

Investigating payroll taxes and federal income tax withholding

Students analyze W-4 forms and pay stubs in order to better understand payroll taxes and federal income tax withholding.

Learning goals

Big idea

Payroll and income taxes are withheld from employees' pay by their employers, and Form W-4 is used to determine how much income tax is withheld.

Essential questions

- How can you calculate how much money will be withheld for taxes from your paycheck?
- What's the purpose of Form W-4?

Objectives

- Identify what types of taxes are deducted from a paycheck
- Complete a Form W-4 and claim federal income tax withholding allowances

NOTE

Please remember to consider your students' accommodations and special needs to ensure that all students are able to participate in a meaningful way.

KEY INFORMATION

Building block:

 Financial knowledge and decision-making skills

Grade level: High school (9-12)

Age range: 13-19

Topic: Earn (Becoming an entrepreneur, Getting paid, Making money, Paying taxes)

School subject: CTE (Career and technical education), Math, Social studies or history

Teaching strategy: Cooperative learning, Simulation

Bloom's Taxonomy level: Understand, Analyze

Activity duration: 45-60 minutes

National Standards for Personal Financial Education, 2021

Earning income: 8-5, 8-6, 8-7, 12-6, 12-7, 12-9

These standards are cumulative, and topics are not repeated in each grade level. This activity may include information students need to understand before exploring this topic in more detail.

What students will do

- Read a handout on taxes.
- Apply their understanding to interpreting sample Form W-4s and pay stubs.

Preparing for this activity

- While it's not necessary, completing the "Becoming familiar with taxes" activity first may make this one more meaningful.
- Print copies of all student materials for each student, or prepare for students to access them electronically.

What you'll need

THIS TEACHER GUIDE

- Investigating payroll taxes and federal income tax withholding (guide)
[cfpb_building_block_activities_payroll-tax-federal-income-tax-withholding_guide.pdf](#)

STUDENT MATERIALS

- Investigating payroll taxes and federal income tax withholding (worksheet)
[cfpb_building_block_activities_payroll-tax-federal-income-tax-withholding_worksheet.pdf](#)
- Understanding paycheck deductions (handout)
[cfpb_building_block_activities_understanding-paycheck-deductions_handout.pdf](#)

Exploring key financial concepts

When you get your first paycheck, the terms and the amounts on the pay stub may not be easy to understand. You may wonder why your take-home pay is different from what you expected, based on what you earned. This may be your first direct experience with paying payroll and income taxes.

Because it would be difficult for people to pay everything they owe in federal taxes at one time, employers take a portion out of each employee's paycheck for payroll taxes and income tax. To estimate how much should be taken out, employees complete Form W-4. The Internal Revenue Service (IRS) suggests that

TIP

Because terms and laws related to taxes change, students should be encouraged to always look for the most up-to-date information.

people complete a new Form W-4 each year and when their personal or financial situation changes, such as if they get married or have a child.

Employers send the amounts withheld for taxes to the federal government, which uses these funds to provide for national programs such as defense, foreign affairs, law enforcement, and interest on the national debt. In addition to the federal government, most states and some local municipalities require their residents to pay a personal income tax.

Teaching this activity

Whole-class introduction

- Ask students if they've ever received a paycheck.
 - If so, ask those students if there's a difference in the amount of money they earned and how much they received. If there is, ask them if they know why there's a difference.
 - Answers may include deductions for taxes or to pay for a uniform.
- Read the "Exploring key financial concepts" section to students.
- Distribute the "Understanding paycheck deductions" handout and give students time to read it.
- Be sure students understand key vocabulary:
 - **Federal income tax:** The federal government collects taxes based on the earnings of individuals and businesses, called an income tax. The federal income tax pays for national programs such as defense, foreign affairs, law enforcement, and interest on the national debt.
 - **Form W-4: Employee's Withholding Allowance Certificate:** A form that the employee completes and the employer uses to determine the amount of income tax to withhold.
 - **Gross income:** Total pay before taxes and other deductions are taken out.
 - **Income tax:** Federal, state, and local taxes on income, both earned (salaries, wages, tips, commissions) and unearned (interest, dividends). Includes both personal and business or corporate income taxes. Not all states and localities have income taxes.

TIP

Visit CFPB's financial education glossary at consumerfinance.gov/financial-education-glossary/.

- **Medicare:** A health insurance program for people who are 65 or older, certain younger people with disabilities, and people with permanent kidney failure requiring dialysis or a transplant; financed by deductions from wages and managed by the federal Social Security Administration.
- **Net income:** Amount of money you receive in your paycheck after taxes and other deductions are taken out; also called take-home pay.
- **Payroll tax:** Taxes taken from your paycheck, including Social Security and Medicare taxes.
- **Social Security:** Provides benefits for retired workers and people with disabilities, as well as the unmarried children, surviving spouses, or former spouses (in certain cases) of both.
- **State income tax:** Most states and some local municipalities require their residents to pay a personal income tax. Generally, states use one of two methods to determine income tax: the graduated income tax or the flat rate income tax. Both methods first require you to figure your taxable income.
- **Tax deduction:** An amount (often a personal or business expense) that reduces income subject to tax.
- **Tax refund:** Money owed to taxpayers when their total tax payments are greater than the total tax. Refunds are received from the government.
- **Taxes:** Required payments of money to governments, which use the funds to provide public goods and services for the benefit of the community as a whole.
- **Withholding (“pay-as-you-earn” taxes):** Money that employers withhold from employees’ paychecks. This money is deposited for the government and is credited against the employees’ tax liability when they file their returns. Employers withhold money for federal income taxes, Social Security and Medicare taxes, and state and local income taxes in some states and localities.

Individual or group work

- Distribute the “Investigating payroll taxes and federal income tax withholding” worksheet.
- Students can work individually or with a partner to complete the worksheet.
- Tell students that they’ll use information from the handout to answer the worksheet’s reading questions.

Wrap-up

Bring students back together to discuss what they learned about taxes.

Suggested next steps

Consider searching for other CFPB activities that address the topic of earning, including becoming an entrepreneur, getting paid, making money, or paying taxes. Suggested activities include "Understanding taxes and your paycheck" and "Investigating taxes in your life".

Measuring student learning

Students' answers on their worksheets and during discussion can give you a sense of their understanding.

This answer guide provides possible answers for the "Investigating payroll taxes and federal income tax withholding" worksheet. **Keep in mind that students' answers may vary.** The important thing is for students to have reasonable justification for their answers.

Answer guide

1. Based on the example in the handout, how much income tax do employers withhold from employee pay?

- 6.20 percent of gross income
- 1.45 percent of gross income
- 7.65 percent of gross income
- Employers use the information on Form W-4 to compute income tax withholding.**

2. Payroll tax consists of which taxes? (Check all that apply.)

- Income tax
- Social Security tax**
- Sales tax
- Medicare tax**

3. The amount of federal income tax you pay is based on:

How much money you make

- An amount set by the government (it's the same for everyone)
- What your house is worth
- How old you are

4. Based on the example in the handout, what's the total tax rate for the payroll taxes?

6.20 percent 10 percent **7.65 percent** 1.45 percent

5. Who completed the Form W-4? **Sadie Omozusi**

6. Is the taxpayer married or single? **Single**

7. How many allowances does the taxpayer claim? **0**

8. Complete the fields on the blank Form W-4 for Paulo based on the information in the scenario. **See completed form. Note: While the form here shows that Paulo chose 1 withholding allowance in line 5, students may select 0 or 1.**

W-4 Form Department of the Treasury Internal Revenue Service	Employee's Withholding Allowance Certificate <small>► Whether you're entitled to claim a certain number of allowances or exemption from withholding is subject to review by the IRS. Your employer may be required to send a copy of this form to the IRS.</small>		OMB No. 1545-0074 20XX
1 Your first name and middle initial Paulo		Last name Mercedez	2 Your social security number
Home address (number and street or rural route) 1111 Apple Tree Lane		3 <input checked="" type="checkbox"/> Single <input type="checkbox"/> Married <input type="checkbox"/> Married, but withhold at higher Single rate. <small>Note: If married filing separately, check "Married, but withhold at higher Single rate."</small>	
City or town, state, and ZIP code Happy Town, KS		4 If your last name differs from that shown on your social security card, check here. You must call 800-772-1213 for a replacement card. ► <input type="checkbox"/>	
5 Total number of allowances you're claiming (from the applicable worksheet on the following pages)		5 1	
6 Additional amount, if any, you want withheld from each paycheck		6 \$	
7 I claim exemption from withholding for 2019, and I certify that I meet both of the following conditions for exemption.			
<ul style="list-style-type: none"> Last year I had a right to a refund of all federal income tax withheld because I had no tax liability, and This year I expect a refund of all federal income tax withheld because I expect to have no tax liability. 		<small>If you meet both conditions, write "Exempt" here. ► 7</small>	
<small>Under penalties of perjury, I declare that I have examined this certificate and, to the best of my knowledge and belief, it is true, correct, and complete.</small>			
Employee's signature <small>(This form is not valid unless you sign it.) ► Paulo Mercedez</small>		Date ►	
8 Employer's name and address (Employer : Complete boxes 8 and 10 if sending to IRS and complete boxes 8, 9, and 10 if sending to State Directory of New Hires.)		9 First date of employment	10 Employer identification number (EIN)
For Privacy Act and Paperwork Reduction Act Notice, see page 4.			
		Cat. No. 10220Q Form W-4 (2019)	

9. If Paulo claimed 0 as his withholding allowance, how would that affect his federal tax withholding and his take-home pay? **His federal tax withholding would increase and his take-home pay would decrease.**

10. Why might a single person with no children choose 1 instead of 0 as the withholding allowance? **Answers will vary. For example: They need a higher take-home pay; they have deductions and exemptions that will reduce the taxes they owe.**
11. What's the total amount of payroll taxes (Social Security and Medicare) being withheld? **\$59.21**
12. What's the total amount of federal tax being withheld? **\$60.45**