

## Cost of Attendance, Expected Family Contribution and Financial Need at the University of Houston

**Purpose:** To illustrate that examining the award of student financial aid packages using the Federal Need Analysis Methodology for determining *Financial Need* can yield useful information about how UH students use grants and loans to cover the cost of their education.

### Definition of Financial Need

Financial Need is defined as the gap that exists between a student's (and a student's family's) financial resources and the cost of attending college (Texas Higher Education Coordinating Board Student Services Division, 2005, July). The definition is based on the Federal Need Analysis Methodology, which can be conceptualized as follows:

$$\left[ \text{Cost of Attendance} - \text{Expected Family Contribution} = \text{Financial Need} \right]$$

Each year, colleges and universities prepare an estimate of the cost of attending their institutions. The cost figure includes tuition, fees, books, supplies and living expenses, and it varies based on school level factors (e.g. tuition charges and the cost of living in the surrounding community) and individual level factors (e.g. in state/out of state residency status and tuition costs for degree sought). During the 2005–06 academic year, the expected Cost of Attendance for individual students receiving financial aid at UH ranged from \$740 to \$47,224 with an average expected Cost of Attendance of \$18,078<sup>1</sup>.

The Expected Family Contribution (EFC) is an estimate of the amount of income the family has available to assist with college expenses. The EFC is calculated using a federal methodology which is applied to information submitted by each applicant family on the Free Application for Federal Student Aid (FAFSA) form, which must be completed for a student to be considered for financial aid. The EFC is sensitive to factors such as family size and dependency status. As a reflection entirely of family resources rather than the cost of the school, the EFC remains unchanged regardless of college or university attended. During the 2005–06 academic year, the EFC for students receiving

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<sup>1</sup> Average cost of attendance excludes 271 students receiving scholarship aid who did not complete a FAFSA.

financial aid at UH ranged from \$0 to \$99,999<sup>2</sup>, with a mean of \$5,273. The distribution of expected family contribution amounts was positively skewed, with 37.5% (n = 7,909) of the students receiving financial aid having an estimated family contribution of \$0<sup>3</sup>.

Using the above formula, it is possible to estimate the average financial need or gap for students receiving financial aid at UH:

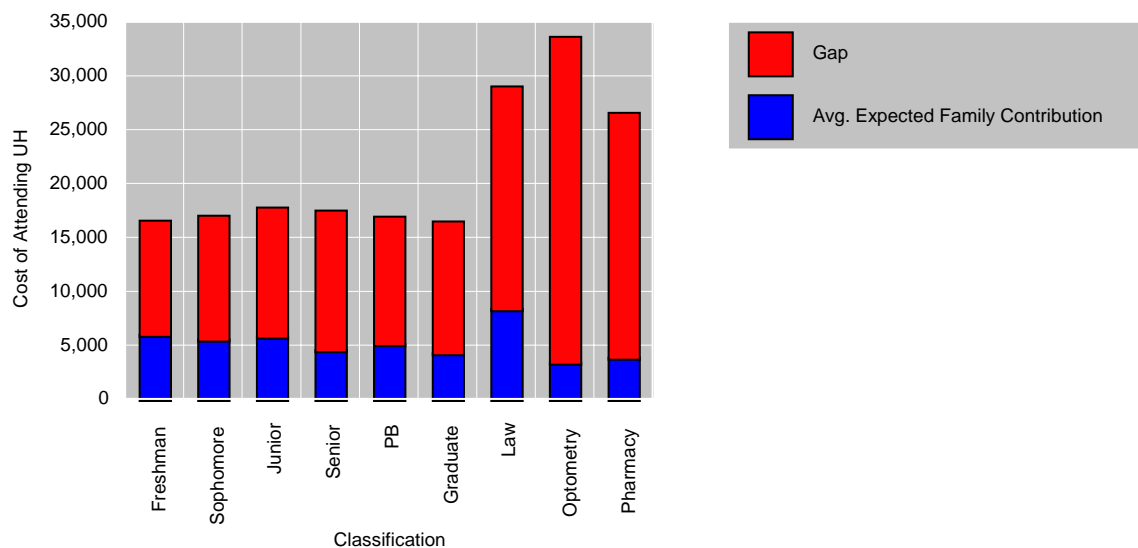
$$(\bar{x} \text{ Cost} - \bar{x} \text{ EFC} = \bar{x} \text{ Gap})$$

$$\mathbf{\$18,078 - \$5,273 = \$12,805}$$

Thus, for the 21,172 students receiving financial aid at UH during the 2005–06 academic year, the actual average financial need or gap was \$12,573. Although academic year 2005–06 data for the state of Texas is not yet available, the Texas Higher Education Coordinating Board calculated the average amount of financial need (gap) for students attending public universities in Texas in academic year 2004–05 to be \$12,311 (2005, July). This amount is strikingly similar to the amount calculated at UH.

As demonstrated in **Figure 1**, the average cost of attendance (EFC + Gap) varies by classification, with students studying Law, Optometry and Pharmacy amassing average attendance costs of more than \$25,000 per year. Some of the increased cost can be attributed to higher tuition costs, while some can be attributed to individual level factors such as out of state residency. The average EFC for students is expected to vary only as the family resources estimated to be available for college costs vary. Thus, the higher EFC for Law students ( $\bar{x} = \$8,386$ ) and the lower EFC for Optometry students ( $\bar{x} = \$3,374$ ) reflects differences in socioeconomic status for these groups of students.

Figure 1: Average Cost of Attendance, Expected Family Contribution and Gap by Classification: Academic Year 2005–06



<sup>2</sup> The reader is reminded that not all aid is need-based.

<sup>3</sup> This should not be used as a proxy for student socio-economic status because students receiving scholarships and other non-need-based grants will have an EFC of \$0.

A more complete picture of the financial burden of college students emerges when the gap is considered in light of the financial aid packages available to them. In **Figure 2**, a line representing the average amount of grant aid provided by UH during academic year 2005–06 is overlaid onto the stacked bar chart presented in Figure 1. Grants are awards that are free to students and require no work or repayment in exchange for funds. The grant overlay line represents grant aid used to fill the need gap after EFC is calculated. It includes both need-based and non-need-based grants. While it is true that students with lower EFC have more financial need, resulting in a larger gap need-based grant aid is awarded to even out the imbalance in EFC between rich and poor students. In general, need-based grants have traditionally equalized the need gap for poor students (Texas Higher Education Coordinating Board Student Services Division, 2005, July). But, most Federal assistance is only available to undergraduate students and, state aid tapers off quite dramatically for graduate and special professional students. Scholarships, tuition waivers and exemptions, and categorical aid are categories of non-need-based grants that are included in the overlay line. The highest average amount of grant aid is offered to freshmen, who receive an average of \$4,744 per financial aid recipient. Given the lower EFC for Optometry students, it is not surprising that they receive the second highest average amount of grant aid (\$4,376) at UH<sup>4</sup>.

Figure 2: The Impact of Grants and Loans on Financial Need at UH by Classification: Academic Year 2005–06

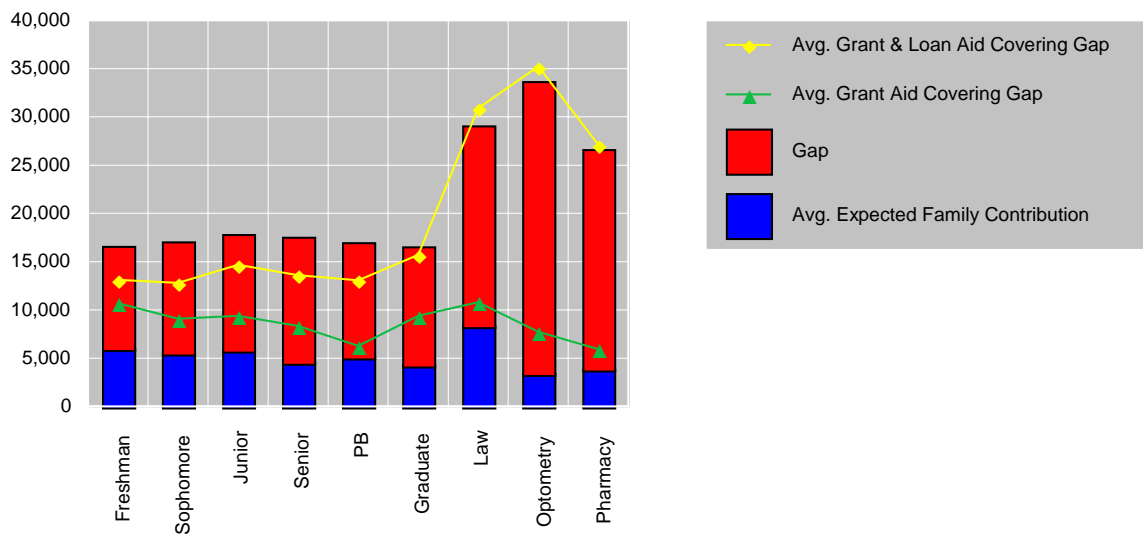


Figure 2 also contains an overlay line depicting the average amount of aid received in the form of student loans used to fund the need gap by classification. The loan overlay line represents loan aid used to fill the need gap after EFC is calculated and grant aid is awarded, and it reflects loan funds offered and accepted rather than loans available to students that were ultimately declined. Freshmen have the lowest loan burden, averaging just \$2,433 per financial aid recipient. Optometry students have the

<sup>4</sup> While Optometry students receive no federal or state aid, they do receive an average of \$1,438 of institutional based (UH) aid per student, 61% of which was need-based.

highest loan burden, averaging \$27,469 per financial aid recipient. In fact, Optometry, Law and Pharmacy students tended to borrow more than necessary to cover the gap, while undergraduates borrowed less than they needed. Financial aid data at UH and elsewhere do not capture three possible sources of income for students: (i) student wages that are not a result of formal work-study programs; (ii) consumer loans used to finance education; and (iii) credit card debt used to finance education (Texas Higher Education Coordinating Board Student Services Division, 2005, July)<sup>5</sup>. It could be that the rigorous course of study in Law, Optometry and Pharmacy do not allow students the same freedom to work outside of the university as other students. Or, students further along the education continuum, who will tend to be older, may have additional personal and family obligations requiring them to borrow more than their younger counterparts. But, this is merely speculation in the absence of reliable data.

## **Conclusion**

The award of a financial aid package is an individualized process that involves the development of a need profile for each student with consideration made to the cost to attend college as well as the resources applicant families have available to fund higher education. While students with the fewest resources to expend on a college education will have the highest financial need or gap, need-based grant aid helps narrow the gap. On the other hand, students receiving scholarships and other forms of non-need based aid may or may not have any financial need.

Examining the average grant and loan packages using the Federal Need Analysis Methodology for determining financial need reveals information about how UH students use grants and loans to cover the cost of their education. For example, Freshmen are awarded more grant aid and have lower loan burdens. Special professional students have higher costs of attendance and higher loan burdens. Law students have higher Expected Family Contributions than Optometry students. Special professionals also tend to have financial aid packages higher than the estimated cost of education.

## **Reference**

Texas Higher Education Coordinating Board Student Services Division. (2005, July). *Financial Aid for College Students in Texas Fiscal Year 2004: Annual Report from the Statewide Financial Aid Database for the 2003-04 Academic Year*.

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<sup>5</sup> Work study was eliminated from the presentation because the average amount per student (less than \$50) was too low to be visible on the graph.

