

# Alumni as Assets: Legacy Preferences, Expected Donations and Selective Admissions in a Dynamic Model of Elite Colleges

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Extended Abstract, February 2024

## Abstract

This paper analyzes the emergence of donations and legacies as equilibrium policies at US elite colleges and investigates their implications for student composition, college quality and intergenerational mobility. We propose a novel model of college markets in which alumni's affinity and willingness to donate to their *alma mater* shape the elite colleges' optimal tuition and admission policies. Our framework conceptualizes alumni as assets of a college: a college's current admission and tuition policies depend on current and future returns associated with a student's legacy status and expected donation. More specifically, colleges are more likely to admit legacies whose parents are more generous donors, and students who will themselves be generous alumni in the future. Holding donations and academic ability constant, colleges charge legacies higher tuition to take advantage of their lower demand elasticity.

To quantitatively assess the importance of these mechanisms for the composition of students, college quality and intergenerational mobility, we calibrate the model to match important moments of the micro-data, including the composition of elite college's students by parental income and legacy status, gross and net tuition, the sensitivity of donations to admission policies and income distributions of elite colleges' graduates. Given the lack of data on legacy admissions, we rely on a combination of publicly-stated shares of legacies for a subset of colleges and internal documents released during the *Students for Fair Admissions vs Harvard* case. Using the calibrated model, we then run counterfactuals to evaluate the short and long-run impacts of legacies admissions and donations on the student composition and financing of colleges.

Our paper generalizes the static frameworks in the literature (Epple and Romano, 2006; Cai and Heathcote, 2023) to a dynamic setting where elite colleges price discriminate based on the student's academic credentials but also on legacy status and in which alumni's donations are endogenously determined. Relative to the recent literature that looks at legacy admissions from an empirical or semi-structural perspective (Chetty, Deming and Friedman, 2023; Arcidiacono, Kinsler and Ransom, 2023), we propose a fully-microfounded model of college's and households' joint decision, thus relating college's quality, tuition and donations to policies and policy-invariant parameters. This in turn allows us to provide a more credible assessment of the impact of policies affecting legacies admissions and donations. In addition, while the literature is focused on the short-term effects of legacy admissions on student composition, our dynamic framework allows to think through long-run impacts on intergenerational mobility, inequality and college quality.

**Keywords:** *Higher Education; Legacy Preferences; College Selection; Social Mobility.*

**JEL Codes:** D25, D31, I22, I23, I24.

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