

# INSIDE THE VAULT

An Economic Education Newsletter from the Federal Reserve Bank of St. Louis

Volume 11, Issue 1 Spring 06

## Income Taxes: Who Pays and How Much?

Spring brings not only March winds and April showers, but also tax-filing season. Whenever the topic of taxes comes up, it usually makes people wonder who pays and how much. That's a fair question, and a close look at some federal income tax facts may provide some surprising answers. The table indicates who is paying federal individual income taxes based on income groups. Perhaps more important, it reveals the relative percentage of taxes paid by these different groups of taxpayers. (Note that this chart only provides information on individual federal income tax and does not include other taxes, such as payroll taxes or state income taxes.)

Federal tax receipts for 2003 totaled \$1.7 trillion, with the largest share—43 percent—coming from individual income



taxes (IIT). As shown in the table, receipts from IIT totaled \$747.9 billion, the result of 128.6 million filed returns that reported total adjusted gross income (AGI) of \$6.3 trillion.<sup>1</sup> Thus, the ratio of taxes to income, known as the “total average tax rate,” was 11.9 percent. Undertaking the same calculation for earlier years, one finds that the average tax rate for 2003 is the lowest rate for 1985-2003.

### From Top to Bottom

To answer the question of who pays and how much, however, we need to take a closer

look at the data, which indicate income tax burdens for specific income groups. Let's start with the top 50 percent income group, compared to the bottom 50 percent. The former group

*Continued on back cover*

### Federal Income Tax Burden by Income Group, 2003

Income group	Number of returns	AGI (\$ millions)	Income taxes paid (\$ millions)	Group's share of total AGI (%)	Group's share of income taxes (%)	Average tax rate (%)
All taxpayers	128,609,786	6,287,586	747,939	100	100	11.9
Top 1%	1,286,098	1,054,567	256,340	16.77	34.27	24.31
Top 5%	6,430,489	1,960,676	406,597	31.18	54.36	20.74
Top 10%	12,860,979	2,663,470	492,452	42.36	65.84	18.49
Top 25%	32,152,447	4,078,277	627,380	64.86	83.88	15.38
Top 50%	64,304,893	5,407,851	722,027	86.01	96.54	13.35
Bottom 50%	64,304,893	879,735	25,912	13.99	3.46	2.95

SOURCE: Internal Revenue Service, Individual Income Tax Returns with Positive Adjusted Gross Income (AGI), Tables 5 and 6; [www.irs.gov/taxstats/indtaxstats/article/0,,id=133521,00.html](http://www.irs.gov/taxstats/indtaxstats/article/0,,id=133521,00.html).

# Q&A

## Q. Who is Ben Bernanke?

A. Ben S. Bernanke was sworn in on Feb. 1, 2006, as chairman and a member of the Board of Governors of the Federal Reserve System. Bernanke also serves as Chairman of the Federal Open Market Committee, the System's principal monetary policymaking body.

## Q. What is his educational background?

A. Bernanke graduated summa cum laude with a B.A. in economics from Harvard University in 1975. A Ph.D. in economics was awarded to Bernanke from the Massachusetts Institute of Technology in 1979.

## Q. Besides being a member of the Federal Reserve Board, what other work experience does he have?

A. Bernanke has taught at several universities, including Stanford University, Massachusetts Institute of Technology and Princeton University. As an author, he has published several scholarly books and two textbooks. His work with civic and professional groups includes two terms as a member of the Montgomery Township (N.J.) Board of Education. Before his swearing-in as chairman of the Federal Reserve, Bernanke was chairman of the President's Council of Economic Advisers, from June 2005 to January 2006.

## Q. How is the chairman of the Board of Governors chosen?

A. The seven members of the Board of Governors of the Federal Reserve System are nominated by the President and confirmed by the Senate. The chairman and the vice chairman of the Board are named by the president from among the members of the Board of Governors and are confirmed by the Senate.

## Q. How long do the chairman and other members of the Board of Governors serve?

A. Terms of the seven members of the Board of Governors of the Federal Reserve System are for 14 years. The chairman and vice chairman's positions are for four years, and they can be reappointed to those four-year offices as long as they are on the Board. Bernanke was appointed to a full 14-year term, which expires Jan. 31, 2020, and to a four-year term as chairman, which expires Jan. 31, 2010.

*The content for Q & A was compiled by Billy Britt, economic education specialist at the St. Louis Fed's Little Rock Branch, and was largely adapted from the "About the Fed" section of the Federal Reserve Board's web site. For more information, go to [www.federalreserve.gov/bios/bernanke.html](http://www.federalreserve.gov/bios/bernanke.html). For a list of previous Fed chairmen and the dates they served in office, go to [www.federalreserve.gov/bios/boardmembership.htm](http://www.federalreserve.gov/bios/boardmembership.htm).*

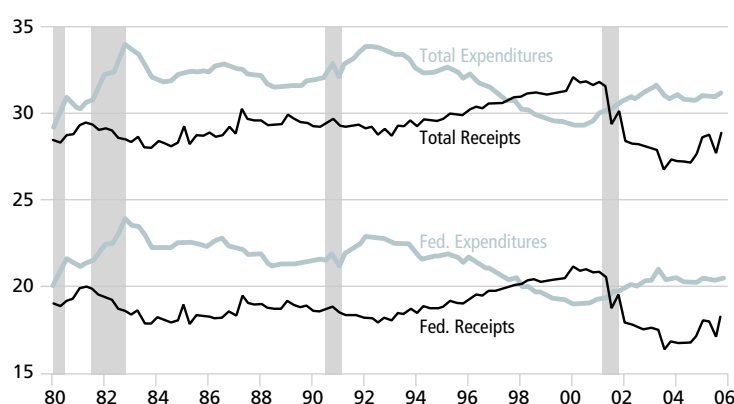
## Economic Snapshot

### 4th Quarter 2005

	Q1-05	Q2-05	Q3-05	Q4-05
Growth rate —				
Real Gross Domestic Product:	3.8%	3.3%	4.1%	1.7%
Inflation rate —				
Consumer Price Index:	2.5%	3.7%	5.5%	3.2%
Civilian Unemployment Rate:	5.2%	5.1%	5.0%	4.9%

### Government Current Receipts and Expenditures

Percent of GDP



Shaded vertical lines represent recessions.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis

### What trends do you see in federal receipts for the '80s, '90s and 2000s?

Federal receipts were fairly flat, on average, over most of the 1980s. In the 1990s, after a slight downturn following the recession in 1991, federal receipts rose for the rest of the decade. Beginning in 2001, federal receipts have generally been falling.

### What do you notice about total government expenditures during the recessions that took place from 1980 to the present? Why might your observations be expected?

Except for one small downturn in 1991, total government expenditures rose during recessions. This is not surprising since claims for unemployment compensation and other government transfers generally rise during recessions.

### When comparing federal expenditures with federal receipts, describe whether the U.S. economy has experienced a budget surplus (receipts greater than expenditures) or a budget deficit (expenditures greater than receipts) from 1980 to the present.

For most of these years, the federal government ran budget deficits. The exception was 1998-2001, during which the United States experienced budget surpluses.

June 19-23 and 27-28, 2006

## Making Sense of Money and Banking

Federal Reserve Bank of St. Louis

This is a seven-day, three-credit course open to elementary and secondary teachers and other educators interested in integrating money and banking topics into social studies, language arts and math. The course will feature guest speakers from the Federal Reserve Bank of St. Louis, as well as tours, hands-on activities, simulations for classroom use and breakout sessions. Registration through either Southern Illinois University at Edwardsville or the University of Missouri-St. Louis is required. **Three hours of graduate credit** will be awarded to educators completing the course.

To register for **ECON 500B-501** through SIUE, contact Mary Anne Pettit at (618) 650-2583 or e-mail her at [mpettit@siue.edu](mailto:mpettit@siue.edu).

To register for **ECON 310: Money and Banking** through UMSL, contact Barbara Flowers at (314) 516-5561 or e-mail her at [bflowers@umsl.edu](mailto:bflowers@umsl.edu). Ask about scholarships for practicing teachers in Missouri.

For more information or to see this summer's agenda, go to [www.stlouisfed.org/education/conferences.html](http://www.stlouisfed.org/education/conferences.html).

## "Now I Get It!"

### Today's Economy Unplugged

What's happening with inflation? Who really determines oil prices? What can the Fed do about the economy? Focusing on current economic topics can make your teaching timely, interesting and relevant. Learn more about these issues—and pick up tips to share with your students—at this **free, one-day conference** for educators of grades K-12.

At the program, which is sponsored by the Federal Reserve Bank of St. Louis, you will hear a Fed economist's take on today's economy. You will also learn about hands-on activities and simulations for your classroom and get to take home free teaching materials. Continental breakfast is served at 8 a.m., and lunch is provided. The program adjourns at 3 p.m.

The conference will take place in the following Eighth District cities:

- Aug. 1 – Louisville, grades K-12
- Oct. 25 (elementary) and Oct. 26 (secondary) – Memphis
- Nov. 1 (grades K-8) and Nov. 2 (grades 9-12) – St. Louis

There is no fee, but registration with the Fed is required. Go to [www.stlouisfed.org/education/conferences.html](http://www.stlouisfed.org/education/conferences.html) for more information.



## SPOTLIGHT ON ECONOMICS

### Economics in Arkansas History

Economics is a vital part of Arkansas' history—as well as its present and future. Learn about topics ranging from the history of Arkansas' fringe banking services to the importance of the state's leading economic sectors—such as tourism, forestry, agriculture and manufacturing—at one of two upcoming symposiums for educators of grades K-12:

- July 31, Aug. 1 and Aug. 2 – Little Rock, Ark.
- Aug. 3 and Aug. 4 – Fayetteville, Ark.

These free symposiums are being held in collaboration with the Arkansas Council on Economic Education. At each symposium, you will also hear "Now I Get It! Today's Economy Unplugged," a presentation from a Fed economist speaking on current economic issues. As an added bonus, you will receive free lesson plans, activities and materials to use in the classroom. Six, 12 or 18 hours of in-service credit is available for attending this symposium. Continental breakfast will be served at 8:30 a.m., and lunch will be provided.

There is no fee, but registration with the Fed is required. For more information, go to [www.stlouisfed.org/education/conferences.html](http://www.stlouisfed.org/education/conferences.html), or call Billy Britt at (501) 324-8368.

## Education Specialists Available for Staff Development

Education specialists in Little Rock, Louisville, Memphis and St. Louis are available (at no charge) to present programs for teachers. Please see your Bank contact listed below. In addition, one-day conferences will be held in each of these cities in 2006. Please go to [www.stlouisfed.org/education/conferences.html](http://www.stlouisfed.org/education/conferences.html) for information on upcoming conferences.

## Bank Contacts

Little Rock - Billy Britt (501) 324-8368

Memphis - Jeannette Bennett (901) 579-4104

Louisville - David Ballard (502) 568-9257

St. Louis - Dawn Griffitts (314) 444-8421

Continued from front cover

accounted for 86 percent of income (AGI) and paid 96.5 percent of taxes (IIT), while the latter accounted for 14 percent of income (AGI) and paid 3.5 percent of taxes (IIT). The average tax rate for the top 50 percent was 13.4 percent, while the rate for the bottom 50 percent was 3 percent. Both of these rates for 2003 were at their lowest levels for the period of 1985-2003.

### The Top Half Dissected

Next, let's look at groups in the top 50 percent. The top 25 percent accounted for 64.9 percent of AGI and paid 83.9 percent of taxes (IIT). Their tax rate was 15.4 percent. Meanwhile, the top 10 percent accounted for 42.4 percent of AGI and paid 65.8 percent of taxes (IIT). Their tax rate was 18.5 percent. Comparing the top 25 percent with the top 10 percent, it is clear that those with higher incomes pay higher average tax rates. This fact continues to hold as we examine those with even higher income, which is a characteristic of a progressive tax system (i.e., the income tax rate increases as income increases). The top 5 percent experienced an average

tax rate of 20.7 percent, and the top 1 percent paid a 24.3 percent rate, roughly eight times the average rate of the bottom 50 percent. The rate of 24.3 percent is approximately twice the average tax rate for all taxpayers.

### The Perfect Tax Structure

It has proved to be a major challenge in the United States to reach political consensus on a tax system that simultaneously:

- (1) provides desirable incentives to work, save and invest;
- (2) is viewed as fair;
- (3) is easy to understand; and
- (4) generates sufficient revenues to fund spending decisions.

Improving our knowledge of the existing tax system, though, is a good place to start.

<sup>1</sup> The Internal Revenue Service (IRS) defines adjusted gross income as "total income" (as defined by the tax code) less "statutory adjustments." For information on specific income for each income group, see the lesson plans on [www.stlouisfed.org/publications/itv/default.html](http://www.stlouisfed.org/publications/itv/default.html).

## Classroom Discussion

1. The top 50 percent income group pays what percent of all individual income taxes?
2. What is a progressive tax system?
3. What are some generally accepted criteria for a tax system?
4. What did you learn about taxes that you didn't know before reading this article?

*This article was adapted from Income Taxes: Who Pays and How Much? which was written by St. Louis Fed Vice President and Deputy Director of Research Cletus C. Coughlin and was published in the March 2006 issue of National Economic Trends, a St. Louis Fed publication.*

For a **lesson plan** to accompany this article, go to [www.stlouisfed.org/publications/itv/default.html](http://www.stlouisfed.org/publications/itv/default.html).



Federal Reserve Bank of St. Louis  
P.O. Box 442  
St. Louis, Mo. 63166-0442

*Inside the Vault* is written by Dawn Griffitts, manager of economic education at the Federal Reserve Bank of St. Louis, P.O. Box 442, St. Louis, MO 63166. The views expressed are those of the author and are not necessarily those of the Federal Reserve Bank of St. Louis or the Federal Reserve System. Please direct all comments and questions about the publication to (314) 444-8421 or [dawn.c.griffitts@stls.frb.org](mailto:dawn.c.griffitts@stls.frb.org).

PRSR STD  
U.S. POSTAGE  
**PAID**  
ST. LOUIS, MO  
PERMIT NO. 444