## EconEdLink



Lesson 4:

## Can you Allocate Ethically?

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In this lesson, students will determine how ethics impacts allocation methods.

## Description of the lesson

The lesson begins with the students brainstorming ways to allocate a scarce, highly desirable good within a small group. After a brief discussion, students will explore several different allocation methods. Students will examine each method and explore how value could impact each method. Students will then apply this information to historical examples, matching the allocation method to the event. Lastly, they will apply the allocation methods by distributing hours to new hires at a coffee shop for a realworld application.

## Economics

In a world of scarcity, one of the major economic problems we face is who should receive the goods and services that are produced. First-come-first-serve, price, rationing, and lottery are all examples of allocation methods that are a way used to determine distribution of goods and services. Because our unlimited wants exceed our limited resources, societies need a system for allocating resources. Societies have various rules on how they allocate resources, and some societies use these methods to align with common values or to impact their social and economic goals.

## Ethics

Ethics provides a framework for our value system. If enough individuals value the same thing in the same way, we can determine a general common value. However, by promoting these common values, do we minimize the values of others? Knowing how resource allocation aligns with a society's priorities can help decision makers determine outcomes.

## Objectives:

After completing this lesson students will be able to:

- identify several methods of resource allocation.
- evaluate allocation methods.
- apply allocation methods to a real-world scenario.


## Standards

## Voluntary National Content Standards in Economics ${ }^{1}$

- Standard 1: Scarcity
- Productive resources are limited. Therefore, people cannot have all the goods and services they want; as a result, they must choose some things and give up others.
- Standard 2: Decision Making
- Effective decision making requires comparing the additional costs of alternatives with the additional benefits. Many choices involve doing a little more or a little less of something: few choices are "all or nothing" decisions.
- Standard 3: Allocation
- Different methods can be used to allocate goods and services. People acting individually or collectively must choose which methods to use to allocate different kinds of goods and services.
- Standard 4: Incentives
- People usually respond predictably to positive and negative incentives.


## Concepts

Decision-Making, Incentives, Scarcity, Allocation of Resources

## Time Required

45 minutes

## Materials Needed

- Candy bars or other desirable items (homework passes or extra credit points) that can be divided easily for each group; students will be divided into groups of 3 to 5 . For example, if you have 5 groups, you will need 5 desirable items that can be divided by all students in each group.
- Pencils, one per student
- Slide presentation: Allocation and Ethics
- Visual 4.1: Allocation Options, projected for students to see (slide presentation). If the size of the slide text is too small to work in your classroom, consider printing out a copy of Visual 4.1 for each student.
- Visual 4.1: Allocation Options - one copy to cut up for poster display
- One scissor for use by the teacher

[^0]- Access to Activity 4.1: The Atlantic Article-Even When Ticketmaster Works, It Doesn't, one per student https://www.theatlantic.com/technology/archive/2023/01/ticketmaster-taylor-swift-presale-issue-live-nation/672869/ or any allocation article that is relevant to students at the time the lesson is being taught.
- Tape, several rolls to be distributed around the room
- Paper ( $8 \times 11$ ), eight sheets for posters to display allocation methods
- Activity 4.2: Allocation in History, printed and cut into one strip per student
- Assessment 4, one copy per student


## Preparation

1. After printing Activity 4.2: Allocation in History, cut each statement into paper strips, enough for each student in your class.
2. Using Visual 4.1 as a guide, create posters (suggested $8.5 \times 11$ paper) with the name of each allocation method and tape them in various places around the room.

## Procedure

1. Divide the students into groups of 3-5. Display a desirable object, such as a candy bar, which can be divided easily. (You could also use extra-credit points or homework passes.) Ask the class how many students would like to have this item today. Allow students to respond. Assure them that this is not a trick question. You are willing to give them the item and, indeed, each group will receive one of these items today.
2. Explain to students that this item is scarce. Ask students to define scarcity in their own words. Answers may vary, but include that scarcity is when we don't have enough resources to meet our goals. Tell them scarcity is a condition we face in every aspect of our lives. Individuals and societies must devise ways to deal with this problem, which is exactly what the class will be doing today.
3. Assure the students that you only have a limited number of items to distribute: one per group. There are no more, for example, hiding behind your desk.
4. Ask students to brainstorm, within their small groups, the answers to this question: "What are the various ways you can think of to allocate, or distribute, this item in your group?" Emphasize that they should think creatively. Give them up to five minutes to brainstorm, then ask the students to share suggestions from their brainstorming. Write their suggestion on the board. It is especially important not to discourage any answers.
5. Slide 2: After you have gotten all the suggestions, show students the examples from Visual 4.1: Allocation Options and/or pass out the copies of Visual 4.1 Compare the list they came up with to these examples. Ask the following questions:

- What are some suggestions that are on our list and on the example list? Answers may vary.
- What are some suggestions that are on our list but not the example list? Answers may vary but include alphabetical order by first name, date of birth, drawing names out of a hat, etc.

6. Tell the groups that they will have up to ten minutes to consider the benefit and cost of each allocation option on Visual 4.1: Allocation Options (slide 2) to determine who gets the desirable object. Go over a few examples below to help get them started:

- A benefit of rationing and a lottery is that both treat everyone equally; however this may not be equal and cost those who did more than others to deserve the item. Also, these allocation methods do not encourage greater effort, since everyone in the group is treated equally, regardless of effort.
- A benefit of favoritism is that scarce goods can be allocated to the people who are in the most need - for example, the poor. Favoritism creates opportunities for bribery, however, the cost is that the people who are in the most need may never get the goods.
- A benefit of competitive markets is that firms produce goods efficiently and sell them to the people who place the greatest value on them. But, this method may exclude people who don't have the means to pay.

7. After they have had time to weigh each allocation option from Visual 4.1: Allocation Options (slide 2), give each group 1 minute to decide what allocation option they would use to determine who in their group will get the item.
8. Ask a spokesperson for each group to explain which allocation method the group selected and how the group decided who would get the item. Which criteria were important in making the final decision: Equity? Favoritism? Efficiency?
9. Distribute the item based on the group's decision.

Teacher Note: If a group decides to use brute force, you may want to intervene. If a group fails to make a decision in the time allowed, allocate the item to them by lottery.
10. Explain to students that they have just gone through a decision-making process. Decision making is the process of making choices by identifying a decision, gathering information, and assessing the alternatives. In this activity, for example, after considering the costs and benefits of all the options, a group selected the lottery option, and proceeded to create a lottery by writing each group member's name on a small paper, folding it, and having someone outside the group select a winner.
11. Tell the students that, just as they had to decide who would receive the scarce goods, an economic system must determine which goods and services to produce, how to produce them, and who receives them.
12. Tell the students that people make millions of allocation decisions every day. All methods are in operation in various ways in our society. For example:

- Families generally allocate scarce goods by rationing (we divide pizza slices equally at the dinner table).
- Brute force is most often used by robbers and pirates, but sometimes siblings.
- Selective colleges use favoritism based on achievement to determine which students to admit. Most colleges also use a lottery to determine housing allocations on campus.
- Many popular clubs and restaurants use first-come/first served, which explains why popular attractions have long lines.
- In times of war, society has used lotteries to draft people into the armed forces.

13. Have students return to their seats. Explain to students that there are many situations where societies use allocation methods to determine how scarce resources should be distributed. Give each student a copy of Activity 4.1: The Atlantic article-Even When Ticketmaster Works, It Doesn't and allow them up to ten minutes to read over the article. Print this article from the website or give students access to read the article online. See Materials for the website. Teacher Note: Feel free to use any allocation article that is relevant to students at the time the lesson is being taught.
14. Display Slide 3: Ask students the following questions related to Activity 4.1: The Atlantic article or the article you select.
Teacher note: The questions can be used for any article, but the suggested answers are based on The Atlantic article about the Taylor Swift tickets.

- What created the scarcity problem in the article? Answers may vary but include the limited number of seats available at each venue and the large number of people who wanted to attend the concert.
- What method of allocation was used? Answers include prices, lottery, first come first serve, and favoritism.
- What were the outcomes of some of these methods? Answers may vary but include people waiting in long virtual queues, people not getting tickets who wanted them, credit card members not getting their tickets.
- Are there any issues or concerns with the allocation method that was used? Answers may vary but include people who were upset they did not get tickets, some felt that they were cheated out of a ticket, others felt that only those with a lot of money could even afford to buy the tickets. It seems like the intended people might not be the same people who got the tickets.
- Is there a better allocation method that would help eliminate some of the problems listed? Answers may vary widely as students will have different opinions. Accept all reasonable and justified answers.

15. Explain to students that in a market economy like ours, the price system is most commonly used to determine who gets allocated goods and services. The people who can afford the price will be able to get the product or service if they choose. The price of an item is determined by supply and demand. This is the relationship between how much of a product that there is and how much the customers desire that product. For concert tickets, the price of the ticket determines who is able and willing to purchase them. As the price gets higher there are going to be some people who are no longer willing or able to buy them and so they no longer get the ticket. For example, some people might be willing to pay $\$ 100$ for a concert ticket but if the ticket increases to $\$ 200$ they are no longer willing or able to pay that price.
16. Explain that, like in the Activity 4.1: Atlantic Article, because Taylor Swift was so popular, the demand for tickets was driven up and the price also increased. In conjunction with "scalping" bots, fans had to pay hundreds, if not thousands of dollars for a seat.
17. Explain to students that because of scarcity we must allocate goods, services, and resources. The outcome of allocation, or who gets what, is a question of ethics. In order to determine the right way to allocate a good, service, or resource we need to consider who benefits and the costs of the method selected.
18. Slide 4: Define for students that outcome-based ethics is a moral philosophy that discerns right or wrong action based on the consequences produced by the action. An outcome-based ethical model would suggest that the "right" allocation is one that is the most beneficial for the most people or for the intended group of people.

- Lesson 7: Does Self-Interest Prevent Economic Justice? on EconEdLink.org is a good introduction to outcome-based ethics if your students are not familiar with the concept.

19. Ask students who benefited from price being the allocation method when considering the Activity 4.1: The Atlantic article? Answers may vary but include the people who wanted the tickets, were able to wait in the queue, and were able to pay the price, got the tickets. Follow this up by asking, considering outcome-based ethics, is this the right or best way to allocate the tickets? Answers may vary but include that only people who have a lot of money got the tickets. Kids or younger fans who are the intended audience aren't able to get the tickets because they do not have the money even if they are bigger fans. The people who may have liked the event more were priced out because of "scalping" bots or people looking to profit off of reselling their tickets.
20. Tell students that price is a commonly used way to allocate, but not the only way goods, services, or resources are distributed. Ask students what other ways they have seen items being allocated? Answers may vary but include raffle tickets at their school fundraisers, lottery, scholarships based on their grades, etc. Follow this up by saying there are so many ways that we allocate things today but that throughout history there have been many examples of scarce resources being allocated.
21. Explain to students that you are going to learn using a strategy called Think-Pair-Share using Activity 4.2: Allocation in History. Distribute the slips, one to each student.

- Each student will be given a historical event and be given time to think about what allocation methods were used during the event.
- Then, they will be paired up with a classmate to discuss each other's events and confirm or discuss the allocation method(s) used.

22. Slide 5: Tell students once they have determined the allocation method to discuss the following questions for each event.
Teacher note: use Activity 4.2 Allocation in History SUGGESTED ANSWERS to help guide you with this discussion.

- What is the issue of scarcity?
- What method of allocation was used?
- What were the outcomes of this method?
- Considering outcome-based ethics, was this the best allocation method or one that benefited the most or the intended people?
- Is there a better allocation method that would help eliminate some of the problems listed?

23. Once pairs have had time to come to a conclusion together about both historical events, they will share out by placing the event under the allocation method they think best suits the historical event, placed around the room.
24. Once students have completed the Think-Pair-Share strategy, allow all students 5 minutes to walk around the room and read the other events that took place under each of the allocation methods. Did everyone agree? If not, have the class discuss and come to a consensus.
25. (Optional or use as Exit/Entry Ticket for class) Have students get back into pairs and pass out a small piece of paper to each pair. Ask the students to collaborate with their partner and create their own event, fiction or nonfiction, to add to allocation methods. Have each pair write their event, suggest the allocation method, and explain if they think the method is an ethical way to allocate the good, service, or resource. Answers may vary. Accept all reasonable suggestions. If time allows, have students add these suggestions to the rationing lists around the room and share them with the group to continue the discussion.

## Closure

26. Explain to the students that these activities allowed us to explore allocation methods through the lens of outcome-based ethics. In most cases, the allocation of goods, services, and resources were directed toward producing the greatest good for the greatest number of people or the intended group.
27. Slide 6: Review the main points of the lesson by asking the following questions:

- What is allocation and what economic problem does it help solve? Answers may vary but include: allocation is how we divide up goods and services. Because there are limited amounts of goods and services, allocation helps solve the problem of scarcity.
- What are some examples of allocation methods? Answers may vary but include: rationing, lottery, favoritism based on achievement, favoritism based on need, brute force, price, first-come-first serve, and characteristics.
- Using the outcome-based ethical models, how would you know which allocation model is best? Answers may vary but include: an outcome-based ethical model would suggest that the "right" allocation is one that is the most beneficial for the most people or the intended group of people.


## Assessment

28. Distribute copies of Assessment 4: Allocation Application to each student. This activity requires students to use the allocation methods to determine how scheduling should be allocated with three new employees. Select one of the allocation methods and use it as an example for the students.
Teacher Note: If time is limited, put students back into pairs or small groups to complete this assignment.

- Rationing - Answers may vary but could include: dividing the number of hours available on the schedule by the three new employees. This method would allow everyone to have an equal number of hours.
- Lottery - Answers may vary but could include: having each employee pick a number from 1-10 and the one closest to 10 would get the most hours. This would not be very fair and is based on luck, not effort.
- Favoritism Based on Achievement - Answers may vary but could include: selecting the employee who retained training the quickest/best to get the most hours on the schedule. This would work, but may leave the other new hires upset or not giving them equal opportunity to grow and learn.
- Favoritism Based on Need - Answers may vary but could include: allowing the new hire who needs the hours the most to get the most hours. This would only be equal if everyone agreed and if they are all new hires, chances are they all equally need the job and hours on the schedule.
- Brute Force - Answers may vary but could include: allowing the new hires to fight it out. Too much of a liability for the business.
- Price - Once the schedule is posted, employees can offer money to fellow employees to switch their schedules. The manager can offer higher pay to an employee who agrees to take a lessdesirable shift.
- First Come, First Serve - Answers may vary but include: putting the first person that shows up for the training on the schedule the most often. This may work, but doesn't necessarily mean you will be getting the best employee.
- Characteristics - Answers may vary but include: letting the oldest or youngest person have the most hours, allowing the females or males to have more hours, etc. Would not work, may create more issues for the business.


## Multiple Choice Questions

1. Which allocation method is most efficient and most responsive to the preferences of consumers who have income (money) to spend?

- First come/first served
- Price
- Rationing
- Lottery

2. Allocation methods help answer the economic question of
a. who should receive goods and services.
b. what goods and services should be produced.
c. how goods and services should be produced.
d. where goods and services should be produced.
3. Which allocation method could potentially exploit or harm a vulnerable person, such as a child, elderly, or sick person, the most?
a. Lottery
b. Favoritism Based on Need
c. Rationing
d. Favoritism Based on Achievement

## Short Answer Question

1. Would it be equitable to give everyone in this class the same grade regardless of performance? What effect would this have? What allocation method should be used instead? Answers may vary but include: It is not equal because the students who work hard receive the same grade as the students who do not. Grades no longer serve as an incentive to motivate behavior. Student effort and achievement would likely fall because they are not rewarded. The allocation method that should be used is based on achievement.
2. It is not generally considered equitable for people to pay different prices for goods and services, but many stores offer discounts based on age, education level, military service, etc. Do you think that is okay and why? What allocation method is being used? Answers may vary but include: They earned the discount, their financial situation (vulnerability) may warrant the discount, they are a student/elderly, etc. The allocation method being used is characteristic.
3. As a student, you may receive discounts on food, clothing, and activities. The same goes for a senior discount when you're over 65 years old or military discount if you have served in the Armed Forces. Using the allocation methods discussed, make an argument against the use of discounts. Do you agree or disagree with this argument? Why? Answers may vary but include: the use of discounts is unfair because people who need the discount may not qualify for it, or it shows favoritism based on characteristics. Students may agree or disagree with the argument and give reasons such as achievement, rationing (broke student), or market allocation for access.

## Extension

Children's Literature: "Earl and Starla Want All the Fishy Treats" by Mike Raymer explores the different allocation strategies in a fun way. Earl and Starla, two cats with huge appetites, love Fishy Treats. Elizabeth loves feeding her cats the Fishy Treats. When the bag starts running dangerously low, Elizabeth must find a way to allocate the limited number of delicious morsels in a way that will satisfy both cats. Use this book to introduce the allocation methods discussed in this lesson. Raymer, M., Raymer, M., \& Byard, A. (2021). Earl \& Starla Want All the Fishy Treats. GCEE Global Media Publishing.

Price Discrimination: "You Paid How Much for That Ticket?" by Jody Hoff is a featured lesson on EconEdLink that has students discuss times where they have been discriminated against using the example of airline tickets and citing the Robinson-Patman Act. Hoff, J. (2019, October 18). 'You paid how much for that ticket?'. EconEdLink. Retrieved April 4 2023, from https://www.econedlink.org/resources/you-paid-how-much-for-that-ticket/

## Visual 4.1: Allocation Options

| Allocation Options | Examples |
| :---: | :---: |
| Rationing | Divide the item equally among all the students in the group. |
| Lottery | Draw straws or roll dice to determine who gets the item. |
| Favoritism Based on Achievement | Have a race and the winner gets the item. <br> Give the item to the student with the highest grade. |
| Favoritism Based on Need | Give the item to the student who is the hungriest or has the lowest grades. <br> Give the item to the person who needs it the most. |
| Brute Force | Have a fist fight and the winner gets the item. |
| Price | Allow one student to offer others in the group cash payment for the item. |
| First-Come, First-Served | Give the item to the first person who asks for it. |
| Characteristics | Give someone an item based on their age, race, sex, etc. |

## Activity 4.2: Allocation in History

Due to the COVID-19 pandemic, Clorox disinfecting wipes and many other clearing products were difficult, if not impossible to find. Stores that had these products in stock often set limits on the number of products consumers could buy.

In February 2021, a winter storm hit North America and nearly 10 million people lost power. This storm was particularly bad in Texas, where the massive power failure led to water, food, and heat shortages. Residents were left without power, water, etc. for days, surviving only on what they had purchased prior to the storm.

During the Great Depression, after the passing of the Social Security Act, soup kitchens provided the only meal some unemployed Americans had.

During the Vietnam War all names of American men of draft-age were collected by the Selective Service System. Most men who were drafted were from poor and working-class families that were not eligible for a college deferment, have political connections, or had a medical deferment.

Prior to retailers offering discounts through November and online, shoppers would line up at 3 a.m. or earlier on Black Friday (the Friday after Thanksgiving) to get the best deals on holiday gifts, such as televisions, computers, popular toys, etc.

At the 2020 Olympic Games in Tokyo, India returned to the field hockey podium, winning a bronze medal, for the first time since 1980. The men's field hockey team won gold in 1980 and it took them nearly four decades to return to the podium.

The host city/cities of the FIFA World Cup receives an automatic qualification, which impacts the number of teams who are eligible to play in the tournament. The 2026 World Cup will be hosted in Los Angeles, Mexico City, and Vancouver, so all three co-hosts will receive automatic qualification.

Susette Kelo sued the city of New London, Connecticut, for violating her civil rights after the city tried to acquire her house's property through eminent domain so that the land could be used for a redevelopment plan. The Supreme Court ruled in Kelo vs New London that the city of New London could take privately-owned land in order to turn it over to a private developer.

In an attempt to gain access to account information, cyber-attacks on companies' computer data uses various bots to test username-password combinations, as if someone is turning the wheel of a combination locally and tries every number combination until the lock is broken. In order to get the unsolicited information, the cyber-attacks are forcing the access to information.

Many colleges and universities are experiencing a housing crisis due to over-enrollment of incoming freshmen. Many have put a system in place to determine the availability of housing for upperclassmen and randomly selecting who gets the open rooms. This has caused many students to have to find housing off campus.

China leases pandas for about a million dollars a year to zoos across the United States. Even when the Smithsonian National Zoological Park in Washington, D.C. successfully bred a panda cub, Tai Shan, because the parents are on loan from Chica, the plana must be turned over to his parents' homeland.

Colleges and universities often select their top academically performing students to give a speech at graduation. Valedictorian Elizabeth Bonker delivered her commencement speech at Rollin College in Florida, without saying a word. Elizabeth has nonspeaking autism, but thanks to the help of technology, she overcame many challenges and graduated top of her class. Elizabeth used text-tospeech software to deliver the commencement address.

The National School Lunch Program is a federally assisted meal program operating in public and nonprofit private schools and residential child care institutions to provide nutritionally balanced, low cost, or free lunches to children each school day. The program was established under the National School Lunch Act, signed by President Harry Truman in 1946.

Priority seating can be found on various public transportation, including railways, buses, and trams. The slogan, "please offer your seat to anyone in need," is often displayed above or beside each seat. The elderly, disabled, pregnant, and injured have priority to take these seats.

During World War 2, thousands of items became scarce. Key goods such as sugar, tires, gasoline, meat, coffee, butter, canned goods, and shoes came under regulations. These regulations allowed consumers to get a limited number of items each week.

Andy Warhol's Shot Sage Blue Marilyn sold for $\$ 195$ million in May of 2022, making the iconic portrait of Marilyn Monroe the most expensive work by a U.S. artist ever sold at auction. At an auction, an item is placed for sale and the auctioneer will ask if there are any offers or start with a bid. Participants increase the bid, higher and higher, until there are no other bids. The item is sold to the last bidder at the highest amount.

The NFL informed teams in 2023 that there will be a cap of $\$ 22.8$ million for the next season. The 32 teams will now have a salary cap and will have to determine contracts, roster bonuses, and extensions within the allotted amount of money.

During westward expansion, water rights were determined by the priority of beneficial use. This means that the first person to use water or divert water for a beneficial use or purpose had the rights to the water. These are called riparian rights.

The Diversity Immigrant Visa program is administered by the Department of State as a way to increase the diversity of the immigrants coming to live in the United States. Each year the program allows more than 50,000 randomly selected people to obtain permanent residency, commonly called a green card. Participants enter yearly during October. Winners are selected at random by a computer and they and their immediate families receive a green card.

Grocery stores on average stock over 39,500 items on their shelves. With that many choices, consumers are sure to splurge on a few items each week. Many stores are open 24 hours a day, 7 days a week to accommodate any schedule.

## Activity 4.2: Allocation in History SUGGESTED ANSWERS

| Historical Example | Suggested Allocation Method | Suggested Issues with Allocation Method |
| :---: | :---: | :---: |
| Due to the COVID-19 pandemic, Clorox disinfecting wipes and many other clearing products were difficult, if not impossible to find. Stores that had these products in stock often set limits to the number of products consumers could buy. | First-Come, FirstServe | Those who may have needed the items the most were unable to get them. |
| In February 2021, a winter storm hit North America and nearly 10 million people lost power. This storm was particularly bad in Texas, where the massive power failure led to water, food, and heat shortages. Residents were left without power, water, etc. for days, surviving only on what they had purchased prior to the storm. | Rationing | Those who did not prepare for the store may have been without basic needs. |
| During the Great Depression, after the passing of the Social Security Act, soup kitchens provided the only meal some unemployed Americans had. | Favoritism Based on Need | Not everyone who was in need was able to access the benefits of this program. |
| During the Vietnam War all names of American men of draft-age were collected by the Selective Service System. Most men who were drafted were from poor and working-class families that were not eligible for a college deferment, have political connections, or had a medical deferment. | Lottery, Characteristics | All men were supposed to be equally likely to be called to the draft but there were ways to reduce your chances of being part of the draft. |
| Prior to retailers offering discounts through November and online, shoppers would line up at 3 a.m. or earlier on Black Friday (the Friday after Thanksgiving) to get the best deals on holiday gifts, such as televisions, computers, popular toys, etc. | First-Come, FirstServe <br> Price | Not all consumers are able or willing to wait in line for a "deal." |


| At the 2020 Olympic Games in Tokyo, India returned to the field hockey podium, winning a bronze medal, for the first time since 1980. The men's field hockey team won gold in 1980 and it took them nearly four decades to return to the podium. | Favoritism Based on Achievement | Only people/counties with the skill/ability to play the sport would be eligible to compete. |
| :---: | :---: | :---: |
| The host city of the FIFA World cup receives an automatic qualification. The 2026 World Cup will be hosted in Los Angeles, Mexico City, and Vancouver, so all three co-hosts will receive automatic qualification. | Favoritism Based on Achievement <br> Characteristic | There's a scarce number of spots in the tournament and the team with the highest bid might not even be the best team. |
| Susette Kelo sued the city of New London, Connecticut, for violating her civil rights after the city tried to acquire her house's property through eminent domain so that the land could be used for a redevelopment plan. The Supreme Court ruled in Kelo vs New London that the city of New London could take privately-owned land in order to turn it over to a private developer. | Brute Force | Land is scarce and only so much exists. If cities can take land from private owners that can cause a lot of problems for people who own desirable land-they lose their property rights. |
| In an attempt to gain access to account information, cyber-attacks on companies' computer data uses various bots to test username-password combinations, as if someone is turning the wheel of a combination locally and tries every number combination until the lock is broken. In order to get the unsolicited information, the cyber-attacks are forcing the access to information. | Brute Force | Only some people, organizations, or businesses have access to your information. These issues can cause problems of identity theft on a wide scale. |
| Many colleges and universities are experiencing a housing crisis due to over-enrollment of incoming freshmen. Many have put a system in place to determine the availability of housing for upperclassmen and randomly selecting who gets the open rooms. This has caused many students to have to find housing off campus. | Lottery | There is limited housing and students might not get the housing they want or in a desired location. |


| China leases pandas for about a million dollars a year to zoos across the United States. Even when the Smithsonian National Zoological Park in Washington, D.C. successfully bred a panda cub, Tai Shan, because the parents are on loan from Chica, the plana must be turned over to his parents' homeland. | Price, Characteristic | Not all zoos are able to afford the price associated with leasing a panda. |
| :---: | :---: | :---: |
| Colleges and universities often select their top academically performing students to give a speech at graduation. Valedictorian Elizabeth Bonker delivered her commencement speech at Rollin College in Florida, without saying a word. Elizabeth has non speaking autism, but thanks to the help of technology, she overcame many challenges and graduated top of her class. Elizabeth used text-tospeech software to deliver the commencement address. | Favoritism Based on Achievement | There is only usually one speaking opportunity and someone who does not have the highest grades might do a better job speaking or want to do it more than those chosen. |
| The National School Lunch Program is a federally assisted meal program operating in public and nonprofit private schools and residential child care institutions to provide nutritionally balanced, low cost or free lunches to children each school day. The program was established under the National School Lunch Act, signed by President Harry Truman in 1946. | Favoritism Based on Need | Funding for any government program is scarce and must be used wisely. Setting an income limit restricts other kids from the same benefits (especially for kids whose family just barely does not qualify for the welfare program) |
| Priority seating can be found on various public transportation, including railways, buses, and trams. The slogan, "please offer your seat to anyone in need," is often displayed above or beside each seat. The elderly, disabled, pregnant, and injured have priority to take these seats. | Characteristic, First-come, FirstServe | Public transportation has limited seating but if someone is already sitting down then another person who might need the seat more might not get it. |


| During World War 2, thousands of items became scarce. Key goods such as sugar, tires, gasoline, meat, coffee, butter, canned goods, and shoes came under regulations. These regulations allowed consumers to get a limited number of items each week. | Rationing | Limited supplied and with rationing people do not get to pick how much of an item they might want. |
| :---: | :---: | :---: |
| Andy Warhol's Shot Sage Blue Marilyn sold for \$195 million in May of 2022, making the iconic portrait of Marilyn Monroe the most expensive work by a U.S. artist ever sold at auction. At an auction, an item is placed for sale and the auctioneer will ask if there are any offers or start with a bid. Participants increase the bid, higher and higher, until there are no other bids. The item is sold to the last bidder at the highest amount. | Price | There is only 1 painting. Allocating based on price means that those with the highest willingness to pay will get this regardless of whether they want or need it the most. |
| The NFL informed teams in 2023 that there will be a cap of $\$ 22.8$ million for the next season. The 32 teams will now have a salary cap and will have to determine contracts, roster bonuses, and extensions within the allotted amount of money. | Rationing, Favoritism based on merit, Characteristics | There is only so much money for the entire team. Not everyone on the team gets paid the same and some people will get paid differently simply because they are a fan favorite or popular. |
| During westward expansion, water rights were determined by the priority of beneficial use. This means that the first person to use water or divert water for a beneficial use or purpose had the rights to the water. These are called riparian rights. | First Come, First Serve | Water can be scarce and even if there is a better (subjective) use of the water under riparian rights the first person to get it has the rights regardless of need, beneficial use, or other factors. |

\(\left.$$
\begin{array}{|l|l|l|}\hline \begin{array}{l}\text { The Diversity Immigrant Visa program is administered } \\
\text { by the Department of State as a way to increase the } \\
\text { diversity of the immigrants coming to live in the } \\
\text { United States. Each year the program allows more } \\
\text { than 50,000 randomly selected people to obtain } \\
\text { permanent residency, commonly called a green card. }\end{array} & \text { Lottery } \\
\begin{array}{l}\text { Participants enter yearly during October. Winners are } \\
\text { selected at random by a computer and they and their } \\
\text { immediate families receive a green card. }\end{array} & \begin{array}{l}\text { There are limited green } \\
\text { cards issued and the } \\
\text { lottery does not }\end{array}
$$ <br>
necessarily take into <br>
account need, length of <br>
time on the list, or other <br>
factors that might be <br>
important for <br>

determining citizenship.\end{array}\right\}\)| Grocery stores on average stock over 39,500 items on |
| :--- |
| their shelves. With that many choices, consumers are |
| sure to splurge on a few items each week. Many |
| stores are open 24 hours a day, 7 days a week to |
| accommodate any schedule. |$\quad$ Price $\quad$| There is always only so |
| :--- |
| much of any item on the |
| shelf and people who |
| may want something |
| may not be able to buy |
| something or afford the |
| price. |

## Assessment 4: Allocation in the Workplace



You are the manager of a new boutique coffee shop and art gallery called Frame of Mind. Your immediate task is to complete the training of your three new employees and get them on the schedule. You have already shown them how to prepare the different coffee drinks and helped them become familiar with the artwork in the gallery and the artists whose work is on display. Now, you need to determine their schedule.

Describe how you apply each of the allocation options below to determine the three new employees' schedule. Does that option work? Why or why not?

## Rationing -

## Lottery -

Favoritism Based on Achievement -

## Favoritism Based on Need -

## Brute Force -

## Price -

## First Come, First Serve -

## Characteristics -

In the end, which allocation option do you think is most equitable to the three new employees? Explain your reasoning.

## Assessment 4

## Multiple Choice Questions

1. Which allocation method is most efficient and most responsive to the preferences of consumers who have income (money) to spend?
a. First come/first served
b. Price
c. Rationing
d. Lottery
2. Allocation methods help answer the economic question of
a. who should receive goods and services.
b. what goods and services should be produced.
c. how goods and services should be produced.
d. where goods and services should be produced.
3. Which allocation method could potentially exploit or harm a vulnerable person, such as a child, elderly, or sick person, the most?
a. Lottery
b. Favoritism Based on Need
c. Rationing
d. Favoritism Based on Achievement

## Short Answer Question

1. Would it be equitable to give everyone in this class the same grade regardless of performance? What effect would this have? What allocation method should be used instead?
2. It is not generally considered equitable for people to pay different prices for goods and services, but many stores offer discounts based on age, education level, military service, etc. Do you think that is okay and why? What allocation method is being used?
3. As a student, you may receive discounts on food, clothing, and activities. The same goes for a senior discount when you're over 65 years old or military discount if you have served in the Armed Forces. Using the allocation methods discussed, make an argument against the use of discounts. Do you agree or disagree with this argument? Why?

[^0]:    ${ }^{1}$ Voluntary National Content Standards in Economics: https://www.councilforeconed.org/wp-content/uploads/2012/03/voluntary-national-content-standards-2010.pdf

