

Exercise 2

Here's a bad alternative to a serial dictatorship, which unfortunately was used to assign kids to elementary schools in a number of major cities for many years.

A Bad Mechanism for One-Sided Markets

1. Each student submits a ranked list (with no limit on the number of entries).
2. The students are ordered in some way. (E.g., by lottery numbers.)
3. The students are considered in this order. When student i is considered, if her top-ranked school is still available, then she is (permanently) assigned to that school. (Otherwise, she is not assigned in this phase.)
4. The still-unassigned students are considered in the same order as before. When student i is considered, if her second-ranked school is still available, then she is assigned to that school. (Otherwise, she is not assigned in this phase.)
5. And so on with the still-unassigned students' third choices, fourth choices, etc.

Discuss in detail what type of strategic behavior (i.e., gaming of the system) you would expect to see from the participants in this mechanism. Do you think the flaws of this mechanism would harm all students equally, or would some demographics be harmed more than others?

We might take an example here to understand this question better. We may take up the HSS registration process. In it we fill preferences and then the system (most probably) randomly orders students and allot them their highest preferred unassigned hss. Now, suppose a course, say ECO101 is the best in all the options and everyone prefers it. Since it is a lottery, a person may doubt his chances to get a high rank in the ordered list. So, he may fill the 2nd or 3rd preferred course on top thinking that everyone will fill eco101 and he will easily get the second best one which is better than getting a worse course. So, he may compromise his preference list.

If more people think like this, ultimately most of them will end up with lower preferred choices.

This system is fundamentally flawed because it is not fair to people who get worse rank just because of random ordering.

This flaw harms some demographics more than others because the order is random and so a person may get his first choice and the other one may get his last choice even if they both are equally deserving.