Dollar Auction

Links:

https://www.investopedia.com/terms/d/dollar-auction.asp

Description: You will auction off a dollar for more than a dollar. In the process, students will learn some important economic concepts.

Supplies: An actual dollar bill

Resource Type: Classroom Activity

Assumptions: None. Activity can be done on the first day.

Learning Objectives:

1. Demonstrate the importance of incentives.
2. Explain what sunk costs are.

Economics Vocabulary Used: Incentives, cost, benefit, sunk cost.

1. ACTIVITY

You are auctioning off a real dollar bill.

Produce the dollar bill and announce that you will sell the dollar bill to the highest bidder.

Tell the students that they can pay you via Venmo, Cash, Zelle, or another app you like. It is important that this is an actual auction.[1]

There is one catch: The highest bidder pays you and gets the dollar bill (like a regular auction), while the second highest bidder also has to pay their bid but gets nothing.

Start the bidding.

As the bids approach one dollar, you might need to explain the following situation to the students:

Let's say someone has bid 95 cents and another person has bid a dollar. If someone who bids 95 cents doesn't bid $1.05, they will lose 95 cents. If they bid $1.05 and get the dollar, they will lose only five cents. Therefore, they should increase their bid to $1.05.

Similarly, suppose that Bidder 1 bids $10 and the next highest bid is $9.50 made by Bidder 2. If Bidder 2 increases the bid to $10.05 and wins, Bidder 2 will lose $9.05 (i.e., $10.05 Bidder 2 pays minus the dollar bill they get). If Bidder 2 keeps the $9.50 bid, they will lose $9.50 because Bidder 1 will win.

Continue the auction until it ends or stop the auction at a max bid of your choice.

Hopefully, it ends with you selling a dollar for more than a dollar and your students thinking you are an Econ Lord.

Give the dollar bill to the winner and collect your winnings from the highest bidder and the second highest bidder.[2]

2. DISCUSSION

[1] In the end, you don't actually need to take the student's money, but they should believe the auction is real.
[2] See note above; you don't actually need to take your student's money.

In this activity we can see two important ideas in economics:

1) Incentives

People respond to incentives. In this auction, the way you designed the incentives gave you more than a dollar. The bidders maybe didn't fully think through the incentives when they started bidding.

Understanding the incentive structure of a policy is key to understanding the outcomes. Many well-intentioned policies have backfired because policy makers did not fully think through the incentives.

If you like, you can give examples of such policies from your own experience.

Here are some we use–

The rat tail policy in Hanoi:
https://www.atlasobscura.com/articles/hanoi-rat-massacre-1902

I personally like the story of Maurice Harkless and his three point bonus:
https://www.businessinsider.com/maurice-harkless-bonus-3-pointers-2017-4

Understanding incentives is key to understanding how people will behave.

Can students name some other examples of unintended consequences?

2) Sunk cost

Once the bidder begins bidding, the money she bids is already gone. If other bidders follow their incentives, the bids will escalate and she will lose more and more. It is better for her to stop bidding rather than to continue bidding and lose more.

The bid is an example of a sunk cost. People often make bad decisions because of sunk costs. The colloquial expression for a sunk cost is: "Throwing good money after bad."

Some common sunk cost examples:

- Continuing to watch a bad movie or bad TV show just to finish it, even though you know it's never going to get better. You should give up on it and do something better with your time, like learn economics.
- Staying in a bad relationship because you've "invested" so much time in it.

Can students think of some other examples of sunk costs?