

FEMALE INFLUENCERS: THE ECONOMICS BEHIND THE MILLIONS

Stefani Milovanska-Farrington¹, Wayne Geerling², Dirk Mateer³

Abstract

While women comprise nearly 60% of all undergraduate students in the United States (Causey et al., 2023), they account for less than one-third of economics majors (Buckles, 2019). There are few female role models in economics textbooks. To help address this lack of diversity and engage female students, we present teaching guides based on three of the most popular female influencers among Gen Z students. Each guide highlights an influencer's backstory and business acumen. This paper builds on the work of Geerling et al. (2024a and 2024b) who use viral YouTube and TikTok videos to engage Gen Z students on their social media platforms of choice. This paper offers a unique opportunity for educators to teach foundation-level economics concepts in a creative way while helping stimulate engagement among all students.

Keywords: diversity, foundation economics, Gen Z, inclusion, influencers, social media, teaching economics, TikTok, Kylie Jenner, Olivia Dunne, Olivia Rodrigo

JEL Classification: A20, A21

Introduction

In recent years, economics educators have created more accessible resources for fellow instructors. These resources are aimed at enhancing student engagement and facilitating a more meaningful learning experience (Wooten et al., 2021; Picault, 2019; Stevenson, 2022). The integration of multimedia content within the curriculum serves to illustrate to students that the subject matter holds applicability across various contexts. These multimedia resources encompass an array of sources, ranging from television shows to Broadway productions, giving instructors the flexibility to select relevant references that align with their teaching style and comfort level (Wooten et al., 2021).

Utilizing students' interests as a means to teach complex economic concepts (Picault, 2019) represents a critical strategy for fostering a deeper understanding of economics concepts. This approach requires a continuous evolution of teaching materials to align with the evolving interests of our student body. Generation Z, born between 1997 and 2012, is very social media savvy. They have grown up with social media platforms, such as YouTube, Instagram, and TikTok, smartphones and the internet. They respect and trust social media influencers regarding products, brands, and beliefs (Briggs, 2023). According to 2023 data, more than half of Gen Z were interested in becoming influencers themselves (Briggs, 2023). With famous personalities having such an influence on Gen Z, incorporating their backstories and business acumen into the

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curriculum creates an opportunity to generate interest, improve engagement, and ultimately help students understand economic concepts through stories that resonate with their generation. In this paper, we discuss the life stories and business acumen of three female influencers. Each teaching guide contains the following information: a brief summary of their career, links to clips, direct instructions, and assessment questions that educators can employ in their classrooms. These teaching guides have been designed to serve as a form of summative assessment after instructors have covered the relevant concepts. Each guide is formatted to prioritize group assignments or discussions and can be easily tailored to the instructor's preferred assessment method. Educators have the option to integrate discussions and assessments within the video itself, following the approach described by Wooten (2020), or can prompt students to utilize classroom response systems, as detailed by Calhoun and Mateer (2011), to respond to assessment questions.

Background

In 2015, less than a year after her appointment as the Chair of the United States Federal Reserve, Janet Yellen delivered a speech in Washington D.C. at the National Summit on Diversity in the Economics Profession. The event was organized by the American Economic Association and the Federal Reserve and focused on diversity in economics. She ended her talk with a bit of optimism on the role of diversity in the economics profession. When asked whether the economics profession has been doing enough to recruit and promote the best individuals in the field, Yellen chose instead to focus on to the future. She expressed her hope that when economists are asked this question in years to come, or when the field is tested by a future challenge, “our profession will be able to say that we have done all we could to attract the best people and the best ideas” (Yellen, 2014).

Four years later, in 2019, the American Economic Association established a standing Committee on Equity, Diversity, and Professional Conduct. The focus was primarily on staff diversity in the workplace and less on the diversity of ideas or classrooms. Previous work has connected part of the issue with a lack of female representation in the economics discipline attributed to the “leaky pipeline,” starting with low levels of representation in undergraduate programs and then decreasing through graduate school (Buckles, 2019).

While the root causes of the profession’s lack of diversity are still debated among researchers, various factors have been put forth to explain the profession’s “leaky pipeline” phenomenon. One proposed solution to enhance diversity involves educators deliberately diversifying their teaching materials (Al-Bahrani, 2022; Bayer et al., 2020a; Bayer et al., 2020b; Benjamin et al., 2020). This approach holds promise, especially as over half of instructors currently do not incorporate diversity and inclusion into their introductory classroom discussions (Asarta et al., 2021).

In particular, Al-Bahrani (2022) advocates for the creation of educational resources tailored for instructors teaching introductory courses. These resources would aim to facilitate greater diversity, inclusion, and a sense of belonging among first-year students, thereby increasing the pool of students pursuing additional economics courses. This, in turn, may encourage more students to contemplate graduate studies and careers in economics, despite the fact that only a small percentage of students ultimately choose to major in economics (Siegfried, 2020).

Literature Review

Teaching through the lens of popular culture has a history in economics education spanning back to the early 2000s. In the period since, there has been a growing exploration of popular culture for instructional purposes, often employing television shows and films (Ben Abdesslem and Picault, 2023a; Geerling, 2012; Mateer, 2012; Wooten, 2018). As the preferences of the millennial generation gravitated towards conventional mediums such as film, music, and TV, platforms like YouTube and TikTok have emerged as the preferred streaming and content mediums for the Gen Z cohort, challenging educators to adapt their pedagogical strategies accordingly.

Picault (2019) advocates a change in instruction method that relies more heavily on students' interests in order to foster motivation and engagement. This necessitates the exploration of innovative strategies to connect with students beyond the confines of traditional pop culture aimed at earlier generations of students. In response to the growing internationalization of higher education, economic educators have increasingly delved into foreign-language media sources, recognizing the diverse and constantly evolving nature of the contemporary classroom. Geerling et al. (2021) and Geerling et al. (2022) suggested ways to incorporate K-pop into the introductory economics classroom, as well as for teaching game theory and behavioral economics (Geerling et al. 2022). Ben Abdesslem and Picault (2023a) and Ben Abdesslem and Picault (2023b) developed comprehensive lesson plans based on the Netflix Originals series spanning global regions. Geerling et al. (2023a) harnessed the narrative of Netflix's dystopian Korean-language drama series, *Squid Game*, to illustrate active-learning techniques in the context of teaching game theory in undergraduate courses.

The latest development in this educational landscape involves the integration of viral videos as a powerful tool for teaching economics. Geerling et al. (2024a) presented compelling lesson plans based on three viral videos from the YouTube channel "MrBeast," while Geerling et al. (2024b) used viral videos to teach price controls. This paper builds upon these works by extending the focus on viral videos to include female influencers popular with Gen Z students.

Female Influencers in the Classroom: Teaching Guides

In this section, we present the stories of Kylie Jenner, Olivia Dunne, and Olivia Rodrigo, three female influencers who are popular with, and are themselves part of, Gen Z. They are role models for many of our female students, who have the same aspirations to be famous, wealthy, and influential. The backstories and business acumen of influencers can serve as an engaging way to illustrate foundation-level concepts from an introductory microeconomics course. For this paper, we sourced clips from Instagram, TikTok, and YouTube. To preserve access to these clips, we downloaded each clip and then uploaded them to Critical Commons, an online repository of user-generated media, which supports the use of copyrighted materials by educators. Critical Commons is an open-access resource available for any instructor.⁴ An instructor can click on the link to play the clip in class or download the clip from the site in advance and play offline.

Each teaching guide illustrates concepts from multiple perspectives, so there are three options for instructors:

- The relevant story and related questions could be used when the instructor has covered all related topics.

⁴ <https://criticalcommons.org/>

- The instructor could give students only selected questions that are relevant to the topic(s) that the educator would like to illustrate.
- The materials could be utilized for review sessions during, or at the end of, the semester. Educators are also encouraged to modify the guides as they see fit for their course.

Teaching Guide #1: Kylie Jenner: A Journey from Media to Kylie Cosmetics

Kylie Jenner is a media personality who starred in the reality television series “Keeping Up With the Kardashians,” and then, “The Kardashians.” She also created her cosmetics and skincare empire *Kylie Cosmetics*. She has trademarked her first name for everything from fan merchandise (calendars, stickers, posters, etc.) to downloadable computer application software for sharing and organizing files on social media, to accessories (jewelry, keychains, watches, etc.).

When Jenner opened *Kylie Cosmetics*, she started to sell only three kinds of liquid lipstick. Two years later, *Kylie Cosmetics* collaborated with Khloé Kardashian. The collaboration was a huge success and led to the creation of a holiday collection that generated almost \$19 million in revenue in 24 hours (And Simple, 2023). Kylie Jenner utilized technology to rapidly expand her business. In 2022, *Kylie Cosmetics* held 12% of the American cosmetics and make-up market, making *Kylie Cosmetics* the most popular beauty brand in the US (Radarr, 2023). Targeting mainly Gen Z females who are active on social media and familiar with the beauty products, Kylie Jenner relies heavily on influencers promoting her products, through word-of-mouth, and behind-the-scenes on social media, especially on Instagram, to build brand loyalty and consumers’ trust.

Clip Link: <https://criticalcommons.org/view?m=5iEKQvi5q>

Related article: <https://andsimple.co/cases/kylie-jenner-net-worth/>

Clip Length: 2 minutes, 16 seconds.

Concepts: trademarks, monopolistic competition, brand, revenue, profit, expansion, economies of scale, elasticity, marketing strategies.

Clip Summary: In this video, Kylie Jenner reveals the story of how she started *Kylie Cosmetics*, which made her the youngest self-made billionaire at the age of 21. She used to feel insecure about her lips and could not find a lipstick and a lipliner whose colors matched perfectly. *Kylie Cosmetics* targets Gen Z females, who are active on social media and familiar with beauty products.

Learning Objectives:

- Distinguish between different market structures.
- Analyze the characteristics of a given market to determine the market structure.
- Understand the importance of product differentiation in a monopolistically competitive market.
- Identify strategies for product differentiation and business growth.
- Understand how trademarks, patents, and copyrights can be used in monopolistically competitive markets.

- Understand what it means when a company experiences economies of scale.
- Analyze the connection between price elasticity of demand and a company's total revenue.
- Use the concept of elasticity to analyze the segment of the market that is optimal for a business to target.

Materials Needed:

- Ability to show a video.
- Whiteboard and markers.

Introduction:

- Ask students whether there is a product they have always wanted to modify or create.
- Then, ask them what they know about Kylie Jenner and her business *Kylie Cosmetics*.
- Show the video.
- Discuss the characteristics of the different types of market structures, and ask students which market structure *Kylie Cosmetics* most likely operates in.
- Discuss Jenner's business journey and what contributed to the growth of *Kylie Cosmetics*. Specifically, in 2015, Jenner started to sell a combination of a liquid lipstick and lip liner. After the business generated more than \$420 million in revenues in the first 18 months of operation, Jenner ran collaboration campaigns with Khloe Kardashian and Kim Kardashian, launched a very profitable holiday collection, partnered with other businesses, and expanded her brand into skincare and personal fragrances.
- Ask students about the importance of product differentiation. What marketing strategies has Kylie Jenner utilized to promote her brand? Students will probably mention her social media presence, influencers promoting her products, word-of-mouth, and behind-the-scenes posts on social media.
- Tell students that Kylie Jenner's company *Kylie Jenner Inc.* has filed more than 170 trademarks (Gerben Trademark Library, 2024). Discuss what a trademark is. Ask students why Kylie Jenner has created so many trademarks. A trademark is a recognizable symbol, design, or word(s) that identify or distinguish a good, service, or business from competitors. Kylie Jenner has registered many trademarks in order to differentiate her brand from competitors, to protect her brand, and to allow her customers to recognize her brand easily and to connect with it. The trademark also provides legal rights.
- Discuss the expansion of *Kylie Cosmetics*, and mainly the ways *Kylie Cosmetics* grew (see above). You can also mention that if this expansion has been associated with a reduction in the long-run average cost of production, *Kylie Cosmetics* has been experiencing economies of scale.
- Finally, ask students if they know which customers *Kylie Cosmetics* targets. The answer is Gen Z females who are active on social media and familiar with beauty products (Radarr 2023). Ask students why targeting this segment of the market is strategic. Make sure that students understand that while elasticity might seem like an abstract concept, it has important implications for businesses. Then, discuss the relationship between elasticity and total revenue in the context of *Kylie Cosmetics*. Make sure that students also understand the difference between revenue and profit.

Assessment:

- Evaluate student understanding of market structures, trademarks, brands, product differentiation, expansion, economies of scale, and elasticity through classroom discussion and whiteboard activities.
- Ask students to complete the additional problems below related to the key concepts of the lesson and evaluate their work.

1. Kylie Jenner is the founder of a cosmetics business. What market structure does *Kylie Cosmetics* operate in? Analyze the degree of competition in the cosmetics industry, the types of goods (identical versus differentiated), entry and exit, etc. to justify your answer.

Instructional note: There are many sellers in the cosmetics market. The products are differentiated, and businesses are free to enter or exit the market. These characteristics imply that cosmetics provide an example of a monopolistically competitive market.

2. Which of the following statements about Kylie Jenner’s trademark Kendall & Kylie is correct?

- Similar to a copyright, the Kendall & Kylie trademark will expire after a certain amount of time.
- Similar to a patent, the Kendall & Kylie trademark will expire after a certain amount of time.
- The Kendall & Kylie trademark distinguishes the perfumes Jenner offers from those of her competitors.**
- The Kendall & Kylie trademark can include only the name of the brand, but no symbols, designs or expressions that could identify Jenner’s brands or company.

Instructional notes: Ask students to provide examples of other trademarks they are aware of.

3. *Kylie Cosmetics* initially launched only three types of lipstick in 2015. Then, Kylie Jenner’s company started to produce greater amounts of these products while expanding her business to more cosmetics, skin care products and even baby products. You can read more about this expansion here: <https://andsimple.co/cases/kylie-jenner-net-worth/>.

If *Kylie Cosmetics* expands production and finds that the long-run average cost of production falls, we know that this firm has been experiencing:

- economies of scale.**
- constant returns to scale.
- diseconomies of scale.
- shortage of cosmetic products.

4. What marketing strategies does Kylie Jenner utilize to promote her cosmetics?

Instructional notes: Kylie Jenner relies on social media presence, as well as other influencers promoting her products, word-of-mouth, and behind-the-scenes posts on social media, especially on Instagram.

5. *Kylie Cosmetics* relies heavily on influencers promoting her products. What economic term describes this advertising tactic?

- a. Brand loyalty.
- b. Celebrity endorsement.**
- c. Word-of-mouth.
- d. Network externality.

6. *Kylie Cosmetics* targets a very specific segment of the market. The following is a related article: <https://www.radarr.com/blog/dissecting-kylie-cosmetics-social-media-marketing-strategy/>.

Why is this essential for the revenue of Jenner's business when she increases prices of her cosmetic and make-up products?

Instructional notes: *Kylie Cosmetics* targets the relatively inelastic segment of the market. This is essential because if her company increases the price of its cosmetic and make-up products, and demand is relatively inelastic, revenue will increase (% decrease in quantity demanded < % increase in price). If *Kylie Cosmetics* targets the elastic segment of the market, customers who have less brand loyalty and are more price sensitive, they would lose revenue.

Teaching Guide #2: *Olivia Dunne: Gymnast Vaults to the Top of the NIL Leaderboard*

Olivia Dunne is a former USA national gymnastics team member and a student-athlete at Louisiana State University. Olivia Dunne is the highest-valued women's college athlete as of 2023, with a name, image and likeness (NIL) worth \$3.5 million. Olivia Dunne joined TikTok in 2020. Soon after, she began posting videos of her gymnastics, but as her popularity grew, she expanded her videos to include all facets of her life. Olivia Dunne is the most-followed NCAA athlete on social media, with 8 million followers on TikTok and 4 million on Instagram.

Clip Link: <https://criticalcommons.org/view?m=jcMZ6sSKc>

Related article: [Livvy Dunne Lands 'Forbes' Feature to Discuss Business Deals - Men's Journal \(mensjournal.com\)](https://www.mensjournal.com/livvy-dunne-lands-forbes-feature-to-discuss-business-deals)

Clip Length: 1 minute, 32 seconds.

Concepts: advertising, marginal revenue product, branding, club goods, entrepreneurship, increasing demand, inelastic demand.

Clip Summary: Olivia Dunne is TikTok's million-dollar tumbler. She is also the world's most-followed college athlete. In this video she explains how she has turned her 12 million followers into endorsement deals through her name, image and likeness.

Learning Objectives:

- Understand how entrepreneurship plays a role in earnings potential.
- Understand how one could establish and grow a brand.
- Analyze how strategic advertising partnerships influence demand.

Materials Needed:

- Ability to show a video.
- Whiteboard and markers.

Introduction:

- Ask students what they know about Olivia “Livvy” Dunne. Many students will know that she is a current member of the LSU women’s gymnastics team. Some will know that she is also a social media influencer who earns significant income from NIL deals.
- Ask students what they know about NIL and whether college athletes should be able to earn an income from their NIL.
- Tell your student that roughly 60% of undergraduate students in America are female. Ask them to guess what percentage of NIL deals go to female college athletes? Write their answers on the board. The answer is 34% (McGee, 2023).
- Briefly introduce the concept of marginal revenue product and explain how it relates to NIL deals: the athletes who generate the most income generate the highest deals.
- Olivia Dunne has created the Livvy Fund to expand opportunities for female students. How would economists classify this type of fund? Hint: think about the four types of goods produced in society.
- Ask students to write down the types of products they think Olivia Dunne would promote and why. Students will know that she targets the Gen Z market, so the products she promotes reflect their active lifestyle (e.g., clothing, cosmetics, designer bags, phones and sports equipment).
- Ask students to come up with factors which explain how much an influencer is paid per post. Write the answers on the whiteboard. Answers should include the following: (1) follower count; (2) audience engagement; (3) type of content; (4) expertise of the influencer; (5) content quality; (6) length of partnership (short-term v long-term).

Assessment:

- Evaluate student understanding entrepreneurship, demand, branding, and elasticity through classroom discussion and whiteboard activities.
- Ask students to complete the additional problems below related to the key concepts of the lesson and evaluate their work.

1. Olivia Dunne has created the Livvy Fund to expand NIL opportunities for females. You can read about it here: [Olivia Dunne Launches The Livvy Fund for Female LSU Athletes - Men's Journal \(mensjournal.com\)](https://www.mensjournal.com/olivia-dunne-launches-the-livvy-fund-for-female-lsu-athletes) The fund is non-rival but excludable. This makes it a:

- a. private good.
- b. club good.**
- c. common resource good.
- d. public good

Instructional notes: Olivia Dunne is trying to promote NIL opportunities for female athletes through the Livvy Fund. More than one female can benefit from the fund at the same time (non-rival) but others (males) can be excluded.

2. Why would companies want to partner with Olivia Dunne to help sell their products?

- a. She is young, fit, and attractive.
- b. She is articulate.
- c. She has 12 million followers.
- d. All of the above.**

Instructional notes: All of these answers increase the demand for her as an influencer, but the fact that she brings 12 million followers is what the companies are really purchasing.

3. Olivia Dunne mentions in the video that she would like to develop her own “Livvy” brand. What types of products does she hope to create?

- a. She wants to sell fast food.
- b. She wants to sell fitness clothing.**
- c. She wants to sell organic produce.

Instructional notes: To stay on point with the Livvy brand, she should promote items of interest to her followers such as cosmetics, active fashion wear, sports equipment, shoes, stylish clothes, and active lifestyle adventures.

4. For which of the following do you think Olivia Dunne’s endorsement would increase demand the most? Hint:

<https://www.instagram.com/reel/CVi6Mj9Agri/?igshid=MzRIODBiNWF1ZA%3D%3D>

- a. Washing machines.
- b. Eyeglasses.
- c. Makeup.**
- d. Popeye’s chicken.

Instructional notes: Make-up is the only answer on brand. Olivia Dunne could sell washing machines, but most of her followers are young, and washing machines would be a better fit for Millennial influencers. The same is true of eyeglasses (Dunne would look great with them on) and Popeye’s (which is very popular in Louisiana), but in both cases, these are not quite on brand.

5. Followers of Olivia Dunne are likely to have _____ demand for the items she pitches compared to those who are not following her.

- a. perfectly inelastic.
- b. relatively inelastic.**
- c. relatively elastic.
- d. perfectly elastic.

Instructional notes: Relatively inelastic demand is the best answer. Some students might be tempted to put “perfectly” inelastic but that means that they would pay any price and that is simply not practical.

6. Olivia Dunne was once asked what she was paid to produce a single online post. Read the related article here: [The Lucrative Earnings of Livvy Dunne: How Much Does She Make per Instagram Post? – Fan Arch](#)

If Olivia Dunne had to spend one full day (8 hours) to film a post for \$50,000 and her work time is valued at \$2,000 an hour, what is her producer surplus?

Instructional notes: $\$50,000 - (8 \times \$2,000) = \$34,000$ in producer surplus.

Teaching Guide #3: Olivia Rodrigo: A Journey from Disney to the Grammys

Olivia Rodrigo is an American singer, songwriter and actress. Rodrigo first gained popularity in 2016 with the Disney Channel TV show “Bizaardvark” where she played the guitar at the age of 13. Then, she earned a lead role in the television show “High School Musical: The Musical—The Series” in 2019. In 2021, Olivia Rodrigo released her first single “Drivers License,” a heartbreaking ballad that made Rodrigo the youngest artist at the time to have a single in the Billboard Top 100 chart. The song was streamed about 17 million times on Spotify for one day, and almost 66 million times for a week (Encyclopedia Britannica 2023). Only a few months later, she released her second single “Déjà vu” which made Rodrigo the first singer to have their first two singles appear in the top 10 of the Billboard Top 100 chart.

Olivia Rodrigo won three Grammys in 2022: Best new artist, best pop single performance for “Drivers License,” and Best pop vocal album for “Sour.” The documentary “Olivia Rodrigo: driving home 2 u” (2022) unveils Olivia Rodrigo’s journey from childhood to the creation of her Grammy winning album “Sour” (2021) (Lenehan 2022).

A social media personality, especially on Instagram, who constantly travels from city to city, Olivia Rodrigo shares her talent and connects with fans worldwide.

Clip Links: “GUTS”: <https://criticalcommons.org/view?m=eSDrfrAQB> and iPhone 15 Pro/“Get him back!” music video: <https://criticalcommons.org/view?m=d5urH2Dkf>

Related article: <https://www.audacy.com/national/music/olivia-rodrigo-hiding-bonus-tracks-in-vinyls-of-guts>

Clips Length: 34 seconds and 38 seconds.

Concepts: elastic demand, inelastic demand, club goods, income elasticity of demand, luxury goods, supply and demand, advertising, complementary goods.

Clips Summary: The first clip advertises Olivia Rodrigo’s vinyl records for her second album “GUTS.” Each vinyl record includes one of four bonus songs that cannot be heard digitally. In the second clip, Olivia Rodrigo advertises both the iPhone 15 Pro and her music video “Get him back!” that she filmed on an iPhone 15 Pro.

Learning Objectives:

- Determine whether the demand for a good is relatively elastic or relatively inelastic.
- Distinguish between the four types of goods depending on their excludability and rivalry properties.
- Understand that if the demand for a good increases more than proportionally as income increases, the good is considered a luxury.

- Apply the supply and demand model to real-world scenarios to identify the effect of demand and supply shifts on the equilibrium price and quantity.

Materials Needed:

- Ability to show a video.
- Whiteboard and markers.

Introduction:

- Ask students whether Olivia Rodrigo's biggest fans are more or less likely to have relatively inelastic demand for her music releases.
- Ask students what they know about Olivia Rodrigo. They will probably know that she first became popular with Disney Channel television shows, started to release singles in 2021, and won three Grammys a year later. They will most likely be familiar with her album "GUTS" and Rodrigo's social media presence.
- Ask students whether they know that Olivia Rodrigo has released limited-edition vinyl records for "GUTS." Tell them that there are four songs that are available on the vinyl records but not digitally. Additionally, there are four versions of these vinyl records, and each record contains only one of the four bonus songs.
- Show students the clip that advertises Olivia Rodrigo's vinyl records.
- Ask students why there are bonus songs included on Olivia Rodrigo's vinyl collection which are not available digitally. Why is only one of the four bonus songs included in each vinyl record?
- Discuss the four types of goods (private goods, public goods, club goods and common resources). Discuss whether the bonus tracks are excludable and rival. They are excludable, but non-rival, which makes them a club good.
- Discuss the importance of advertising as a way for Olivia Rodrigo to differentiate her music from competitors.
- Show students the second clip that advertises the iPhone Pro 15 and "get him back!" music video.
- Finally, ask students what changes they have noticed in the music entertainment industry in the last few years. They might mention the degree of competition, the replacement of traditional broadcast channels with streaming services, and artists' utilization of social media to control their marketing.

Assessment:

1. If the price of Olivia Rodrigo's vinyl record "GUTS" increases, which segment of the market will respond more: her biggest fans or listeners who like any music? Use elasticity to explain your answer.

Instructional notes: Olivia Rodrigo's biggest fans are likely to have relatively inelastic demand for her vinyl record, so the decrease in the quantity demanded will be less than proportional. People who like any music can easily find cheaper substitutes when the price rises.

2. The bonus songs included on "GUTS" can be heard by more than one of Olivia Rodrigo's fans (i.e., they are non-rival). But those fans who do not have a vinyl copy or the

specific version of it that includes a given bonus song can be excluded from listening to that bonus track. This implies that bonus tracks are:

- a. club goods.
- b. common resources.
- c. private goods.
- d. public goods.

3. If the income elasticity of demand for Olivia Rodrigo's vinyl records that contain bonus releases is greater than one (that is, as income increases, the demand for the vinyl records increases more than proportionally), then Olivia Rodrigo's vinyl records are an example of a:

- a. necessity.
- b. inferior good.
- c. luxury good.
- d. complementary good.

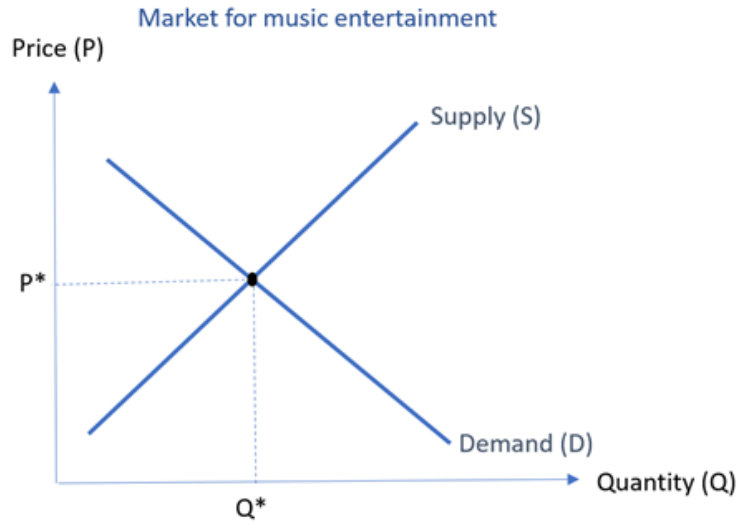
4. In the iPhone 15 Pro advertisement, Olivia Rodrigo films her "Get him back!" music video on an iPhone 15 Pro. In this way, she advertises:

- a. only the iPhone 15 Pro.
- b. only her "Get him back!" music video.
- c. both the iPhone 15 Pro and her "Get him back!" music video.
- d. neither the iPhone 15 Pro, nor her "Get him back!" music video.

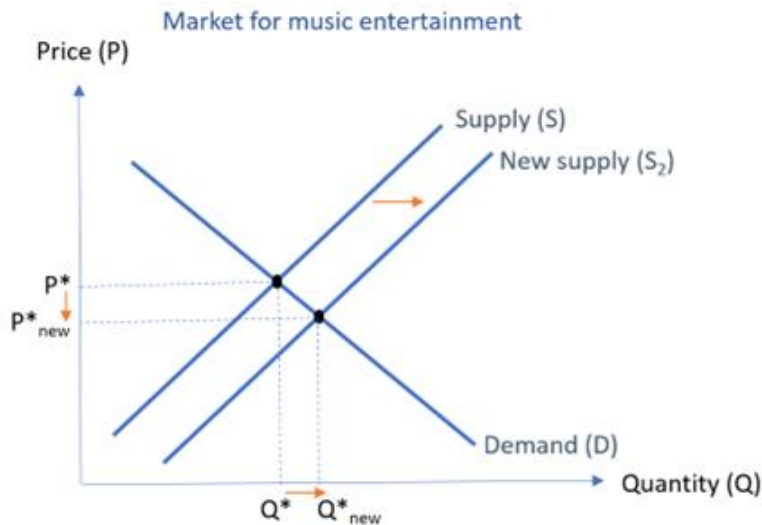
Instructional notes: You can discuss how this strategic advertising partnership could increase the demand for both iPhone 15 Pro and Olivia Rodrigo's "Get him back!" video.

5. The entertainment industry has been changing: social media has allowed artists like Olivia Rodrigo to have more control of their marketing, and production costs have decreased. You can read more about developments in the industry in this article: <https://nickmanic.medium.com/at-18-olivia-rodrigo-is-changing-the-entertainment-industry-forever-7a78ccbdec98>.

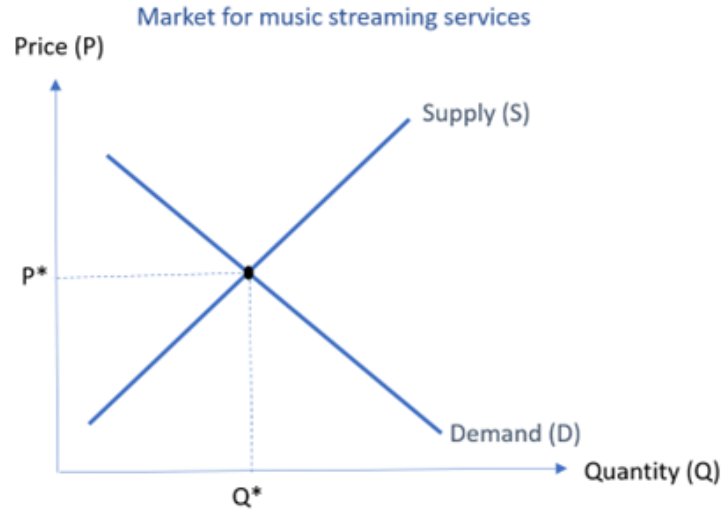
The following graph shows the supply and demand curves for music entertainment. Use the graph to show the effect of the decline in the costs of production and the facilitation of the marketing of new albums on the music entertainment market. What is the effect of these changes on the equilibrium price and quantity of music entertainment?



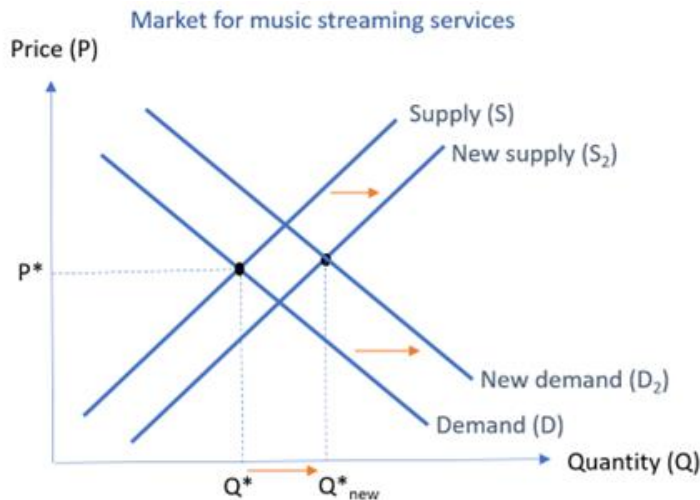
Instructional notes: Lower costs of production increase the supply of music. An increase in supply is associated with a shift of the supply curve of music entertainment to the right. The shift is shown on the graph below. As a result of this shift, the equilibrium price of music decreases, while the equilibrium quantity increases.



6. The following graph shows the supply and demand curves for music streaming services. Music fans have switched their preferences from traditional broadcast channels to streaming services such as Spotify, Apple Music, and Amazon Music. Simultaneously, more and more competitors have been entering the market for streaming services. Show the effect of these two simultaneous changes on the graph below. What is the expected effect of these changes on the equilibrium quantity and price of streaming services?



Instructional notes: If more people prefer streaming services, the demand for streaming services increases. More companies that offer streaming services imply an increase in the supply of these services. Graphically, the two changes are associated with simultaneous shifts of the demand curve to the right and the supply curve to the right. As a result, the equilibrium quantity of music streaming services increases, but the effect on the equilibrium price is ambiguous. The following graph shows the shifts.



Conclusion

While female students make up more than half of undergraduate enrollments in the United States, there is a dearth of female role models in economics textbooks. To tackle this lack of diversity and to actively involve all students in the learning process, this paper presented teaching guides centered around three influential female figures popular among Gen Z students for their life stories and business acumen. Gen Z is very active on social media and for many Gen Zers becoming an online celebrity is a dream job (Liu, 2023). Therefore, using the stories of influencers who started their journey to success by posting videos showcasing their talents and business expertise is an excellent way to pique students' interest in economics.

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References

- Al-Bahrani, A. (2022). Classroom Management and Student Interaction Interventions: Fostering Diversity, Inclusion, and Belonging in Undergraduate Economics. *The Journal of Economic Education*, 53(3): 1-12.
- And Simple. (2023). A deep dive into the net worth of Kylie Jenner. *And Simple*. Retrieved from <https://andsimple.co/cases/kylie-jenner-net-worth/>
- Asarta, C., Chambers, R., and Harter, C. (2021). Teaching methods in undergraduate introductory economics courses: Results from a sixth national quinquennial survey. *The American Economist*, 66(1): 18-28.
- Bayer, A., Bhanot, S., Bronchetti, E., and O'Connell, S. (2020a). Diagnosing the learning environment for diverse students in introductory economics: An analysis of relevance, belonging, and growth mindsets. *AEA Papers and Proceedings*, 110: 294–298.
- Bayer, A., Bruich, G., Chetty, R., and Housiaux, A. (2020b). Expanding and diversifying the pool of undergraduates who study economics: Insights from a new introductory course at Harvard. *The Journal of Economic Education*, 51(3-4): 364-379.
- Ben Abdesslem, A., & Picault, J. (2023a). Using Netflix original series to teach economics: A diversity and inclusion approach. *International Review of Economics Education*, 44: 100278.
- Ben Abdesslem, A., & Picault, J. (2023b). Bounty hunters can teach microeconomics: illustrations from Netflix's Cowboy Bebop. *Eastern Economic Journal*, 49(3): 349-367.
- Benjamin, D., Cohen, A., and Hamilton, G. (2020). A pareto-improving way to teach principles of economics: Evidence from the University of Toronto. *AEA Papers and Proceedings*, 110: 299–303.
- Briggs, E. (2023). Gen Zers still really want to be influencers. *Morning Consult Pro*. Retrieved from <https://pro.morningconsult.com/analysis/gen-z-interest-influencer-marketing>
- Buckles, K. (2019). Fixing the leaky pipeline: Strategies for making economics work for women at every stage. *Journal of Economic Perspectives*, 33(1): 43-60.
- Calhoun, J., & Mateer, G. D. (2011). Incorporating media and response systems in the economics classroom. In: *International handbook on teaching and learning economics*. Edward Elgar Publishing.
- Encyclopedia Britannica. (2023). Olivia Rodrigo. *Encyclopedia Britannica*. Retrieved from <https://www.britannica.com/biography/Olivia-Rodrigo>
- Geerling, W. (2012). Bringing the 'dismal science' to life: Teaching economics through multimedia. *International Review of Economics Education*, 11(2): 81-90.
- Geerling, W., Mateer, D., & Picault, J. (2024b). Extreme pricing goes viral: Lessons for teaching price controls. *Journal for Economic Educators*, 24(1): 27-43.
- Geerling, W., Mateer, G. D. & Wooten, J. (2024a). Engaging Gen Z students with economic lessons featuring MrBeast. *Journal of Economics Teaching*, 9(2): 110-22.

- Geerling, W., Nagy, K., Rhee, E., Thomas, N. & Wooten, J. (2023a). *Using Squid Game to teach game theory*. *Journal of Economics Teaching*, 8(1): 47-63.
- Geerling, W., Nagy, K., Rhee, E., & Wooten, J. (2022). Using K-Pop to teach indifference curve analysis, Behavioral economics and game theory. *Journal for Economic Educators*, 22(1): 40-56.
- Geerling, W., Wooten, J. & Calma, A. (2021). Diversifying the use of pop culture in the classroom: Using K-pop to teach principles of economics. *International Review of Economics Education*, 38: 100220.
- Gerben Trademark Library. (2023). Kylie Jenner trademarks. *Gerben Trademark Library*. Retrieved from <https://www.gerbenlaw.com/trademarks/celebrities/kylie-jenner/>
- Lenahan, A. (2022). Olivia Rodrigo masters the art of storytelling in *Olivia Rodrigo: driving home 2 u*. *Georgetown Voice*. Retrieved from <https://georgetownvoice.com/2022/04/28/olivia-rodrigo-masters-the-art-of-storytelling-in-olivia-rodrigo-driving-home-2-u/>
- Liu, J. (2023). More than half of Gen Zers think they ‘can easily make a career in influencing,’ says branding expert. *CNBC*. Retrieved from <https://www.cnbc.com/2023/09/20/more-than-half-of-gen-zers-think-they-can-easily-make-a-career-in-influencing.html>
- Mateer, G. D. (2012). Econ 1-0-What?. *The Journal of Economic Education*, 43(4): 440-440.
- McGee, V. (2023). NIL deals lack equity for women college athletes. *Best Colleges*. Retrieved from <https://www.bestcolleges.com/news/analysis/nil-deals-lack-equity-for-women-college-athletes/>
- Picault, J. (2019). The economics instructor’s toolbox, *International Review of Economics Education*, 30: 100154.
- Radarr. (2023). Dissecting Kylie Cosmetics social media marketing strategy. *Radarr*. Retrieved from <https://www.radarr.com/blog/dissecting-kylie-cosmetics-social-media-marketing-strategy/>
- Siegfried, J. (2020). Trends in undergraduate economics degrees, 2001–2019. *The Journal of Economic Education*, 51(3-4): 359-363.
- Stevenson, B. (2022) Sparking Student Curiosity, *The Journal of Economic Education*, 53(1): 95-99.
- Wooten, J. (2018). Economics media library. *The Journal of Economic Education*, 49(4): 364-365.
- Wooten, J. (2020). Integrating discussion and digital media to increase classroom interaction. *International Review of Economics Education*, 33: 100174.
- Wooten, J., Al-Bahrani, A., Holder, K., & Patel, D. (2021). The Role of Relevance in Economics Education: A Survey, *Journal for Economic Educators*, 21(1): 11-34.
- Yellen, J. (2014). “Welcoming Remarks.” Board of Governors of the Federal Reserve System. Available at: <https://www.federalreserve.gov/newsevents/speech/yellen20141030a.htm>