

Divide and Conquer

Specialization and Division of Labor

Objectives:

- A** Explain types of specialization.
- B** Compare the advantages and disadvantages of specialization and division of labor.



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As a result of a 20-game winning streak, the Bailey High varsity basketball team and coaches are hometown superstars. They've had their photos in the local newspaper, participated in area sport-radio shows, and have even been featured on nearby television newscasts.



Understandably, everyone wants to know the secret to the team's success. And, when asked, the head coach always gives a very straightforward answer: "It's very simple. Each player specializes in what he does best. Kieran, for example, is the number one ball handler on the team this year, so he plays point guard. Dean is a great shooter, so he's our shooting guard. And, Mick—the biggest guy on the team—does a fantastic job of grabbing rebounds, so he plays center."

Specialization of labor isn't just for basketball teams, though; it's also common in the business world. Businesses use specialized human resources, natural resources, and capital goods all the time. Why? Read on to find out!

What's Your Specialty?

Can you build a car or house by yourself? Few people can. Instead, we rely on others who have the special skills and equipment needed to do the job. By concentrating our efforts on those areas for which we have special skills or equipment, we are able to make the best use of our resources. This is known as **specialization**—the process of making the best use of resources in the production of goods and services. We specialize in the production of certain goods and services and **exchange** them for other goods and services.



▲ *The construction of a new home involves many different individuals. Each concentrates his/her efforts on the area for which s/he has special skills and equipment.*

What would happen if we opted not to specialize? Let's take a look. Suppose that Michelle and Teagan agreed to make cookies and fudge for a community bake sale. Even though cookies are Michelle's specialty and Teagan has a fantastic recipe for fudge, each girl chose to make both kinds of sweets on her own. What do you think happened? By working individually, each girl had less time to devote to the production of any one type of dessert. The end result? Fewer cookies and less fudge than Michelle and Teagan would have had if they had made just their specialties, rather than trying to do it all.

Although many people associate specialization strictly with human resources, there are also specialized natural resources and capital goods. Let's see how each of the different types of resources is involved in specialization.

Natural Resources

Your job may depend on certain climatic conditions or the availability of natural resources (materials that occur naturally). For example, if you wanted to become a citrus grower, you wouldn't be very successful in Maine or Michigan. To make the best use of natural resources, you would need to start an orange grove in one of the warmer states, such as California or Florida. On the other hand, if you wanted to specialize in outdoor winter recreation, you might consider Michigan or Maine because of their cold winters and the natural availability of ice and snow.



▲ *Natural resources are all around us and are used to make products that we depend on daily. Where would we be without wood, cotton, iron ore, and metal?*

Capital Goods

Capital goods come in many different shapes and sizes: hand tools, machinery, equipment, computers, buildings, etc. Businesses often use specialized capital goods to increase the production of goods and services. For instance, robots are used on many assembly lines to speed up the production of products, such as cars, while computers enable businesses to process data much faster and more efficiently than could be done manually. Today, more and more businesses are using specialized capital goods to help **auto-mate** processes and increase production.

Human Resources

Specialization of human resources occurs when people use their different skills and abilities in jobs for which they are best suited. In other words, people do what they do best, so the most goods and services can be produced. Let's take a look at two types of labor specialization and the impact of each on production.

Specialization by trade or profession. Your trade or profession is the type of work that you perform to earn a living. School teachers, farmers, truck drivers, and plumbers are examples of individuals who specialize in one trade or profession. This is the most common type of specialization of human resources. Because most members of our economy specialize in the trade or profession that they do best, we are able to produce an abundance of high quality goods and services, which benefits everyone in our society. Discover what the U.S. Department of Labor identifies as the categories of specialization by trade or profession at http://www.bls.gov/oes/current/oes_stru.htm.



Get an in-depth look at how specialization and trade work in this easy-to-understand video from Learn Liberty's Associate Professor of Economics, Art Carden:

https://www.youtube.com/watch?v=e0H7r_DI1CQ.

Specialization by stage of production or task. When more than one specialty or stage of production is needed to create a finished product, specialization by stage of production or task, also known as **division of labor**, occurs. To understand this better, let's think about the stages of production for a cotton T-shirt.

First, farmers are needed to plant, pick, and bail the cotton. Next, workers in spinning factories put the cotton through a rigorous process to straighten, pull, and twist it into yarn. The yarn is then sent to another factory to be knitted into fabric, washed and dyed. Designers determine the style of the shirt, and the fabric is cut to the designers' specifications. Finally, garment workers piece the different parts together to finish the T-shirt. All of these workers contribute to the final production of the shirt. See how T-shirts are made—and the stages of production that the process involves—in the exciting video series, "Planet Money Makes A T-shirt," at <http://apps.npr.org/tshirt/#/title>.

Production **assembly lines** are another example of specialization by stage of production or task. Let's say we're going to use an assembly line to build a toy house. The first worker builds the frame, the second puts on the sides, another paints it, and the last prepares it for shipping. By allowing each employee to focus on a single task, as opposed to constructing the entire house, we reduce training time, increase the skill of each employee, and end up producing many more toys.



▲ *Many assembly line workers have low job scopes, because they often do one repetitive task with low variation.*

Scope and Depth of Jobs

Scope and depth must be considered in specialization. **Scope** is the number of different operations you do on the job and the frequency with which you do them. The lower your task level, the lower the scope. For example, when putting doors on cars in an assembly line, you are doing one specialized task over and over again; therefore, the scope of your task is quite low. On the other hand, if you rotate among putting doors on cars, putting seats in cars, and checking the steering mechanism, your scope is relatively high because your job has less frequent repetition and more variation.

Depth is the amount of control you have over the tasks that you do. If your job has low depth, that means there are strict guidelines you must follow, and you have very few decisions to make. Usually, jobs that involve **mass production** by means of assembly lines have low depth.

High depth jobs, on the other hand, normally include decision making and allow employees to set their own pace. Most actors' jobs have high depth. For example, they are given parts and told to interpret the characters and lines in their own way. You would also have high depth if you were given a project within your company and told to develop it at your own pace.



▲ *High depth jobs normally include decision making and allow employees to set their own pace.*

The relationship of scope and depth can change with a specific task, so that the amounts of scope and depth vary at different times. An example of how a manager's scope and depth can change during one day is as follows:

1. The manager of a business chooses an advertising design and layout scheme for an upcoming promotion (high scope, high depth).
2. The manager makes out the weekly work schedule for employees (low scope, high depth).
3. The manager signs employee time cards (low scope, low depth).
4. The manager evaluates employee performance according to the owner's standards (high scope, low depth).

THE GRAY ZONE

Elijah, a certified forklift operator, works at a merchandise distribution center. Each day, Elijah unloads and loads the delivery trucks that come and go from the warehouse. According to his union contract, Elijah is not allowed to move boxes and products by hand. Instead, he must use a forklift to move everything that comes off or goes on the trucks. One day, a box fell off the forklift, causing the box's contents to fall to the floor. Elijah can correct his mistake pretty easily, right? Wrong. Since Elijah isn't allowed to move boxes and products by hand, he can't clean up his mess. He has to wait for another employee—one who's allowed to move items by hand—to take care of the box. Is this a case of specialization that's gone too far? Or is it a logical, efficient way to divide the labor based on the employees' skills and know-how? What do you think?

The scope and depth of one employee's job may also change more than that of another employee within the same company. Servers, for example, who take food orders, bring drinks, and talk with their customers, have a larger and more changing scope than dishwashers in the kitchen. It is important to know the range of scope and depth of a specific job to ensure the right human resources are assigned to carry out the required tasks. Due to the varying scope and depth of each position within a company, some employees will be more capable and better suited to complete certain responsibilities than others.

Summary

Remember, if you do not have the ability to produce a good or service by yourself, you can satisfy your needs by relying on someone else's area of specialization. Specialization involves natural resources, capital goods, and human resources. By allocating the right people and resources to a specific job, you are often able to streamline processes for a more efficient and successful final result. The two main forms of specialization of human resources are specialization by trade or profession and specialization by stage of production or task. The scope and depth of jobs must be considered to align the correct human resources with any job.

TOTAL RECALL

1. Define the term specialization.
2. What would happen if we decided not to specialize?
3. Explain how resources are involved in specialization.
4. Explain the following terms:
 - a. Specialization by trade or profession
 - b. Specialization by stage of production or task
5. Differentiate between scope and depth.

Why Specialize?

Have you ever heard the sayings “there are two sides to every coin” or “where there is good, evil lurks not far behind”? When labor is specialized, there are many advantages to companies and employees, but there are also disadvantages.

Advantages

On the positive side of the coin, we have the advantages of specialization. These advantages are that:

- | | |
|---|---|
| 1. Worker training is simplified. | 5. Quality of work may increase. |
| 2. Employee interest and satisfaction may increase. | 6. Workers can more easily transfer skills to similar jobs. |
| 3. Production rates increase. | 7. Employee and company income may increase. |
| 4. Workers develop high skill levels. | |



▲ *Simplified worker training is a huge benefit of labor specialization for many automobile manufacturers.*

Let's look at each in more detail.

1. **Simplified worker training.** Specialization makes it easier for the company to teach needed skills and easier for employees to learn those skills. For instance, it is easier to teach you how to install a motor than it is to teach you how to build an entire car. By specializing, both the employee and the company spend less time in the training process and more time in the production process.

2. **Increased employee interest and satisfaction.** Interested and satisfied employees are essential to the success of a business. Because the task you are doing is your part of the whole, you have more interest in doing it right and are more satisfied when it is completed correctly. For example, an X-ray technician taking X-rays to help diagnose and cure a patient has more interest and gains satisfaction when s/he sees that patient recover. In such a situation, both the company and the employee benefit because everyone is more engaged and satisfied with the final outcome.
3. **Increased production rates.** The more familiar employees become with their jobs, the faster they will be able to do them, which also increases the output for the company. A new worker in a fast-food restaurant may take a while to remember all the ingredients of the “special burger” but after making a dozen of them in one night, s/he would soon be able to make a special at top speed.
4. **Increased level of skill.** The more employees do a job and strive to do it well, the more their job knowledge and skills increase. This is beneficial to both employees and employers because it relates directly to an increased production rate. For example, a person who repairs shoes will quickly learn what can be fixed, how it can be fixed, and the best way to fix it, thereby saving valuable work time.



▲ *Specialization doesn't just help employees improve their skill sets. It may also increase production and satisfaction for both the company and employees.*

5. **Increased quality of work.** As the skills of employees increase, the quality of their work will also increase. Administrative assistants, for instance, produce more letters with fewer mistakes as they become more familiar with their duties and equipment. Businesses take pride in this quality of work.
6. **Ease of transferring to a similar job.** Learning a specific skill provides employees with knowledge to take with them to other positions. Let's say you are becoming a great shoe salesperson and decide to change jobs. Because of your experience and skills, you should have no problem getting a new position selling shoes and may even be qualified to manage your own staff. This ease of transfer positively impacts the new company because it doesn't have to spend as much time training an unexperienced employee.
7. **Higher employee and company income.** As employees become more productive and improve the quality of their work, the business's cost per unit/service usually decreases. When costs go down at the same time that **productivity** and quality go up, the firm's revenue typically skyrockets. And, who ultimately did the work that resulted in more money for the company? The employee. As employees become more productive, they become more valuable to their employers, who are likely to give them a raise for their outstanding performance.



- ▲ *Specialization can help employees transfer to a similar job or a higher position in a similar field. Training and experience go a long way to help build your career.*

Disadvantages

On the other side of the coin, we have the drawbacks linked to specialization and the division of labor. These disadvantages are that:

- | | |
|------------------------------------|---|
| 1. Worker dependency increases. | 4. Morale may worsen. |
| 2. Work may become dull or boring. | 5. Jobs may become obsolete. |
| 3. Pride may diminish. | 6. New jobs may be difficult to obtain. |

Let's take a closer look at these disadvantages.

1. **Increased interdependency.** Interdependency occurs when workers must rely on each other to accomplish a task or produce a product. When a job involves producing only one part of a whole product, employees become interdependent with those responsible for producing the other parts. If somebody doesn't do his/her part, the employees and the company lose out. Suppose you are part of a rock band and your lead singer forgets the lyrics or your drummer doesn't show up for a gig. That causes everyone to suffer—you, the other members of the band, and your audience.



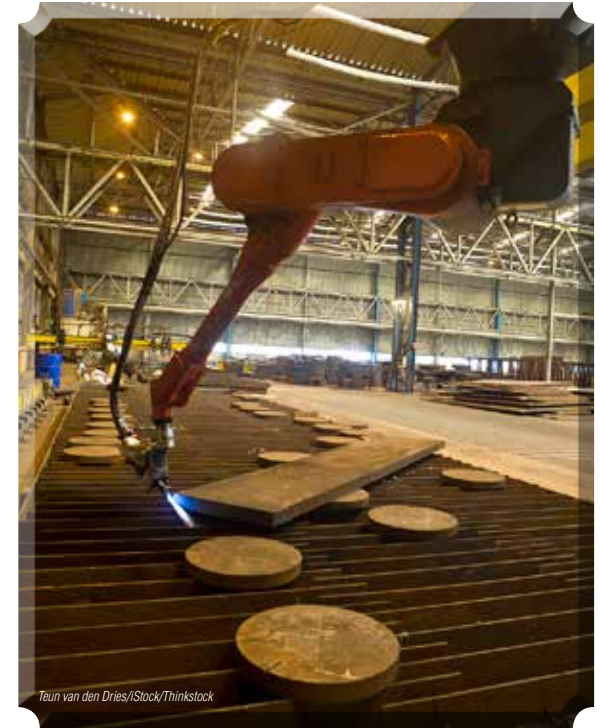
▲ *Football players are interdependent. How would a receiver catch a pass without a quarterback to throw him the ball? Can you think of other situations of interdependency?*

2. **Increased boredom on the job.** In some areas of specialization, especially those involving mass production and assembly lines, repetition of the same task can cause employees to become bored and uninterested in their work. When this happens, productivity, employee satisfaction, and product quality may decrease, causing problems for the company. Let's say you're working on a motorcycle assembly line and every day you do the exact same job—tightening six bolts on each motorcycle to precise specifications. If you become bored with your work, you may get careless and fail to fasten some of the bolts tightly enough. And, because the bolts are not properly fastened, the motorcycles may be unsafe for consumer use.
3. **Decreased pride in work.** When employees are unable to see the final outcome of their job or there is a lot of repetition in their work, they may lose pride in what they do. For example, Simon is a welder who spends his days producing just one component of some very complex coal mining equipment—equipment that he never sees in its finished form because it's assembled elsewhere and immediately delivered to users. After mastering his job, Simon may become bored and uninterested in his work because he doesn't understand how it fits into the company's finished product. As he loses pride in his work, his performance may become subpar, and the company could suffer.



▲ *Repetition of the same task can cause a decrease in worker productivity and product quality.*

4. **Decreased morale and enthusiasm.** As pride in a job decreases, so might enthusiasm. Simon is no longer eager to get to work each day and frequently calls in sick. When he does come to work, he is often late. His coworkers are upset because they've had to pick up his slack, and his managers are upset because productivity and quality have declined. Everybody loses.
5. **Increased chance of obsolescence because of technological advances.** With technology advancing daily, many jobs are in danger of being eliminated. These cutbacks often occur in assembly line occupations where highly repetitive tasks can be done by computers, equipment, and machinery (automation). Although technological advances are a plus for businesses, losing valued employees is a minus.
6. **High degree of specialization may cause difficulty transferring or changing jobs.** When employees lose their jobs or want to transfer to another job after becoming highly skilled, other companies may not be willing to pay for their expertise. Highly skilled workers often receive higher salaries than new workers doing the same task. Unfortunately, another company may not hire them at that salary rate if they can hire a beginning worker for less.



▲ *Technological advancements are eliminating the need for lower skilled employees.*



What jobs will be automated in the next 20 years? This fun online tool from Planet Money gives you a sneak peek: <http://www.npr.org/sections/money/2015/05/21/408234543/will-your-job-be-done-by-a-machine>.

Combating Disadvantages

Fortunately, companies are finding ways to combat many of the disadvantages of specialization and division of labor. Let's see what they are.

- **Hit more targets with a bigger scope**

To combat boredom on the job, businesses may add to the scope of their employees' jobs. Rather than requiring their workers to repeatedly perform only one very specialized task every day, many companies include several different tasks within each job. For instance, instead of limiting its sales force strictly to selling merchandise, an employer might increase the number of different tasks that each salesperson is required to do. By enlarging each employee's job scope to include cash register operations, helping with displays, and restocking merchandise in the department, the retailer is likely to enjoy higher productivity, and the employees are likely to be much happier in their positions.

- **Rotate!**

Along with increasing job tasks, employers may periodically rotate employees throughout the business to bolster morale, enthusiasm, and interest on the job. As employees move from job to job within their company, they learn more tasks and how they relate to one another within the organization. By working in different departments within a company, employees develop a better sense of the entire organization as well as each individual business function. Read more about job rotation in N. Plowman's article, "Advantages of Job Rotation: Reduce Turnover by Influencing Employee Burnout, Satisfaction, and Motivation" at <http://www.brighthub.com/office/entrepreneurs/articles/55274.aspx>.



▲ *Job rotation is a great strategy to help employees understand the company in its entirety. It keeps ambitious employees engaged and learning new sections of the business.*

- **Take employees a little deeper**

By increasing job depth (giving employees more responsibility and control of tasks), employers often make jobs more interesting and satisfying for their employees. Allowing employees to make more decisions, set their own pace, and supervise other employees are ways a company can enrich their employees' positions while increasing productivity.

- **Bring on the motivation**

To be satisfied with your job, you must like what you are doing and be motivated by it. Companies can motivate employees by asking for and using suggestions, allowing flexible or alternative work schedules, and giving praise for jobs well done. Cash incentives, contests, and bonuses are other ways companies can motivate employees—all while increasing production and overall morale.



Explore specialization a bit deeper at TED-Ed: <http://ed.ted.com/on/ZKLRgPNu#digdeeper>.



▲ *It's not magic! Money, contests, bonuses, and other rewards will motivate employees to work harder and help the business increase productivity.*



Summary

Although there are two sides to every coin, the advantages of specialization outweigh the potential disadvantages. Most companies that implement specialization are able to increase product quality and output, reduce costs, and better train their employees. While there are many disadvantages to consider, such as a decrease in pride, enthusiasm and morale, there are many strategies available to help keep employees happy and engaged. By increasing the depth and scope of jobs, rotating employees through different positions and taking steps to increase employee satisfaction, businesses can drastically reduce the negatives associated with specialization and create a healthier, more productive company culture.

TOTAL RECALL

1. List seven advantages of labor specialization.
2. List six disadvantages of labor specialization.
3. Explain four ways to combat the disadvantages of labor specialization.

Make It Pay!

Think about the specialization of labor at your workplace or home. How is the work divided up among the employees or family members—by trade or profession, or by stage of production or task? What are some of the advantages of specialization at your workplace or home? On the flip side, what are some disadvantages of specialization that you've seen or experienced? What could be done to overcome some of those disadvantages?