The Economics of Breaking Bad: A Concept Guide

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ABSTRACT

This work complements and refreshes the current stock of pedagogical resources by exploring the economic principles that can be taught using the popular television series *Breaking Bad*. We perform an exhaustive examination of the entire series and document precise instances that illustrate key economic concepts. This resource provides the instructor with the opportunity to teach economic concepts using content that caters directly to students' interests and their affinity for all things pop culture. To facilitate the use of these resources, we also present a number of assignments and assessment questions that can be constructed based on the scenes we identify.

Introduction

As educators, we cannot deny that striking parallels exist between a successful classroom experience and the creation of a hit television show. Both require that we quickly engage the audience and hold its interest over the course of a semester or season. In both instances, we are competing against a seemingly infinite number of other things vying for our listeners' attention. The key to success in both instances is forging a strong connection with the audience, one that motivates it to attend the next class or watch the next episode. Indeed, a paper by Gehlbach et al. (2016) suggests that teachers who convey to their students that they share common interests, improve student-teacher relationships and grades, and possibly bridge the performance gap for "underachieving" students. In addition, Lang (2016) also highlights the importance of meaningful teacher-student interactions with respect to learning outcomes.

In economics, especially in principles courses, teaching resources that connect educators and students are becoming less difficult to find. Recent efforts in this direction document economic concepts that appear in dialogues and scenes of popular TV shows. These include *The Big Bang Theory* (Tierney et al. 2016), *Shark Tank* (Acchiardo et al. 2015), *Parks and Recreation* (Conaway and Clark 2015), ESPN's *30 for 30* (Al-Bahrani and Patel 2015), *The Office* (Kuester et al. 2014), *The Simpsons* (Hall 2014 and Luccasen and Thomas 2010), *Seinfeld* (Ghent et al. 2011), and multiple other television shows (Mateer et al. 2011 and Mateer and Stephenson 2011).

Even though such resources are becoming increasingly available, there is ample room for this literature strand to expand. Indeed, a survey by Al-Bahrani et al. (2016) finds that, despite ranking at the top of students' preferences, television series such as *Breaking Bad*, *Grey's Anatomy*, and *Friends* do not benefit from an all-encompassing resource designed to document the economics within the show. The present work closes this gap by (i) linking the dialogues and scenes within *Breaking Bad* with a wide array of economic concepts, (ii) categorizing the accompanying video clips within two, easy-to-navigate tables, and (iii) showcasing a number of sample assignments, questions, and grading rubrics that transform the video clips into methods of assessment and concept verification. The resource introduced here may also serve instructors of criminology classes that focus on criminal behavior and the economic factors behind it or economics courses that focus exclusively on crime or illegal drugs. The need for a *Breaking Bad*-based teaching resource becomes even more acute when taking into account the show's popularity and its direct appeal to undergraduate students (Al-Bahrani et al. 2016; Al-Bahrani and Patel 2015; Berk 2009; Harter

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2003; and Hoyt 2003). Currently, statistics provided by the Internet Movie Database (IMDB) show that *Breaking Bad* received its highest ratings from males and females under eighteen and between eighteen and twenty-nine years of age, precisely the age group in which most of our undergraduate students fall. Moreover, *Breaking Bad* ranks fifth in IMDB's Top 250 TV Shows[2] and second among one hundred shows reviewed by *The Hollywood Reporter*.[3] In this regard, the current work not only expands but also refreshes the stock of resources available to educators who prefer to go beyond the traditional "chalk-and-talk" and enhance the delivery of economics concepts. After all, the shelf life of any such resource depends upon it remaining meaningful in the pop-culture lexicon.

The remainder of the paper proceeds by describing how instructors can use *Breaking Bad* as a teaching and learning tool. The discussion is followed by a brief overview of the television series *Breaking Bad* along with an argument that supports the series's cultural relevance and why video clips from *Breaking Bad* resonate with today's students. Next, the paper provides detailed descriptions of eight video clips that one can use to teach economic concepts. Finally, a set of concluding remarks is provided.

Using *Breaking Bad* in Your Course

Besides its popularity and appeal to students' interests, we believe that the attractiveness of a teaching resource is defined by its relative ease of use. However, and unlike some of the TV series mentioned in the previous section, the use of *Breaking Bad* for illustrating economics concepts may require prior knowledge about the series' plot and characters. We, therefore, recommend that instructors become familiar with the series and provide students with sufficient background information about the content (i.e., video clip) that they plan to use. In order to facilitate this process, we provide brief descriptions of each video clip and/or the dialogue in Appendix A. In addition, synopses of each episode, season, and the entire *Breaking Bad* series are available online and can easily be used to enhance instructors' familiarity with the series.[4] Nevertheless, the video clips that we identify require only general familiarity with the series and are rather short. In this regard, the clips are useful for implementing a number of small-teaching techniques that promote active learning, which is known to facilitate long-term concept retention and learning (Lang 2016 and Brown et al. 2014), or facilitate the introduction of economic models such as the Becker (1968) model of criminal behavior.[5]

Lang (2016) writes that small-teaching approaches may take the form of (1) brief (5- to 10-minute) classroom or online learning activities, (2) one-time interventions in the course, and (3) small course-design modifications or changes in communication with students. This paper caters directly to the first two categories. First, the video clips presented here may serve to introduce, summarize, and reinforce key economic concepts. In addition, the clips represent powerful catalysts for think-pair-share activities, self-explanation exercises, in-class discussions, and polling sessions that rely on the use of classroom response systems (CRSs). Second, video clips are ideal for breaking down a long course and refocusing students' attention onto the material or for implementing one-time (per class or week) activities that may include short/long in-class/out-of-class written assignments or discussions.

We believe that the scope of the paper can be significantly broadened if the resources that are presented within are integrated not only with the in-class component of the course, as lecture-enhancing examples, but also as assignments and assessment questions that require a lengthier and more rigorous analysis from students. To support this, and for select video clips, several multiple-choice questions and written assignments, along with possible responses and accompanying rubrics, are provided in Appendix B. As per Bloom's taxonomy (Bloom 1956), these assess reasoning skills such as knowledge, comprehension,

[2] http://www.imdb.com/chart/toptv/.

[3] http://www.hollywoodreporter.com/lists/best-tv-shows-ever-top-819499.

[4] An excellent starting point is the Internet Movie Database, which maintains synopses of each season as well as the entire series. The synopses also include brief descriptions of major as well as minor characters and can be found at https://www.imdb.com/title/tt0903747/plotsummary. A more detailed description of the characters within the series can be accessed at http://breakingbad.wikia.com/wiki/Breaking_Bad_Wiki.

[5] Becker (1968) models the choice of engaging in criminal behavior as the interplay between the costs (e.g., probability that an offense is discovered and the size of punishment) and benefits (monetary rewards) of such choice.

application, and analysis. On one hand, teaching using CRSs facilitates student-teacher interaction (Calhoun and Mateer 2012), fosters peer-instruction and self-explanation as learning techniques (Lang 2016), and increases student engagement (Salemi 2009). On the other hand, writing assignments or discussion threads are excellent tools for giving students the chance to expand their knowledge and to connect concepts with each other or with the outside world (Lang 2016).

There are, of course, many other ways of incorporating visual media into the classroom. In this regard, we do invite the reader to explore the multitude of alternative uses via Starting Point: Teaching and Learning Economics,[6] which represents an excellent initiation resource.

Breaking Bad

Breaking Bad is a cable drama series that tells the story of Walter White who, after being diagnosed with lung cancer, slowly morphs from a mild-mannered high school chemistry teacher into a methamphetamine-producing kingpin. Along the way, the audience witnesses how his transformation not only affects himself, but also the people around him. The show ran for five seasons between 2008 and 2013, has been hailed by critics[7] as one of the best shows of all time, and won the Primetime Emmy award for outstanding drama series twice. The actor, Brian Cranston, who plays Walter White, won the Primetime Emmy for outstanding lead actor in a drama series four times. Aaron Paul, who played the supporting character Jesse Pinkman, won the Primetime Emmy for best supporting actor in a drama series three times. These awards are just a small fraction of the accolades heaped upon the series, but they clearly illustrate the quality and popularity of the show in and of itself.

During its television run and afterwards through subscription streaming platforms such as Netflix and other content-delivery systems, *Breaking Bad* has grown from just a highly praised show into a cultural phenomenon. The show's place in the pop culture hall of fame has made facts about the show generally accepted common knowledge in our society. It appears that even people who have never watched a single episode are aware of the show and have a general semblance of what it is about. *Breaking Bad* has even been known to inspire the study of contexts, politics, and style within the series (e.g., Pierson 2013). To understand how popular and addicting the show can be, one needs only to examine a recent data release from Netflix pointing out that, between January and July of 2015, 70% of the viewers who watched only the first two episodes completed the entire series. Among the shows analyzed, *Breaking Bad* tied for the earliest episode after which the average viewer was drawn into the series. Pairing these findings with the show's overall popularity, subject matter, and cultural relevance, we believe that the use of examples from this series resonate very well with today's economics students.

Clips and the Associated Economics Concepts

Breaking Bad offers a plethora of scenes that can be used to provide real-world examples of economic concepts that frequently appear in principles-level courses. Following the layout of Al-Bahrani and Patel (2015), we discuss a number of video clips along with the concepts nested within. In what follows, season and episode numbers, episode title, as well as the start and end times identify the video clips. The listing is by no means complete and, in this regard, we invite the reader to consult Tables A1 and A2 in Appendix A.

Season 1, Episode 1 "Pilot" (Netflix Time: 27:34-30:07); Concepts: Absolute Advantage; Comparative Advantage; Specialization; Division of Labor; Gains from Trade; Incentives; Game Theory; Ultimatum Game

In this clip, Walter tracks down his former student, Jesse, with the intention of collaborating with him in the production of methamphetamine. Walter's intentions become obvious once he starts revealing that the Drug Enforcement Agency (DEA) has apprehended Jesse's business associate. Walter goes further and

[6] Starting Point is an online resource developed by G. Dirk Mateer, Linda S. Ghent, Tod Porter, and Ray Purdom to facilitate the use of media to enhance teaching and learning in economics (https://serc.carleton.edu/econ/media/index.html).

[7] http://www.hollywoodreporter.com/lists/best-tv-shows-ever-top-819499

adds, "*But you know the business and I know the chemistry. I'm thinking … maybe you and I could partner up."* This scene can motivate a conversation about comparative advantage-based specialization. While Jesse has performed both tasks in the past, there is little doubt that Walter, because of his chemistry knowledge and perhaps better task-management skills, is more productive at making methamphetamine as well as distributing/selling it. However, even in the scenario in which Walter has absolute advantage in both cooking and distributing methamphetamine, the logic of comparative advantage tells us that Walter and Jesse should collaborate. More specifically, Walter should cook while Jesse should distribute/sell the methamphetamine. This is simply because Walter's opportunity cost of distributing/selling is time that he could spend cooking and, therefore, a relatively large amount of methamphetamine he could produce instead. Conversely, and by the same logic, Jesse's opportunity cost of distributing/selling methamphetamine is lower than Walter's. In sum, David Ricardo tells us that Walter should cook while Jesse should hit the streets, even if Walter is better (more productive) at both. Finally, the instructor can link the two with a discussion about the gains from trade. One question could be whether the United States has absolute advantage over some of the products it imports and why aren't these goods produced locally.

Incentives, and how individuals respond to incentives, represent another key economics concept. In this clip, Walter's offer for a partnership deal comes with a catch. Jesse: "*You wanna cook crystal meth? You. You and me."* Walter: *"That's right. Either that, or I turn you in*." Walter threatens to inform the DEA about the methamphetamine business if Jesse chooses not to join the partnership. Here, Walter is encouraging some action (joining him) by issuing a threat (turning Jesse in). Their interaction represents an ultimatum game, in which Walter's threat is an example of a negative incentive (i.e., the stick).

Season 1, Episode 1 "Pilot" (31:54-33:54); Concepts: Product Differentiation; Branding; Monopolistic Competition; Market Power; Elasticity of Demand; Utility

This clip shows Walter's preference for producing superior products. In an inspired scene, Walter states: "*You and I will not make garbage products. We will produce a chemically pure and stable product. One that performs as advertised. No adulterants. No baby formula. No chili powder."* Why should Walter care about how his product performs? Why should product quality matter, especially when traded in a black market characterized by a relatively inelastic demand? Product differentiation and quality, customer satisfaction, monopolistic competition, and market power can all be discussed using this scene. As the show progresses, for example, viewers learn that Walter's product is the best in the market, highly sought after, and blue. This last characteristic is especially important when learning about the white-colored competing methamphetamine. Here, instructors can discuss how product characteristics shape its substitutability and determine the elasticity of its demand or why brand-name products are often priced differently from generic products. A natural question for students can be whether businesses leverage their product superiority by charging a higher price. The discussion can be carried forward to formal markets, especially those involving services, where products are almost identical and customer satisfaction as well as return business are highly regarded.

Season 3, Episode 2 "Caballo Sin Nombre" (30:40-33:36); Concepts: Asymmetric Information; Product Differentiation; Product Characteristics; Profit-maximizing Behavior, Opportunity Costs; Economizing Behavior

This video clip pits the controversial lawyer Saul Goodman against a couple, who want to sell their house, and their counselor, Mr. Gardiner. Negotiations start and seem to unfold well until the parties disagree about the selling price. The couple asks for $875,000 but Saul, on behalf of his client, offers only $400,000. The couple and their counselor are offended by the offer and, while mentioning that the meeting was a complete waste of their time, start walking out of the room. They stop once Saul mentions the methamphetamine laboratory that used to be in the basement. This unpleasant but key attribute is purposefully hidden from the buyer to keep up the value of the house. However, in this case, the prospective buyer seems to have done his homework. Unfortunately, in many transactions, the information held by sellers is not available to buyers and vice versa. In cases where such information gaps persist and are systematic, markets unravel and, ultimately, fail.

Also, note that upon introducing himself, one of the sellers immediately recognizes Saul as "the lawyer on late-night television." This is because of his catchphrase "Better Call Saul," which is present in all ads involving his business. Product/service differentiation is a key feature of markets in which many of today's sellers and buyers interact. Together, these traits outline some characteristics of monopolistically competitive markets.

Finally, it is worth mentioning that Mr. Gardiner, the couple's counselor, is ardent to get right to business. This leads Saul to remark, *"I get it. Flat-fee clients, am I right?"* This arrangement incentivizes Mr. Gardiner to service his clients as fast as possible and therefore maximize his hourly pay. The more time he spends with his clients, the lower his hourly pay (since it is a flat charge), and the higher his opportunity cost.

Season 3, Episode 5 "Mas" (42:08-43:31); Concepts: Monopsony; Market Power; Bargaining Power; Transaction Costs; Willingness to Supply; Producer Surplus; Willingness to Pay; Consumer Surplus; Elasticity of Supply; Contracts; Contract Enforcement; Role of Institutions; Dispute Resolution

The video clip brings us into the office of Saul Goodman, where Walter and Jesse try to sort out some of their recent misunderstandings. In the process, Jesse finds out that Walter is soon to start "cooking" (producing) methamphetamine without him and under the employment of their associate, Gus Fring. When Walter is asked about how much he stands to gain from this new partnership, he simply responds, *"It is $3 million, for three months of my time."* Saul knows that this large amount of money needs to be "laundered" and immediately offers his services for a 15% fee. However, as a prospective customer for money-laundering services, Walter is well aware of his bargaining power and quickly counters Saul's offer with a 5% fee. Saul attempts to negotiate a high-enough fee by sequentially proposing 14%, 13%, 12%, and 10% fees. In each scenario, Walter's response is unchanged, *"5%."* Single buyers, or monopsonists, have the market power to reduce the acquisition price, just as a monopolist has the market power to limit the quantity supplied and therefore increase market price to maximize profits.

This video clip is also instructive about the price elasticity of supply. More specifically, the video clip emphasizes Saul's perfectly inelastic supply for money-laundering services over the observed range of prices (i.e., 5% to 15%). Despite the fact that the laundering fee (the price Saul receives) is adjusted from 15%, 14%, 13%, 12%, to 10%, and finally to 5%, Saul is still willing to supply his services. The negotiation between Walter and Saul also reveals some information about Saul's "willingness to supply," which seems to be somewhere under or at the 5% threshold. This is simply because even at 5%, Saul accepts the proposal.

Finally, yet importantly, the dialogue between Jesse and Walter, which is located at the end of the video clip and included below, may be used to frame a discussion about contracts, contract enforcement, and the role of institutions in shaping the behavior of economic agents. Jesse: *"You think that this will stop me from cooking?"* Walter: *"Cook whatever you like. As long as it's that ridiculous Chili P or some other dreck … but don't even think about using my formula."* Jesse: *"Just try and stop me!"* While Walter is indeed the one who discovered the formula for the "blue" methamphetamine, he might have a hard time preventing Jesse from using the same formula in his pursuit of producing a similar good. Had this formula involved any other legal product, such a dispute would have been prevented by the filing of a patent or by a contract regarding its use, both of which would be enforceable through a functioning judicial system. However, the use of institutions as a dispute-settling mechanism is not possible in this case – methamphetamine is an illegal good, produced and consumed within a black market. Consequently, violence and the use of force tend to replace institutions in solving such issues, a substitution that generates significant external costs to society.

Season 3, Episode 9 "Kafkaesque" (00:00-02:27); Concepts: Total Costs; Fixed Costs; Variable Costs; Principal-Agent Contract; Monitoring; Shirking; Underground Economy

This scene begins with a commercial for a restaurant called Los Pollos Hermanos, but transitions into a montage of how the owner of the restaurant chain is actually at the head of a giant methamphetamine manufacturing and distribution operation. One can see the methamphetamine being produced, packaged, distributed, and how the restaurant's facilities and trucks are used to further the drug trade. Throughout the clip, different inputs are used in the manufacturing and distribution of methamphetamine. In this particular instance, the costs with inputs such as labor, weighting scales, plastic and glass containers, trucks, and facilities are fixed. On the other hand, the costs associated with the plastic bags, in which the drug is sealed, and the invisible ink used to mark the buckets containing the product are examples of variable costs.

The video clip is also helpful for discussing the principal-agent contract. More specifically, the clip presents Gus Fring as he supervises the packaging and loading of methamphetamine into trucks for distribution purposes. The owner of Los Pollos Hermanos, Gus, is the man running the methamphetamine production operation and, in this case, the principal. The laborers packaging the methamphetamine and the truck drivers transporting it are the agents. Sometimes agents do not act in the principal's best interest. This behavior is also known as shirking and can be prevented or limited through adequate monitoring activities, which is precisely what Gus does.

Season 3, Episode 12 "Half Measures" (09:06-14:52); Concepts: Costs/Unintended Consequences of Illegal Drugs; Human Capital; Poverty; Restricted Opportunity; Social Mobility; Monopolistic Competition; Black Markets; Contract Enforcement; Dispute Resolution; Judicial System; Role of Institutions; Production Possibility Frontier

The scene brings forward a discussion between Jesse and Walter. Their dialogue centers on how their competitors choose to protect their turf and on the shooting of their partner, Combo, for which Jesse seeks revenge. First, the scenes within the video clip are particularly useful for discussing the importance of property rights and dispute-settlement mechanisms that are delivered by a functioning legal system. Second, the scenes are also useful for discussing the consequences brought about by the impossibility of property rights/contract enforcement in markets for illicit goods (e.g., drugs). For example, when Combo sells "blue" methamphetamine in the competitors' turf he ends up being killed by an 11-year-old boy. The rival gang seizes and sells the "blue" methamphetamine, distributed by Combo and cooked by Walter and Jesse, as their own. Outside of black markets, courts or specialized branches of the police would have handled such disputes. However, when the rule of law and property rights are absent, vaguely defined, or not enforceable, agents resort to other means of enforcement such as violence, which breeds more violence – Jesse is obviously seeking revenge for Combo's death.

The clip is also useful for illustrating the socio-economic costs and the unintended consequences of illegal drugs and the black markets that form in response. The loss of life and the use of children, often from poor neighborhoods and low-income families, as labor are obvious. A discussion about social mobility and human capital development may also originate within these scenes. In broad terms, children who end up dealing drugs and protecting turfs fail to accumulate the much-needed human capital, which should allow them to fare better than their parents. The scenes within may also be used to discuss how failure to accumulate human capital or make meaningful investments in tomorrow's labor force diminishes a jurisdiction's ability to produce goods and services, or, in other words, shifts that jurisdiction's production possibility frontier inward.

Season 4, Episode 1 "Box Cutter" (01:41- 04:30); Concepts: Product Differentiation; Monopolistic Competition; Alchian-Allen Effect in Prohibited Drugs; Potency Effect; Substitutes in Consumption and Production; Cross-Price Elasticity of Demand; Marginal Cost vs. Marginal Benefit

This scene brings forward a dialogue between Gus Fring and Gale Boetticher, a German-American chemist hired by Gus, about the purity of methamphetamine. Gus: *"After all, how pure can pure be?"* Gale: *"Well, it can be pretty darn pure. Mr. Fring, I can guarantee you a purity of 96%. I am proud of that figure. It is a hard-earned figure, 96. However, this other product [cooked by Walter] is 99%. Maybe even a touch beyond that. I need an instrument called a glass chromatograph to say for sure but that last 3% … it may not sound like a lot, but it is. It is tremendous. It is a tremendous gulf."* Gus: *"Gale, for our purposes, 96% will do just fine."*

From here, it is apparent that Gus weighs the costs and benefits of producing 99%- or 96%-pure methamphetamine. After all, the equipment he just purchased is suited for producing both purities, which makes the two varieties substitutes in production. Nevertheless, Gus decides that a purity of 96% will suffice. From his perspective, the cost of working with Walter, who is regarded as unprofessional, outweighs the 3-percentage point increase in the purity of the drug. However, Gus' methamphetamine, although 96% pure, is inferior to Walter's and the logic of the Alchian-Allen theorem tells us that he might be losing out as long as it competes with the "blue" drug. In other words, the Alchian-Allen theorem states that, when the same transportation, distribution, tax, or sale-specific markup is added to the prices of two similar varieties of the same product, the relative consumption of the higher quality good will increase. Since from a legal perspective, the risks and costs of distributing methamphetamine are, more or less, the same, regardless of its purity, a relatively larger market share will be accounted by Walter's "blue" methamphetamine. The scenes within the video clip are also useful for discussing product differentiation as a key characteristic of monopolistically competitive markets. The blue color of Walter's methamphetamine represents a signal of quality and purity that bridges the seller-buyer information gap, a problem that plagues black markets such as those for drugs and other illicit goods or services.

Season 5, Episode 3 "Hazard Pay" (38:41-44:06); Concepts: Fixed, Variable, Total, and Transaction Costs; Profit; Compensating Differential; Property Rights; Dispute Resolution; Judicial System; Role of Institutions; Underground Economy; Money Laundering; Black Markets; Return to Risk; Gross Domestic Product

This scene shows Walter, Jesse, and their associate, Mike, splitting the proceeds from a new methamphetamine-production business and demonstrates how businesses incur various expenses while providing instructors and students with a lively example about the different types of costs. Once Mike divides the revenue into three equal stacks, he goes on to do an accounting of all the costs they have incurred while producing their latest batch. As he explains, one can observe that some costs, such as the ongoing expense with keeping former collaborators quiet, are fixed, while others, such as the cut to the dealers or the fee for the drug mules (i.e., those who transport the methamphetamine from its production to its distribution location), are variable. Actually seeing each pile of cash shrink, as they account for the costs of the business, provides a visceral example about costs, profit, and the relationship between the two.

This clip may also serve as a catalyst for discussing, once again, the role of institutions in shaping the behavior of economic agents and the consequences brought about by their lack of reach into markets for illicit goods, such as the market for methamphetamine. For example, Walter is surprised to find out that the cost with the mules is 20% of the revenue. However, Mike adds that transporting the methamphetamine involves risks (i.e., of being robbed by a rival gang or being caught by the police and sent to jail), and the cost is justified – in economics jargon, such costs represent the compensating differential for hazardous work conditions. Outside black markets, a robbery is solved by simply reaching out to the police or other specialized authorities. In other words, property rights may be enforced through the judicial system. However, in the case of methamphetamine, this is not possible. This way, those who move the drug must also guard it and enforce the property rights over it through violence. Hence, the steep cost of transportation that characterizes the methamphetamine-producing business.

This clip also provides a detailed account of various activities that form the underground economy and underpin the $1,392,800 methamphetamine business. For example, dealers receive $13,240, mules (the ones who transport the methamphetamine for distribution purposes) get a flat 20% (after the dealers have been paid) or about $278,560, miscellaneous production-related expenses total $120,000, expenses associated with concealing the laboratory add up to $165,000, while the lawyer/money-laundering fees are $54,000. As part of the methamphetamine production, all these activities are illegal, thus not recorded officially, and hence part of the underground economy. The figures associated with such activities may find their way into official data, however, as fictional activities/services conjured by money launderers. This illustrates once more the difficulty that arises in trying to accurately measure economic activity, be it as the gross domestic or gross national product.

Conclusions

Educators are in an endless "competition" for students' attention. In addition, successfully attracting and maintaining the focus of our audiences requires that instructors appeal to students' non-academic or extra-curricular interests. Using popular television shows to connect the "in-class" with the "out-of-class" has a proven track record of reaching students and retaining their attention (Al-Bahrani et al. 2016), all with the added bonus of making the material more interesting and memorable.

We are convinced that the *Breaking Bad* scenes documented here can aid instructors in getting close to winning this "competition." First, according to the Internet Movie Database (IMDB), the show is widely popular among both males and females below twenty-nine years of age, precisely the age group in which the vast majority of our students fit. This should significantly lower the difficulty of drawing in our audience and maintaining its focus. Second, despite its popularity and unlike other well-known television series, *Breaking Bad* does not benefit from an accompanying teaching resource. Third, the *Breaking Bad* instances that we document cover a vast and comprehensive array of economics concepts and summarize them in two, easy-to-navigate tables. Fourth, to ease the cost of implementation while not digressing from the topic, we are providing a limited set of sample, assessment, and in-class polling questions as well as writing assignments. We, nevertheless, invite instructors to use the instances enumerated in Appendix A to create their own.

There is also potential for building upon the current work. Given the multitude of economics concepts it covers, this paper could serve as a basis for a semester-long "Economics of *Breaking Bad*" course. However, these and other spin-offs of this work represent the basis for a different set of projects altogether.

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APPENDIX A

Table A1: Description of Scenes by Season, Episode, and Time

Episode	Brief Description	Economic Concepts
Season 1 Episode 1 "Pilot"	Please refer to the description provided within the section titled "Clips and the Associated Economics Concepts". (*Netflix Time:* 27:34-30:07)	Absolute advantage; comparative advantage; specialization; division of labor; gains from trade; incentives game theory; ultimatum game
Season 1 Episode 1 "Pilot"	Please refer to the description provided within the section titled "Clips and the Associated Economics Concepts". (31:54-33:54)	Product differentiation; branding; monopolistic competition; market power; utility;
Season 1 Episode 4 "Cancer Man"	Walter: "What's that we are putting on a credit card?" Skyler: "It's just a deposit kind of thing." Walter: "How much of a deposit?" Skyler: "It's $5,000." Walter: "Five thousand? Jesus! What is that, just to start? I mean ... just to tell me what I already know?" Skyler: "Walter, he [the doctor] is not in our HMO, okay?" (17:08-18:53)	Health care concepts (e.g., HMO, PPO)
Season 1 Episode 5 "Gray Matter"	This clip shows Jesse taking part in a job interview. Jesse: "And it doesn't really say it here but I have a solid background in sales." Upon telling Jesse that there is a misunderstanding, the hiring manager adds: "I mean, I'd be happy to consider you for a sales position but all our agents need to be licensed, have at least two years on-the-job experience and usually a college degree. What you'll be doing is more like advertising." (00:00-01:20)	Unemployment; job search; general and job-specific human capital; barriers to entry;
Season 1 Episode 6 "Crazy Handful of Nothing"	Walter: "How much is this?" Jesse: "26 big ones." Walter: "Is that all, $26,000?" Jesse: "No, that $2,600 and your share is $1,300 minus $25 for that phone." […] Walter: "This is unacceptable. I am breaking the law here. This return is too little for the risk." […] Walter: "We have to move our product in bulk, wholesale. Now, how do we do that?" Jesse: "What do you mean, to a distributor?" Walter: "Yes! Yes, that is what we need. We need a distributor." (15:40-17:25)	Return to risk, production, supply chain; economies of scale; fixed costs; total costs; profit; cost-saving middleman; comparative advantage; specialization; division of labor; opportunity cost
Season 1 Episode 6 "Crazy Handful of Nothing"	Walter Jr. "Hey, Uncle Hank … I heard you arrested Mr. Archilleya the other day. He's a pretty cool guy." Hank: "Well, turns out he has a record. Yeah, a couple of possession beefs. We figured he was the guy that was stealing your school's chemistry gear. I mean, you know, he had a key, fit the profile. And, when we searched his truck, we found a big old fat blunt. Which goes to prove old huge Hugo ain't so cool after all." (31:43-34:12)	Correlation is not causation; negative externalities; costs/unintended consequences of illegal drugs

Season 1 Episode 7 "A-No-Rough-Stuff-Type Deal"	Walter: "Take a look at that money in your hand. Now, just imagine making that every week. That is right. Two pounds a week, $35,000 a pound." Jesse: "Without even talking to me you told this […] killer that we would give him 2 pounds a week." Walter: "We will just scale up our operation, add a few more hours." Jesse: "No don't talk to me about hours. What about pseudo[ephedrine], man? How are we going to get that? […] God, it takes me a week to get this stuff." (07:00-08:04)	Resource market, capacity constraints; optimal scale of production; optimal output; profit-motive; incentives; elasticity of supply; underground economy
Season 1 Episode 7 "A-No-Rough-Stuff-Type Deal"	Tuco: "You told me two pounds and now you waste my time with these Chiclets? $17,500. Minus the half for wasting my time." Walter: "Hey, come on." Tuco: "What, are you going to argue?" (11:48-13:07)	Opportunity cost
Season 1 Episode 7 "A-No-Rough-Stuff-Type Deal"	Walter: "We are not going to need pseudoephedrine. We are going to make phenyl acetone in a tube furnace and then we are going to use reductive amination to yield methamphetamine, 4 pounds." Jesse: "So no pseudo[ephedrine]?" Walter: "No pseudo." (14:40-15:54)	Substitute inputs; elasticity of supply
Season 2 Episode 1 "Seven Thirty-Seven"	In this scene, Walter calculates how much money he needs to raise from producing and selling methamphetamine such that his family's expenses (e.g., college tuition for his two children and mortgage together with other monthly expenses) will be covered after his passing. From an economics perspective, Walter is estimating the expected monetary benefit (or from a different viewpoint, his reservation income) from engaging in an illegal activity. He obviously weighs this expected benefit against the potential costs that come with producing and selling methamphetamine and concludes that eleven more "cooking" sessions is all he needs. (04:24-06:03)	Becker model of criminal behavior; cost-benefit analysis; marginal analysis; inflation; reservation income
Season 2 Episode 1 "Seven Thirty-Seven"	Hank: "So, what did they get?" Gomez: "Methylamine, 30 gallons." Hank: "They're cooking old school biker meth." […] Hank: "Pseudo[ephedrine] is in short supply [shortage] so these two make do by changing the formula. I would say that these two know their chemistry." (23:24-25:06)	Substitute inputs; elasticity of supply
Season 2 Episode 2 "Grilled"	Tuco: "We'll do nothing but cook 24/7. And no Federales are going to mess with us because I got my people there. Connections." […] Walter: "Tuco, I have a wife and family." Tuco: "So what? You will get another one!" Walter: "I don't want you to take this the wrong way, but I cannot just … uproot my life like that." Jesse: "Yeah, man. I mean, me neither." (21:05-21:57)	Subjective cost; opportunity cost; cost-benefit analysis
Season 2 Episode 3 "Bit By A Dead Bee"	Jesse: "This stuff [methamphetamine lab ware] has to go, like now." […] Jesse: "Yo, what did we say, $500?" Clovis: "We did not say, and it is $1,000." Jesse: "A thousand bucks? Come on, where are you towing it, man, to Seattle?" Clovis: "It ain't the miles, it's the cargo." (08:48-12:23)	Inelastic demand; elasticity of demand; willingness to pay; willingness to supply; property rights; incentive effects of private property rights;

Season 2 Episode 4 "Down"	Lawyer: "Jesse Bruce Pinkman, pursuant to Section 47-8-13 of the New Mexico Real Property Code you are hereby given notice to vacate the premises listed as 9809 Margo, Albuquerque, 87104." Jesse: "Wait! What? You are kicking me out of my own house?" Jesse's Dad: "It is your Aunt Ginny's house." Jesse: "And she gave it to me." Jesse's Dad: "She never gave it to you, Jesse." Lawyer: "You were allowed residentiary privileges. Your parents have been the property owners." (09:22-12:10)	Property rights; incentive effects of private property rights
Season 2 Episode 5 "Breakage"	Jesse needs to hide the recreational vehicle (RV) from the DEA agents and he has only one option. The exchange between Jesse and the junk yard owner illustrates how consumers respond to price changes when substitutes are not available. Jesse: "What would you charge me to store this [RV] here?" Truck driver: "A million – five." Jesse: "Come on, yo! I got storage needs. And I got scratch up front. We could, you know, negotiate." Truck driver: "Five hundred." Jesse: "A month?" Truck driver: "A week." Jesse: "For real?" Truck driver: "See you!" (12:00-14:50)	Elasticity of demand; willingness to pay; willingness to supply; consumer surplus; producer surplus
Season 2 Episode 5 "Breakage"	Jane: "So, are you interested?" Jesse: "Definitely! Definitely, yeah!" […] Jane: "All right, the usual drill. I will need a W-2 or a recent pay stub, current employer, former address, you know, yadda yadda." […] Jesse: "I'm just currently between situations." Jane: " Then, I'm currently not renting." […] Jesse: "I will not mess this up, okay? I swear." Jane: " Rent just went up. A hundred more a month. That's the cash price. And, in addition to first and last, I want two more months." Jesse: "Yeah, of course. No problem." (15:00-18:45)	Elasticity of demand; incentive effects of private property rights; private property
Season 2 Episode 7 "Negro y Azul"	Walter and Jesse find themselves as the sole distributor of crystal meth in the area. Jesse communicates the "good news" to his street vendors by saying, "This is our city… Our territory. […] we sell when we want, where we want." In the ensuing scene, Walter goes: "*We are not charging enough…You corner the market, then raise the price. Simple economics."* (40:13-40:48)	Monopoly; market power; elasticity of demand
Season 2 Episode 10 "Over"	News anchor (in the background) "[…] causing the house price to trend. Foreclosures are being fueled by a spike in […] The economy is rapidly deteriorating and unemployment is climbing. With Americans losing money over rising inflation and tight spending, the housing market is unlikely to rebound, spelling more pain for the country." (38:56-40:36)	Inflation; unemployment; housing market
Season 2 Episode 10 "Over"	When shopping for primer, Walter observes a cart full of ingredients for cooking methamphetamine. (42:49-44:49)	Intermediate inputs; fixed inputs; variable inputs; specialized inputs; costs; elasticity of supply

Season 2 Episode 11 “Mandala”	In this scene, Skyler (Walter’s wife) speaks to Ted Beneke (her employer) about some underreported income, which she found while analyzing the company’s records. Initially, Ted labels this as an accounting error but soon admits to underreporting income in an attempt to avoid paying more income taxes. From their conversation, it is clear that Ted purposefully engages in this illegal activity by taking into account the benefits and costs of doing so. The scene is also useful for discussing the decline in tax receipts during a recession as well as its potential causes. (30:50-34:34)	Becker model of criminal behavior; cost-benefit analysis; marginal analysis; tax avoidance; tax receipts; business cycle
Season 3 Episode 1 “No Más”	A plane crashed in the city of Albuquerque, NM. From damaged property to the loss of life on the ground, everybody is dealing with the negative externalities brought about by the crash. (04:15-05:26; 08:55-09:32)	Negative externalities
Season 3 Episode 1 “No Más”	In a small Mexican town, some of the locals do not walk but crawl towards the shrine of Santa Muerte. This behavior is a perfect example of how cultural norms create markets, in this case for knee and elbow guards. (00:23-01:15)	Invisible handshake; social norms as market determinants
Season 3 Episode 1 “No Más”	Group Leader: “But I was out of vodka. And this is in Portsmouth, Virginia; where instead of selling liquor in the supermarkets they have these ABC stores, which close at 5PM …” (29:31-31:53)	Invisible foot; unintended consequences of government regulation
Season 3 Episode 1 “No Más”	Two short video clips on the cost/benefit analysis and the subjectivity of costs and benefits. The first pits a rural family against the criminal twins. The second clip shows how Walter weighs the costs and benefits of producing methamphetamine. (22:54-25:07; 39:42-42:14)	Cost/benefit analysis; subjectivity of costs and benefits
Season 3 Episode 1 “No Más”	Even drug manufacturers love peanut butter and jelly. This video clip shows Walter preparing himself a peanut butter and jelly sandwich. (15:38-16:03)	Complements in consumption
Season 3 Episode 2 “Caballo Sin Nombre”	Please refer to the description provided within the section titled “Clips and the Associated Economics Concepts”. (30:40-33:36)	Asymmetric information; product differentiation; product characteristics; profit-maximizing behavior; opportunity cost; economizing behavior
Season 3 Episode 2 “Caballo Sin Nombre”	Burgers and ketchup as complements in consumption. (16:25-16:50)	Complements in consumption
Season 3 Episode 3 “I.F.T.”	Two short video clips on the cost/benefit analysis and the subjectivity of costs and benefits. The first depicts Skyler, who figures out that the benefit from turning Walter in is lower than the cost of doing so. Thus, she refrains from pursuing such action. The second depicts Walter who, once again, debates on the costs and benefits of cooking meth. (29:24-31:13; 39:00-41:17)	Cost/benefit analysis; subjectivity of costs and benefits
Season 3 Episode 4 “Green Light”	The crash of flight 515 represents a positive externality for Saul who, as a lawyer, might now initiate a class-action suit against the airline. (04:21-04:45)	Positive externalities

Season 3 Episode 4 "Green Light"	Jesse visits a gas station and, after filling up and asking for a pack of cigarettes, he realizes that he has no cash on him. He proposes a trade; a little bag of "blue" methamphetamine against the gas and cigarettes. After hesitating initially, the cashier accepts the trade. However, for the trade to take place, a mutual coincidence of wants must emerge. It does in this case. Also, note that the cashier accepts the methamphetamine under the false belief that it does not create addiction. (00:41-03:24)	Medium of exchange; gains from trade/barter; mutual coincidence of wants; asymmetric information
Season 3 Episode 4 "Green Light"	Jesse fills up the RV's tank and asks for a pack of cigarettes. However, he does not have the money to pay for these. He asks if he can come in a pay later but the cashier tells him that the gas station belongs to her dad, who is very careful when it comes to money. The gas station belongs to him and he has the incentive to care for it. Not the same can be said about his daughter. According to her, Jesse could leave and come back later. (00:41-1:30)	Property rights, incentive effects of private property; principal-agent problem
Season 3 Episode 4 "Green Light"	Milk and cereals along with orange juice as complements in consumption. (38:50-39:48)	Complements in consumption
Season 3 Episode 5 "Más"	In order to start cooking methamphetamine, Walter and Jesse must purchase an RV. The $7,000, which they must pay for it, is an example of a production fixed cost. (00:00-00:43)	Fixed costs
Season 3 Episode 5 "Más"	Walter: "Look at this reaction vessel. It is got to be 1200 liters. Wow! How did you know how to put this all together? " (23:10-25:30)	Fixed costs, elasticity of supply, economies of scope, economies of scale, optimal output
Season 3 Episode 5 "Más"	Please refer to the description provided within the section titled "Clips and the Associated Economics Concepts". (42:08-43:31)	Monopsony; market power; bargaining power; transaction costs; willingness to supply; producer surplus; willingness to pay; consumer surplus; elasticity of supply; contracts; contract enforcement; role of institutions; dispute resolution
Season 3 Episode 6 "Sunset"	Walter: "I mean, I cannot imagine we strike each other as criminals." Gale: "Well, there is crime and there is crime, I suppose. I am definitely a libertarian. Consenting adults want what they want. And, if I am not supplying it [methamphetamine] they will get it somewhere else. At least with me, they get what they pay for. No added toxins or adulterants." (20:40-21:14)	Elasticity of demand; asymmetric information

Season 3 Episode 6 "Sunset"	Mechanic: "Hold up. What's this about?" Walter: "The DEA, the Drug Enforcement Administration. You have heard of them, right? They know all about this RV and they are trying to find it right now." Mechanic: "I want this [RV] off my property, now!" Walter: "No, no, we have got to destroy the evidence. We have got to rig this thing to burn." Mechanic: "Not here! Get it out of here!" Walter: "Now listen to me! I need your help! Okay? If I go down, we all go down. Do you understand?" Mechanic: All right, just … I know a way. I know a guy that will wipe this thing off the planet, no questions." (29:27-30:07)	Incentives; property rights; incentive effects of private property rights
Season 3 Episode 6 "Sunset"	Walter makes peanut butter and jelly sandwiches once again, which are complements in consumption. So can be pants and belts. (12:10-12:48)	Complements in consumption
Season 3 Episode 6 "Sunset"	Owner: "Got a warrant?" Hank: "Who are you, huh? Who are you and what do you know about this RV?" Owner: "Well, I am the owner of this lot, which means you are trespassing on private property. As far as the RV goes, seems to me it is locked, which means you are trying to break and enter, so again, you got a warrant?" […] Owner: "This is a domicile, a residence and thus protected by the Fourth Amendment from unlawful search and seizure." (35:30-37:02)	Private property rights; incentive effects of private property rights
Season 3 Episode 7 "One Minute"	Seller: "Anyhow, I have been wind jamming long enough. Why don't you boys tell me what you are looking for? What it is you need?" Leonel: "Vests." Seller: "Vests? Hell, yeah, we got vests. Right here. Sleek, comfortable, thermally bonded, non-interwoven Kevlar fiber. And lightweight? So lightweight, you'll forget you are wearing it." Marco: "They work?" Seller: "Sure as shit, they do. I do not leave home without it." (23:54-25:20)	Transaction costs; asymmetric information;
Season 3 Episode 8 "I See You"	The video clip shows Jesse, who instead of cooking or getting himself accustomed with the lab equipment, he prefers to fool-around instead. This behavior also shows that sometimes the principal's/owner's interests are not always aligned with those of the agent's/employee's. (27:40-29:44)	Shirking; principal-agent contract; monitoring
Season 3 Episode 9 "Kafkaesque"	Please refer to the description provided within the section titled "Clips and the Associated Economics Concepts". (00:00-02:27)	Total costs; fixed costs; variable costs; underground economy; principal-agent contract; monitoring; shirking
Season 3 Episode 9 "Kafkaesque"	The benefit ($1.5 million) relative to the cost (time and effort) of cooking meth is different for Walter and Jesse. The benefits are obviously lower than the costs in Jesse case but not for Walter; as he seems happy with trading his time and effort for the cash. (03:03-05:05)	Cost/benefit analysis; subjectivity of costs and benefits
Season 3 Episode 9 "Kafkaesque"	Is $93 million the profit made by selling meth? Is Jesse forgetting something? What about costs with the lab, packaging, distributing, and guarding the meth. In addition, the risk that Gus (the owner of the methamphetamine operation) takes represents an additional cost of doing business. (03:03-05:05)	Production costs; transaction costs; profit; underground economy; return to risk

Season 3 Episode 9 "Kafkaesque"	Through his decisions, Gus manages to create a monopoly in the methamphetamine market north of the Mexican border. He does so by drawing the attention of U.S. and Mexican governments onto the Cartel, with which he was sharing the market previously. With the Cartel not able to ship any methamphetamine to the U.S., Gus has the market to himself. (21:10-23:25)	Game theory; strategic behavior; market structure; monopoly
Season 3 Episode 10 "Fly"	Jesse knows that the demand for methamphetamine (an addictive good) is inelastic and, in this regard, consumers will not have much to object if the quality is lower than usual. Why? (15:13-16:27)	Elasticity of demand, quality
Season 3 Episode 11 "Abquiu"	One unintended consequence of policies that outlaw the production/distribution/consumption of drugs is the creation of money-laundering operations such as "Ice Station Zebra Associates". Walter uses this "company" to launder the money he earns from manufacturing methamphetamine. (13:15-15:02)	Unintended consequences; costs of illegal drugs; underground economy
Season 3 Episode 11 "Abquiu"	Who guards the guards? Walter supervises Jesse but their employer monitors both Walter and Jesse as they work in the lab. (05:51-06:52)	Monitoring; shirking; principal-agent problem
Season 3 Episode 12 "Half Measures"	Please refer to the description provided within the section titled "Clips and the Associated Economics Concepts". (09:06-14:52)	Cost of illegal drugs; unintended consequences of illegal drugs; human capital; poverty; restricted opportunity; social mobility; monopolistic competition; black markets; contract enforcement; dispute resolution; judicial system; role of institutions
Season 3 Episode 13 "Full Measures"	Walter and Skyler are in the market for a new house. Walter is attempting to maximize his utility by proposing to Skyler a larger house instead. In other words, Walter is trying to move onto a higher indifference curve. However, their limited budget represents a constraint to Walter's utility maximization problem. (01:36-03:31)	Utility, utility maximization, indifference curve, budget constraint
Season 4 Episode 1 "Box Cutter"	The price system motivates Gus to purchase the equipment for the chemistry lab, hire the resources needed and take the risk to produce and distribute the methamphetamine. (00:00-04:30)	Invisible hand; elasticity of supply
Season 4 Episode 1 "Box Cutter"	Please refer to the description provided within the section titled "Clips and the Associated Economics Concepts". (01:41-04:30)	Product differentiation; monopolistic competition; alchian-allen effect in prohibited drugs; potency effect; substitutes in consumption and production; cross-price elasticity of demand; marginal cost vs. marginal benefit

Season 4 Episode 2 “Thirty-Eight Snub”	“That, there, is why you you’re going to pay me five times what you’d pay your neighborhood gun store.” In addition to depicting the underground market for firearms, this clip is also useful to spark a discussion about gun control policies. (02:35-04:45)	Black market for firearms; prices; invisible hand; gun control policies; underground economy
Season 4 Episode 2 “Thirty-Eight Snub”	Jesse: “Yo, what’s up with the pie man? It ain’t cut!” Brandon: “Yeah, right. That’s the gimmick.” Jesse: “What gimmick?” Brandon: “This place, they don’t cut their pizza and they pass the savings on to you” Jesse: “How much can it be to cut a damn pizza?” Brandon: “Gotta figure, you make, like, 10 million pizzas a year. Each pizza takes, like, 10 seconds to cut. In man - hours, that’s … I don’t know! … A lot?” (25:28-26:35)	Cost/benefit analysis; subjectivity of costs and benefits; scarcity; no such things as free lunch; trade-offs
Season 4 Episode 3 “Open House”	Bogdan: “But this is not right. You cannot shut me down. You cannot do this.” Agent: “I have checked your runoff gutters, and now out here, more contaminants. Ammonia, acetone, benzene, nitrobenzene.” (28:20-30:50)	Market failures; negative externalities; pollution; government intervention; invisible foot
Season 4 Episode 4 “Bullet Points”	Walter Jr.: “Cool! What makes it be all pink like that?” Hank: “Well, that’s the manganese part. Okay? It oxidizes, you know, like rust.” Walter: “Exactly, manganese can have an oxidation state between -3 and +7, which takes it through a range of colors. Purple, green, blue. But its most stable state is +2, which is usually pale pink. So …” Hank: “Exactly! Whatever the hell he said.” (15:34-16:18)	Positive Statement
Season 4 Episode 5 “Shotgun”	Walter: “You people have me down here trying to complete a two-man operation by myself. It is dangerous and counterproductive. It is unacceptable. Jesse operates the forklift, not me. That is one of the many, many things he does around the lab that keeps us on schedule.” (29:00-30:14)	Specialization; division of labor; absolute advantage; productivity; economies of scale; short run; diminishing marginal productivity of inputs; over-utilization of fixed inputs
Season 4 Episode 6 “Cornered”	Walter: “I think it’s time we got you your own car. What do you think?” Walter Jr.: “I think if you’re going to buy me off … buy me off!” (19:30-20:52)	Willingness to pay; product characteristics; consumer preferences; elasticity of demand
Season 4 Episode 6 “Cornered”	Jesse: “I’m getting those pricks out of that house.” Mike: “Oh, your first attempt being such a wild success?” Jesse: “You may know this whole PI sit-in-the-car business but I know meth-heads.” (32:14-35:20)	Job-specific skills; human capital; productivity
Season 4 Episode 7 “Problem Dog”	Walter: “Well that’s what this is, problem solving. Skyler, this is a simple division of labor. I bring in the money. You launder it. This is what you wanted.” (16:06-17:01)	Comparative advantage; division of labor; specialization
Season 4 Episode 11 “Crawl Space”	Jesse rushes Mike and Gus to a medical area they setup to treat them after the meeting with the cartel. The doctors rush out, start treating Gus, and ignore Mike who has been shot. Jesse brings Mike in and asks for help and the doctor points out that Gus is his priority as he pays his salary. (00:00-02:13)	Trade-offs; incentives

Season 4 Episode 11 “Crawl Space”	Huell and Patrick go to see Ted and make him pay off the IRS debt he owes. Ted signs the check and seems to be cooperating but decides to make a run for it. He takes off running, slips on his rug, and slams headfirst into his cabinet breaking his neck. (27:38-31:01)	Unintended consequences; incentives
Season 4 Episode 12 “End Times”	Gus and his people leave the meeting at the hospital with Jesse and head back to their car in the parking garage. As they approach the car, Gus stops and begins to look around at the rooftops around the garage. Walter is on a nearby rooftop and hides as Gus stands right across from him waiting and thinking. He decides to abandon his car, as he fears it may be a trap. (42:00-45:10)	Cost-Benefit analysis; strategic thinking
Season 5 Episode 2 “Madrigal”	DEA Chief: “I had him out to my house. Fourth of July. We cooked out in the backyard. My son shucked the corn. My daughter cut up potatoes. Fring brought seabass. Every time I grill it now, I make a little foil pouch, just like he showed me. The whole night we were laughing, telling stories, drinking wine. And he is somebody else completely.” (18:10-19:04)	Asymmetric information
Season 5 Episode 3 “Hazard Pay”	Please refer to the description provided within the section titled “Clips and the Associated Economics Concepts”. (38:41-44:06)	Total, fixed, variable, and transaction costs; profit; compensating differential; property rights; dispute resolution; judicial system; role of institutions; underground economy; money laundering; return to risk; black markets; gross domestic product
Season 5 Episode 4 “Fifty-One”	Walter: “Hey, Benny! What would you give me for it?” Benny: “[…] Well, I am not really looking for …” Walter: “A hundred dollars? Fifty?” Benny: “Insurance company just shelled out $1,900 for the parts alone.” Walter: “Then it is a bargain. You give me fifty bucks, and she’s all yours.” Benny: “You sure about this?” Walter: “Sure as shooting.” Benny: “I’ll check the register.” (00:00-02:35)	Willingness to pay; consumer surplus; law of demand; consumer tastes and preferences; shift in demand curve; subjective benefits
Season 5 Episode 5 “Dead Freight”	Mike and Walter discuss the methods of production and the various costs associated with the different ways of producing meth. (23:05-24:46)	Fixed costs; sunk costs; variable costs; cost of illegal drugs; unintended consequences; economic efficiency;
Season 5 Episode 6 “Buyout”	Mike and Jesse try to sell their share of the methylamine to a methamphetamine producer from Phoenix. However, the Phoenix producer wants it all, theirs and Walter’s. This way he can control the entire market for methamphetamine. (25:16–27:37)	Competition; supply and demand curves

Season 5 Episode 7 “Say My Name”	Walter discusses with and convinces the dealer from Phoenix that they should collaborate. This way, Walter’s superior blue methamphetamine remains in production ant the methylamine, a key input, is used in the most efficient and profitable way. (00:30-04:48)	Economic efficiency; elasticity of demand; black markets; comparative advantage; monopolistic competition; product differentiation; product quality; elasticity of supply; intermediate inputs
Season 5 Episode 8 “Gliding Over All”	Lydia presents Walter with the opportunity of expanding into a new market (the Czech Republic). Lydia goes further and points out that entry should not be difficult given Walter’s high-purity “blue” methamphetamine and the inferior alternatives available there. Also, it is worth noting that such overseas expansion would not have been possible without Lydia’s expertise regarding global supply chains. (08:47–11:22)	Elasticity of supply and demand; market entry; comparative advantage; opportunity cost; middleman; transaction cost; monopolistic competition; product differentiation; multinational enterprise; intra-firm trade; trade barriers
Season 5 Episode 8 “Gliding Over All”	This clip represents a wonderful account of all the moving parts of Walter’s methamphetamine enterprise. Walter and Jesse cook, Lydia arranges and oversees the international shipments of methamphetamine, which are disguised as shipments of various chemicals between the subsidiaries of the multinational enterprise she works for, Todd coordinates the transportation operations, and Skyler is in charge of accounting and money laundering. Here, the division of labor and the comparative-advantage based specialization is what makes their enterprise successful. (27:08–27:44)	Comparative advantage; opportunity cost; division of labor; specialization
Season 5 Episode 8 “Gliding Over All”	Skyler takes Walter to a storage area she has rented and shows him the giant pile of money he has made from his meth business. She then asks him “How much is enough? How big does the pile have to be?” S5 E8 (31:54-34:39)	Scarcity; trade-offs; opportunity costs; leisure as normal good; income effect
Season 5 Episode 8 “Gliding Over All”	Walter stops by to see Jesse and they reminisce about why they kept using the old RV even after they had money. (38:15–39:59)	Cost-benefit analysis; opportunity cost; sunk cost
Season 5 Episode 10 “Buried”	Huell and Patrick are sent to get Walter’s giant pile of money. Upon seeing it Huell and Patrick cannot resist the urge to lay on top of it. Huell suggests that they skip town with the money but Patrick points out that Walter had ten men killed, in prison, all within a two-minute window. (13:19-14:43)	Cost-benefit analysis
Season 5 Episode 11 “Confessions”	Jesse beats Saul and forces him to confess at gunpoint about helping Walter to poison the son of his (Jesse’s) former girlfriend. (41:45-43:14)	Cost-benefit analysis

Season 5 Episode 13 "To'hajiilee"	Todd cooks a methamphetamine batch of only 76% purity and not the distinct blue color expected by European customers. Lydia comments that consumers expect the "blue", which is a signal of quality and purity, and will pay top dollar only for it. (00:00-02:39)	Consumer preferences; product differentiation; product quality; elasticity of demand
Season 5 Episode 14 "Ozymandias"	Walter drives to the desert to hide the cash generated by his methamphetamine enterprise but he runs out of gas. As he rolls one of the money-full barrels, he comes by a house and asks to buy the truck sitting in the driveway. Initially, the truck is not for sale but after he offers the man a large stack of money this changes. Next, we see Walter load the barrel in the back of the recently purchased vehicle. (21:55–23:04)	Law of supply; incentives; opportunity cost; willingness to supply
Season 5 Episode 15 "Granite State"	Saul explains to Walter that his departure will cause tremendous harm to his family even if they were not involved in his methamphetamine-producing enterprise. (08:54-11:27)	Negative externality
Season 5 Episode 15 "Granite State"	Walter asks Ed if he would give the money to his family when he died. Ed asks Walter if he would believe him if he said yes. (39:41-40:36)	Moral hazard
Season 5 Episode 16 "Felina"	Walter is in his old house, which has been vandalized and is in awful shape. (20:30-21:31)	Negative externality; property rights; incentive effects of private property

Table A2: Concepts by Season, Episode, and Time

Absolute advantage	Season 1 Episode 1/S1 E1 (27:34-30:07); S4 E5 (29:00-30:14)
Alchian-Allen effect	S4 E1 (01:41-04:30)
Asymmetric information	S3 E2 (30:40-33:36); S3 E4 (00:41-3:24); S3 E6 (20:40-21:14); S3 E7 (23:54-25:20); S5 E2 (18:10-19:04)
Bargaining power	S3 E5 (42:08-43:31)
Barriers to entry	S1 E5 (00:00-01:20)
Becker model of criminal behavior	S2 E1 (04:24-06:03); S2 E11 (30:50-34:34)
Black markets	S1 E1 (31:54-33:54); S3 E12 (09:06-14:52); S4 E2 (02:35-04:45); S5 E3 (38:41-44:06); S5 E7 (00:30-04:48)
Budget constraint	S3 E13 (01:36-03:31)
Business cycle	S2 E11 (30:50-34:34)
Capacity constraint	S1 E7 (07:00-08:04)
Comparative advantage	S1 E1 (27:34-30:07); S1 E6 (15:40-17:25); S4 E7 (16:06-17:01); S5 E7 (00:30-04:48); S5 E8 (08:47–11:22); S5 E8 (27:08–27:44)
Compensating differential	S5 E3 (38:41-44:06)
Competition	S1 E1 (31:54-33:54); S3 E12 (09:06-14:52); S4 E1 (01:41-04:30); S5 E6 (25:16-27:37)
Complements in consumption	S3 E1 (15:38-16:03); S3 E2 (16:25-16:50); S3 E4 (38:50-39:48); S3 E6 (12:10-12:48)
Consumer preferences	S4 E6 (19:30-20:52); S5 E4 (00:00-2:35); S5 E13 (00:00-02:39)
Consumer surplus	S2 E5 (12:00-14:50); S3 E5 (42:08 – 43:31); S5 E4 (00:00-2:35)
Contracts and contract enforcement	S3 E5 (42:08-43:31); S3 E12 (09:06-14:52)
Correlation is not causation	S1 E6 (31:43-34:12)
Cost of illegal drugs	S1E6 (31:43-34:12); S3 E11 (13:15-15:02); S3 E12 (09:06-14:52); S5 E5 (23:05-24:46)
Cost-benefit analysis	S2 E1 (04:24-06:03); S2 E2 (21:05-21:57); S2 E11 (30:50-34:34); S4 E12 (42:00-45:10); S5 E8 (38:15-39:59); S5 E10 (13:19-14:43); S5 E11 (41:45-43:14)
Cross-price elasticity of demand	S4 E1 (01:41- 04:30)
Demand curve shift	S5 E4 (00:00-2:35); S5 E6 (25:16-27:37)
Diminishing marginal productivity	S4 E5 (29:00-30:14)
Dispute resolution	S3 E5 (42:08-43:31); S3 E12 (09:06-14:52); S5 E3 (38:41-44:06)
Division of labor	S1 E1 (27:34-30:07); S1 E6 (15:40-17:25); S4 E5 (29:00-30:14); S4 E7 (16:06-17:01); S5 E8 (27:08–27:44)
Economies of scale	S1 E6 (15:40-17:25); S3 E5 (23:10-25:30); S4 E5 (29:00-30:14); S5 E8 (27:08-27:44)
Economies of scope	S3 E5 (23:10-25:30)
Economizing behavior	S3 E2 (30:40-33:36)
Economic efficiency	S5 E5 (23:05-24:46); S5 E7 (00:30-04:48)
Elasticity of demand	S1 E1 (31:54-33:54); S2 E3 (08:48-12:23); S2 E5 (12:00-14:50) and (15:00-18:45); S2 E7 (40:13-40:48); S3 E6 (20:40-21:14); S3 E10 (15:13-16:27); S4 E1 (01:41-04:30); S4 E6 (19:30-20:52); S5 E7 (00:30-04:48); S5 E13 (00:00-2:39); S5 E8 (08:47-11:11)
Elasticity of supply	S1 E7 (07:00-08:04); S1 E7 (14:40-15:54); S2 E1 (23:24-25:06); S2 E10 (42:49-44:49); S3 E5 (23:10-25:30) and (42:08-43:31); S4 E1 (00:00-04:30); S5 E8 (08:47-11:11); S5 E7 (00:30-04:48)

Fixed costs and inputs	S1 E6 (15:40-17:25); S2 E10 (42:49-44:49); S3 E5 (00:00-00:43) and (23:10-25:30); S3 E9 (00:00-02:27); S5 E3 (38:41-44:06); S5 E5 (23:05-24:46)
Gains from trade/barter	S3 E4 (00:41-3:24); S1 E1 (27:34-30:07)
Game theory	S1 E1 (27:34-30:07); S3 E9 (21:10-23:35)
Government intervention/regulation	S3 E1 (29:31-31:53); S4 E3 (28:20-30:50)
Gross domestic product	S5 E3 (38:41-44:06)
Gun control	S4 E2 (02:35-04:45)
Health care concepts (e.g., HMO, PPO)	S1 E4 (17:08-18:53)
Housing market	S2 E10 (38:56-40:36)
Human capital	S1 E5 (00:00-01:20); S3 E12 (09:06-14:52); S4 E6 (32:14-35:20);
Incentives	S1 E1 (27:34-30:07); S1 E7 (07:00-08:04); S2 E3 (08:48-12:23); S2 E4 (09:22-12:10); S2 E5 (15:00-18:45); S3 E4 (00:41-1:30); S3 E6 (29:27-30:07); S3 E6 (35:30-37:02); S4 E11 (00:00-02:13) and (27:38-31:01); S5 E14 (21:55-23:04); S5 E16 (20:30-21:31)
Income effect	S5 E8 (31:54-34:39)
Income tax	S2 E11 (30:50-34:34)
Indifference curve	S3 E13 (01:36-03:31)
Inflation	S2 E1 (04:24-06:03); S2 E10 (38:56-40:36)
Intermediate inputs	S2 E10 (42:49-44:49); S5 E7 (00:30-04:48)
Intra-firm trade	S5 E8 (08:47–11:22)
Invisible foot	S4 E3 (28:20-30:50); S3 E1 (29:31-31:53)
Invisible hand	S4 E1 (00:00-04:30); S4 E2 (02:35-04:45)
Invisible handshake	S3 E1 (00:23-01:15)
Job search	S1 E5 (00:00-01:20)
Judicial system	S3 E12 (09:06-14:52); S5 E3 (38:41-44:06)
Law of demand	S5 E4 (00:00-2:35)
Law of supply	S5 E14 (21:55-23:04)
Marginal analysis	S2 E1 (04:24-06:03); S4 E1 (01:41- 04:30)
Market entry	S5 E7 (00:30-04:48); S5 E8 (08:47–11:22)
Market failure	S4 E3 (28:20-30:50)
Market power	S1 E1 (31:54-33:54); S2 E7 (40:13-40:48); S3 E5 (42:08-43:31)
Market structure	S3 E9 (21:10-23:25)
Medium of exchange	S3 E4 (00:41-3:24)
Middleman	S1 E6 (15:40-17:25); S5 E8 (08:47–11:22)
Money laundering	S5 E3 (38:41-44:06)
Monitoring	S3 E9 (00:00-2:27); S3 E8 (27:40-29:44); S3 E11 (05:51-06:52)
Monopolistic competition	S1 E1 (31:54-33:54); S3 E12 (09:06-14:52); S4 E1 (01:41-04:30); S5 E7 (00:30-04:48); S5 E8 (08:47–11:22)
Monopoly	S2 E7 (40:13-40:48); S3 E9 (21:10-23:25)
Monopsony	S3 E5 (42:08-43:31)
Moral hazard	S5 E15 (39:41-40:36)

Mutual coincidence of wants	S3 E4 (00:41-3:24)
Multinational enterprise	S5 E8 (08:47–11:22)
Negative externality	S1 E6 (31:43-34:12); S4 E3 (28:20-30:50); S5 E15 (08:54-11:27); S5 E16 (20:30-21:31)
Normal good	S5 E8 (31:54-34:39)
Opportunity cost	S1 E6 (15:40-17:25); S1 E7 (11:48-13:07); S2 E2 (21:05-21:57); S3 E2 (30:40-33:36); S5 E8 (08:47–11:22), (27:08–27:44) and (38:15-39:59); S5 E14 (21:55–23:04)
Optimal output	S1 E7 (07:00-08:04); S3 E5 (23:10-25:30)
Pollution	S4 E3 (28:20-30:50)
Positive externalities	S3 E4 (04:21-04:45)
Potency effect	S4 E1 (01:41-04:30)
Poverty	S3 E12 (09:06-14:52)
Principal-agent contract	S3 E4 (00:41-03:24); S3 E8 (27:40-29:44); S3 E9 (00:00-02:27); S3 E11 (05:51-06:52)
Private property	S2 E3 (08:48-12:23); S2 E4 (09:22-12:10); S2 E5 (15:00-18:45); S3 E4 (00:41-03:24); S3 E6 (29:27-30:07); S3 E6 (35:30-37:02); S5 E16 (20:30-21:31)
Producer surplus	S2 E5 (12:00-14:50); S3 E5 (42:08-43:31)
Product characteristics	S4 E6 (19:30-20:52); S3 E2 (30:40-33:36)
Product differentiation	S1 E1 (31:54-33:54); S3 E2 (30:40-33:36); S4 E1 (01:41-04:30); S5 E7 (00:30-04:48); S5 E8 (08:47–11:22); S5 E13 (00:00-02:39)
Production costs	S3 E9 (00:00-02:27) and (03:03-05:05)
Productivity	S4 E5 (29:00-30:14); S4 E6 (32:14-35:20)
Profit	S5 E3 (38:41-44:06)
Profit-maximizing behavior	S3 E2 (30:40-33:36)
Profit-motive	S1 E7 (07:00-08:04)
Production possibility frontier shift	S3 E12 (09:06-14:52)
Quality	S3 E10 (15:13-16:27); S5 E7 (00:30-04:48) ; S5 E13 (00:00-02:39)
Reservation income/wage	S2 E1 (04:24-06:03)
Restricted opportunity	S3 E12 (09:06-14:52)
Return to risk	S1 E6 (15:40-17:25); S3 E9 (03:03-05:05); S5 E3 (38:41-44:06)
Role of institutions	S3 E5 (42:08-43:31); S3 E12 (09:06-14:52)
Scarcity	S4 E2 (25:28-26:35); S5 E8 (31:54-34:39)
Shift in demand	S5 E4 (00:00-2:35)
Shirking	S3 E8 (27:40-29:44); S3 E9 (00:00-2:27); S3 E11 (05:51-06:52)
Social mobility	S3 E12 (09:06-14:52)
Specialization	S1 E1 (27:34-30:07); S1 E6 15:40-17:25); S4 E5 (29:00-30:14); S4 E7 (16:06-17:01); S5 E8 (27:08–27:44)
Specialized inputs	S2 E10 (42:49-44:49)
Strategic behavior	S3 E9 (21:10-23:25); S4 E12 (42:00-45:10)
Subjectivity of costs and benefits	S2 E2 (21:05-21:57); S3 E1 (22:54-25:07) and (39:42-42:14); S3 E3 (29:24-31:13) and (39:00-41:17); S3 E9 (03:03-05:05); S4 E2 (25:28-26:35); S5 E4 (00:00-02:35)

Substitute inputs	S1 E7 (14:40-15:54); S2 E1 (23:24-25:06)
Substitutes in consumption	S4 E1 (01:41-04:30)
Substitutes in production	S4 E1 (01:41-04:30)
Sunk costs	S5 E5 (23:05-24:46); S5 E8 (38:15-39:59)
Supply	S5 E6 (25:16-27:37)
Supply chains	S1 E6 (15:40-17:25)
Tax fraud	S2 E11 (30:50-34:34)
Total costs	S1 E6 (15:40-17:25); S5 E3 (38:41-44:06)
Trade-offs	S4 E2 (25:28-26:35); S4 E11 (00:00-02:13) ; S5 E8 (31:54-34:39)
Trade barriers	S5 E8 (08:47–11:22)
Transaction costs	S3 E5 (42:08-43:31); S3 E7 (23:54-25:20); S3 E9 (03:03-05:05); S5 E3 (38:41-44:06); S5 E8 (08:47–11:22)
Ultimatum game	S1 E1 (27:34-30:07)
Underground economy	S1 E7 (07:00-08:04); S3 E9 (00:00-02:27) and (03:03-05:05); S3 E11 (13:15-15:02); S4 E2 (02:35-04:45); S5 E3 (38:41-44:06)
Unemployment	S1 E5 (00:00-01:20); S2 E10 (38:56-40:36)
Unintended consequences	S3 E1 (29:31-31:53); S3 E11 (13:15-15:02); S3 E12 (09:06-14:52); S4 E11 (27:38-31:01); S5 E5 (23:05-24:46)
Unlimited wants and needs	S5 E8 (31:54-34:39)
Utility	S1 E1 (31:54-33:54); S3 E13 (01:36-03:31)
Utility maximization	S1 E1 (31:54-33:54); S3 E13 (01:36-03:31)
Variable costs and inputs	S2 E10 (42:49-44:49)
Willingness to pay	S2 E3 (08:48-12:23); S2 E5 (12:00-14:50); S3 E5 (42:08-43:31); S4 E6 (19:30-20:52); S5 E7 (00:30-04:48)
Willingness to supply	S2 E3 (08:48-12:23); S2 E5 (12:00-14:50); S3 E5 (42:08-43:31); S5 E14 (21:55–23:04)

APPENDIX B

B.1. Suggested Questions for Season 3, Episode 5 "Mas" (Time 42:08 – 43:10); *Concepts: Monopsony; Market Power; Bargaining Power; Transaction Costs; Willingness to Supply; Producer Surplus; Willingness to Pay; Consumer Surplus; Elasticity of Supply; Contracts; Contract Enforcement; Role of Institutions; Dispute Resolution*

Bloom's: Analyze/AACSB: Analytic
In this clip, Walter and Saul negotiate over a money-laundering fee. Suppose Walter and Saul have a pre-standing agreement, according to which the money-laundering fee is 15%. Describe the outcome of their bargain by using the concepts of consumer and producer surplus. In formulating your answer, discuss who emerges as the winner of this negotiation and why? Who loses welfare, how much welfare is lost, and why?

POSSIBLE RESPONSE (see Table B1 for a suggested grading rubric): As a result, of their negotiation, the money-laundering fee declines from 15% to 5%. On one hand, this outcome is great for Walter. His consumer surplus increases as the fee declines. On the other hand, the result of their negotiation is less favorable for Saul. As the fee declines, his producer surplus decreases as well. Specifically, he loses (15%-5%)*$3,000,000 or $300,000. Saul, therefore, loses because of the negotiation; most likely because his supply for money-laundering services is perfectly inelastic over the observed price range (i.e., 5% to 15%). Nevertheless, it is worth noting that even with a money-laundering fee of 5%, Saul may still receive a positive producer surplus.

Table B1: Suggested Grading Rubric

Grading Criteria	Ratings		
Clarity of the response	The response is thorough, accurate, well-articulated (10 points)	The response is accurate, but not thorough nor well-articulated to demonstrate adequate understanding (7.5 points)	A response is included but is not accurate, thorough and well-articulated to demonstrate adequate understanding (5 points)
Referencing the concept of consumer surplus	The answer correctly references the concept of consumer surplus (10 points)	The answer incorrectly references the concept of consumer surplus (5 points)	The answer does not reference the concept of consumer surplus (0 points)
Referencing the change in consumer surplus	The change in consumer surplus was correctly identified and supported by an adequate explanation (10 points)	The change in consumer surplus was correctly identified but was not supported by an adequate explanation (5 points)	The change in consumer surplus was incorrectly identified (0 points)
Referencing the concept of producer surplus	The answer correctly references the concept of producer surplus (10 points)	The answer incorrectly references the concept of producer surplus (5 points)	The answer does not reference the concept of producer surplus (0 points)
Referencing the change in producer surplus	The change in producer surplus was correctly identified and supported by an adequate explanation (10 points)	The change in producer surplus was correctly identified but was not supported by an adequate explanation (5 points)	The change in producer surplus was incorrectly identified (0 points)
Concluding remarks	The response benefits from a thorough, accurate, and well-articulated concluding sentence/phrase (10 points)	The response benefits from an accurate concluding sentence/phrase but not thorough and well-articulated (5 points)	The answer does not include a concluding sentence/phrase (0 points)

Bloom's: Analyze/AACSB: Analytic
Even with the much-reduced money-laundering fee of 5%, Saul's producer surplus is positive.
A. True
B. False

Bloom's: Remember/AACSB: Reflective Thinking
Based on how the negotiation proceeds, Saul's supply for money-laundering services, over the 5% to 15% price range, is _____.
A. elastic
B. inelastic
C. unit-elastic
D. perfectly inelastic
E. perfectly elastic

Bloom's: Understand/AACSB: Reflective Thinking
Based on how the negotiation proceeds, the market, in which Saul and Walter interact, is best described as
A. a monopoly
B. perfectly competitive
C. a monopsony
D. an oligopoly

Bloom's: Analyze/AACSB: Analytic
As Saul and Walter negotiate a money-laundering fee, which of the following represents an outcome of their negotiation?
A. Consumer surplus increases
B. Producer surplus increases
C. Money-laundering fee decreases
D. All of the above
E. A and C, only

Bloom's: Apply/AACSB: Analytic
Saul and Walter negotiate a fee for money-laundering services. Because of their negotiation, Saul's producer surplus declines by _____.
A. $300,000
B. $150,000
C. $450,000
D. $510,000

B.2. Suggested Questions for Season 5, Episode 3 "Hazard Pay" (38:41 - 42:34); *Concepts: Total, Fixed, Variable, and Transaction Costs; Profit; Compensating Differential; Property Rights; Dispute Resolution; Judicial System; Role of Institutions; Underground Economy; Money Laundering; Black Markets: Return to Risk; Gross Domestic Product*

Bloom's: Analyze/AACSB: Analytic
In this clip, Mike, Walter, and Jesse split the proceeds from their new methamphetamine-producing enterprise. Describe the division of their revenue in terms of costs and profits. When formulating your answer (i) explain the difference between variable costs and fixed costs; (ii) identify at least two examples of each; (iii) calculate the total profits for the three partners; (iv) identify the profit type by explaining the difference between economic profits and accounting profits; and (v) suggest a situation in which the accounting profits are higher than the economic profits.

POSSIBLE RESPONSE (see Table B2 for a suggested grading rubric): The clip shows a process that appears frequently on the calendar of every business: separating the costs from total revenue to retrieve the profit. It is also important to distinguish between variable and fixed costs. Unlike fixed costs, variable costs fluctuate with the size of output; in this case, the amount of methamphetamine produced. For example, expenditures with the "mules" (transportation services) and methylamine (a key input) are variable. The larger the output, the larger the total revenue and, hence, the cost with the "mules", which represents 20% of the revenue. Also, the larger the output, the larger the amount of methylamine needed and, hence, the higher the cost with this input. Fixed costs do not vary with the amount of output (at least in the short run). The expenses with Jesse's loan, Ira and his people, and the lawyer (i.e., Saul Goodman), are examples of fixed costs. The total profit is found by subtracting the total (variable and fixed) costs from the total revenue; an accounting profit of $411,000 (or $137,000 for each Mike, Walter, and Jesse) is thus recovered. Since no information about the opportunity cost of being in the methamphetamine business is presented, one cannot tell much about the economic profit. As long as the opportunity cost of manufacturing is positive, the economic profit is less than $411,000. Accounting profit is always larger than the economic profit because it does not take into account the implicit opportunity cost of production/being in business.

Bloom's: Analyze/AACSB: Analytic
The cost with the mules/transportation is fixed and represents twenty percent of total revenue.
A. True
B. False

Table B2: Suggested Grading Rubric

Grading Criteria	Ratings		
Clarity of the response	The response is thorough, accurate, and well-articulated (10 points)	The response is accurate but not thorough nor well-articulated to demonstrate adequate understanding (7.5 points)	A response is included but is not accurate, thorough and well-articulated to demonstrate adequate understanding (5 points)
Discussing the difference between fixed and variable costs	The answer correctly distinguishes between fixed and variable costs (10 points)	The answer incorrectly distinguishes between fixed and variable costs (5 points)	The answer does not reference fixed and variable costs (0 points)
Identifying the fixed costs	The answer provides two correct examples of fixed costs (10 points)	The answer provides one example of a fixed cost (5 points)	The answer does not provide examples of fixed costs (0 points)
Identifying the variable costs	The answer provides two correct examples of variable costs (10 points)	The answer provides one example of a variable cost (5 points)	The answer does not provide examples of variable costs (0 points)
Calculating the total profit for the illegal enterprise	Correctly calculating the total profit (10 points)	Incorrectly calculating the total profit but correctly calculating the profit/person (5 points)	Incorrectly calculating the total profit (0 points)
Distinguishing between accounting and economic profits	The response distinguishes between accounting and economic profits thoroughly and accurately and is well articulated (10 points)	The response accurately distinguishes between economic and accounting profits, but is not thorough nor well-articulated to demonstrate adequate understanding (7.5 points)	The response attempts to distinguish between economic and accounting profits, but is not accurate, thorough, and well-articulated to demonstrate adequate understanding (5 points)
Discussing the link between accounting and economic profits	The response correctly identifies the relationship between accounting and economic profits (10 points)		The response incorrectly identifies the relationship between economic and accounting profits (0 points)

Bloom's: Remember/AACSB: Reflective Thinking
Which of the individuals/categories/items shown below represent a variable cost?
A. Mules/transportation.
B. Ira and his guys
C. Lawyer
D. Methylamine
E. A and D, only

Bloom's: Analyze/AACSB: Analytic
Based on the conversation between Mike and Walter, what must be factored into the calculation of the opportunity cost of killing Gus Fring?
A. Twenty percent of the revenue generated by each cook session
B. The distribution network, which Gus Fring created
C. The sixteen trucks, which are currently in government impound
D. All of the above
E. A and B, only

Bloom's: Analyze/AACSB: Analytic
What is the total profit generated through the manufacturing and sale of methamphetamine?
A. $367,000
B. $137,000
C. $411,000
D. $1,101,000

Bloom's: Apply/AACSB: Analytic
Using the total revenue emphasized by Walter, the cost with the mules/transportation is _____.
A. $300,000
B. $275,000
C. *$278,560*
D. $367,000