MEASURING INCOME FOR DEVELOPING AND REVIEWING INDIVIDUAL TAX LAW CHANGES: EXPLORATION OF ALTERNATIVE CONCEPTS

Susan Hostetter, Internal Revenue Service

How close to the personal income tax return information is the real profile of a taxpayer's economic circumstances? In many cases it's not very close, and this is particularly true for taxpayers with the greatest resources.

The Tax Reform Act of 1986 was passed by Congress after lengthy negotiations and considerable publicity. During this time millions of taxpayers became far more aware of the tax law and the consequences for themselves as individual taxpayers. Highlighted throughout the controversy was the concept of "economic income." That is, what definition of income should be used to classify the individual and what tax consequence would be affected for each income classifier? The Office of Tax Analysis (OTA), which prepared initial drafts of the law, used a "family economic income" concept to review tax consequence.

The designers of the law made it clear that using economic income was the focus of their plan. The new law shed many of the legal or non-economic characteristics of the tax system in an attempt to come closer to economic income. Therefore, as we move toward a tax law based more closely on economic income, and as public awareness of the concept has been heightened, IRS, too, is changing its methods, to be consistent with these new needs. Beginning with Tax Year 1985, the Statistics of Income Division of the Internal Revenue Service (IRS) will address this issue by reporting the characteristics of individual taxpayers by a measure of income closer to that of economic income.

This paper will give a historical perspective of the IRS income classifier -- adjusted gross income (AGI). The limitations of AGI and its relationship to economic income will be discussed. The major focus of the paper, a description of a new <u>retrospective</u> income concept, is next. This will be followed by a brief analysis of the new income concept, using data from the 1985 Statistics of Income (SOI) sample of income tax returns for individuals and sole proprietors. The paper's emphasis will then turn forward to describe a new <u>prospective</u> income concept, designed to address new changes introduced by the Tax Reform Act for Tax Year 1987. Finally, the paper will cover current and future plans for IRS publication of individual income tax data under both new income concepts, using constant dollars as well as the traditional current dollars.

HISTORICAL BACKGROUND

IRS' current income concept is AGI. Before going on to describe some alternative income concepts, a historical perspective of AGI, the basis for developing many income concepts by our users, may be in order.

On February 25, 1913, the Sixteenth Amendment to the Constitution became effective. It provided that "...Congress shall have the power to lay and collect tax on incomes, from whatever sources derived, without apportionment among the several States, and without regard to any census or enumeration." From 1913 on, Federal income tax has been collected each year. This led the way for developing the SOI programs.

With the inception of the Statistics of Income program in 1916, Congress stipulated that IRS had a statutory obligation for "...the preparation and publication of statistics reasonably available with respect to the operation of the income tax law and containing classifications of taxpayers and of income...and any other fact deemed pertinent and valuable..." In accordance with this Congressional mandate, annual reports providing data on individual taxpayers at the National level have been published throughout the more than 70-year history of the SOI program.

By as early as 1930, the SOI data had developed into a leading source of basic economic information. As numerous Congressional, Federal, State and private economic research organizations were created, and as tax administration and projection became important for estimating future tax revenue, increasing demand and importance were attached to IRS statistics [1].

AGI AS AN IRS INCOME CLASSIFIER

Prior to 1944, IRS individual statistics were based on "net income," which was defined as positive sources of income less negative amounts (as provided for under the tax law for each particular year). Since 1944, the IRS individual statistics have been, and are still today, based on AGI, which was (and is) defined as positive sources of income less negative amounts and statutory adjustments.

<u>Effects of Tax Law Changes on Composition of AGI</u>

Definitional differences in the AGI, caused by tax law changes from one year to the next, make historical comparisons difficult. For example, unemployment compensation and social security income were first potentially subject to tax, and therefore partially included in AGI, in 1979 and 1984, respectively. Salaries and wages, one of the more consistently defined income sources, originally excluded sick pay, but now includes it. In 1981, a partial exclusion for interest income was introduced. Dividends and sales of capital assets exclusions have changed even more extensively. Adjustments to income, new in 1964, have included such items as employee moving expenses, IRA's, and Keogh's.

AGI is not only composed of income; it also includes adjustments. These adjustments have a similar affect to that of a deduction, except that adjustments are subtracted from income <u>before</u> AGI -- the income classifier -- is determined. Figure 1 is an example of how tax law changes in both income sources and adjustments from 1983 to 1987 would change the AGI for an individual who had the same economic income in both years.

Figure 1.--Illustrative Example for "T.X.Payer"

Income Source	Gross Income	Included in AGI	
		1983	1987
Wages			
& Pension.......	$71,000	$71,000	$71,000
Dividends........	4,000	3,800	4,000
Capital Gains....	30,000	12,000	30,000
Social Security..	8,000	0	4,000
Total Income...		$86,800	$109,000
IRA Contribution	2,000	2,000	0
Ded. Married and			
Both Working....	2,000	2,000	0
Tot. Adjustments		$4,000	0
AGI.............		$82,800	$109,000

Consider the fictitious "T.X. Payer," who, with his wife's wages and his pension income, reports $71,000. He and his wife also have dividends, capital gains, and social security income. With the same income they look very different under the 1983 tax law and the new 1987 tax law. For Tax Year 1987 they lost the dividend exclusion, the sizable capital gains exclusion, the exclusion of social security income, the adjustment for the Individual Retirement Account (IRA) contribution, and the deduction for a married couple when both work.

The result is that his AGI increases from $82,800 to $109,000. Thus, because of tax law changes he changes income classes dramatically -- instead of being in the income class from $75,000 to $100,000, he is now in the class from $100,000 to $200,000. This "apples vs. oranges" effect in looking at income characteristics from year to year could cause data users to make false assumptions about numbers of individuals in various income classes and their characteristics.

Strengths of the AGI Classifier

The strength of continual use of the AGI concept is that it has always been well defined and documented for any given year; it is understood by much of the population; and it is reliable, because it is so thoroughly built into the tax law that all phases of tax processing calculate and test the accuracy of this figure. Because it is part of the tax system, it has a kind of stability such that it can be successfully used over time.

Most IRS data users (except the Treasury Department's Office of Tax Analysis and the Congress' Joint Committee on Taxation), such as the General Accounting Office, the Bureau of Economic Analysis, the Bureau of the Census, state tax administration offices, economic forecasters, universities, researchers, and many others have relied primarily on our IRS classification by AGI. In fact, the AGI classifier has been the main income variable used in published tables for over 40 years. Of course, for over 25 of those years these users could buy the SOI Individual Tax Model and use these microdata extracted from the SOI Individual/Sole Proprietorship Program file to "roll their own" classifier.

Limitations of the AGI Classifier

On the negative side, the components of income and adjustments have changed many times over the years, especially because of the following acts:

- the Economic Recovery Tax Act of 1981,
- the Tax Equity and Fiscal Responsibility Act of 1982, and
- the Tax Reform Act of 1986.

Definitions of the components have altered greatly. Since the definitional base has been modified from year to year, the basic measurement of income in SOI Individual program statistics has changed, as well.

Effects of Tax Law Changes on the Tax Behavior

Another problem affecting the stability of AGI as an income classifier is the increasing change in taxpayers' behavior with regard to tax laws. For example, the end of Tax Year 1986 saw tremendous increases in sales of capital assets, presumably to take advantage of the 60 percent exclusion that would no longer exist for Tax Year 1987. In recent years, not all, but a significant number of, taxpayers changed their emphasis in making business management and investment decisions to decrease their individual tax burden through tax shelters. Instead of making personal financial and business financial decisions independent of tax law and paying taxes accordingly, some taxpayers made financial decisions based primarily or partly on the tax consequence.

AGI as a Tool for SOI Users

Finally, the income concept that SOI has used -- AGI -- was designed to administer collection of taxes and what SOI really needs is a concept that is adaptable for use by our major customers. However, if one considers just SOI individual income data, it is interesting to note that, even there, the two major users have defined it differently.

The Office of Tax Analysis has developed "family economic income," which uses an accrual method to estimate total income for the family unit. The Joint Committee, on the other hand, uses an expanded income concept, which focuses on adding back tax preferences that were excluded in AGI. Understanding the Joint Committee's income concept is particularly important, since the official Congressional estimates of the distributional impact of the Tax Reform Act of 1986 are based on it [2]. Both of these concepts, discussed more fully in the complete version of this paper [3], draw on the SOI Individual program microdata file, but impute many of the sources of income that are not included on individual income tax returns.

It is for these reasons that IRS has decided to look for a broader income concept. The next section proposes a new definition under consideration to replace AGI as the principal income classifier for IRS data.

A NEW DEFINITION FOR IRS INCOME

What is Economic Income?

In order to develop a better and broader income concept we need to begin by answering the crucial question "What is economic income?"

Economic income has an elusive definition. One definition frequently cited is that by Haig (1921) and Simons (1938): income is the amount that a family or individual consumes in a particular time period, plus the net increase or decrease in the value of their assets [4]. In the broadest conceptual definition of personal or individual income, we would include not only gross wages, dividends, interest payments, all business income, etc., but also untaxed employer contributions; transfer payments, such as veterans' benefits and food stamps; increases in net assets (whether or not realized); insurance payments for pain or injury; net rental income for homeowners; and the value of benefits provided by municipalities, such as public schools, fire and police protection, and public libraries. Of course, a definition this broad is beyond the scope of any existing U.S. income measurement program, whether at the Treasury Department, the Census Bureau, or the Federal Reserve Board.

Issues and Assumptions

Let us begin, then, with a concept which is achievable. Recognizing the difficulty in defining economic income; admitting that information on the individual tax form is limited; realizing that the behavior of taxpayers, themselves, plays an important role; and accepting that a constant definition over a base period of substantial years is necessary, IRS staff recently set out to develop a new income classifier. First, we identified three major issues surrounding its development:

- the unit to be classified: return or family;
- the number of classes and the nature of the classifier (e.g., current or constant dollars, fixed dollar intervals, fixed percentile intervals); and
- the income concept to be employed in a new definition of "Total Income."

The last issue is the focus of the discussion in this section. How can IRS improve its measurement of income and, therefore, its statistics? How can it provide comparisons from year to year that adjust for the changes in the definition of the AGI classifier caused by tax law changes?

Statistics of Income data are derived from an administrative tax program and are limited to those sources of income that Congress has decided to tax, either entirely or in part. These sources of income appear on the individual income tax forms -- the Form 1040, Form 1040A, Form 1040EZ, and their supporting schedules and forms [5]. IRS income concepts and statistics should be limited to reported data for these items. The qualifier of "reported data" is important, because of such cases as social security income which is required to be reported if certain conditions are met, only not all social security income would be reported on tax returns. This leads us to the following three assumptions used to develop the new income definition:

- The new concept must be applicable over several years and should allow comparisons, both pre- and post- the major tax legislation of the 1980's.
- The definitions of income chosen should be such that they use available tax return items and do not rely on imputation, at least for the base years.
- The definition should be for a given year's income and not incorporate "carryovers" and "carrybacks," nor should it include deferred compensation [6].

This means, for example, that items such as welfare payments, which are commonly included in non-IRS income definitions, would not be part of the new IRS classifier, since they are excluded from Federal income tax reporting, and could only be included by imputation. If IRS provides income data that include all income reported on income tax forms without exclusion, deduction, or adjustment, those data will provide the strongest income base for OTA to use in developing family economic income. Many users of IRS data could then choose to include imputed data to develop their own income concept. IRS could, even -- and, in fact, may -- impute data items for years prior to the base period, so that a comparable database could be developed going back to 1960.

A Retrospective Total Income Concept

With these assumptions in mind, IRS has designed a new retrospective income concept, called "1979 total income" -- to reflect the base period 1979 through 1986. Why did we select this base period? Because it covers the tax law changes of the 1980's and IRS data can be treated consistently with only those sources of income or other characteristics that were inclusive for all of those years. Even though the new concept is "retrospective," it can be continued in future years, to show an income that is conceptually similar to income published for these prior "base" years. The 1979 total income concept is preliminary. It does not adjust for costs in generating income, such as the investment interest expense, and IRS is considering a modification to include such deductions. The "expanded income" concept used in the OTA High Income Nontaxable program, in fact, does reduce income for costs of generating income. Using the expanded income computation, it is possible to have a lower expanded income than AGI. So, you see, AGI doesn't always underestimate income, but it most frequently does [7]. However, the 1979 total income concept described in this paper -- and that which IRS will include in its 1985 annual report on statistics of individual taxpayers -- does not reduce income for income-generating expenses. Figure 2 provides the derivation for the new concept, mostly using the line items on the income tax return.

By applying this definition, IRS has come up with a concept of income that is broader and more stable than AGI. The largest difference between the 1979 income concept and AGI is the 60 percent capital gains exclusion, which was included in the 1979 concept income. Since most adjustments are really tax items and not income, we added those back, leaving only expense items, such as the employee business expense, as adjustments to income. The State income tax refund was omitted

Figure 2.--Calculation of the 1979 Total Income Concept [5]

1979 TOTAL INCOME =
Salaries and wages*
\+ Interest (without any exclusion)*
\+ Dividends (without any exclusion)**
\+ Alimony received*
\+ Capital gains (without any exclusion, and allowing for short-term and long-term loss without limitation)**
\+ Capital gains not reported on Schedule D (without any exclusion)**
\+ Other gains reported on Form 4797*
\+ Net business income, Schedule C*
\+ Net farm income*
\+ Net rent income*
\+ Net royalty income*
\+ Net partnership income*
\+ Net Subchapter S Corporation income*
\+ Net farm rental income*
\+ Net Estate and trust income*
\+ Unemployment Insurance income reported**
\+ Depreciation in excess of straight-line depreciation
\+ Pension income reported**
\+ Advance earned income credit
\+ Net other income*
LESS
Moving expenses*
\+ Employee business expenses*
\+ Alimony paid*

* Included in Tax Year 1985 AGI.
** Modified from income included in Tax Year 1985 AGI.
Note: Items without an asterisk were not included in Tax Year 1985 AGI.

because it is a tax recovery or adjustment -- again, not a measure of income. Social security benefits are obviously income, but they weren't potentially subject to tax or even partially included on the tax return until 1984 and, therefore, could not be used consistently for all years from 1979 through 1986.

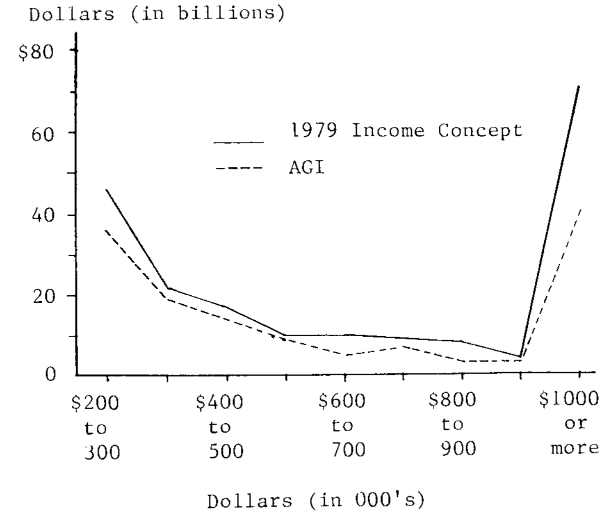
COMPARISON OF INCOME CONCEPTS USING SOI 1985 FINAL INDIVIDUAL PROGRAM DATA

How confident can we be that the 1979 income concept meets our needs (i.e., is a more comprehensive measure of income than AGI)? In order to assess its usefulness, we decided to look at the effect of the new definition on the distributions of the two major variables -- amount of total income and number of returns. Using the SOI final 1985 Individual data file, we can compare the distribution of individuals across income classes for the 1979 income concept and for AGI.

Total Income

What happened with income? There was an increase in total income of 140 billion dollars (or six percent) when computed according to the 1979 income concept. Figure 3 compares total income for the two concepts for classes from

Figure 3.--Total Income for High Income Returns by 1979 Income Concept and AGI

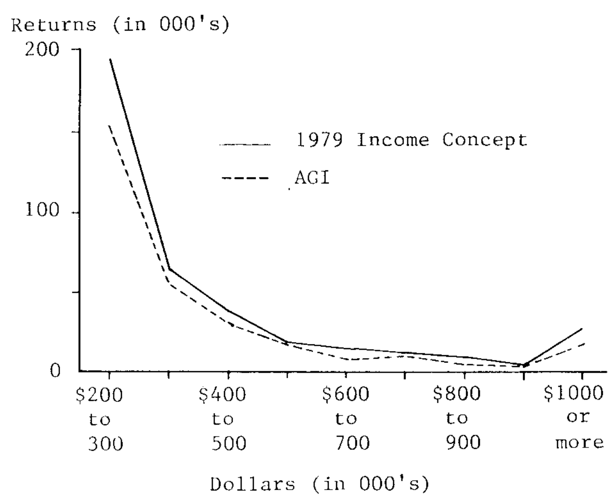


$200,000 up. The greatest differences occur above $500,000. This is not surprising, since more taxpayers are now in those classes and they are credited with more income when computed for the 1979 income concept. The amount of income for returns with a million or more increased 78 percent, and it was 46 percent for those from $500,000 to $1,000,000.

Number of Returns

Figure 4 plots the distributions for high income returns for both AGI and the new retrospective income. As expected, it shows that the number of all returns for the high income classes -- over $200,000 -- was consistently higher when the income was computed according to the 1979 income concept. The shift to income classes over $200,000 using the 1979 income concept was about 86,000 returns or 29 percent of the high income returns. Why? With the increase in income for high income classes shown in Figure 3, we would expect such increases in the number of returns distributed in the high income classes. Much of this shift to higher

Figure 4.--Distribution of High Income Returns by 1979 Income Concept and AGI



income classes was due to the elimination of the capital gains exclusion in the 1979 income concept.

Total income tax was a higher percent of AGI income than it was of the 1979 income concept for all classes. This would be expected, since AGI is a major component of taxable income and income tax under current law. The average tax paid for individuals in the million dollar class was $911,000 for AGI income and dropped to $677,000 for the 1979 concept income. Many of the taxpayers who moved into this income class had considerable capital gains income which was taxed at a lower rate, causing the average tax to drop. These and other sources of income data are shown by income class in a table in the more complete version of this paper, published in Statistics of Income And Related Administrative Records Research: 1986 - 1987. [3]

A FUTURE INCOME CONCEPT

While the new retrospective 1979 income concept will provide some continuity in providing statistics on individual income over time, it still falls short of offering the best income data for users who want to employ it in the development of economic income. This may not be bad, since the concept has been designed to allow each user to impute or change the income according to his or her own needs.

Unfortunately, the 1979 total income concept is suitable for only one of IRS' needs. It was developed to cover the base period from 1979 to 1986 (coinciding with several major tax law changes). However, because of differences introduced in those crucial years, it was not possible to define the new retrospective income concept to reflect the actual changes and still provide the historical consistency we were seeking.

Therefore, for the immediate future, a revised definition is needed to reflect the extensive changes specific to the Tax Reform Act of 1986. In other words, the 1979 income concept will be based on and reflect the law without changes occurring in the 1980's, and a different concept is needed that will incorporate all the new items brought about in the three major new laws of the 1980's. For this purpose, IRS has also developed a prospective income concept -- the 1987 total income concept.

A Prospective Total Income Concept

The 1987 total income is designed to meet current classification needs; that is, it is based on information available for Tax Year 1987 and includes all the income sources added to the tax form in the changes in the law during the 1980's and, particularly, those changes from the Tax Reform Act of 1986. Since the essential purpose of the prospective, and more comprehensive, definition is to include all the items that were not available from data reported on returns in previous years, it is also true that this concept cannot be extended back to previous years. It's purpose is to move forward. Figure 5 describes the 1987 total income concept, mostly using the line items which will appear on the income tax return for Tax Year 1987.

Figure 5.--Calculation of the 1987 Total Income Concept [8]

1987 TOTAL INCOME =
  Salaries and wages*#
+ Interest*#
+ Dividends**#
+ Alimony received*#
+ Capital gains**#
+ Net business income*#
+ Net farm income*#
+ Net rent income*#
+ Net royalty income*#
+ Net partnership income*#
+ Net Subchapter S Corporation income*#
+ Net farm rental income*#
+ Net estate and trust income*#
+ Net real estate mortgage investment conduit income*
+ Allowable passive loss
+ Depreciation in excess of straight-line depreciation#
+ Pension income reported**#
+ Advance earned income credit#
+ Net other income*#
+ Foreign earned income exclusion
+ Unemployment Insurance income reported*#
+ Social security income reported**
+ Tax shelter farm loss
+ Amortization of certified pollution control facilities
+ Incentive stock options
+ Intangible drilling costs
+ Natural resources depletion expenses
+ Tax exempt interest
+ Completed contract method
+ Circulation expenditures
+ One-time exclusion for sale of principle residence

LESS
  Moving expenses*#
+ Employee business expenses*#
+ Alimony paid*#

* Included in Tax Year 1987 AGI.
** Modified from income included in Tax Year 1987 AGI.
\# Included in the 1979 income concept.
Note: Items without an asterisk were not included in Tax Year 1987 AGI.

This definition should provide an even broader and more stable classifier of income for our users -- one that more nearly reflects the legislators' intent when restructuring the income tax system in the Tax Reform Act of 1986. The 1986 Act took care of the capital gains and the dividends exclusion. It also required the reporting of tax exempt interest. New laws and new forms provide a great deal more detail on passive loss, and IRS statistics can, in turn, transcribe and include appropriate amounts in total income. For example, many of the tax preferences will be identifiable on the alternative minimum tax form. Furthermore, the foreign earned income exclusion (up to $80,000) has been on the individual tax return for several years, but, beginning with Tax Year 1987, IRS statistics will include this field on the data file and use it in the concept of total income. These and other additions to total income are also reflected in Figure 5.

CONCLUDING REMARKS AND FUTURE PLANS

We have shown how AGI is not only income, but rather has adjustments, exclusions, and many of the trappings of tax law included. We have also described a broad concept of economic income and some new income concepts that IRS will develop to provide data that will be more useful and accurate for OTA and the Joint Committee, as they each develop their version of economic income. To evaluate the potential benefit of the new IRS income concepts, the complete version of this paper [3] provides descriptions of some of the other major income concepts currently in use, two of which depend upon IRS as their major resource. A review of these concepts should help the reader to understand the fitness of the 1987 income concept as a basis from which SOI's users can expand to their own broader income concepts. A discussion of constant dollars compared to current dollars is also included, to provide a better basis for analysis.

Where do we go from here? Following is a discussion of IRS plans for developing, publishing, and generally incorporating these ideas in the SOI Individual/Sole Proprietorship Program.

Data using only the 1979 concept are already available. Statistics of Income...1985, Individual Income Tax Returns includes data based on both AGI and the 1979 income concept, as well as a comparison of current and constant dollars. For Tax Year 1986, the 1979 income concept will be introduced more systematically in the data presentation. The value will be included on each individual's record in both the final file for OTA and in the Individual Tax Model. Tables will cover the 1979 income concept and AGI in both current and constant dollars. We will also have a table showing percentile distribution of selected income and tax items.

IRS plans to develop data based on the 1979 income concept for all Tax Years back through 1979. We expect further research to allow us to capture similar data for some years prior to that -- going back as far as 1960. The number of new concepts of income may increase -- there may be other concepts developed to serve other purposes.

For Tax Year 1987, primary emphasis in publishing data will be on the new and more inclusive 1987 income concept. Its value will be included in the data file and in the Tax Model, as will the 1979 income concept value, to provide a common base for comparison to prior years' data. In other words, data will include tables based on AGI, the 1979 concept, and the 1987 concept. As for the Tax Year 1986 publication, current dollars, constant dollars, and percentile intervals will be used to present 1987 data.

With the introduction of taxpayer identification numbers for dependents for Tax Year 1987, IRS is also looking towards developing and producing data using a family income concept. And, beginning with Tax Year 1989, SOI will have a redesigned sample which includes an imbedded panel. Having a panel included in the sample will allow OTA to make valuable comparisons of change at the individual taxpayer level -- a considerable improvement over comparisons at the aggregate level, when studying the effects of tax law change on individual taxpayers.

IRS was the leader in providing income distribution statistics up through the 1940's. Now, with the recent Tax Reform Act, IRS is in a strong position to gain this stature again. The discussion in this paper is simply the introduction to many future chapters representing a variety of expanded income statistics.

ACKNOWLEDGMENTS

The author is grateful to Susan Nelson and Allen H. Lerman, of the Office of Tax Analysis, as resources and reviewers on this paper.

NOTES AND REFERENCES

[1] Paris, David and Hilgert, Cecelia, "70th Year of Individual Income and Tax Statistics, 1913-1982," Statistics of Income Bulletin, Internal Revenue Service, Winter 1983-84, pp. 1-10.

[2] Nelson, Susan C., "Family Economic Income and Other Income Concepts Used in Analyzing Tax Reform," Compendium of Tax Research, 1986, The Office of Tax Analysis, Department of Treasury, 1987.

[3] Hostetter, Susan, "Measuring Income for Developing and Reviewing Individual Tax Law Changes: Exploration of Alternative Concepts," Statistics of Income and Related Administrative Record Research: 1986-1987, Internal Revenue Service, 1987.

[4] Haig, Robert Murray, "The Concept of Income -- Economic and Legal Aspects," The Federal Income Tax, Columbia University Press, 1921; and Simons, Henry C., Personal Income Taxation: The Definition of Income as a Problem of Fiscal Policy, Chicago University Press, 1938.

[5] Statistics of Income...1985, Individual Income Tax Returns, Publication 1304, 1987.

[6] Carryovers are losses incurred in one Tax Year in excess of the allowable deduction and deducted in a later Tax Year. See "Explanation of Terms," in [5].

[7] Lerman, Allen H., "High-Income Returns, 1984," Statistics of Income Bulletin, Internal Revenue Service, Spring 1987, pp. 1-29.

[8] Definitions for the income items included in the calculation of the 1987 Total Income Concept are defined on the 1987 Tax Forms and their instructions. A few, such as allowable passive loss and depreciation in excess of straight-line depreciation, are computed from line items from several forms.