University of Virginia

Aid Optimization Study

Pricing and Positioning Study

Board of Visitors Ad Hoc Committee

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ART&SCIENCE GROUP LLC
Aid Optimization Study

Summary of Project and Findings to Date
Background

- AccessUVa is a premier aid program designed to increase access to UVA by meeting the need of all students applying for aid

- Costs for AccessUVa have increased each year quite dramatically
Goals of aid study

- Determine if there are more optimal ways in which the aid can be used both to increase access and to provide longer-term financial sustainability for the institution.

- Establish an empirical basis for understanding the trade-offs between in-state and out-of-state enrollment, increasing academic quality, increasing diversity, and improving financial efficiencies.

- Create a financially sound plan for increasing enrollment.
Project steps

- Create database of admitted applicant pools at UVa over past three years by combining databases from admissions and financial aid
- Review trends over those three years in admissions and financial aid awarding
- Create econometric models designed to understand the marginal effects of possible changes in financial aid awarding (UVa institutional grants)
- Run a series of simulations to assess the impact of increasing or decreasing awards to different types of students in last fall's admitted applicant pool
- Discuss trade-offs of achieving different goals
Data used in analysis

- Admissions data: year of application, geography, race, legacy, "bandwagon effect," SAT, Echols/Rodman

- Financial aid data: need amount, state aid, UVa grant size

- International students, student-athletes, tuition remission students, and non-aid applicants were not included in models
Low income students (those with family incomes up to 200% of federal poverty line) were not included in models

- Tried both including them in the overall models and modeling them separately
- Since full need is met with institutional grant and very little variability, econometric models were not able to measure accurately the effects of changes in grants
- Moving forward, without greater variation in aid awarding for low-income students, econometric modeling will not be able to help understand how changes in aid program would affect low income students
How we assessed the findings

- Focus was on improving yield, diversity, academic quality, and net tuition revenue
  - Net revenue is the most important financial metric
  - Institutional aid is best thought of as a counter-revenue (to be optimized) rather than as a cost (to be reduced)

- Efficiencies—changes in net tuition revenue per new/lost student—were compared to understand trade-offs
Findings

- In-state opportunities exist, but can only provide marginal gains in net tuition revenue
  - Increases in the number of in-state students through the use of increased financial aid awards could help increase diversity, improve in-state academic quality and increase net tuition revenue, but the gains are marginal
    - It would be slightly more efficient to increase awards to students with higher need
Out-of-state opportunities are significant with increases in institutional grants

- Additional out-of-state students would increase diversity, academic quality, and provide significant amounts of additional net tuition revenue.

- Overall, each incoming student from outside Virginia increases net tuition revenue significantly.

  - Conversely, if awards were decreased to out-of-state students, each student would "take away" significantly larger amounts of net tuition revenue than could be gained by increasing the number of in-state students.
Findings, cont.

- Increases in grants to out-of-state minority students would help enroll more academically above-average minority students and would increase net tuition revenue.
- The majority of gains in net tuition revenue would be from students with below-average SAT scores, but above-average students would also increase net tuition revenue.
- It would be most efficient to increase awards to students with lower need, but awards to higher need students also could increase net tuition revenue.
Pricing and Positioning Study

Topics and Cohorts
Core questions the survey design addresses

- What factors drive prospective students' decisions about whether or not to apply (phase 1 of the research) and matriculate (phase 2) at UVa?

- Where can UVa invest and what can it do to influence more of its desirable prospects to apply (phase 1) and matriculate (phase 2)?
Key aspects of survey methodology

- Takes account of true competitor sets
- Imputes, rather than asks, importance of decision factors
- Leads to predictive models of behavior
Survey process

- A&S review of materials and data, and interviews with faculty, students, administrators, board members

- Survey draft vetted with administration-faculty committee

- Phone-mail-phone sequence
  - First call: screen, gather information, competitor set
  - Mail scenario cards
  - Second call:
    - Record response to key variables
    - Rank attributes and initiatives
    - Identify information sources, effect of visit, perceptions of size and campus culture, demographics
Some key cohorts to sample quantitatively

▶ In-state (4 regions) / out of state
▶ Lower income
▶ Under-represented minorities
▶ Highest-ability
▶ Planning to major in engineering
▶ Other cohorts the sample and responses allow us to segment
Attributes to be rated

- Strength in intended major
- Academic reputation
- Attracts outstanding students
- Quality of faculty
- Strength in the sciences and engineering
- Sense of history and tradition
- Presence of strong honor code
Attributes to be rated

• Commitment to need-based financial aid
• Affordability
• Tradition of student leadership
• Beauty of campus
• 4-year graduation rate
• Emphasis on public service and citizenship
• Advising and mentoring
Variables to be tested

- Big university v. smaller college feel
- Strong v. limited emphasis on faculty-student relationships
- Extraordinary student leadership opportunities v. more than usual v. typical
- Strong v. some emphasis on global citizenship
- Tradition/like-minded v. individuality/diverse
Variables to be tested

- Need-blind and meets full need v. need-blind v. need-aware
- Cost of attendance: current and 3 levels of increase, in-state and out-of-state
- Some v. extensive need-based aid
- Student debt caps: 3 levels
- Some v. no merit aid
Initiatives to be tested

- Support degree completion in STEM
- "Graduate-like" junior-senior concentrations
- "3+1" dual degree programs
- Focus on innovation and entrepreneurship
- Opportunities in Washington, DC, for all
- Freshman seminar with faculty member who becomes advisor