



# **UNDERGRADUATE ENROLLMENT TRENDS**

## **Fall 1998**

Prepared for

Cornell University's Board of Trustees  
for their meeting on  
October 24, 1998

Michael Matier  
mwm5@cornell.edu

and

Cathy Alvord  
cja2@cornell.edu

Institutional Research and Planning  
440 Day Hall  
Ithaca, NY 14853-2801  
607-255-7540

# UNDERGRADUATE ENROLLMENT TRENDS

## Fall 1998

### Introduction

This year's enrollment trends report is purposely taking a different approach than in years past. Rather than providing a comprehensive analysis of all factors that have the potential to influence the total enrollment picture on the Ithaca campus, we have narrowed our focus to undergraduate enrollments and the factors that have most significantly influenced how we have arrived at the current situation and those most likely to impact our near- and longer-term future.

### Undergraduate Enrollment Objectives

There are three overarching objectives that drive policy development and decision making as it relates to managing undergraduate enrollment on the Ithaca campus:

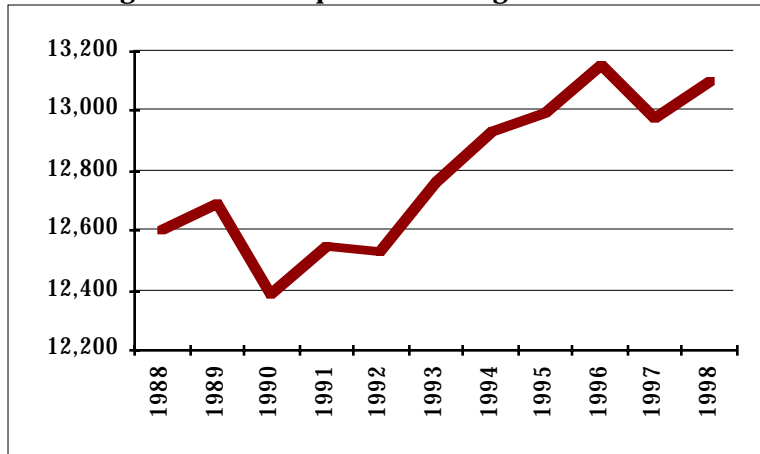
1. That there be no additional growth in the on-campus undergraduate student population and that overall enrollments remain stable;
2. That we maintain access to a Cornell education while continuing to enhance the diversity of the undergraduate student population; and
3. That we continue to enhance the selectivity of our undergraduate student population.

For the last several years, the institution has had an operational maximum total on-campus undergraduate enrollment target of 13,000 students. As the analysis below indicates we have not always been able to stay comfortably under that maximum target. Having more than 13,000 undergraduates enrolled at any one time taxes the physical and human resources of the institution and significant fluctuations from year to year create tensions on our teaching and infrastructure resources. Hence, we are planning to target 12,900 or even 12,800 as a more realistic optimum total undergraduate enrollment. Doing so may better position the university to address both the academic and non-academic needs associated with providing the desired quality of undergraduate experience, as well as to fulfill commitments to provide housing for all freshmen and guarantee housing for all sophomores and entering transfers who desire it.

In addition to managing the total number of undergraduates on campus, it is imperative that Cornell maintain a commitment to access while continuing to enhance the diversity of the undergraduate student population. Careful attention needs to be paid to the gender, racial/ethnic, and socio-economic diversity of the student body. In addition, the geographic diversity of the study body is equally important as it also enriches the educational environment. We have to pay close attention to market supply as well as a negotiated agreement with New York State that seventy percent of undergraduates in the Statutory Colleges be New York residents.

In conjunction with the first two undergraduate enrollment objectives, continuing to enhance the selectivity of our undergraduate student population is also essential. This is linked to strategically increasing the size and quality of our applicant pool, improving the yield on offers of admission, and increasing the proportion of the fall entering class that is admitted under the Early Decision Program.

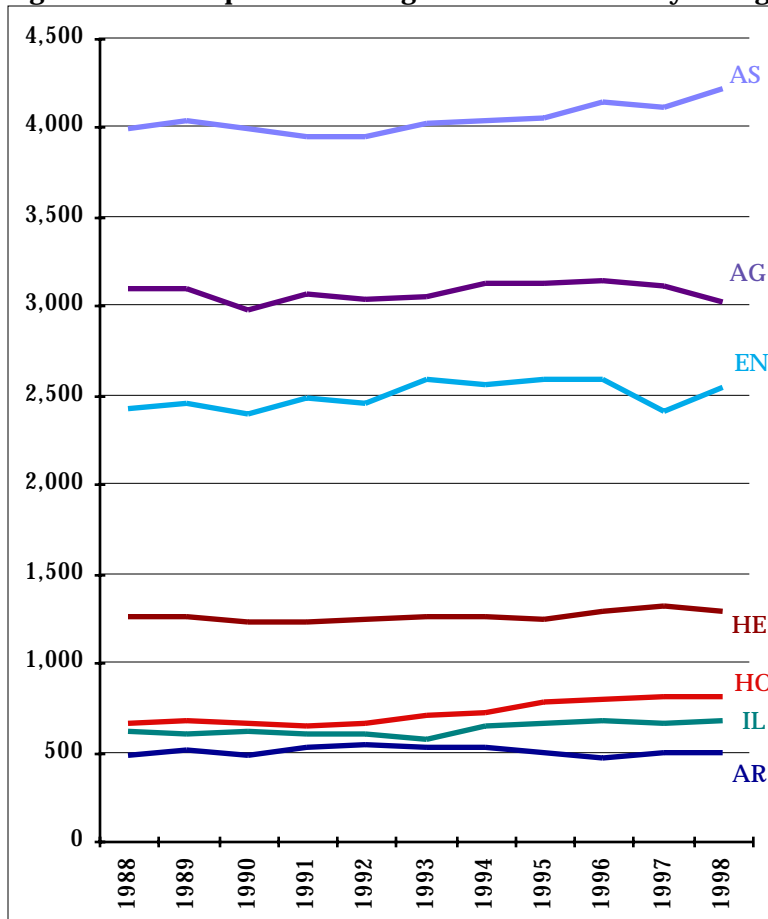
Figure 1. On-Campus Fall Undergraduate Enrollment



**Current Situation and Changes over Time**

Figure 1 indicates that on-campus undergraduate enrollment has increased by

Figure 2. On-Campus Fall Undergraduate Enrollment by College



4 percent, or 495 students (12,603 in Fall 1988 to 13,098 in Fall 1998) during the past ten years. Two-thirds of this increase from Fall 1988 to Fall 1998 occurred in the Endowed General Purpose Colleges. Figure 2 displays that Arts & Sciences (AS) has 329 more students in Fall 1998 than in Fall 1988, Engineering (EN) 128 additional students, and Architecture, Art, & Planning (AR) has 58 more students currently than in Fall 1988. The Statutory Colleges accounted for only 5 percent of the increase from Fall 1988 to Fall 1998, with Industrial and Labor Relations (IL) increasing their enrollments by 131 students over this time period, Human Ecology (HE) increasing by

75 students, and Agriculture & Life Sciences experiencing a marginal increase in their enrollments by 4 students. The remaining enrollment changes occurred in the Hotel School (HO), with an increase of 165 students (of which 100 was planned) and the Internal Transfer Division (not pictured) where enrollments declined from 95 in Fall 1988 to 63 in Fall 1998.

Figure 3 displays freshman enrollments from 1988 to 1998 in the three largest colleges -- Arts & Sciences

(AS), Engineering (EN), and Agriculture and Life Sciences (AG). The size of the incoming freshman class in Arts & Sciences has increased fairly steadily from 918 in Fall 1988 to 1,055 in Fall 1998, a 15 percent increase. The College of Engineering has also experienced an overall increase in the size of their freshman class of 8.2 percent over this same time frame (from 683 to 739), but there has been much more volatility in their number, including a high of 860 new freshmen in Fall 1993. Freshman enrollments in the College of Agriculture and Life Sciences have, on the other hand, declined by a total of 9.3 percent, or 64 students, between Fall 1988 (687) and Fall 1998 (623). However, except for Fall 1988, Fall 1994, and Fall 1995, their incoming freshman enrollments have not been more than 15 students greater than in the current year.

Figure 3. Fall Freshman Enrollments -- Arts & Sciences, Engineering, and Agriculture & Life Sciences

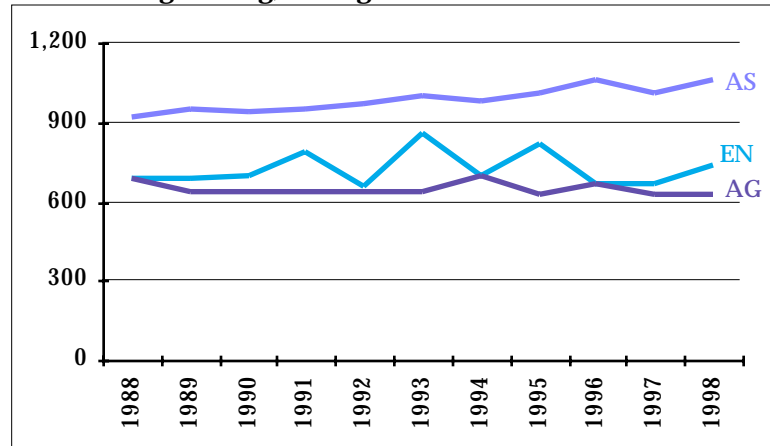
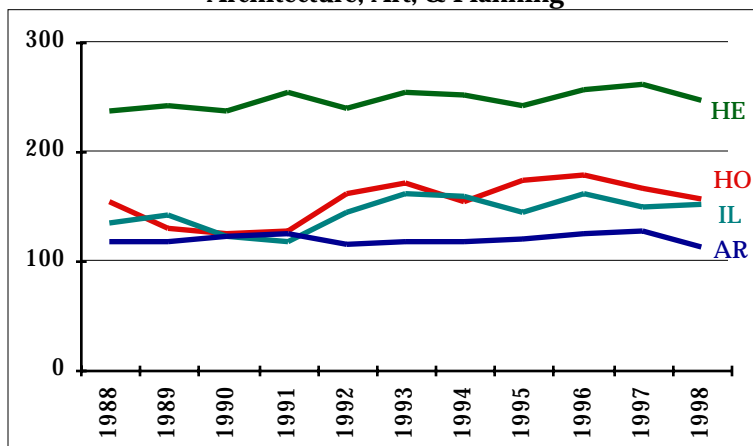


Figure 4 displays freshman enrollments from Fall 1988 to Fall 1998 in the other four undergraduate colleges -- Human Ecology (HE), Hotel

Figure 4. Fall Freshman Enrollments -- Human Ecology, Hotel, Industrial & Labor Relations, and Architecture, Art, & Planning

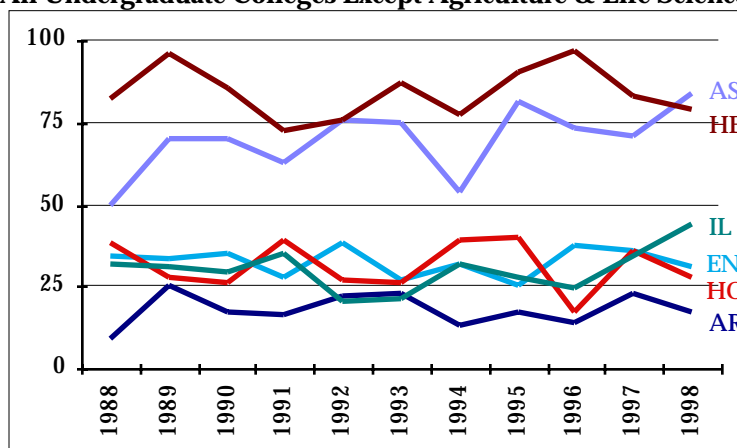


undergraduate colleges -- Human Ecology (HE), Hotel (HO), Industrial & Labor Relations (IL), and Architecture, Art, & Planning (AR). Overall, freshman enrollments have been relatively stable in both the College of Human Ecology (236 in Fall 1988; 247 in Fall 1998) and the College of Architecture, Art, & Planning (116 in Fall 1988; 111 in Fall 1998). While

there has been only a very modest increase in the number of freshmen in the School of Hotel Administration between Fall 1988 (153) and Fall 1998 (155), they have been as high as 173 in Fall 1995 and as low as 124 in Fall 1990. Similarly, freshman enrollment in the School of Industrial & Labor Relations have also fluctuated considerably, from a low of 116 in Fall 1991 to a high of 162 in Fall 1996.

Over the past decade slightly more than 40 percent of all incoming external transfers have enrolled in the College of Agriculture & Life Sciences. In Fall 1988 this amounted to 186 out of 431 external transfers (43 percent) and 195 out of 478 (41 percent) in Fall 1998. The 1997 affiliation agreement between the College of Agriculture and Life Sciences and the SUNY Colleges of Technology at Alfred, Canton, and Delhi, the SUNY Colleges of Agriculture and Technology at Cobleskill and Morrisville, and Suffolk County Community College is one reason why such a large proportion of transfers into the university enroll in this college.

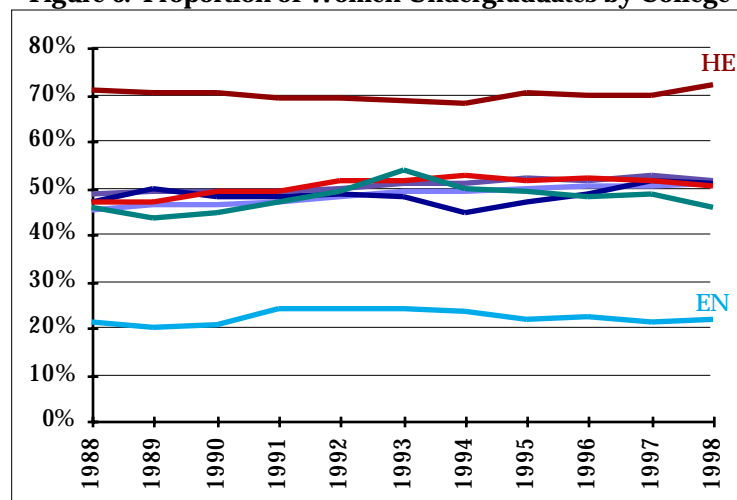
Figure 5. Fall Undergraduate External Transfers  
All Undergraduate Colleges Except Agriculture & Life Sciences



Of the other colleges (see Figure 5) it is evident is that the number of external transfers fluctuates more year by year. Regardless, the number of transfers into Arts & Sciences has been trending positively and they have seen the greatest overall increase, from 50 in Fall 1988 to 84 in Fall 1998 (68 percent).

The proportion of women among the total undergraduate population increased from 44.3 percent in Fall 1988 to 47.2 percent in Fall 1998. As Figure 6 makes clear, however, two of the colleges have distinctly different patterns that have not changed much over this time period. The proportion of women among undergraduates in the College of Human Ecology

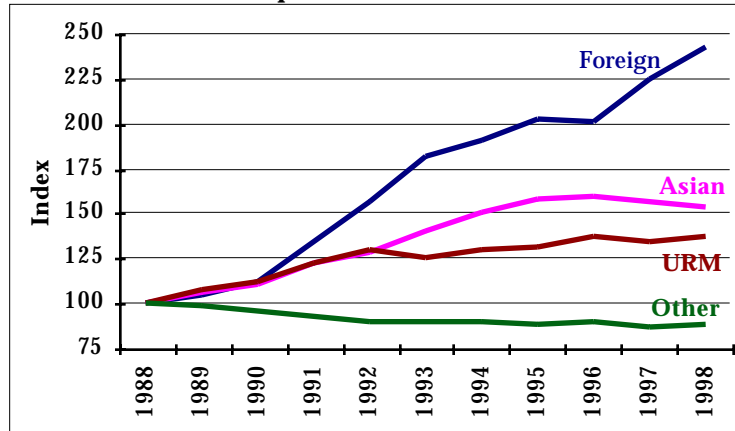
Figure 6. Proportion of Women Undergraduates by College



has remained between 68 and 72 percent from Fall 1988 to Fall 1998. Conversely, women have accounted for only 20 to 24 percent of the students in the College of Engineering.

The proportion of minorities among the undergraduate population<sup>1</sup> has grown from 20 percent in Fall 1988 to 29 percent in Fall 1998. As Figure 7 indicates, the proportion of underrepresented minorities (URM) has grown by 38 percent from Fall 1988 to Fall 1998 (from 1,085 students to 1,497). Within this group, the largest growth has been

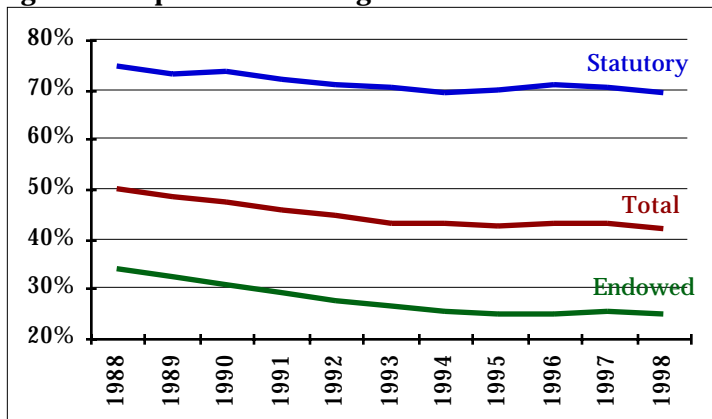
Figure 7. Growth in Total Undergraduate Enrollment by Citizenship and Racial/Ethnic Status



among Hispanics (an increase from 507 to 837 students), followed by Blacks (535 to 588) and Native Americans (43 to 72). The number of Asian American students grew from 1,415 in Fall 1988 to 2,176 in Fall 1998, an increase of 53 percent over this period of time. For all other U.S. citizens (whites and those for who elect not to designate racial/ethnic information), their numbers declined from 10,053 in Fall 1988 to 8,821 in Fall 1998, a decrease of 12 percent. Over this same period, enrollment of foreign students grew from 390 to 948, an increase of 143 percent.

The period from Fall 1988 to Fall 1998 has seen the undergraduate student population become more geographically diverse in both the Endowed and Statutory divisions of the university.

Figure 8. Proportion of Undergraduates from New York State



While the proportion of undergraduates from New York State have been declining over this period (see Figure 8), they still account for the largest share of students in both the Endowed and Statutory colleges. In the Endowed colleges, the proportion students coming from the Middle Atlantic and Midwestern states has

remained stable, those coming from the New England States have declined, and increases have occurred among students coming from the South, West, Southwest,

<sup>1</sup>Limited to U.S. citizens only; racial/ethnic data is not gathered and reported on foreign students.

and out of the country. The Statutory colleges have experienced modest increases from all regions outside of New York State with the exception of New England.

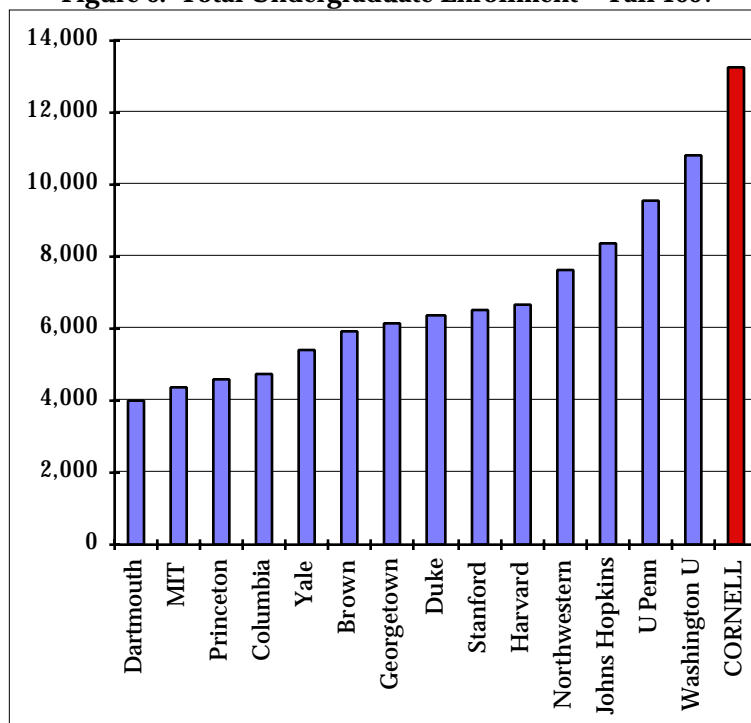
### Competitor Comparisons

The focus of this section will be on making comparisons between Cornell and the “admissions overlap group” institutions for which we have a ready source of comparative data through our participation in the Consortium on Financing Higher Education (COFHE).<sup>2</sup> Thus, the institutions in the comparisons that follow will include:

1. Johns Hopkins and Washington Universities -- institutions Cornell most often “wins” against when in direct competition for students who are commonly admitted;
2. Columbia, Duke, Georgetown, Northwestern, and Penn -- institutions Cornell “wins” between 30 percent and 60 percent of the time in direct competition; and
3. Brown, Dartmouth, Harvard, MIT, Princeton, Stanford, and Yale -- institutions that most often “win” in direct competition for freshmen with Cornell.

As Figure 9 makes clear, Cornell enrolls a significantly larger number of undergraduates than any of our comparators. With the exception of Penn, Cornell has at least twice as many undergraduates as any other Ivy League school. As a general rule, freshmen account for approximately a quarter of the undergraduate population. Hence, while Cornell is looking to admit approximately 3,000 first-time freshmen each fall, our closest Ivy comparator, Penn has an entering class closer to 2,400, while Dartmouth, Princeton, and Columbia are admitting 1,000 or fewer new freshmen each year.

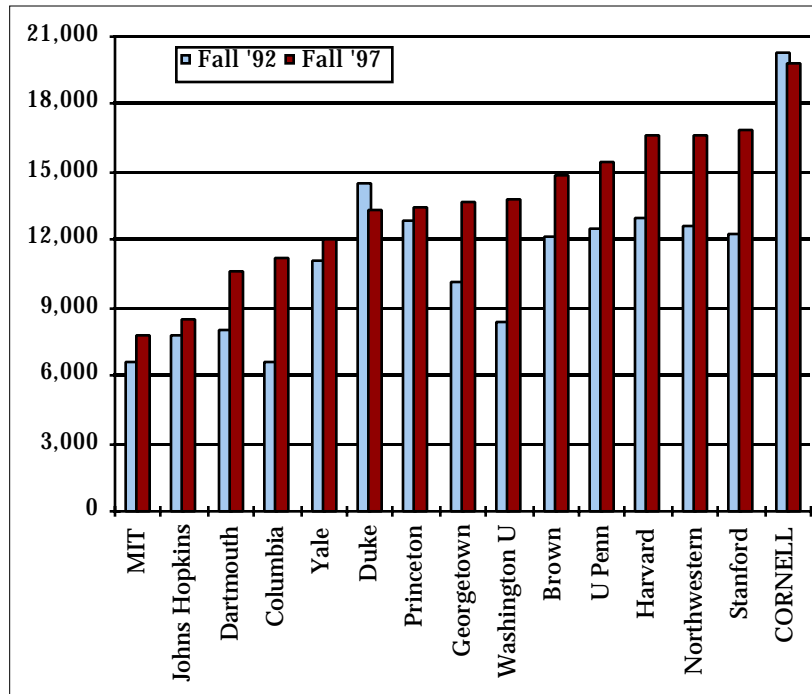
Figure 9. Total Undergraduate Enrollment -- Fall 1997



<sup>2</sup>Fall 1997 comparative data is the most recent information available from COFHE. The 1998 data will not be available until much later in the semester.

As Figure 10 displays, only Cornell (2 percent) and Duke (8 percent) saw a decline in the total number of applications between Fall 1992 and Fall 1997. Columbia, with a 70 percent increase, had the largest gain among this group of institutions, but it should be noted that during this period of time they also increased the size of their entering class.

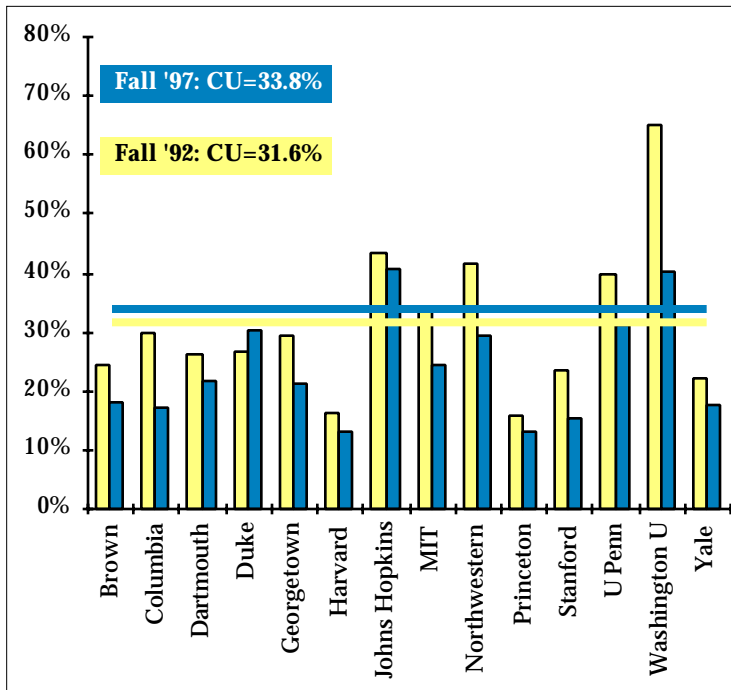
Figure 10. Comparative Applications for Admission Fall 1992 and Fall 1997



As indicated in Figure 11, Cornell's admit rate -- the proportion of students

offered admission divided by the total number of applicants -- rose from 31.6 percent for those seeking admission for Fall 1992 to 33.8 percent for Fall 1997. Among our comparators, only Duke also experienced an increase in their admit rate. The

Figure 11. Comparative Admit Rates Fall 1992 and Fall 1997

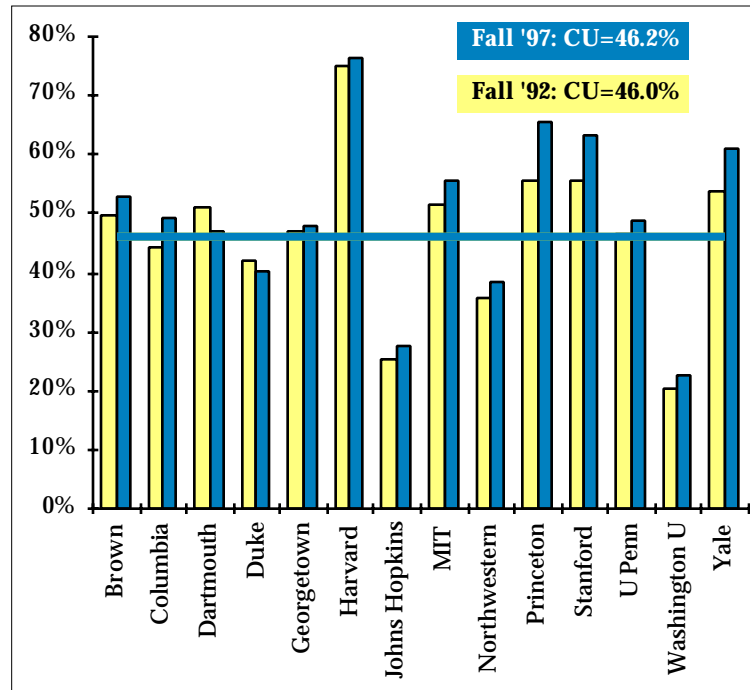


changes depicted in Figure 11 are directly and inversely related to the changes in the number of applications displayed in Figure 10 (an increase in applications leads to a decrease in admit rates). As well, the general decline in admit rates are also related to increases in the number of students being admitted via early decision programs at our comparators. Ten years ago, Columbia, Georgetown, and MIT had admit rates that approximated Cornell's. Currently, Cornell, Duke, Northwestern, and Penn are clustered together at or slightly above 30 percent.



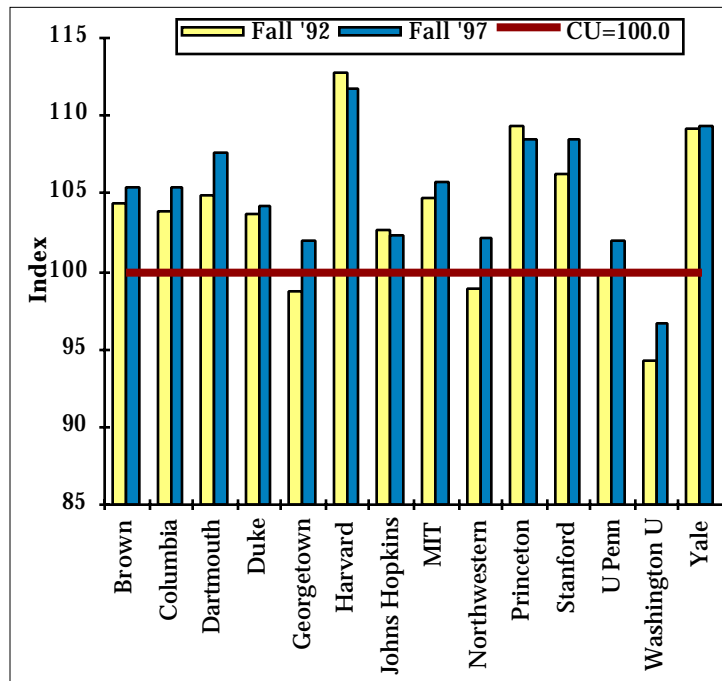
Figure 12 displays comparative yield rates -- the proportion of students who accept an offer of admission divided by the total number of applicants who were admitted. Between Fall 1992 and Fall 1997 Cornell's yield rate has remained unchanged at 46 percent. Most of the increases in yield depicted can be attributed to increases in the numbers of students admitted by way of early decision programs. Only Harvard, Yale, Princeton, MIT, and Stanford have yield rates significantly greater than 50 percent.

Figure 12. Comparative Yield Rates  
Fall 1992 and Fall 1997



While the number of applicants to Cornell has dropped slightly, the institution's admit rate has modestly increased, and the yield has remained steady over the past five years, the overall quality of the entering freshman class has been steadily increasing. In fact, SAT scores for entering freshmen have increased in each of the past three years. However, this is not a phenomenon unique to Cornell, as most of our comparators have also seen increases (see Figure 13 and Figure 14).

Figure 13. Indexed SAT Verbal Scores  
Fall 1992 and Fall 1997



In agreement with the other schools that participate in COFHE, Cornell does not publish average SAT scores. Nevertheless, by using an index, with Cornell's average SAT score set at 100 for both Fall 1992 and Fall 1997, it is possible to see the relative differences in the verbal and math scores of students entering each of the comparator schools. As Figure 13 indicates, for the

Fall 1997 entering class, only Washington University has average SAT-Verbal scores lower than Cornell, while Georgetown, Johns Hopkins, Northwestern, and Penn have only slightly higher averages.

Cornell's mean SAT-Math score is more in the middle of the comparator group, as evidenced in Figure 14.

Cornell's Early Decision Program (EDP) applications have grown as a proportion of all applicants in recent years and are once again approaching the 12 percent

level realized among first-time freshmen seeking admission for the Fall of 1992. For Fall 1992, 2,351 of Cornell's 20,324 total applicants (11.6 percent) applied through the EDP (See Figure 15 and Figure 16). In Fall 1997 10.4 percent of all applicants (2,061 of 19,854) applied for early decision, and this increased to 11.1 percent for the Fall 1998 entering class with 2,198 of 19,860 applying EDP.

Figure 14. Indexed SAT Math Scores  
Fall 1992 and Fall 1997

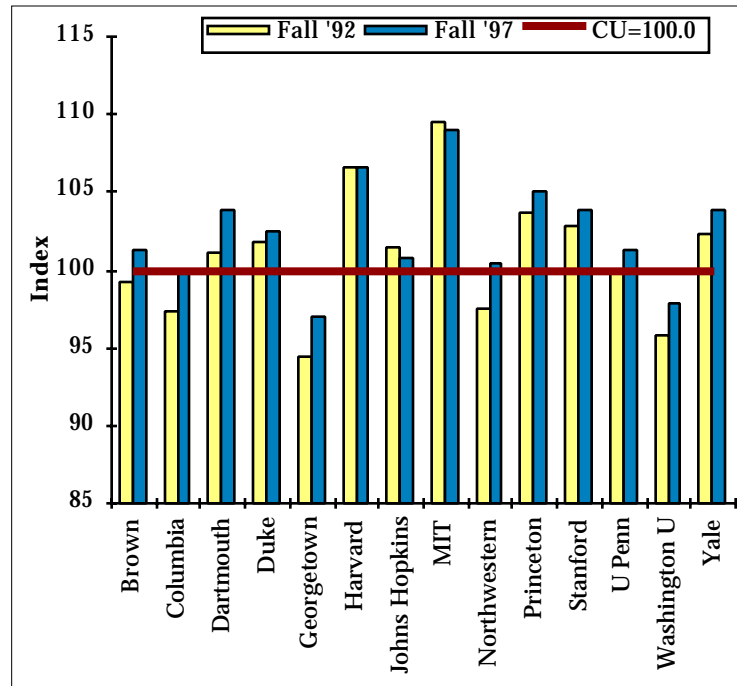
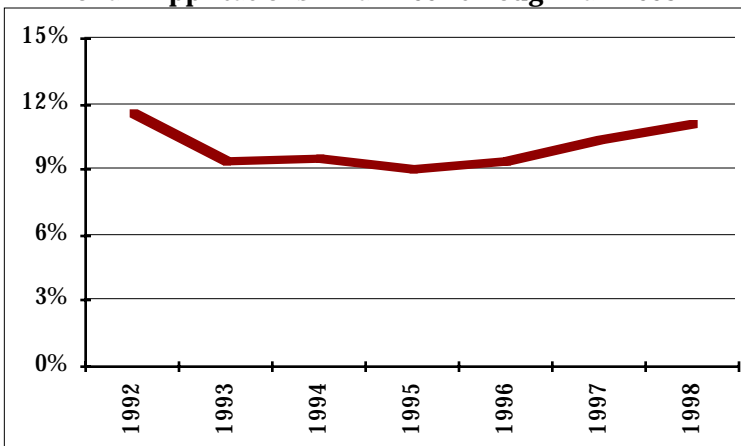


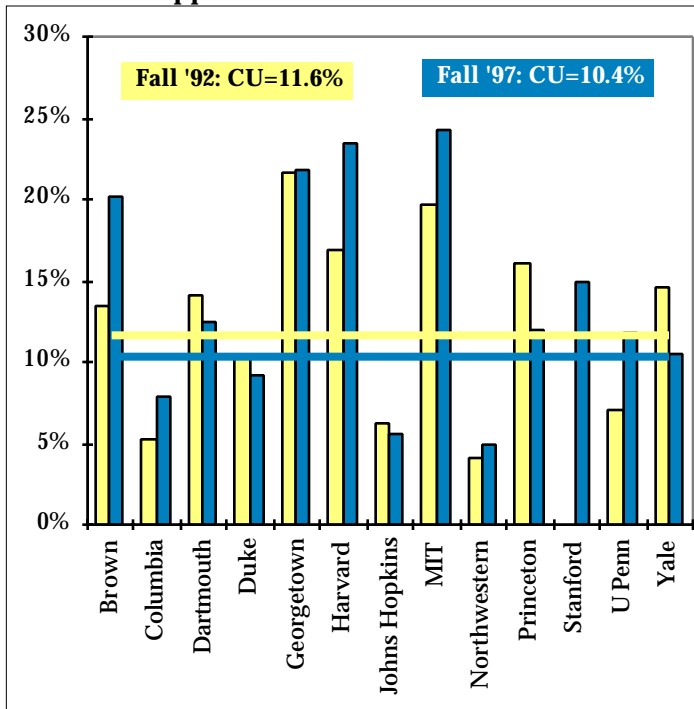
Figure 15. Cornell Early Decision Applications as a Proportion of all Applications -- Fall 1992 through Fall 1998



Fall 1992 to Fall 1997. Note that Stanford did not have an early decision program available for those students applying for admission for the Fall of 1992.

As we have suggested earlier, many of our comparators have experienced increases in the proportion of students utilizing their respective early decision or early action programs. Brown, Columbia, Georgetown, Harvard, MIT, Northwestern, and Penn each saw an increase in the proportion of their applicants who applied early decision from

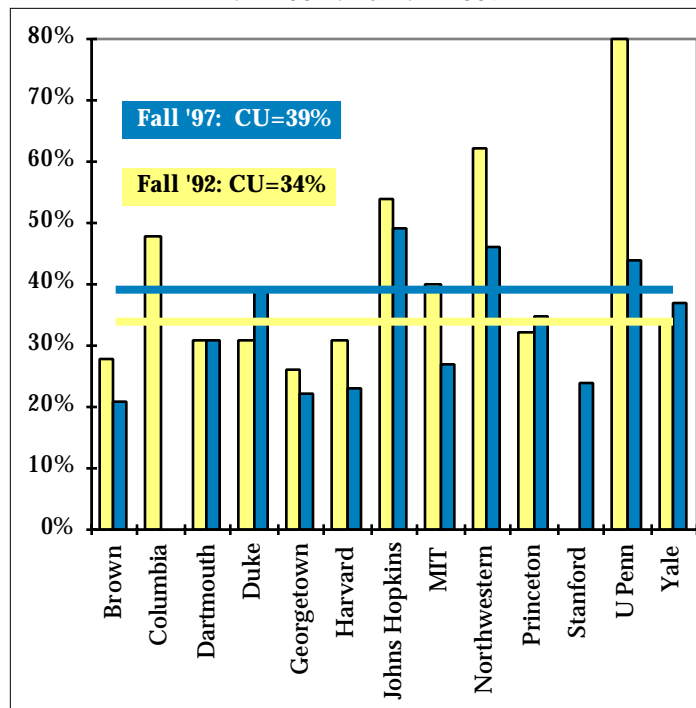
Figure 16. Early Decision Applications as a Proportion of all Applications -- Fall 1992 and Fall 1997



The admit rate for those who applied for early decision at Cornell has been stable at between 39 percent and 40 percent in each of the past five years, having risen from 34 percent in Fall 1992. Meanwhile, the admit rate for early decision applicants at many of our comparators has declined over this period, in some cases dramatically so (see Figure 17). The institutions with the greatest decline in admit rates for applicants to early decision/action programs among our comparators tend to also be the institutions with the greatest increase in the numbers of early decision applicants.

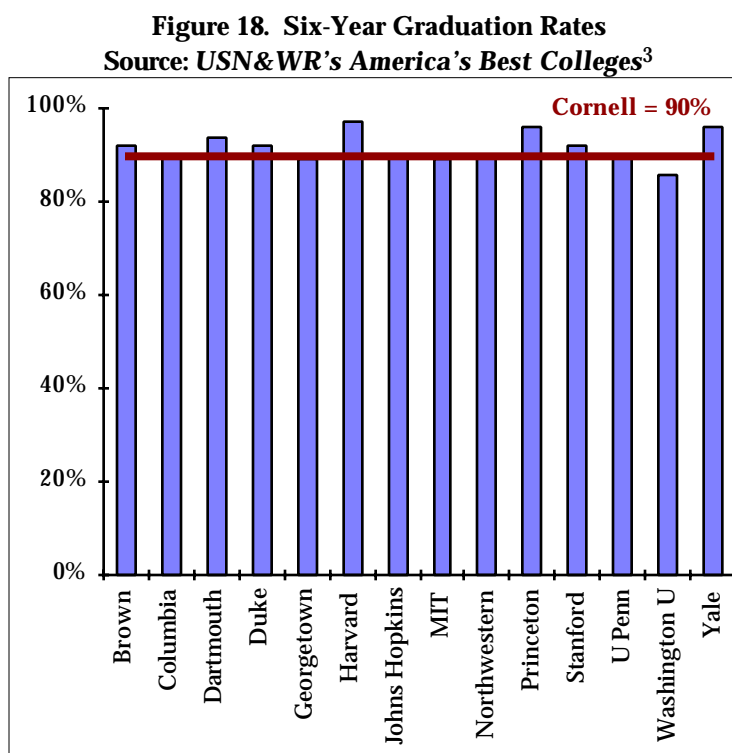
Another way to look at this, however, is to note that Cornell's Fall 1997 EDP admit rate of 39 percent is less than six percentage points higher than the 34 percent admit rate for the entire entering class. For all of Cornell's comparators the admit rate for those applying early decision in Fall 1987 was higher than the corresponding overall admit rate. However, only Brown, Georgetown, and MIT have differentials smaller than Cornell's six percentage points. On the other hand, Princeton's admit rate for early applicants of 35 percent is fully 22 percentage points higher than its overall admit rate of 13 percent for the Class of 2001. Others with large differentials in admit rates favoring those applying for early decision include Yale (19 percentage points higher)

Figure 17. Admit Rate for Early Decision Applicants Fall 1992 and Fall 1997



Northwestern (+17), Harvard (+10), as well as Dartmouth, Duke, Johns Hopkins, and Stanford (all +9).

With respect to the rate at which students graduate, Figure 18 clearly shows that while there is some difference among Cornell's comparator institutions, all but Dartmouth, Harvard, Washington University, and Yale are within two percentage points of Cornell's 90 percent six-year graduation rate.



### Issues on the Horizon

There are at least three issues on the horizon that may impact undergraduate enrollments on the Ithaca campus in the near- or longer-term future: national demographic trends, distance learning, and early graduation.

National demographic trends clearly indicate that there is an increase in the number of high school graduates anticipated for at least the next decade. Further, there will be an overall increase in the proportion of traditional-age, college-bound freshmen who are from what are currently considered underrepresented minority groups. It is anticipated that such states as California and Texas -- increasingly important recruiting grounds for Cornell -- are likely to see whites become a minority of their school age population early in the next century.

The expansion of distance learning and other non-traditional learning venues is often considered a "threat" to enrollment in post-secondary institutions, leading some to suggest that thirty years from now we won't recognize higher education as we know it today. While it is clear that the proliferation of electronically available for-credit instructional opportunities will continue, we believe that it is highly unlikely that the primarily residential undergraduate degree programs offered by Cornell and other highly selective universities and private colleges will be superseded by this growing number of "virtual institutions." On-line instructional opportunities may have an impact on the number of semesters of residency

<sup>3</sup>The rates displayed are the averages of the six-year graduation rates for freshmen entering in Fall 1989, Fall 1990, and Fall 1991.

students spend on the Ithaca campus, and they certainly have the potential to enrich Cornell's current curricular offerings. Nevertheless, we anticipate that the greatest impact of "distance learning" at Cornell will be in terms of new revenue streams flowing to the institution as a result of Cornell's faculty being net exporters of knowledge through programs for alumni life-long learners, executive education, and the general populace.

To date, we have not seen a significant increase in the proportion of students graduating in less than four years from Cornell. Over the last ten years only between two and six percent of all first-time freshmen have completed their degrees in less than eight semesters. Nevertheless, we fully recognize that we will need to continue to carefully monitor this statistic in light of an increasing number of students taking advantage of advanced placement coursework while in high school, as well as an increasing number of undergraduates utilizing their summers to earn credit at other institutions that they then transfer to Cornell.

### **Conclusions**

Undergraduate enrollments at Cornell remain strong. The institution is in the enviable position of having a sufficiently large applicant pool to make it possible to admit and matriculate a highly diverse and extremely well qualified undergraduate student body. However, these are statements that are equally true of Cornell's comparators.

Cornell is in a highly competitive market in its search for undergraduates. The institution's ability to sustain and improve its relative position within that market is significantly constrained by its comparatively larger size. By the same token, the breadth of academic offerings available on the Ithaca campus is a significant competitive advantage.

The challenge facing Cornell is to craft and implement strategies that will allow the institution to become an ever stronger player in the increasingly complex head-to-head competition for undergraduate students. In particular, it is imperative that we find ways of making what is distinctive about Cornell overtly apparent to our target populations. In essence, we need to become ever more savvy about the manner in which we market the institution both to prospective students and the public at large.