



Economic Principles & Need Analysis Policies

A Primer on Economics for Financial
Aid Professionals



Introductions

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Higher Education & Economics: Making the Connection

- Economic concepts apply to higher education enrollment and student aid models
 - Successful and equitable financial aid and admission policies are supported by...
 - a basic understanding of supply and demand
 - knowing the effect of financial aid policies on enrollments, costs, and revenues



Key Economic Terms and Definitions

- Scarcity
 - Equity
 - Efficiency
- Markets
- Supply and Demand
- Costs
- Pricing and Price Discrimination



The Science of Managing Scarcity

- Economics is the study of how groups and individuals allocate resources to satisfy needs.
- Choice is necessary because of scarcity:
 - There are not enough natural resources to provide each individual with everything they want.
- Everyone acts in their own self-interest:
 - Individuals make choices based on maximizing happiness.
 - Firms make choices based on maximizing profits (or revenue margins)



The Science of Managing Scarcity

- Economic theory provides understanding of markets and allocation of scarce resources.
 - Concepts of pricing, demand, and distribution are all applicable to the higher education market.
 - **Equity** is primary motivator for need analysis.
 - Equity must be balanced with **efficiency** for optimal results.
 - Economists measure policy outcomes by balancing equity and efficiency.



Managing Scarcity in Higher Education

- Higher education institutions make choices based on equity and efficiency.
 - Need to balance enrollment decisions and financial aid costs with goals of access, choice, and quality academic programs.
- Each time you admit a student or award aid you are making a choice about managing your institution's limited resources.
 - Not every student can (or should be) admitted.
 - Most institutions have limited aid dollars so institutions make choices about how to award aid.



Supply & Demand

- Demand captures buyer's (applicant's) behavior.
- Demand refers to quantity demanded at any given price.
 - Demand is a reflection of both willingness and ability to pay (“effective demand”).
 - Financial aid impacts effective demand for higher education.
 - Goal is to increase number of education consumers.



Financial Aid and the Demand for Higher Education

- Federal and State funded need-based aid is an attempt to **shift the demand** curve outward *by increasing the financial resources of the student* .
- Increases the available income for people to pay for college.



Demand Curves and Low/Middle Income Initiatives

- Lowering net price for low & middle income families will also increase the number of applicants
 - More families are willing to enroll at lower prices.
 - If supply is not increased, a larger proportion of qualified students will be denied admission.
 - Are all applicants a good fit for your institution?
 - What are the “efficiency” issues for your institution?



Understanding Costs

- Costs are measured in several ways:
 - Total
 - Average
 - Marginal
- Firms that understand *marginal* costs are able to make effective decisions about price discrimination.
- For higher education, marginal costs are crucial to effective aid and pricing policies.
 - Helps set efficient and equitable tuition discounting practices
 - Allows institutions to balance mission (access) with enrollment goals.



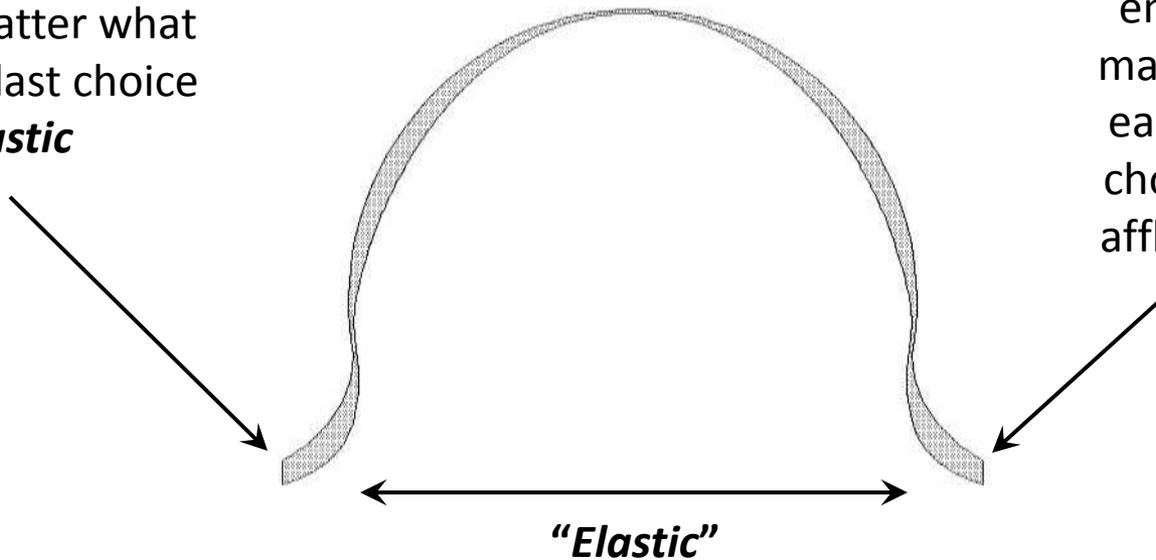
Price Sensitivity

- Demand elasticity refers to how much the quantity demanded changes when price changes
 - Demand is said to be elastic if a small price increase leads to a relatively large decrease in quantity demanded
 - Demand is said to be inelastic if a small price increase does not result in a large change in demand
- Institutions need to understand price sensitivity or *elasticity* of demand of their consumers
 - Effective institutional aid and pricing policies require thoughtful analysis of demand elasticity among potential applicants
 - Recent “middle income initiatives” based on perceived change in demand elasticity of certain income groups

Price Sensitivity

These students will not enroll no matter what
– e.g., rich, last choice
-inelastic

These students will enroll almost no matter what – e.g. early admits, first choice school and affluent - **inelastic**



"Elastic"
Enrollment decisions of students in this area will be influenced by net price - effective demand -



Price Discrimination: What is It?

- Many products are sold at same price to all consumers.
- Some sellers can change prices to match consumers' willingness to pay.
- Price discrimination is practice of charging different prices to different consumers.
 - Each consumer is charged maximum amount they are willing to pay.
 - Goal is to get optimal number of willing consumers into market who are able to pay the price for the good at the marginal cost to the seller.



Economics, Higher Education, and Need Analysis

- Institutional aid is a form of price discrimination
 - Need-based aid discriminates based on ability to pay
 - Other forms of aid discriminate on willingness to pay
- Price discrimination may increase number of students enrolled at individual school
 - Does not necessarily result in shift in overall demand for higher education
- Equitable price discrimination policies are goals of need-based aid
 - Requires understanding of economic principles behind need analysis.
 - Results in price discrimination based on ability to pay.



Economics and Need Analysis

- Economic principles provide a foundation for understanding need analysis:
 - Vertical and horizontal equity
 - Ability vs. willingness to pay
 - Past, present and future resources
 - Long-term benefits to individual and society
- Need analysis relies on systematic, consistent and reasonable assessment of applicant's circumstances



Making the Case for Need-Based Aid

- Externalities:
 - Positive externality → the social benefit of the consumption of a commodity is greater than the private benefit
 - Society benefits in many ways from an educated citizenry
 - Increased tax base
 - Improved public health and civic participation
 - Lower rates of incarceration
 - The existence of positive externalities supports the argument for government subsidy of education
 - The student may be the primary beneficiary, but the public benefits as well



Making the Case for Need-Based Aid

- Merit goods:
 - All members of society should have access to the product regardless of ability to pay
 - Idea of higher education as a merit good creates strong argument for need-based financial aid
- Human Capital:
 - Education is an investment in human capital
 - Results in increase in both earnings potential and production



Economics and Higher Education: Making the Connection

- Need-based aid formulas are complex.
 - Need for balance between equity and efficiency
- Understanding economic principles supports balanced choices regarding allocation of financial aid.
- The balance requires understanding of:
 - Institutional mission
 - Marginal costs
 - Consumer demand for your “product”
 - Price sensitivity or elasticity of your market



Discussion



More Information

- *A Primer on Economics for Financial Aid Professionals*

http://www.collegeboard.com/prod_downloads/highered/fa/Economics-Primer-2004.pdf

- *Trends in Higher Education Series, Education Pays 2013*

<http://trends.collegeboard.org/education-pays>



Thank You!

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