Rationing Social Goods

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Office Hours: Tuesdays, 2-4 pm.  
Uris Hall, Room 402

COURSE DESCRIPTION AND LEARNING OBJECTIVES

This course studies the allocation of “Social Goods,” which we define to be goods that are distributed by an organization that aims to maximize the welfare of recipients, rather than its own profit. We begin by studying the (now classic) problem of assigning students to public schools, with a focus on real-world systems used in New York, Boston, New Orleans, and elsewhere.

We then apply lessons from school assignment to less-studied settings in which both objects and recipients are arriving and departing over time. Examples include

- lottery and waitlist systems used to allocate public and affordable housing,
- priority rules governing the allocation of organs from deceased donors, and
- a virtual currency system used to award food donations to food banks.

We will discuss features that are common across these settings, as well as salient differences. Time permitting, we will touch on further applications such as the allocation of discounted tickets to Broadway shows, hunting licenses, and camping permits.

PRE-REQUISITES

There are no formal pre-requisites for this course, although students will benefit from knowledge of probability theory, game theory, and market design.
ASSIGNMENTS

Students will be asked to read an assigned paper and submit a short pre-class assignment before each class. In addition, the course will include two larger assignments. One is a mock referee report for a recent topical paper. The second is an investigation of a real-world allocation system of the student’s choice, consisting of a summary of the items being allocated and the rules governing their allocation, as well as the posing of a question that could initiate a future research project.

GRADING AND EXPECTATIONS

Students are expected to be present in each class, and to come prepared to discuss assigned papers. Grades will be determined by the level of participation in class discussion, and the thoroughness of the two main assignments.

COURSE OUTLINE

1. Introduction
   • What possibilities exist for allocating goods without money?
   • How can we model these possibilities to predict outcomes?
   • What properties should a “good” procedure or outcome have?

2. School Choice
   • Balancing efficiency, transparency, and strategic simplicity
   • Equivalences between seemingly different procedures
   • Role of priorities and tie-breaking rules

3. Affordable Housing:
   • Lottery design: applying lessons from static settings
   • Targeting those with the greatest need
   • Comparing lotteries, waitlists, and virtual currencies

4. Organ Allocation:
   • Minimizing waste of donated organs

5. Food Banks:
   • Moving from random offers to virtual currency
   • Which lessons apply when agents want multiple items?