

# PFL Academy

Teacher Guide: Chapter 2.1 — Understanding Federal and State Taxes

## OVERVIEW

TIME	MATERIALS	PREREQUISITES
45-50 Minutes	Student Activity Packet, Calculator	L-03 Income and Taxes

## LESSON FLOW

### 5 min THE CHALLENGE

- Read Mia and Liam's comparison scenario.
- Discussion: "Why might someone choose to live in a state with income tax despite the extra cost?"

### 10 min CORE CONCEPTS

- Review 5 key terms. Draw progressive tax bracket visual on board.
- List the 7 states with no income tax; discuss how they fund services.
- Clarify FICA: 6.2% Social Security + 1.45% Medicare = 7.65%.

### 25-30 min APPLY IT

- **Part A (10 min):** Tax type classification. Discuss why sales tax is regressive.
- **Part B (10 min):** State comparison calculations. Check addition accuracy.
- **Part C (5-10 min):** Personal application. Encourage thinking beyond just taxes.

### 10 min CHECK YOUR UNDERSTANDING

- Complete in class or assign as homework.
- Review Q3 (bracket calculation) step-by-step if needed.

## DIFFERENTIATION

### Support

- Provide visual diagram of progressive brackets as a "staircase."
- Create a reference card: "FICA = 6.2% + 1.45% = 7.65%"
- Walk through Part B calculations as a class before individual work.

### Extension

- Research actual tax rates in states where students might want to live.
- Calculate total tax burden including sales tax on typical monthly spending.
- Analyze how different careers (high vs. low income) affect state choice calculus.

## ANSWER KEY

### Part A: Tax Type Classification

- 1. Federal Income Tax:** PROGRESSIVE. Higher earners pay higher percentages due to increasing tax brackets.
- 2. Sales Tax:** REGRESSIVE. Everyone pays the same rate, but lower-income people spend a higher percentage of their income on taxable goods.
- 3. Social Security Tax:** REGRESSIVE (technically). While proportional up to the wage cap (~\$160,000), income above the cap isn't taxed, so high earners pay a lower overall percentage.

### Part B: State Tax Comparison

California:

$$\$6,000 + \$2,400 + \$4,590 = \$12,990 \text{ total taxes}$$

$$\text{Take-home: } \$60,000 - \$12,990 = \$47,010$$

Texas:

$$\$6,000 + \$0 + \$4,590 = \$10,590 \text{ total taxes}$$

$$\text{Take-home: } \$60,000 - \$10,590 = \$49,410$$

4. Texas resident has **\$2,400 more** take-home pay. This could be offset by higher property taxes (Texas has ~1.8% vs California's ~0.77%), higher sales tax in some Texas cities, or lack of certain state services.

### Check Your Understanding

1. B (Social Security and Medicare)
2. Lower-income people spend a higher percentage of their income on taxable goods, so sales tax takes a larger share of their total income compared to wealthy people who save/invest more.

Alex's Federal Tax:

$$\$11,000 \times 10\% = \$1,100$$

$$\$33,725 \times 12\% = \$4,047$$

$$\$5,275 \times 22\% = \$1,160.50$$

$$\text{Total: } \$6,307.50$$

4. If Mia owns an expensive home, Texas's higher property taxes (1.8% vs 0.77%) could eliminate or exceed the income tax savings. Also if she relies on public services more available in California.

5. *Should consider: total tax burden (not just income tax), cost of living, job opportunities, quality of public services, climate/lifestyle preferences.*

## COMMON MISCONCEPTIONS

Misconception	Clarification
"Moving to a higher tax bracket means ALL my income is taxed at that rate."	Only the income WITHIN each bracket is taxed at that rate. If you earn \$50,000, only \$5,275 is taxed at 22%—not all \$50,000.
"States with no income tax are always cheaper."	No-income-tax states often have higher property taxes, sales taxes, or fees. Total tax burden depends on individual circumstances.
"FICA taxes are optional."	FICA (Social Security + Medicare) is mandatory for all wage earners. It funds programs you'll likely use in retirement.

