

IN THIS CHAPTER YOU WILL LEARN:

- 1 The difficulties of conveying economic preferences through majority voting.
- 2 About “government failure” and why it occurs.
- 3 The different tax philosophies and ways to distribute a nation’s tax burden.
- 4 The principles relating to tax shifting, tax incidence, and efficiency losses from taxes.

Public Choice Theory and the Economics of Taxation

In Chapter 16 we saw that private markets can occasionally produce *market failures*, which impede economic efficiency and justify government intervention in the economy. But the government’s response to market failures is not without its own problems and pitfalls. Perhaps that is why government policies and decisions are the focus of hundreds of radio talk shows, television debates, and newspaper articles each day.

ORIGIN OF THE IDEA**○ 17.1**

Public choice theory

In this chapter, we explore a number of *government failures* that impede economic efficiency in the public sector. Our spotlight is first on selected aspects of **public choice theory**—the economic analysis of government decision making, politics, and elections — and then on the economics of taxation.

Revealing Preferences through Majority Voting

Through some process, society must decide which public goods and services it wants and in what amounts. It also must determine the extent to which it wants government to intervene in private markets to correct externalities. Decisions need to be made about the extent and type of regulation of business that is necessary, the amount of income redistribution that is desirable, and other such choices. Furthermore, society must determine the set of taxes it thinks is best for financing government. How should government apportion (divide) the total tax burden among the public?

Decisions such as these are made collectively in the United States through a democratic process that relies heavily on majority voting. Candidates for office offer alternative policy packages, and citizens elect people who they think will make the best decisions on their collective behalf. Voters “retire” officials who do not adequately represent their collective wishes and elect persons they think do. Also, citizens periodically have opportunities at the state and local levels to vote directly on public expenditures or new legislation.

Although the democratic process does a reasonably good job of revealing society’s preferences, it is imperfect. Public choice theory demonstrates that majority voting can produce inefficiencies and inconsistencies.

Inefficient Voting Outcomes

Society’s well-being is enhanced when government provides a public good whose total benefit exceeds its total cost. Unfortunately, majority voting does not always deliver that outcome.

Illustration: Inefficient “No” Vote Assume that the government can provide a public good, say, national defense, at a total expense of \$900. Also assume that there are only three individuals—Adams, Benson, and Conrad—in the society and that they will share the \$900 tax expense equally, each being taxed \$300 if the proposed public good is provided. And assume, as Figure 17.1a illustrates, that Adams would receive \$700 worth of benefits from having this public good; Benson, \$250; and Conrad, \$200.

What will be the result if a majority vote determines whether or not this public good is provided? Although people do not always vote strictly according to their own economic interest, it is likely Benson and Conrad will vote “no” because they will incur tax costs of \$300 each while gaining benefits of only \$250 and \$200, respectively. Adams will vote “yes.” So the majority vote will defeat the proposal even though the total benefit of \$1150 (= \$700 for Adams + \$250 for Benson + \$200 for Conrad) exceeds the total cost of \$900. Resources should be devoted to this good, but they will not be. Too little of this public good will be produced.

Illustration: Inefficient “Yes” Vote Now consider a situation in which the majority favors a public good even though its total cost exceeds its total benefit. Figure 17.1b shows the details. Again, Adams, Benson, and Conrad will equally share the \$900 cost of the public good; each will be taxed \$300. But since Adams’ benefit now is only \$100 from the public good, she will vote against it. Meanwhile, Benson and Conrad will benefit by \$350 each. They will vote for the public good because that benefit (\$350) exceeds their tax payments (\$300). The majority vote will provide a public good costing \$900 that produces total benefits of only \$800 (= \$100 for Adams + \$350 for Benson + \$350

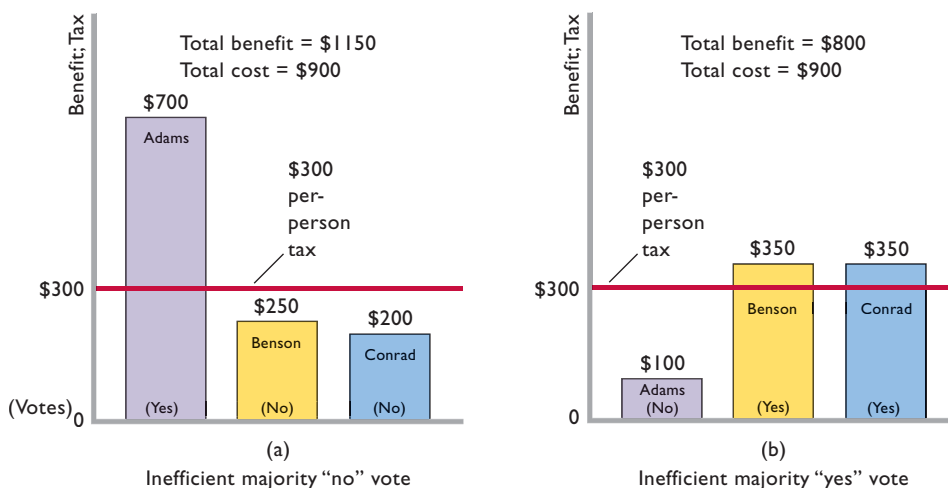


FIGURE 17.1 Inefficient voting outcomes. Majority voting can produce inefficient decisions. (a) Majority voting leads to rejection of a public good that would entail a greater total benefit than total cost. (b) Majority voting results in acceptance of a public good that has a higher total cost than total benefit.

for Conrad). Society's resources will be inefficiently allocated to this public good. Too much of it will be produced.

Implications The point is that an inefficient outcome may occur as either an overproduction or an underproduction of a specific public good, and therefore as an overallocation or underallocation of resources for that particular use. In Chapter 16 we saw that government can improve economic efficiency by providing public goods that the market system will not make available. Now we have extended that analysis to reveal that government might fail to provide some public goods whose production is economically justifiable while providing other goods that are not economically warranted.

In our examples, each person has only a single vote, no matter how much he or she might gain or lose from a public good. In the first example (inefficient “no” vote), Adams would be willing to purchase a vote from either Benson or Conrad if buying votes were legal. That way Adams could be assured of obtaining the national defense she so highly values. But since buying votes is illegal, many people with strong preferences for certain public goods may have to go without them.

When individual consumers have a strong preference for a specific *private good*, they usually can find that good in the marketplace even though it may be unpopular with the majority of consumers. A consumer can buy beef tongue or liver and squid in some supermarkets, although it is doubtful that these products would be available if majority voting stocked the shelves. But a person cannot easily “buy” a *public good* such as national defense once the majority has decided against it.

Conversely, a consumer in the marketplace can decide against buying a particular product, even a popular one. But although you may not want national defense, you must “buy” it through your tax payments when the majority have decided they want it.

Conclusion: Because majority voting fails to incorporate the *strength* of the preferences of the individual voter, it may produce economically inefficient outcomes.

Interest Groups and Logrolling Some, but not all, of the inefficiencies of majority voting get resolved through the political process. Two examples follow.

Interest Groups People who share strong preferences for a public good may band together into interest groups and use advertisements, mailings, and direct persuasion to convince others of the merits of that public good. Adams might try to persuade Benson and Conrad that it is in their best interest to vote for national defense—that national

defense is much more valuable to them than their \$250 and \$200 valuations. Such appeals are common in democratic politics. Sometimes they are successful; sometimes they are not.

Political Logrolling Perhaps surprisingly, **logrolling**—the trading of votes to secure favorable outcomes—can also turn an inefficient outcome into an efficient one. In our first example (Figure 17.1a), suppose that Benson has a strong preference for a different public good, for example, a new road, which Adams and Conrad do not think is worth the tax expense. That would provide an opportunity for Adams and Benson to trade votes to ensure provision of both national defense and the new road. That is, Adams and Benson would each vote “yes” on both measures. Adams would get the national defense and Benson would get the road. Without the logrolling, both public goods would have been rejected. This logrolling will add to society's well-being if, as was true for national defense, the road creates a greater overall benefit than cost.

But logrolling need not increase economic efficiency. Even if national defense and the road each costs more than the total benefit each produces, both might still be provided because of the vote trading. Adams and Benson might still engage in logrolling if each expects to secure a sufficient net gain from her or his favored public good, even though the gains would come at the clear expense of Conrad.

Logrolling is very common in state legislatures and Congress. It can either increase or diminish economic efficiency, depending on the circumstances.

Paradox of Voting

ORIGIN OF THE IDEA

17.1

Paradox of voting

Another difficulty with majority voting is the **paradox of voting**, a situation in which society may not be able to

rank its preferences consistently through paired-choice majority voting.

Preferences Consider Table 17.1, in which we again assume a community of three voters: Adams, Benson, and Conrad. Suppose the community has three alternative public goods from which to choose: national defense, a road, and a weather warning system. We expect that each member of the community prefers the three alternatives in a certain order. For example, one person might prefer national defense to a road and a road to a weather warning system. We can attempt to determine the preferences of the community through paired-choice majority voting. Specifically, a vote can be held between any two of

TABLE 17.1 Paradox of Voting

Public Good	Preferences		
	Adams	Benson	Conrad
National defense	1st choice	3d choice	2d choice
Road	2d choice	1st choice	3d choice
Weather warning system	3d choice	2d choice	1st choice
Election	Voting Outcomes: Winner		
1. National defense vs. road	National defense (preferred by Adams and Conrad)		
2. Road vs. weather warning system	Road (preferred by Adams and Benson)		
3. National defense vs. weather warning system	Weather warning system (preferred by Benson and Conrad)		

the public goods, and the winner of that vote can then be matched against the third public good in another vote.

The three goods and the assumed individual preferences of the three voters are listed in the top part of Table 17.1. The data indicate that Adams prefers national defense to the road and the road to the weather warning system. This implies also that Adams prefers national defense to the weather warning system. Benson values the road more than the weather warning system and the warning system more than national defense. Conrad's order of preference is weather warning system, national defense, and road.

Voting Outcomes The lower part of Table 17.1 shows the outcomes of three hypothetical elections decided through majority vote. In the first, national defense wins against the road because a majority of voters (Adams and Conrad) prefer national defense to the road. In the second election, to see whether this community wants a road or a weather warning system, a majority of voters (Adams and Benson) prefer the road.

We have determined that the majority of people in this community prefer national defense to a road and prefer a road to a weather warning system. It seems logical to conclude that the community prefers national defense to a weather warning system. But it does not!

To demonstrate this conclusion, we hold a direct election between national defense and the weather warning system. Row 3 shows that a majority of voters (Benson and Conrad) prefer the weather warning system to national defense. As listed in Table 17.1, then, the three paired-choice majority votes imply that this community is irrational: It seems to prefer national defense to a road and a

road to a weather warning system, but would rather have a weather warning system than national defense.

The problem is not irrational community preferences but rather a flawed procedure for determining those preferences. We see that the outcome from paired-choice majority voting may depend on the order in which the votes are taken up. Under some circumstances majority voting fails to make consistent choices that reflect the community's underlying preferences. As a consequence, government may find it difficult to provide the "correct" public goods by acting in accordance with majority voting. Important note: This critique is not meant to suggest that some better procedure exists. Majority voting is much more likely to reflect community preferences than decisions by, say, a dictator or a group of self-appointed leaders. (**Key Question 2**)

Median-Voter Model

One other aspect of majority voting reveals further insights into real-world phenomena. The **median-voter model** suggests that, under majority rule and consistent voting preferences, the median voter will in a sense determine the outcomes of elections. The median voter is the person holding the middle position on an issue: Half the other voters have stronger preferences for a public good, amount of taxation, or degree of government regulation, and half have weaker or negative preferences. The extreme voters on each side of an issue prefer the median choice rather than the other extreme position, so the median voter's choice predominates.

Example Suppose a society composed of Adams, Benson, and Conrad has reached agreement that as a society it needs a weather warning system. Each person independently is to submit a total dollar amount he or she thinks should be spent on the warning system, assuming each will be taxed one-third of that amount. An election will determine the size of the system. Because each person can be expected to vote for his or her own proposal, no majority will occur if all the proposals are placed on the ballot at the same time. Thus, the group decides on a paired-choice vote: They will first vote between two of the proposals and then match the winner of that vote against the remaining proposal.

The three proposals are as follows: Adams desires a \$400 system; Benson wants an \$800 system; Conrad opts for a \$300 system. Which proposal will win? The median-voter model suggests it will be the \$400 proposal submitted by the median voter, Adams. Half the other voters favor a more costly system; half favor a less costly system. To understand why the \$400 system will be the outcome, let's conduct the two elections.

First, suppose that the \$400 proposal is matched against the \$800 proposal. Adams naturally votes for her \$400 proposal, and Benson votes for his own \$800 proposal. Conrad, who proposed the \$300 expenditure for the warning system, votes for the \$400 proposal because it is closer to his own. So Adams' \$400 proposal is selected by a 2-to-1 majority vote.

Next, we match the \$400 proposal against the \$300 proposal. Again the \$400 proposal wins. It gets a vote from Adams and one from Benson, who proposed the \$800 expenditure and for that reason prefers a \$400 expenditure to a \$300 one. Adams, the median voter in this case, is in a sense the person who has decided the level of expenditure on a weather warning system for this society.

Real-World Applicability Although our illustration is simple, it explains a great deal. We do note a tendency for public choices to match most closely the median view. Political candidates, for example, take one set of positions to win the nomination of their political parties; in so doing, they tend to appeal to the median voter within the party to get the nomination. They then shift their views more closely to the political center when they square off against opponents from the opposite political party. In effect, they redirect their appeal toward the median voter within the total population. They also try to label their opponents as being too liberal, or too conservative, and out of touch with “mainstream America.” And they conduct polls and adjust their positions on issues accordingly.

Implications The median-voter model has two important implications:

- At any point in time, many people will be dissatisfied by the extent of government involvement in the economy. The size of government will largely be determined by the median preference, leaving many people desiring a much larger, or a much smaller, public sector. In the marketplace you can buy no zucchinis, 2 zucchinis, or 200 zucchinis, depending on how much you enjoy them. In the public sector you get the number of Stealth bombers and new highway projects the median voter prefers.
- Some people may “vote with their feet” by moving into political jurisdictions where the median voter's preferences are closer to their own. They may move from the city to a suburb where the level of government services, and therefore taxes, is lower. Or they may move into an area known for its excellent, but expensive, school system. Some may move to other states; a few may even move to other countries.

For these reasons, and because our personal preferences for publicly provided goods and services are not static, the median preference shifts over time. Moreover, information about people's preferences is imperfect, leaving much room for politicians to misjudge the true median position. When they do, they may have a difficult time getting elected or reelected. (**Key Question 3**)

Government Failure

As implied in our discussion of voting problems, government does not always perform its economic functions effectively and efficiently. In fact, public choice theory suggests that inherent shortcomings within the public sector can produce inefficient outcomes. Such shortcomings may result in **government failure**—inefficiency due to certain characteristics of the public sector. Let's consider some of these characteristics and outcomes.

Special Interests and Rent Seeking

Casual reflection suggests that “sound economics” and “good politics” are not always one and the same. Sound economics calls for the public sector to pursue various programs as long as marginal benefits exceed marginal costs. Good politics, however, suggests that politicians support programs and policies that will maximize their chance of getting elected and staying in office. The result may be that the government will promote the goals of groups of voters that have special interests to the detriment of the larger public. In the process, economic inefficiency may result.

Special-Interest Effect Efficient public decision making is often impaired by the **special-interest effect**. This is any outcome of the political process whereby a small number of people obtain a government program or policy that gives them large gains at the expense of a much greater number of persons who individually suffer small losses.

The small group of potential beneficiaries is well informed and highly vocal on the issue in question, and they press politicians for approval. The large number of people facing the very small individual losses, however, are generally uninformed on the issue. Politicians feel they will lose the campaign contributions and votes of the small special-interest group that backs the issue if they legislate against it but will lose very little support of the large group of uninformed voters, who are likely to evaluate the politicians on other issues of greater importance to them.

The special-interest effect is also evident in so-called *pork-barrel politics*, a means of securing a government project that yields benefits mainly to a single political district and

its political representative. In this case, the special-interest group comprises local constituents, while the larger group consists of relatively uninformed taxpayers scattered across a much larger geographic area. Politicians clearly have a strong incentive to secure public goods (“pork”) for their local constituents. Such goods win political favor because they are highly valued by constituents and the costs are borne mainly by taxpayers located elsewhere.

At the Federal level, pork-barrel politics often consists of congressional members inserting provisions in comprehensive legislation that authorize spending for specific home-state projects. Such narrow, specifically designated authorizations of expenditure are called **earmarks**. In 2007, legislation contained 11,700 such earmarks totalling \$16.9 billion. These earmarks enable senators and representatives to provide benefits to in-state firms and organizations without subjecting the proposals to the usual evaluation and competitive bidding. Although some of the earmarked projects deliver benefits that exceed costs, many others are questionable, at best. These latter expenditures very likely reallocate some of society’s scarce resources from higher-valued uses to lower-valued uses. Moreover, logrolling typically enters the picture. “Vote for my special local project and I will vote for yours” becomes part of the overall strategy for securing “pork” and remaining elected.

Finally, a politician’s inclination to support the smaller group of special beneficiaries is enhanced because special-interest groups are often quite willing to help finance the campaigns of “right-minded” politicians and politicians who “bring home the pork.” The result is that politicians may support special-interest programs and projects that cannot be justified on economic grounds.

Rent-Seeking Behavior The appeal to government for special benefits at taxpayers’ or someone else’s expense is called **rent seeking**. To economists, “rent” is a payment beyond the amount necessary to keep a resource supplied in its current use. Corporations, trade associations, labor unions, and professional organizations employ vast resources to secure favorable government policies that result in rent—higher profit or income than would occur under competitive market conditions. The government is able to dispense such rent directly or indirectly through laws, rules, hiring, and purchases. Elected officials are willing to provide such rent because they want to be responsive to key constituents, who in turn help them remain in office.

Here are some examples of “rent-providing” legislation or policies: tariffs on foreign products that limit competition and raise prices to consumers; tax breaks that benefit specific corporations; government construction projects that create union jobs but cost more than the

benefits they yield; occupational licensing that goes beyond what is needed to protect consumers; and large subsidies to farmers by taxpayers. None of these is justified by economic efficiency.

Clear Benefits, Hidden Costs

Some critics say that vote-seeking politicians will not weigh objectively all the costs and benefits of various programs, as economic rationality demands in deciding which to support and which to reject. Because political officeholders must seek voter support every few years, they favor programs that have immediate and clear-cut benefits and vague or deferred costs. Conversely, politicians will reject programs with immediate and easily identifiable costs but with less measurable but very high long-term benefits.

Such biases may lead politicians to reject economically justifiable programs and to accept programs that are economically irrational. Example: A proposal to construct or expand mass-transit systems in large metropolitan areas may be economically rational on the basis of cost-benefit analysis. But if (1) the program is to be financed by immediate increases in highly visible income or sales taxes and (2) benefits will occur only years from now when the project is completed, then the vote-seeking politician may oppose the program.

Assume, on the other hand, that a program of Federal aid to municipal police forces is not justifiable on the basis of cost-benefit analysis. But if the cost is paid for from budget surpluses, the program’s modest benefits may seem so large that it will gain approval.

Limited and Bundled Choice

Public choice theorists point out that the political process forces citizens and their elected representatives to be less selective in choosing public goods and services than they are in choosing private goods and services.

In the marketplace, the citizen as a consumer can exactly satisfy personal preferences by buying certain goods and not buying others. However, in the public sector the citizen as a voter is confronted with, say, only two or three candidates for an office, each representing a different “bundle” of programs (public goods and services). None of these bundles of public goods is likely to fit exactly the preferences of any particular voter. Yet the voter must choose one of them. The candidate who comes closest to voter Smith’s preference may endorse national health insurance, increases in Social Security benefits, subsidies to tobacco farmers, and tariffs on imported goods. Smith is likely to vote for that candidate even though Smith strongly opposes tobacco subsidies.

In other words, the voter must take the bad with the good. In the public sector, people are forced to “buy” goods and services they do not want. It is as if, in going to a sporting-goods store, you were forced to buy an unwanted pool cue to get a wanted pair of running shoes. This is a situation where resources are not being used efficiently to satisfy consumer wants. In this sense, the provision of public goods and services is inherently inefficient.

Congress is confronted with a similar limited-choice, bundled-goods problem. Appropriations legislation combines hundreds, even thousands, of spending items into a single bill. Many of these spending items may be completely unrelated to the main purpose of the legislation. Yet congressional representatives must vote the entire package—yea or nay. Unlike consumers in the marketplace, they cannot be selective. (**Key Question 4**)

Bureaucracy and Inefficiency

Some economists contend that public agencies are generally less efficient than private businesses. The reason is not that lazy and incompetent workers somehow end up in the public sector while ambitious and capable people gravitate to the private sector. Rather, it is that the market system creates incentives and pressures for internal efficiency that are absent from the public sector. Private enterprises have a clear goal—profit. Whether a private firm is in a competitive or monopolistic market, efficient management means lower costs and higher profit. The higher profit not only benefits the firm’s owners but enhances the promotion prospects of managers. Moreover, part of the managers’ pay may be tied to profit via profit-sharing plans, bonuses, and stock options. There is no similar gain to government agencies and their managers—no counterpart to profit—to create a strong incentive to achieve efficiency.

The market system imposes a very obvious test of performance on private firms: the test of profit and loss. An efficient firm is profitable and therefore successful; it survives, prospers, and grows. An inefficient firm is unprofitable and unsuccessful; it declines and in time goes out of business. But there is no similar, clear-cut test with which to assess the efficiency or inefficiency of public agencies. How can anyone determine whether a public hydroelectricity provider, a state university, a local fire department, the Department of Agriculture, or the Bureau of Indian Affairs is operating efficiently?

Cynics even argue that a public agency that inefficiently uses its resources is likely to survive and grow! In the private sector, inefficiency and monetary loss lead to the abandonment of certain activities or products or even firms. But the government, they say, does not like to abandon activities in which it has failed. Some suggest that the

typical response of the government to a program’s failure is to increase its budget and staff. This means that public sector inefficiency just continues on a larger scale.

Furthermore, economists assert that government employees, together with the special-interest groups they serve, often gain sufficient political clout to block attempts to pare down or eliminate their agencies. Politicians who attempt to reduce the size of huge Federal bureaucracies such as those relating to agriculture, education, health and welfare, and national defense incur sizable political risk because bureaucrats and special-interest groups will team up to defeat them.

Finally, critics point out that government bureaucrats tend to justify their continued employment by looking for and eventually finding new problems to solve. It is not surprising that social “problems,” as defined by government, persist or even expand.

The Last Word at the end of this chapter highlights several recent media-reported examples of the special-interest effect (including earmarks), the problem of limited and bundled choices, and problems of government bureaucracy.

Imperfect Institutions

It is possible to argue that such criticisms of public sector inefficiency are exaggerated and cynical. Perhaps they are. Nevertheless, they do tend to shatter the concept of a benevolent government that responds with precision and efficiency to the wants of its citizens. The market system of the private sector is far from perfectly efficient, and government’s economic function is mainly to correct that system’s shortcomings. But the public sector too is subject to deficiencies in fulfilling its economic function. “The relevant comparison is not between perfect markets and imperfect governments, nor between faulty markets and all-knowing, rational, benevolent governments, but between inevitably imperfect institutions.”¹

Because the market system and public agencies are both imperfect, it is sometimes difficult to determine whether a particular activity can be performed with greater success in the private sector or in the public sector. It is easy to reach agreement on opposite extremes: National defense must lie with the public sector, while automobile production can best be accomplished by the private sector. But what about health insurance? Parks and recreation areas? Fire protection? Garbage collection? Housing? Education? It is hard to assess every good or service and to say absolutely that it should

¹Otto Eckstein, *Public Finance*, 3d ed. (Englewood Cliffs, N.J.: Prentice-Hall, 1973), p. 17.

be assigned to either the public sector or the private sector. Evidence: All the goods and services just mentioned are provided in part by *both* private enterprises and public agencies.

QUICK REVIEW 17.1

- Majority voting can produce voting outcomes that are inefficient; projects having greater total benefits than total costs may be defeated, and projects having greater total costs than total benefits may be approved.
- The paradox of voting occurs when voting by majority rule does not provide a consistent ranking of society's preferences for public goods and services.
- The median-voter model suggests that under majority rule and consistent voting preferences, the voter who has the middle preference will determine the outcome of an election.
- Government failure allegedly occurs as a result of rent seeking, pressure by special-interest groups, shortsighted political behavior, limited and bundled choices, and bureaucratic inefficiency.

Apportioning the Tax Burden

We now turn from the difficulties of making collective decisions about public goods to the difficulties of deciding how those goods should be financed.

It is difficult to measure precisely how the benefits of public goods are apportioned among individuals and institutions. We cannot accurately determine how much citizen Mildred Moore benefits from military installations, a network of highways, a public school system, the national weather bureau, and local police and fire protection.

The situation is different when it comes to paying for those benefits. Studies reveal with reasonable clarity how the overall tax burden is apportioned. (By "tax burden" we mean the total cost of taxes imposed on society.) This apportionment question affects each of us. The overall level of taxes is important, but the average citizen is much more concerned with his or her part of the overall tax burden.

Benefits Received versus Ability to Pay

Two basic philosophies coexist on how the economy's tax burden should be apportioned.

Benefits-Received Principle The **benefits-received principle** of taxation asserts that households and businesses should purchase the goods and services of government in the same way they buy other commodities.

Those who benefit most from government-supplied goods or services should pay the taxes necessary to finance them. A few public goods are now financed on this basis. For example, money collected as gasoline taxes is typically used to finance highway construction and repairs. Thus people who benefit from good roads pay the cost of those roads. Difficulties immediately arise, however, when we consider widespread application of the benefits-received principle:

- How will the government determine the benefits that individual households and businesses receive from national defense, education, the court system, and police and fire protection? Recall that public goods are characterized by nonrivalry and nonexcludability. So benefits from public goods are especially widespread and diffuse. Even in the seemingly straightforward case of highway financing it is difficult to measure benefits. Good roads benefit owners of cars in different degrees. But others also benefit. For example, businesses benefit because good roads bring them workers and customers.
- The benefits-received principle cannot logically be applied to income redistribution programs. It would be absurd and self-defeating to ask poor families to pay the taxes needed to finance their welfare payments. It would be ridiculous to think of taxing only unemployed workers to finance the unemployment compensation payments they receive.

Ability-to-Pay Principle The **ability-to-pay principle** of taxation asserts that the tax burden should be apportioned according to taxpayers' income and wealth. In the United States this means that individuals and businesses with larger incomes should pay more taxes in both absolute and relative terms than those with smaller incomes.

In justifying the ability-to-pay principle, proponents contend that each additional dollar of income received by a household yields a smaller amount of satisfaction or marginal utility when it is spent. Because consumers act rationally, the first dollars of income received in any time period will be spent on high-urgency goods that yield the greatest marginal utility. Successive dollars of income will go for less urgently needed goods and finally for trivial goods and services. This means that a dollar taken through taxes from a poor person who has few dollars represents a greater utility sacrifice than a dollar taken through taxes from a rich person who has many dollars. To balance the sacrifices that taxes impose on income receivers, taxes should be apportioned according to the amount of income a taxpayer receives.

This argument is appealing, but application problems arise here too. Although we might agree that the household earning \$100,000 per year has a greater ability to pay taxes