
DETAILS ON ADMISSION CRITERIA AND FEES

CONSTRAINED ADMISSIONS

Appendix A specifies the details of the enrollment model for the case of simple, unconstrained admissions, using Eqs. A4 for UC and CSU and Eqs. A5 for the CCs. For the case of constrained admissions, we assume that the constrained system limits its admissions each year such that the revenues per student remain greater than or equal to the 1995 values. Thus, we write this constraint as

$$Enrollment(sys, year) \leq Enrollment(sys, 1995) * \frac{Revenues(sys, year)}{Revenues(sys, 1995)} \quad (B1)$$

where $Revenues(sys, year)$ are the revenues for undergraduate education in each system estimated as described in Appendix C. We assume that a system admits the maximum number of students each year such that total enrollment satisfies Eq. B1. If revenues are sufficiently large, the system can admit all the students who wish to become FTF, as in Eq. A1. If revenues are insufficient, Eq. B1 becomes the binding constraint and we calculate the number of FTF admitted iteratively, because revenues are a function of the number of fee-paying students enrolled.

In any given scenario, we can set the admissions criteria, constrained or unconstrained, individually for each system. Because of transfers, admissions criteria at one system will affect enrollment at another. Figure B.1 compares enrollment at CSU and revenues per under-

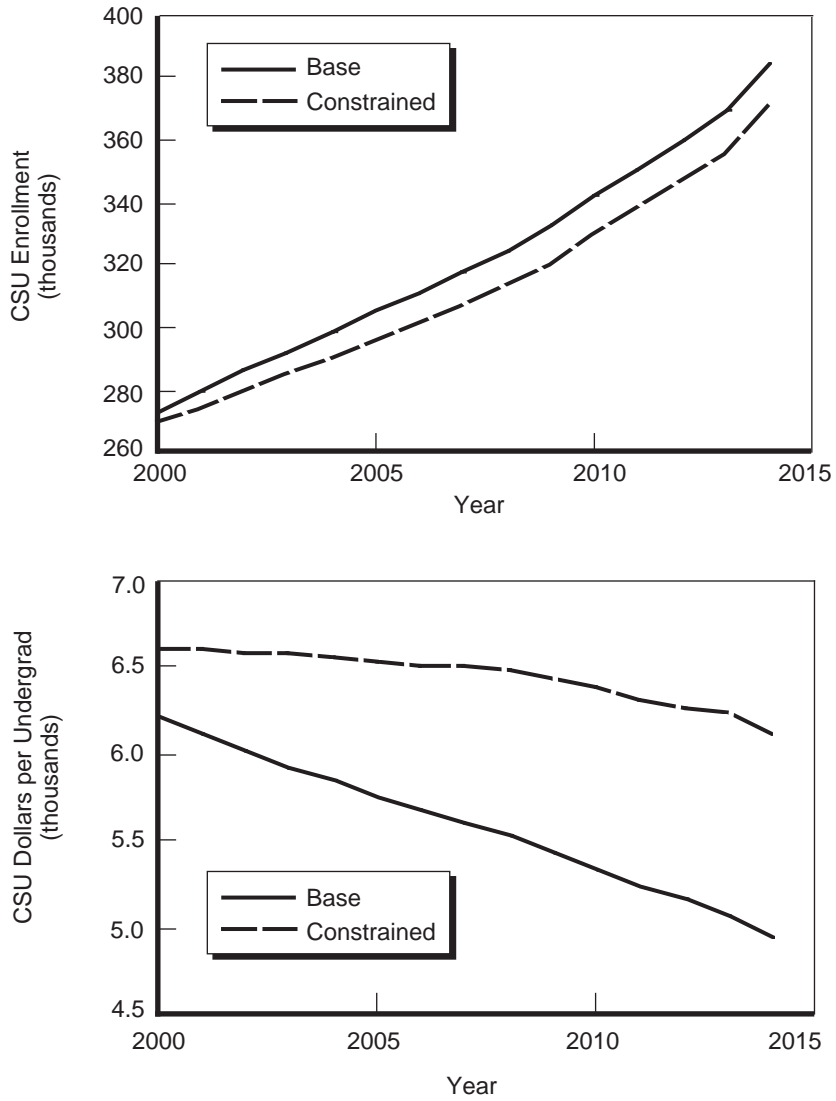


Figure B.1—Effect of Constrained and Unconstrained (“Base”) Admissions on CSU Enrollment and Revenues Per Student

graduate in the cases of constrained and unconstrained admissions for the slow-growth scenario for state general fund revenues for higher education. Note that unconstrained (or “base”) admissions result in larger enrollments than do constrained admissions, but lead to lower available revenues per student.¹ With unconstrained admissions, alternative assumptions about the allocation of state general funds to higher education have no effect on enrollment, though they can have a large impact on revenues per student. For constrained admissions, increased state funding increases enrollment by raising the number of dollars available for undergraduate education.

EFFECT OF STUDENT FEE CHANGES

In addition to being modified by financial constraints, admissions of FTF can also be modified by changes in student fees. As shown in Chapter 2, Figure 8, changes in student fees can affect potential students’ decisions as to whether to enroll in the UC, CSU, and CC systems. We calculate the admission of FTF in each system as a function of the fees by rewriting Eq. A1 as

$$FTF(sys, ethnicity, gender, age, xt, year) = Demog(ethnicity, gender, age, year) * cPRT(sys, ethnicity, gender, age, xt, year) * ePRC(sys, fees) \quad (B2)$$

where $ePRC(sys, fees)$ is the elasticity of demand for a given system based on the fees in all systems (to allow for both self- and cross-elasticities).

We estimate these elasticities from data compiled by Kane (1995) of the National Bureau of Economic Research. Kane estimates the effects of tuition increases on enrollment in systems within the same state (based on national data). His preliminary findings indicate that

- The effect of a \$1,000 (in 1991 \$) increase in public two-year tuition is:

¹The apparent decrease in revenues per student in the constrained case arises from the fact that the modeled revenues per student increase from 1995 to 2000; the subsequent decline merely returns this value to the 1995 level by 2014.

A 4.7% decrease in public two-year enrollment

A 1.8% increase in public four-year enrollment

A 0.4% increase in private enrollment

- The effect of a \$1,000 (in 1991 \$) increase in public four-year tuition is:

A 0.5% increase in public two-year enrollment

A 1.2% decrease in public four-year enrollment

A 0.5% increase in private enrollment

In our model, we write these relationships as

$$ePRC(sys1, UCfees, CSUfees, CCCfees) = \prod_{sys2} [1 + K \cdot cELS(sys1, sys2) \cdot \Delta(sys2)/1000] \quad (B3)$$

where the product is over the three types of systems, $sys2 = UC, CSU, CC$; $\Delta(sys2) = Fee(sys2, year) - Fee(sys2, year-1)$ gives the year-to-year change in student fees for various systems; K is a simple constant; and $cELS(sys1, sys2)$ is Kane's self- or cross-elasticity for demand at system 1 due to fee changes at system 2. For instance, the effect on CC enrollment of a \$1,000 increase in CC tuition is $cELS(CC, CC) = 0.047$. There is little agreement about the value of price elasticities within the education community; values ranging from -0.74 to $+0.41$ have been cited (Leslie and Brinkman, 1987). We thus consider three alternative values for the constant K : 0, 1, and 3.