CBO MEMORANDUM

MEASUREMENT OF EMPLOYEE BENEFITS
IN THE NATIONAL ACCOUNTS

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CONGRESSIONAL BUDGET OFFICE
SECOND AND D STREETS, S.W.
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NOTE

Numbers in the text and tables of this memorandum may not add up to totals because of rounding.

Statistics from the national economic accounts underlie the economic and budget forecasts of both federal agencies and the private sector. Employee benefits are an important component of the income side of the accounts, and their measurement affects the Congressional Budget Office's (CBO's) ability to forecast the growth of the economy and tax revenues. This memorandum examines current methods of estimating employee benefits and possible sources of inaccuracy. It also discusses the substantial revisions some components of the estimates have undergone in recent years. The analysis was undertaken as background research in support of CBO's work on economic forecasting.

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SUMMARY

Forecasting personal income tax revenues depends upon accurately estimating what share of growth in employee compensation will be accounted for by employee benefits. If trends in the components of compensation are difficult to infer from current estimates, forecasts of future revenues will be less accurate as a result. In the national income and product accounts (NIPAs), estimates of employer contributions for benefits (or "supplements to wages and salaries") are based on a variety of sources. Final estimates for most of the largest components of benefits—such as employer-paid Social Security and Medicare taxes, employer contributions to pensions, and unemployment insurance taxes—appear reliable. A notable exception is employer contributions for health insurance, for which there is no single source of data from an administrative agency.

Because the data sources for final NIPA estimates take some time to become available, initial estimates are based on alternative data sources. For employer contributions for pensions and health insurance, estimates based on initial and final sources are frequently inconsistent, as indicated by the relatively large revisions in recent years. The inconsistencies appear to come from a mismatch between the measures that are available in the short term and the sorts of measures needed for the national accounts.

INTRODUCTION

Businesses compensate their employees using a combination of cash wages and benefits. One important difference between the two forms of compensation is that a large share of benefits are not taxed. Thus, future personal income tax revenues depend not only on how much total employee compensation will grow, but also on what share of that growth will be accounted for by benefits rather than wages. Inaccuracies in measuring employee benefits are a concern of analysts who forecast tax revenues and, ultimately, of policymakers. For example, the Congressional Budget Office's (CBO's) forecasts of personal income tax revenues are based largely on forecasts of growth in total employee compensation and of the share of that growth that will come in the form of taxable compensation. If trends in the components of compensation cannot be reliably inferred from current estimates, forecasts of future revenues are less accurate as a result. Analysts also need accurate estimates of the value of benefits when predicting the effects of potential changes in tax law.

In addition to reducing the reliability of revenue estimates, inaccuracies in measuring benefits make it more difficult for analysts to understand the economy's growth. Because benefits are a component of national income, errors in estimating them may throw off the income-based measure of the economy's total output and thus contribute to what is known as the statistical discrepancy. That discrepancy, which is the difference between the measured values of the economy's output (gross

domestic product) and the income generated in producing that output (gross domestic income), in turn makes it more difficult to measure and forecast the economy's growth rate.

Benefits accounted for 17 percent of employee compensation and 12 percent of U.S. national income in 1997. Since the mid-1980s, benefits as a share of employee compensation have stabilized between 17 percent and 19 percent, after steadily increasing over the preceding 30 years. Although the share of certain benefits (for example, employer-paid Social Security taxes) changes relatively little from year to year, other components (such as employer contributions for health insurance) have grown much more erratically.

Analysts have problems measuring the benefit part of national income in the national income and product accounts (NIPAs), and current methods of doing so leave considerable room for error. There are a couple of reasons to think that current estimates may be inaccurate. First, benefits estimates have undergone substantial revisions in recent years because initial estimates from preliminary data sources are usually quite different from the final estimates. Second, for certain benefits—notably employer contributions for health insurance—even the source data for final estimates may be problematic.

COMPONENTS OF NONWAGE COMPENSATION

Compensation of employees is the largest component of national income. It accounts for about 90 percent of labor income, excluding only the income of self-employed people. Compensation has two components: wage and salary accruals and supplements to wages and salaries. The supplements correspond to benefits—some provided voluntarily by firms and some required by federal or state law.

In the NIPAs, supplements are categorized according to whether they correspond to publicly or privately managed programs. Employer contributions to publicly administered programs (such as Social Security, Medicare, unemployment insurance, and many retirement programs for government employees) are gathered under the heading "Employer Contributions for Social Insurance." Privately administered benefits, such as health insurance and private pension programs, appear under the heading "Other Labor Income." Some workers' compensation programs are administered by the federal and state governments, and others are privately administered. For that reason, contributions to some categories of workers' compensation appear under social insurance, and others appear under other labor income.

There are many categories of supplements, but a few dominate. The largest components are the employers' share of Social Security and Medicare taxes and

employer contributions for group health insurance, each of which exceeded $200 billion in 1997 (see Table 1). Social Security and Medicare taxes accounted for 31 percent of all supplements, and health insurance contributions accounted for 33 percent. If contributions to retirement plans by both private- and public-sector employers are grouped together, the combined value of retirement contributions is close to $200 billion. The other substantial components are workers' compensation (at $50.0 billion when private- and public-sector programs are combined) and unemployment insurance ($27.9 billion).

MEASURING NONWAGE COMPENSATION

To satisfy users' interest in timely information, the Bureau of Economic Analysis (BEA) of the Department of Commerce produces estimates of much of the national accounts shortly after the end of a quarter. Since most comprehensive data sources are not available that quickly, those initial estimates are subsequently revised several times as more complete data become available. Thus, the initial and final estimates are based on different source data.

TABLE 1. COMPONENTS OF NONWAGE COMPENSATION (In billions of dollars)

Component	1997 Estimate	Percentage of Total
Employer Contributions for Social Insurance		
Federal		
OASDI and HI tax payments	246.4	31.0
Unemployment insurance	27.9	3.5
Federal contributions to military and civilian employee pensions	62.8	7.9
Railroad Retirement contributions	2.6	0.3
Premiums paid to the Pension Benefit Guaranty Corporation	1.3	0.2
Federally administered workers' compensation funds	1.9	0.2
Military medical insurance[a]	1.2	0.2
Subtotal	344.1	43.4
State and Local		
State and local employee retirement	46.8	5.9
State-administered workers' compensation funds	9.8	1.2
Subtotal	56.7	7.1
Total	400.7	50.5
Other Labor Income		
Pensions and Profit Sharing	80.6	10.2
Group Insurance		
Health	259.4	32.7
Life	8.6	1.1
Subtotal	268.0	33.8
Privately Administered Workers' Compensation Plans[b]	38.3	4.8
Supplemental Unemployment Benefit Plans	0.3	0
Other[c]	5.7	0.7
Total	329.9	49.5
All Nonwage Compensation		
Total	793.7	100.0

SOURCE: Congressional Budget Office using data from the Department of Commerce, Bureau of Economic Analysis.

NOTE: OASDI = Old-Age, Survivors, and Disability Insurance; HI = Hospital Insurance.

a. Consists of payments for medical services for dependents of active-duty military personnel at nonmilitary facilities.

b. Includes contributions to self-insurance funds and purchases of insurance from private carriers.

c. This category includes fees paid to directors of corporations, to jurors and witnesses in the course of a judicial proceeding, and to justices of the peace to perform a marriage ceremony. It also includes compensation paid to prison inmates.

Data Sources for Final Estimates

In producing the final NIPA estimates of national income, BEA analysts rely primarily on data based on information gathered by regulatory or tax agencies. In some cases, such administrative data are not available, and analysts use surveys to fill in the gaps. BEA prefers to use administrative data because the final estimates are not subject to some of the errors inherent in data that are collected through surveys such as sampling variation. However, administrative data may not cover all benefit payments if certain categories of employers are exempt from filing requirements, such as small employers that contribute to certain types of pension plans.

Collecting data on employer contributions to federally administered social insurance programs is relatively straightforward because there is generally a single federal agency in charge of administration. The Social Security Administration is the source of information on employer contributions for Social Security and Medicare taxes, and the Department of Labor provides information on payment of unemployment insurance taxes and federally administered workers' compensation programs.[1]

1. The federally administered workers' compensation programs cover only a few specific groups: coal-mine workers' disabilities as a result of black lung disease, long shore and harbor workers, and federal civilian employees.

The large number of local government entities makes data collection more complicated for state and local funds. An annual Census Bureau survey collects information on state and local employee retirement plans. That survey covers all of the state retirement systems along with a sample of 1,100 larger local systems. For workers' compensation, six states have exclusive state-run plans, and an additional 20 states offer some form of workers' compensation coverage through a state-run program. The state programs provide information on the amount of employer contributions to those plans.

The sources of data vary more for privately administered benefit programs. Some regulatory agencies require reports from private-sector employers that include the amount of employer contributions, providing a single source of administrative data for those benefits as well. For example, information on employer contributions to pension plans comes from an annual informational filing that the Employee Retirement Income Security Act (ERISA) requires of most types of plans. However, certain defined contribution plans designed for small businesses—such as Simplified Employee Pension plans and Savings Incentive Match Plans for Employees of Small Employers (SIMPLE)—are excused from that requirement and so are not included in the measure of pensions and profit sharing.

Information on employer spending on privately administered workers' compensation insurance comes primarily from trade sources. Some employers pay

workers' compensation benefits directly to their employees rather than carry an insurance policy. Analysts then base the amount of contributions to such self-insured plans on employers' reports to state regulators.

Employer-provided health insurance is the most important component of nonwage compensation that has no single administrative source of data. For this category, final estimates are based on a combination of regulatory information, survey data, and trade sources. BEA calculates employers' spending on private health insurance by using an estimate of total spending on private health insurance from the Health Care Financing Administration (HCFA) and subtracting from that an estimate of the amount that employees contribute based on data from the Bureau of Labor Statistics's (BLS's) Consumer Expenditure Survey. HCFA estimates spending on private health insurance using an amalgamation of information from trade groups, state regulatory agencies, and survey data. HCFA uses three different methods to produce an estimate and then tries to reconcile them to improve the final estimate. Piecing together information from disparate sources in that way leaves room for error because it is not always clear whether all forms of employer-sponsored health care have been included or whether some parts of the market may have been counted twice. A new survey begun in 1997—the insurance component of the Medical Expenditures Panel Survey—will provide an alternative source of information when

the data become available.[2] The survey asks a nationally representative sample of employers about their expenditures on health coverage for their employees. Estimating employer contributions for health insurance on the basis of that source will have the advantages of directly measuring the component that employers pay and of using a single comprehensive source of information for all types of health coverage. However, it will be subject to the general disadvantages of survey data relative to administrative data.

Data Sources for Provisional Estimates

At the time that initial benefits estimates are made, none of those final data sources are available. In some instances, a year or more passes before analysts can obtain some data sources, at which point the data are of little use for short-term forecasts. Until final data sources are available, analysts form initial estimates by extrapolating from the estimates of the previous year using more timely data series, most of which come from surveys.

The first estimates for any given quarter are released about one month after the end of the quarter, with reestimates released one and two months after the first

2. The survey is jointly sponsored by the Agency for Health Care Policy Research and the National Center for Health Statistics, Department of Health and Human Services.

estimate. For example, first estimates for the last quarter of 1998, and for 1998 as a whole, would be released near the end of January 1999. Revised estimates would then appear toward the end of February and of March. The individual benefit components are not all estimated on that schedule—only the general categories "contributions to social insurance" and "other labor income." An annual revision of the NIPAs is made each summer, so a fourth estimate for the previous year is generally released in August along with revised estimates for the preceding year or two. The detailed components of nonwage compensation are first published with the annual revision and are revised as part of subsequent annual revisions.

Approximately every five years, BEA undertakes a comprehensive revision of the accounts that incorporates methodological changes as well as any source data that are newly available or revised at that time. So, for example, the 1996 comprehensive revision included changes based on source data that were not available on an annual basis (such as data from the five-year economic censuses) and source data for periods that were not covered by the annual revisions made since the 1991 comprehensive revision.[3] Because the 1996 comprehensive revision also involved methodological changes to some parts of the accounts, estimates back through 1929 were revised to produce historical estimates consistent with the definitions used for current figures.

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3. Department of Commerce, Bureau of Economic Analysis, "Improved Estimates of the National Income and Product Accounts for 1959-1995: Results of the Comprehensive Revision," *Survey of Current Business*, vol. 76, no. 1/2 (January/February 1996).

Little information about benefits is available in time for the initial quarterly estimates. For federally administered social insurance programs, BEA uses monthly series from BLS on employment and earnings of workers covered by such programs to estimate the amount of employer contributions. For other components of benefits, the initial quarterly estimates are based on BEA analysts' judgments of recent trends.

The first estimates of the detailed components in the NIPAs show up in the annual revision. For two of the largest components (health insurance and pensions and profit sharing), that estimate is based on Employer Costs for Employee Compensation (ECEC) from a BLS survey of employers. For some social insurance programs, the annual revision uses the preliminary data from final data sources. For example, the amount of receipts from Social Security and Medicare taxes for part of the year would be available in time for preparing that revision. Contributions for state employee retirement are based on a quarterly survey of state retirement plans conducted by the Census Bureau.

REVISIONS

BEA revises the initial estimates of the components of the NIPAs several times, with each revision incorporating more detailed and comprehensive data. The difference between initial and final estimates provides evidence of how accurately the final

estimates can be forecast using the initial data sources, even though the multiyear comprehensive revisions may introduce discrepancies caused by definitional changes rather than changes in source data.

Recent Revisions

In recent years, the category "other labor income" has generally been subject to larger revisions than the social insurance category. The estimates of the value of pensions and health insurance account for much of those revisions (see Table 2). The cumulative revisions presented in Table 2 are the difference between the most recent estimate and the initial estimate. BEA analysts expect to make additional revisions of some figures at later dates, so the cumulative revisions in Table 2 may over- or understate the eventual figure, particularly for 1996 and 1997. A comprehensive revision of the accounts took place in 1996, but there were no major definitional changes to the employee benefits part of the accounts.

BEA makes some revisions before the detailed components are published, so the cumulative revision of total supplements may not match the cumulative revisions to its detailed components. Even third and fourth revisions of the statistics may result in substantial changes (see Table 3).

TABLE 2. CUMULATIVE REVISIONS TO THE COMPONENTS OF NONWAGE COMPENSATION

	1991	1992	1993	1994	1995	1996	1997[a]
Component (Billions of dollars)							
Employer Contributions for Social Insurance							
Initial estimate	289.3	302.6	321.0	344.6	365.7	382.3	396.9
Cumulative revision	18.4	20.4	14.7	8.4	-0.4	-0.6	-2.4
Other Labor Income							
Initial estimate	290.6	305.7	350.7	381.0	424.0	436.2	446.1
Cumulative revision	32.1	45.6	34.4	24.0	-22.4	-49.2	-56.4
Pensions and profit sharing							
Initial estimate	47.9	55.1	68.2	87.7	98.6	94.8	n.a.
Cumulative revision	18.0	17.1	15.6	4.1	-4.8	-16.2	n.a.
Health insurance							
Initial estimate	188.1	213.9	235.6	263.0	256.7	278.9	n.a.
Cumulative revision	17.3	14.3	12.0	-3.2	-0.4	-22.5	n.a.
Cumulative Revisions (As a percentage of the initial estimate)							
Employer Contributions for Social Insurance	6.4	6.7	4.6	2.4	-0.1	-0.2	-0.6
Other Labor Income							
Pensions and profit sharing	37.6	31.0	22.9	4.7	-4.9	-17.1	n.a.
Health insurance	9.2	6.7	5.1	-1.2	-0.2	-8.1	n.a.

SOURCE: Congressional Budget Office using data from the Department of Commerce, Bureau of Economic Analysis.

NOTE: n.a. = not available.

a. First quarter.

TABLE 3. DETAILED HISTORY OF THE REVISION OF NIPA ESTIMATES OF NONWAGE COMPENSATION FOR 1993 (In billions of dollars)

	Date of Revision[a]				Cumulative Revision	
	March 1994	July 1994	January 1996	August 1997	Billions of Dollars[b]	Percentage of Initial Estimate
Employer Contributions for Social Insurance						
Federal	n.a.	276.8	286.5	287.2	10.4	3.8
State and local	n.a.	47.5	46.7	48.5	1.0	2.1
Total	321.0	324.3	333.3	335.7	14.7	4.6
Other Labor Income						
Pensions and profit sharing	n.a.	68.2	80.3	83.8	15.6	22.9
Group insurance						
Health	n.a.	235.6	249.6	247.6	12.0	5.1
Life	n.a.	5.9	6.7	6.7	0.8	13.6
Subtotal	n.a.	241.5	256.4	254.3	12.8	5.3
Privately administered workers' compensation plans	n.a.	40.1	38.9	41.6	1.5	3.7
Supplemental unemployment benefit plans	n.a.	0.4	0.5	0.5	0.1	25.0
Other	n.a.	5.1	4.9	5.0	-0.1	-2.0
Total	350.7	355.3	380.9	385.1	34.4	9.8
All Nonwage Compensation	671.7	679.6	714.2	720.8	49.1	7.3

SOURCE: Congressional Budget Office using data from the Department of Commerce, Bureau of Economic Analysis.

NOTE: n.a. = not available.

a. The date refers to the issue of the *Survey of Current Business* in which the estimate was first published.

b. The numbers in this column represent the difference between the July 1994 revision (or the March 1994 revision where those figures exist) and the August 1997 revision.

Reasons for Revisions

There are several reasons why initial and final source data may give different estimates. First, the initial source data, in many cases, are based on surveys that collect information about only a subset of all employer contributions, but final source data are based on a set of records that cover virtually all employer contributions for that particular benefit. Statistical techniques are used to estimate the total based on the original subset, but the random error introduced in choosing a sample will generally cause the initial and final estimates to differ somewhat. Second, the concepts measured or the scope of transactions included in the initial data sources may not match those used for the final estimates. Because growth rates from initial data sources are essentially used to extrapolate from the levels of past estimates, such differences are important only if they lead to differences in growth rates of employer contributions for benefits—differences in levels would generally not affect the estimates.

Given the large revisions to pension and health insurance contributions in past years, analysts are particularly interested in the source data for those two benefits, and initial estimates of both are based on the same BLS data series—Employer Costs for Employee Compensation. The ECEC is not an ideal data source because it does not use the same reference period or have exactly the same scope as the NIPA measures. For example, the ECEC gives estimates of the annualized hourly costs of

benefits as of March of the survey year, whereas the NIPAs require an estimate for the total cost of benefits over the year.

The ECEC is a by-product of a survey that was designed to measure the pressures that labor costs place on inflation. That measure, the Employment Cost Index (ECI), calculates changes in compensation costs holding constant the industrial and occupational distribution of employment. To that end, the methods of data collection are geared to measuring changes in compensation within industrial and occupational categories rather than shifts in employment among such categories. As a result, some features of data collection may limit the accuracy with which the ECEC measures changes in benefit contributions.

Most business locations surveyed for the ECI remain in the data pool for four years. In each period, some portion of that sample is dropped and replaced, with the sample members that are dropped and replaced in a period all coming from the same industry or group of industries.[4] Once a business location is chosen for the sample, analysts select specific occupations and collect information on compensation for employees in those occupations on a quarterly basis for four years. Although the sample of occupations is representative of employment at a business location at the time of the initial data collection, the data will not reflect shifts among occupations within an industry over time. Some other characteristics of the business location are

4. The ECI sample is moving to an area-based rotation scheme.

also collected once and then assumed to be constant—for instance, the amount of overtime used and how long employees have worked there. Attrition is also a problem—some businesses cease responding before the four-year survey period is up, making the sample of business locations (and hence occupations) less representative over time.

A comparison of incoming and outgoing samples (which overlap by one quarter) found that average compensation was higher for the outgoing sample than for the incoming sample from the same industry.[5] The difference between the samples was particularly large for estimates of total benefits for manufacturing.[6] Assuming that the incoming samples were representative of the industry at that point in time, those findings indicate that industry samples become less representative over time. However, the findings do not describe to what extent that is a result of attrition or of changes in occupation and other characteristics over time.

Comparing the ECEC to the final NIPA data is complicated by the fact that the ECEC gives costs per hour and the NIPAs give total costs, so a measure of the total number of hours is needed to put them on comparable scales. That mismatch makes it difficult to judge whether total compensation costs are really inconsistent

5. Michael Lettau and Mark Loewenstein, *Sample Replacement in the ECI* (Bureau of Labor Statistics, Compensation Research and Program Development Group, October 1996).

6. Michael Lettau, *Wedge Adjustment to the ECEC* (Bureau of Labor Statistics, Compensation Research and Program Development Group, October 1997).

in the two series or whether the total number of hours have been misestimated. However, since all forms of compensation would be converted to a per-hour basis by dividing a total by the same number of hours, the fraction of compensation accounted for by various components of the two series would not be affected.

A BLS/BEA study comparing measures of hourly compensation costs from the two data series found that the two series do not match well for certain benefits.[7] Health insurance accounted for a similar portion of total compensation in both sources—6.7 percent. But other benefits appeared less consistent—pension contributions were 3 percent of compensation in the ECEC and 2.7 percent in the NIPAs. Social Security contributions accounted for 6 percent of compensation in the ECEC compared with 5.4 percent in the NIPAs.

Differences in growth rates are more important because the ECEC data are used to extrapolate NIPA estimates for the previous period rather than to form a new estimate of the level of benefits. Over the 1988-1994 period, employer health insurance contributions grew about 1 percent faster per year in the NIPA data (adjusted to an hourly basis) than in the ECEC measures. Employer pension contributions grew 1.5 percent faster in the NIPAs than in the ECEC measures.[8] In

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7. Anthony Barkume, Phyllis Otto, and Don Wood, *Labor Compensation in the NIPAs and the ECEC: A Report to the BEA/BLS Compensation Measurement Workgroup* (Bureau of Labor Statistics, April 1997).

8. The exact difference between growth rates depended on which data series of hours was used to convert NIPA measures to an hourly basis. The BLS/BEA study used three alternative series: two were based on the hours data series underlying BLS's quarterly labor productivity numbers, with two alternative

contrast, growth rates of total employee compensation and of employers' Social Security taxes per hour were similar for the two data sources. Mismeasurement of the growth rate of hours could account for differences between the ECEC and the adjusted NIPA estimates, but the differences from that source would be the same for each component of compensation.[9] Given that growth rates in the two series matched fairly closely for total compensation and for Social Security contributions, it is likely that the incompatibility lies in the measurement of health insurance costs and pension contributions.[10]

In using the ECEC, BEA does not mechanically apply growth rates from the series to estimate contributions for pensions and health insurance. Because the ECEC is an hourly measure, an adjustment must be made for growth in hours, and analysts at BEA use their judgment in forming benefits estimates. Judgmental adjustments may help avoid systematic biases in initial estimates—if growth in the ECEC consistently underestimates the final estimate, an adjustment can be made to

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assumptions about hours per week for nonproduction and supervisory workers (which are not measured); the third series was based on hours as measured in the Current Population Survey. For health insurance, the difference in growth rates was 1.1 percent using either of the productivity hours series or 0.8 percent using the Current Population Survey. For pensions, the difference in growth rates was 1.5 percent based on the productivity hours series or 1.3 percent based on the Current Population Survey measure.

9. The growth rate in the per-hour cost of benefits will roughly equal the growth rate in the total cost of benefits minus the growth rate of total hours of work. Thus, if the annual growth rate of total hours of work is overstated by 1 percent, the annual growth rate in the per-hour cost of each type of benefit would be understated by 1 percent.

10. For total compensation to grow at approximately the same rate in the two series, the differences in growth rates for the components of total compensation would have to offset each other. The BEA/BLS study did not examine each category of supplements individually, so it is not clear which categories have slower growth rates in the NIPAs than in the ECEC.

reflect that. But unless the ECEC growth rate differs from growth in the final estimate by the same amount each year, judgmental adjustments are likely to be too large in some years and too small in others. There is simply not enough information to make exactly the right adjustment to such fluctuations in each year, which leads to the need for revisions.

CONCLUSIONS

Estimates of employee benefits in the national accounts, like many components of the NIPAs, are based on data that have been collected for other purposes. For employer contributions for social insurance (based largely on information collected by administrative agencies), that practice appears to provide the basis for reasonably accurate estimates. However, for the largest components of other labor income—employer contributions for health insurance and pensions—the current data sources may not be adequate.

Initial estimates of employer pension and health insurance contributions are subject to frequent revisions, indicating inconsistencies between initial and final source data for those components. The inconsistencies appear to arise from using initial indicators that do not align well with the final national accounts. The source data for final NIPA estimates of employer contributions for health insurance, which

are based on an amalgamation of information from disparate sources—administrative agencies, trade sources, and survey data—appear particularly problematic. Given that the final data for health insurance contributions may be inaccurate, the extent of revision may be an inappropriate standard by which to judge the quality of the initial indicators for that component.

The quality of the data affects the reliability of forecasts of tax revenues. For example, growth in spending by employers on health insurance has been an important factor in recent growth in employee compensation. However, if estimates of that component are prone to error, there is uncertainty about how much those costs have grown in the recent past, making it difficult to know what to forecast for the future. If trends in the components of employee compensation cannot be reliably inferred from current estimates, neither analysts nor policymakers can be confident of forecasts of future personal income tax revenues.