

## THE CHALLENGE

*Mia and Liam both earn \$70,000 annually, but Mia lives in California (with state income tax) while Liam lives in Texas (no state income tax). After federal and state income taxes, Mia's take-home pay is approximately \$51,100, while Liam's is \$54,900—a difference of \$3,800. However, if both owned \$300,000 homes, Liam would pay \$3,180 more in property taxes, nearly eliminating his advantage.*

**How do different state tax structures create different financial advantages depending on individual circumstances?**

### Learning Objectives

- Distinguish between federal and state taxes and their purposes.
- Explain how progressive tax brackets work.
- Compare tax structures across different states.

## CORE CONCEPTS

Term	Definition
Federal Income Tax	Tax collected by the federal government based on income, using progressive tax brackets.
Progressive Tax	System where higher-income earners pay a higher percentage of income in taxes.
Payroll Taxes (FICA)	Employment taxes that fund Social Security (6.2%) and Medicare (1.45%).
State Income Tax	Tax collected by states, varying from 0% (some states) to over 13% (highest brackets).
Tax Bracket	Income range subject to a specific tax rate in a progressive system.

**Background:** The U.S. uses a progressive federal income tax system where rates increase with income—but only the income within each bracket is taxed at that bracket's rate. Seven states have no income tax: Alaska, Florida, Nevada, South Dakota, Tennessee, Texas, and Wyoming. States without income tax often rely more on sales taxes and property taxes. Payroll taxes (7.65% total) fund Social Security and Medicare regardless of which state you live in.

## APPLY IT

### PART A: TAX TYPE CLASSIFICATION

Classify each tax as PROGRESSIVE, REGRESSIVE, or PROPORTIONAL, and explain why.

#### Tax 1: Federal Income Tax

Type: \_\_\_\_\_ (Progressive / Regressive / Proportional)

Why: \_\_\_\_\_

#### Tax 2: Sales Tax (8% on all purchases)

Type: \_\_\_\_\_ (Progressive / Regressive / Proportional)

Why: \_\_\_\_\_

#### Tax 3: Social Security Tax (6.2%)

Type: \_\_\_\_\_ (Progressive / Regressive / Proportional)

Why: \_\_\_\_\_

**Hint:** Consider who pays a higher PERCENTAGE of their income. Progressive = higher earners pay higher %. Regressive = lower earners pay higher %. Proportional = everyone pays same %.

### PART B: STATE TAX COMPARISON

Compare annual taxes for a \$60,000 salary in two states.

Tax Type	California (Income Tax State)	Texas (No Income Tax State)
Federal Income Tax (approx)	\$6,000	\$6,000
State Income Tax	\$2,400 (4% avg)	\$0
Social Security + Medicare	\$4,590 (7.65%)	\$4,590 (7.65%)
<b>Total Taxes</b>		
<b>Take-Home Pay</b>		

4. How much more take-home pay does the Texas resident have? What might offset this advantage?

## PART C: PERSONAL APPLICATION

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**5.** If you were choosing between job offers in California vs. Texas with identical salaries, what factors beyond state income tax would you consider?

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## CHECK YOUR UNDERSTANDING

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**1.** FICA taxes fund which two programs?

- A. Federal income tax and state income tax
- B. Social Security and Medicare
- C. Property tax and sales tax
- D. Education and transportation

**2.** Explain why a sales tax is considered "regressive" even though everyone pays the same rate.

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**3. Calculation:** Alex earns \$50,000 and falls into the 22% tax bracket. Using the simplified brackets below, calculate Alex's federal income tax. First \$11,000 at 10%, next \$33,725 at 12%, remainder at 22%.

Show your work:

**Total Federal Tax:** \$ \_\_\_\_\_

**4.** Mia moved from California to Texas to avoid state income tax. Under what circumstances might this move NOT result in significant tax savings?

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**5. Reflection:** How might understanding different state tax structures influence your decisions about where to live and work after graduation?

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