Income*. The data are not edited for accuracy or statistical purposes. Data for Tax Year 2000 are based on all returns filed and processed during Calendar Year 2001; a small portion of these returns are for years other than 2000. Because these data are published and based on comprehensive aggregations, this source was the preferred choice for state-level estimates.
- *SOI sample data*—based on a stratified sample from the IMF, this is the source of national AGI data. BEA receives a file of unpublished state-level SOI sample data. Because the SOI sample is designed to prepare national estimates, these data are less reliable for states, especially smaller ones. In addition, the state level sample presents less detail than the national published sample.
- *SOI Information Returns Master File (IRMF) “expanded” sample data*—based on a sample from the IRMF which includes data from nonfilers as well as filers. BEA contracted and paid IRS for this file.

Wage and Salary Disbursements

BEA researched and determined that it was feasible to prepare a state-level wage reconciliation between BEA and IRS. State-level reconciliations for 2000 were prepared and are included in this report. This section describes the definitional differences, the estimating procedures, and the sources of the estimates. In addition, an analysis of the results and a description of some issues are included.

Table 1: Wage and Salary Disbursements
(billions of dollars)

	National	Sum of States
Wage and Salary Disbursements, BEA	4,829.2	*4,824.8
Less: items in personal income, not in AGI	124.9	121.5
Imputed income in personal income	11.5	11.5
Other personal income not in AGI	113.4	110.0
Employee nontaxable contributions to retirement plans	97.4	97.4
Tax exempt military pay (overseas adjustment -3.4)	16.0	12.6
Tax exempt mass transit benefit	**0.0	**0.0
Plus: items in AGI, not in personal income	23.8	1.8
Other types of income	23.8	1.8
Supplemental unemployment	1.8	1.8
AGI from abroad	22.0	n.a.
Plus: Reallocation by type of NIPA income	8.8	8.8
Taxable disability income payments	8.8	8.8
Equals: BEA-derived AGI	4,736.9	4,713.9
IRS AGI	4,456.2	4,396.3
AGI Gap	280.8	317.6
Addendum: Misreporting adjustment in personal income	***99.8	***99.8

*Unpublished BEA state place-of-residence wages. This figure is lower than published BEA state place-of-work wages by \$1.2 billion to account for commuting with residents of Canada and Mexico.

** Less than \$50 million

***This BEA adjustment estimates income earned but not reported on tax returns. It is based on the 1988 Taxpayer Compliance Measurement Program audit and current activity indicators, such as the Census Bureau's value of new construction, and is only available for the nation. The misreporting adjustment is not a reconciling item and is only included in this table for comparison with the national AGI gap.

n.a. not applicable

Annually, BEA compares the components of BEA personal income and IRS adjusted gross income at the national level.² Table 1 details the primary differences among wages and salaries in NIPA personal income, state personal income, and IRS AGI. Differences between the national and sum of states levels are explained in the text.

While the definitions of wages and salaries for BEA and IRS include many items that overlap, the definitions are different. IRS wages are what the relevant tax laws dictate. For the tax year 2000, wages and salaries on line 7 of the Form 1040 consists of: taxable wages from employee's W-2 forms (box 1); allocated tip income (box 8); all or a portion of certain dependent care benefits (box 10); all or a portion of employer provided adoption benefits (box 13 code T); tip income; scholarships and fellowship grants not reported on W-2s; wages less than \$1,200 received as a household employee; and excess salary deferrals.³ Filers are instructed to reclassify disability income shown on a Form 1099R Retirement Distributions if they have not met pension age requirement. If box 15 of the W-2 is checked indicating the W-2 recipient is a statutory employee and the recipient has related expenses to deduct, the taxpayer is instructed to report the amount in box 1 on Schedule C, rather than report it as wages.⁴

BEA's NIPA wage and salary disbursements consist of: the monetary remuneration of employees, including the compensation of corporate officers; commissions, tips, and bonuses; voluntary employee contributions to certain deferred compensation plans, such as 401(k) plans; employee gains from exercising nonqualified stock options; and receipts in kind that represent income. As described in the introduction, BEA's state wages and salaries differ from NIPA wages and salaries because of the treatment of the income of U.S. residents who are working abroad and the treatment of the income of foreign residents who are working in the United States.

The BEA state estimates of wages and salaries are primarily based on place-of-work wages reported by the Quarterly Census of Employment and Wages (QCEW), which is collected

² See Mark A. Ledbetter, "Comparison of BEA Estimates of Personal Income and IRS Estimates of Adjusted Gross Income: New Estimates for 2003 Revised Estimates for 2002" *Survey of Current Business*, November 2005 30-35 for the latest update.

³ See Appendix B for a list of the items in the W-2 box 1 for 2005 from the IRS website.

⁴ Statutory employees include full-time life insurance salespeople, certain agent or commission drivers and traveling salespeople, and certain homeworkers. In the NIPAs, the wages and salaries of statutory employees remain in wages and salaries.

by the Bureau of Labor Statistics from unemployment insurance filings.⁵ BEA adjusts these estimates to a place-of-residence basis using Census 2000 journey-to-work data and annual migration flows based on IRS data. The Census journey-to-work file gives both the place of residence and the place of work as well as wage and salary income. This information can be used to adjust the QCEW wage estimates from a place of work to a place of residence. Annual migration flows from IRS county individual tax filings are used to update this adjustment between the decennial censuses.

The state estimates of wages and salaries for 2000 are \$4,824.8 billion, which is \$4.4 billion lower than the NIPA national total. Reconciling wages and salaries to IRS AGI wages begins with the removal of \$11.5 billion of **imputed income** for wages and salaries.⁶ Food furnished for employees (including military and domestic service) comprises over 92 percent of the imputation for wage items. Other imputed income items include standard clothing issued to military and employees' lodging. BEA prepares state estimates for about 42 percent of the total imputation (farm pay-in-kind, military pay-in-kind, and lodging and food for non UI-covered industries). The remaining balance was allocated to states using BEA's estimate of the number of employees by state in eating and drinking establishments and hotels and motels.

An additional \$110.0 billion is removed from SPI wages in the category of **other personal income not in AGI**. This category can be further split, for the production of state estimates, into \$97.4 billion for employee nontaxable contributions to retirement plans, \$12.6 billion for tax exempt military pay, and \$0.01 billion for mass transit benefit nontaxable wages.⁷ For nontaxable employee contributions to private pension plans, the national estimate is based primarily on information from Form 5500 Annual Return/Report of Employee Benefit Plan.⁸ State-level data do not exist from this form. BEA has received unpublished state-level estimates

⁵ Although the QCEW includes most of what would be considered wages, each individual state defines what income to report as wages for unemployment insurance (UI) purposes. For example, Alaska does not include employee contributions to 401K plans. States also differ on the inclusion of various section 125 cafeteria plans. Washington state excludes the compensation of corporate officers in its UI, but BEA is able to get estimates of corporate officer pay directly from the state.

⁶ Titles in bold refer to lines in the corresponding reconciliation table (e.g, this wage item can be found in Table 1).

⁷ The military pay estimate differs from the NIPA wage estimate because of a \$3.4 billion adjustment to remove those employees stationed overseas. The national estimate was adjusted by data from the IRS SOI state sample to account for those nontaxed military benefits received by out-of-state filers.

⁸ The national estimate in this reconciliation is an extrapolation of 1998 Form 5500 data because that was the latest year of data available.

of deferred compensation and total wages reported on the Form W-2 from the IRS Statistics of Income (SOI) expanded sample.⁹ A state ratio of deferred compensation to total wages is applied to the IRS individual master file (IMF) wages to get state estimates, which are then used to distribute the national estimate of deferred compensation.

The national estimate for exempt military pay is derived from details presented in the *Budget of the United States*. No state estimates independent of IRS data exist. State-level estimates are available on the Form W-2 from the IRS SOI expanded sample. A state ratio of Form W-2 nontaxed military benefits to W-2 total wages is applied to the IRS IMF wages to get state results that are then used to distribute the national estimate of nontaxed military benefits. Finally, BEA does not have state-level estimates of nontaxable mass transit benefits. The U.S. Department of Transportation provides national estimates of the Federal government transit subsidy. Federal civilian employment by state was used to distribute the transit benefit.

Wages in AGI but not in state personal income must be added to BEA wages. An adjustment of \$1.8 billion—titled **other types of income** in BEA's table—consists of supplemental unemployment benefits, which are taxable wages for IRS but are not reported as wages in the NIPAs. In the NIPAs, employer contributions to the supplemental unemployment benefit programs are recorded in supplements to wages; benefits paid to the unemployed are not recorded in personal income. There are no state estimates of this item available from IRS. A two-year average of state-level mass layoff data for the transportation equipment sector from the Bureau of Labor Statistics was used to distribute the national total of this item. The transportation equipment sector was used under the assumption that the supplemental unemployment benefits were largely paid to laid-off automobile industry workers.

The national reconciliation adds \$22.0 billion for the wages of U.S. citizens living abroad. These individuals are nonresidents for purposes of the national accounts, so their wages are added to personal income wages to get to the national IRS wages in the published reconciliation. However, the state-level IRS wage data from the individual master file (IMF) do

⁹ The SOI expanded sample is a sample of about 170,000 information returns. It includes filers and nonfilers. BEA contracted with SOI to process this large sample and the smaller 120,000 sample for 2000 and 2001.

not include this income because these citizens are not residing in a state. Therefore this adjustment is not needed in the state-level regional reconciliation.

Taxable disability income payments of \$8.8 billion, which are treated as wages in IRS data but are treated as pensions by BEA, must be reallocated from pensions and annuities to wages for the purposes of this reconciliation. IRS instructs taxpayers who are not eligible for retirement and who receive a Form 1099R pension statement to report this disability pension income on the wage and salary line, not the pension line. For the SPI-AGI reconciliation this means that an estimate of the disability pension must be added to the BEA wage estimate and subtracted from BEA's estimate of pension benefits. The national methodology applies this tax provision to government pensions. The national estimate of Federal government disability payments was distributed to states by pension data for Federal employees reported by the Census Bureau. The national estimate of state and local government disability payments was distributed to states by pension benefits for state and local government employees reported by the Census Bureau.¹⁰

The state-level IRS wage estimate that is compared with BEA wages is the IRS IMF data published in the IRS publication, *Statistics of Income*. The IMF file is a tabulation of all income tax returns filed by individuals in 2001 for tax year 2000. An adjustment to IRS IMF wages was made to account for tax returns not included in the IRS state data because of filing extensions that were granted to victims of the Cerro Grande fire in New Mexico. Many of those tax returns were not filed until 2002, and were therefore not included in the published data for 2000.

State-by-State Reconciliation—Analysis and Results:

A summary of the state-level results of reconciling wages in personal income and adjusted gross income is shown in Table 2 below.

¹⁰ The Census state and local government retirement benefits for individuals are reported in the state of the retirement plan, not in the state where the beneficiaries live.

**Table 2: Summary Results for Wages, State Personal Income to IRS AGI, 2000
(thousands of dollars)**

	1 BEA-Derived AGI Wages	2 IRS Wages IMF 1040	3 Wage Gap (1-2)	4 Wage Gap Percent (3/1)
UNITED STATES (Sum of States)	4,713,883,518	4,396,251,226	317,632,292	6.7
ALABAMA	57,503,613	53,669,279	3,834,334	6.7
ALASKA	9,423,402	9,664,135	-240,733	-2.6
ARIZONA	74,677,268	68,630,080	6,047,188	8.1
ARKANSAS	30,542,469	28,541,337	2,001,132	6.6
CALIFORNIA	623,756,343	584,650,277	39,106,066	6.3
COLORADO	83,962,422	77,294,282	6,668,140	7.9
CONNECTICUT	82,331,442	79,999,918	2,331,524	2.8
DELAWARE	13,799,433	13,391,081	408,352	3.0
DISTRICT OF COLUMBIA	11,927,205	10,442,737	1,484,468	12.4
FLORIDA	225,073,734	214,737,849	10,335,885	4.6
GEORGIA	136,568,254	125,107,904	11,460,350	8.4
HAWAII	18,320,015	16,772,207	1,547,808	8.4
IDAHO	16,606,989	15,864,888	742,101	4.5
ILLINOIS	229,955,582	212,467,435	17,488,147	7.6
INDIANA	95,751,748	89,538,956	6,212,792	6.5
IOWA	41,822,980	38,394,481	3,428,499	8.2
KANSAS	41,069,685	38,265,533	2,804,152	6.8
KENTUCKY	52,326,567	49,248,802	3,077,765	5.9
LOUISIANA	53,935,178	50,304,675	3,630,503	6.7
MAINE	17,339,484	16,615,049	724,435	4.2
MARYLAND	108,881,803	100,838,725	8,043,078	7.4
MASSACHUSETTS	143,027,367	133,954,971	9,072,396	6.3
MICHIGAN	171,633,645	160,752,754	10,880,891	6.3
MINNESOTA	92,966,494	85,588,428	7,378,066	7.9
MISSISSIPPI	31,715,009	29,255,631	2,459,378	7.8
MISSOURI	82,880,031	78,006,734	4,873,297	5.9
MONTANA	9,706,334	9,345,944	360,390	3.7
NEBRASKA	25,063,042	23,301,147	1,761,895	7.0
NEVADA	34,016,304	31,209,967	2,806,337	8.2
NEW HAMPSHIRE	25,088,848	24,220,709	868,139	3.5
NEW JERSEY	198,214,036	182,550,033	15,664,003	7.9
NEW MEXICO	21,375,654	19,429,534	1,946,120	9.1
NEW YORK	359,878,403	326,004,889	33,873,514	9.4
NORTH CAROLINA	123,421,426	114,196,642	9,224,784	7.5
NORTH DAKOTA	7,648,159	7,339,619	308,540	4.0
OHIO	180,583,681	170,586,162	9,997,519	5.5
OKLAHOMA	41,721,736	39,343,595	2,378,141	5.7
OREGON	52,093,614	48,133,609	3,960,005	7.6
PENNSYLVANIA	196,963,641	186,172,482	10,791,159	5.5
RHODE ISLAND	16,846,833	15,986,682	860,151	5.1
SOUTH CAROLINA	54,737,634	50,828,576	3,909,058	7.1
SOUTH DAKOTA	9,172,023	8,686,868	485,155	5.3
TENNESSEE	81,976,376	76,570,140	5,406,236	6.6
TEXAS	331,311,018	304,563,342	26,747,676	8.1
UTAH	31,906,485	29,674,562	2,231,923	7.0
VERMONT	9,011,041	8,474,211	536,830	6.0
VIRGINIA	131,946,612	125,060,643	6,885,969	5.2
WASHINGTON	109,145,249	103,669,145	5,476,104	5.0
WEST VIRGINIA	19,589,641	18,936,701	652,940	3.3
WISCONSIN	88,095,953	83,422,931	4,673,022	5.3
WYOMING	6,571,613	6,544,945	26,668	0.4

In addition, the attached EXCEL worksheet has state-level estimates of all of the adjustments needed to obtain BEA-derived AGI wages from published BEA wages. A state-by-state difference and a percent difference between BEA place-of-residence wages and IRS wages are provided for reference purposes. In addition, the gap between BEA-derived AGI wages and IRS wages is calculated, along with the percent gap relative to BEA-derived AGI wages.

The initial difference between BEA place-of-residence wages and IRS wages for states in tax year 2000 ranges from 1.6 percent of BEA wages in Alaska to 12.9 percent in Hawaii, with BEA estimates being higher in all states. The national gap is 8.9 percent.

After adjustments have been made to BEA wages, the gap between BEA and IRS narrows such that SPI-based AGI wages for Alaska are 2.6 percent lower than IRS wages and SPI-based AGI wages for New York are 9.4 percent higher than IRS wages. SPI-based AGI wages for Washington, DC are 12.4 percent higher than IRS wages, and the national gap is 6.7 percent. Alaska is the only state for which IRS wages are greater than BEA-derived AGI wages.

Wage and Salary Issues:

I. Residence

The definition of residence is a significant issue between the BEA and the IRS wage series. For example, in state personal income, wages for seasonal workers are shown where the seasonal wages were earned. IRS data reports income from the address on the 1040 income tax return, which may differ from where the income was received. States with a high amount of summer seasonal workers would tend to have a larger gap with the IRS data than would other states. IRS also reports all of the wages of a person who moves during the year in the state from which he files his 1040 return. In contrast, wages in the BEA estimates are recorded in each of the states where a job was located, with an adjustment for commuting. Hence, states with heavy in-migration (such as Nevada) should have higher IRS wages relative to BEA wages than other states. Given the great mobility of workers in the United States, the impact of assigning only one state of residence is difficult to assess.

In addition, military personnel may declare their permanent state of residence on their tax return to be something other than where they are actually located. There is an incentive for military to report their income to IRS from states with no state income tax.¹¹ Seven of the nine states that do not tax wages have wage gaps that are less than the U.S. gap of 6.7 percent. The residence adjustment process is also affected by the treatment of nonqualified deferred compensation in the QCEW. Nonqualified deferred compensation is treated as wages when it is disbursed in the QCEW, but a work flow may not be reported in the Census journey-to-work if the recipient is no longer working.¹² The residence adjustment procedure will not adequately reallocate this deferred compensation if the worker has retired and moved to a different state.

One state, Alaska, had a negative gap of 2.6 percent, which means the taxable wages in IRS are greater than BEA adjusted wages. This can be due to several factors. Because a large number of seasonal workers in Alaska also work at other times of the year in California—a state with a state income tax—those workers may report for Federal income tax purposes as residing in Alaska—a state with no state income tax—thus increasing the amount of wages reported in IRS. In addition, more military personnel may report to IRS from Alaska than are actually working in Alaska. Furthermore, in producing state personal income on a place-of-residence basis, BEA adjusts a large portion of seasonal/temporary wages out of Alaska and into other states because of the type of temporary work in the state (oil industry workers and construction workers on large projects, both of whom have specialized skills). This is the only state where BEA makes such adjustments for seasonal or temporary workers. For Alaska, where there is a large flow of seasonal workers, these adjustments can be especially difficult to accurately prepare.¹³

To further understand the issue of residence, BEA compared the IRS IMF tabulation of unemployment compensation to BEA's estimate of unemployment compensation. Like BEA

¹¹ Seven states, Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming, have no income tax. New Hampshire and Tennessee do not tax wage income.

¹² Other research of the IRS IMF zip code file by BEA has shown that the Naples, Florida metropolitan area wages reported by IRS exceed the BEA wages for the area. Typically, BEA wages exceed IRS wages. Naples has a large percentage of high income tax returns.

¹³ Alaska reports that 17.9 percent of its workers were nonresidents in 2000. The highest percent of nonresident workers was 70.3 percent in Food Mfg (Seafood processing) in 2000. *Nonresidents Working in Alaska – 2000* was prepared by the Alaska Department of Labor and Workforce Development. The Report covers private UI covered workers and state and local government workers. See <http://www.labor.state.ak.us/research/reshire/nonres00.pdf>.

wages, the BEA source data for this estimate must be adjusted to put the estimate on a residence basis. Nationally, about 86 percent of unemployment compensation is reported in AGI. IRS tabulated data exceed total state-reported unemployment compensation in certain states. For example, Alaska reports that it sent \$19.3 million or 16.9 percent of its \$114.3 million in 2000 unemployment compensation to out-of-state residents who worked in Alaska but resided elsewhere. As Table 3 below shows, tax filers with Alaska addresses reported \$183.1 million to the IRS in 2000, which is 60 percent higher than the total amount paid by the state. This may indicate that seasonal employees work in and collect unemployment compensation from Alaska and also work in and collect unemployment from other states. They are part-year residents in two or more states. For California, whose workers receive about 24 percent of the Alaska unemployment benefits sent to other states, there is an incentive to be considered a part-year resident. California has a state income tax and, as a part-year California filer, the taxpayer only has to pay taxes on California source income. The assumption is that these taxpayers file their Federal return with an Alaska address. New Hampshire, North Dakota, and South Dakota also show taxable unemployment compensation exceeding BEA's unemployment compensation by significant percentages, but the amounts for these states are quite small.

Table 3. Unemployment Compensation 2000

(Selected States, thousands of dollars)

	IRS IMF 1040	BEA	Ratio
	(1)	(2)	(1)/(2)
United States	17,738,149	20,680,000	0.858
Alaska	183,146	109,357	1.675
Washington, DC	26,427	63,018	0.419
Idaho	111,213	108,392	1.026
New Hampshire	52,798	26,988	1.956
North Dakota	44,842	33,015	1.358
South Dakota	17,755	16,273	1.091
Virginia	190,420	194,555	0.979

Washington, DC has the largest percentage gap between the BEA adjusted wages and IRS wages at 12.4 percent. In the District of Columbia, there may be a significant number of taxpayers who live and work in the city, but who file to IRS as nonresidents of the District of Columbia for Federal income tax purposes. Unlike Alaska, the state and local tax incentive is for taxpayers who actually live and work in DC to file as nonresidents of DC for Federal income tax purposes. These individuals would be included in Washington, DC in the BEA adjusted wage estimates.

In addition, the Washington, DC place-of-work wages are very large relative to the place-of-residence wages because the number of workers commuting into the city from other states exceeds the number of city residents commuting to jobs in other states. Any reconciliation of IRS and BEA wages must take account of the differences in wages by place of residence and wages by place of work. IRS wages are reported by place of residence, but BEA wages are reported by place of work and must therefore be adjusted to place of residence. The BEA residence adjustment uses sample data from the decennial census and annual migration information from a 39 week tabulation of IRS to update commuting in local areas. This adjustment is subject to revision as updated information becomes available. The District of Columbia's reported population declines over the past decade have added to the difficulty of accurately reflecting the commuting shifts over time.

II. Data Reliability

The SOI sample data, which are designed to prepare national estimates, are used to distribute the bulk of the adjustments—deferred compensation and exempt military pay. They are less reliable for the smaller states. The IRS IMF tabulated data include all the 1040 returns processed in 2001, not just the tax returns for tax year 2000. Editing of the IMF file by IRS is limited.

Impact of Tax Filing Delays on IRS Data for Disasters

BEA modified the 2000 IRS IMF tabulated data for New Mexico to account for the Cerro Grande fire.¹⁴ The IMF amount for New Mexico wages and salaries was adjusted from \$17,663,213 to \$19,429,534.¹⁵ This was a rough adjustment based in part on estimates from the state of New Mexico.¹⁶ The need for such an adjustment points out that the IRS IMF estimates can be affected by special events. Even with this adjustment, New Mexico has a wage gap of 9.1 percent.

BEA Source Data: State Differences in “Wages” for Unemployment Insurance

The primary source for BEA wages—the Quarterly Census of Employment and Wages from the Bureau of Labor Statistics—includes most wages, but states can differ on the definition of wages that must be reported. States often differ in the treatment of stock options, flexible spending plans, premium conversion plans, corporate officer compensation, coverage of S corporation wage earners who are also shareholders, and coverage of elected officials. The treatment of certain types of wages could affect the wage gap between states. For example, a potential contributing factor to Alaska’s negative wage gap may be the state’s *exclusion* of

¹⁴ On March 15, 2001, the IRS announced that victims of the Cerro Grande fire would be allowed an extra nine months to file their tax returns that would otherwise have been due between May 4, 2000, and April 16, 2001. The extension covered income, employment, estate, gift and certain excise taxes for individuals and businesses. Affected taxpayers were not subject to interest or penalties for late filing, including late payment of estimated taxes. Relief was extended to residents of 21 New Mexico counties.... Thus, under the terms of the IRS action, the due date for tax year 2000 individual income tax returns was postponed from April 16, 2001, to January 16, 2002. The State of New Mexico estimates that nine percent of taxpayers took advantage of this extension.

¹⁵ The New Mexico wage and salary numbers are in thousands of dollars.

¹⁶ *Impacts of New Mexico’s Disaster-Related Nine-Month Extension for Tax-Year 2000 Returns*, Thomas Clifford, Ph D, Chief Economist, NM Taxation and Revenue Department Presented to the Revenue Estimating Conference of the Federation of Tax Administrators, September 2002.

employee contributions to health, disability, life insurance and retirement plans (including 401(k)'s) in its definition of wages.¹⁷ Alaska employees are allowed to contribute to such plans on a pretax basis. Although BEA makes an adjustment for employee contributions to state and local government retirement plans in Alaska, it does not adjust for employee-paid health premiums or employee contributions to private retirement plans. If such additional adjustments were done, BEA wages would be higher. However, the source data for reliable adjustments for many of these additional items are not available or easily estimated.

III. Nonfilers of Income Tax Returns

AGI wages represent the wages earned by persons who file Federal income tax returns. It excludes the wages earned by persons who do not file returns. Such wages amounted to \$479.0 billion in 2000 at the national level, according to the expanded SOI sample of information returns. By definition, these wages are different from the wages earned in the underground economy, which are not reported to taxing authorities.

Adjustments for the wages of nonfilers are not included in this reconciliation of BEA and AGI wages, just as they are not included in the national reconciliation. However, in the future, the SOI sample of information returns will be evaluated for the potential of producing nonfiler adjustments to the BEA-IRS reconciliation.

¹⁷ According to the [Alaska Employment Security Tax Handbook](#), employers are instructed to report wages excluding employee contributions to health, disability, life insurance and retirement plans.

Nonfarm Proprietors' Income

**Table 4: Nonfarm Proprietors' Income
(billions of dollars)**

	National	Sum of States
Nonfarm proprietors' income, BEA	705.7	705.7
Less: in personal income, not in AGI	38.6	38.6
Imputed income in personal income	2.7	2.7
Investment income retained by fiduciaries	0.5	0.5
Differences in accounting treatment	35.4	35.4
Plus: in AGI, not in personal income	4.4	0.3
Other types of income	4.4	0.3
Plus: Reallocation by type of NIPA income	-0.9	-0.9
Fiduciaries' share of partnership income	-0.9	-0.9
Equals: BEA-derived AGI	670.6	666.5
IRS AGI	213.9	212.9
Plus: Reallocation by type of IRS income	88.4	87.8
Estate or trust income	3.7	3.7
Partnership income	84.7	84.1
Equals: IRS AGI (reallocated)	302.2	300.7
AGI Gap	368.4	365.8
Addendum: Misreporting adjustment in personal income	293.3	293.3

Nonfarm proprietors' income consists of the income that is received by nonfarm sole proprietorships and partnerships and the income that is received by tax-exempt cooperatives (agricultural, rural utilities, and rural telephone cooperatives). The national estimates of the income of nonfarm sole proprietorships and partnerships are based on tabulations of IRS tax returns: "net profit (or loss)" reported on Schedule C of Form 1040, for sole proprietorships; "ordinary income (loss) from trade or business activities" from Form 1065, for partnerships; and "net income (loss) from rental real estate activities" from Schedule K-1 of Form 1065. Because these data do not always reflect the income earned from current production and because they are incomplete, the BEA estimates include four major adjustments—the inventory valuation adjustment (IVA), the capital consumption adjustment (CCAdj), the misreporting adjustment, and the adjustment for the net margins on owner-built housing.¹⁸ Specific adjustments are made

¹⁸ The IVA removes the accounting gains and losses that result from changes in the prices of products withdrawn from inventories.

The CCAdj represents the difference between capital consumption allowances (depreciation on the historical-cost basis used in the source data) and the consumption of fixed capital (depreciation valued on a replacement-cost basis and the effects of the accidental destruction of depreciable plant and equipment).

for the accidental destruction caused by particular major natural disasters. Like the national estimates, the state estimates are based on data tabulated from Schedule C of Form 1040 and from Form 1065. The tax-filing address is assumed to be the place of residence.

The national estimate of BEA nonfarm proprietors' income for 2000 is \$705.7 billion. Reconciling nonfarm proprietors' income to IRS AGI begins with the removal of \$2.7 billion of **imputed income**, \$0.5 billion of **investment income retained by fiduciaries**, and \$35.4 billion for **differences in accounting treatment between NIPAs and tax regulations**, net. Except for state estimates of the income of tax-exempt cooperatives—a part of the accounting differences between BEA and IRS—BEA does not have state-level estimates of these adjustments. State estimates for these pieces would have to be created by allocating national controls to states by BEA's current state nonfarm proprietors' income estimates.

It is necessary to add nonfarm proprietors' income that is in AGI but that is not in SPI. An adjustment of \$4.4 billion at the national level and \$0.3 billion for the sum of states—titled “**other types of income**” in the national reconciliation—consists of AGI from abroad and special assessments. AGI from abroad refers to the income received by U.S. citizens living abroad who are nonresidents of the U.S. This income is part of national AGI data, but not part of the AGI total for the states and District of Columbia. This accounts for the difference in Table 4 in the adjustment for other types of income between the national and sum-of-states estimates. Special assessments are charges imposed by local governments on business property owners to cover the cost of public improvements – such as sewers, curbs, and sidewalks – that benefit the owners' property.¹⁹ The value of special assessments, based on IRS SOI data, is removed in the production of SPI nonfarm proprietors' income. State estimates (to be added back for the reconciliation) could be created by allocating the national value of special assessments by the state distribution of net profit less loss for proprietors in retail trade and real estate.

The misreporting adjustment adds an estimate of the net income of sole proprietors and partnerships that is not reported on tax returns. This adjustment accounted for about forty percent of nonfarm proprietors' income in 2000. The methodology for allocating to states the national level misreporting adjustments can be found on the State Personal Income CD.

¹⁹ IRS prohibits the expensing of these charges on tax returns; BEA treats them as taxes on production and includes them as business expenses.

Fiduciaries' share of partnership income of -\$0.9 billion has to be reallocated to other personal income from nonfarm proprietors' income. There are no explicit state estimates for this piece; the item is embedded in SPI nonfarm proprietors' income. The national estimate of partnership income retained by fiduciaries is based on SOI data. IRS does not publish state-level partnership data from the individual master file. But, IRS does provide to BEA unpublished state-level estimates of partnership net income from the SOI sample that could be used to distribute this small adjustment to nonfarm proprietors' income.

The IRS AGI for nonfarm proprietors' income is \$213.9 billion at the national level and \$212.9 billion for the sum of states. State data are from IRS individual master file data for proprietorships and from unpublished SOI sample data for partnerships. The national data include income of U.S. citizens living abroad.

Lastly, two reallocations of IRS income categories must be made: \$3.7 billion of **estate or trust income** from other personal income and \$84.7 billion of **partnership income** from other personal income. Estate or trust income is split in the national comparison table (see Appendix A) between nonfarm proprietors' income and rental income. Because no state-level data exist for the split of estate or trust income, unpublished state-level SOI sample data from IRS for the total amount of estate or trust net income could be used to distribute estate or trust income. As noted above, BEA receives state-level partnership net income data, which could be used for this piece. The sum-of-states total in the SOI state sample is \$84.1 billion.

Although the BEA nonfarm proprietors' income estimates and the adjustments are all based on IRS data, some important differences will probably appear at the state level between BEA and IRS. For example, BEA uses a three-year average of IRS data when preparing state estimates of nonfarm proprietors' income, because of the annual volatility of the source data. Another difference arises because the partnership income information BEA uses in its state estimates is from the partnership 1065 form, which reports partnership income by address of the partnership. In contrast, the IRS SOI state-level data report partnership income by address of the partner. While it would be preferable to use these estimates in the production of BEA state personal income, the SOI sample is too small to prepare reliable estimates in all states.

Farm Proprietors' Income

**Table 5: Farm Proprietors' Income
(billions of dollars)**

	National	Sum of States
Farm proprietors' income, BEA	22.7	24.8
Less: in personal income, not in AGI	10.5	10.5
Imputed income in personal income	0.2	0.2
Differences in accounting treatment	10.3	10.3
Equals: BEA-derived AGI	12.2	14.3
IRS AGI	-9.0	-8.6
Plus: Reallocation by type of IRS income	0.0	0.0
Estate and trust income	0.0	0.0
Partnership income	0.0	0.0
Equals: IRS AGI (reallocated)	-9.0	-8.6
AGI Gap	21.2	22.9

Farm proprietors' income in SPI is the income received by the sole proprietorships and the partnerships that operate farms. Estimates of this income are based on the national and state estimates of the net income of all farms prepared by the Economic Research Service (ERS) of the U.S. Department of Agriculture (USDA). The income received by corporate farms is estimated by BEA and subtracted in order to derive the estimates of farm proprietors' income. (Corporate farms are included in the business sector of the BEA economic accounts, not the household sector for which personal income estimates are derived.) In addition to the differences between national and regional personal income described in the introduction, BEA's farm estimates differ because the regional estimates use a later vintage of ERS source data than the national estimate.

The national estimate of BEA farm proprietors' income for 2000 is \$22.7 billion. Reconciling farm proprietors' income to AGI begins with the removal of \$0.2 billion for **imputed income in personal income** and \$10.3 billion for **differences in accounting treatment between NIPAs and tax regulations, net**. Unpublished estimates of the imputed value of home consumption of farm products underlying SPI can be removed directly, as state-level estimates of this component are prepared by BEA.

The differences in accounting treatment between SPI and tax regulations, net, for farm proprietors are: capital gains (Sec. 1231) from the sale of livestock; excess of change in farm inventories; the capital consumption adjustment (CCAdj); and excess tax depreciation (IRS less BEA). Capital gains from the sale of livestock could be distributed to states based on the sales of livestock. The excess of change of farm inventories is calculated as the IRS change of farm inventories less the BEA change of farm inventories. Although BEA has state-level estimates of the change in farm inventories, no current national or state IRS estimates exist, making this net adjustment difficult to estimate at the state level. The most recent IRS national estimate of the change in farm inventories is for 1980. The national ratio of IRS to BEA for 1980 could be used, as it is in the national reconciliation, to adjust BEA's change in inventories at the state level. The CCAdj is not explicitly estimated in SPI, but state estimates could be developed by allocating the national control by the distribution of the consumption of fixed capital. Excess tax depreciation is a net adjustment to account for the inconsistent changes in allowed tax depreciation in the IRS time series as compared to the consistent depreciation treatment over time used in the BEA estimates. No state-level data exist for this adjustment. The national adjustment could be distributed to states using BEA's state estimates of the consumption of fixed capital.

The IRS AGI for farm proprietors' income is -\$9.0 billion at the national level and -\$8.6 billion for the sum of states. State data are based on IRS individual master file data.

The last step of the reconciliation is to reallocate \$0.003 billion of IRS-based **partnership income** from other personal income to farm proprietors' income. In some years, it may also be necessary to a reallocate IRS-based **estate and trust income** from other personal income to farm proprietors' income. State estimates of IRS farm partnership income are not available. But the national control for farm partnership income could be allocated based on the state distribution of unpublished IRS SOI total partnership income or unpublished SOI expanded sample data for farm net profit or loss. Farm estate and trust data are also not available at the state level. The national control could be allocated based on the state distribution of unpublished IRS SOI total estate and trust income or unpublished SOI expanded sample data for farm net profit less loss.

BEA's state farm proprietors' income estimates, which are based almost entirely on USDA data, provide an independent view of farm income to compare with IRS data. Unfortunately, some of the adjustments necessary to reach a BEA-derived AGI farm income statistic are based on weak or nonexistent state data. Because the adjustments remove 40 percent of the BEA farm income at the national level, state-level distortions between the BEA-derived AGI and the actual IRS AGI may be quite large.

Rental Income of Persons

**Table 6: Rental & Royalty Income of Persons
(billions of dollars)**

	National	Sum of States
Rental & royalty income of persons, BEA	150.3	150.3
Less: in personal income, not in AGI	107.4	107.4
Imputed income in personal income	88.2	88.2
Investment income retained by life insurance carriers and pension plans	1.6	1.6
Investment income received by nonprofit institutions and retained by fiduciaries	7.6	7.6
Differences in accounting treatment	10.0	10.0
Plus: in AGI, not in personal income	3.4	3.4
Other types of income	3.4	3.4
Equals: BEA-derived AGI	46.2	46.2
IRS AGI	25.1	22.9
Plus: Reallocation by type of IRS income	7.4	7.4
Estate or trust income	7.4	7.4
Equals: IRS AGI (reallocated)	32.5	30.3
AGI Gap	13.8	15.9
Addendum: Misreporting adjustment included in personal income	1.6	1.6

BEA rental and royalty income of persons includes the following income categories: the net current-production income of persons from the rental of real property, except for the income of persons primarily engaged in the real estate business; the imputed net rental income received by owner-occupants of dwellings; and the royalties received by persons from patents, copyrights, and rights to natural resources. The estimates include BEA adjustments for uninsured losses to real estate caused by disasters, such as hurricanes and floods.

The national estimate of BEA rental and royalty income of persons for 2000 is \$150.3 billion. Converting to the AGI concept requires the removal of: \$88.2 billion for farm and nonfarm rental **imputed income**; \$1.6 billion for **investment income retained by life insurance carriers and pension plans**; \$7.6 billion for **investment income received by nonprofit institutions and retained by fiduciaries**; and \$10.0 billion for **differences in accounting treatment between BEA and tax regulations**, net—the excess tax depreciation (IRS less BEA) for rental income of persons and the rental income CCAdj. State estimates are available to

remove the first three categories. State estimates for the CCAdj could be prepared by allocating the national CCAdj control by state estimates of imputed rent. The national estimate of excess tax depreciation (IRS less BEA) for rental income of persons could be separated into an IRS depreciation estimate and a BEA depreciation estimate. These estimates would be distributed to states using IRS rental income and BEA rental income respectively, and then netted to prepare state-level estimates of the differences between IRS and BEA depreciation.

An addition is made for the portion of AGI not included in SPI: \$3.4 billion for special assessments in rental income, categorized under **other types of income**. Census Bureau data for state and local government receipts, used as the basis of BEA's national estimate of special assessments, could be used to prepare a state distribution, or SPI rental income estimates could be used to allocate the national total.

The IRS state-level estimate for rental and royalty income of persons is \$22.9 billion. It is from unpublished SOI sample data provided by the IRS SOI division. No published state-level data for rents and royalties exist from IRS.

Lastly, \$7.4 billion for **estate or trust income** is reallocated from other personal income. Since no state-level data exist for the split of estate or trust income, unpublished state-level SOI sample data from IRS for the total amount of estate or trust net income could be used to distribute estate or trust income.

In sum, BEA's state estimates of monetary rental and royalty income are primarily based on IRS data; the imputed income, which is based on other sources, is removed to reconcile with IRS. Although it appears to be possible to estimate the adjustments to reconcile BEA with IRS rents and royalties, some adjustments, such as the difference in accounting treatment, will be weak.

Personal Dividend Income

**Table 7: Personal Dividend Income
(billions of dollars)**

	National	Sum of States
Personal dividend income, BEA	376.1	376.1
Less: in personal income, not in AGI	271.3	277.3
Investment income retained by life insurance carriers and pension plans	58.0	59.0
Investment income received by nonprofit institutions and retained by fiduciaries	19.5	24.4
Differences in accounting treatment	18.5	18.5
Other personal income exempt or excluded from AGI	175.4	175.4
Plus: Reallocation by type of NIPA income	59.4	59.4
Interest distributed by regulated investment companies	59.4	59.4
Equals: BEA-derived AGI	164.1	158.2
IRS AGI	147.0	143.2
AGI Gap	17.1	15.0

BEA personal dividend income consists of payments in cash or other assets, excluding a corporations' own stock, that corporations in the United States or abroad make to noncorporate stockholders who are U.S. residents.

The national estimate of BEA personal dividend income for 2000 is \$376.1 billion. Converting personal dividend income to the AGI concept requires the removal of: \$58.0 billion for **investment income retained by life insurance carriers and pension plans**; \$19.5 billion for **investment income received by nonprofit institutions and retained by fiduciaries**; \$18.5 billion for **differences in accounting treatment** between BEA and tax regulations, net (IRA-Keogh dividend earnings excluding capital gains); and \$175.4 billion for **other personal income exempt or excluded from adjusted gross income** (S corporation dividends).²⁰ With the

²⁰ The S corporation distributions included in personal dividend income are based on data from Schedule K of corporate Form 1120S (the income tax return for S corporations). Data from the 2000 tax form on line 22—total dividend distributions paid from accumulated earnings and profits—and line 20—total property distributions (including cash) other than dividends reported on line 22—were used by BEA to prepare estimates of S corporation dividends in personal income. In the national PI-AGI reconciliation, S corporation distributions that are included in personal dividend income, but not regarded as dividends in adjusted gross income (distributions reported on line 20), are removed, and IRS small business corporation income is added to the category income not included in personal income. IRS small business corporation (SBC) income is the pro rata income or loss from S corporations reported by individual shareholders on Schedule E of Form 1040. SBC income consists primarily of the S corporation

exception of the differences in accounting treatment, state estimates for these categories can be directly removed.²¹ For the differences in accounting treatment, IRA-Keogh dividend earnings excluding capital gains are embedded in the SPI estimate of monetary dividends received by individuals (included in money income). BEA's national estimate of this piece could be allocated based on the state distribution of monetary dividends.

To complete the reconciliation, \$59.4 for **interest distributed by regulated investment companies** (money market mutual fund dividends) is reallocated from interest to dividends. State-level estimates of this item are prepared in the calculation of personal interest income and can therefore be reclassified directly.

The state-level IRS published tabulation for dividend income is \$143.2 billion. This number is from the individual master file tabulations and is published in *Statistics of Income*.

With the exception of the estimates for the difference in accounting treatment, state-level estimates exist to make the reconciliation to IRS. However, the BEA-derived estimates of AGI dividends are based on IRS state data. Thus, the reconciliation would not provide much independent information regarding differences between BEA and IRS income.

income (less allowable losses and expenses) from trade or business activities, rental real estate activities, and other rental activities. Items such as portfolio income and charitable contributions are reported elsewhere and, therefore, not included in the calculation of SBC income.

²¹ Although from the same source, the sum-of-states level for monetary dividends retained by fiduciaries is \$4.9 billion higher than the national level because the regional estimate is based on a different vintage of the estimates.

Personal Interest Income

**Table 8: Personal Interest Income
(billions of dollars)**

	National	Sum of States
Personal interest income, BEA	1011.0	1010.0
Less: in personal income, not in AGI	787.2	786.3
Imputed income in personal income and investment income retained by life insurance carriers and pension plans	601.0	600.0
Investment income received by nonprofit institutions and retained by fiduciaries	47.1	47.1
Differences in accounting treatment	85.2	85.2
Other personal income exempt or excluded from AGI	54.0	54.0
Plus: Reallocation by type of NIPA income	-59.4	-59.4
Interest distributed by regulated investment companies	-59.4	-59.4
Equals: BEA-derived AGI	164.4	164.3
IRS AGI	199.3	194.1
AGI Gap	-34.9	-29.8
Addendum: Misreporting adjustment in personal income	-16.4	-16.4

BEA personal interest income is the interest income (monetary and imputed) from all sources that is received by individuals, by private and government employee retirement plans, by nonprofit institutions, and by estates and trusts.

The national estimate of BEA personal interest income for 2000 is \$1,010.0 billion. Converting to the IRS AGI concept begins with the removal of the portion of personal income not in IRS-AGI: \$601.0 billion for **imputed income in personal income and investment income retained by life insurance carriers and pension plans**, and \$47.1 billion for **investment income received by nonprofit institutions and retained by fiduciaries.**²² State estimates of these items can be removed directly. Other categories removed in the national reconciliation are: \$85.2 billion for **differences in accounting treatment between personal income and tax regulations**, and \$54.0 billion for **other personal income exempt or excluded from AGI**. Within the category of differences in accounting treatment, SPI estimates are available only for the accrued interest on unredeemed savings bonds. Excess interest accrued

²² The first income grouping combines two rows from the national reconciliation because in SPI investment income retained by life insurance carriers is grouped with imputed income rather than investment income of pension plans, as in the NIPAs.

over paid for corporate bonds, excess interest accrued over paid for state and local bonds, and IRA-Keogh interest earnings excluding capital gains are embedded in SPI estimates of monetary interest. BEA's national estimates for these pieces could be distributed to the states based on the state estimates of the broader SPI monetary interest estimate. The BEA interest income that is exempt or excluded from AGI consists of tax-exempt interest received by individuals. BEA national estimates could be allocated to states based on the IRS IMF state distribution for tax-exempt interest.

To complete the conversion to AGI, \$59.4 billion for **interest distributed by regulated investment companies (money market mutual fund dividends)** is reallocated to dividends; state-level estimates of this item underlying SPI can be reclassified directly.

The IRS AGI for personal interest income is \$199.3 billion at the national level and \$194.1 billion for the sum of states. State data are based on IRS individual master file data.

The most significant piece of information in this component's reconciliation may be that BEA's national derived estimate of AGI interest is lower than IRS reported AGI interest. This is primarily due to the BEA national estimate being based on corporate income tax returns; the interest payments are distributed to the corporate and household sectors based on other IRS sources. BEA subtracts the reported interest received by corporations and government from the reported interest paid by the corporate and government sectors. The residual is assigned to the household sector—personal interest income. The individual income tax return data are not used to prepare BEA's national estimates of interest.

Eighty-four percent of BEA's state interest estimate is removed to reach the IRS taxable interest concept. The portion that is left is distributed to the states based on IRS individual master file data—the same item it would be compared to.

Taxable Pensions and Annuities

**Table 9: Taxable Pensions and Annuities
(billions of dollars)**

	National	Sum of States
Taxable pensions and annuities, BEA	3.0	3.0
Plus: in AGI, not in personal income	414.3	414.3
Taxable pensions	414.2	414.2
Plus: Reallocation by type of NIPA income	-8.8	-8.8
Taxable disability income payments	-8.8	-8.8
Equals: BEA-derived AGI	408.4	408.4
IRS AGI	325.8	321.7
AGI Gap	82.6	86.7

BEA personal income generally measures pension income when earned rather than when paid. The only pension and annuity benefit payments that are included in personal income are from tier 2 railroad retirement plans. The national estimate of BEA taxable pensions and annuities for 2000 is \$3.0 billion, the taxable portion of tier 2 retirement benefits. BEA state railroad retirement estimates include all benefit payments (tier 1 and tier 2). Tier 1 payments are equivalent to Social Security (see the section on Social Security). Tier 2 railroad retirement payments are taxed as if the benefits were paid under a private employer retirement plan. At the national level, a ratio is applied to total railroad retirement benefits to separate tier 2 payments. A second ratio is applied to the tier 2 amount to determine the taxable portion. The national ratios used to determine the taxable portion of tier 2 railroad retirement benefits can be applied to BEA state railroad retirement estimates:

IRS measures pension income when paid, but only the taxable portion. The national reconciliation adds a \$414.2 billion estimate of **taxable pensions**—private and government employee retirement plan benefit payments—which is developed from a wide variety of sources in the public and private sectors. State-level data exist for the benefits paid from the Federal and the state and local government retirement programs, but there are no state data available for the private sector retirement programs. Social Security benefits could potentially be used to distribute the private portion of the taxable pensions to states.

Disability payments for those below retirement age are taxable and considered wages in AGI, so a reallocation of \$8.8 billion from pensions to wages is made. See the description in the Wages and Salaries section for the sources used to prepare this estimate.

The IRS AGI for taxable pensions and annuities is \$325.8 billion at the national level and \$321.7 billion for the sum of states in the individual master file data.

Unemployment Compensation

**Table 10: Unemployment Compensation
(billions of dollars)**

	National	Sum of States
Unemployment compensation, BEA	20.7	20.7
Equals: BEA-derived AGI	20.7	20.7
IRS AGI	16.9	17.7
AGI Gap	3.8	3.0

In BEA state personal income, unemployment compensation consists of benefits paid to individuals under state-administered unemployment insurance (UI) programs as well as programs for Federal civilian employees, railroad employees (administered by the Railroad Retirement Board), and veterans. It also includes benefits authorized by Federal legislation for periods of high unemployment, and trade adjustment allowances.

The national estimate of BEA unemployment compensation for 2000 is \$20.7 billion. All unemployment compensation is taxable, therefore no adjustments are required to reconcile SPI and AGI.

The IRS AGI for unemployment compensation is \$16.9 billion at the national level and \$17.7 billion for the sum of states. The national estimate is based on SOI sample data and the state data for IRS AGI unemployment compensation are based on IRS individual master file tabulations.

Taxable Social Security

**Table 11: Taxable Social Security
(billions of dollars)**

	National	Sum of States
Taxable Social Security & equivalent portion of railroad retirement, BEA	97.3	97.3
Equals: BEA-derived AGI	97.3	97.3
IRS AGI	90.0	89.1
AGI Gap	7.3	8.2

This category includes the taxable portion of personal income estimates for Social Security and the Social Security equivalent portion of railroad retirement benefits (tier 1).

BEA personal income estimates total Social Security benefit payments. IRS AGI includes only the taxable portion. The national estimate of BEA taxable Social Security income for 2000 is \$97.3 billion. State estimates of taxable Social Security could be prepared by allocating BEA’s national estimate of taxable Social Security by the state estimates of total Social Security benefits. Alternatively, state specific taxable and nontaxable splits could be developed based on Treasury Department Office of Tax Analysis (OTA) data on the different distributions of Social Security benefits paid by income category (old age and survivors, disability, and railroad Social Security equivalent) for each state.²³ These data are based on individual tax returns. Each state’s benefits represent a different mix of benefit types and each benefit type experiences a different percentage of benefits which are included in AGI. Disability benefits, for example, are far less likely to be in AGI and subject to tax, and occur with frequency in only a few states. For each state, benefits paid by type (data which BEA already receives from the Social Security Administration) could be multiplied by OTA’s percent of benefits includable in AGI by type and the results for each benefit type summed to prepare state-

²³ The January 2001 “Report on the Taxation of Social Security and Railroad Retirement Benefits in Calendar Years 1994, 1995, and 1996” by the Department of Treasury describes the Department’s mandate to estimate the individual income tax liabilities attributable to the inclusion of Social Security and railroad Social Security equivalent benefits in AGI for each year. As part of this process, OTA reports actual benefits included in AGI as a percent of each of the three benefit categories (old age and survivors, disability, and railroad Social Security equivalent). Total benefits paid are derived from the Annual Statistical Supplement to the Social Security Bulletin, the Social Security Administration, and the Railroad Retirement Board. The tax liability data are from the IRS IMF. In 1996, the benefits included in AGI were: 16.25 percent of Federal old-age and survivors insurance, 6.99 percent of Federal disability insurance, and 9.51 percent of railroad social security equivalent benefits, or 14.99 percent over all.

level estimates of taxable Social Security (and railroad equivalent) benefits included in AGI. This state methodology would be useful if the national taxable and nontaxable income split were based on similar current data.

No further adjustments are required to reconcile SPI and AGI.

The IRS AGI for taxable Social Security is \$90.0 billion at the national level and \$89.1 billion for the sum of states. State data are from IRS individual master file data.

Other Personal Income

Table 12: Other Personal Income
(billions of dollars)

	National	Sum of States
Other personal income, BEA	1213.8	1209.5
Less: in personal income, not in AGI	1572.8	1568.0
Nontaxable transfer payments to persons	962.0	961.8
Employer contributions for employee pension and insurance funds	609.9	605.3
Investment income received by nonprofit institutions and retained by fiduciaries	0.9	0.9
Plus: in AGI, not in personal income	358.0	357.6
Personal contributions for government social insurance	359.2	358.7
Other types of income	-1.1	-1.1
Plus: Reallocation by type of NIPA income	0.9	0.9
Fiduciaries' share of partnership income	0.9	0.9
Equals: BEA-derived AGI	0.0	0.0
IRS AGI	95.7	95.1
Plus: Reallocation by type of IRS income	-95.7	-95.1
Estate or trust income	-11.0	-11.0
Partnership income	-84.7	-84.1
Equals: IRS AGI (reallocated)	0.0	0.0
AGI Gap	0.0	0.0

Other personal income consists primarily of employer contributions for employee pension and insurance funds and nontaxable transfer payments to persons less personal contributions to government social insurance.

The national estimate of BEA other personal income for 2000 is \$1213.8 billion. Several items in personal income but not included in AGI are removed: \$962.0 billion for **nontaxable transfer payments to persons**, \$609.9 billion for **employer contributions for employee pension and insurance funds**, and \$0.9 billion for **investment income retained by fiduciaries**. Most nontaxable transfer payments to persons are embedded in SPI transfer estimates. State estimates for business transfers to persons (which are nontaxable) could be removed directly because estimates are already available. Nontaxable government transfer payments at the state level could be calculated by subtracting taxable government transfers from total transfer receipts. Some categories are fully taxable (such as unemployment compensation). But other categories

(such as Social Security) include both taxable and nontaxable portions that would need to be separated (by allocating the national control to the states or using Treasury data as described in the Social Security section). State-level estimates of employer contributions to pension and insurance funds could be removed directly because estimates are already available.

The category “investment income retained by fiduciaries” refers to partnership income retained. The BEA national estimate is based on a BEA-developed ratio of the retained portion of fiduciary income applied to the BEA national estimate of partnership income received by fiduciaries. The latter estimate is based on SOI data from partnerships, estates and trusts. To prepare state estimates for this piece, the national control could be allocated based on the state distribution of unpublished estimates of partnership net income from the SOI sample or SPI estimates of nonfarm proprietors’ income.

Income in AGI, but not in personal income is added in the national reconciliation: \$359.2 for **personal contributions for government social insurance** less **other types of income**. BEA state-level estimates of personal contributions for government social insurance could be added directly. The category other types of income subtracts Alaska permanent fund dividend payments from personal income.²⁴ An SPI estimate of these payments is available.

At the national level, \$0.9 billion for **fiduciaries share of partnership income** is reallocated to other personal income from nonfarm proprietors’ income. The national control for this piece is based on SOI data. Explicit state estimates are not available; the item is embedded in SPI nonfarm proprietors’ income. IRS does not publish state-level partnership data as part of the individual master file, but it does provide to BEA unpublished state-level estimates of partnership net income from the SOI sample that could be used to distribute this adjustment. If the unpublished SOI sample series is unavailable or too volatile, the national total could be distributed to the states based on SPI estimates of nonfarm proprietors’ income.

²⁴ The Alaska Permanent Fund Dividend Payments are included in both personal income and IRS AGI, but the IRS data have the payments embedded in the data “other income,” which mostly includes items not in personal income. To deal with the lack of explicit data from IRS, the national reconciliation tables removes the BEA estimates of Alaska Permanent Fund Dividend Payments from the category Other Personal Income and adds the IRS estimates of “other income” to Income Not Included in Personal Income.

The IRS AGI for other personal income is \$95.7 billion at the national level and \$95.1 billion for the sum of states. State-level data are based on unpublished SOI sample data for partnerships and estates and trusts.

Two further reallocations complete the reconciliation. **Estate or trust income** of \$11 billion is reallocated: \$7.4 billion to rental income and \$3.7 billion to nonfarm proprietors' income.²⁵ State-level estate or trust income is available from unpublished SOI sample data. The national ratio of the rental income and nonfarm proprietors' split could be applied to state-level estate or trust data. At the national level **partnership income** of \$84.7 billion is reallocated to nonfarm proprietors' income and \$0.003 is reallocated to farm proprietors' income. State-level partnership income is available from unpublished SOI sample data.

²⁵ In some years a small reallocation to farm proprietors' income may also be needed.

Income Not Included in Personal Income

**Table 13: Income Not Included in Personal Income
(billions of dollars)**

	National	Sum of States
Income not included in personal income, BEA	0.0	0.0
Less: in personal income, not in AGI	58.6	58.6
Other personal income exempt or excluded from AGI	58.6	58.6
Plus: in AGI, not in personal income	863.2	815.5
Net gain from sale of assets	645.4	582.7
Small business corporation income	128.2	128.1
Other types of income	89.5	104.7
Equals: BEA-derived AGI	804.5	756.9
IRS AGI	804.5	756.9
AGI Gap	0.0	0.0

The national estimate of BEA income not included in personal income for 2000 is \$0. Reconciling from personal income to AGI in this category begins with the removal of \$58.6 billion for **other personal income exempt or excluded from AGI**. This refers to statutory adjustments or specific adjustments—“above-the-line deductions” on Form 1040—subtracted from total income to arrive at AGI.

Portions of AGI not in personal income are added: \$645.4 for **net gain from sale of assets** (capital gain and income from sale of assets); \$128.2 billion for **small business corporation income**; and \$89.5 for **other types of income**. Because capital gains comprise almost all of the net gain from sale of assets category, the national total of this category could be allocated to the states using IMF data for net capital gain (less loss). Small business corporation income—the ordinary income from trade or business activities of S corporations—could be allocated based on the state distribution of S corporation income (less loss) in unpublished SOI sample data.²⁶ The national total for other types of income is composed of numerous SOI based pieces. In 2000, the major pieces were: foreign earned income exclusion; taxable IRA distributions; state and local income tax refunds; alimony received; net operating loss deductions; gambling earnings; and other income.²⁷ State-level published individual master file

²⁶ See footnote 23 for further information on S corporation income.

²⁷ The foreign earned income exclusion is not estimated for states because it is an exclusion for individuals while working in a foreign country. The sum of the states for Other Types of Income is therefore \$15.2 billion higher than the national estimate.

data could be used to allocate state and local tax refunds. Unpublished state-level SOI sample data could be used for taxable IRAs. Estimates of net operating loss deductions do not exist at the state level, but the national control could be allocated to states using the distribution of business net loss in unpublished SOI sample data. State-level estimates of alimony received, gambling earnings, and other income, as reported on the Form 1040 and associated information returns, are available from the unpublished IRS SOI expanded sample.²⁸

In the national reconciliation, the category other types of income includes an adjustment to account for the difference between published and calculated AGI. Calculated AGI is the sum of the published AGI components used in the reconciliation. In earlier years, the published and calculated figures were quite close, within a few million dollars. However, the difference is - \$8.6 billion in 1999 and -\$12.7 billion in 2000. In 2001 and 2002 the levels are tracking more closely, in the \$200 to \$300 million range. To apportion this residual, state-level AGI components used in reconciliation would be summed and subtracted from the published AGI total for each state.

The IRS AGI for income not included in personal income is \$804.5 billion at the national level and \$756.9 billion for the sum of states. Components of the state-level data are derived from published individual master file data, unpublished SOI sample data, and IRS national estimates allocated to states. The primary source of the difference between national and state totals of IRS AGI is the difference in net gain sale of assets. Capital gains or losses, which comprise the majority of this piece, are based on IRS individual master file data at the state level and SOI sample data at the national level.

At best, state-level estimates would be built almost entirely from IRS sources. Any reconciliation prepared would be of questionable value.

²⁸ See footnote 9 for information on the SOI expanded sample file.

Conclusion

This study researched and evaluated state data sets that would be needed to develop a reconciliation of BEA state personal income and IRS adjusted gross income. Further, the study evaluated the feasibility of producing a state-by-state reconciliation of Personal Income with Adjusted Gross Income. It was determined that it is feasible to prepare accurate results from a reconciliation of state-level wages and salaries. But further work is needed to determine the feasibility and value of reconciling BEA SPI and IRS AGI for other components of personal income—such as proprietors' income, personal current transfer receipts, and dividends, interest, and rent.

A reconciliation of state-level wages for the year 2000 was prepared and is attached to this document. Three key issues were addressed in the wage and salary section of this report: residence, reliability of the estimates, and the treatment of nonfilers.

For the nonwage components of personal income, this report provides descriptions of potential sources and methods that could be used to prepare state estimates. Where possible, some potential issues are described. The largest issue may be that the nonwage components lack independence from IRS state data. One of the goals of the reconciliation of personal income to adjusted gross income is to identify gaps in reporting between the two totals. If the state personal income estimates are using IRS data, then that goal is degraded. More research is required to determine whether state-level reconciliations of components other than wages can provide useful information to the data user.

Appendices

Appendix A

Table 2. “Comparison of Personal Income With Adjusted Gross Income (AGI) by Type of Income, for 2000” from the April 2004 *Survey of Current Business* article “Comparison of BEA Estimates of Personal Income and IRS Estimates of Adjusted Gross Income”

Appendix A.. Comparison of Personal Income With Adjusted Gross Income by Type of Income, for 2000

[Billions of dollars]

Line		Personal Income											Income not included in personal income
		Total	Wage and salary disbursements	Proprietors' income with IVA and CCAdj		Rental income of persons with CCAdj	Income receipts on assets		Taxable pensions and annuities	Taxable unemployment compensation	Taxable social security ¹	Other personal income ²	
				Farm	Nonfarm		Personal dividend income	Personal interest income					
1	Personal income.....	8,429.7	4,829.2	22.7	705.7	150.3	376.1	1,011.0	³ 3.0	20.7	97.3	1,213.8	0.0
2	Less: Portion of personal income not included in adjusted gross income.....	2,971.3	124.9	10.5	38.6	107.4	271.3	787.2	0.0	0.0	0.0	1,572.8	58.6
3	Nontaxable transfer payments to persons	962.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	962.0	0.0
4	Employer contributions for employee pension and insurance funds	609.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	609.9	0.0
5	Imputed income in personal income ^e	265.8	11.5	0.2	2.7	88.2	0.0	163.3	0.0	0.0	0.0	0.0	0.0
6	Investment income retained by life insurance carriers and pensions plans ^f ...	497.3	0.0	0.0	0.0	1.6	58.0	437.7	0.0	0.0	0.0	0.0	0.0
7	Investment income received by nonprofit institutions and retained by fiduciary	75.6	0.0	0.0	0.5	7.6	19.5	47.1	0.0	0.0	0.0	0.9	0.0
8	Differences in accounting treatment between NIPAs and tax regulations, net	159.4	0.0	10.3	35.4	10.0	18.5	85.2	0.0	0.0	0.0	0.0	0.0
9	Other personal income exempt or excluded from adjusted gross income.....	401.4	113.4	0.0	0.0	0.0	175.4	54.0	0.0	0.0	0.0	0.0	⁶ 58.61
10	Plus: Portion of adjusted gross income not included in personal income	1,667.1	23.8	0.0	4.4	3.4	0.0	0.0	414.3	0.0	0.0	358.0	863.2
11	Contributions for government social insurance.....	359.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	359.2	0.0
12	Net gain from sale of assets.....	645.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	645.4
13	Taxable pensions ^g	414.2	0.0	0.0	0.0	0.0	0.0	0.0	414.2	0.0	0.0	0.0	0.0
14	Small business corporation income.....	128.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	128.2
15	Other types of income.....	120.0	23.8	0.0	4.4	3.4	0.0	0.0	0.0	0.0	0.0	-1.1	89.5
16	Plus: Reallocation by type of NIPA income	0.0	8.8	0.0	-0.9	0.0	59.4	-59.4	-8.8	0.0	0.0	0.9	0.0
17	Fiduciaries' share of partnership income ^h	0.0	0.0	0.0	-0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
18	Interest received by nonfarm proprietors.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	Interest distributed by regulated investment companies.....	0.0	0.0	0.0	0.0	0.0	59.4	-59.4	0.0	0.0	0.0	0.0	0.0
20	Taxable disability income payments.....	0.0	8.8	0.0	0.0	0.0	0.0	0.0	-8.8	0.0	0.0	0.0	0.0
21	Equals: BEA-derived adjusted gross income.....	7,125.4	4,737.0	12.2	670.6	46.2	164.1	164.4	408.4	20.7	97.3	0.0	804.5
22	IRS Adjusted gross income (as reported).....	6,365.4	4,456.2	-9.0	213.9	25.1	147.0	199.3	325.8	16.9	90.0	95.7	804.5
23	Plus: Reallocation by type of IRS income	0.0	0.0	0.0	88.4	7.4	0.0	0.0	0.0	0.0	0.0	-95.7	0.0
24	Estate or trust income.....	0.0	0.0	0.0	3.7	7.4	0.0	0.0	0.0	0.0	0.0	-11.0	0.0
25	Partnership income.....	0.0	0.0	0.0	84.7	0.0	0.0	0.0	0.0	0.0	0.0	-84.7	0.0
26	Other reallocations.....	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	IRS Adjusted gross income (reallocated).....	6,365.4	4,456.2	-9.0	302.2	32.5	147.0	199.3	325.8	16.9	90.0	0.0	804.5
28	Adjusted gross income (AGI) gap (line 21- line 27).....	760.1	280.8	21.2	368.4	13.8	17.1	-34.9	82.6	3.8	7.3	0.0	0.0
29	Percent distribution of AGI gap.....	100.0	36.9	2.8	48.5	1.8	2.3	-4.6	10.9	0.5	1.0
30	Relative AGI gap ⁹	10.7	5.9	174.1	54.9	29.8	10.4	-21.3	20.2	18.3	7.5
31	Addendum: Misreporting adjustment included in personal income	378.3	99.8		293.3	1.6		-16.4					

Appendix B

IRS Wages Box 1 items for tax year 2005

Box 1—Wages, tips, other compensation. Show the **allocated tips**. See *Box 7* and *Box 8* on page 10. Generally, total wages, tips, and other compensation, before any payroll deductions, that you paid to your employee during the year. Do not include elective deferrals, except section 501(c)(18) contributions. **Include the following:**

1. Total wages, bonuses (including signing bonuses).
2. Total noncash payments, including certain fringe benefits.
3. Total **tips** reported by the employee to the employer do not have to use this box. (Not allocated tips).
4. Certain employee business expense reimbursements.
5. The cost of **accident and health insurance** premiums for 2 percent or more shareholder-employees paid by an S corporation.
6. Taxable benefits from a **section 125 (cafeteria) plan** (that is, employee chooses cash).
7. Employee contributions to an Archer MSA.
8. Employer contributions to an Archer MSA if includible in the income of the employee.
9. Employer contributions for **qualified long-term care**.
10. Taxable cost of group-term life insurance in excess of \$50,000.
11. Unless excludable under *Educational assistance*, payments for non-job-related education expenses or for payments under a nonaccountable plan.
12. The amount includible as wages because you paid your employee's share of taxes.
13. All other compensation, including certain scholarship and fellowship grants. Other compensation includes taxable amounts that you paid to your employee from which Federal income tax was not withheld.
14. **Distributions** to an employee or former employee from a nonqualified deferred compensation plan (including a rabbi trust) or a **nongovernmental** section 457(b) plan.
15. Amounts includible in income under section 457(f) because the amounts are no longer subject to a substantial risk of forfeiture.
16. Payments to statutory employees who are subject to Social Security and Medicare taxes but not subject to Federal income tax withholding must be shown in box 1 as other.
17. Cost of current insurance protection under a **compensatory split-dollar** life insurance arrangement.
18. **Employee** contributions to a **Health Savings**.
19. Employer contributions to a **Health Savings Account** if includible in the income of the employee.
20. Amounts includible in income **under a nonqualified deferred compensation plan** because of section 409A.