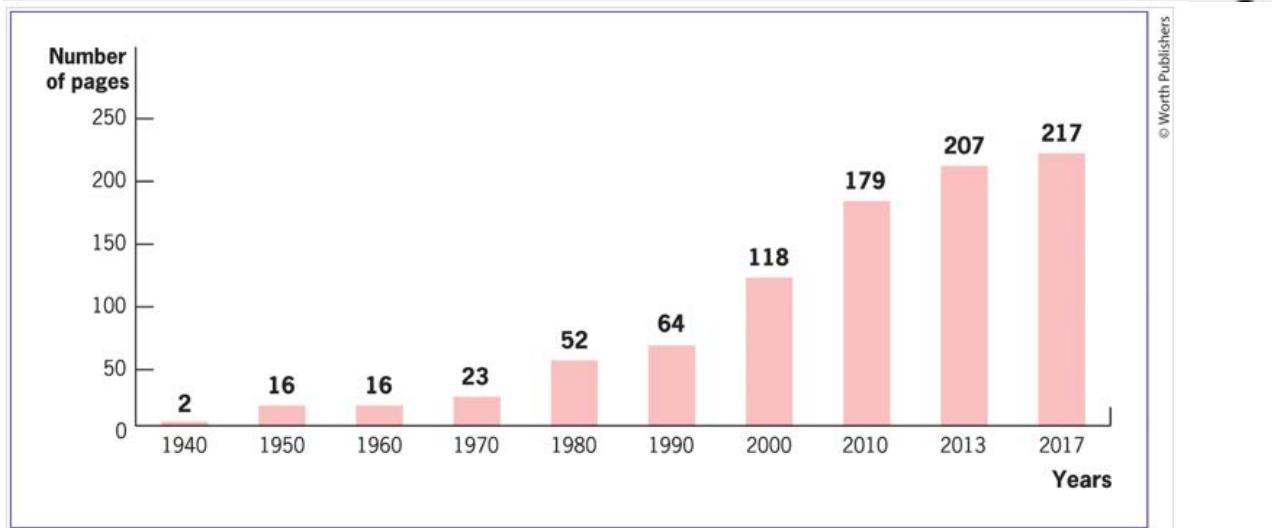
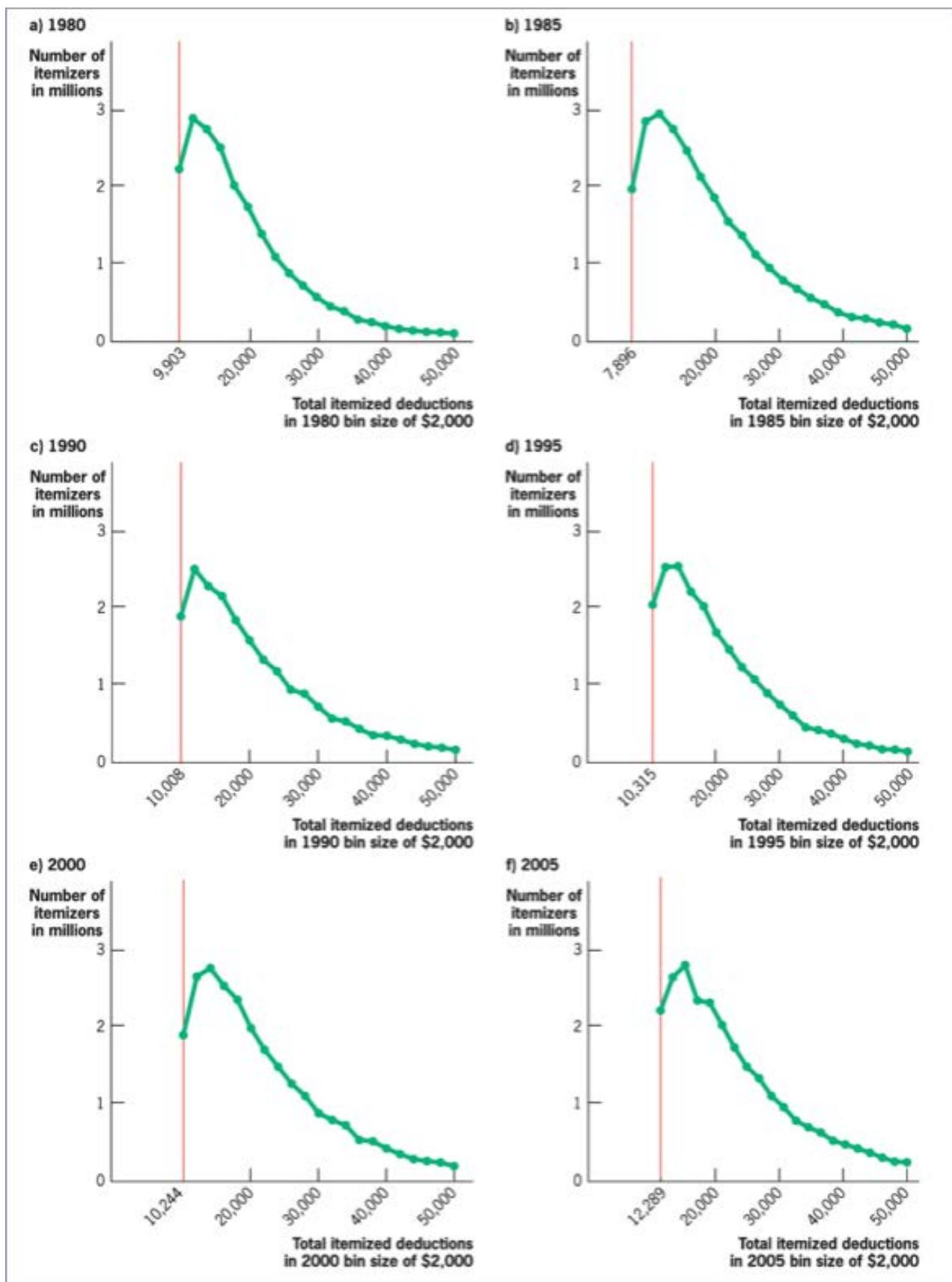


**FIGURE 25-1 Optimal Tax Evasion** • The marginal benefit of evading taxes is the tax payment saved per dollar of evasion, which is the marginal tax rate (initially 50% in this example). The marginal cost of evading is the rising odds of being caught and the larger penalties associated with higher levels of evasion. Optimal evasion occurs when these costs and benefits are equal at  $E_1$ . If penalties or odds of getting caught rise, the marginal cost curve shifts in from  $MC_1$  to  $MC_2$ , and evasion falls to  $E_2$ . If the tax rate goes up, the marginal benefit curve shifts up from  $MB_1$  to  $MB_2$ , and evasion rises to  $E_3$ .

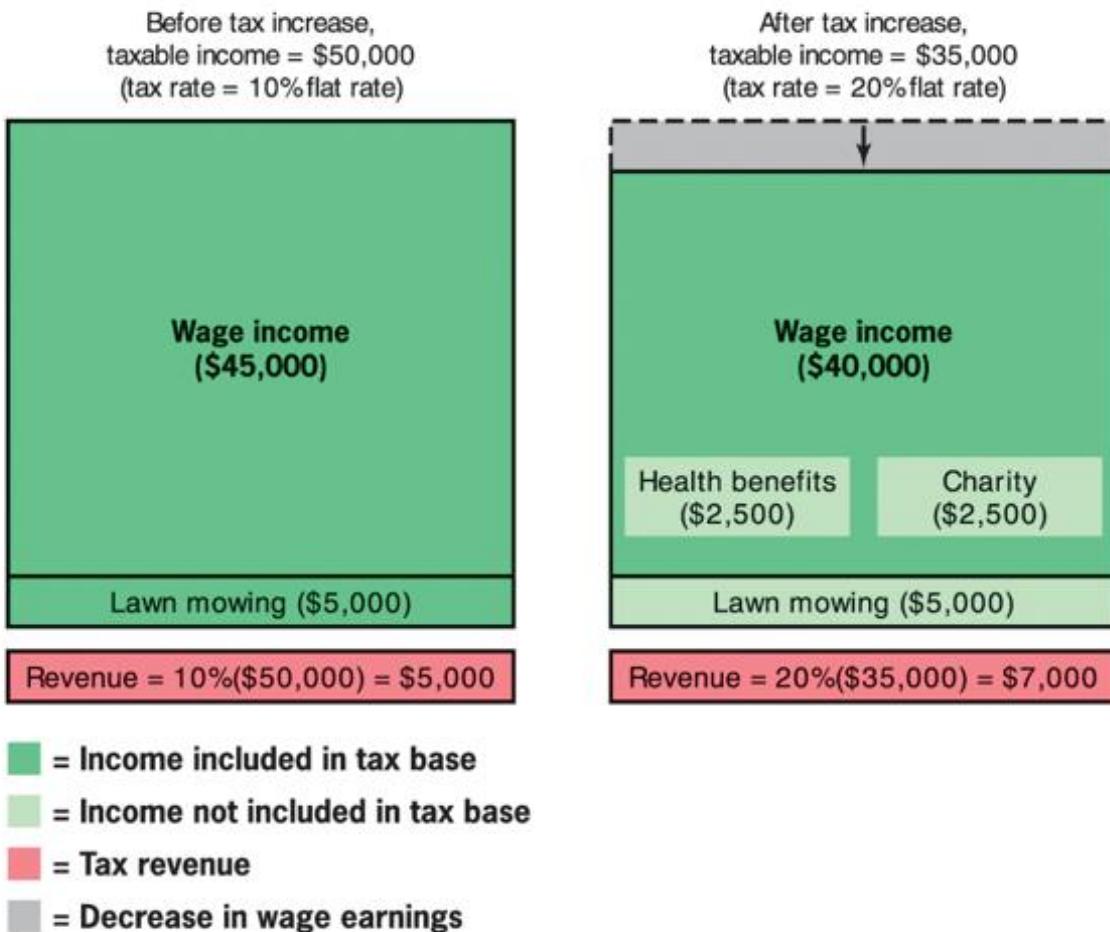


**FIGURE 25-2 Number of Pages in Individual Tax Return Documents, 1940–2017** • Back in 1940, the i-1040 form only had two pages. By 2017, that number had skyrocketed to 217!

Data from: [eFile.com](https://eFile.com) (2018).



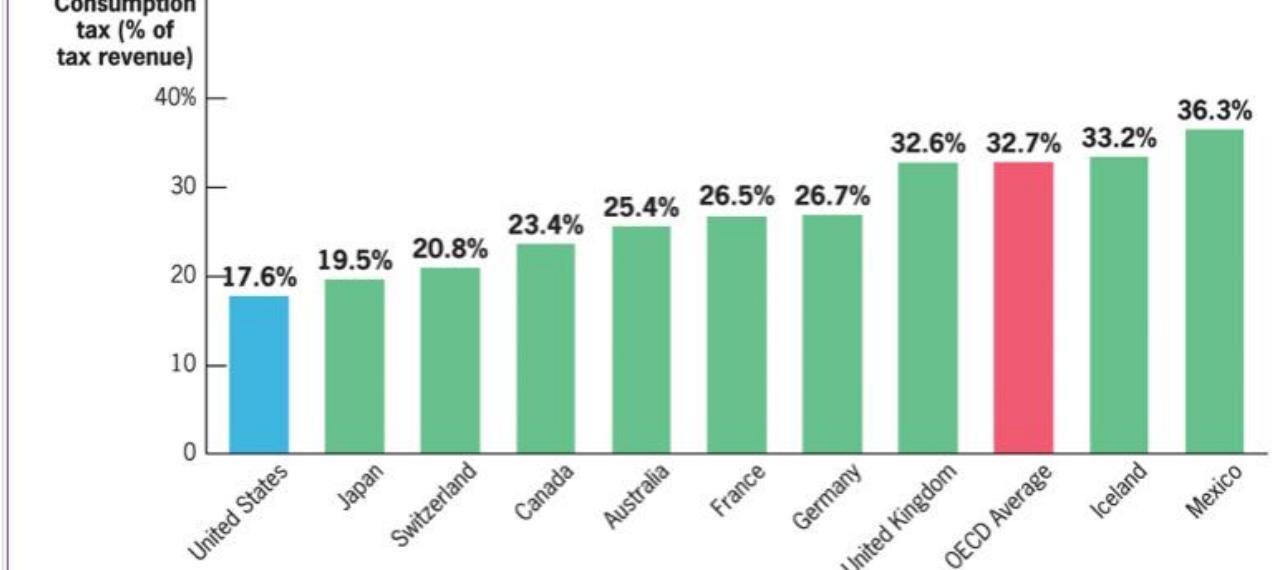
**FIGURE 25-3 The Hidden Cost of Itemizing** • This figure shows the number of people who itemized their deductions rather than taking the standard deduction for several different years. The fact that the number of itemizers increases for the first \$2,000 above the standard deduction means that, for most people, the time and effort involved in itemizing is worth less than the extra \$2,000 they could receive in their tax return.



**FIGURE 25-4 Changes in the Tax Base as Tax Rates Rise** • Nala initially earns \$50,000 and has a tax rate of 10%, paying \$5,000 in taxes. When the tax rate rises to 20%, Nala reduces her wage earnings to \$40,000, gives \$2,500 more to charity, substitutes \$2,500 in health insurance for wages, and stops reporting \$5,000 in lawn-mowing income so that her taxable income has fallen to \$35,000. The government raises only 40% more in revenues (\$2,000) despite doubling the tax rate.

**TABLE 25-1 Tax Shelters**

Action	Result
Invest \$100,000 in oil venture	
Sell oil venture for \$90,000	Lose \$10,000 in value
Deduct \$60,000 from this year's income	Save \$30,000 on taxes
Deduct \$10,000 loss from next year's income	Save \$5,000 on taxes
Net effect	Make \$25,000
Even though the investment in a tax shelter loses \$10,000 in real value, it generates \$35,000 in tax savings, so that on net there is a \$25,000 gain from the investment.	



**FIGURE 25-5 Consumption Taxation in OECD Nations** • Of this set of comparable industrialized nations, the United States raises the smallest share of total national tax revenue from consumption taxation.

Data from: [Organization for Economic Cooperation and Development. Revenue Statistics. 2020d.](#)

**TABLE 25-2 Income Versus Consumption Taxation and the Treatment of Savers**

	Homer	Marge
<b>Income Tax</b>		
Income in period 1	\$100	\$100
Taxes in period 1	50	50
Consumption in period 1	50	25.61
Savings in period 1	0	24.39
Interest earnings in period 2	0	2.44
Taxes in period 2	0	1.22
Consumption in period 2	0	25.61
PDV of taxes	50	51.11
<b>Consumption Tax</b>		
Income in period 1	\$100	\$100
Consumption in period 1	50	26.19
Taxes in period 1	50	26.19
Savings in period 1	0	47.62
Interest earnings in period 2	0	4.76
Consumption in period 2	0	26.19
Taxes in period 2	0	26.19
PDV of taxes	50	50
The top panel of the table shows the impact of an income tax on Homer, who consumes all of his income when he earns it, and Marge, who saves some of her income. Marge has a higher present discounted value (PDV) of taxes than Homer under the income tax because Marge is taxed on both her labor and interest income. When the government moves to a consumption tax in the second panel of the table, both Marge and Homer have the same PDV of taxes.		

**TABLE 25-3 Value-Added Tax in Practice**

Agent	Purchase Price	Sale Price	Value Added	Tax Paid (VAT = 20%)
Logger	\$0	\$25	\$25	\$5
Manufacturer	25	75	50	10
Retailer	75	100	25	5
				<b>Total tax paid: \$20</b>

When the logger adds \$25 in value to a table through producing the wood, they pay \$5 in VAT (VAT rate = 20%). The manufacturer then adds \$50 in value and pays a VAT of \$10. Finally, the retailer pays \$5 in VAT on her \$25 in value added.

**TABLE 25-4 Distributional Implications of the Flat Tax**

	Household Income (Married Couple with Two Children)				
	\$25,000	\$50,000	\$100,000	\$300,000	\$1,000,000
Current tax code	0.4%	5.5%	8.7%	18.3%	30.1%
Hall-Rabushka flat tax	0%	9.5%	14.3%	17.4%	18.5%

This table shows the average tax rate on families under the current tax code and the Hall-Rabushka flat tax. For families earning \$25,000, the tax burden falls under a flat tax relative to today's tax system. For most other families earning under \$100,000, however, tax burdens rise, while for most families with incomes over \$100,000, tax burdens fall.

MIT OpenCourseWare  
<https://ocw.mit.edu/>

14.41 Public Finance and Public Policy  
Fall 2024

For information about citing these materials or our Terms of Use, visit: <https://ocw.mit.edu/terms>.