JOURNAL OF ECONOMICS TEACHING

School's (Almost) Out! A Summer-Themed Economics Review Class to Get Students Through Finals

For students, the last hurdle before summer break is final exams. However, studying for final exams requires focus and motivation which may be difficult for students fighting end-of-semester distractions. Students are likely looking forward to summer plans, so instructors may benefit from creating a review class that presents topics using familiar summer movies. By connecting with the anticipation of summer break, undergraduate and high school economics instructors can help students focus on finishing the semester strong. Topics included in this paper are scarcity, opportunity costs, comparative advantage, diminishing marginal utility, GDP, unemployment, and change in demand.

Amanda Mandzik[†]

†Shepherd University

1. Introduction

When the weather gets warmer and smells of fresh-cut grass waft in through classroom windows in the spring semester, students may find it difficult to focus on their studies. Student thoughts may wander to beaches, cookouts, firework shows, and swimming pools. On the cusp of break, the only thing that stands in the way of summer freedom is finals week. Students may need an extra boost to keep their heads in the books as the sunshine lures them outside.

Instructors of introductory economics courses at the undergraduate and high school levels can motivate students to finish strong by preparing an effective review for final exams. In particular, if a final exam is cumulative, some of the topics students will be tested on may not have been explicitly talked about in class since January. An effective review can help students recall key concepts and prepare for a competent performance on the final.

If student thoughts are already drifting to sandy beaches, instructors may be able to harness these daydreams into productive efforts by presenting a summer-themed review class. Using the examples in this paper, instructors can show clips from films associated with the beach and other summer activities while pointing out and reviewing core economic concepts that students have learned throughout the semester.

In a previous paper, the author designed a compilation of Christmas-themed movie clips to review for finals at the end of the fall semester (Mandzik, 2023). However, currently, there is not a corresponding summer counterpart for the end of the spring semester. The following paper is intended to fill this gap. Reviewing for an economics final exam by watching summer-related film clips may be an effective way to motivate students to conclude the semester enthusiastically.

2. Literature Review

Studies across the literature make a compelling argument for using innovative teaching techniques in place of traditional lectures in the undergraduate economics classroom (Becker & Watts, 1996; 2001; Becker, 2004; Becker & Watts, 2008). Specifically, an alternative to "chalk and talk" is the inclusion of multimedia clips in class. Pop culture references engage students who may otherwise be uninterested in an ordinary lecture setting (Geerling, 2012). Using well-known films is a refreshing way to present textbook information, and it challenges students to make applications to the world directly around them. Several authors have compiled examples from popular films that can be used to discuss economic concepts (Leet & Houser, 2003; Mateer, 2004; Mateer, O'Roark, & Holder, 2016; Sexton, 2006). Likewise, popular television series, including *Seinfeld*, *The Simpsons*, *The Office*, and *The Big Bang Theory,* provide examples of economic concepts that students are learning in class (Hall, 2005; Luccasen & Thomas, 2010; Ghent, Grant, & Lesica, 2011; Kuester, Mateer, & Youderian, 2014; Tierney, et al., 2016).

Undergraduate instructors from different disciplines have assessed the value of pre-exam review sessions. Although self-selection was likely a contributing factor, studies following exam results for university science and psychology classes found that student attendance at optional review sessions correlated with higher exam scores (Aamodt, 1982; Jensen & Moore, 2009; King, 2010). Likewise, a study of undergraduate physiology students indicated that review sessions structured to incorporate active student participation were associated with higher exam performance (Poole & Moore, 2016). Moryl, Gabriele, and Desvira (2019) designed an innovative review game in an economics course and reported positive student feedback for test preparation.

Instructors who use media clips in the classroom may already be using individual

examples from summer movies to illustrate economics topics. Using the search term *summer* reveals economics-related contributions from Critical Commons and Economics Media Library, two different archives of media clips used for educational purposes. However, there have been no articles that exclusively compile economics examples from summer-themed films and media or suggest presenting them to review material at the end of the spring semester. The following collection will increase the resources available to instructors to use for review.

3. Economic Topics

This section presents examples from summer movies that illustrate core concepts taught in an introductory economics course. While this paper does not necessarily represent a comprehensive semester review of all topics covered in such a class, it does offer valuable opportunities for instructors to refresh their students on several significant introductory concepts. The goal of this paper is to provide an outline for instructors to use movie clips to review these topics before a final exam. A listing of the economic concepts discussed in this paper with corresponding movie excerpt locations is provided in Appendix A. Nearly all of the clips can be found on the Economics Media Library website (Wooten, 2018).

Instructors can use the material in this section in a variety of ways. One approach is to show a short clip from a movie in the classroom or students could be assigned to watch the clips in advance of the lecture. Since students should be familiar with the concepts that they are reviewing, instructors could ask students how specific concepts are illustrated in the clips or why movie characters acted the way that they did based on what students have already learned. Instructors should preview media clips to familiarize themselves with the material and to determine the length of the clip that is best suited to show in class. To make a summer review class more festive, instructors could invite students to come to class wearing their favorite Hawaiian shirts. Before class begins as students are arriving, background beach music or summer songs (Beach Boys, Jimmy Buffet, etc.) can also set the mood.

The remainder of this section will provide examples from summer movies for economic topics divided into two categories. The first category includes topics for class discussion and brainstorming (scarcity, opportunity cost, unemployment, and change in aggregate demand). Appendix B provides corresponding study/review questions. The second category includes topics that could incorporate practice problems and activities for students (comparative advantage, diminishing marginal utility, shifts of demand curve, GDP). Appendix C includes related practice problems to accompany the movie clips. Students could work on these problems independently (perhaps for extra credit) or the instructor could demonstrate the problems on the board after showing the clip in the classroom.

A. Topics for Class Discussion

Scarcity

The basic economic problem of scarcity is felt acutely by surfers in pursuit of the perfect ride. The essential resources required for the sport of surfing are a surfboard and waves. In the animated film *Surf's Up*, Cody Maverick (a penguin surfer from Antarctica) has little concern for the quality of his surfboard initially; he says that all a surfer needs is, "a piece of driftwood … a block of ice or something like that" (Brannon & Buck, 2007). However, after meeting legend surfer "Big Z," he learns the importance of a well-crafted surfboard using the best material available, koa wood. As Cody matures in the movie, he realizes that becoming a better surfer requires him to be more selective about his board and the scarce resources (including time) needed to build it.

While a surfboard can be inspected before use and compared with other options, there is even more uncertainty associated with the quantity and quality of the waves that will be available based on location and weather patterns beyond human control. For this reason, committed surfers travel to surfing centers of the world such as California and Hawaii. In the movie *Point Break*, "Bodhi," played by Patrick Swayze, converses about a "50-Year Storm" that occurs twice a century and unleashes waves that surfers see only in their wildest dreams (Bigelow, 1991). He eventually chases down this storm in Australia to catch the ride of his life. In *Surfer, Dude*, surfer Steve Addington played by Matthew McConaughey endures over a month where there are no waves. Steve acknowledges the inability to know when waves will come and his need to be ready for them:

> What's so special about the wind? Surfing is to... be with that mystery. To ride that mystery for as long as you can. And then when it's over that's cool because you know what? You were there, in line and on time. (Bindler, 2008)

Ocean waves can be forecasted, tracked, and even hunted by the most dedicated surfers, but ultimately, they are an unpredictable natural resource that is scarce.

Opportunity Costs

As summer break looms, students can relate directly to Ferris Bueller's impulse to skip school on a beautiful spring day near the end of the semester (Hughes, 1986). In the opening monologue, Ferris rhetorically asks how he can "possibly be expected to handle school on a day like this." Nevertheless, there will be costs associated with his truancy. First, he admits:

> This is my ninth sick day this semester. It's getting pretty tough coming up with new illnesses. If I go for ten, I'm probably gonna have to barf up a lung, so I'd better make this one count (Hughes, 1986).

At this point in the school year, Ferris' pattern of playing hooky has aroused suspicions that could land him in trouble, particularly by the exasperated school principal determined to catch Ferris in the act. The opportunity cost of his day off from school is an ordinary day of classes free of the fear of getting caught and punished with repeating his senior year. While Ferris manages a mostly relaxed day, by the end of the movie he undergoes a nerve-wracking sprint back to his house to beat his parents home and a nearly catastrophic confrontation with his principal. Despite the unwanted stress associated with sneaking around, Ferris' conclusion to his cost-benefit analysis for skipping school remains the same at the end of the movie: "Life moves pretty fast. If you don't stop to look around, you could miss it" (Hughes, 1986).

Unemployment

One of the subjects that may already be buzzing among students before and after class is their plan for a summer job. Relatedly, unemployment is likely one of the topics of review for a cumulative final exam. A good starting point is to review the economic definition of unemployment. Just because an individual does not have a job, he or she is not necessarily considered unemployed. To be classified as such, an individual from the labor force must currently not be working, but available to work, and actively looking for work within the last four weeks. Duncan, the main character in the movie, *The Way, Way Back*, is an example of someone who is not considered to be unemployed, even though he does not initially have a job (Faxon & Rash, 2013). Not only is he only 14 years old—making him too young to be a member of the working-age population—but he also is not looking for a job. Instead, he is spontaneously offered a job at a water park by a new acquaintance.

When an individual is actively looking for work, unemployment can be categorized as frictional, structural, or cyclical. In *Adventureland*, recent college grad James Brennan is initially frictionally unemployed (Mottola, 2009). When plans to spend his summer touring Europe fall through and James is cast into the job market early, finding a job does not happen immediately. He is turned down for a restaurant job and as an asphalt mixer driver before taking a job at an amusement park. Frictional unemployment is considered normal even in a healthy economy as workers undergo a matching process with available jobs.

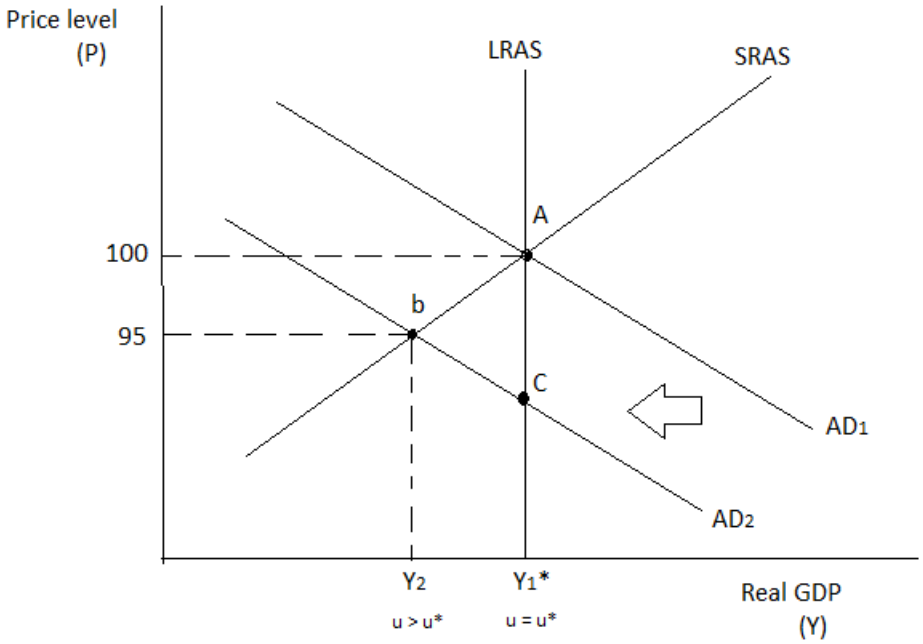
Frictional unemployment may also occur if there is a mismatch between employer and employee. Another example of frictional unemployment for young people in search of summer employment befalls Dexter (Kenan Thompson) in *Good Burger* (Robbins, 1997). Dexter needs a summer job after wrecking his car, but he is unable to keep his first job at Mondo Burger because of his incompatibility with his boss. In an all-hands-on-deck meeting, Dexter makes multiple wisecracks that cause his boss to fire him and have him physically removed from the premises. Fortunately for Dexter, he will find an employment opportunity with the local competition, Good Burger.

Change in Aggregate Demand

Almost fifty years after the iconic fin swam across the big screen for the first time, sharks still strike fear into the hearts of beachgoers everywhere. Who would want to go swimming at a beach with multiple recent shark attacks? In *Jaws* (Spielberg, 1975), Mayor Vaughn knows that if word of the attacks gets out and the beaches shut down, it will cripple the local tourist economy of Amity Island. Tourists will choose other safer places to stay, and businesses will not want to invest in the area if it has become an undesirable vacation spot.

Figure A illustrates a shark-induced recession that Mayor Vaughn fears using the framework of the Aggregate Demand-Aggregate Supply model. At point A, the economy is at a long-run equilibrium with full-employment output (Y*) and unemployment at its natural rate (u*). If a shark is terrorizing the local beaches, there is likely to be a decline in consumer and business confidence in the town causing the aggregate demand curve to shift to the left from point A to point b. At point b (a short-run equilibrium), the economy is experiencing a recession; output has fallen below full employment (Y_1* to Y_2), and unemployment has increased (u > u*). For Amity Island to recover from a recession, the price level will need to adjust downward until the economy reaches point C. Even after recovery, the town will certainly need a positive public relations campaign to calm the fears of potential visitors and bring tourism back.

Figure 1: Shark-Induced Recession



B. Topics with Practice Problems & Activities

Comparative Advantage

Baseball and summer are inseparable in the movie *The Sandlot* where neighborhood kids play an "an endless dream game" all summer long (Evans, 1993). In the movie, we meet two kids on opposite ends of the spectrum when it comes to baseball talent and natural ability. Benny is the superstar on the local sandlot team. He has a clear absolute advantage over all the others in running, hitting, throwing, and catching. On the other hand, Scotty "Smalls" is new in town, possessing book smarts but clueless about baseball. Nevertheless, he is desperate to make friends with the local neighborhood kids who play ball every day of the summer. Initially, virtually no one thinks Smalls has anything to contribute to the team—he can't throw or catch and has little knowledge about baseball in general. Remarkably, it is Benny who seeks him out to join the team. When Benny first introduces Smalls to the other guys, the following exchange ensues:

BENNY: He's gonna play with us. He makes nine. Now we got a team.

BERTRAM: Why'd you bring him for, Benny?

BENNY: 'Cause there's eight of us, and he makes nine.

BERTRAM: Yeah, so would my sister, but I didn't bring her!

BENNY: With nine guys we got a whole team.

HAM: No, with Elswenger we had a whole team, and Elswenger could throw!

DENUNEZ: He ain't game, Benny. He can't throw for nothin'

TIMMY: Benny, you already play all the empty positions since Elswenger moved to Arizona.

BENNY: And now I get to rotate 8 positions instead of 7. I need the practice.

(Evans, 1993)

Benny is willing to give Smalls a chance because he understands the difference between absolute advantage and comparative advantage. Even though Benny is the best at every position (absolute advantage), he can only play one position at a time. If he recruits Smalls to play, that will free Benny up to focus on the position that he is most valuable to the team playing. For example, if there is little defensive action in right field in a given game, it would not make sense for Benny to play right field—it would be a waste of his talent. But if Smalls were to cover right field, it would give the team security in covering the area and free Benny up to play a hot spot like shortstop.

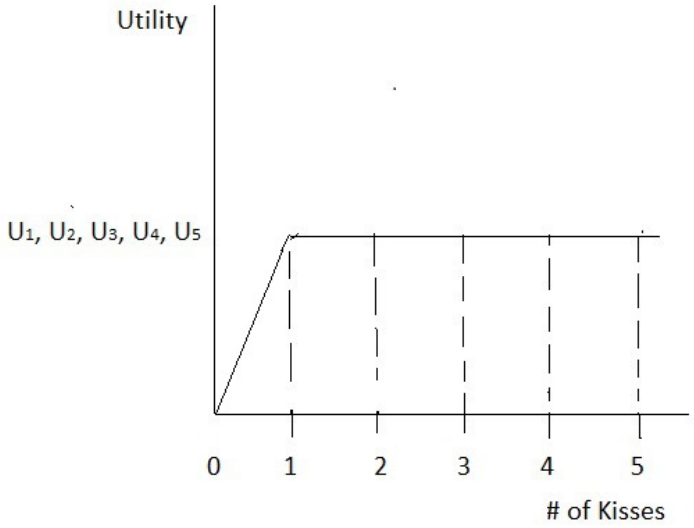
The other important consequence of utilizing comparative advantage when determining the terms of the division of labor is that this allows individuals to specialize in a particular area and improve in that specialty. We see this in Smalls who learns the game and improves his skills as he develops into a valued member of the team.

Diminishing Marginal Utility

The tropical beaches of Hawaii serve as the setting for the comedy *50 First Dates* that tells the story of how Henry (Adam Sandler) falls in love with Lucy (Drew Barrymore) who suffers from short-term memory loss and forgets who he is every day after she meets him (Segal, 2004). The humor in the movie revolves around the efforts that Henry puts forth every day to court her only to have to start all over the next day. As this pattern is established, a movie montage shows Henry and Lucy kissing at the end of many different days, only to be followed by Lucy saying (every time), "Nothing beats a first kiss" (Segal, 2004). Henry, of course, knows that this is not the first kiss anymore.

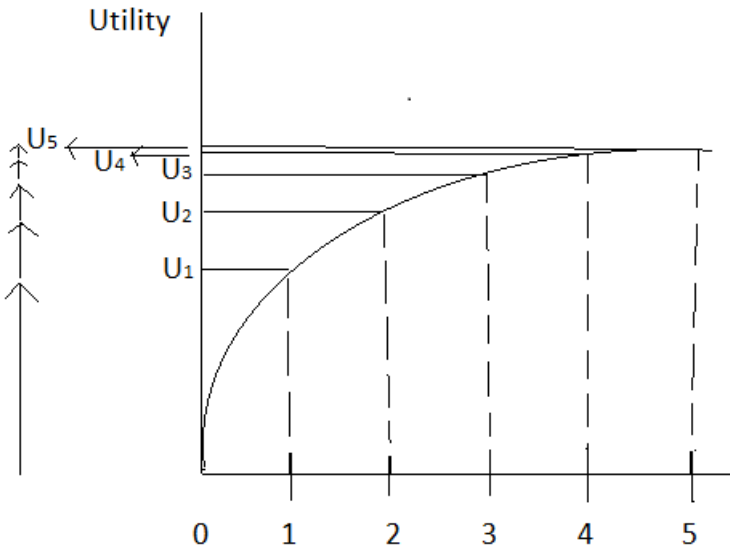
If we want to graph the utility that Henry and Lucy receive from their daily "first kisses," it would appear uniquely different for each of the characters. Let's assume that "nothing beats a first kiss" in terms of the marginal (or additional) utility that the person receives for each kiss. Lucy is receiving the same utility day after day because she thinks she is truly in the midst of a first kiss. Thus, her total utility remains constant over time, and her marginal utility is zero. This is represented in a horizontal line graph in Figure B).

Figure 2: Lucy's Total Utility From Daily Kisses



However, Henry is aware that this is not his first kiss with Lucy and so he will experience diminishing marginal returns for each additional kiss that he receives. We can conclude that Henry's *total* utility from being in love with Lucy is increasing over time; this is apparent by his willingness to continue to pursue Lucy despite her forgetfulness. However, Henry experienced the magic of the *first* kiss only on their first date. In Figure C, the increase from 0 kisses to 1 kiss represents the largest increase in utility relative to all other kisses that followed. His utility from a second, third, fourth, (and so) continues to increase, but not as much as from the first kiss. This illustrates diminishing returns to utility; utility increases over time but at a decreasing rate.

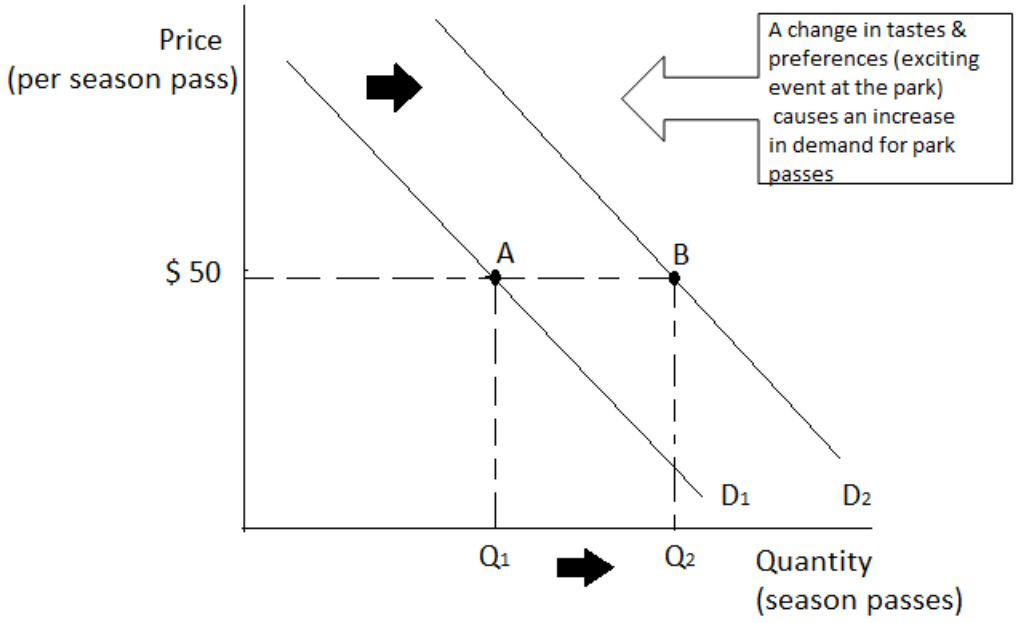
Figure 3: Henry's Total Utility from Daily Kisses



Change in Demand (Changes in Tastes & Preferences)

Popular summer activities for students may include sightseeing, picnicking, hiking, and camping at lakes and national parks. In *Yogi Bear* (Brevig, 2010), the legendary Jellystone Park faces the threat of a shutdown by the mayor who wants to sell the recreation area to a logging company. Ranger Smith is determined to prevent this from happening by making the park a profitable contributor to the town. He realizes that by selling season passes to the park, enough funding could be raised to sustain the park financially. In the past, however, season passes never sold well and he acknowledges he needs to do something to increase the demand for them. With the help of Yogi Bear and Boo Boo, he plans to host a big centennial festival with a firework show at the park. Ranger Smith's plan can be illustrated as a shift in the demand for season passes that occurs as a result of a change in tastes and preferences for the passes.

Figure 4: A Shift of the Demand Curve for Jellystone Park Season Passes



GDP

When reviewing the topic of GDP, amusement parks serve as useful illustrations of simplified economies (as seen in the clips from *Adventureland* (Mottola, 2009). Within the park borders, they create a range of goods and services such as rides, games, food, and entertainment. We can track the prices and total sales of these goods and services to determine the overall productivity of the park as students review how to calculate gross domestic product. Appendix C provides hypothetical data for "Adventureland" in 1987 (the year that the film was set in) as well as "updated" data to allow students to practice calculating nominal and real GDP figures.

4. Conclusion

Hosting a beach day review in the classroom in an introductory-level economics course may motivate students to finish strong in the course. With the summer vacation forthcoming, students will have fun examples to use while studying course material knowing that (one) reward of completing final exams will be summer freedom. Instructors can take advantage of a collection of summer movie clips to review economics concepts that students have learned throughout the semester. A summer review day will make the beach feel that much closer for both students and instructors.

References

Aamodt, M. Year. The effect of the study session on test performance. *Teaching of Psychology*, *9*(2),118. DOI: 10.1207/s15328023top0902_25

Becker, W. E. 2004. Economics for a higher education. *International Review of Economics Education*, *3*, 52–62. DOI: 10.1016/S1477-3880(15)30145-6

Becker, W. E., & Watts, M. 1996. Chalk and talk: A national survey of teaching undergraduate economics. *American Economic Review*, *86*, 448-454. DOI: 10.3200/JECE.39.3.273-286

Becker, W. E., & Watts, M. 2001. Teaching economics at the start of the 21st century: Still chalk and talk. *American Economic Review*, *91*, 446-451. DOI: 10.1257/aer.91.2.446

Becker, W. E., & Watts, M. 2008. A little more than chalk and talk: Results from a third national survey of teaching methods in undergraduate economics courses. *Journal of Economic Education*, *39*, 273-286. DOI: 10.3200/JECE.39.3.273-286

Bigelow, K. (Director). 1991. *Point break* [Motion picture], 20th Century Fox.

Bindler, S. R. (Director). 2008. *Surfer, dude* [Motion picture]. Anchor Bay Entertainment.

Brannon, A. & Buck, C. (Directors). 2007. *Surf's up* [Motion picture]. Sony Pictures Animation.

Brevig, E. (Director). 2010. *Yogi bear* [Motion picture]. Warner Bros. Pictures.

Evans, D. M. (Director). 1993. *The sandlot* [Motion picture]. 20th Century Fox.

Faxon, N., & Rash, J. (Directors). 2013. *The way, way back* [Motion picture]. Fox Searchlight Pictures.

Geerling, W. 2012. Bringing the 'dismal science' to life: Teaching economics through multimedia. *International Review of Economics Education*, *11*, 81-90. DOI: 10.1016/S1477-3880(15)30010-4

Ghent, L. S., Grant, A., & Lesica, G. 2011. The economics of Seinfeld. *The Journal of Economic Education*, *42*, 317-318. DOI: 10.1080/00220485.2011.581967

Hall, J. 2005. Homer economicus: Using *The Simpsons* to teach economics. *Journal of Private Enterprise*, *20*, 165-76.

Hughes, J. (Director). 1986. *Ferris Bueller's day off* [Motion picture]. Paramount Pictures.

Jensen, P. A., & Moore, R. 2009. What do help sessions accomplish in introductory science courses? *Journal of College Science Teaching*, *38*(5), 60-64.

King, D. 2010. Redesigning the preexam review session. *Journal of College Science Teaching*, *40*(2), 88-96.

Kuester, D. D., Mateer, G. D., & Youderian, C. J. 2014. The economics of The Office. *The Journal of Economic Education*, *45*, 392. DOI: 10.1080/00220485.2014.955438

Leet, D., & Houser, S. 2003. Economics goes to Hollywood: using classical films and documentaries to teach an undergraduate economics course. *Journal of Economic Education*, *34*, 326-332. DOI: 10.1080/00220480309595226

Luccasen, R. A., & Thomas, M. K. 2010. Simpsonomics: Teaching economics using episodes of The Simpsons. *Journal of Economic Education*, *41*, 136-149. DOI: 10.1080/00220481003613847

Mandzik, A. 2023. All I want for Christmas is an A on my econ final: A holiday-themed review class. *Journal of Economics Teaching*, *8*(2), 72-86. DOI: 10.58311/jeconteach/e26a427519e01e387aaab62d7b045d78d8c7e825

Mateer, D. 2004. *Economics in the movies*. Mason, OH: South-Western.

Mateer, D., O'Roark, B., & Holder, K. 2016. The 10 greatest films for teaching economics. *The American Economist*, *61*(2), 204-216. DOI: 10.1177/0569434516653749

Moryl, R., Gabriele, F., & Desvira, J. 2019. Heads up! Econ: Making exam review sessions fun and effective. *Journal of Economic Education*, *50*(4), 388-397. DOI: 10.1080/00220485.2019.1654953

Mottola, G. (Director). 2009. *Adventureland* [Motion picture]. Miramax Films.

Poole, D., & Moore, J. 2016. Using review sessions to promote student learning in an animal reproduction course. *NACTA Journal*, *60*(2), 202-206.

Robbins, B. (Director). 1997. *Good burger* [Motion picture]. Paramount Pictures.

Segal, P. (Director). 2004. *50 first dates* [Motion picture]. Sony Pictures Releasing.

Sexton, R. L. 2006. Using short movie and television clips in the economics principles class. *The Journal of Economic Education*, *37*(4), 406–417. DOI: 10.3200/JECE.37.4.406-417

Spielberg, S. (Director). 1975. *Jaws* [Motion picture]. Universal Pictures.

Tierney, J. E., Smith, B. O., Mateer, G. D., Wooten, J. J., & Geerling, W. A. 2016. Bazinganomics: Economics of The Big Bang Theory. *The Journal of Economic Education*, *47*, 192. DOI: 10.1080/00220485.2016.1146099

Wooten, J. J. 2018. Economics media library. *The Journal of Economic Education*, *49*(4), 364-365. DOI: 10.1080/00220485.2018.1500962

Appendix A

Topic/Estimated Time	Movie	Movie Synopsis	Location
Scarcity (estimated time: 10 min.)	*Surf's Up*	Animated mockumentary following Cody Maverick, a penguin who enters a surfing contest.	https://econ.video/2023/09/05/surfs-up-all-you-need-is-a-board/ https://econ.video/2023/09/05/surfs-up-building-a-surfboard/ https://econ.video/2023/09/05/surfs-up-codys-second-board-and-tube-talk/ https://econ.video/2023/09/05/surfs-up-wasted-day/
Scarcity (estimated time: 5 min.)	*Point Break*	An undercover FBI agent infiltrates a surfing community to uncover a gang of bank robbers.	https://econ.video/2023/09/26/point-break-the-50-year-storm/
Scarcity (estimated time: 5 min.)	*Surfer, Dude*	A surfer waits for over a month for waves to come.	https://econ.video/2023/09/26/surfer-dude-whats-so-special-about-surfing/
Opportunity Costs (estimated time: 10 min.)	*Ferris Bueller's Day Off*	A high school senior skips school with his girlfriend and best friend to see the sights of Chicago while his school principal attempts to catch him cutting class.	https://econ.video/2023/09/26/ferris-buellers-day-off/
Comparative Advantage (estimated time: 15 min.)	*The Sandlot*	A group of kids in the early 1960s spend the summer playing baseball and trying to retrieve a ball hit over the fence into the pen of a dog known as "The Beast."	https://econ.video/2023/09/26/the-sandlot-can-smalls-catch-how-about-throw/ https://econ.video/2023/09/26/the-sandlot-smalls-first-catch/

Diminishing Marginal Utility (estimated time: 20 min.)	*50 First Dates*	A man falls in love with a woman who has amnesia and forgets him at the end of every day.	https://econ.video/2023/09/26/50-first-dates-nothing-beats-a-first-kiss/
Shift of Demand Curve (estimated time: 15 min.)	*Yogi Bear*	Ranger Smith and Yogi Bear work together to save Jellystone Park from mayor's plot to use the park for logging.	Directly from movie: 23:55 – 26:19 (No Internet link available)
Unemployment (estimated time: 5 min.)	*The Way, Way Back*	A teenager goes on vacation and takes on a summer job at the local water park.	https://econ.video/2023/09/26/the-way-way-back-there-you-go/
Unemployment (estimated time: 5 min.)	*Adventureland*	A recent college grad cannot afford his plans to go abroad and takes on a summer job at the local amusement park instead.	https://econ.video/2023/09/26/adventureland-summer-jobs/
GDP (estimated time: 15 min.)	*Adventureland*		https://econ.video/2023/09/26/adventureland-youre-hired/
Unemployment (estimated time: 5 min.)	*Good Burger*	A high schooler takes on a summer job at a local burger restaurant facing cutthroat competition with the new burger joint in town.	https://econ.video/2023/09/26/good-burger-going-into-the-grinder/
Change in Aggregate Demand (estimated time: 15 min.)	*Jaws*	A great white shark terrorizes beach-goers at a summer resort town.	https://econ.video/2023/09/26/jaws-its-an-eating-machine/

Appendix B: Study/Review Questions for Summer Movie Examples

Movie/Economic Topic	Review Questions
Scarcity	1. Describe the resources associated with surfing. Why is each scarce? **ANSWER: surfboard (limited material available to create surfboards), ocean waves (weather patterns creating ocean waves may be unpredictable), time (only 24 hours in a day for surfing and creating surfboards)** 2. In the movie *Surf's Up*, how does Cody find "time" to be an important scarce resource for making his own surfboard? **ANSWER: Cody realizes that using any old surfboard is not as effective as using a well-crafted surfboard made from koa wood. In the movie, Cody has limited time to make his surfboard before the surfing competition.** 3. In the movie *Point Break*, Bodhi travels to Australia to track the "50-Year Storm" that only occurs twice a century. What scarce resource is Bodhi seeking? **ANSWER: Record-breaking waves for surfing** 4. In the movie *Surfer, Dude*, surfer Steve Addington receives an offer to help make a virtual reality game while he is waiting for waves to come for over a month. What are the scarcities that Steve is facing? What is the opportunity cost of taking the offer to make the virtual reality game? **ANSWER: Steve faces a scarcity of waves for surfing in addition to a scarcity of time for both surfing and working. Choosing to take the offer to make the game means that Steve will give up time spent waiting for the waves to return for surfing.**

Opportunity Costs	1. In the movie *Ferris Bueller's Day Off,* if Ferris goes to school, what is his opportunity cost? **ANSWER: A fun day spent with his friends seeing the sights of the city** 2. If Ferris skips school, what is his opportunity cost? **ANSWER: A regular school day, but without the stress of getting caught playing hooky** 3. Explain why it is rational for Ferris to skip school. **ANSWER: Ferris says, "Life moves pretty fast. If you don't stop to look around, you could miss it." For Ferris, the marginal benefit from skipping school exceeds the marginal cost.**

Unemployment	At the beginning of *The Way, Way Back*, Duncan has no job. Is he considered unemployed? **ANSWER: No. He is only 14 years old (and therefore he is not a member of the working-age population), and also he is not looking for a job.** In *Adventureland,* why is James Brennan initially considered frictionally unemployed? **ANSWER: He is a recent college graduate and he has just started his job search.** Why is frictional unemployment considered normal in a healthy economy? **ANSWER: Workers undergo a matching process with available jobs.** In *Good Burger*, Dexter is fired from his job at Mondo Burger for mouthing off to his boss. What kind of unemployment does he face now? **ANSWER: Frictional unemployment. His initial job was not a suitable employer-employee match. He has the skills needed to work at a burger restaurant evidenced by his employment at Good Burger shortly after.**
Jaws Change in Aggregate Demand	1. In the model (Figure A), there is a recession attributed to a decline in consumer confidence (because of recent shark attacks). Is this a classical or Keynesian model? **ANSWER: Keynesian, since it is driven by the role of aggregate demand (through change in consumer confidence).** 2. How would a classical view differ from Figure A? **ANSWER: A classical model would have a vertical long-run aggregate supply curve (LRAS) so that a decline in aggregate demand moves to a long-run equilibrium point that is still at full employment. This happens because prices are flexible in this model.**

Appendix C: Practice Problems for Summer Movie Examples

1. *The Sandlot*: Comparative Advantage

The table below shows the potential output of two Sandlot ball players, Benny and Smalls. The table shows that if Benny plays left field, he can catch 8 pop-ups per game. If he plays shortstop, he can catch 10 line drives. On the other hand, if Smalls plays left field, he can catch 5 pop-ups per game; alternatively, if he plays shortstop, he can catch 3 line drives.

	Output per game	
	Pop-Ups Caught in Left Field	**Line Drives Caught at Shortstop**
Benny "The Jet" Rodriguez	8	10
Scotty "Smalls"	5	3

a. Who has the absolute advantage at each position?

ANSWER: Left Field: Benny

Shortstop: Benny

b. What is the opportunity cost of playing left field for each player?

ANSWER: Benny: 1 pop-up in left field = 5/4 or 1.25 line drives at shortstop

Smalls: 1 pop-up in left field = 3/5 or 0.6 line drives at shortstop

c. The team needs to decide who should play each position. Based on your answer in part (b), who has a comparative advantage in playing left field?

ANSWER: Smalls has a lower opportunity cost (gives up fewer line drives at shortstop), and therefore has the comparative advantage in playing left field.

d. If the two players are placed according to comparative advantage, who should play left field and who should play shortstop (specialization)?

ANSWER: Left field: Smalls

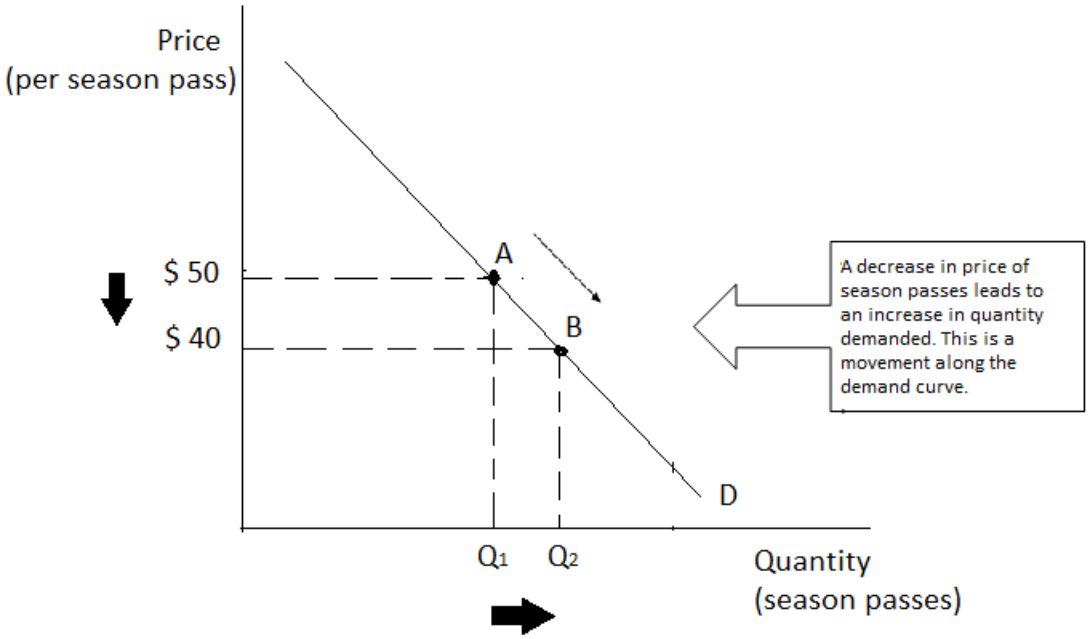
Shortstop: Benny

2. *Yogi Bear*: Change in Demand (SHIFT of curve) vs. Change in Quantity Demanded (MOVEMENT along curve)

Ranger Smith plans the centennial festival to save Jellystone Park from being shut down. He reasons that fireworks will draw everyone out to the park where the rangers can encourage visitors to buy a seasons pass. This represents an increase in demand for season passes via changes in tastes and preferences.

In a later scene, Ranger Jones is advertising for the festival with a sign that says, "Come celebrate Jellystone's 100th anniversary with fireworks and fun, and receive $10 off a season pass." Do the discounted passes represent an attempt to increase demand? Illustrate using a graph.

ANSWER: No. The discounted passes represent a change in the price, so it will affect the quantity demanded—not the demand curve itself. We illustrate it as a movement along the curve (instead of a shift).



3. *Adventureland*: GDP

Amusement Park GDP

Hypothetical Production & Price Statistics for 1987 and 2023

	1987		2023	
Product	**Quantity**	**Price**	**Quantity**	**Price**
Ring Toss Game	5,000	$ 1	4,450	$ 5
Cotton Candy	7,500	$ 1.25	8,000	$ 5.50
Ride All-Day Pass	3,250	$ 15	3,225	$ 26

Assume the base year is 1987. Calculate the real and nominal GDP for 1987 and 2023:

ANSWER:

	1987	**2023**
Nominal GDP	(5,000 * $1) + (7,500 * $1.25) + (3,250 * $15) = **$63,125**	(4,450 * $5) + (8,000 * $5.50) + (3,225 * $26) = **$150,100**
Real GDP	(5,000 * **$1**) + (7,500 * **$1.25**) + (3.250 * **$15**) = **$63,125**	(4,450 * **$1**) + (8,000 * **$1.25**) + (3,225 * **$15**) = **$62,825**