

EXTREME PRICING GOES VIRAL: LESSONS FOR TEACHING PRICE CONTROLS

Wayne Geerling¹, G. Dirk Mateer², and Julien Picault³

Abstract

Price controls are a popular topic among students. However, the effects of implementing price controls are not as straightforward as students typically expect, especially the unintended consequences that students tend to overlook. This paper provides three teaching guides designed to teach price controls which can be easily implemented in an introductory-level economics course. We build on the work of Geerling et al. (2023c) by using short-form viral videos from popular platforms such as YouTube and TikTok, which match the streaming and content medium of choice for Gen Z. The use of celebrities and social media influencers make abstract teaching moments more relatable to students. As such, this paper offers a unique opportunity for creatively teaching economics to a new generation of students.

Key Words: active learning, media, price controls, popular culture, streaming, teaching economics, TikTok, YouTube, Taylor Swift, Mark Cuban

JEL Classification: A20, A22

Introduction

When surveyed in class, most of our students support the idea of using price controls such as anti-price gouging laws, rent stabilization and minimum wages because they see efforts to curb extreme pricing as proactive public policy that promotes a more just outcome for society as a whole. The reality is much more complicated. All price controls in competitive markets create unintended consequences. As educators, we need to help students understand the hidden costs that price controls create so that students can become better decision-makers when it comes to economic policy.

One way to help develop an intuitive understanding of price controls is to use students' interests as transversals to assimilate economic concepts (Picault, 2019). This means that teaching material must evolve continuously as the interests of our students change. According to a 2022 poll by the Pew Research Group, YouTube and TikTok are the top two online platforms for U.S. teens. Almost 95% of American teenagers use YouTube with 19% reporting that they

¹ Corresponding author: Professor of Instruction, Department of Economics, Room 2.102 B, University of Texas at Austin. Email: wayne.geerling@austin.utexas.edu

² Professor of Instruction, Department of Economics, Room 3.102 B, University of Texas at Austin. Email: dmateer@utexas.edu

³ Professor of Teaching, Department of Economics, Philosophy & Political Science, The University of British Columbia, Okanagan campus. Email: julien.picault@ubc.ca

visit the site constantly. The corresponding figures for TikTok (use and constant site visits) are 67% and 16% respectively.⁴

These platforms provide the opportunity for video content to go ‘viral’; a viral video is a video that becomes popular through a viral process of Internet sharing. Gen Z, defined as those born between 1997 and 2012, watch short viral videos from these platforms in their everyday life, so this interest can be leveraged as an effective transversal for learning. Rothman (2016) found that Gen Z is more responsive to visual forms of learning but with a shorter attention span than preceding generations. This paper uses viral videos as an educational tool to help students better understand the complexities and unintended consequences of implementing price controls. The teaching guides have been specifically designed to fit the lifestyle of Gen Z learners, by using celebrities, TikTok influencers, and viral themes that most students are already familiar with.

We provide instructors with the following information for each video: length, a brief summary, direct instructions, and assessment questions that educators can use in their classroom. The teaching guides have been designed to fit best as a form of summative assessment after an educator has covered the concept. Each teaching guide has been formatted to focus on group assignments or discussion but could be easily modified based on the instructor’s preferred assessment method. Educators can incorporate the discussion and assessment within the video itself, following the approach described by Wooten (2020), or have students utilize classroom response systems, as detailed by Calhoun and Mateer (2011), to respond to assessment questions. For educators who are interested in using viral videos, but not overly familiar with social media platforms like Instagram or TikTok, we are very fortunate to belong to an economics education community where people create and share free resources for other educators to use. If you are interested in using social media and keeping up to date with the latest material, one can subscribe to receive weekly updates from Marginal Revolution University’s “EconInbox”⁵ and Jadrian Wooten’s “Monday Morning Economist” newsletter.⁶ Subscribers to the Economics Media Library blog receive notifications of new posts by email.⁷ Finally, any educator can sign up for a free account at Critical Commons, an online repository of user-generated media.⁸ Recent uploads to Critical Commons can be found here.⁹

Another related question which needs to be addressed is: how did the authors find the videos referenced in this paper? We first made the decision to work on the theme of price controls, then visited the aforementioned sites and searched for videos using specific keywords like price gouging, rent stabilization and minimum wage. In line with the viewing habits of Gen Z learners, we wanted short videos which would keep their attention. Of the six videos used in this paper, four were 30 seconds in length; one was approximately 2 minutes; while the other was 3 minutes.

Literature Review

Teaching with pop culture is not new. Educators have looked at the relevance of pop culture before (Wooten et al., 2021), but few academic papers address the newest generation of

⁴ <https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022/>

⁵ <https://www.econinbox.com/>

⁶ <https://www.mondayeconomist.com/>

⁷ <https://econ.video/>

⁸ <https://criticalcommons.org/>

⁹ <https://criticalcommons.org/latest>

students. There is a large subfield in economic education that studies popular culture to teach economics. This approach mostly uses television shows and film (Ben Abdesslem and Picault, 2021; Geerling, 2012; Mateer, 2012; Wooten, 2018). Many of these resources can be found in the Economics Media Library (EML) (Wooten, 2018), which also has a section devoted to price controls: <https://econ.video/tag/price-controls/>. Whereas the millennial generation of students favored traditional pop culture mediums like film, music and TV, which are located on sites like EML, YouTube and TikTok are the streaming/content medium of choice for Gen Z. The challenge for educators is to adapt their classroom accordingly.

Some educators have broadened their approach to make economics more inclusive, engaging and relevant to the newest generation of students (Wooten et al. 2021; Al-Bahrani, 2022). This includes media that transcend generations like music (Ben Abdesslem, 2022; Lawson et al., 2008), movies (O’Roark et al., 2018), poker (Ferguson and Ferguson, 2003; Picault, 2020; Reiley et al., 2008) and games such as Pokémon GO (Al-Bahrani et al., 2018), Animal Crossing (Mateer and O’Roark, 2020) and Civilization VI (Vidal, 2020). While these games were not specifically designed for Gen Z, the influence of this demographic is reflected in the fact that traditional games and game modes have become quicker to match the Gen Z preference for mobile games (Shliakhovchuk et al., 2021). This preference also helps explain the incredible popularity of game-based learning platforms like Kahoot! which has 70 million active users and is used by 50% of US K-12 students. (Wooten et al., 2020; Wang and Tahir, 2020).

The idea of using transversals to stimulate engagement and help students assimilate economic concepts (Picault, 2019) relies on finding new ways to connect with our students, rather than just pulling in traditional pop culture that was curated for earlier generations of students. Higher education has become more internationalized in recent years, and economic educators have begun identifying media from foreign-language sources to reflect the fact that our classroom is diverse and always evolving. Geerling et al. (2021) and Geerling et al. (2022) show how K-pop can be used to teach both core economics concepts and advanced topics like behavioral economics, game theory and indifference curve analysis. Ben Abdesslem and Picault (2021) and Ben Abdesslem and Picault (2023) create lesson plans based on Netflix Originals series which span Africa, Asia, the Americas, and the Middle East. Finally, Geerling et al. (2023a) and Geerling et al. (2023b) uses Netflix’s dystopian Korean-language drama series Squid Game to illustrate an active-learning technique to support the teaching of game theory in undergraduate courses. The three mediums referenced above – K-pop, Netflix and Squid Game – are powerful teaching resources because their popularity has transcended international borders.

The latest extension in this field is the use of viral videos to teach economics education. The best example of this approach is found in Geerling et al., (2023c). The authors create lesson plans based on three videos which became popular from the YouTube Channel “MrBeast” to teach core economic concepts such as scarcity, opportunity cost, marginal analysis, business costs, and production. This paper builds on the work of Geerling et al. (2023c) by using viral videos to teach a range of sub-topics relating to a single broader topic: price controls. The three teaching guides found in the next section allow instructors to easily integrate video content in an accessible, engaging, and meaningful manner.

Teaching Guides

In this section, we highlight different viral videos to explain the concept of price controls. We chose the topics of **price gouging**, **rent stabilization** and **minimum wage** because they are all covered in a standard introductory microeconomics course. Furthermore, these policies are

usually popular with students, but the hidden costs or unintended consequences are often misunderstood.

Price controls are generally taught in a singular method with most or all of the following points covered:

1. There are lots of buyers and sellers in markets.
2. Normatively, the market price is too high or low.
3. Policy makers intervene by setting price ceilings or floors.
4. There are pros and cons to government intervention.
5. There are unintended consequences from these policies.

Although we recognize there are variations between textbook coverage and lecturer preference, we have decided to adopt the same template for each teaching guide (points 1-5 above) to make it easier for teachers to access any of the teaching guides and use them immediately. Those teaching the subject may customize the teaching guide as they see fit. As highlighted in the introduction, TikTok is incredibly popular with American teenagers, second behind only YouTube. In recent months, lawmakers in the United States, Europe and Canada have escalated efforts to restrict access to TikTok, citing privacy and security threats.¹⁰ The most prominent influencers cross-promote videos, so anything available on TikTok can typically be found on other social media platforms such as Facebook, Instagram and Twitter. To avoid any issue stemming from a ban on TikTok or a clip being taken down, we have uploaded all clips in this paper to Critical Commons, an open access website designed for educators to share copyrighted material under fair use privileges. Finally, we should point out that we use TikTok videos because of the production style (short, catchy, with interesting storylines which resonate with our students), not because of where they come from.

Teaching Guide #1: Price Gouging and Taylor Swift's Eras Tour

The Taylor Swift Eras tour is set to become the first tour in the history of business to gross more than \$1 billion dollars.¹¹ When tickets went on sale for the North American leg of her tour on November 15th, 2022, the Ticketmaster site crashed because of unprecedented demand for tickets, with millions showing up to the presale.¹² In the following months, social media was flooded with videos from fans who bought tickets at heavily inflated prices.

Clip Link: <https://criticalcommons.org/view?m=OHKHwN1MS>

Concepts: arbitrage, black market, market efficiency, price ceilings, price gouging, scalping¹³, shortage, unintended consequences

Clip Length: 1:59

¹⁰ <https://www.nytimes.com/article/tiktok-ban.html>

¹¹ <https://ca.finance.yahoo.com/news/taylor-swift-eras-tour-could-223835092.html>

¹² <https://www.theverge.com/2022/11/15/23460279/taylor-swift-ticketmaster-the-eras-tour-concert-presale-crashed>

¹³ Scalping isn't typically an economics concept, rather a market behavior. It is an example of arbitrage related to tickets. We have used scalping throughout this lesson plan because this is the term used in the media.

Clip Summary: A Massachusetts dad paid \$21,000 at the last minute so his daughter and her three friends could go to Taylor Swift's sold-out concert. Originally, in November 2022, the dad was one of more than 14 million people who tried to purchase seats to Swift's concert, which caused one site to crash because of a surge in demand. Fortunately, he was able to secure four seats for \$1,800. When the tickets had not arrived a day before the concert, he paid up again to ensure his daughter and three friends would not be disappointed.

Objectives

- Explain why some people are willing to pay more than the original market price to see Taylor Swift.
- Identify how scalping helps markets reach the allocatively efficient outcome.
- Explain why the government intervenes in the concert ticketing market.
- List the pros and cons of government intervention.
- Discuss the unintended consequences associated with a ban on price gouging.

Materials

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

Introduction

- Ask students what is the most money they would be willing to spend on a concert ticket. Track the values, then compare them with StubHub prices.
- Briefly introduce the concept of arbitrage: the chance to make a profit from buying and selling the same thing.
- Play the video where the father pays \$21,000 for 4 tickets to see Taylor Swift on StubHub.
- Ask students why a secondary market for Taylor Swift tickets exists. This is a sign that tickets have been undersupplied, underpriced or a combination of both. Tickets can be sold in secondary markets for much higher prices.
- Remind students that while scalping is an emotive issue for many concert goers and politicians, it helps improve market efficiency.
- Many politicians have tried to outlaw price gouging by making it illegal to resell tickets at a higher than original market price. Ask students to articulate the unintended consequences of this policy.

Part 1: Scalping

- On the whiteboard, illustrate the effects of a binding price ceiling on a supply and demand diagram and highlight any shortages.¹⁴
- Taylor Swift concert tickets typically retail for between \$49 - \$499 (plus fees) on Ticketmaster. This acts as a binding price ceiling in the initial market. Add values to the graph on the board.

¹⁴ We would typically also include deadweight loss in this analysis but because the supply curve is perfectly inelastic, there is no deadweight loss from the shortage.

- Ask students to explain why Ticketmaster and Taylor Swift would set prices below the equilibrium. “Fairness” – the notion that tickets should end up in the hands of “true fans” – is often cited by the media.
- The secondary (resale) market for tickets is a competitive market with lots of buyers and sellers. Ask students to explain what happens to the market price and the shortage of tickets when the secondary market is allowed to function without government intervention. Illustrate these effects on the original graph.

Part 2: Anti-Price Gouging Laws

- Scalping might be efficient from the perspective of traditional economic theory, but it is deeply unpopular with many fans and politicians. Ask students what motivates politicians to implement anti-price gouging laws.
- On the whiteboard, list the benefits and costs from anti-price gouging laws. Some benefits include fans who buy tickets will pay no more than face value and scalpers will be unable to take advantage of people’s desperation to see Taylor Swift. Some costs might include the shortage of tickets will persist and there is no way for the market to allocate tickets to fans with the highest willingness to pay.
- Price controls often hurt the people they are trying to help. Ask students to come up with some possible unintended consequences from these laws. Some examples might include: this creates an incentive for the creation of an illegal black market, where ticket prices will be even higher and you may only get low quality tickets on the secondary market since they can’t be resold for much.

Assessment

- Evaluate student understanding of scalping and anti-price gouging laws through class 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. Tickets to see Taylor Swift on her Eras tour in America are sold within a preset range of \$49 to \$499 (plus fees). Some tickets have been resold on sites such as StubHub for as much as \$21,000. Why are some people willing to pay more than the original market price?

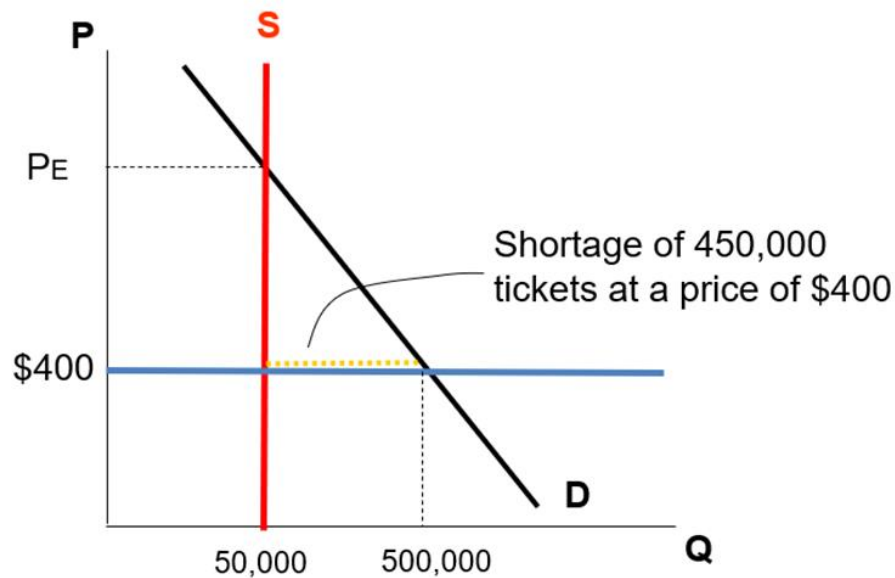
Answer: There is huge demand for tickets and a limited (fixed) supply of tickets. Taylor Swift is among the most popular music artists on the planet, and her last major tour was in 2018, so there is a lot of pent-up demand.

2. Recall the video where a father paid \$21,000 for his daughter and 3 friends to see Taylor Swift in concert, then work through a problem to illustrate how scalping helps the market find the clearing price.

A) Assume the following:

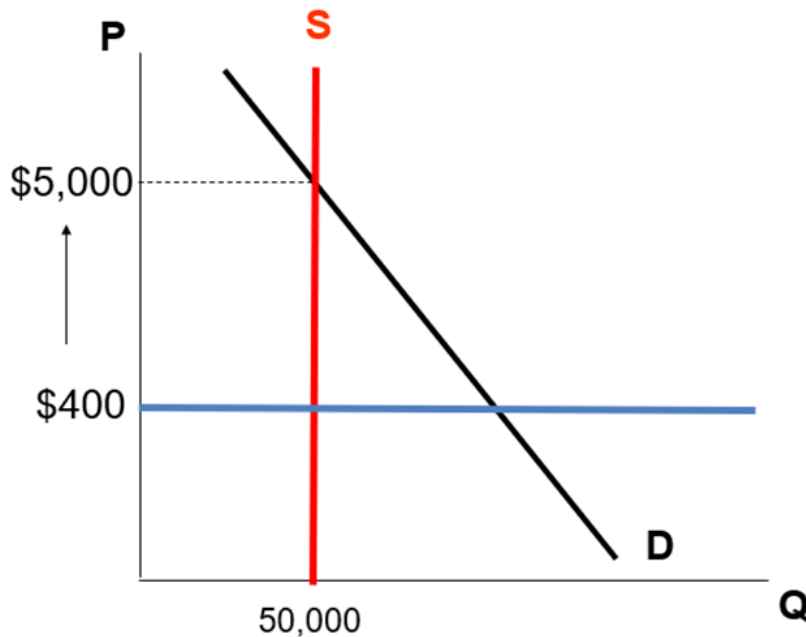
- A ticket retails for \$400. At this price, 500,000 people wish to buy tickets but the concert venue only has a capacity of 50,000.
- Illustrate this on a demand and supply diagram, highlighting any shortage.

Answer:



B) Now assume that tickets with a face value of \$400 are resold on StubHub at an average price of \$5,000 per ticket and that at this new price every person who wants a ticket can find one. Illustrate this on a demand and supply diagram. What happens to the allocative efficiency of the market?

Answer:



When the tickets are resold on the secondary market, excess demand forces the prices up. Scalpers act to distribute tickets to fans who value them the most, which increases the allocative efficiency of the market. At the market clearing price of \$5,000, quantity supply equals quantity demand, so the shortage disappears.

3. To stop tickets being sold in the secondary market at higher prices, the government could implement a _____, which sets a legally _____ price.

- A) binding price floor; maximum.
- B) non-binding ceiling; maximum.
- C) binding price ceiling; maximum.**
- D) binding price ceiling; minimum.

4. Some states such as Texas and California have recently passed laws to prevent tickets being sold at higher than original, legal market prices and to require greater transparency in prices. What are the pros and cons of this policy?

Answer:

Pros:

1. Some fans will be able to purchase tickets at the original price.
2. True fans will not be priced out of seeing Taylor Swift.

Cons:

1. This reduces the allocative efficiency of the market, i.e. the shortage of tickets remains.
2. These measures will inconvenience scalpers rather than deter them.

5. What are the unintended consequences of the policy in Q4?

Answer: There are four obvious unintended consequences.

1. Implementing a price ceiling will create an incentive for the emergence of an illegal black market, where sellers are able to charge a price much higher than the original price.
2. The shortage at the original market price will remain, leading to a loss of economic efficiency.
3. You may only get low quality tickets on the secondary market since they can't be resold for much.
4. There are wasted resources associated with transaction fees.

Teaching Guide #2: Rent Stabilization in New York City

1st Clip Link: <https://criticalcommons.org/view?m=oEw2f4EFO> (Apartment hunt with 500K views)

Related article: TikTokker Shocks Viewers With '\$12,000 a Month' New York Apartment Video (insider.com)

Clip Length: 30 Seconds.

2nd Clip Link: <https://criticalcommons.org/view?m=jUjPTVvjD> (Influencer with a rent stabilized unit)

Related article: Rent-controlled apartment NYC: Apartment tour dumbfounds TikTok (intheknow.com)

Clip Length: 30 seconds

Concepts: rent stabilization, incentives, price ceilings, shortage, unintended consequences.

Clip Summary: The two videos provide a stunning contrast between the market prices for apartments which are not rent stabilized (\$8,000+ per month) and a rent stabilized apartment (\$1,350 per month). In each video, you will see an influencer discussing the apartment and describing its affordability. Contrary to the general consensus that rent stabilized units become dilapidated over time, the \$1,350 apartment is well cared for because it was passed down from one generation to another. The typical rationale for rent stabilization is that the poor cannot afford to live in expensive cities, but the influencer who lives in the \$1,350 apartment has considerable means.

These videos can be used to introduce the concept of rent stabilization. The enormous difference between the prices of stabilized versus unstabilized apartments sparks a lively debate about the effectiveness of rent stabilization creating a more just outcome for society.

Objectives

- Explain why some people are willing to pay more than others for an apartment.
- Identify how supply and demand help markets reach the allocatively efficient outcome.
- Explain why policy makers may wish to intervene in the apartment rental market.
- List the pros and cons of government intervention.
- Discuss the unintended consequences associated with rent stabilization.

Materials

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

Introduction

- Ask your students how much a 1-bedroom apartment costs in their location. Write the guesses on a whiteboard. Compare the guesses with the actual rents found online.
- Ask your students if they know someone (this could be an older sibling or friend) who must double or triple up in order to be able to afford an apartment.
- Ask your students if they would vote for a new rent stabilization ordinance that creates a maximum rental price equal to half the average price in their community. If the rent stabilization ordinance passes, ask your students what unintended consequences would occur.

Part 1: Prices

- Explain to students that the market price (the rent) of apartments is typically set by market forces in competitive markets.
- When the supply is low or demand is high, the price tends to be high. In areas with a large supply and little demand, the price tends to be low. The market matches renters who are willing to pay with landlords willing to rent.
- Ask students to illustrate the effects of a binding rent control on a supply and demand diagram and to illustrate the resulting shortage on the whiteboard.

- Now play the two videos in the order provided. Ask the students how much they would be willing to pay for the rent stabilized apartment.

Part 2: Rent Stabilization Laws

- Ask students what motivates politicians to implement rent stabilization laws.
- Students should be able to understand that rent stabilization laws represent a binding price ceiling. Prices can no longer move up towards the market clearing price so a deadweight loss from the shortage will persist.
- Ask your students whether they think most rent stabilized units are super nice, like the one shown in the video. What would economic theory typically say about the quality of an apartment if the rent is kept artificially low?

Assessment

- Evaluate student understanding of rent stabilization through class 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. Why are some people in Portland, Oregon willing to pay more for an apartment than others?

Answer: Income is a large component of willingness to pay. People with means can afford to pay more while others with lower incomes cannot afford to spend as much.

2. The following is a demand and supply schedule for two-bedroom apartments in Portland, Oregon:

Rent (per month)	Quantity Demanded	Quantity Supplied
\$3,000	10,000	50,000
\$2,500	20,000	40,000
\$2,000	30,000	30,000
\$1,500	40,000	20,000
\$1,000	50,000	10,000

A) What is the equilibrium rent in the table provided above?

Answer: At \$2,000 per month, the quantity demanded (30,000) is equal to the quantity supplied (30,000).

B) Using the table provided, if the City of Portland passes a new rent stabilization law that limits the rent on two-bedroom apartments to \$1,500 per month, how many fewer apartment units will be available?

Answer: At \$1,500 per month, 20,000 apartments are supplied. This quantity is 10,000 fewer than would exist if the market were in equilibrium at \$2,000 per month. This creates a shortage of 20,000 units since the quantity demanded at \$1,500 is 40,000.

3. Some states such as California and Oregon have passed comprehensive rent stabilization laws. What are some of the intended consequences?

Answer: Proponents of rent stabilization point to the benefits of avoiding excessive rent increases and unfair evictions. Rent stabilization also promotes continuity, and it may mitigate income inequality.

4. Suppose that due to inflation, market rents are rising quickly but the rent stabilized units have barely increased in price. What are the pros and cons of this policy?

Answer:

Pros:

1. Rent-stabilized apartments are more affordable than they otherwise would be.
2. Inflation does not erode the purchasing power of people on fixed incomes when they live in rent-stabilized units.

Cons:

1. This reduces the allocative efficiency of the market, i.e. a shortage of apartments exists.
2. Rent stabilization harms landlords who are unable to receive a fair return on the investment.
3. It will become much harder to find a rent stabilized apartment as the disparity between the rent stabilized price and the market price widens. As the process unfolds, the quantity demanded increases while the quantity supplied will decline.
4. Over time, the disparity in prices exacerbates the existing shortage.

5. What are the unintended consequences of the policy in Q4?

Answer: Anytime an impediment is created that prevents the market from reaching the equilibrium price, there are unintended consequences. The most obvious of these is a shortage of rent stabilized units. And since landlords cannot recoup the full market value of a rent-controlled unit, they do less maintenance and the unit typically ends up in a poorer condition than if it were not subject to rent stabilization. This leads to a suboptimal allocation of capital.

Teaching Guide #3: Minimum Wage

1st Clip Link: <https://criticalcommons.org/view?m=w3HMZ1kGr> (Stanzi, an influencer with 3.9 million followers on TikTok, playing a scene about minimum wage with 3.1 million views)

Clip Length: 30 seconds

2nd Clip Link: <https://criticalcommons.org/view?m=YyAB9xbJS> (Mark Cuban's video with 6.3 million views)

Clip Length: 30 seconds

3rd Clip Link: <https://criticalcommons.org/view?m=FAjNJ28ms> (Discussion on MSNBC about minimum wage)

Clip Length: 3 minutes

Concepts: minimum wage, living wage, incentives, surplus, extrinsic motivation, unintended consequences.

Note to instructor: This teaching guide is modifiable, and the parts are independent. For instance, one or two of Parts 2, 3, and 4 can be dropped based on your learning objectives.

Clip Summary: These videos illustrate the supply and demand considerations involved when introducing a minimum wage in the labor market. When taught in principles courses, the minimum wage is typically analyzed as a binding price floor in a perfectly competitive product market. However, as the minimum wage acts as a binding price floor in a market where companies hire people for work, multiple considerations, including employee motivation and the individual's cost of living, are not accounted for in the classical representation. The first and second clips address these: Stanzi discusses the former; Mark Cuban the latter. The third clip considers the labor market equilibrium and the potential need for small businesses to be supported in such a regulated labor market.

The standard neoclassical analysis from the introduction of a minimum wage would typically conclude that quantity demanded will fall and quantity supplied will rise. As a result, unemployment would be created or increased, i.e., there is a surplus of labor looking for work. These videos allow instructors to extend this discussion beyond the narrow neoclassical framework. Low wages place a burden on society to complement incomes, either through subsidies or publicly-funded services, so that people can live decently. Furthermore, low wages may not motivate workers to perform their work to the best of their ability.

Objectives

- Explain the concept of minimum wage.
- Understand the consequences of the minimum wage beyond what is typically discussed in a principles course, including standard of living, cost of living, and motivation.
- Explain why the government intervenes in the labor market.
- List some pros and cons of a minimum wage.
- Discuss the unintended consequences associated with raising the minimum wage.

Materials

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

Introduction

- Ask your students how much they would need to be paid (the very minimum) to consider working at a local supermarket.
- Write these figures on a whiteboard and compare their answers to your local minimum wage.
- Divide the class into two groups. Ask one group about the pros of a higher minimum wage and the other about the cons.
- Ask your students if they would vote for an increased minimum wage (\$15 or \$20, depending on what's more appropriate in your context).
<https://www.dol.gov/agencies/whd/minimum-wage/state>
- Ask your students what unintended consequences would occur based on their decision.

Part 1: Classical Theory of Minimum Wage

- Explain to students how market forces typically set wages.
- Ask students to illustrate the effects of a binding price floor on a supply and demand diagram and to illustrate the minimum wage and corresponding surplus.

Part 2: Incentives, Motivation

- Ask students to discuss what it means to be on the part of the supply curve above the minimum wage on the graph. Ensure they integrate the answers to the first part of the introduction in their discussion (reservation wage).
- Now play the first video. Then, ask students how much they would need to be paid to be motivated to work hard at their local supermarket. Compare answers with those collected in the introduction, and discuss what is visible and invisible on the graph.

Part 3: Individual's Cost-of-Living and Living Wage

- Ask your students whether they could live comfortably on the minimum wage. If not, what would they be missing if this was their only source of income?
- Now play the second video. Then, present the concept of a living wage. The following website provides county-level estimation data for the living wage in the U.S. to help contextualize the lesson to your reality. <https://livingwage.mit.edu/>. Compare these numbers to your local minimum wage.
- Ask students whether the living wage or any cost-of-living consideration is represented anywhere on the graph. Explain that the government typically has programs helping those with low income. The following website may help you provide one or more examples of programs. <https://www.ssa.gov/policy/docs/progdesc/sspus/index.html>.

Part 4: Equilibrium Considerations

- Summarize the pros and cons you have discussed with students, identifying whether they are demand- or supply-side factors. Here students could discuss various concepts, including the number of jobs available, cost-of-living, engagement, and motivation.
- Now play the second video. Ask students to provide the pros and cons of raising the minimum wage versus not raising the minimum wage.

Assessment

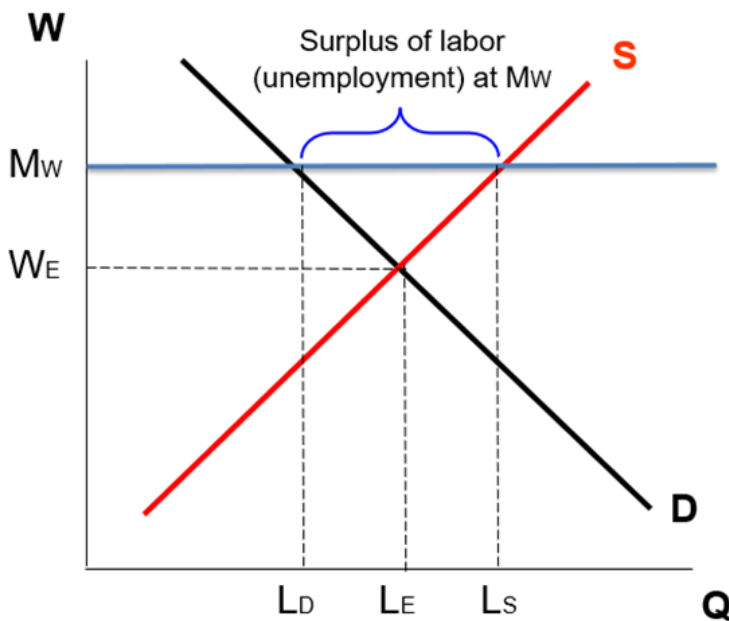
- Evaluate student understanding of the minimum wage and some of its pros and cons through class discussion and whiteboard activities.
- Ask students to complete the additional problems below related to the key concepts of the lesson and evaluate their work.

1. Which of the following statements is true?

- A) Employers cannot pay employees less than the minimum wage.**
 B) Employers cannot pay employees more than the minimum wage.
 C) Employers must pay employees precisely the minimum wage.

2. How does traditional economic theory view the issue of minimum wage?

Answer: Whenever an impediment is created that prevents the market from reaching the equilibrium price, there are unintended consequences. In this case, traditional economic theory predicts employers want to hire fewer workers while more people want to work for a higher wage, creating a surplus of workers in the market, i.e., unemployment ($L_S - L_D$ on the graph).



3. Increasing minimum wage may _____ workers' motivation, _____ the number of jobs available, and _____ workers' standard of living.

- A) increase, increase, decrease
B) increase, decrease, increase
 C) decrease, decrease, increase
 D) increase, decrease, decrease

4. Assume you are currently working a full-time job paid minimum wage (\$15/hour) in Manhattan, New York City, NY. Your annual income would be $\$15 \times 40 \text{ hours} \times 52 \text{ weeks} = \$31,200$. Suppose you find a job somewhere else. Will you necessarily need to earn as much to maintain your current standard of living? Why/why not?

Answer: Probably not. The cost of living differs depending on where you live, and New York City is one of the most expensive cities. So, if you move somewhere else, you'll likely need a lower income to maintain your standard of living. The cost of rent, public transport, and many other services differ greatly from city to city and state to state. A dollar in some place does not necessarily buy as much somewhere else. For instance, Forbes provides a *Cost Of Living Calculator* that compares city living costs: <https://www.forbes.com/advisor/mortgages/real-estate/cost-of-living-calculator/>. For instance, if you move to Jackson, TN, according to Forbes' calculation, you will need a household income of only \$11,855 to maintain the same living standard.¹⁵

Conversely, the minimum wage in Jackson, TN, is \$7.25. So, if you're working a full-time job paid minimum wage, your annual income will be $\$7.25 \times 40 \text{ hours} \times 52 \text{ weeks} = \$15,080$. This is much lower than the job in New York City; however, this will likely provide a better standard of living than in New York City, as this represents the equivalent of earning \$39,688 in New York City.

5. Why would a small business employing workers at minimum wage typically be against an increase in the minimum wage? How might they respond?

Answer: Increasing the minimum wage makes production more costly and a business less profitable. A firm might react by substituting capital for labor, shortening work hours, hiring fewer workers, or passing on cost rises to consumers through higher prices. Small businesses are disadvantaged because they have less market power in product markets and less capital investment capacity due to their smaller size.

6. What are the unintended consequences of raising the minimum wage?

Answer: The main unintended consequence is unemployment. This is caused by: a decrease in the quantity demanded for labor, an increase in quantity supplied of labor, firms replacing low-skilled jobs with capital if possible, firm relocation to countries with lower wages, and shortening hours for workers.

Conclusion

Generation Z have different learning preferences and lifestyles from earlier generations of students. As a result, many educators are exploring innovative teaching methods to engage students and make economics more accessible, stimulating, and relevant. This research paper builds upon a previous study from Geerling et al. (2023) by using viral videos to teach price controls, a topic familiar to most students but whose unintended consequences may be poorly understood.

YouTube and TikTok are the preferred streaming and content medium for Generation Z, so by embracing this medium, we can provide engaging educational content that caters to the interests of our students while also providing instructors with fully developed teaching guides that can be easily adapted to their classrooms. By placing students' own interests at the forefront

¹⁵ <https://www.forbes.com/advisor/mortgages/real-estate/cost-of-living-calculator/jackson-madison-county-tn/?city=new-york-manhattan-ny&income=31200>

of learning, we hope this acts as a transversal (Picault, 2019) to assimilate economic concepts and helps address the problem of student absenteeism and falling levels of engagement.

Acknowledgements

We would like to thank Jadrian Wooten, Gary Magee and Kris Nagy for helpful comments and feedback on an earlier draft.

References

- Al-Bahrani, A., Mahon, D., Mateer, G. D., & Murphy, P. (2018). Pokémon GO: applications for the economics classroom. *Journal of Economics Teaching*, 3(2): 218-231.
- Al-Bahrani, A. (2022). Classroom management and student interaction interventions: fostering diversity, inclusion, and belonging in the undergraduate economics classroom. *The Journal of Economic Education*, 53(3): 259-272.
- Ben Abdesslem, A. (2022). Teaching macroeconomics through music. *Journal of Economics Teaching*, 7(3): 200-216.
- Ben Abdesslem, A., & Picault, J. (2021). Using Netflix original series to teach economics: A diversity and inclusion approach. Available at SSRN 3988985.
- Ben Abdesslem, A., & Picault, J. (2023). Bounty hunters can teach microeconomics: illustrations from Netflix's Cowboy Bebop. *Eastern Economic Journal*, 49(3): 349-367.
- 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.
- Ferguson, C., & Ferguson, T. S. (2003). On the Borel and von Neumann poker models. *Game Theory and Applications*, 9: 17-32.
- Geerling, W. (2012). Bringing the 'dismal science' to life: Teaching economics through multimedia. *International Review of Economics Education*, 11(2): 81-90.
- 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.
- 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. (2023a). Economics of Squid Game. *The Journal of Economic Education*, 54(3): 347-48.
- Geerling, W., Nagy, K. Rhee, E., Thomas, N. & Wooten, J. (2023b). Using Squid Game to teach game theory. *Journal of Economics Teaching*, 8(1): 47-63.
- Geerling, W., Mateer, G. D. & Wooten, J. (2023c). Engaging Gen Z students with economic lessons featuring MrBeast. *Journal of Economics Teaching* [forthcoming].
- Lawson, R., Hall, J., & Mateer, G. D. (2008). From ABBA to Zeppelin, Led: Using music to teach economics. *The Journal of Economic Education*, 39(1): 107.
- Mateer, G. D. (2012). Econ 1-0-What?. *The Journal of Economic Education*, 43(4): 440-440.
- Mateer, G. D., & O'Roark, B. (2020). Ten economic lessons learned from Animal Crossing during the lockdown. *Journal of Private Enterprise*. 35(4): 87-109.
- O'Roark, B. & Grant, W. (2018). Games superheroes play. *The Journal of Economic Education*, 49(2): 180-193.

- Picault, J. (2019). The economics instructor's toolbox. *International Review of Economics Education*, 30: 100154.
- Picault, J. (2020). Patent vs. open source: A classroom activity using Texas Hold'em poker. *The International Journal of Management Education*, 18(2): 100389.
- Picault, J. (2021). Looking for innovative pedagogy? An online economics instructor's toolbox. *The Journal of Economic Education*, 52(2): 174.
- Reiley, D. H., Urbancic, M. B., & Walker, M. (2008). Stripped-down poker: A classroom game with signaling and bluffing. *The Journal of Economic Education*, 39(4): 323-341.
- Rothman, D. (2016) A tsunami of learners called Generation Z. Available at: http://www.mdle.net/JoumaFA_Tsunami_of_Learners_Called_Generation_Z.pdf (accessed 27 June 2023).
- Shliakhovchuk, E., Muñoz, A. & Olijnyk, R. (2021). Gen Zers' video game preferences and learning outcomes: Toward designing better games. *International Journal of Technology*, 13(2): 208-236.
- Vidal, D. D. (2020). The new era of teaching: Using video games to teach macroeconomics. *Journal of Higher Education Theory and Practice*, 20(13): 181-192.
- Wang, A. I. & Tahir, R. (2020). The effect of using Kahoot! for learning – a literature review. *Computers and Education*, 149: 103818.
- 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.
- 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., Acchiardo, C-J., & Mateer, G.D. (2020). Economics is a Kahoot! *Journal Economic Education*, 51 (3-4): 380.