The Large Core of College Admission Markets: Theory and Evidence

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Lit. on two-sided matching markets
1. Rural hospital theorem
2. Consensus property
3. Core convergence
4. Vanishing incentives to manipulate

Results (stable allocations)
1. May differ in # students assigned
2. Approximating max. assignment under stability is NP-hard
3. Preference-flip stable algorithm (PF)

Model
1. m-1, two-sided matching market
2. Colleges have quotas & (fewer) state scholarships
3. Choose the best students subject to quotas ("generalized responsive")

Results (large markets)
1. Set of stable allocations is large if students are heterogenous in the way they trade-off financial terms and college characteristics (can use preference flip)
2. All variants of DA are similar

Results (merit-based)
1. Variants of DA are stable
2. Yield merit-based funding
3. Merit-based + stable = same students assigned
4. ∃ non-merit based stable

Results (empirical)
1. Hungarian college data (100k student/yr)
2. PF increases # of assigned students by ~2%, changes assignment of ~8%
3. SP-DA vs SR-DA change assignment of 8 students