



Bank

Financial Education



INCOME TAXES

Key concepts

Government (public) spending, federal income taxes, state income taxes, marginal vs. average tax rates, tax planning

Summary

This lesson introduces students to federal and state income taxes, including why we have taxes and what is funded by taxation, average vs. marginal tax rates, taxes and financial (investment) planning, and tax avoidance vs. tax evasion.

Overview & Lesson Objectives

This lesson is intended for high school students in ninth through twelfth grades. The lesson teaches students how to understand federal and state income taxes.

Students will be able to:

- Explain the purpose of taxation
- Differentiate between marginal and average tax rates
- Understand how taxes play a role in financial (investment) planning
- Differentiate between tax avoidance and tax evasion

Time Allocation:

15 – 20 Minute Prep

35 – 40 Minutes Engagement

Materials:

- Taxes Worksheet, Student version (one per student)
- Taxes Worksheet (teacher answer key)
- Optional: Consult the IRS website for Educators at <http://www.irs.gov/app/understandingTaxes/index.jsp>



Lesson Begins: Setting the Stage

State the Objective:

Tell the students what they will be able to do upon conclusion of the lesson.

“Today we are going to learn about federal and state income taxes, why we pay them, how to make sense of tax rates, and how to consider them in financial planning.”

Lesson Continues

When we have a job and earn income, we need to complete and file tax forms. Americans generally do not like having to take the time to file tax returns and pay taxes by April 15th in each calendar year. Paying taxes are not popular. But without the revenue from collecting taxes, the government would not be able to provide a wide variety of services.

Throughout the year, our employer is required to withhold income tax payments from our paychecks. These are based on estimates of how much we will owe at the end of the year. At the end of the year, if we have overpaid taxes because too much was withheld, we complete an income tax return and then we are issued a refund. However, if not enough has been withheld during the year, we need to pay the balance when we file our return by April 15th.

U.S. or federal income taxes became public policy in 1913 with the ratification of the 16th Amendment of the U.S. Constitution that gave the Congress the right to charge and collect taxes. Over 40 U.S. states also levy and collect state income taxes. Even local governments may collect local income taxes.

This lesson will help demystify the ins-and-outs of federal and state income taxes.

Why Taxes?

The federal government uses tax revenue to provide services and protections for U.S. residents. Funded by tax revenue, some of the largest shares of expenses in the federal budget each year are national defense and homeland security, health care and other social safety net programs such as food stamps (now called SNAP – Supplemental Nutrition Assistance Program), education, veterans’ affairs, transportation safety, space exploration, scientific and medical research, promotion of U.S. business, consumer protection, interest on the national debt, etc.

State governments collect income (and sales) taxes to provide services such as state police, state parks and beaches, road maintenance, and unemployment compensation, but the lion’s share of state spending supports P/K – Grade 12 education.

Through our elected representatives, the American people decide which goods and services are best provided and paid for with pooled funds (that is, taxes). Imagine if there were no tax dollars with which to build roads. What if everyone was responsible for paving the space in front of their house—or not? What would your ride to school today have been like: one part blacktop, one part dirt or mud, one part pebbles?



Key Tax Lingo:

Adjusted Gross Income (AGI): Defined as the amount of gross (total) income minus adjustments to your income (deductions).

Tax Deduction: An amount (often a personal or business expense) that reduces income subject to tax. Most taxpayers have a choice of either taking a standard deduction or itemizing their deductions. If you have a choice, you can use the method that gives you the lower tax.

Standard Deduction: The standard deduction is a dollar amount that reduces your taxable income. It is a benefit that eliminates the need for many taxpayers to itemize actual deductions, such as medical expenses, charitable contributions, and taxes, on Schedule A (Form 1040). The standard deduction is higher for taxpayers who are 65 or older, or are blind.

Tax Credit: Tax credits, unlike deductions, are subtracted directly from your tax and reduce your tax, dollar for dollar. Credits you may be able to deduct from your tax include, but are not limited to, child and dependent care, education, mortgage interest, residential energy, retirement savings contributions, and adoption.

Exemptions: Amount that taxpayers can claim for themselves, their spouses, and eligible dependents. There are two types of exemptions—personal and dependency. Each exemption reduces the income subject to tax. The exemption amount is a set amount that changes from year to year. ***** In 2018, the Personal Exemption was eliminated and replaced with an increased Standard Deduction. It is important to consult a Tax Advisor each year to determine current tax laws and guidelines*****

Taxable income: You must include on your return all items of income you receive in the form of money, property, and services unless the tax law states that you do not include them. Unless specifically excluded, all wage and salary income is taxable. All tip income is taxable.

Withholding (“pay-as-you-earn” taxation): Money, for example, that employers withhold from employees’ paychecks. This money is deposited for the government. (It will be credited against the employees’ tax liability when they file their returns.) Employers withhold money for federal income taxes, Social Security taxes and state and local income taxes in some states and localities.

FICA: The Social Security tax is also called the FICA (Federal Insurance Contributions Act) tax. Social Security taxes provide the following benefits for employees and their dependents: retirement benefits, benefits for the dependents of retired workers, and benefits for the disabled and their dependents.

Progressive Tax: With the enactment of the Income Tax Law of 1913, the Federal Government began to apply the widely accepted principle that taxes should be levied in proportion to ability to pay and in proportion to the benefits received. Essentially, in a progressive tax system, individuals who make more money are taxed at a higher rate.

Marginal Tax Rate: the rate at which the last (highest) dollar of income is taxed. Margin means “extra” or “added.”



Tax Bracket: the dollar range in income that corresponds to a marginal tax rate.

Flat Tax Rate: A tax that takes the same percentage of income from all income groups. Also called “proportional tax”.

Average Tax Rate: the amount of total taxes paid/owed divided by total income; this gives a sense of what the average income tax burden for an individual.

Exclusions: dollar amounts of income that are tax-exempt, or not subject to federal income tax. An example would be interest on most U.S. state and municipal bonds.

Tax-Deferred Income: income to be taxed at a later date, such as interest/earnings from a traditional Individual Retirement Account (IRA).

Standard or Itemized deductions and certain investments that can exclude or defer income will lower your income tax liability. It is perfectly legal to try to lower your taxes by investing in bonds with tax-exempt interest, saving in IRAs for your own retirement, and other tax credits. This is called “tax avoidance.”

What is *not* legal, and is a federal crime, is tax evasion. Tax evasion means evading taxes through illegal means. Normally, this includes not reporting or under-reporting earned income, even the smallest amount of income. Just because you do not report income does not mean your employer has not reported it to the Internal Revenue Service. Penalties and interest owed on unpaid taxes piles up very fast. It is best to try to reduce taxes through legal means only.

Marginal vs. Average Tax Rates

One of the most misunderstood concepts with income taxes is being able to explain “What tax bracket am I in?” and “What is my average tax rate?”

To answer these questions, let’s start with state income taxes because they are a bit simpler. That is because many state income taxes are a “flat tax,” an equal percentage tax rate on all taxable income. For example:

If my taxable income = \$10,000 and the state income tax is 5%, then the tax owed = $(\$10,000 \times .05) = \500

This means that my state tax bracket is 5%; I pay 5% at the marginal for every dollar earned, and my average tax rate is also 5%.

Federal income taxes are not flat; they are progressive. That is, the marginal tax rate rises as income rises. This means a higher proportion of income is taxed from wealthier people than from poorer people. “Marginal” means on the border or edge. A person pays one rate on part of their income and a higher rate on income above a threshold. The top marginal tax rate is the percent paid on only the income above a certain amount.



According to the 2018 Tax Rate Schedule, there are 7 marginal tax rates for income in the United States, ranging from 10% to a top rate of 37%.

Some interesting historical highlights:

- In 1913, when the U.S. income tax was instituted, the top marginal tax rate was 7.0%
- By 1921, the top marginal tax rate rose to 73.0%.
- In 1922, it was lowered to 56.0% and in 1925 to 25.0%.
- With the country's economic needs during the Great Depression and the wartime needs during World War II, the top marginal income tax rate again increased gradually from 63.0% in 1932 to 94.0% in 1945.
- In 1979, the top rate was lowered to 70.0% and in 1982 to 50.0%.
- The top marginal tax rate hovered near the 30s since 1987, and then stayed at 35% between 2003 and 2012. From 2013 to 2017 the top marginal tax rate was 39.6%. For 2018 the highest marginal tax rate is 37%.
- Beginning in tax year 2013 (generally for tax returns filed in 2014), a new tax rate of 39.6 percent was added for individuals whose income exceeds \$400,000 (\$450,000 for married taxpayers filing a joint return).
- As part of the 2018 tax reform, the personal exemption was eliminated replaced with a standardized Deduction.

When to claim the Standardized Deduction: If your standard deduction is less than your itemized deductions, you probably should itemize and save money. If your standard deduction is more than your itemized deductions, it might be worth it to take the standard and save some time. If you have a mortgage or home equity loan its worth seeing if itemizing would save you money.

To best understand how the marginal federal income tax rates work in practice, have students complete the Worksheet about tax rates and the difference between marginal tax brackets and the average tax burden.

After they complete the Worksheet, review the answers.

Lesson Closes

Review with students the importance of taxes, what they fund and why it is important to pay them. Also review the most-often-misunderstood concept that federal income is taxed at marginal rates, but that one's average tax rate is lower. See the suggestions page for "Additional Engagement Opportunities/Resources" for additional ideas.



Additional Engagement Opportunities / Resources

Pair and Share

Students (pairs) interview one another about the lesson content. They must summarize the partner's feedback in either written report or verbal format

Sample questions:

- What are the potential financial risks of avoiding taxes illegally?
- What is the difference between a marginal tax rate and an average tax rate?
- Describe why it is important to pay federal income taxes, state income taxes. What services are funded by these taxes?
- What can you do to try to save money on taxes? Remember, trying to reduce your taxes is legal, but evading taxes is not.

What's left out? Supply students with statements that have some information missing. This can be done verbally or it can be done on a board. Ask students to provide the missing information.

Samples:

- The federal government uses _____ to provide services and protections for U.S. residents.
 - Answer is "tax revenue"
- The _____ deduction is a dollar amount that reduces your taxable income.
 - Answer is "standard"
- "_____" means on the border or edge. A person pays one rate on part of their income and a higher rate on income above a threshold. The top _____ tax rate is the percent paid on only the income above a certain amount
 - Answer is "marginal" (for both)

Debate: Two groups of students could debate whether a certain tax (named by the instructor), tax deduction, or tax credit is fair. For example, is it fair to award a tax credit to a person for buying an electric car that gets 40 miles a gallon but not a clean diesel fuel car that gets 40 miles a gallon?

Peer Education through Skits, Videos: Often learning is reinforced or students learn best by teaching others. Have students write a script and act it out in class with the objective of teaching each other (their peers) about the lesson. A student skit could show a citizen asking a tax question over the phone, in person, or in an online chat.



Bank

Financial Education



Educational Standards

NJ Core Curriculum Content Standards for Personal Financial Literacy 2014:

Standard 9.1: 21st Century Life and Careers

Standard 9.1 Personal Financial Literacy

9.1.A. Income and Careers: 9.1.12.A.10, 9.1.12.A.11

9.1.B. Money Management: 9.1.12.B.4, 9.1.12.B.5

9.1.D. Planning, Saving, and Investing: 9.1.12.D.14

9.1.F. Civic Financial Responsibility: 9.1.12.F.6

National Standards in K– 12 Personal Finance Education (from Jump\$tart Coalition) 2017:

Employment and Income:

Standard 3: “Analyze factors that affect net income.”

National Content Standards in Economics (from Council for Economic Education) 2010:

Standard 16: Role of Government and Market Failure



Bank

Financial Education



Taxes Worksheet: Calculating Marginal vs. Average Taxes

Federal Tax Brackets and Rates in 2018 for Single Persons

<u>From:</u>	<u>To:</u>	<u>Taxed at Marginal Rate of:</u>
\$0	\$9,525	10%
\$9,526	\$38,700	12%
\$38,701	\$82,500	22%
\$82,501	\$157,500	24%
\$157,501	\$200,000	32%
\$200,001	\$500,000	35%
\$500,001+		37%

Directions: Answer the following questions using the 2018 U.S. marginal income tax rates for a single individual.

Jaime earns \$10,000 from a job that he works after school and in the summer:

- How much federal income tax does he owe given the table above?
- What is Jaime's marginal tax rate on the highest dollar?
- What is Jaime's average tax rate?

Tameka earns \$50,000 from her job as an accountant:

- How much federal income tax does she owe based on the above table?
- What is Tameka's marginal tax rate on the highest dollar?
- What is Tameka's average tax rate?



Bank

Financial Education



Taxes Worksheet: Calculating Marginal vs. Average Taxes

(Answer Key)

Federal Tax Brackets and Rates in 2018 for Single Persons

<u>From:</u>	<u>To:</u>	<u>Taxed at Marginal Rate of:</u>
\$0	\$9,525	10%
\$9,526	\$38,700	12%
\$38,701	\$82,500	22%
\$82,501	\$157,500	24%
\$157,501	\$200,000	32%
\$200,001	\$500,000	35%
\$500,000+		37%

Directions: Answer the following questions using the 2018 U.S. marginal income tax rates for a single individual.

Jaime earns \$10,000 from a job that he works after school and in the summer:

- How much federal income tax does he owe given the table above?
ANSWER: \$1,009.50 owed in taxes
 - Jaime's first \$9,525 is taxed at 10% and the last \$475 is taxed at 12%.
 - $(\$9,525 \times .10) + (\$10,000 - \$9,525 \times .12)$, or
 - $(\$9,525 \times .10) + (\$475 \times .12)$, or
 - $(\$952.50 + \$57.00) = \$1,009.50$ owed in taxes
- What is Jaime's marginal tax rate on the highest dollar?
ANSWER: 12%. This means that Jaime is in the "12% tax bracket."
- What is Jaime's average tax rate?
ANSWER: This is $\$1,009.50 \div \$10,000 = .10095$ or 10.095%
 - Jaime's average tax rate (liability) is less than his marginal tax rate because not every dollar of income was taxed at the highest rate.
 - The first \$9,525 is taxed at 10% and the next \$475 is taxed at 12%.

Tameka earns \$50,000 from her job as an accountant:

- How much federal income tax does she owe based on the above table?
ANSWER: \$6,939.50 owed in taxes
 - Tameka's first \$9,525 is taxed at 10%
 - Tameka's next $(38,700 - \$9,525)$ or \$ (29,175) is taxed at 12%
 - Tameka's last $(50,000 - \$ 38,700)$ or \$ (11,300) is taxed at 22%
 - $(\$9,525 \times .10) + (\$29,175 \times .12) + (\$11,300 \times .22)$



Bank

Financial Education



$$(\$952.50 + \$3,501 + \$2,486) = \$6,939.50 \text{ owed in taxes}$$

- What is Tameka's marginal tax rate on the highest dollar?
ANSWER: 22%. This means that Tameka is in the "22% tax bracket."
- What is Tameka's average tax rate?
ANSWER: This is $\$6,939.50 \div \$50,000 = 0.13879$ or 13.879%.
 - Tameka's average tax rate (liability) is less than her marginal tax rate because not every dollar of income was taxed at the highest rate.
 - The first \$9,525 was taxed at 10%, the next \$29,175 was taxed at 12%, and the final \$11,300 was taxed at 22%.

Note: Upon completing her income tax forms, Tameka would find that her tax bill would be reduced even further (lower than \$4,900) when she includes the allowed federal standard deduction or alternatively if she itemizes deductions.