Why It Matters

Millions of people go to work every day. They work as cab drivers, computer programmers, attorneys, salespersons, construction workers, and accountants, among other things. Just as the work these people do differs from job to job, so does the pay, which is determined by supply and demand.

All of the workers mentioned above are part of the civilian labor force. The civilian labor force consists of men and women 16 years old or older who are either working at jobs or actively searching for jobs. One day soon you will be part of the civilian labor force, if you are not already. When that day arrives, you will probably think a lot about what you are paid in the labor market. This chapter will help you understand the labor market and why people get paid what they do.
The following events occurred one day in September.

7:14 A.M.  Blake is up and watching television. He hears a story about professional basketball players and the high salaries they earn. Blake, an avid basketball fan, wonders why some people end up making so much money.

• Is Blake part of the reason that professional basketball players earn high incomes?

8:44 A.M.  Emily and her best friend, Karen, are having a cup of coffee at work. They talk about a TV documentary they saw last night about new immigrants to the United States. Emily says, “I thought the documentary made some good points—points I was unaware of.” “I know,” said Karen. “I didn’t know that new immigrants could end up causing our wages to go down.” “But I don’t think that is what the documentary said,” says Emily. “I thought it said that new immigrants could, but need not lower peoples’ wages, and not necessarily everyone’s wages—just some people’s wages.”

• What effect does immigration have on wages?

10:56 A.M.  Jill works as an accountant in Atlanta. Her annual salary is $82,000. She just got off the phone with an accounting firm in Milwaukee. The vice president of the accounting firm in Milwaukee offered her a salary of $100,000 if she would come and work for the firm. The Milwaukee firm has a reputation for disgruntled employees. Jill is thinking of turning down the offer.

• Would Jill be wrong to turn down the job in Milwaukee?

5:03 P.M.  Stephen is 16 years old and works at a grocery store every day after school. He bags groceries and stocks food. He earns the minimum wage. Right now he is cleaning up in the back room of the store. A coworker of his just came into the back room. Stephen looks over and asks his coworker how much he is getting paid. The coworker says, “Same as you, the minimum wage.” “I wish I made a little more at this job,” Stephen says. “So do I,” says the coworker.

• Would Stephen have a job at the grocery store if the minimum wage were raised to $3 higher than it currently is?
Supply and Demand in the Labor Market

In Chapters 4 and 5 you learned about demand and supply. In particular, you learned how both supply and demand affect prices for goods or products—such things as apples, cars, and houses. Supply and demand can also be used to analyze how we determine the price of a resource, or factor of production, such as labor.

People who demand labor are usually referred to as employers, and people who supply labor are employees. Looking at employers and employees in this way, we can create a demand curve and a supply curve showing the price of labor. The price of labor is called the wage rate.

The demand curve for labor is downward sloping (left to right), as shown in Exhibit 9-1. A downward-sloping demand curve indicates that employers will be willing and able to hire more people at lower wage rates than at higher wage rates. For example, employers are willing and able to hire more workers if the wage rate is $7 per hour than if the wage rate is $10 per hour.

The supply curve for labor, in contrast, is upward sloping (left to right), as shown in Exhibit 9-2. More people will be willing and able to work at higher wage rates than at lower wage rates. In the exhibit, more people are willing and able to work if the wage rate is $10 per hour than if the wage rate is $7 an hour. For example, Pam is not willing to work as a salesperson in a clothing store if the store pays $7 an hour. However, she is willing to work as a salesperson in a clothing store if the store pays $10 an hour.

How the Equilibrium Wage Rate Is Established

Recall from Chapter 6 that the equilibrium price is the price at which the quantity demanded of a good equals the quantity supplied. Suppose $14 is the equilibrium wage rate. Currently, he employs four persons to clean rooms. He pays each person $80 a day. If he could pay each worker only $60 a day, he would hire five instead of four persons to clean rooms.

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price of compact discs; at this price, the number of compact discs that sellers are willing and able to sell equals the number of compact discs that buyers are willing and able to buy.

Similarly, in the labor market, the equilibrium wage rate is the wage at which the quantity demanded of labor equals the quantity supplied of labor. Stated differently, it is the wage rate at which the number of people employers are willing and able to hire is the same as the number of people who are willing and able to be hired. In Exhibit 9-3(a) on the next page, when the wage rate is $9, the number of people who are willing and able to work (quantity supplied equals 7,000) is greater than the number of people employers are willing and able to hire (quantity demanded equals 3,000). It follows that $9 is not the equilibrium wage rate; at $9, the market has a surplus of labor.

In Chapter 6, you learned that when a surplus of a good occurs, the price of the good falls. Things are similar in a competitive labor market. When the market has a surplus of labor, the wage rate falls:

\[
\text{Quantity supplied of labor} > \text{Quantity demanded of labor} \Rightarrow \text{Surplus of labor}
\]

Surplus of labor → Wage rate falls

Now consider Exhibit 9-3(b). The wage rate is $7, and the number of people employers are willing and able to hire (6,000) is greater than the number of people who are willing and able to work (4,000). Thus, $7 is not the equilibrium wage rate. At $7, the market experiences a shortage of labor, so the wage rate rises:

\[
\text{Quantity demanded of labor} > \text{Quantity supplied of labor} \Rightarrow \text{Shortage of labor}
\]

Shortage of labor → Wage rate rises
In Exhibit 9-3(c), the wage rate is $7.75, and the number of people employers are willing and able to hire (5,000) equals the number of people who are willing and able to work (5,000). We conclude that $7.75 is the equilibrium wage rate. At this level the wage rate neither rises nor falls because the market has no shortage or surplus of labor.

Why Do Some People Earn More than Others?

If you convert a daily salary or a monthly salary into hours, you can find out how much a person earns on an hourly basis. This figure is that person's wage rate. For example, suppose someone earns $4,000 per month and works 160 hours a month. Her wage rate is $25 an hour.

Now some people earn a higher wage rate than others. For example, some people earn $100 an hour while other people earn $8 an hour. Why the big difference? Supply and demand help us to understand why some people earn higher wages than others. First, suppose that the demand for every type of labor is the same—the demand for accountants is the same as the demand for construction workers, and so on. Now suppose we learn that the equilibrium wage rate for accountants is higher than that for construction workers. If demand for the two types of labor is the same, how can we explain the difference in wage rates? Obviously, the supply of accountants and the supply of construction workers must not be the same. If accountants earn more than construction workers, it must be because the supply of accountants is less than the supply of construction workers. We conclude that wage rates can differ because the supply of different types of labor is not the same.

Suppose instead that the supply of different types of labor is the same—for example, suppose the supply of bank tellers is the same as the supply of grocery store cashiers. If grocery store cashiers earn more than bank tellers, then what could possibly explain the difference? Obviously, the demand for bank tellers and grocery store cashiers must not be the same. We conclude that wage rates can differ because the demand for different types of labor is not the same.

As an aside, you may be interested in knowing the average hourly earnings of
workers in different industries. In 2003, in construction it was $18.95; manufacturing, $15.74; financial activities, $17.13; leisure and hospitality, $8.76; and business and professional services, $17.20.

A Student Asks

QUESTIONS: Many physicians earn less than many major league baseball players, but shouldn’t they earn more? After all, major league baseball players are just playing a game. At least some physicians are saving lives.

ANSWER: Your question takes us beyond the confines of economics. It’s sort of like asking a physicist if we would be better off if dynamite didn’t blow up. Some things just are. It is a fact that the average major league baseball player earns more than the average physician, and it is not so much the economist’s job to pass judgment on this point, as it is to explain why. Addressing the “why part” has to do with supply and demand. If a lot more people could do what major league baseball players do (a lot more supply of major league baseball players), you can be sure they would earn less than they currently do. Or, if, for example, people stopped watching baseball games (the demand for baseball games falls off), baseball salaries would decline. As things are now, though, the demand for baseball players is high and the supply of them is low, and so they earn more than most people earn.

Are Money Benefits the Only Thing That Matters?

Suppose Smith is offered two jobs, A and B. In job A, he will earn an annual income of $100,000 and in job B, $40,000. Which job will he choose? Most people would say that he will choose job A because it pays a higher income. Smith won’t necessarily choose job A, however, because a higher income (more money per year) is not the only thing that matters to people. Also important are what people are doing in their jobs, who their coworkers are, where they have to work, how many hours a week they have to work, how much vacation time they receive, and more. In short, if everything between the two jobs, A and B, is the same except that job A pays $100,000 and job B pays $40,000, then certainly Smith will choose job A over job B. However, usually not everything is the same between two jobs.

Let’s suppose that Smith chooses job B (the lower-paying job) over job A. He tells us that he chose the lower-paying job because he likes the job so much more. In job B he is doing something that he has always wanted to do, he works with nice people, he gets one month of vacation each year, and he is enormously stimulated by what he does. In contrast, in job A he would have been doing something both boring and tedious to him, he would have worked with people he did not really like (especially his boss), and he would have had only two weeks of vacation each year. On top of all this, he would have had to work 10 hours more each week in job A than he has to work in job B, and he would have had much less job security. Thus, job A pays more than job B, but job A does not have the nonmoney benefits that job B has.

All jobs come with both money benefits and nonmoney benefits. Look at it this way:

Benefits in a job = Money benefits (income) + Nonmoney benefits

Being able to afford a trip to a seaside resort is of no value if your job prevents you from getting away. What are some nonmoney benefits of a job?
Chapter 9 Labor, Employment, and Wages

Each year the National Football League (NFL) conducts a draft in which the 32 teams take turns picking the best college players. Most people assume that the players picked earlier are the better football players. For this reason, where a player is picked in the draft largely determines that player's starting salary: the earlier chosen, the higher the salary.

After studying the NFL draft, two economists argue that how valuable a player is to a team depends on how productive the player is, and how much he is paid. For example, player 1 might perform better than player 2, but be paid twice as much as player 2. But unless player 1 is twice as valuable on the field as player 2, then either he is being "overpaid" or player 2 is being "underpaid."

The economists collected data from the last 17 drafts and tried to figure out which draft picks were the "best" for the amount of money they were paid. The economists tried to identify not the best overall player, but the "best per dollar" player.

What did they discover? The best per dollar player is not usually the first pick in the first round. Instead, the best pick per dollar is usually the 43rd person picked, which is the 11th pick in the second round. In 2004, this pick went to the Dallas Cowboys, who took running back Julius Jones. Jones ran for 819 yards and scored seven touchdowns in eight games. Cost to Dallas for Jones’s six-year contract: a very reasonable $4.37 million (the first pick that year, Eli Manning, received a six-year, $54 million contract).

The strategy outlined by the economists—go with lower-priced players in the second round rather than higher-priced players in the first round—is said to have been the strategy employed by General Manager Bobby Beathard of the Washington Redskins in the 1980s. He often traded away his first-round picks for lower-priced picks in later rounds. The team Beathard built using this strategy won three Super Bowls. In more recent years, the New England Patriots won three Super Bowl titles in four years led by quarterback Tom Brady, who wasn’t drafted until the sixth round.

So, if the economists are right, why are many teams paying too much for some of the early picks in the draft? Some have speculated that it is difficult to correctly estimate an athlete’s worth over time, as compared to other types of employees. For example, could you estimate a typist’s productivity over time? A typist who types 60 words this year is likely to type 60 words next year and 60 words the year after. His or her work environment and skills might improve modestly, but will probably be fairly constant from one year to the next.

The productivity of football players, on the other hand, seems to be very different. A football player usually plays with different team members and for different coaches from one year to the next, both of which impact the player’s performance. It is also the case that injuries and age can have a major impact on a player’s performance, much more significantly than in other occupations.

Since the two economists published their research, a number of NFL teams have contacted them for advice. It will be interesting to see which teams, if any, continue to overpay top picks. And by the way, how has your favorite team done in recent drafts?

Do You Want the 1st or the 43rd Pick in the NFL Draft?

We might expect that in some fields productivity is more closely linked to pay than in other fields. For example, we would expect it to be closely linked in a field where it is easy to measure productivity and less closely linked in a field where it is hard to measure productivity. In what fields do you think it might be hard to measure productivity?
Certainly job A comes with higher money benefits (higher income) than job B, but (as far as Smith is concerned) it also comes with lower nonmoney benefits than job B. Because Smith chose job B (the $40,000 job) over job A (the $100,000 job), the nonmoney benefits in job B must have been higher than the nonmoney benefits in job A.

How much higher must they have been, in a dollar amount? The answer is at least $60,000 higher. To understand why, consider what Smith has “paid” by choosing job B over job A. He has paid $60,000 a year, because he has given up the opportunity to earn $60,000 more a year in job A. Therefore, the nonmoney benefits in job B must have been worth at least $60,000 to Smith. This means that job B “pays” more, as long as we understand that a person in a job is paid in terms of both money and nonmoney benefits.

**Example:** Kevin graduates from college in a year. His father has always wanted him to go to medical school. One of the reasons his father wants him to go to medical school is because doctors earn a relatively high salary. An orthopedic surgeon, for example, can earn $600,000 a year. Kevin doesn’t really want to go to medical school. It’s not that he thinks he would find being a doctor uninteresting, it’s just that he doesn’t want to work as hard as one needs to work to become a physician. He would have to go to four years of medical school, then serve an internship and residency, then, perhaps, end up working 60 to 80 hours a week for years. According to Kevin, “There is more to life than just money.”

Here, then, is an example of a person who considers more than just the money benefits in a job; Kevin considers the nonmoney benefits too. Even though being a medical doctor comes with high money benefits, it doesn’t come with enough “nonmoney benefits” for Kevin. Obviously, Kevin is willing to trade off some money benefits he would receive as a doctor for greater nonmoney benefits in some other job.

Each year, *Parade* magazine interviews people in a variety of jobs. It is mainly concerned with what people in various occupations earn. If you go to [www.emcp.net/parade](http://www.emcp.net/parade), you can see the wage rates for various occupations.

**Example:**

**Question:** I thought economics was about money—specifically, the more money the better. Am I wrong here?

**Answer:** It is one thing to say “the more money the better” and quite another to say “the more money the better, all other things being equal.” The economist will make the second statement but not the first. In other words, what the economist means here is that if two jobs, A and B, are exactly alike except for the fact that job A pays more than B, then job A is a better job than job B.

**The Demand for a Good and Wage Rates**

Eva works in a radio factory. Suppose the demand for radios decreases as shown on the next page in Exhibit 9-4(a). What do you think will happen to Eva? If the demand for radios decreases, radio manufacturers do not need to hire as many workers, so the demand for workers decreases, as shown in Exhibit 9-4(b). As the demand for these workers decreases and the supply stays constant, the wage rate decreases.

Because the demand for labor is dependent upon the demand for the good or service labor produces, the demand for labor is often referred to as a **derived demand**. A derived demand is a demand that is the result of some other demand.
The demand for radios affects the demand for the workers who produce the radios and their wages. In this example, when the demand for radios falls, the demand for workers also falls, causing wage rates to fall from $18 to $15 per hour.

**Example:** Carl plays ice hockey. If the demand to watch ice hockey games falls (perhaps people switch from watching ice hockey to watching more basketball), then the demand for hockey players will fall too. As a result, Carl’s wage rate will fall.

**What Will You Earn?**

If you are reading this book as part of a high school course, you are somewhere between the ages of 14 and 18. Let’s jump ahead 15 years, when you will be between 29 and 33 years old. At that time, you will be working at some job and earning some wage rate or salary. You could be earning anywhere between, say, $20,000 and $500,000 a year. What will determine the amount you will earn?

Your wage rate (and salary) depends on a number of things, one of which is the demand for your labor services. The demand for you may be high, low, or medium. The higher the demand for you, the higher your wage rate will be. Obviously, you want the demand for you to be as high as possible.

Two factors will make the demand for your labor services high: (1) the demand for the good you produce, and (2) your productivity. The greater the demand for the product you produce, the greater is the demand for your labor services. If you produce attorney services and attorney services are in high demand, then you are in high demand, too. If you produce telephones and telephones are in low demand, then you will be in low demand, too.

The second factor that relates to the demand for you as an employee is your productivity. The more productive you are at what you do, the greater the demand for you. Suppose that two people can produce accounting services. One, however, can produce twice as many accounting services per hour as the other. It follows, then, that the faster accountant will be in greater demand by accounting firms.

A number of factors can influence your productivity. One factor is your innate abil-
ity; you may simply have been born with a great ability to organize people, play baseball, sing a song, or write a story. A second factor is how much effort you put into developing your skills. You may have worked hard developing and perfecting your ability to produce a service, whether it is attorney services, teaching services, or medical services. Third, your productivity is affected by the quality and length of your education. The higher the quality of your education and the more education you have, the more productive you will be (all other things being equal). In fact, statistics show that as one’s educational level rises, so does one’s income. In summary, the demand for you (as an employee) will rise with the demand for the product or service you produce and your productivity.

Of course, your wage (or salary) in the future depends not only upon how high or low the demand for you is in the future but
also upon the number of people who can do what you do. In short, it also depends on supply. For example, the demand for you may be high, but if the supply is high too, you are not likely to earn a high wage. High wages are the result of high demand combined with low supply.

Why is supply high in some labor markets and low in others? The supply of labor offered in a particular labor market is the result of a number of factors, one of which is the ability to perform a particular service. For example, more people can work as restaurant servers than as brain surgeons. Similarly, more people can drive trucks than can argue and win difficult law cases before the U.S. Supreme Court. These statements do not put a value judgment on work as a restaurant server or truck driver. They simply report the fact that some tasks can be completed by more people than others. All other things being equal, the fewer people who can do what you do, the higher your wage (or salary) will be.

Orthopedic surgeons earn a lot of money each year because they possess the three factors necessary to generate a high income. First, they are part of a (medical) team that produces health services, a service that is in high demand. Second, orthopedic surgeons are productive. Third, not many people can do what they do (supply is low). In short, as was stated earlier, the combination of high demand for the good or service produced, high productivity, and a situation where not many people can do what one does, results in a high salary.

**Government and the Minimum Wage**

The **minimum wage law** sets a wage floor—that is, a level below which hourly wage rates are not allowed to fall. The law, passed during the Great Depression of the

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1930s, initially established a minimum wage of 25 cents an hour. In 2005, the federal minimum wage was $5.15 an hour. Some states, such as California, Washington, and Massachusetts, set their minimum wage rate higher than the federal rate. (An employee who is tipped, such as a restaurant server, is only required to be paid $2.13 an hour in wages if that amount plus the tips received equals at least the federal minimum wage. Also, a minimum wage of $4.25 per hour applies to young workers under the age of 20 during their first 90 consecutive calendar days of employment.)

The U.S. Congress determines the minimum wage. Earlier, however, you read that supply and demand determine wage rates. So what really does determine wage rates—the government or supply and demand? The fact is that supply and demand usually, but not always, determine wages.

Suppose that in a particular labor market the equilibrium wage rate is $4.10 an hour. In other words, the demand curve and the supply curve of labor intersect at a wage rate of $4.10. Congress then argues that a wage rate of $4.10 an hour is too low, and it orders employers to pay employees at least $5.15 an hour. This rate is now the minimum wage. It becomes unlawful to pay an employee less than this hourly wage.

Many people would agree with Congress that a wage of $4.10 an hour is simply too low. Economists, however, are not so interested in whether Congress is justified in setting a minimum wage as they are in knowing the effects of setting the minimum wage rate above the equilibrium wage rate. They know what the intended effects are, but they also wonder about the unintended effects. For example, will employers hire as many workers at the minimum wage rate of $5.15 as they would at the equilibrium wage rate of $4.10? Remember, the demand curve for labor is downward sloping (from left to right). As the wage rate falls, employers will hire more workers; and as the wage rate rises, they will hire fewer workers. Thus, a minimum wage rate set by Congress above the equilibrium wage rate will result in employers being willing and able to hire fewer workers.

**QUESTION:** Without a minimum wage law, wouldn’t employers pay next to nothing for unskilled labor?

**ANSWER:** Suppose 100 people are working and earning the minimum wage of $5.15 an hour. First ask whether these people are worth $5.15 an hour. The answer has to be yes, because no employer would pay someone $5.15 an hour unless the employee was worth $5.15 an hour to the employer.

Now let’s ask ourselves whether the people who are not worth $5.15 an hour to an employer are working when the minimum wage is in existence. The answer is no. For example, Jack, 16 years old, may be worth $4.90 an hour, but not worth $5.15, so if the employer has to pay Jack $5.15 an hour he will not hire.
him in the first place. Now ask what happens if the minimum wage is scrapped. Do the 100 people who were earning $5.15 find themselves earning only $2 an hour? Not at all. If they were hired when the wage rate was mandated at $5.15, then they truly must be worth $5.15 an hour, and if someone offers them $2 an hour, they will simply move to work for someone who pays them their market wage of $5.15 an hour.

Scraping the minimum wage law will not lower the wage rate for workers currently earning the minimum wage; instead, it will bring people into the labor force who weren’t previously worth the minimum wage. It brings Jack into the market, because now an employer is willing to hire Jack if he can pay him $4.90 an hour. Most likely, in time Jack will acquire new skills that will make him worth more (to an employer), and he will earn a higher wage.

Suppose Patel earns $9 an hour in 2004 and $12 an hour in 2005. Is she better off in 2004 or in 2005? The obvious answer seems to be that she is better off in 2005, when she earns the higher wage rate. This answer, however, assumes that the prices of the goods and services she buys in 2004 and 2005 are the same, but they may not be. Prices may be higher in 2005 than 2004. Whether Patel is better off in 2005 than 2004 depends on how much her wages increased compared to the increase in prices.

We can measure a person’s wage rate in terms of money (for example, $9 or $11 per hour) or in terms of what the wages will buy. Measuring a person’s wage rate in terms of money gives us the person’s money wage (sometimes the money wage is called the nominal wage). Measuring a person’s wage rate in terms of what it buys gives us the person’s real wage. Can a person’s money wage rise while the person’s real wage falls? Let’s look at an example.

EXAMPLE: Suppose the only good that Patel buys is chocolate bars. In 2004, chocolate bars sell for $1 a bar. With a wage rate of $9 an hour, Patel can buy 9 chocolate bars an hour. In 2005, chocolate bars are $2 a bar; with $12 an hour, Patel can buy 6 chocolate bars an hour. Patel went from earning $9 to $12 an hour, but her real wage fell from 9 chocolate bars an hour to 6 chocolate bars an hour. Everyone talks in terms of money wages (“I earn $10 an hour”), but our real wage is far more important because it measures what we can do with the money wage we receive.

We are paid in money wages, so how do we compute our real wages so that we can see how much better off or worse off we are in terms of buying power from one period to the next? We computed Patel’s real wage in 2004 versus 2005 by simply dividing the money wage in each year by the price of a chocolate bar in each year. In the real world, of course, people do not simply buy chocolate bars; they buy a variety of goods. The government measures the “average price” of these goods, usually called a price index.
One particularly well-known price index is the Consumer Price Index, or CPI. Perhaps you heard a television newscaster say, “The government reported today that the CPI rose by 4 percent over the year.” In other words, prices, on average, are 4 percent higher this year than last year.

The government computes the CPI on an annual basis. Therefore, we can compute our real wage by simply dividing our money wage in a given year by the CPI in the same year:

$$\text{Real wage} = \frac{\text{Money wage}}{\text{CPI}}$$

For example, suppose in 2002 a person earned a wage rate of $20 an hour, and the CPI was 177. The person’s real wage was 0.113. In percentage terms, it is 11.3 percent—but 11.3 percent of what? In the chocolate bar example, it would be 11.3 percent of one chocolate bar. But we aren’t talking about chocolate bars here; we are talking about many goods. Think of the 0.113, then, as 11.3 percent of one unit of a composite good. This composite good is a little food, a little housing, and a little entertainment all rolled up into one. With $20 an hour, then, a person can purchase 11.3 percent of one unit of the composite good.

Now suppose the person’s wage rate rises to $30 in 2005. Furthermore, let’s suppose that the CPI in 2005 turns out to be 190. What, then, is the person’s real wage? If we divide $30 by 190, we get 0.1578, or 15.78 percent of one unit of a composite good.

Is the person’s real wage higher in 2002 or in 2005? The answer is 2005. In 2002, the real wage rate is 11.3 percent of one unit of a composite good, and in 2005 it is 15.78 percent of one unit of a composite good.

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**Defining Terms**

1. Define:
   a. wage rate
   b. derived demand
   c. minimum wage law

2. Give an example of a money wage and a real wage.

**Reviewing Facts and Concepts**

3. In a competitive labor market, suppose the quantity demanded of labor is greater than the quantity supplied. What will happen to the wage rate? Explain.

4. John is paid $7 an hour, and Kimsan is paid $23 an hour. In general, why does Kimsan earn more than John?

5. Mauricio accepts a job that pays $35,000 a year instead of a job that pays $80,000 a year. What do the nonmoney benefits in the $35,000 job equal (at minimum)? Explain your answer.

**Critical Thinking**

6. If major league baseball becomes less popular, what will happen to players’ salaries? Explain your answer.

**Applying Economic Concept**

7. Over the past three years, Rachel’s money wage increased by 10 percent, and prices increased by 13 percent. Has Rachel’s real wage increased, decreased, or remained stable? Explain your answer.
Here is what possibly could be one of the most important tables you will ever see. It is from the U.S. Bureau of Labor Statistics.

**More Money, More Security**

This table shows you the unemployment rate and the median weekly earnings in 2003 for individuals with various levels of education. For example, the average person with some high school but no diploma earned $396 a week in 2003 and had an unemployment rate of 8.8 percent. Now notice what happens as one’s educational level rises. First, his or her weekly earnings rise. Second, the unemployment rate falls. In other words, more education brings a higher income and a

<table>
<thead>
<tr>
<th>Education attained</th>
<th>Unemployment rate in 2003</th>
<th>Median weekly earnings in 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral degree</td>
<td>2.1%</td>
<td>$1,349</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>2.9</td>
<td>1,064</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>3.3</td>
<td>900</td>
</tr>
<tr>
<td>Associate degree</td>
<td>4.0</td>
<td>672</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>5.2</td>
<td>622</td>
</tr>
<tr>
<td>High school graduate</td>
<td>5.5</td>
<td>554</td>
</tr>
<tr>
<td>Some high school, no diploma</td>
<td>8.8</td>
<td>396</td>
</tr>
</tbody>
</table>

Diplomas can double your earnings.
smaller probability of being unemployed.

In fact, as you get more education, it is like multiplying yourself. To see how, let’s suppose you compare your earnings under two scenarios. In the first you have some high school (but no diploma). In the second case, you earn a master’s degree.

**An Important Comparison**

Let’s assume that you have some high school (only), and you start working when you are 18 and stop working when you are 65. You will earn an average of $396 a week for 48 years. This yields a total of $988,416 in lifetime earnings (before taxes).

Now let’s assume you have a master’s degree. Getting this degree means that you will work for fewer years because you must go to college to earn a bachelor’s degree (that’s 4 or 5 years) and then on to graduate school to earn a master’s degree (let’s say 2 years). So, in total, you will work 6 to 7 years less. You will earn, then, an average of $1,064 a week for, say, 41 years. The total ends up being $2,268,448 in lifetime earnings (before taxes).

Now we know that your lifetime earnings with a master’s degree ($2,268,448) are more than double your lifetime earnings with only some high school ($988,416). What do these comparisons mean then? Simply that a master’s degree gives you the ability to create another one of yourself. In other words, when you go into the labor market with only some high school, it is like one of you going to work. But when you go into the labor market with a master’s degree, it is like two of you going to work. It’s you and your double.

**My Personal Economics Action Plan**

Here are some points you may want to consider and some guidelines you might want to put into practice:

1. The more education you have, the higher your lifetime earnings likely will be.

   I will graduate from high school with the highest possible grade point average.

2. The more education you have, the less likely you will be unemployed.

   After graduating from high school, I will enroll in ______ to get a degree in ______.

3. Going from a high school diploma to a master’s degree is equivalent to creating a double of yourself.

   After graduating from ______, I will assess my options for graduate school and make a decision to obtain a graduate degree in ______ by the time I am ______ years old.

4. Some people say they don’t like school and would rather go to work as soon as possible. Look at it this way. Whether you are in school or working at a job, you have something to do eight hours a day. It’s not a choice between going to school and doing nothing; the choice is between learning eight hours a day or working eight hours a day. Sometimes learning looks a lot better when you see it as a substitute for work (instead of as a substitute for leisure).

   I will substitute learning for working ______ hours a day for ______ years so that I can earn twice as much money in my lifetime.
Some Practices of Labor Unions

One objective of a labor union may be to obtain higher pay for its members. The union then must direct its activities to increasing the demand for its labor, decreasing the supply of its labor, or both.

The Demand for Union Labor

As stated earlier, if the demand for a good decreases, then the demand for the labor that produces the good decreases, too. For example, if the demand for cars decreases, then the demand decreases for the workers who produce cars. If the demand for cars increases, of course, the demand increases for the workers who produce cars.

With that relationship in mind, suppose you are a union worker in the U.S. automobile industry, centered in Detroit, Michigan. Would you want the demand for American-made cars to increase, stay constant, or decrease? Obviously, you would want the demand for American-made cars to increase, because you know that if it increases, the demand for your labor increases, too. As the demand for your labor increases, your wage rate increases, all other things remaining the same.

For this reason your labor union might try to increase the demand for the product it produces. It might launch an advertising campaign urging people to purchase only union-produced goods. For example, television commercials in the past have urged people to “look for the union label”—in other words, buy union-made goods. Also, when U.S. union workers are in competition with workers in other countries (for example, U.S. car workers are in competition with Japanese car workers), an advertising campaign might urge people to buy goods “made in the U.S.A.”—another union slogan in the recent past.

The Supply of Union Labor

Just as a labor union tries to increase the demand for its labor, it also tries to decrease labor supply. Suppose you work as a truck driver. Would you prefer to be one of a thousand truck drivers in the United States or one of ten thousand truck drivers? Your answer probably is one of a thousand,
because you know that the lower the supply of truck drivers, the higher your wage rate, all other things remaining the same.

Some people criticize labor unions for trying to control the supply of labor at times. In the past, some unions supported closed shops, organizations that hire only union members. To work for these companies, people would first have to join the labor union. The labor union, in turn, might hold down the number of workers who could join (and thus work in the particular industry) in order to keep the supply of workers in that industry low and keep wage rates high. The union could perhaps do this by limiting membership or requiring long training periods. Today, the closed shop is illegal. It was prohibited by the Taft-Hartley Act, passed by the U.S. Congress in 1947.

The union shop, however, is legal in many states. A union shop does not require individuals to be union members in order to be hired, but it does require employees to join the union within a certain period of time after being hired. Labor unions favor union shops, because if everyone working in a particular trade or industry has to become a member of the union within a certain period of time, the labor union gains greater control over the supply of labor. For example, consider the strike, a work stoppage called by union members to put pressure on an employer. It is easier for the union to call a strike if everyone in a particular trade or industry is a member of the union.

Today, 22 states have passed right-to-work laws, which make it illegal to require union membership for purposes of employment. In short, in states with right-to-work laws, the union shop is illegal. Exhibit 9-5 shows the states with right-to-work laws. Also, today approximately 12.5 percent of all workers are members of unions.

**Exhibit 9-5**

<table>
<thead>
<tr>
<th>Right-to-Work States</th>
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<tbody>
<tr>
<td>AK</td>
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<td>HI</td>
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<tr>
<td>WA</td>
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<td>MT</td>
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<tr>
<td>VA</td>
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<tr>
<td>NC</td>
</tr>
<tr>
<td>SC</td>
</tr>
<tr>
<td>FL</td>
</tr>
<tr>
<td>Right-to-work state</td>
</tr>
</tbody>
</table>

Why do you think these union workers oppose free trade?

Union shops are illegal in the 22 states with right-to-work laws.

**strike**
A work stoppage called by union members to put pressure on an employer.

**right-to-work law**
A state law that prohibits the practice of requiring employees to join a union in order to work.
Unions’ Effects on Union and Nonunion Wages

On average, do union workers receive higher pay than comparable nonunion workers? (By saying comparable nonunion workers, we are comparing union and nonunion workers who do essentially the same work.) One important economics study concluded that over the period from 1920 to 1979, the average wage of union members was 10 to 15 percent higher than that of comparable nonunion labor. That is, for every $100 earned by nonunion labor, comparable union labor earned between $110 and $115. In 2004, the U.S. Bureau of Labor Statistics reported that mean weekly earnings for union workers were about 27 percent higher than for nonunion workers.

An economic reason supports these results. Suppose the labor force has 100 persons; 25 are members of a union, and 75 are not. We assume that each of the 100 persons can work in either the union or the nonunion part of the economy. Furthermore, we assume that each of the 100 persons currently earns a wage rate of $15.

Suppose now that the labor union (of which 25 persons are members) calls a strike and ends up bargaining its way to a wage rate of $20. At $20 per hour, the businesses that currently employ union labor workers do not wish to employ as many persons as they wished to employ at a wage rate of $15, so a few of the union workers get fired. Let’s say that five workers get fired.

The five union workers who were fired seek jobs in the nonunion part of the economy. As a result, the supply of persons in the nonunion part rises (from 75 to 80). An increase in the supply of labor puts downward pressure on wage rates in the nonunion part of the economy. The wage rate moves down from $15 to $13. Can you see from this example how unions are likely to affect wages of both union and nonunion workers?

Two Views of Labor Unions

There are two major views of labor unions’ effects on production and efficiency. The traditional view holds that labor unions are an obstacle to establishing reasonable work standards and thus make companies that employ union labor less competitive. For example, suppose some members of a plumbers’ union work for a manufacturing company. The union may insist that in this company only a plumber (and no one else) can change the washer on a leaky faucet. Union critics argue that such rigid staffing requirements are unreasonable and that they

Members of this union are picketing nonunion workers at the Port of Long Beach in California. How might this type of activity benefit the union workers?

Chapter 9 Labor, Employment, and Wages
make these companies less competitive in a world economy. When a company loses its competitive edge, it may go out of business.

A newer view says that the labor union is a valuable collective voice for its members. Evidence in some industries indicates that union firms have a higher rate of productivity than nonunion firms. Economists explain this difference by saying that the labor union acts as a collective voice mechanism for its members. Without a labor union, some argue, workers who were disgruntled with their jobs, who felt taken advantage of by their employers, or who felt unsafe in their work would leave their jobs and seek work elsewhere. This “job exiting” comes at a cost. It raises training costs for the firm and results in lengthy job searches during which those searching for jobs are not producing goods. Such costs can be

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**Economics in the Real World**

**Will You Sleep Less if You Earn More?**

Do you remember from Chapter 1 that the opportunity cost of something is the most valued opportunity or alternative you have to give up (or forfeit) to do something? For example, if you were not reading this chapter right now, you might be talking to a friend on the telephone; thus, “talking to a friend on the telephone” is the opportunity cost to you of reading this chapter.

Now let’s see if we can tie together opportunity cost, education, and wage rates with the number of hours a person sleeps. We know that as educational achievement rises, a person’s wage rate rises. It is possible to view a person’s wage rate as the opportunity cost of not working. In other words, a person who earns $20 an hour when she is working is forfeiting this amount when she chooses not to work. It follows, then, that people who earn relatively high wages have higher opportunity costs of not working than do people who earn relatively low wages. For example, the person with the doctorate (who earns $32.27 an hour) forfeits more than the person with only the high school diploma (who earns $10.71 an hour) when that person does not work.

One of the things we do when we do not work is sleep. It follows that the opportunity cost of sleeping is higher for the person with more education and higher wages than for the person with less education and lower wages. An economist would predict that the higher the opportunity cost of sleeping, the less one will sleep. If the economist is correct, we should see that individuals who are more educated and earn higher incomes will sleep less than those who are less educated and earn lower incomes.

**More education → Higher wages → Higher opportunity cost of not working → Higher opportunity cost of sleeping → Sleep less**

Two economists, J. Biddle and D. Hammermesh, did present evidence that on average, sleep is related to education and wage rates. They found that more-educated people earn more and sleep less than less-educated people who earn less. They sleep 14 minutes less for each year of additional schooling. In short, more education may be good for your wallet, but it’s not so good for your sleep.

**THINK ABOUT IT**

Blackwell has a high school diploma, earns $10 an hour, and sleeps 8 hours a night. Nitobe has a doctorate, earns $100 an hour, and sleeps 8 hours and 30 minutes a night. Both Blackwell and Nitobe are the same age. If our evidence is correct, does it mean that the Biddle and Hammermesh evidence must be incorrect?

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**Section 2 Labor and Government Regulation**

241
reduced, it is argued, when a labor union provides a collective voice for its members. Instead of individual employees discussing sensitive employment matters with their employers, the labor union does it for them. Overall, the labor union makes the employees feel more confident, less intimidated, and more secure in their work. Such positive feelings usually mean happier, more productive employees.

A Brief History of the Labor Movement

National unionism began to emerge in the United States after the Civil War. Because labor unions greatly affect the U.S. economy, you should be aware of some of the key events in the development of these unions.

The Knights of Labor

In 1869, a union called the Knights of Labor was organized. Seventeen years later, in 1886, its membership totaled approximately 800,000. The Knights of Labor welcomed anyone who worked for a living—farmers, skilled workers, and unskilled workers—with a few exceptions, such as liquor dealers. The group called for higher wages and an eight-hour working day.

On May 4, 1886, approximately 100,000 members of the Knights of Labor demonstrated in front of the McCormick Harvester Works in Haymarket Square in Chicago. Someone tossed a bomb into the crowd, causing a riot in which several people were killed. Public sentiment soon turned against the Knights of Labor, although no wrongdoing on its part was proved. The union began to lose membership, and in 1917 it collapsed.

The American Federation of Labor

The American Federation of Labor (AFL) was formed in 1886 under the leadership of Samuel Gompers, who ran the organization until his death in 1924. Gompers believed that the AFL should consist mainly of skilled workers. Membership was approximately 2 million in 1904, rising to 5 million in 1920 and then falling to 3 million in 1930. Its activities were almost solely directed to lobbying for better pay and improved working conditions for its members.

Dozens of people were killed at the Haymarket Riot in Chicago in 1886. Many Americans came to associate unions with violence and radical ideas as a result of events such as this, although no wrongdoing by the union was ever proved.
Early Court Decisions

In the early days of the labor union movement, the courts treated unions as illegal conspiracies. Union leaders were regularly prosecuted and sued for damages. For example, in an important case decided by the Supreme Court of Massachusetts in 1842, the court ruled that unions were not illegal, but that certain union practices were. Later, the Sherman Antitrust Act, which was passed by Congress in 1890, began to be applied to labor unions, although many persons said that Congress had only intended it to be applied to businesses. The Sherman Act declared that "every person who shall . . . combine or conspire with any other person or persons, to monopolize any part of the trade or commerce . . . shall be guilty of a misdemeanor."

During the early 1900s, injunctions were used against labor unions to prevent strikes and some other activities. (Injunctions are court orders that were originally designed to prevent damage to property when it was thought that other court processes would be too slow.) Because of the use of injunctions by employers during this period, labor unions found it difficult to strike.

The Norris-LaGuardia and Wagner Acts

The legal climate in which labor unions operated changed dramatically in 1932 with the passage of the Norris-LaGuardia Act by the U.S. Congress. The main purpose of the act was to restrain the use of injunctions. It declared that workers should be “free from the interference, restraint, or coercion of employers” in choosing their union representatives.

In 1935 Congress passed the Wagner Act, which required employers to bargain in good faith with workers; the act also made it illegal for employers to interfere with their employees’ rights to organize or join a union. In addition, the act set up the National Labor Relations Board (NLRB) to investigate unfair labor practices. Union membership grew by leaps and bounds as a result of the Norris-LaGuardia and the Wagner acts.

The Congress of Industrial Organizations

Because of the better legal climate for labor unions after passage of the Norris-LaGuardia and Wagner acts, a push was made to unionize major industries such as steel and automobiles. This trend caused some discontent within the AFL. The union was largely made up of craft unions—unions of individuals who practice the same craft or trade (for example, plumbers’ union, electricians’ union, carpenters’ union). Some people within the AFL wanted to unionize people only into craft unions. Others wanted industrial unions—unions that include everyone in a particular industry, whether or not they all practice the same craft. For example, people doing many different jobs in the automobile industry would belong to the same union. In 1938, John L. Lewis of the United Mine Workers broke with the AFL and formed the Congress of Industrial Organizations (CIO). The CIO successfully unionized the steel, rubber, textile, meatpacking, and automobile industries along industrial union lines.

For a time, both the AFL and the CIO increased their memberships. After World War II, however, membership in the CIO began to decline. Some thought that the bickering between the two unions was the cause. In 1955, the AFL, a craft union, and the CIO, an industrial union, merged under the leadership of George Meany into the AFL-CIO.
The Taft-Hartley Act

The congressional sentiment that made the Wagner Act possible in 1935 began to shift after World War II. A few particularly damaging strikes in 1946 set the stage for the Taft-Hartley Act in 1947. This act gave states the right to pass right-to-work laws, which prohibit unions from requiring employers to make union membership a condition of employment.

The Landrum-Griffin Act

Congress passed the Landrum-Griffin Act in 1959 with the intent of policing the internal affairs of labor unions. The act calls for regular union elections and secret ballots, and it requires union leaders to report on their unions’ finances. It also prohibits former convicts and communists from holding union office. The Landrum-Griffin Act was passed because the U.S. public became concerned during the late 1950s that some labor union leaders had misappropriated funds and were involved in corruption.

The Growth in Public Employee Unions

A public employee union is a union whose members work for the local, state, or federal government. By far the most important development in the labor movement in the 1960s and 1970s was the sharp growth in public employee union membership. The main issue raised by public employee unions is the right to strike. These unions feel they should be able to exercise this right, but their opponents argue that public sector strikes—by police officers or firefighters, for example—could have a crippling effect on society.

Government Regulation

In the United States, government often regulates business and labor practices. We already discussed in the previous chapter how government might regulate a natural monopoly firm. In Chapter 3, we discussed how government often regulates business when it comes to issues such as air quality. Government also regulates labor markets, with regard to issues such as hiring practices and safety regulations. For example, the Occupational Safety and Health Administration (OSHA) is a regulatory government agency that is concerned with protecting workers against occupational injuries and illnesses. The Consumer Product Safety Commission (CPSC) specifies minimum standards for potentially unsafe products. A business firm cannot simply make any type of toy to sell, but only toys that are not likely to harm the children who use them. The Environmental Protection Agency (EPA) regulates the amount of pollution business firms can emit into the air or rivers.

Not everyone agrees as to the value of government regulation. Some people argue that most regulation is too costly to taxpayers. The proponents of regulation counter that even though the costs are high, the benefits are higher. They say, for example, that highway fatalities would be 40 percent higher in the absence of automobile safety features mandated through regulation. They also say that mandated childproof lids resulted in 90 percent fewer child deaths caused by accidental swallowing of poisonous substances. Proponents of regulation also say that restrictions on the use of asbestos save between 630 and 2,553 persons from dying of cancer each year.

EXAMPLE: In 1987 Beech-Nut Nutrition Corporation, a baby food manufacturer, pleaded guilty to 215 felony counts. (A felony is a major crime.) The company had sold millions of containers of sugar water and flavoring that it had labeled “100 percent apple juice.”

EXAMPLE: Cordis Corporation produced and sold thousands of pacemakers that it knew were defective. Many of the pacemakers failed, and the company ended up pleading guilty to 25 criminal violations.

Government regulation, whether it has to do with prices and profits, consumer information, or working standards, continues to be a major topic of debate. The next section explains why.
A person can live in many different places in the United States. Depending on where you live, you may end up paying more or less for certain goods and services. For example, the median house price in Boston is much higher than the median house price in Lexington, Kentucky. Health care costs are higher in New York City than in Birmingham, Alabama.

What all this means is that a dollar in one place may get you more or less for certain goods and services. For example, the median house price in Boston is much higher than the median house price in Lexington, Kentucky. Health care costs are higher in New York City than in Birmingham, Alabama.

Now let’s say that instead of moving from Seattle to Bridgeport, you are thinking of moving to Thousand Oaks, California. Will $50,000 in Thousand Oaks buy you what it does in Seattle? The answer is no. You will need $57,074 in Thousand Oaks, California, to do what $50,000 did in Seattle, mostly because housing costs are higher in Thousand Oaks than in Seattle.

Numerous cost-of-living calculators are available on the Web to help you figure out what you will need to earn in various cities to have the standard of living you have in your current city. You can find these calculators by going to any search engine and keying in “cost-of-living calculator.” One can be found at www.emcp.net/costofliving.

Interesting, you say, but how does all this information relate to reading this book in high school as a part of an economics course? Well, one day you’re going to be working at some job earning a salary. You may get a higher-paying job offer in another city. Is getting a raise of $10,000 going to be worth your moving? You will want to see what the cost of living is like in the city you are thinking of moving to. You may have to call up your prospective employer in the new city and tell him or her that even with the $10,000 raise, your standard of living is going down because of the higher housing and health costs in the new city. For example, it would take an additional $27,000 over a $50,000 salary earned in Seattle to maintain one’s standard of living in San Francisco.

If it takes $2 in city A to do what $1.40 does in city B, then in which city do you think nurses will earn a higher annual income?
Suppose a business firm is polluting the air with smoke from its factories. The government passes an environmental regulation requiring that this business firm purchase antipollution devices that cut down on the smoke emitted into the air. What are the benefits of this kind of regulation? First is cleaner air, which may lead to fewer medical problems in the future. For example, in some U.S. cities, the pollution from cars and factories causes people to cough, feel tired, and experience eye discomfort. Some of these people have continuing medical problems from constantly breathing dirty air. Government regulation that ends up reducing the amount of pollution in the air surely helps these people, reducing lost work time and health care costs.

Regulation may also benefit the environment and thus the people who enjoy a clean environment. For example, some air pollution can harm birds and destroy certain types of plants and trees. Cleaner air may ensure more birds singing and prettier trees to view.

Regulation, however, does not come with benefits only. It comes with costs, too. For example, a business firm that incurs the cost of required antipollution devices experiences a rise in its overall costs of production. As a result, the business firm may produce fewer units of its product, which raises its product price and results in some workers losing their jobs.

If you are a worker who loses your job, you may view the government’s insistence that business install pollution devices differently than if you are a person suffering from weak lungs. If you have weak lungs, less pollution may be the difference between your feeling.
well or sick. If you are a worker for the business firm, less pollution may end up costing you your job. Ideally, you may prefer to have a little less pollution in your neighborhood, but not at the cost of losing your job.

Where do economists stand on these issues? Are they for or against government regulation of the type described? They are neither for nor against such regulation; the job of the economist is continually to point out both the benefits and the costs of regulation. To the person who sees only the costs, the economist asks, “But what about the benefits?” And to the person who sees only the benefits, the economist asks, “But what about the costs?” The economist then goes on to outline the benefits and costs as accurately as possible.

Unintended Effects of Regulation

In addition to outlining the benefits and costs of regulation, the economist tries to point out the sometimes unintended consequences of regulation. The government, which often regulates the manufacturers of automobiles by imposing fuel economy standards on cars, may state that new cars must get an average of 40 miles per gallon instead of, say, 30 miles per gallon. Many people say that this regulation is good. They reason that if car companies were made to produce cars that got better mileage, people would not need to buy and burn as much gasoline. With less gasoline burned, less pollution would be produced.

It is not guaranteed to work out this way, though. If car companies produced cars that were more fuel efficient, people would have to buy less gasoline to take them from one place to another. The cost per mile of traveling would fall, so people might begin to travel more. Leisure driving on Saturday and Sunday might become more common, people might begin to drive farther on vacations, and so on. If people began to travel more, the gasoline saving that resulted from the higher fuel economy standards might be offset or even outweighed. More gasoline consumption due to more travel would mean more gas burned and more pollutants ending up in the air. In other words, a regulation requiring car companies to produce cars that get better fuel mileage might have an unintended effect.

Defining Terms

1. Define:
   a. Taft-Hartley Act
   b. right-to-work law
   c. union shop

2. What is the difference between a union shop and a closed shop?

Reviewing Facts and Concepts

3. Labor union A wants to increase the demand for its member workers. Identify two things the union can do to try to achieve this outcome.
4. Is the union shop illegal in right-to-work states?
5. What did the Norris-LaGuardia Act accomplish?

6. How does the economist view government regulation?

Critical Thinking

7. Do you think it was right for the courts, in the early days of labor unions, to issue injunctions that prevented strikes and other union activities? Why or why not?
8. “If the government imposes higher fuel economy standards, the amount of pollution produced by automobiles will undoubtedly become less.” Do you agree or disagree? Explain your answer.

Applying Economic Concepts

9. The members of labor union X produce cars in the United States for sale in the United States only. The U.S. Congress is contemplating imposing a quota, restricting the number of foreign-produced cars that can be sold in the country. Are the members of labor union X likely to support or not support this action? Explain your answer.
Chapter Summary

Be sure you know and remember the following key points from the chapter sections.

Section 1

- People who demand labor are employers.
- People who supply labor are employees.
- The price of labor is called the wage rate.
- The equilibrium wage rate occurs at the point where the quantity of labor supplied equals the quantity of labor demanded.
- Wage rates differ because the supply and the demand for different types of labor are not the same.
- A job’s benefits come in both money and non-money forms.
- Labor is a derived demand—the result of the demand for a good.
- The minimum wage rate is a government-set wage floor.
- Money wages are the actual dollars received for doing a job.
- Real wages are the value of the dollars in terms of what they buy.
- The Consumer Price Index (CPI) is the average price, or index, of a group of goods.

Section 2

- A labor union seeks to increase the wages and improve the working conditions of its members.
- A closed shop is an organization that hires only union members; the Taft-Hartley Act makes closed shops illegal.
- A union shop requires union membership within a certain period after taking a job.
- Right-to-work laws, in place in many states, make it illegal to require union membership for a specific job.
- Unions began to emerge in the United States after the Civil War and experienced many ups and downs in labor’s history.

Economics Vocabulary

To reinforce your knowledge of the key terms in this chapter, fill in the following blanks on a separate piece of paper with the appropriate word or phrase.

1. The ______ sets a level below which wage rates are not allowed to fall.
2. A(n) ______ is an organization that hires only union members.
3. A ______ is a tactic used by unions to put pressure on employers by having workers refuse to work.
4. The price of labor is called the ______.
5. A(n) ______ is an organization that requires employees to join the union within a certain period of time after being hired.
6. The ______, which was passed in 1947, gave the states the right to pass right-to-work laws.

Understanding the Main Ideas

Write answers to the following questions to review the main ideas in this chapter.

1. In a competitive labor market, what happens to the wage rate when a surplus of labor occurs? A shortage of labor?
2. John earns a higher wage rate than Wilson. It necessarily follows that the demand for John’s labor services is greater than the demand for Wilson’s labor services. Do you agree or disagree? Explain your answer.
3. If the minimum wage rate is higher than the equilibrium wage rate, fewer people will be hired because the cost of labor is too high. Do you agree or disagree? Explain your answer.
5. Identify two factors that can change the demand for labor.
6. Can a person’s money wage decrease at the same time his or her real wage increases? Explain.
7. Outline the traditional view and the new view of labor unions.
9. What is a public employee union?
10. If the demand for labor increases by the same amount as the supply of labor increases, will wages rise, fall, or remain the same?

11. “Economists are against regulation of business and labor.” Do you agree or disagree with this statement? Explain your answer.

**Doing the Math**

Do the calculations necessary to solve the following problems.

1. Alicia turned down a job that pays $60,000 a year for a job that pays $32,000 a year. The non-money benefits in the lower-paying job equal at least what dollar amount?

2. In year 1, Bob earns $1,000 a month when the CPI is 130. In year 2, Bob earns $1,500 a month when the CPI is 135. In which year is Bob’s real income higher? What percentage higher?

**Working with Graphs and Tables**

Graphically represent the following.

1. The equilibrium wage rate is currently $10 an hour. The demand for labor increases by more than the supply of labor increases. The new equilibrium wage rate is $12. Be sure to label your axes.

2. The demand for labor falls by more than the supply of labor rises.

3. The demand for labor rises by the same amount as the supply of labor rises.

4. In Exhibit 9-6, the original demand and supply curves are labeled $D_1$ and $S_1$, and the new demand and supply curves are labeled $D_2$ and $S_2$. In parts (a) through (d), identify what will happen to the equilibrium wage as a result of the change in demand, supply, or both.

**Solving Economic Problems**

Use your thinking skills and the information you learned in this chapter to find solutions to the following problems.

1. **Application.** Suppose you are an economist hired by a labor union that is currently negoti-
Debating the Issues

Should There Be a Minimum Wage?

Like many high school students, you may have a job and work after school. If so, there is a good chance that you earn the minimum wage, which is set by the U.S. Congress. It is against the law for employers to pay workers less than the minimum wage. If the minimum wage is $5.15 an hour, then it is unlawful for an employer to pay an employee less than this amount.

Do you think that a minimum wage is good for workers and good for the economy, too? Some people argue in favor of it; other people argue against it. Some people argue that the minimum wage should be raised; other people argue that it should not be. Let’s listen in on a conversation between Mike and Mrs. Peters. Mrs. Peters owns a small bakery in town. Mike, 17 years old, works at the hardware store three doors down from the bakery. Mike currently earns the minimum wage.

Mrs. Peters: How are you doing today, Mike? What can I get for you?

Mike: I'll have a chocolate éclair and a milk. And, by the way, I’m doing pretty well today. On my way to work I heard that Congress is thinking of raising the minimum wage. That will mean more money for me.

Mrs. Peters: I think the minimum wage is something that sounds better than it is.

Mike: What do you mean? What could possibly be wrong with the minimum wage?

Mrs. Peters: Well, for one thing, it goes against the whole idea of free enterprise. Under free enterprise, employers and employees should be able to make their own deals. They shouldn’t have government telling them how much to pay.

Mike: But if there weren’t a minimum wage, employers would pay their employees next to nothing. Perhaps instead of my earning $6 an hour, I’d earn $2 an hour.

Mrs. Peters: Okay, let’s say that you are earning $6 an hour. Along comes the government and tells your employer that he has to pay you $7.50 an hour. Jim may decide to fire you. It may be worth it for Jim to pay you $6 an hour, but not $7.50 an hour. Has the minimum wage helped you? I don’t think so. I think it has priced you out of a job.

Mike: But it’s possible that I’ll keep my job as the wage goes from $6 to $7.50. Fact is, I may be worth $7.50 an hour, but Jim is paying me only $6 an hour so he can earn higher profits. What the minimum wage does is simply force Jim to pay me what I’m worth.

Mrs. Peters: If you were really worth $7.50 an hour, you would be earning $7.50 an hour right now. The boss who thinks you are worth $7.50 an hour would simply offer you that amount to come work for him instead of working for Jim. That’s how he would compete you away from Jim.

But let’s go with what you say. Let’s suppose that Congress tells your employer he has to pay you $7.50 an hour. And let’s suppose you keep your job. That doesn’t mean some people won’t lose their jobs. Everyone knows that employers hire more people at lower wages than at higher wages. As wages go up, they are going to hire fewer people. In other words, some of the people working at the lower wages will be fired.
Mike: I don’t think anyone has to lose his job as the wage goes up. Employers will simply end up with lower profits.

Mrs. Peters: That might work if you’re talking about Microsoft or General Motors, but what about Joe’s Pizza or the corner deli? Some companies are just squeaking by, so that any mandated cost increase will hurt them. They will try to cut their costs by firing some people.

The other thing is that not all businesses are faced with the same set of circumstances. Circumstances may differ from one region of the country to another. The economy may be booming in the Southwest and businesses can easily pay higher wages. But the economy may be sluggish in the Midwest and businesses can’t pay higher wages. A set minimum wage that every business has to pay, no matter what its circumstances, doesn’t take this into account.

Mike: I don’t know, I hear what you are saying, but I still think that without the minimum wage, too many employers would squeeze their employees.

Mrs. Peters: Mike, there are whole industries in this country where the minimum wage is not relevant. No one who works for an accounting firm is paid the minimum wage, no one who works as a computer scientist is paid the minimum wage, no one who works as an attorney is paid the minimum wage. All these people earn much more than the minimum wage. Do they earn more because government has ordered the companies to pay them more than the minimum wage? Not at all. The government hasn’t said a thing. The companies simply pay them more because they can’t hire these people without paying more. It is a matter of supply and demand, Mike. Companies have to pay the wages that are determined in the market by the forces of supply and demand.

Mike: Oh, come on. You know there is a big difference between what an attorney earns and what I earn. The minimum wage law isn’t there to protect attorneys, accountants, and computer scientists. It is there to protect the little guy. The guy without much skill or experience.

Mrs. Peters: But, that’s just the point. The minimum wage doesn’t protect this person. It often just prices him out of a job. You can’t make employers pay more for a person than that person is worth to them. If a person is worth only $5 an hour to an employer, and the government says you have to pay this person $7 an hour, you know what is going to happen? That person is going to go without a job.

What Do You Think?

1. Who do you think makes the stronger argument, Mike or Mrs. Peters? Defend your answer.
2. What are Mike’s strong points? Weak points? What are Mrs. Peters’s strong and weak points?
3. Do you think the minimum wage should be raised, left where it currently is, or eliminated altogether? Explain your answer.