

## Allocating Scarce Resources without Money

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## Allocating Scarce Resources without Money

**Faculty Member:** [Philipp Strack](#)

### Proposal Description:

Many scarce goods are allocated without the use of monetary transfers (for example, social housing, deceased donor organs, school seats). Often one goal is to assign these goods to those who value them the most. Many different mechanisms have been proposed and are used in practice to achieve this goal and determine the allocation in different settings (deferred acceptance, top trading cycles, random serial dictatorship, the Boston mechanism).

The goal of this project is to determine the quality of these mechanisms in a comprehensive numerical study. We will study different stylized situations and use numerical methods to understand which allocation scheme performs well in which set of circumstances.

### Requisite Skills and Qualifications:

Some experience with programming and a (very) basic understanding of linear programming are necessary. Prior knowledge in Julia, Python, or with solvers for linear/quadratic programs would be useful. The main task will be to use such solvers to analyze a given set of linear/quadratic programs.

**Award:** Josh Purtell

William Arnesen

Ephraim Sutherland

**Tobin Application Link:** [Tobin Application](#)

**Project Type:** Tobin RA

**Project Year:** 2019

**Term:** Fall 2019

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