

# Microeconomics with Ethics

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## Chapter 20 Government Policies: Price Floors / Minimum Wage Laws

The previous chapter highlighted situations where the government intervenes in the market because there is a belief that the market determined price is too high. A common government response is to enact a price ceiling law that prohibits anyone from selling a product above a certain maximum price level.

Well, there are also other market situations where governments intervene in the market because there is a belief that the market determined price is too low. In this case a common government response is to implement either a price floor or a price support. Both of these are legal requirements for a price minimum, meaning no one is allowed to exchange the product for a price below the minimum set by law. In this chapter we'll consider the effects of price floor and in Chapter 21 we'll look at price supports. Price floors are typically applied to support incomes of workers, the most notable example being the use of minimum wage laws. In this case the price minimum is not applied to a good, but rather on the price for a labor service, which is called the wage, or wage rate. Price supports are usually applied on goods, and more than likely on agricultural goods with the intention of supporting the incomes of farmers in a country.

### 20.1 Price and Quantity Effects of a Minimum Wage in a Perfectly Competitive Market

#### Learning Objectives

1. Learn the price and quantity effects of a minimum wage law in a perfectly competitive market.

We will analyze the effects of a price floor in the market in which price floors are most commonly applied, namely the labor market. The labor market has many unique characteristics that make it different from the market for a simple product like coffee or milk. First and foremost, labor is a service, not a good, and it is usually measured in units of time such as per hour or per year. Second the price of labor is commonly referred to as a wage and is measured in \$ per hour. We normally assume that the goods supplied in a competitive market are homogeneous, all the same, regardless of which firm produces the product. Workers however, have many distinguishing characteristics because their training and experiences affect the types of skills they can provide to an employer. This means that in general workers are not homogeneous. This means it is really best to think of the labor market for doctors, or lawyers, or mechanical engineers, as largely separate and distinct labor markets.

In our case, because we are considering the application of a minimum wage price floor, these

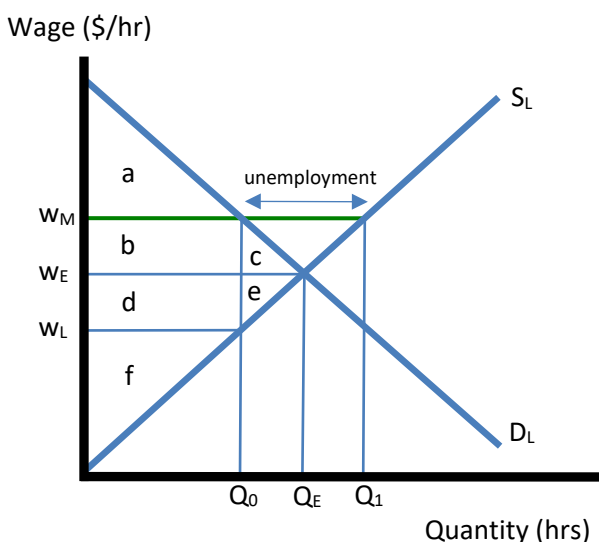
low wages are generally paid to workers who have no advanced skills or training beyond the modern standard of a high school education. Workers earning near the minimum wage will usually have a job assignments that either involve physical effort or which can be learned in a short period of time. This means we can consider these workers to be homogeneous, just as we might consider a market for mechanical engineers to be homogeneous.

Consider a perfectly competitive market for low-skilled workers depicted in Figure 20.1. The figure shows a demand and supply curve, but these now take on a different than usual interpretation. Demand is labeled  $D_L$  referring to the demand for labor. Labor demand in a labor market refers to the desire by businesses to hire workers for the tasks they need to accomplish to produce their product. The types of firms that demand low-skilled labor can be varied including construction companies, retail stores, restaurants, delivery services and many more. Just remember, labor demand refers to the behavior of firms. Firms would desire to hire more low-skilled workers as the wage for workers falls. Hence the labor demand curve is negatively-sloped.

The market supply curve is labeled  $S_L$  referring to the supply of labor by low-skilled workers. Labor supply arises because people need jobs so they can earn income to pay for the goods and services they desire as consumers. So remember that labor supply refers to workers and just as with the suppliers of goods, we expect workers to be willing to supply more labor hours, the higher is the wage they will earn, hence the labor supply curve is positively-sloped.

In a free labor market, the wage would settle at the market equilibrium wage  $w_E$ , where labor demand equals labor supply quantity  $Q_E$ . Because labor supply equals labor demand, all workers who want to work are able to find a job and there is no unemployment among low-skilled workers.

Figure 20.1 Effects of a Price Floor in a Perfectly Competitive Labor Market



Now suppose the government implements a minimum wage law requiring all employers to pay their low-skilled workers at least  $w_M$ . Since  $w_M > w_E$ , the minimum wage is *binding* and will force changes in the market. Had the minimum been set lower than  $w_E$ , such as at  $w_L$ , then the

law would not prevent employers from paying the market equilibrium wage  $w_E$ . Hence any minimum wage set lower than the market equilibrium wage would not affect the market outcome and is called *non-binding*.

At the minimum wage  $w_M$ , supply and demand will be affected. Because the wage is higher than before, labor demand by firms will be reduced along the demand curve to  $Q_0$ . Firms having to pay more for workers may adjust their production methods, perhaps substituting by using more capital equipment instead. A clear example would be a fast-food restaurant choosing to install electronic ordering kiosks thereby reducing the need for as many minimum wage workers.

On the supply side, the increase in the wage to  $w_M$  would increase the desire to work by low-skilled workers. Thus, worker supply would increase to  $Q_1$ . However, here's where a problem arises in a competitive market. Just because a worker wants to work doesn't mean there is an employer willing to offer a job at the going wage. Figure 20.1 indicates that at the binding minimum  $w_M$ , there would be excess supply of workers given by  $Q_1 - Q_0$ . These are the extra number of hours workers wish to work but for which there are no firms willing to provide that work. Thus the minimum wage causes unemployment in the labor market.

The unemployment rate is found by taking the value of excess supply of labor divided by the total supply of labor in the market.

Note that the distance  $Q_1 - Q_0$  does not measure unemployment directly since labor units are measured in hours of work. To calculate the number of jobs lost we would need to know over what period of time the labor market represents. Remember, this is usually left unspecified but it must implicitly be in there. Thus, suppose this labor market is measured in weeks. If we further assume that a worker typically works 40 hours per week, then the total number of jobs lost per week due to the minimum wage would be found as  $(Q_1 - Q_0)/40$ .

By examining Figure 20.1 carefully, we can identify three distinct worker situations that arise due to a minimum wage law. First are the workers who keep their jobs after the wage is increased to  $w_M$ . These workers are the ones whose hours are demanded by firms between 0 and  $Q_0$  in the diagram. Next are those workers who were working in the free market equilibrium but who lose their jobs because of the new minimum. This situation corresponds to the worker hours between  $Q_0$  and  $Q_E$ . These are the work hours that are no longer demanded by firms. In reality, this shift might take not by outright firing of workers but rather through attrition. As some workers leave their jobs, perhaps moving into higher paid positions, new workers are not hired by firms to replace those losses. In this way, firms can reduce their workforce slowly over time without actually firing anyone. Finally, there are the work hours between  $Q_E$  and  $Q_1$ . These are the work hours desired by workers entering the work force because of the higher wages. The unfortunate result though, is that none of the newly desired work will actually be satisfied with jobs because firms have been discouraged from hiring.

### **Key Takeaways**

1. In a perfectly competitive market, a binding minimum wage will raise the worker's wage, decrease demand for workers, and increase supply of workers.
2. In a perfectly competitive market, a binding minimum wage will generate unemployment. These are workers who want to work, but are unable to find employment.
3. In a perfectly competitive market, a binding minimum wage will create three categories of workers: a) workers who continue to work after the wage is raised, b)

workers who lose their jobs, and c) workers who are encouraged to enter the labor force but cannot find jobs.

## 20.2 Welfare Effects of a Minimum Wage in a Perfectly Competitive Labor Market

### Learning Objectives

1. Learn the market welfare effects of a minimum wage law in a perfectly competitive market.

We can use Figure 20.1 to identify the gains and losses to the various groups participating in the labor market. We will do this by measuring changes in surplus as before, however, there are a few adjustments that must be noted.

Fundamentally, the labor market is no different than a product market in that it involves many suppliers of labor (workers) making mutually voluntary trades with demanders of labor (firms). As in the Smith and Jones model in Chapter 3, and assuming perfect information (i.e., no deception), these trades will only occur if both parties will be made better-off. In other words, they'll only trade if both receive surplus value. Thus, the measures of surplus we derived previously can be applied in the labor market after making a few interpretation adjustments.

Instead of surplus accruing to the consumer, the area between the wage line and the labor demand curve, now represents profits accruing to the firms in the market. As such, consumer surplus translates to producer surplus when discussing the labor market.

The supply curve is typically used to measure surplus accruing to the firms, but in the labor market the supply function corresponds to worker supply. Thus, the "producer surplus" measure is still valid, but now it represents worker surplus instead.

To summarize, when discussing surplus in the labor market, producer surplus is given by the area between the wage line and the labor demand curve. Worker surplus is given by the area between the wage line and the labor supply curve. There is no consumer surplus in the labor market because there are no trades for consumer goods or services.

Referring back to Figure 20.1, the minimum wage law raises the market wage from  $w_E$  to  $w_M$ . The resulting surplus changes are summarized in Table 20.1.

Producers respond to the higher wage by reducing labor demand to  $Q_0$ . As a result producer surplus falls from area  $(a + b + c)$  to area  $(a)$ . The change in producer surplus,  $\Delta PS$ , is a loss,  $-(b + c)$ . (Remember, this is read off the labor demand curve).

Workers are divided into different groups as noted above. And so the individual effects will depend on which worker type the individual is. In the aggregate we can measure the total change by noting worker surplus level before the policy change and subtracting it from total worker surplus after the change. At the original free market equilibrium worker surplus is given

by area (d + e + f). With the minimum wage in place worker surplus is area (b + d + f). The change in worker surplus,  $\Delta WS$ , is given by,  $(b + d + f) - (d + e + f) = b - e$ .

This implies that the minimum wage has both a positive and negative effect. The positive effect arises because the low-skilled workers that remain employed receive a higher wage. This is the rationale behind the policy, to help low-skilled workers. This is also the reason area b is added in the change in surplus, because all the workers who continue working enjoy the higher wage mandated by law. However, there are also the workers who lose their jobs due to the minimum wage. These workers drop out of the labor market, which contributes the negative effect to the change in worker surplus, area  $-e$ . Thus for worker's, the effect of the minimum wage depends entirely on whether he or she is one of the lucky ones who remain employed or the unlucky ones searching for a job that no longer exists.

Table 20.1	
Welfare Effects of a Minimum Wage in a Perfectly Competitive Market	
$\Delta PS =$	$-(b + c)$
$\Delta WS =$	$(b - e)$
$\Delta GR =$	$0$
$\Delta MW =$	$-(c + e)$

As in our previous welfare analyses, we include a row in Table 20.1 for government revenue but set it to zero in this case because there are no direct revenue effects from a government price control as there are with taxes, subsidies or import tariffs. There are indirect government revenue effects, though, due to administrative costs. A regulation such as this requires enforcement. A government agency must be put in charge of announcing the new law and to establish procedures to adjudicate claims of non-compliance and to collect penalties from violators. We ignore these costs here for simplicity but also because we make the strong assumption that there is perfect information (that means that any new rule is instantly known to everyone who needs to know it) and that market participants adhere to the ethical market principles highlighted in Chapter 4 (which means no deception or fraud).

Finally, we can add the surplus effects across all groups affected to determine the net market welfare effects of the policy. As shown in Table 20.1, the net effects are,  $-(c + e)$ . This means that economic efficiency decreases when the minimum wage law is implemented.

Overall the minimum wage law causes a redistribution of income. The popular impression is that a minimum wage law will benefit the low skilled workers. While this is true, the model suggests it is not 100% true. Instead, the law will benefit those low-skilled workers who are among the lucky ones who remain employed. The model suggests that other workers, some who were working before the new law and others encouraged to work because of the promise of higher wages, will wind up unemployed. This group of low-skilled workers lose because of the law. The other group that loses are the firms who experience an increase in input costs and a decrease in their profits. The net effect is that the sum of the losses to the firms and the

unemployed workers exceed the sum of the benefits to the employed workers resulting in less overall happiness to go around.

This analysis is one reason many economists have been opposed to minimum wage laws. There are other reasons too, as well as reasons why some economists are in favor of minimum wage laws. To understand why we'll need to complicate the analysis and consider some secondary consequences, some empirical studies, and some alternative models of labor markets.

### **Key Takeaways**

1. In a perfectly competitive market, a binding minimum wage will decrease producer surplus, increase worker surplus for those able to work, and decrease surplus for those workers who become unemployed.
2. In a perfectly competitive market, a binding minimum wage will decrease overall market welfare, or market efficiency; the gains to workers are smaller than the losses to producers and the losses to those workers who become unemployed.

## **20.3 Effects of a Minimum Wage Law in a Monopsony Market**

### **Learning Objectives**

1. Learn about monopsony and oligopsony markets.
2. Learn what it means for a firm to have monopsony power.
3. Learn the effects of a minimum wage law in a monopsony market.

Perhaps the strongest theoretical argument in favor of minimum wage laws arises if we relax the assumption that the low-skilled labor market is perfectly competitive. As we have maintained throughout this text, the perfect competition assumptions are unlikely to be fully realized in most real-world situations, but there are a myriad of ways in which they can be relaxed to better match conditions in the real world. We have explored some of these ways already when we discussed monopoly and oligopoly markets. We will explore other ways to relax the assumptions of perfect competition in Chapters 22-25. Here, when discussing labor markets, we will explore the case of monopsony power.

### **Monopsony and Company Towns**

A monopsony market is a situation in which there is only one buyer, or consumer, of a product in a market. It is the counterpart of a monopoly market which occurs when there is only one seller, or producer, of a product. One of the classic examples of a monopsony market are company towns in earlier stages of US history. Consider a hypothetical mining company operating in a remote part of the Western US in the late 1800s. In order to attract workers to such a location a firm may choose to provide housing for workers and their families, operate grocery stores and pharmacies, and provide all sorts of other goods and services for the needs of the worker households. However, given that one company owns everything, there is no competition in these markets which means the company has a monopoly on the goods side. But because the firm is the only employer in town, the firm is also a monopsony, facing no competition with other employers.

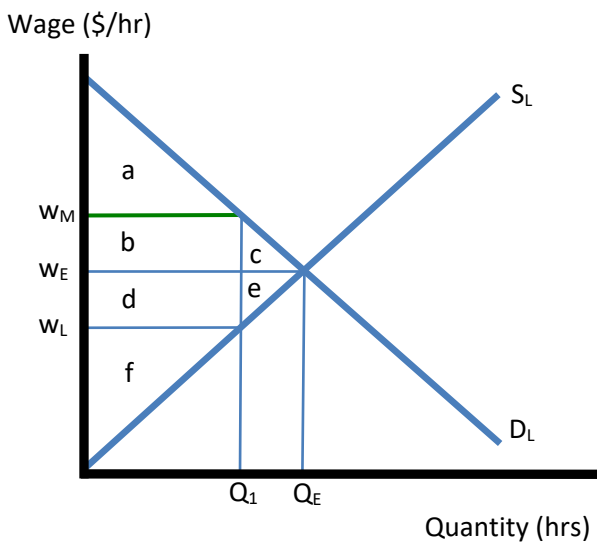
When economists analyze a profit maximizing firm with these conditions they can easily show that the firm can doubly exploit the workers to raise their own profit. With no competition for groceries or drugs, etc. they would keep output scarce and raise prices higher than would prevail if there was competition. Also, with no competition for labor, the firm would keep their labor demand somewhat lower and keep the wages lower than would prevail with competition. Both of these actions would raise their profit compared to a competitive market outcome.

Real company towns have existed in US history. One of the most prominent was the town of Pullman located just south of Chicago. The company, that made railroad sleeping cars in the early years of train transport, owned and controlled an entire community of 6000 employees, renters, and consumers. Because these employees could have exited to the town to purchase products nearby and could have left to find work in the nearby slaughterhouses means the company did not have a pure monopoly and monopsony. Nonetheless, once a part of the company town it would have been inconvenient and costly to seek alternatives. In this case we would say the company had monopoly and monopsony *power*, to indicate that there was some potential for modest competition. We can also refer to this situation more accurately as an oligopoly on the product side and an oligopsony on the labor market side, indicating that there are only a small number of other firms in competition.

### Price, Quantity and Welfare Effects of a Monopsony

Consider the labor market depicted in Figure 20.2. The competitive free market equilibrium occurs where labor supply and demand equal at quantity  $Q_E$  and wage  $w_E$ . Next, suppose the firm in this market were a monopsony and thus the sole demander of labor in this market. That enables the firm to lower the wage they pay without having to worry that workers will flee to other competing employers. Suppose the firm set a wage for its employees at  $w_L$ , which is lower than the competitive wage  $w_E$ . The lower wage would cause labor supply to fall to  $Q_1$ .

Figure 20.2 Effects of a Price Floor in a Monopsony Labor Market



The surplus effects are summarized in Table 20.2. Producer surplus is measured as the area between the wage line and the labor demand curve, which, after the wage is reduced, is equal to  $+ (a + b + d)$ . The change in surplus moving to the monopsony situation is areas  $+ d - c$ .

Table 20.2
Welfare Effects of a Monopsony
$\Delta PS = (d - c)$
$\Delta WS = -(d + e)$
$\Delta GR = 0$
$\Delta MW = -(c + e)$

The monopsony firm would be better-off as long as area  $(d - c) > 0$ . In Figure 20.2 it is visually clear that area  $d$  is larger than area  $c$ , and so this monopsony firm would make greater profit than with competition. With full information about the slopes of labor demand and supply, the monopsonist can adjust the wage so as to maximize the difference  $(d - c)$  and realize the maximum increase in its profit.

The lower wage and supply of labor means not only are there fewer jobs available, but worker surplus would fall from area  $(d + e + f)$  to area  $f$ , generating a change in worker surplus of  $-(d + e)$ . Not surprisingly, workers lose from a lower wage.

Since the government plays no role in the exercise, the government revenue effect is zero. Thus, the net market welfare effect, found by adding the effects on producers and workers together is  $-(c + e)$ . There are several ways economists describe this outcome. First, we can say the monopsony behavior causes deadweight losses. This is equivalent to saying there is a loss in economic efficiency when the firm acts as a monopsony compared to a perfectly competitive outcome. It is also equivalent to saying there is a loss in market welfare.

We might also say that the lack of competition in the labor market (i.e. monopsony) causes income to be redistributed between firms and workers. The firms make greater profit off the backs of the worker who suffer a loss in economic welfare. It is also not unreasonable to call this worker exploitation. The firm is using its power in the market to shift benefits from the lowest-wage workers towards itself.

It is very important to recognize that the exploitation shown here is caused because the market is not competitive. The reverse implication is that one way to reduce the exploitation of low-skilled and low-wage workers is to promote greater competition in labor markets. Another method is to artificially induce the competitive outcome with a minimum wage law.

### Effects of a Minimum Wage in a Monopsony Market

Consider again the labor market depicted in Figure 20.2. Now suppose  $w_L$  is the profit maximizing wage for the monopsony firm hiring workers in the market. Let's consider the effects when the government sets a minimum wage at the level  $w_E$ . The surplus changes are summarized in Table 20.3



Table 20.3 Welfare Effects of a Minimum Wage in a Monopsony Market
$\Delta PS = (c - d)$
$\Delta WS = + (d + e)$
$\Delta GR = 0$
$\Delta MW = + (c + e)$

Note that these effects are the reverse of the effects shown above when we considered moving from a perfectly competitive labor market to one controlled by a monopsony employer. Producers experience a change in surplus given by area  $(c - d)$ . We know this change must be negative because of the assumption that the initial wage  $w_L$  was profit maximizing. That means any movement away from that wage must reduce profit for the monopsony firm.

Workers receiving the higher minimum wage experience an unambiguous increase in their surplus of  $(d + e)$ . In addition, the level of employment rises from  $Q_1$  to  $Q_E$ , implying that there are more hours of work supplied and also an increase in the number of jobs in the low-skilled labor market. This means that the minimum wage in a monopsony market increases both wages and employment and increases total well-being for the workers.

Finally because there are no government revenue effects from the minimum wage, the net welfare effect is an unambiguous positive effect of  $(c + e)$ . The deadweight losses that occur because of monopsony behavior are reclaimed by the minimum wage law. The minimum wage law does not create a competitive market because we are assuming there remains only one firm hiring workers in this example. However, the minimum wage law forces the wage to the competitive level and thereby duplicates the free market outcome.

This is a significant result because it shows how a government policy (minimum wage law) in a situation where a market is not perfectly competitive (monopsony employer) can, in effect, substitute for competitive behavior and improve the overall market outcome. Previously we saw that a government policy, such as a tax or subsidy, causes a reduction in market welfare, meaning it is economically inefficient. But here, we see that a government policy, the minimum wage, causes an increase in market welfare, that is, it is economically efficient.

The main lesson here is that which outcome arises from government intervention depends on the underlying conditions of the market that is affected. If the low-skilled labor market is perfectly competitive, or close to it, then the minimum wage will cause more harm than good. If the low-skilled labor market is monopsonistic, or close to it, then a minimum wage may cause more good than harm.

I am purposely using the word “may” cause more good than harm in the second sentence because a minimum wage law in this situation will not always cause an improvement in economic efficiency. To illustrate, consider a monopsony low-skilled labor market again with the wage set at  $w_L$  in Figure 20.2. Suppose the government implements a minimum wage at the level  $w_M$  in the diagram, a level that is higher than the free market equilibrium wage  $w_E$ . In this

case, a desire by the government to do even better for the workers by raising the minimum wage to a much higher level, will backfire.

Note that at the  $w_M$  minimum, labor demand by the monopsony firm will remain at the level  $Q_1$ . Thus, this higher minimum wage will not expand employment in the market. The market welfare effects are summarized in Table 20.4.

Table 20.4	
Welfare Effects of a Higher Minimum Wage	
in a Monopsony Market	
$\Delta PS =$	$-(b + d)$
$\Delta WS =$	$+(b + d)$
$\Delta GR =$	$0$
$\Delta MW =$	$0$

The producer surplus effect is a loss of profit equal to area  $-(b + d)$ . The firm hires the same number of workers in this case but is forced to pay a higher wage, which raises its costs and lowers profit. The workers earn higher wages which in total results in an increase in worker surplus of area  $(b + d)$ . Thus, workers do better with the minimum wage and there are no lost jobs. As before there is no government revenue effect and therefore the net welfare effect is zero. This means there is no improvement in economic efficiency as there was with the more modest minimum wage increase to  $w_E$ .

This outcome can explain the monopsony puzzle that has been documented with recent empirical studies. Many empirical studies have shown that minimum wage increases have had little effect on employment, meaning the effect is near zero, rather than being negative as suggested by competitive models, or positive as suggested by monopsony models. For example, a paper by the Institute for Research on Labor and Employment titled, Minimum Wage Effects and Monopsony Explanations, investigated the effects of large increases in the minimum wage in New York and California during the 2010s. The study shows only a slight positive increase in employment despite a substantial increase in the minimum wage during the period. One explanation consistent with this evidence is the story told above where monopsony power exists at the low wage but the increase is so large that it overshoots the competitive wage and results in little change in overall employment.

Another puzzle is why there is monopsony power in the low-wage labor market. Company towns are not common any longer and the low-wage labor market is populated with many relatively low-skilled and inexperienced workers. Keeping wages low requires coordination across many different types of employers who hire low-skilled workers including the fast-food industry, the retail industry, construction, and many other sectors. Despite a proliferation in non-compete clauses for workers even in the fast-food industry, there is a lot of competition for low-skilled workers and that should imply that the competitive model is more characteristic of the real world. However, there is a way in which businesses could coordinate a low-wage monopsony pricing strategy without talking to other businesses.

Suppose a minimum-wage law is implemented by government but is rarely increased over time, much like in the US after 2007. Suppose further that market conditions change such that the equilibrium market wage rises above the minimum wage that is set. In a market with competition, the wage should now rise above the minimum and the price control should become non-binding. But what if businesses continue to use the low minimum wage set by government as a “suggested” wage for entry level workers. As long as every industry follows suit, each will be able to take advantage of monopsony power to raise its own profit by keeping wages low. In this case, the minimum wage acts as a coordination device enabling businesses to exploit low wage workers while never communicating this intention with other businesses. In this way, the minimum wage, set artificially low, actually enables the monopsony behavior of firms across many different industries. Had the minimum wage never been set, then businesses would not be able to coordinate with each other and wages would have risen much sooner. This then is an example where government intervention to help low-wage workers may actually serve to hurt them instead.

Nonetheless, the outcome shown above in which the wage is set above the competitive level is one that many supporters of minimum wage laws would welcome. Low-skilled and low-wage workers are made better-off by forcing a redistribution of income directly from the higher profits earned by the monopsony firm. For many this would be a good example of economic justice because the policy would eliminate the exploitation of workers by forcing the exploiting firm to compensate. However, to achieve this “perfect” outcome requires forgoing even higher levels of employment and economic welfare at the more modest competitive wage of  $w_E$ .

Finally, to achieve the optimal outcome using a minimum wage law requires that the market is indeed monopsonistic to some degree, and that the government can accurately measure the effects on labor supply and demand at different possible minimum wage rates. Although a relatively small minimum wage increase will certainly improve the market outcome under these assumptions, a minimum wage set too high, such as one above  $w_M$ , will certainly have negative overall effects. That means we should only conclude that a government policy can improve the economic outcome in a market if the underlying conditions are suitable and if they can measure the effects of their actions accurately. About this there remains considerable controversy among economists and others.

## **Key Takeaways**

1. A monopsony market is one in which there is a single buyer of a good or service.
2. An oligopsony market is one in which there are a small number of buyers of a good or service, such that their behavior can affect the purchase price.
3. A monopsony firm in a labor market would maximize its profit by reducing the wage paid to its workers below the competitive market wage.
4. If a minimum wage is set at the competitive market wage in a monopsony market, the wage increases and employment increases.
5. If a minimum wage is set at the competitive market wage in a monopsony market, worker surplus rises, producer surplus falls and net market welfare increases.
6. If a minimum wage is set too high in a monopsony market, employment will not rise as much and may even fall. A minimum wage set too high will reduce market efficiency.

## 20.4 Controversies about Minimum Wage Laws

### Learning Objectives

1. Learn why some people support minimum wage laws and other people oppose them.

The jury is still with respect to the advisability of minimum wage laws. In the US, the federal minimum wage has been set at \$7.25 for more than a decade which has inspired continual political discussions about whether to raise it to help low-wage workers and their families. Some economists support these proposals and many others do not.

Those that oppose increases in the minimum wage tend to believe that low-skilled labor markets are fairly competitive. There is a fair amount of evidence to support this. Most notably that low-skilled workers are employed is a multitude of different industries including restaurants, retail stores, gasoline service stations, construction, health care and many others. While all of these industries also hire workers with specialized skills, most industries also have some need for low-skilled workers. The wide-availability of low-skilled jobs makes it difficult, if not impossible, for firms to exploit their workers by setting the wage lower than the worker's productive contribution. If one firm attempted to do so, the workers themselves would be able, in time, to seek out better wage opportunities in other nearby firms. Furthermore, the nearby firms would have a profit incentive to lure them away with a higher wage because their contribution to production is higher than the exploitative wage. This means any attempt to exploit workers should be short-lived in a competitive market.

If this truly describes the low-wage labor market, then raising the minimum wage is likely to cause damage to many low-skilled workers by increasing unemployment. While some workers will benefit, the costs will more than outweigh these benefits and reduce economic efficiency. Some empirical studies of the effects of minimum wages supports this conclusion.

However, supporters of increases in the minimum wage tend to believe that low-skilled labor markets are somewhat monopsonistic. There is some evidence to support this belief as well. Some recent empirical studies have found that minimum wage increases in some areas have not had a detrimental effect upon total employment and in fact may cause slight increases in employment. This outcome conforms with the monopsony model result for modest increases in the minimum wage. If this is a better reflection of labor markets, then increases in the minimum wage may be good for workers and good for market efficiency.

The models presented in the chapter offer a useful guide to help understand the controversy. Most observers of the issue want to know which side is right. However, that is probably the wrong question, because it is quite possible that both sides are right. That's because whether minimum wage laws will work well depend on the circumstances of each market and those circumstances are quite likely to vary across industries and across time. A brief discussion of some of these variations across industries and the results from empirical studies can be found here in [Monopsony in American Labor Markets](#), from the Economic History Association.

Thus, it is quite possible that one empirical study may show unemployment increases from minimum wage laws when measuring the effects across an entire economy over a earlier period of time, but a similar study conducted over a later period may yield the opposite effect. That could occur if the average degree of labor market competitiveness varies because industry composition has also changed over time. Or, one study of minimum wage effects on

employment in New Jersey may yield a different result than a similar study conducted over a different time period in California. That might occur if there are different degrees of labor market competition across these two markets.

Most likely there isn't one right answer for the question of the ideal minimum wage in a country. In the US, many States and municipalities have implemented their own minimum wage law setting it above the rate mandated by the federal government. Given the expected differences in industry composition in different States and the different levels of labor market competition for low-skilled workers, this variation may make sense. But given this variation it may also mean that a \$15 per hour minimum set for the city of San Francisco would not be the ideal minimum wage for Jackson, Mississippi.

The economic models may make it seem as though there is one right answer. But we must always remember that the economic models are extreme simplifications of real world markets. They are helpful as guides to understand the tradeoffs we face and the conditions we should look for to guide policy. For example, the models illustrate, in a simple way, the differences between a competitive market outcome and a monopsony market outcome. But the way in which competitiveness or monopsonization is revealed in the real world is much more complicated than the model. If all understood that, we could have a healthier debate about a complex issue such as minimum wage laws.

### **Key Takeaways**

1. Whether minimum wage laws have the intended effect and improve market outcomes depends on whether the labor market is competitive or monopsonistic/oligopsonistic.
2. Because the degree of labor market competitiveness is likely to vary considerably across markets and across time, setting the ideal minimum wage requires considerable attention to empirical measurement.
3. The empirical evidence supporting minimum wage laws is mixed, which contributes to the varied opinions about the advisability of using such laws.