**Scarce Chairs- Adapted from Jason Welker**

**Instructions:**

* Before your Econ students arrive, remove chairs until there are only half as many as you will have students. I stuck mine in the room next to me, well out of view of the students coming to my class. If that’s not possible, you can move the chairs into a corner and put some caution tape around them indicating that they are waiting to be picked up for repair.
* Tell students that the custodian removed the chairs for repairs, or they were taken to another room for a presentation or something. Anyway, you don’t know when they’ll come back, and it may be a couple of weeks.
* For now, we are stuck with this many chairs, and we have to figure out a way to resolve this problem!
* Tell the students it’s up to them to decide how our limited number of chairs will be allocated. Have them brainstorm solutions out loud while you write their suggestions on the board.
* Try to come up with 6-10 possible solutions, then have the students vote on the one they would like to see enacted. They can only vote once! Write the tallies next to each option on the board.
* If there is a tie for #1, have the whole class vote between the two or three options you’ve narrowed it down to until there is one clear winner.

**The Economist’s Solution:**

* Once the students have voted on their favorite solution, share with them the *economist’s favorite solution.* It is known as a *sealed-bid auction.*
* Give each student a slip of scrap paper and have them write two things: 1) Their name, and 2) the maximum price they would be willing and able to pay *each class period* to have a chair to sit on.
* Collect the results, and in front of the students, organize their bids from highest to lowest. If there is a tie on the margin, have the students whose bids were identical bid again, writing their highest price on the back of the same slip of paper, then re-rank.
* The students with the highest bids will get a chair! For example, I had 17 students, and only 8 chairs. The highest bid was $10, while three students were not willing to pay anything. Four kids were willing to pay $1, but there were only two chairs left at that point. When they re-bid, one was willing to pay $2, one $1.75, $1.25, and $1.20. Therefore, the two remaining chairs went to the students willing to pay $2 and $1.75.
* Finally, tell the winners that they can take a seat, and that everyone else must stand! At this point, of course, you can send the lowest bidders out to fetch the missing chairs and begin your debrief.

**Economic concepts illustrated by the Scarce Chairs exercise:**

**Scarcity exists:**

* When something is limited in supply and in demand, it is scarce.
* Everyone wants to sit, but the chairs were missing… chairs were scarce.
* Scarcity is a function of both demand and supply. The greater the demand relative to supply, the more scarce something is.

**Choices must be made:**

* Because scarcity exists, we must make choices about how to allocate our scarce resources.
* We had to choose between competing systems for allocating the chairs.

**Rationing systems:**

* When faced with scarcity, a system must be decided upon to ration the scarce items.
* The systems we decided upon ranged from a lottery to first come first serve to a merit-based system.

**Something that is scarce has value:**

* Everyone wanted a chair, yet they were limited. Because the chairs provide us with benefit, we value them, and are therefore willing to pay to have one.
* Value is a function of scarcity. The scarcer something is, the more valuable it becomes (gold), while less scarce items are less valuable (drinking water).

**Consumer surplus:**

* Consumer surplus is the difference between what you are willing to pay and what the price is.
* Sofia would have had lots of consumer surplus if she only had to pay $2, because she was willing to pay up to $10.

**Equity versus Efficiency:**

* Equity means *fairness*, while efficiency requires that resources go towards their most socially optimal use, so that those who value something most end up getting that which they value.
* The tradeoff between equity and efficiency is a major theme of economics.
* What is most efficient (an auction to determine who is willing to pay the most for the chairs) may not be equitable (or fair).
* When the richest students end up in the chairs, those with lesser ability to pay feel that they’ve been treated unfairly.
* A lottery in which names would be drawn from a hat to determine who gets a chair is certainly more equitable, but is actually less efficient, since those who get the chairs may not be those who place the greatest value on having a chair.
* Auctioning the chairs assures that those who value them the most will end up getting them, therefore resources are allocated most efficiently.