

Professional Basketball—Can You Join the Association?

Lesson Authors

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The authors thank Dr. Paul Grimes for his assistance in the development of this lesson plan. Portions of this lesson were inspired by the following book: Register, Charles and Grimes, Paul. *Economics of Social Issues*. 21st Edition. New York: McGraw Hill Education, 2016.

Standards and Benchmarks (see page 17)

Lesson Description

Students apply economic concepts to a professional basketball association. The lesson underscores the importance of incentives, control of supply, and potential market inefficiencies resulting from a cartel. Students assume one of two roles: either (i) a member of a team owner group trying to get its team into the Professional Basketball Association or (ii) a member of the Professional Basketball Association Expansion Committee deciding whether new teams are admitted.

Grade Level

9-12

Advanced Placement Economics

Concepts

Cartel

Market structures

Profit maximization

Prior Content Knowledge Required

Incentives

Market efficiency

Market structures and competition

Monopoly

Monopsony

Oligopoly

Supply and demand

Compelling Question

How does economic competition affect professional sports associations and teams?

Objectives

Students will be able to

- recognize competition and incentives in professional sports,
 - describe a cartel,
 - describe a monopoly,
 - explain how professional sports associations exhibit behaviors of a cartel and a monopoly, and
 - interpret the interdependent relationship between a professional sports association and the individual teams in that association.
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Time Required

75-90 minutes

Materials

- Visual 1: Association Restrictions
 - Visual 2: Market Structures
 - Visual 3: The Case of Professional Sports as a Cartel
 - Visual 4: Association Success
 - Handout 1: Association Expansion Committee Instructions, one copy for each of three or four committee members
 - Handout 2: Team Roster, one copy for each student
 - Handout 3: Assessment, one copy for each student
 - Handout 3: Assessment—Answer Key
 - Calculators (optional)
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Procedure

1. Introduce the topic by asking students to share their preferred sports and to name some of their favorite professional teams. (*Answers will vary.*)
 2. Ask students for examples of economic decisions professional sports teams face. (*Answers will vary but may include personnel decisions, stadium maintenance or construction, ticket pricing, vending choices, or team merchandise selection.*)
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3. Explain to students that to better understand economic decisions in sports, they will participate in a role-play activity and will act as either
 - (i) a member of a team owner group trying to get their team accepted into the Professional Basketball Association or
 - (ii) a member of the Professional Basketball Association Expansion Committee deciding which new teams to accept into the association.
4. Ask the class who among them understands basketball statistics, including field goal percentage (FG%). Choose three or four of these students to be the Association Expansion Committee. Have them assemble apart from the rest of the class and distribute to each committee member a copy of *Handout 1: Association Expansion Committee Instructions* and a copy of *Handout 2: Team Roster*. **Quietly make the following clear to the Association Expansion Committee: They are not to show Handout 1 or discuss the restrictions with any of the team owners at any time during the role play.** Ask the Association Expansion Committee members to read Handout 1 silently and wait for further instructions.
5. Choose three or four students who understand FG% to lead team owner groups and divide the remainder of the class among the team owner groups.
6. Distribute a copy of Handout 2 to each student in the team owner groups. Invite students to read the directions aloud.
7. Explain to the students that once each owner group completes its team lineup, it will send its leader to the Association Expansion Committee to present the lineup for consideration. The association will accept only two new teams for the coming season.
8. If there are no questions, instruct the owner groups to create their team rosters.
9. Once owner groups begin working on their lineups, meet with the Association Expansion Committee privately. Explain that it is unlikely any teams will be accepted on the first attempt. The owners will try to create the best *teams* possible, but the association should try to create the best *association* possible. Remind them not to disclose the restrictions on Handout 1 or give away that it is difficult to be accepted into the association. They are to say only vague, general things (as noted on Handout 1) when reviewing the lineups.

NOTE: Some team leaders will recognize the replies as restrictions in terms they have heard such as a “salary cap” or “luxury tax.” Quietly ask those students to hold their thoughts until the end—perhaps call on them during the discussion. If team groups ask about their budget, tell them they are not given a specific amount; the owners will pool resources to meet the expenses. Some students will be frustrated by not being accepted into the association. **(This activity can get chaotic!)** Watch for this and keep things calm, checking on groups as they work.

10. Allow groups to present a lineup to the Association Expansion Committee at least once. Once two teams have been accepted or two to three groups have presented to the Association Expansion Committee a second time, stop and debrief the activity by discussing the following:
- How many teams were accepted into the association on the first attempt? (*Answers will vary, but most likely one or none.*)
 - Why was it hard to get a team accepted? (*Answers will vary but may include player restrictions or terms they have heard such as a salary cap or luxury tax.*)
 - How did the incentives of the team owner groups and Association Expansion Committee differ? (*Answers will vary, but the team owner groups acted in their own best interest and tried to create the best teams possible to maximize profits. The committee acted in the association's best interest by placing restrictions on teams to maximize collective profits and association success.*)
11. Display *Visual 1: Association Restrictions*, read the restrictions, and then discuss the following:
- Who were the players you wanted to keep but had to remove from your roster? (*Answers will vary.*)
 - Why did you choose those players for your team? (*Answers will vary.*)
 - How might losing those players affect your team's performance? (*Answers will vary but may include that the team may not perform as well without the players.*)
 - Why would the association implement and enforce the restrictions? (*Answers will vary but may include the following: The association does not want the best players on only a few select teams. Owners do not want to compete with each other on player salaries. The association does not want one or a few dominant teams, because the association will not do as well.*)
12. Display *Visual 2: Market Structures* and review the definitions as a class. Explain that individual teams are compelled to follow the league or association rules as enforced by the commissioner, making this structure more formalized than price fixing or colluding oligopolies. The commissioner is to act in the best interest of the association or league, not the individual teams.
13. Display *Visual 3: The Case of Professional Sports as a Cartel*, invite students to read it, and then explain the following:
- Pro sports leagues and associations are different from collusive oligopolies, as leagues and associations are highly formalized and the market outcome is that of a shared monopoly.
 - Baseball's legal exemption from anti-trust laws allows it to behave as a cartel even though cartels are illegal in other markets in the United States. Although basketball is not legally exempt from all anti-trust laws, it still operates like a cartel.
 - By acting as a cartel and keeping teams somewhat evenly matched, pro sports leagues and associations are able to accomplish the shared-monopoly outcome, maximizing collective profits.

14. Display *Visual 4: Association Success*, invite students to read it, and then discuss the following:
- How does limiting the number of teams and the salary cap and luxury tax help the association? (*Fewer teams can mean higher profits for the association from ticket sales, merchandise sales, and the like. The salary cap and luxury tax attempt to keep payrolls within limits that prevent a single team from becoming “too good” by paying the highest salaries.*)
15. Explain that restrictions allow sports associations to operate as cartels and control the supply of teams. Salary caps, luxury taxes, and other barriers prevent market entry and competition.
- NOTE: This is an excellent opportunity for a side-by-side comparison graph of perfect competition and monopoly (cartel) outcomes. It will show the differences in allocative efficiency and deadweight loss in terms of prices and the number of teams.

Closure

16. Review the main points of the lesson by discussing the following:
- In which market structure do professional sports operate? (*A cartel or shared monopoly*)
 - Why is professional baseball allowed to operate as a cartel or shared monopoly? (*Professional baseball was ruled exempt from anti-trust laws in 1922.*)
 - How do sports cartels succeed?
 1. *Cartels control output—members agree to the terms of the cartel.*
 2. *Cartel members produce a similar product.*
 3. *Cartels divide the market and limit the number of teams.*
 4. *Cartels prevent cheating with rules [salary caps, luxury taxes, etc.].¹⁾*
 - How does maintaining a shortage and minimum expansion help a sports association and its teams? (*Answers will vary but may include the following: Shortages can keep ticket and merchandise prices higher. For teams, there may be an incentive to move if tax-paying fans are willing to build new stadiums under the threat of their team leaving. From 2000 to 2010, \$10 billion was spent on new stadiums. Half of the funding came from public sources.²⁾*)

¹ Register and Grimes. *Economics of Social Issues*. pp. 231-239.

² Register and Grimes. *Economics of Social Issues*. p. 238.

Visual 1: Association Restrictions

A team must replace players until the following restrictions are met:

1. The payroll may not exceed \$66,000,000.
2. No more than 4 players may have a field goal percentage (FG%) greater than 50 percent.

Visual 2: Market Structures

Monopoly—A firm that is the only seller of a product that lacks close substitutes; a market structure with very few sellers, which enables each seller to affect the total supply and the price of the good or service.

Examples: Utilities such as electricity, water, and natural gas. Utilities are often given exclusive rights by the government to provide these services and must follow government regulations.

Oligopoly—A market structure with few firms and a market that is difficult to enter. The firms sell either a standardized or differentiated product, and there is usually non-price competition. Individual firms have little control over product prices because of mutual interdependence, unless cooperation or collusion occurs among firms.

Examples: Car manufacturers, cell phone providers, airlines, computer software companies, and oil producers.

Collusion—When competing firms agree to work together (collude) to fix prices, share a market through production decisions, or otherwise limit competition. Firms may agree to work together, but individual firms can produce more than the agreed-upon quantity in an attempt to increase profits.

Example: Two competing software companies agree to charge a certain price for their respective, competing products.

Cartel—A group of businesses (firms) that formally agree to coordinate their production and pricing decisions in a manner that maximizes joint profits. Such an arrangement is more formal than collusion. Like colluding oligopolies, individual firms can produce more than the agreed-upon quantity in an attempt to increase profits.

Examples: OPEC (Organization of Petroleum Exporting Countries) and Major League Baseball.

Visual 3: The Case of Professional Sports as a Cartel

Professional Baseball's Exemption

Professional baseball was ruled exempt from anti-trust laws in 1922.

FEDERAL BASEBALL CLUB OF BALTIMORE, INC. v. NATIONAL LEAGUE OF PROFESSIONAL BASEBALL CLUBS, ET AL. No. 204. Supreme Court of the United States. Argued April 19, 1922. Decided May 29, 1922.³

- The ruling allows the league to coordinate and cooperate to maximize joint profits, forming a cartel. A successful cartel has a similar market outcome as a monopoly.
- While not completely exempt from anti-trust laws like baseball is, a professional sports association or league can act as a cartel, or shared monopoly.

The NBA

The NBA's shared-monopoly outcome is accomplished by the following:

- All teams are bound together contractually through the association office.
- The coordinated behavior among teams is much more than simple collusion.
- Teams collectively hire a commissioner to make sure everyone obeys the same set of rules.
- The commissioner has enforcement power over those who misbehave and try to cheat on contractual agreements.
- The formal agreements that tie the teams together result in a cartel.

³ JUSTIA US Supreme Court. Federal Baseball Club v. National League, 259 U.S. 200 (1922); <https://supreme.justia.com/cases/federal/us/259/200/case.html>, accessed November 15, 2017.

Visual 4: Association Success

How do cartels succeed?

1. Cartels must control output—members agree to the terms of the cartel.
2. Cartel members must produce a similar product (e.g., sports or oil).
3. Cartels must divide the market and establish production quotas (e.g., a limited number of products or teams).
4. Cartels must prevent cheating through rules (e.g., National Basketball Association [NBA] rules control most aspects of the association, including payroll, drafting, and trading of players).

Example: Labor Disputes/Salary Caps

In order to maintain monopsonist power, a sports league or association can use lockouts to negotiate collective bargaining agreements. Since players have few teams for which they can work (unless they move to another country), a league or association can use lockouts to try to get players to agree to terms favorable to the league or association. Both the 1998-1999 and 2011-2012 NBA seasons were partially cancelled due to lockouts by the owners, which stopped all games and practices, and teams could not trade, sign, or trade players. In 2012, this decreased league-wide players' share of revenues from the original 57 percent to a 50/50 split.

⁴ Register and Grimes. *Economics of Social Issues*. p. 238.

Handout 1: Association Expansion Committee Instructions (page 1 of 3)

IMPORTANT: Do not let the team owners see this page. They are not aware of the restrictions, so do not share the restrictions with them at any time during the role play.

Association Restrictions

A team must replace players until the following restrictions are met:

1. The payroll may not exceed \$66,000,000.
2. No more than 4 players can have a field goal percentage (FG%) greater than 50 percent.

Role: You are a member of the Association Expansion Committee, which operates as a cartel. As a cartel, you have market power and wish to restrict additional competitors from entering the association while also maintaining competition within the association.

Directions: Review the team rosters provided by each owner group. Use the charts on pages 2 and 3 to evaluate the rosters. Teams *must meet all criteria* to be eligible to enter the association. Select two teams to enter the association.

The economic incentives of the owners and the committee differ. The owner groups want to create the best teams possible to maximize profits, so they will each behave in their own best interest. The committee wants to create the best *association* possible to maximize collective profits, so you are to behave in the best interest of the association. It is not likely any team will be accepted on the first attempt because it will be trying to create the best team possible. This represents the different incentives owners face in contrast to the Association Expansion Committee as a group.

Do not give away that it is difficult to be accepted into the association. Say vague, general things to the owners when they present their rosters. Examples include the following:

- “You’ll have to replace this center/guard.”
- “This player has to be replaced.”
- “This player is paid too much.”
- “These two players can’t both be on your team.”
- “You can keep one of these players, but not both.”

Handout 1: Association Expansion Committee Instructions (page 2 of 3)

Team:	Proposal 1	Proposal 2
1. Team payroll \$66,000,000 or less		
2. No more than 4 players with a FG% > 50 percent		
Player 1		
Player 2		
Player 3		
Player 4		
Player 5		

Team:	Proposal 1	Proposal 2
1. Team payroll \$66,000,000 or less		
2. No more than 4 players with a FG% > 50 percent		
Player 1		
Player 2		
Player 3		
Player 4		
Player 5		

Handout 1: Association Expansion Committee Instructions (page 3 of 3)

Team:	Proposal 1	Proposal 2
1. Team payroll \$66,000,000 or less		
2. No more than 4 players with a FG% > 50 percent		
Player 1		
Player 2		
Player 3		
Player 4		
Player 5		

Team:	Proposal 1	Proposal 2
1. Team payroll \$66,000,000 or less		
2. No more than 4 players with a FG% > 50 percent		
Player 1		
Player 2		
Player 3		
Player 4		
Player 5		

Handout 2: Team Roster (page 1 of 2)

Team name: _____

Role: You are a group of profit-maximizing entrepreneurs. You are pooling assets and investing in a basketball expansion team and hope to enter the Professional Basketball Association next season. You have a list of available basketball players. Create a lineup of 18 players according to the specifications on the chart on page 2. Choose your players, add the salaries, calculate the total team payroll, choose a team name, and send your group leader to present your proposal to the Association Expansion Committee. Based on the players' statistics, select the team you think will maximize your profits.

Field goal percentage (FG%): The ratio of field goals made to field goals attempted (using a scale of 0.000 to 1.000). A field goal is any basket scored other than a free throw and is worth two or three points depending on how far from the basket the player made the shot. The higher the FG%, the higher the efficiency of the player.

Handout 2: Team Roster (page 2 of 2)

Name	Position	FG%	Salary	Selected
Center: Pick 4				
Amdalh	Center	22.2	\$3,000,000	
Brown	Center	50.0	\$5,000,000	
Cook	Center	40.0	\$5,000,000	
Deere	Center	33.3	\$4,000,000	
Eckel	Center	23.5	\$3,000,000	
Fuentes	Center	50.0	\$5,000,000	
			Total salaries	
Power forward: Pick 3				
Guerrero	Power forward	20.0	\$3,000,000	
Hopkins	Power forward	30.0	\$4,000,000	
Im	Power forward	57.1	\$5,000,000	
Jefferson	Power forward	37.5	\$4,000,000	
Kesselman	Power forward	23.5	\$3,000,000	
Li	Power forward	50.0	\$5,000,000	
			Total salaries	
Small forward: Pick 3				
Meyer	Small forward	33.3	\$4,000,000	
Nguyen	Small forward	25.0	\$4,000,000	
Oliver	Small forward	57.1	\$5,000,000	
Peterson	Small forward	68.6	\$5,000,000	
Quincy	Small forward	23.5	\$3,000,000	
Rogers	Small forward	22.0	\$3,000,000	
			Total salaries	
Shooting guard: Pick 4				
Smith	Shooting guard	50.0	\$5,000,000	
Tall	Shooting guard	33.3	\$4,000,000	
Udquim	Shooting guard	44.4	\$5,000,000	
Vennett	Shooting guard	0.0	\$3,000,000	
White	Shooting guard	28.6	\$4,000,000	
Xiao	Shooting guard	57.0	\$5,000,000	
			Total salaries	
Point guard: Pick 4				
Yao	Point guard	56	\$5,000,000	
Zimmerman	Point guard	13	\$3,000,000	
Ackerman	Point guard	38	\$4,000,000	
Bock	Point guard	63	\$5,000,000	
Curtis	Point guard	33	\$4,000,000	
Daniels	Point guard	0.0	\$3,000,000	
			Total salaries	
			Grand total salaries	

Handout 3: Assessment—Answer Key

1. List two of the criteria required for a cartel to be successful.
 - *Cartels must control output—members agree to the terms of the cartel.*
 - *Cartel members must produce a similar product.*
 - *Cartels must divide the market and establish production quotas.*
 - *Cartels must prevent cheating through rules.*

2. How do economic incentives differ for a sports association cartel and the team owners?

Team owners want to field the best possible team, but the cartel wants the association to succeed. If a single team becomes too dominant, the association will not do as well and fans could lose interest, lowering collective profits.

3. Predict what might happen if professional basketball were left to a more competitive market.

Answers will vary, but larger cities would likely have more teams. New locations might get teams as well. Teams would be able to spend more on payroll, possibly pushing less-competitive teams out of the business. Additional associations could form in areas with excess demand for basketball.

4. Describe how a sports association cartel and the individual teams benefit each other.

Answers will vary but may include the following: Cartel rules such as a salary cap and luxury tax keep teams somewhat evenly matched. The cartel maintains a team shortage, keeping ticket and merchandise prices higher than they would be in a more competitive market.

Standards and Benchmarks

Voluntary National Content Standards in Economics

Standard 9: Competition among sellers usually lowers costs and prices, and encourages producers to produce what consumers are willing and able to buy. Competition among buyers increases prices and allocates goods and services to those people who are willing and able to pay the most for them.

- **Benchmark 2, Grade 12:** The level of competition in an industry is affected by the ease with which new producers can enter the industry, and by consumers' information about the availability, price and quantity of substitute goods and services.
- **Benchmark 4, Grade 12:** Collusion among buyers or sellers reduces the level of competition in a market. Collusion is more difficult in markets with large numbers of buyers and sellers.

Common Core State Standards: English Language Arts, Grades 9-12

Writing

- **Text Types and Purposes**

CCSS.ELA-LITERACY.W.9-10.1: Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

CCSS.ELA-LITERACY.W.9-10.1.A: Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence.

CCSS.ELA-LITERACY.W.11-12.1: Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

CCSS.ELA-LITERACY.W.11-12.1.A: Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence.