Report of the Study Group to Consider New Residential Colleges

FEBRUARY 2008



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CONTENTS

EXECUTIVE SUMMARY

```
PREFACE
    INTRODUCTION
    STUDENT LIFE
15
        Location and Security
         Transportation and Security
         Third Building
        Seeley G. Mudd Library
        Sense of Community and Ensuring Equity of Opportunity Is Preserved
        Freshman Housing
        Housing Issues: Sophomores, Juniors, and Seniors
        Extracurricular Life
            Performing Arts
            Athletics, Physical Education, and Recreation
            Student Organizations and Community Service
    ACADEMIC RESOURCES
        Prologue: Background and History
         Challenge and Opportunity
        Space
        Examples: Five Areas Under Present Stress
             Chemistry
            English
            Economics
             Political Science
            The Arts
        Special Programs Under Stress
             Perspectives on Science
            Directed Studies
```

Health Studies

Interdisciplinary and Interdepartmental Majors

Residential College Math and Science Tutors

Teaching Assistants

Advising and Student-Faculty Relationships

59 RESIDENTIAL COLLEGES: STRENGTHENING THE PRESENT,

PREPARING FOR THE FUTURE

History

Opportunities to Strengthen Present Residential Colleges

Variation Among the Colleges

What New Colleges Will Need

Funds

Equity of Physical Space

The College Master and Dean

Graduate Affiliates and Residential Graduate Affiliates

Residential Fellows

College Fellowship

Academic Programs

Advising

Tutoring

Mellon Research Forum

Masters' Teas

- 73 ATTACHMENT A Members of the Study Group to Consider New Residential Colleges
- 75 ATTACHMENT B Map of the Prospect-Sachem Triangle Site
- 77 ATTACHMENT C Study Group Consultations
- 81 ATTACHMENT D Enrollment and Housing Graphs
- 91 ATTACHMENT E Yale's Learning Spaces: Recommendations from the Classroom Planning Group
- 95 ATTACHMENT F Residential Education at Yale: A Narrative Time Line

EXECUTIVE SUMMARY

In February 2007 President Levin appointed a study group consisting of two committees – the Student Life Committee and the Academic Resources Committee – to advise him and the Corporation on the implications of potentially adding two new residential colleges on the site bounded by Prospect, Sachem, and Canal Streets (the Prospect-Sachem Triangle). He asked the committees to consider what would be needed to preserve and add to the strength of the Yale College experience if the undergraduate population were to grow between 600 and 800 students by the year 2013.

He offered a few other points of information: (1) it was anticipated that the new colleges would house their assigned freshmen, but the committees were free to investigate other arrangements, (2) there would be room for a third building on the proposed site to house unspecified core academic and student life resources, and (3) the Seeley G. Mudd Library would be left standing and would be renovated, with opportunities to add some features that might be desirable for undergraduate life.

Both committees met regularly during the spring and fall of 2007, interviewed a wide range of faculty and administrators in the Faculty of Arts and Sciences, and held five student forums. The undergraduate members of the committees, in consultation with the Office of Institutional Research, developed a survey of student opinion. The committees held several joint meetings, especially toward the end of their work, and collaborated on a unified report.

In each section of the report, the committee responsible for that section proposes possible solutions for issues it believes must be addressed before new colleges are built. This executive summary recapitulates the general recommendations that the committees agree are critical to the current strength of Yale College as a whole and to the flourishing of the College if the proposed expansion goes forward.

The Committee recommends all of the following:

- Creating appealing routes north of Grove Street to the proposed new colleges by adding attractive "stepping-stone" locations along the way.
- Creating an adequate and effective transportation system for the Prospect-Sachem Triangle.
- Developing a robust security plan for the Prospect-Sachem Triangle.

- Developing detailed plans for the third building.
- Planning and developing academic resources and social amenities in the renovation of the Seeley Mudd Library.
- Appointing a task force to consider the options for housing freshmen assigned to the proposed new colleges.
- Creating more space for physical education, club sports, and recreation in addition to the proposed new fitness center in the Science Hill area.
- Ensuring that the census in each residential college is managed in order to eliminate annexing of juniors and seniors on the Old Campus.
- Strengthening existing residential colleges before constructing new ones, by reviewing allocation of funds, the college fellowships, and the use of residential fellows and graduate student affiliates.
- Ensuring that the proposed new colleges would have all the resources necessary to
 offer the same kinds of opportunities as the existing residential colleges on the day
 of their opening.
- Accepting the Classroom Planning Group's recommendations that Yale develop a
 five-year strategic plan to ensure the quantity and quality of all learning spaces on
 campus.
- Appointing an associate dean for the arts in Yale College who can help address the
 complexities of undergraduate arts issues by working with the residential colleges
 on facilities organization and resources, and by working with the deputy provost
 for the arts, the FAS departments, and the professional schools to enhance curricular offerings and resources for undergraduate arts.
- Considering additional models for graduate student teaching that are in the best interests of both graduate student career development and undergraduate learning.
- Asking the dean of Yale College to bring greater coherence and consistency to the
 design and oversight of advising for freshmen and sophomores and for majors in
 those departments where teaching and advising resources are stretched.
- Requesting that the president and provost set in motion a process by which each
 FAS department, program, and administrative office undertake the kind of detailed
 planning suggested in this report, in order to strengthen Yale College and to ensure
 its excellence should the undergraduate population increase. Only when such planning is in place should the University move forward with the proposed new colleges.

Report of the Study Group to Consider New Residential Colleges

PREFACE

In February 2007 President Levin appointed a study group consisting of two committees—the Student Life Committee and the Academic Resources Committee—to advise him and the Corporation on the implications of potentially adding two new residential colleges to Yale (*see Attachment A for a full list of committee members*). In a meeting with both committees in early March, the president acknowledged that Yale was widely known for the character and intimacy of its undergraduate experience and assured the committees of the strong institutional desire to preserve these. At the same time, he noted his belief that the University should offer its resources to more of the unprecedented number of undergraduates seeking admission, and a corresponding belief that increased scale could augment the core mission of the University, which is to create, preserve, and disseminate knowledge. Given the importance of what increased size might make possible, he asked the committees to study what would be needed to preserve the special nature of the Yale College experience if the increase in population were to take place.

During that same meeting, the president shared preliminary information about a proposed location that had been identified by the Yale University Framework for Campus Planning: the triangular area bounded by Prospect Street on the east, Sachem Street on the north, and Canal Street on the south and west (*see Attachment B*). He asked the committees to consider what would be required to preserve the Yale experience if the University were to construct two new colleges with approximately 360 beds each on that site. He offered a few other points of information: (1) it was expected that the new colleges would house their assigned freshmen, but the committees were free to investigate other arrangements, (2) there would be room for a third building on the site to house unspecified core academic and student life resources, and (3) the Seeley G. Mudd Library would be left standing and would be renovated, with opportunities to add some features that might be desirable for undergraduate life.

Other than location and size, the president specified little to the committees, except his request to consider in each area whether the overall excellence of the College could be preserved and enhanced if the initiative he described were undertaken. He did add, however, that a corollary advantage of the committee's study would be its potential

discovery of opportunities to review and perhaps strengthen the current nature of what Yale College offers. The committees in the end would do double duty: in imagining a future, they would also be discovering ways in which they might strengthen the present as a foundation for it.

Process and Methods

Each committee met regularly in the spring and fall of 2007 and held several combined meetings, especially toward the end of the fall of 2007, conversing with one another and drawing on the expertise of visitors to the committees from the wider University community. In the course of the committees' proceedings, the following took place:

- The University Planner, Laura Cruickshank, briefed both committees on the site and on plans for building in the surrounding area.
- The Student Life Committee considered issues related to security, transportation, dining, athletics, performing arts, and activities in the colleges. Masters and deans were members of both committees, and the Council of Masters contributed to relevant sections of the report.
- The Academic Resources Committee heard from department chairs and/or from directors of undergraduate studies from a selection of departments and considered issues related to the capacity of academic departments and other academic services to educate a larger population of students.
- In July, at mid-course, the chairs and vice chair of the committees met informally
 with the officers of the University at a retreat. In September the chairs and vice chair
 met with members of the Corporation, where they presented the committees' preliminary findings, gave a sense of the direction the committee reports were likely to
 take, and received helpful observations and support for their continued proceedings.

During the fall, the work of the committees shifted to consultation and interaction with each other and with the broader Yale community and to a consolidation of their findings. During this time period:

- The joint committees held five open forums for students in the residential colleges.
- Members wrote and shared subcommittee reports from which the final report would be written.
- Students took charge of developing, disseminating, and assessing a student survey on the proposed new colleges.

 The leadership of the committees, along with the dean of Yale College, met with selected departmental chairs and directors of undergraduate studies to discuss the emerging shape of the recommendations and the implications for their departments and for Yale College as a whole, and to listen to their suggestions and opinions.

The report is divided into four sections. The Introduction frames the larger issues of scaling up the student population and adding two new residential colleges at the proposed location. The second section, Student Life, focuses on location, security, transportation, possibilities for the third building to be constructed on the Prospect-Sachem Triangle site, housing issues, and performing arts and athletic matters. In the third section, Academic Resources, the committee considers academic space and teaching needs, and focuses on a sample of departments and programs that currently need resources and would need even more if the undergraduate population increases. In the fourth section, the residential colleges are the focus, with close consideration of what is needed to strengthen them now, as well as what provisions would be needed to ensure that the new colleges will have parallel resources if they are constructed. *A list of those on whom the committees drew for expertise is in Attachment C. Subcommittee reports too detailed for inclusion in the report are provided to the officers and Corporation members in appendices*.

INTRODUCTION

When president levin requested that the study group consider the possibility of new residential colleges, the first question on everyone's mind was "why expand?" In the universe of selective colleges, Yale has had, in recent memory, the reputation of being the ideal size, a well-proportioned college surrounded by a starry array of graduate and professional schools. Why take a school so many view as perfectly suited to undergraduate education — allowing for the consummate blend of opportunity and community — and make it larger?

In answer, the study group found it helpful to remind itself of the mission of the College, which is to educate students for a life of contribution to society. From its founding in 1701 until well into Yale's second century, those students were small in number, reaching 500 in Yale College only in the late 1860s. As the Yale historian George Pierson observed in his Book of Numbers, however, Yale's growth and geographic progressions were "remarkably consistent, and demonstrative of the Southward, Westward, Pacific and Southwestward expansion of Yale's reputation and drawing power, almost step-by-step with the expansion of the country." The College, he noted, from the first always "drew beyond Connecticut and beyond New England" for its students, and always "educate[d] a considerable number of students of very limited means." Even with all of his knowledge of Yale's growth, reach, and inclusion, however, Professor Pierson might have had difficulty imagining an applicant pool like today's: twice the size as in the 1970s, from every corner of the nation and the world, gifted and heterogeneous, attracted by the institution's strength and reputation and by the robust financial aid that makes it possible for any student to consider Yale without undue familial or personal sacrifice.

At the University's Bicentennial in 1901, a packed Battell Chapel listened as Thomas Thacher, distinguished lawyer, judge, Solicitor General of the United States, Yale Corporation member, and great-great-grandson of Roger Sherman, urged the company to

Look to the Future! Think of the many, various and wide-reaching questions now pressing for solution – growing out of the reality of the Spanish war, out of the annihilation of distance by steam and electricity, out of

^{1.} George Pierson, *A Yale Book of Numbers: Historical Statistics of the College and University*, 1701–1976, Section B. See http://www.yale.edu/oir/pierson_original.htm.

the tendency to consolidation, out of combinations of capital and labor, out of the increase of the functions in large cities, and generally out of rapid advances in industrial, commercial, municipal and political methods. That these questions may be solved, is there not an emphatic call with a view to service . . . for many men of the kind which Yale training produces . . . men of independence of thought, not to be moved by the demands of ignorance or prejudice?²

Although we would not state the point with the same parochial pride and rhetorical flourish (and we certainly would include women with men in our iteration), we can share Thacher's desire to make a Yale education available to as many as possible who might offer service to the world in the twenty-first century.

We also can agree that scale is important in a number of ways. In addition to allowing Yale to educate more citizens of the future, study group members recognized that there are certain desirable attributes that only size enables. The mission of the University is not only to educate, but to create knowledge. A larger undergraduate college helps make possible a larger faculty, critical in some disciplines, and especially critical at a moment when new fields are taking shape and when interdisciplinary thought is becoming ever more important. Larger departments allow both wider coverage of subjects and deeper probing into specific areas; they allow more cross-fertilization of thought and a greater range of perspectives and intellectual exchange.

What's more, expansion provides the impetus to address a number of current challenges in ways that will strengthen our community. Dedicating some portion of the new beds to existing students will allow juniors once annexed on the Old Campus to rejoin their peers and master around the courtyard of their college. New faculty will strengthen not only a department's academic and research profile but also its ability to advise students crafting a program of study, writing a senior paper, or pondering how to spend their lives after graduation. Building new colleges from scratch will occasion valuable reflection on how best to incorporate educational programs into the residential life of all colleges, old and new, as well.

Further, we recognize the dramatic contribution that new colleges at the proposed site would make to the enhancement of life on Science Hill, thereby enlarging and transforming the campus itself and widening what President Giamatti once called Yale's "sense of place." Nothing enlivens a campus area quite like undergraduate residences.

^{2.} The Bicentennial. An Illustrated Account of the Celebration of the Two Hundredth Anniversary of the Founding of Yale, *Yale Alumni Weekly*, vol. 11, no. 14 (January 1902), 154.

For generations Science Hill has been a relatively isolated location, with few attractions to lift the spirit, and with academic buildings far from the center of undergraduate residential and social life. There are no dining centers except Donaldson Commons and Kline Biology Tower (both of which operate only during the day), no cafés or coffee houses, no late-night convenience/fast food offerings, no theater or performance or rehearsal spaces, no athletic facilities save Ingalls Rink, little to make the location congenial during the day or to give it a robust life at night. Its isolation, underlined by its relative social emptiness, has been a serious problem for the University, because it has seemed to convey the sense that the sciences are somehow less valued, a misperception the University is making every effort to counter by action and resources.

Experience has demonstrated that construction of new facilities does change the perception of the campus, as, for example, the additions of the Swing Space, the Yale Bookstore, the Off Broadway Theater, and the Writing Center have changed the perception (and reality) of life in Morse and Stiles Colleges. The new colleges and attendant buildings, if constructed, hold the same promise for a different area. The amenities and the amount of foot traffic and general vitality of the area do make a clear difference to students, faculty, and staff living and working in that part of campus, and to visitors as well.

We recognize that as the University commits itself to enhancing the sciences and engineering, and as it constructs more buildings on Science Hill, it must expand its idea of what constitutes the central campus. The Old Campus, after all, was once the only "central campus" anyone knew. The linear nature of the present Yale has psychologically blocked our ability to "feel" the undergraduate area from Chapel Street and Old Campus to the top of Science Hill as a unified whole.

All of these arguments are compelling. Nevertheless, the study group also included doubters among its members — students, faculty, and administrators alike — whose skeptical inquiry brought to the debate and discussion sobering thinking. Some had serious doubts at the beginning of the deliberations, and continued to have serious doubts at the end, about increasing the size of the College, fearing that it inevitably would affect Yale's cohesive sense of community, no matter what the provisions, or that the University would not be able to make all of the necessary changes to accommodate a larger student population. Some had worries about whether there could and would be needed augmentation of certain valuable resources or opportunities, and were concerned that the competition for these might affect the culture of cooperation and mutual support for which Yale undergraduate life is so well known. Others had compelling questions about the location. All of them argued that it would do no good to win the battle and lose the war — that is, to grow the College at the sacrifice of its special

sense of community, or its excellence. At issue throughout the debate and discussions were the "tipping points": how large an undergraduate population can Yale serve without sacrificing certain essential parts of its communal academic and social character? How much can it expand its "central" campus and yet keep its sense of unity and community? How can it enlarge and yet retain the important virtues that make it, in George Santayana's words about Yale, "a most living, organic, distinctive, fortunate place"?

STUDENT LIFE

Location and Security

As any real estate agent will confirm, land value is all about location, location, and location. When committee members talked to community members around campus, the first issue always engaged was location. Alumni, and some members of the faculty, weighed in with reactions, both positive and negative. But for students the Prospect-Sachem Triangle location was almost always the preoccupying worrisome topic, the main issue engaged in the student forums, and the primary reason many undergraduates suggested opposition to the new colleges. The data and conclusion of the student survey, conducted by several students on the committees with the help of the Office of Institutional Research, were instructive.³ They showed that 40% of those responding were skeptical about the new colleges and that 70% were against locating them at the Prospect-Sachem Triangle site — although there was reason to think students would be more positive if issues having to do with transportation and security were addressed explicitly, and if attractions such as late-night dining, exercise and athletic recreation facilities, and space for the arts, were added up and down the Prospect Street corridor.

The questions posed always came thick and fast, and the doubters were many: why, it was asked, did the colleges have to be located *there?* The clearest response to this is that it is the location adjudged best by campus planners. The architecture and urban design firm Cooper, Robertson & Partners identified the Prospect-Sachem Triangle area as one of several sites in Yale's Framework for Campus Planning of 2000. Asked to evaluate all possible sites in a follow-up engagement, the planners identified the proposed location as the most suitable. Subsequent studies of other sites revealed something in each that made it architecturally less than ideal in terms of space or configuration. But equally true was that none of the other possible locations presented the attractions of the proposed site, which offered the possibility of adding lively undergraduate living spaces with round-the-clock activity, good transportation systems, extracurricular opportunities, and other robust amenities to a location that would be greatly enhanced by having them.

^{3.} The survey was answered by 28% of the student body, a somewhat low response rate for concluding that these views are representative of the student body; students with more strongly felt opinions were likely more motivated to respond. Typically for opinion surveys, a 50% response rate is considered adequate for drawing strong conclusions about the overall opinions of the surveyed population. Nonetheless, these data were informative to the study group.

^{4.} Sites investigated include Lot 51 behind the School of Music; the Hall of Graduate Studies; and the Swing Space area.

Those who oppose the location have a strong psychological sense of its separateness. If you were to ask anyone "How many blocks from Old Campus will the new colleges be?" it would be doubtful they would give the right answer, which is "three" (Elm to Wall, Wall to Grove, Grove to Trumbull). Granted, Grove to Trumbull is a long and dull block, but the psychological effect of it is actually disproportionately daunting for several reasons. The impermeable walls of the Grove Street Cemetery pose significant aesthetic and psychological barriers and render the Prospect-Sachem Triangle site distant in perception. The section of Prospect Street between Grove and Trumbull has imposing buildings along the narrow sidewalks that make it seem like a tunnel – and in winter, during an average nor'easter, it is in fact a wind tunnel. There is little agreeable on Prospect Street on the way up to the new colleges to make the walk feel comfortable. The doubters believe that few from "central" campus would wish to hike up to the new colleges; and they also believe that few in the colleges would wish to hike down, especially if there were sufficient amenities nearby. The result would mean that one portion of Yale College would be isolated from the rest, thereby destroying the special intimacy that Yale students consider so critical to the character of their experience. Students frequently point out that Yale has a "day" campus, far-flung from the School of Medicine to the Divinity School atop Prospect Hill, and a much smaller, more intimate "night" campus that almost never sleeps and pulsates with vitality and activity virtually around the clock.

On the other side of the equation, however, there is also much to say. Our study of Yale history made the committee aware that community members are not always the perfect judges of a future that is difficult to imagine in the abstract. It should be remembered, for example, that Yale students and faculty (many of whom were also alumni in the 1920s) were strongly against the idea of the residential colleges themselves when they were proposed. For nearly a century and a quarter, students had identified with others who entered and graduated when they did, and the competition between classes in many arenas, including athletics, bound classmates in a special way. Many Yalies believed what current Yalies do: that a change in this traditional arrangement would destroy the special nature of Yale by diminishing ties between members. As it turned out, the doubters were correct that class ties would diminish with residential colleges; but they were wrong in being unable to envision the development of a different culture that would be considered as successful in contemporary terms as the presiding one of that day. Similarly, decades later when Morse and Stiles Colleges were designed, students at the time lobbied for the inclusion of many "stand-alone singles," a room type that is much less popular today. In the renovations planned for these colleges, rooms will be organized into suites with shared common rooms, an arrangement preferred by current students and from which closer friendships likely result.

At the breakfast discussions with selected chairs and DUSs, most faculty seemed accepting or positive about the location of the new colleges, but some (including several Yale graduates) were concerned. Most of these concerns focused on issues of community. Science faculty, however, were nearly universally enthusiastic about the expansion at the proposed site. At the same time the student poll, organized and distributed by undergraduates on the committees, demonstrated that students were generally against the expansion, but those majoring in the sciences were less strongly opposed to expansion in the proposed location than their peers, and believed less strongly that the expansion would reduce the sense of undergraduate community. The responses from science faculty and students, although at opposite ends of the curve of enthusiasm, point to the latent opportunity of the location to integrate and invigorate this part of the campus and to make the larger Yale campus feel more seamlessly one.

The skeptics are correct to view this move as a big and risky one. And of course no one of the present generation can be certain whether this is the right move. Caution is therefore in order. Yet there is no growth without change and risk. Those on the committee who see the proposed site both as an opportunity to enhance the University and as a challenge to the preservation of its special undergraduate qualities take very seriously the worry that the location might affect the treasured culture of Yale College. They therefore believe that the University must commit itself with the utmost seriousness and imagination to using all necessary resources to overcome its challenges. The committee brainstormed many ideas of its own concerning location and listened to many more, some of which are listed below, and some of which had to be set aside, at least for the present. Members nevertheless hope and expect that, should the University move forward with its current proposal, the officers will not see this list as definitive, but will continue to explore every possible idea, now and in the future, as to how the actual and psychological distances can be bridged, and will insist on that taking place before the colleges are established.

Proposed Solutions

- Creating, for example, a "stepping-stone" along Prospect Street by considering the move of the ground-floor library in Becton to another site, and using the freed space to create a glass windowed area for rehearsals, fast food, a set of meeting rooms for student organizations, or a subset or combination of these.
- Creating some kind of highly visible tower or gateway at the southeastern edge of the proposed site (Prospect and the Trumbull/Canal intersection) in order to

^{5.} Nevertheless, most students – including science majors – felt negatively about the location.

lessen the sense of distance to the new colleges and up Science Hill. After Becton, there is only half a block of Watson and the Malone Center before reaching the site. The more activity focuses on the south end of the site, the closer the new colleges will seem to be.

- Considering a pedestrian bridge that connects the present Prospect Place to Lock Street on the other side of the Farmington Canal Greenway, so that the University Health Services building and the police station are closer. This will address the issue of Canal Street, which cannot serve pedestrians well, and give the Ashmun Street corridor more foot traffic.
- Ensuring that the pedestrian/bike trail (Farmington Canal Greenway) has improvements such as more entrance and exit points and better lighting through its entire extension (it currently has none). The ideal would be to make the canal not only a used green space, but a hub of activity for walking, hiking, biking, in-line skating, and recreation in general.
- Considering an extension of the Farmington Canal Greenway under Temple
 Street, and building an egress on the other side of Whitney Avenue, behind the
 Neighborhood Music School. This would give students easier access to the Center
 for International Experiences, Undergraduate Career Services, and the Office of
 International Students and Scholars, as well as the lower Whitney Avenue shops
 and the Audubon Arts District, with no streets to cross and no traffic to worry
 about. Making it attractive, secure, and safe after dusk will be the key.
- Ascertaining that the portion of the new Social Sciences building facing Prospect
 Street, which will be made of stone with a great deal of glass, will be as open,
 lighted, and accessible as possible in the evenings. This is another opportunity for
 a "stepping-stone" on Prospect Street, and its location across from the colleges
 makes it an important link in the planning process. There should be accommodation and appropriate staffing, scheduling, and oversight to keep the building open
 and accessible after dark.
- Continuing to explore with the Grove Street Cemetery governance various accommodations that would make its beautiful and historic space more open to its surroundings. Committee members recognize the cemetery as sacred ground. Many have relatives or friends who are buried there or own plots themselves. At the same time, many have experience of cemeteries that are more open and integrated into their settings, with more permeable enclosures, open walkways, and bike paths. Committee members suggest that the Lock/Canal side of the cemetery have a gate to make a walk-through possible, and that a portion of the cemetery's historic wall on Prospect Street be replaced with a beautiful wrought-iron face so as to open the

cemetery to view and reduce the sense of a forbidding walled-off enclosure that acts as a geographical barrier.

Exploring every further opportunity to enhance Prospect, Grove, and Ashmun
Streets in order to give more vitality to the pathways to the proposed location.
More brainstorming over time might lead to further ideas about how to make these
streets, and the buildings on them, feel more pedestrian-friendly.

Committee Recommendation: Enhancing the buildings leading up to the proposed new colleges in order to improve the physical and psychological accessibility of the area.

Transportation and Security

Integrally related to the issue of location for the proposed site are transportation and security. Once again, these were the subjects of extensive discussion and exploration in meetings and in forums; with senior administrators in Transit Services who have charge of these issues; and with students, faculty, and community members, some of whom remained skeptical that any adjudication would be sufficient.

All agreed that unless members of the community find it easy to get up to and down from the proposed location, the new colleges will be isolated. Once again, the recommendations proposed here are not meant to be comprehensive, but to suggest the *kinds* of initiatives that will have to be continually imagined and reimagined if the location is not to be an insuperable barrier.

Proposed Solutions (Transportation)

- Employing 15-passenger vans (smaller and more versatile than regular-size buses) to make a continual loop from central campus to the new colleges.
- Enabling passengers to follow the progress of buses on a Web site.
- Ensuring a fully successful automated dispatch system for the nighttime minibus, with the hope of fixing ongoing problems of delays that leave people waiting in the dark without knowing if the bus is on its way. (The new automated system, which is planned to be in place and working within the year, will have passengers' cell phone numbers, and an automatic call will be placed when the bus is five minutes away, and again when the bus is one minute away. This system must work fault-lessly before any colleges are built.)

- Revamping the Science Hill shuttle to incorporate the proposed new residential
 colleges and the new YUHS building. The run is currently used as a successful
 express route between the central campus and Science Hill, timed to the start of
 classes. Since this Science Hill shuttle is useful for students moving from class to
 class, it may be necessary to create a second Science Hill shuttle that serves the proposed colleges and the YUHS building.
- Increasing the transparency and visibility of shuttle signage and ensuring that the Web site is clearer than at present. One member of the committee noted that there is no signage except color-coded signs, either on the routes or the buses. On the Web site, the first thing you must know is what bus route you are looking for, and the only way to know that is trial and error.
- Creating new pedestrian and bicycle paths, and improved lighting both along the Prospect Street route and the Ashmun/Lock/Canal Street route – to encourage the connection between the proposed colleges and the rest of the campus.
- Consulting with professionals on how further to ameliorate traffic and safety issues on Prospect Street.

Proposed Solutions (Security)

- Initiating more general security and hiring additional staff for both the Yale Police
 Department and Security Programs. In particular, the YPD will need additional
 staff for a 24-hour walking beat, 7 days a week. Creating a second Yale Police
 Department patrol beat for Science Hill, the area across from the colleges, and the
 new colleges area.
- Ensuring that the second Yale Security substation, which will be part of the new
 University Health Services building and which will coordinate the monitoring of
 residential facilities around campus, is "up and running" before the proposed two
 new colleges.
- Monitoring individually—ideally with personnel or in some cases perhaps through video surveillance—the residential colleges, as well as the third building.
- Installing blue phones with cameras at the proposed residential colleges and at strategic locations along heavily traveled routes leading to these colleges. The latter would include Prospect Street and Ashmun/Lock/Canal Streets.
- Installing cameras (separate from those on blue phones) on key buildings along the Prospect corridor. This is needed for these new structures as well as for the Science Hill area.

- Widening the Prospect Street sidewalks to enable them to handle the foot traffic during daylight hours. The corner of Prospect and Trumbull at the Malone Engineering Center is a walking hazard; the "garden of stone" leads to pedestrians tripping and struggling to funnel into a narrow sidewalk.
- Considering how to improve the situation for bicycles. A "bike lane" that doubles as the "shoulder of the road" and the "breakdown lane" on one side of Prospect Street, or the encouragement of bike riding on the sidewalk, simply compounds existing problems. Further professional advice will be necessary to determine whether there is a realistic expectation that multiple bikes in either direction can safely coexist with pedestrians and cars on those few blocks of Prospect Street.
- Using YPD officers to "patrol" the Farmington Canal Greenway route on Segways.
- Carrying through the proposal to lock individual bedrooms as well as suites (rooms in all colleges should be lockable).

Committee Recommendation: Creating an adequate and effective transportation strategy before the new residential colleges go forward and developing a robust security plan for the area and for the new colleges.

Third Building

There was much discussion among the committee members, and the people with whom they consulted, about the possibilities for the "third building" that the proposed site would accommodate. During our discussions everyone understood that there was one sine qua non concerning the building: it must have more classroom space. As the deputy registrar pointed out, the system is already seriously stressed, and a larger population will certainly exacerbate the problem. Without limitations on lecture size, certain large lecture courses, especially those required as foundational courses, may continue to grow beyond the space limitations of the existing auditoriums and lecture halls. The need for seminar space is also likely to increase, and so more of it will be required. Beyond regular course meetings, classrooms are needed for various academic support activities such as discussion sections, film screenings, tutoring sessions, colloquia, teaching labs, group study spaces, and exams. Special projects such as the Hewlett Foundation-supported Yale Video Lecture Project continue to place Yale in public view. Classrooms are used heavily by student organizations and by faculty to hold a diversity of events ranging from religious services to performance rehearsals to sizable conferences. As a world-renowned university, Yale needs to do more to

demonstrate a presentable appearance and to be ready to host visits from prospective students, guest faculty as well as faculty recruits, and dignitaries from around the globe.

As part of our consideration of the contents for the third building, the University Planner, Laura Cruickshank, and her staff put together a survey of peer college student centers. While the space available in the third building is nowhere near the square footage in these student centers—Yale, after all, has many mini student centers in the colleges and elsewhere—viewing them was an impressive experience and gave the committee members problem-solving ideas for the kinds of functions the new building might include.

Beyond classrooms (which we hope can be used by student organizations and rehearsal groups in the evenings, as WLH now is, but only if there is appropriate planning for that, scheduling apparatus, and resources for supervision), there are many candidate functions for this building. Chief among these are added performance and rehearsal space, which is always in desperately small supply, and possibly student meeting and organization office space (another candidate for meeting and organization space is the possible Becton "stepping-stone"). Added fitness center space is expected to be located in the renovated Sterling Chemistry Laboratory building, but there is a tremendous need for space for club sport and physical education classes, and that was also proposed as a badly needed but less likely possibility for the third building. In all discussions, the committee kept in mind that certain kinds of amenities draw students, no matter where they are. Students will consider going farther to reach the kind of attractions they most desire, even if it is at a distance, and so the new colleges will greatly benefit by having such attractions there. The following is proposed as a template of what might be desirable, with the recognition that there will be much future consideration of this.

Proposed Solutions

- Adding a much-needed 200-person lecture hall, critical for classroom needs.
- Adding a theater and dance performance space for 250, along the lines of Off Broadway. (This would be in addition to the larger theater space that might eventually be available in the Chapel Street area.) Such space should be created with the help of those at Yale who know most about theater, music, and dance and their technical requirements. There should be appropriate flooring for dance. A pit should be considered. Adequate backstage space for the creation of scenery and costumes as well as sufficient storage for scenery, costumes, and props must be considered an integral part of such a project. There should also be office space for those who oversee the administration of theater spaces and ensure their safety.

- Adding midsize classroom spaces (500–600 sq. ft.) to serve a double purpose: for classrooms and sections through early evening, and for student rehearsals and activity space in the later evening, with the latest in technology for scheduling purposes. The committee recommends that planners look at the scheduling system in place in the new building at Southern Connecticut State University to see the latest in what is available.
- Adding small learning spaces (60-80 sq. ft.) that could be used for events such
 as tutorial sessions, Directed Independent Language Study (DILS) meetings, or
 small study groups. (Perhaps these could be added in the Seeley Mudd Library.)
- Ensuring robust resources for supervision and scheduling of all of these facilities and recognizing that they will need close planning, upkeep, and attention throughout the year. Adequate staff and office space for administration must be in place.
- Air-conditioning all the spaces in this area while making them as green as possible in other ways. There should be agreement that the spaces will have summer use. During summer, this space could well act as conference as well as teaching space. Some hallways and kitchen space should allow for service of food for coffees, lunches, and receptions. Adequate bathroom facilities should allow for conferences and performances.
- Working through the tensions raised by ever-growing summer use of the campus
 and need for facilities upkeep and renovation. This has long been a campus-wide
 issue, and the possible creation of two new colleges with air conditioning should be
 the occasion for reaching a vision and providing the resources, organization, and
 collective will to implement it.
- Ensuring there is satellite space for technical and audio-visual staff, and storage, since the main Media Services offices will be at some distance.
- Adding late-night convenience food somewhere on the new colleges site (in place
 of or in addition to having the same in Becton), whether integrated into the colleges or into the third building or available in some other way. For example,
 making Whitney Avenue more accessible via the canal (made safe and traveled)
 might help give easier access to places like Subway and Clark's.

Committee Recommendation: Creating a planning group to develop detailed plans for the third building, using these proposed solutions for guidance.

Seeley G. Mudd Library

The Seeley G. Mudd Library, which is now undergoing a feasibility study that may free a significant amount of space, presents another opportunity to enhance the Prospect-Sachem Triangle site where the proposed colleges would be. The library envisions that the freed space might allow the addition of elements that would enhance the space for students. High on the list might be a branch Digital Media Center, which would draw students like a magnet. The challenge of what kind of library resources to include near the new colleges is the same one that occurs and reoccurs when discussion of the new colleges takes place: putting too many "services" and opportunities near the colleges may serve to make them a separate world, thereby dividing Yale College in two, a happenstance students particularly fear. On the other hand, isolating them and placing nothing there will make them feel all the more remote and unattractive to students. In the case of the library, it should be possible to create various different amenities and services that would draw students from all parts of Yale and help make the area active and lively.

Proposed Solutions

- Considering a branch Digital Media Center for the Arts to complement the one in the Chapel Street arts area. Digital Media Center space has the kind of expensive and high-end equipment that promotes sophisticated filmmaking, and it is in heavy demand.
- Considering the addition of some of those elements valued in Bass: study carrels, study rooms, a study/lounge café (but with inexpensive fast food).

Committee Recommendation: Including student academic and social amenities in the renovation of Seeley Mudd Library and ensuring that the feasibility study for the library works hand-in-glove with the development of the program for the proposed new colleges.

Sense of Community and Ensuring Equity of Opportunity Is Preserved The issue of "campus feel" came up repeatedly with students, and also some faculty, who expressed worries about the loss of a pedestrian-based intimacy if the new colleges are built at the proposed site. The issues here are concrete and practical as well as intangible and psychological. They are not exactly the same problem as simply moving people back and forth between the Prospect-Sachem Triangle site and the rest of the campus at many times of day and night.

Once again, it is important to remember history and that there was a time when anything beyond the Old Campus seemed the "far reaches" of Yale. There is no doubt that the campus will feel and become different when Science Hill is recreated, when Sterling Chemistry Laboratory includes a fitness center and possible juice bar, when the School of Management moves to Whitney Avenue, when the new University Health Services is complete, when there is better lighting, landscaping, and transportation up the hill, when the new Social Sciences building is complete, and when the new colleges, the third building, and Seeley Mudd, with their attendant amenities, are up and running.

Nevertheless, students and some faculty worry about many issues related to strength of community. They ask good questions, such as: how will the class of 2014 feel united if students cannot all gather under one roof for the Freshman Address? (Perhaps Woolsey would need to be used in its entirety for freshmen, with visitors given access by video off-site, as at some other schools.)

They also worry about continued full integration of the community, especially given the distance the proposed new colleges will be from the cultural houses. Yale has carefully developed resources in the form of cultural houses to serve the needs of minority student groups and to create a sense of belonging and active integration, acceptance, and celebration of culture and ethnicity. To the extent that it would be harder for minority students in the new colleges to get to the cultural houses, and more difficult to integrate those who spend much time in the cultural houses with their homes in the new residential colleges, this will be a problem that needs to be addressed.

There is of course no certainty that scaling up will divide students and affect community. Indeed, there is agreement that we cannot let such division happen, and the strength of the Yale culture has a way of seeing to its own preservation. But it would be wise to heed the counsel of the thoughtful skeptics and to ensure by every means possible that the sense of community is taken into consideration and fostered and nurtured in every possible way if the proposed colleges move forward.

Proposed Solutions

- Charging the Yale College Dean's Office and the Office of the Secretary with developing initiatives that will be undertaken so that those Yale events, people, facilities, staff, and traditions that tie students together and promote a sense of community remain strong. This will take creative thinking for such community events as Freshman Address, Baccalaureate, Class Day, and Commencement.
- Charging the dean of student affairs and the assistant deans who direct the cultural centers to work with the residential college deans to engage and promote more opportunities for students of color within the colleges and to foster more

collaboration between the colleges and the cultural centers, as well as the Office of International Students and Scholars, the LGBT Coop, and other similar offices and organizations. All of these should have adequate staffing and resources to fulfill their mission: providing Yale students with appropriate support and nurture while promoting their integration into the wider student community.

Freshman Housing

Another serious issue concerning community, and one that received intense, dedicated, and passionate expression in reports, letters, and student forums, is the issue of placing freshmen in the new colleges. The issue is complex, and there are two sides, each of which is favored by some portion of the community.

Partisans of the Old Campus experience have difficulty imagining Yale without it. They swear by the Old Campus experience they have had: the other freshmen they have met, the relationships they have formed with them, the magical spirit they identify as informing the special space where they have lived during their introductory year at Yale. On the other hand, there are those who observe that even the Old Campus is organized into residential college enclaves, making the development of inter-class relationships more difficult, except within one's own college.

Many Timothy Dwight (TD) and Silliman College students also swear loyally by their experience of having lived as freshmen alongside students from other years. They praise their early integration in a small community: the advantages of making and developing friendships across classes, the opportunity to have easier access during freshman year to their master and dean, the closer identification from the start with the place that will be their Yale home. Skeptics about housing freshmen in these colleges believe it less likely that TD and Silliman freshmen get to know others in their class with the same ease and think they miss out on the class bonding attributed to the Old Campus experience.

The survey developed by students on the committee confirmed the division of opinion demonstrated in earlier Yale College surveys concerning the importance of housing freshmen on Old Campus. In the survey, over 60% of those who spent or are spending their freshman year on Old Campus believe it is "essential" or "very important" for students in the new colleges to share the experience of living together there. This compares with only 20% of students in TD and Silliman who believe that living on

Old Campus is "essential" or "very important" – although the 20% figure rises to 40% when the question is about new colleges in the proposed location.⁶

The rise by 20% of students in TD and Silliman who believe that living on Old Campus would be critical for students in the new colleges is likely attributable to the proposed location's greater distance from central campus; many students are clearly very concerned that those living there for four years might form a more isolated and self-contained community. Among the adult community — masters, deans, alumni, and faculty — there is also division of opinion about what works best, and what is best in the developmental sense, for freshman living — including what will be best if the colleges are in their proposed location. Such universal concern with this subject suggests that whatever the outcome, the freshman housing issue is an important one and must be robustly considered in detail before the architectural plans for the proposed colleges are set.

Proposed Solutions

- Considering various alternatives for freshman housing on Old Campus. The committee feels strongly that this issue is critically important and that all possible scenarios should be discussed and investigated with the utmost care.
- Considering a way, if it is decided that freshmen should be housed in the proposed new colleges, that freshman housing in one college could adjoin freshman housing in the other. This would permit the freshmen to know one another well, while at the same time allowing them to have the benefit of living with sophomores, juniors, and seniors.

Committee Recommendation: Asking the appropriate deans of Yale College, the chair of the Council of Masters, and the deputy provost for undergraduate and graduate programs to study and consider closely all the options for freshman living if the proposed new colleges are built and to submit the results to the president and dean of Yale College for adjudication.

^{6.} It is important to note, nevertheless, that skepticism about location was equal across residential colleges.

Housing Issues: Sophomores, Juniors, and Seniors Housing Yale College students is not simply a residential college issue, it is a campus-wide and community issue. Yale believes in the residential colleges as important aspects of students' lives and has devoted immense resources to ensuring their excellence. But if overcrowding in the colleges is an issue, and if students are annexed from their residential colleges to parts of the campus remote from it, or if they are driven off campus by overcrowding, one important piece of the larger educational panorama in which the College places great store is displaced. For this reason, it is critical to address housing capacity before new colleges are contemplated.

Current Situation

Housing presents perhaps the clearest opportunity to make changes that will enhance the vitality and effectiveness of the colleges. There are two problems in housing: (1) all residential colleges cannot accommodate within the college the students in their college who are eligible and who want to live there, and (2) the magnitude of this problem differs among the colleges. The number of students assigned to the colleges (assigned census) is presently based on the number of students who can live in that college, together with the number who can be accommodated by a variety of other *ad hoc* housing arrangements.

How did these problems arise? The biggest change in population came after the Second World War. Returning veterans overwhelmed campuses across the nation. At Yale, where spacious suites once served an elite and homogeneous student body, the residential colleges became packed with serious, mature students who were returning from the war. The student body, which had hovered around 3,000 through the 1930s, increased dramatically after the war, then dipped to approximately 3,900 during the 1950s, still overcrowding the original ten colleges.

The opening of Morse and Ezra Stiles relieved the crowding temporarily, fulfilling President Griswold's desire to hold enrollment constant while offering more space. In fact, when Morse and Stiles opened, enrollment increased by only about 200 students. But in 1969, with the admission of 230 freshman women and 350 women transfer students, overcrowding returned. At the same time that Morse and Stiles opened, Yale relaxed the requirement that all students must live on campus and required only freshmen to do so. Until then, the student on-campus rate had been between 95% and 98%, since students were required to live on campus unless they were married, residents of New Haven, or over 21 years of age. Giving students permission to live off campus allowed Yale to admit more students than could be housed in the colleges, essentially locking in a number of upperclassmen living off campus. This arrangement was initially suitable, as there were (and probably always will be) students who prefer to live off campus (see Attachment D.1).

The present state of housing in the colleges can be dated to 1996, when the crowded and dilapidated condition of the colleges and an unpopular meal plan led a significant number of sophomores as well as juniors to choose to live off campus. Overall 18% of students elected to live off campus that year. Believing that residential college life is an essential part of a Yale education, the dean of Yale College and the masters decided to require sophomores as well as freshmen to live on campus. That change had the effect of ensuring that all students live in their residential colleges at least once during their Yale careers. But because rooming is a zero sum enterprise (there are only so many rooms in each college), the mandate to require sophomores to live on campus forced the University to increase housing arrangements for those juniors and seniors who could not be accommodated into their college proper.

By way of background, as an institution, Yale promises that all students can live in University housing; however, presently there is room for only about 78% to 84% of Yale College students in the colleges (that is, in the colleges proper, rather than in other housing possibilities). There are four different student housing options that are under the control of the University: (1) residential colleges and the space on Old Campus supervised by the residential colleges for freshmen and freshman counselor housing, (2) Old Campus annex space, usually used for juniors but occasionally for seniors, (3) space near the college that is always used by students in that college and is deemed by the students and master as under the control of the residential college leadership, and (4) rental space in the community (see Attachment D.4). The rental space used over the last five years is negligible: from about 35 beds to almost zero now. The Old Campus annex space for juniors and seniors (excluding freshman counselors) amounts to roughly 175 beds now and is only marginally attractive to the upperclassmen who could be assigned there. Old Campus is a different culture, namely the freshman culture; housing there is not typically controlled directly by a master and dean, and the actual assignment of specific rooms may change from year to year.

With sophomores required to live in the residential colleges proper, fewer juniors and seniors could be housed there, with the magnitude of the problem differing by college. And because housing assignments privileged seniors over juniors, there was less room for juniors in the colleges. Many juniors who disliked being "annexed" to University housing, especially to Old Campus, moved off campus. And once these juniors moved off campus, they frequently stayed off campus for their senior year (*see Attachments D.2 and D.3*).

The renovations of the colleges during the last ten years have substantially upgraded and standardized many aspects of Yale College housing and have increased the demand to live on campus for all four years (*see Attachment D.4*). The promise to provide University-sponsored housing has both ameliorated the problem (there was always a

place to live) and obscured the dynamic (the promised space was not always desirable compared to the residential college). Today 25% of juniors and seniors live off campus (18% of all students lived off campus in 1996, and now 12.5% of all students do; *see Attachment D.5*). Over five years, the average has been about 20% for juniors and about 30% for seniors, with fairly large year-to-year variations and differences among colleges (*see Attachment D.6*). Many think that the present off-campus rate will be lower, however, if it is possible for the colleges to accommodate more upperclassmen.

Solutions to Overcrowding Related to the New Colleges

One approach to reducing overcrowding in the colleges and at the same time eliminating Old Campus annexing of juniors and seniors (except for space controlled by the master) is to adjust the assigned student census of the colleges differentially, so that those colleges that are now the least able to accommodate their upperclassmen would have a proportionately higher reduction in assigned student census. As the accompanying table indicates (*see Attachment D.7*), the colleges with the lowest ability to house their juniors and seniors are Berkeley, Calhoun, Jonathan Edwards, Trumbull, and Morse. Over the last five years, Berkeley has housed about 49% of its juniors, Calhoun 61%, JE 38%, Trumbull 44%, and Morse 64%. By contrast, the high-capacity colleges – those with the best ability to accommodate their juniors – are Saybrook 66%, Stiles 76%, Pierson 77%, Silliman 77%, and TD 84%.

Presently there are about 3,300 residential college and annex beds controlled by the masters⁷ for sophomores, juniors, and seniors in ten colleges and for all students in the two colleges (Silliman and TD) that house their freshmen. In addition, there are 1,175 beds for freshmen and freshman counselors on Old Campus. The housing plans for the new colleges would create 720 beds, bringing the total potential beds to about 5,195 beds. If we assume an expected off-campus rate of about 11.5%, we would have an ideal total enrollment of about 5,870 students, a net increase of about 620 students (present enrollment is assumed to be about 5,250). This calculation assumes that there are no beds on Old Campus for upperclassman annexing.⁸

Building two new residential colleges provides an opportunity and a means for coherently addressing the significant overcrowding that is focused disproportionately on five of our present twelve colleges. Of course, the census of any college would be less if some of the bed capacity were converted – as some of our other proposals suggest it should be – into housing for additional faculty or graduate students living in the colleges. It

^{7.} Includes making 30 beds in McClellan Hall annex space for Jonathan Edwards College.

^{8.} Except for the JE beds at McClellan Hall.

must be noted that this proposal is intended to be illustrative and not a final plan. This proposal addresses two goals: (1) eliminating Old Campus annexing of juniors and seniors, and (2) establishing equity among the colleges so that residential colleges can have roughly the same capacity to house upperclassmen. We strongly urge that admission numbers and housing management be set and carried out by establishing student census allocations for the individual colleges, such that all students who desire will be able to live in housing controlled by their residential college master and dean, and that such a plan be formulated with the full participation of the Council of Masters.

Proposed Solutions

- Reducing the census in the residential colleges least able to house their juniors and seniors so as to eliminate Old Campus annexing of upperclassmen in space not controlled by the residential college master and dean.
- Maintaining through administrative control a careful balance in each college, taking into account each college's particular annexing opportunities, so that no residential college becomes unable to house its upperclassmen who wish to live in the college.
- Working out the annexing agreements so that no college has an annex too removed from its primary location and that annexing space is under the direction of the master and dean of the college that uses it.

Committee Recommendation: Asking the deputy provost for undergraduate and graduate programs and the dean of administrative affairs in Yale College to ensure—as much as possible now and certainly if the proposed new colleges are built and into the future—that the census in each residential college is set to (1) eliminate Old Campus annexing and ensure that upperclassmen can live in their own college, and (2) provide that any necessary annexing space is close to the residential college and supervised by the master.

Extracurricular Life

The extracurricular activities of Yale undergraduates are themselves educational and are an important way that students develop and enrich lifelong interests, acquire a variety of skills and values, and learn to work with others toward a shared goal. Yale is well known for the energy and initiative of its students and the multiplicity of extracurricular activities they undertake and the College supports.

Students on the committees expressed concern, if Yale scales up, about increased competition for all those elements that make extracurricular life possible. They worry

about greater competition for meeting space, rehearsal space, piano practice rooms, undergraduate organization funding, and the like. They make a good case, however, that their concerns are not mere selfishness. They fear that increased competition will lead to the loss of the collegiality and camaraderie that help foster the special sense of community that is deemed uniquely "Yale" and that gives the College its identity. They are very concerned that all those aspects of Yale that are scarce will grow scarcer—and that this will pull at the threads that keep the blue cloth whole. Since space, resources, and opportunities are hungrily sought by imaginative and ambitious Yalies, it will be imperative to ensure that these are structured, organized, and scaled up before the proposed colleges are built.

Performing Arts. Yale is blessed with outstanding opportunities in the performing arts, and it has students who are as gifted and interested in these areas as can be found at any liberal arts college or university anywhere in the world. Participation in the performing arts offers students the opportunity to develop deeper understanding for the craft and discipline the performing arts require and gives them lifelong appreciation of their beauty and power. It also helps them develop discipline and self-confidence and provides them with a sense of group and individual accomplishment. Yet the very vitality of the arts has led to complex issues that need substantive sorting out—whether or not the population scales up, but all the more urgently if it does.

The Academic Resources section of this report speaks to academic curricular needs in the arts. This section of the report focuses on extracurricular needs, including those in the residential colleges. Yet one of the difficulties of the case is that the division between curricular and extracurricular needs is artificial, since students involved in one area are very often involved in the other, and since the areas overlap in their claim on space, on resources of every kind, and even on personnel. To add to this complexity, drama, dance, opera, and film production at Yale each have special histories, cultures, and needs, as well as differing relationships to Yale College, to the professional schools, and to the residential colleges. They also have differing programs for the same facilities, and different resource requirements. Add to this the fact that curricular aspects of the performing arts are straining to grow against the constraints of space and faculty, and that student hunger for performing arts participation is almost insatiable, and you have the makings of an interesting stew.

Because of the distinctiveness of each art, and the complexity of the issues, sorting them out is not easy—and perhaps for that reason it has in fact never been sufficiently done. Common problems in all domains center on facilities use, personnel, technical resources, and administration as well as oversight of artistic endeavors. And naturally, funding is also an issue.

Proposed Solutions

- Augmenting space. Despite the creation of six new campus-wide performance spaces and multipurpose spaces within the renovated colleges over the last decade, there is still great need for certain, specific facilities. These include a 400-seat proscenium theater with a pit and a sprung and marley floor for musicals, operas, dance concerts, and large-cast plays, with the shops, dressing rooms, and rehearsal rooms to support them; a large dance studio with appropriate flooring for classes and more informal recitals, as well as smaller studios/rehearsal rooms with appropriate flooring for classes and rehearsals. The third building might be used for some of this space or might provide additional space to added arts space in the Chapel arts area.
- Augmenting personnel. Equally important as space is the administrative structure
 to manage existing as well as future spaces and to provide oversight of their use.
 The world has changed: using any space often requires, as it should, consideration
 of many fire, health and safety, and even environmental issues, which need to be
 handled by professionals. Although Yale College has scaled up in this respect, more
 is needed, probably in the College, most certainly in the oversight of the residential
 colleges, and will be needed even more if the undergraduate population increases.
- Ensuring that arts funding for performing arts through the Sudler Funds in the residential colleges is sufficient. The centrally managed funding source for all residential college arts is the Sudler Fund, administered by the Council of Masters. Students have learned that the Sudler Fund supports many types of art projects, from the most individual of artistic endeavors to the theatrical extravaganza. Many of these are collaborative projects, so the numbers of projects funded do not represent the total number of students participating. The availability of Sudler funding encourages many kinds of student experimentation in the arts; it brings new students to the arts as both producers and consumers. There must be sufficient Sudler Funds for an expansion to fourteen colleges.

Committee Recommendation: Creating an associate dean for the arts in Yale College who can set policies and administrative procedures for oversight, scheduling, and management of resources in Yale College and the residential colleges in consultation and collaboration with the masters. (For further duties see the arts section in the Academic Resources section of this report. The dean should be appointed quickly so as to participate in shaping the initiatives mentioned here and in the Academic section.)

Athletics, Physical Education, and Recreation. Yale College offers students many opportunities to engage in athletics, physical education, and recreation. In sponsoring 35 varsity teams, 41 club sports, and 30 intramural sports, engaged in by 50% of the student body, Yale demonstrates its belief that the lessons such engagement teaches are many and enduring. Among these are learning how to strive to win, to compete with pride and honor, to make sacrifices, to persevere when all seems lost, and to develop a sense of obligation and responsibility for others. In offering a wide variety of physical fitness programs in yoga, Pilates, martial arts, aerobics, and many other activities, Yale demonstrates that it believes that health of body and mind are interconnected. And finally, in mounting programs that offer undergraduates the opportunity to give back, through community service teaching and mentoring, it helps teach students what citizenship truly is in an area where young people can make a difference.

A review of the use of Payne Whitney Gymnasium (PWG) alone demonstrates that the gym is packed from dawn until dusk almost every week of the year with those using the fitness center, pools, squash courts, and physical education and recreation classes, as well as children's and outside community groups to whom the gym makes an important community contribution. From the locker requests in each of the men's and women's areas to the use of the intramural fields, to the lines of PWG members waiting to use the fitness equipment, the evidence is clear. Addressing the burgeoning needs related to these activities, as well as scaling up to meet the needs of even more students, faculty, and administrators will be essential if the College population increases.

The University has plans to include a fitness center in the renovation of Sterling Chemistry Laboratory (SCL), and this certainly will be helpful. The hope is that the new center will draw students from SCL and the proposed new colleges as well as faculty and graduate students from around Science Hill, enlivening the atmosphere there while at the same time reducing the current peak-hours crush in the PWG fitness center.

But other additions are also sorely needed: more administrative as well as practice and competition space for club sports and more space for physical education since the present facilities are already overwhelmed. Additional green space for students to play would be desirable as well, and there is always hope that we might find some.

Proposed Solutions

- Developing a new activity and wellness center, preferably located in the Prospect-Sachem Triangle area, but in any case somewhere in the Science Hill area.
- Locating a space for a playing field, ideally in the Prospect-Sachem Triangle area, or perhaps off the Farmington Canal Greenway. An open athletic presence in the area would ensure activity, vitality, and safety.

Committee Recommendation: Creating more space for physical education, club sports, and recreation is important with or without the proposed new colleges and will be critical if they are constructed.

Student Organizations and Community Service. There are a striking number of student organizations at Yale – probably as many per capita as at any school in the country – and they create opportunities for students to feel that they are working collegially with others in activities they care deeply about, or to contribute to something that is larger than themselves. In addition to the more than 350 of these activities registered in the Yale College's Dean's Office, there are myriad community service activities at Dwight Hall, involving over 3,000 Yale students in sponsored public service or social justice activities, with over 80% of Yale College students participating in at least one such activity before graduation.

If the Yale College population grows, so will these activities, which will present increased needs for space, organization, structure, mentoring, and supervision.

Proposed Solutions

- Locating much-needed space for meetings, and at that location offering additional filing space where students can preserve their records, storage space for equipment, and some modest administrative support to ensure the place runs safely and smoothly. A version of such a facility did not work when it was offered in the Broadway area where the Writing Center is now located; but that space did not offer the meeting and rehearsal space critical to making such a center work, and it was never sufficiently staffed. If such a center is combined with meeting and/or rehearsal space (and possibly food), students guarantee that use will be constant. If such a center were placed near the proposed new colleges, or as part of a stepping-stone to them, it would help draw students from all areas of the campus.
- Developing formal links between the residential colleges and Dwight Hall and the
 Office of the Vice President for New Haven and State Affairs, so that Yale College
 students can receive help, supervision, and guidance in community service efforts.
 Residential colleges could be linked systematically to these two established centers,
 perhaps through the use of associate fellows from the colleges who have the appropriate interests and skills, in order to ensure the strength and continuity of their
 community service activities.

ACADEMIC RESOURCES

Prologue: Background and History

Some background and history might be useful to understanding the way certain areas of concern to the committee reached their present scale and how increasing undergraduate enrollment might push Yale College past a tipping point. In 1973, when the member of the Academic Resources Committee who has been teaching the longest first came to Yale, almost all faculty lived in or near New Haven. The College had just become fully coed. Few women were teaching, and among those who were, many were part-time or nonladder faculty, and few had children. Younger faculty worried about tenure, as they always do, but they also understood very well that if they were not to get it, good jobs awaited them in fine universities throughout the country.

Since then much has emerged to change the Academy and the nature of life within it. Among these changes are, of course, the widening of the scholarly community to include the world as well as the nation; more frequent (because much easier) travel to conferences; the inclusion of many more women in faculty ranks; two-career families, with their special recruitment challenges and child-care needs; increasingly competitive standards for tenure; earlier promotion to tenure in many colleges and universities and therefore increased competition for the fewer ladder faculty opportunities that remain for nontenured faculty leaving Yale after a negative decision on tenure (or, increasingly, in anticipation of it); and a competitive hiring environment that is challenging departments nationwide to make escalating offers, special accommodations in terms of teaching load, and unusual benefits in the face of market realities.

The consequence of these changes has been a major shift in teaching expectations. In the 1970s, the standard teaching assignment for faculty in some areas of the Humanities at Yale was three courses in each semester for nontenured ladder faculty and two each semester for senior faculty, with courses off only for the most senior administrative work. Frequently one of the three courses per term offered by a nontenured faculty member was offered in a program or a department outside the faculty member's main department, thereby helping the staffing of such interdisciplinary programs as Directed Studies and the Literature Major.

Today, in the Humanities, the teaching expectation is two courses per semester for both nontenured ladder and senior faculty. But this reduction does not mean that, overall, faculty are doing less. Intellectual communities are now global. The sometimes centripetal, sometimes centrifugal pull between research and teaching has made lives busier than ever. Faculty do more research—at least two published and well-received

books in the Humanities are now generally required for tenure at a major research university—share work over the Internet, travel farther and more often to exchange ideas at conferences, take more responsibility for child-rearing and caring for aging parents, may be asked to assume significant administrative assignments, alter their courses to reflect and include new technologies, and are needed to take on more intensive advising and mentoring responsibilities.

The significant tensions are increased even more in the Social Sciences, where faculty face the same issues and have been inundated with students as interest in the Social Sciences, at Yale as throughout the country, has burgeoned; and in the Sciences, where grant preparation, grant administration, running of large labs, and the importance of international travel to share and promote discoveries have complicated the priorities of academic life.

Yale is notable among major research universities for the way it has been able to straddle the tensions between the research university and the undergraduate college. The culture of teaching here is more intense, and more rewarding, than that at many of Yale's peer universities; and Yale faculty pick up on this culture in a way that makes most of them exceedingly conscientious about their teaching. Course by course, students appreciate the teaching they receive. They love and value their classes and choose them with great care. Watching student after student come into an adviser's office with his or her beloved Blue Book chock full of tabbed pages makes one understand that course selection, teaching, and learning at Yale continue to be valued and appreciated.

Nevertheless, the larger societal changes listed above have significant consequences for teaching and learning at Yale. These are shown not only in student course choice or vocational direction. They are also evident in the heavy demands on faculty and in the increased pressures on teaching, especially in certain areas — and therefore in the increased pressures and stresses that will be brought to academic life at Yale if as many as 600–700 new students are added to the student body.

The charge to the Academic Resources Committee, like the charge to the Student Life Committee, was to investigate what would be necessary in terms of added resources and facilities if two new colleges were to be constructed at Yale. The greatest challenge for the committee during its discussions over the last months has been to anticipate how these new residential colleges might have an impact on the distinctive qualities of Yale as an academic community and how they would affect the education of Yale undergraduates, primarily with regard to *teaching and advising*.

Student concerns about location and about losing the intimate feel of Yale College have been expressed in the student life portion of the report. Faculty views on this subject were somewhat different. Although there were several articulate and impassioned dissenting opinions concerning the proposed location offered by faculty who wrote or contacted committee chairs, most faculty we spoke with seemed accepting of it, and the scientists, who have long lived in a Science Hill Twilight Zone, often seemed pleased: you could watch their appreciation as they listened to the possibility of robust night population, fitness centers, cafés, performance spaces, and increased and improved Science Hill dining options (in addition to the carts).

In conversations between committee members, the FAS deans, and the chairs and DUSs of departments likely to face some of the biggest challenges if the proposal for additional colleges goes forward, the reception was generally positive. Faculty saw new colleges as an opportunity to build their departments. They seemed especially sensitive to the University's responsibility to admit as many students as it is able to educate well. Many students, of course, are also sensitive to the question of access. The difference is perhaps one of emphasis. Students understand the importance of offering a Yale education to many, but they are worried that growth will reduce the quality of the education being offered; they believe that the responsibility of Yale College is to provide the best education possible, not a good education to as many as possible. Faculty understand the importance of opening Yale to as many gifted students as possible, and they accept that a larger student body offers increased possibilities to make the University larger and stronger, as long as appropriate planning takes place.

Challenge and Opportunity

On the other hand, faculty, students, and administrators all showed concern about the challenges that must be met, especially in those areas where there is — in relative terms — scarcity now. Students worry about creative writing courses, acting classes, studio art classes, admissions slots to such majors as EP&E and International Studies, the availability of a desirable adviser for their senior theses, the size of classes in general. Faculty are equally concerned that the challenges that now affect Yale life will increase and are concerned that they be addressed before moving forward.

Stressed departments, likely to come under more stress, believe that even where additional ladder faculty will address the need for more seminars and more core teaching, the current challenges will increase. They worry, along with the undergraduates, about intensifying the sometimes healthy, sometimes not-so-healthy conflict that teaching undergraduates within a great research university unavoidably gives rise to: for example, more faculty to cover American history senior essays when the department needs to cover more areas of the world; more political science majors who want American politics courses, more economics majors who desire finance seminars. Everyone

associated with a special program dependent on drawing faculty from a number of departments worries about the tipping point that more students might precipitate.

DUSs in large departments worry about advising in general, especially major advising, and about the right configuration of people to advise and read senior essays. They understand that if these challenges are not solved ahead of time, the expansion will overload the system and lead to imbalances in the curriculum or the dilution of major requirements – for example, for a department to require only one seminar instead of two for completion of the major because of inadequate staffing resources – and they do not wish this. Finally, faculty worry about how to balance what is right for undergraduates and graduate students at the same time: how to address undergraduate sections, how to ensure these are strong, or find new ways to handle them, and in general how to give graduate students appropriate and necessary teaching experience for their careers while ensuring, as the Graduate School has in recent years, that they are not overburdened in progress toward their degrees. Some of this worry and concern has to do with the perennial challenge of sustaining an excellent small college within a large university system. In all of the discussion the committee heard, it was heartening, even inspirational, for the committee to recognize the loyalty and concern of Yale faculty, who demonstrate a deep commitment to undergraduate education at the same time that they aspire to develop the future of their disciplines through their graduate students and to build the greatest research departments in the world.

Administrators who support the academic area of Yale life also share the concerns of their colleagues, in special ways. They particularly wish the University leaders to understand – and not underestimate – how many things would need to scale up. They worry about "leaving out" or "forgetting" some areas that will need to increase. Staff and space are constant serious areas of worry for everyone, not only in the form of appropriate and well-equipped classrooms and performance and laboratory space, but also in terms of adequate personnel for the Library, the Registrar, the Center for Language Study, the Health Professions Advisory Office, the Yale College Dean's Office, the Office of International Students and Scholars, the Mental Health and Counseling staff, International Education and Fellowship Programs, the Resource Office on Disabilities, Media Services – the list is long, and not meant to be comprehensively covered in this sentence. In some cases, the University is already anticipating expansion in these areas and looking toward the future; in some areas it has far to go. It is understandable that in those areas where there always seems to be pressure, or where people believe precious elements are precariously balanced now, a certain amount of real anxiety exists. At the same time, people are optimistic, understanding of the need for forward movement, and ready for fresh opportunity so long as they are confident that it will come with the appropriate planning process and commitment to appropriate resources.

The Academic Resources Committee realized early on that the report could not begin to be a comprehensive discussion of what adding the new colleges might mean for each department and area. This level of detailed planning belongs in the realm of the provost and the divisional committees. For that reason, the committee decided to concentrate not on those areas where straightforward scaling up might be easily imagined, but on some of those areas touched on above, already under pressure, where adding to the student population might push Yale over a tipping point—using these as examples and models of the kind of issues that would be found when closer study is undertaken, and how they would need to be addressed. For this reason, the report might seem to show more unalloyed skepticism about the new colleges than the committee actually found. If you investigate just the areas that you know already to be feeling pressure, it makes sense that those with whom you speak are going to have concerns. On the other hand, such investigation is profitable because it leads to consideration of the most serious challenges, and allows them to be placed on the table while consideration is just beginning.

Space

We start with an area that generally never comes first in a report, but that was such a cause of concern for so many that it seemed well to start here, and that is the issue of space – space for many different purposes, but since this part of the report discusses academic needs, we focus here on academic space. It makes sense to say first that the appetite for space in an institution is a natural consequence of, and stimulus to, growth and health. If the institution were stagnant or drifting, new space would not be so necessary. The priority for facilities renovation at Yale in the early nineties, and the beautiful restorations that have taken place since then, have probably slowed the development of new facilities, and that is understandable. But the situation now is serious, as the University leadership is already well aware. Attention to this challenge is absolutely necessary before any increase in population, especially since it seems unlikely that the third building on the Prospect-Sachem Triangle site can adequately answer all the space needs. In preparation for this report – and leaving out space needs for the arts, a subject of repeating concern from many parties – we have heard a scientist describe a long waiting list for biology lab courses whose expansion is constrained by space and staff; an economist describe the need for adequately equipped lecture space; the associate director of the Center for Language Study describe the need for small high-tech classrooms; and a political scientist describe how activities run by councils and programs in the MacMillan Center can't get space for talks by prestigious visitors because the rooms are being used for classes and, conversely, how some classes get put in suboptimal spaces so that the councils and programs can run their colloquia and lecture series.

The perennial lack of adequate classroom space is of course integrally tied to the fact that Yale does not regulate the distribution of teaching times efficiently (individual faculty in most departments elect when they wish to teach) and that Yale has a "shopping period" (when students select courses without yet committing to enroll in them). Preregistration is required only for some specific courses — usually freshman courses such as expository writing, math, and chemistry, or junior and senior seminars in larger majors — and these peculiar local customs make the scheduling of classrooms difficult. Only this year has some rationality been introduced into the scheduling of courses, with departments asked to ensure that a certain proportion of their courses will be spread out. No one yet knows if this effort will be successful, since both faculty prerogative in selecting teaching hours and student prerogative in the shopping period are integral parts of Yale culture and are held very dear by their constituencies. And because Yale does not have a student center, classroom buildings must double as rehearsal space and meeting rooms in the late afternoon and evening, when they compete with sections of lecture courses for space.

Unless some major legislative change is to be enacted (exceedingly difficult to pass or to enforce) that will mandate the distribution of appropriate classes across the full range of standard time-slots, Yale will need urgently more of certain kinds of class-rooms. These same kinds of classrooms are also needed for Yale's increasingly national and international profile: students, faculty, and guests visit the University from all over the nation and world for special events and meetings, and special summer programs test the capacity of the University to host programs and refresh its facilities each and every summer.

No committee has been working harder on this issue than the Classroom Planning Group. Attached to this report is a set of proposed solutions for Yale's Learning Spaces developed by the group (*see Attachment E*). We urge that the University move forward with them.

Committee Recommendation: The Committee endorses the recommendation of the Faculty of Arts and Sciences Classroom Planning Group⁹ that Yale should develop a strategic plan for the next five years that identifies how to improve and ensure the quantity and quality of all learning spaces on campus.

Classroom Planning Group members (appointed by the FAS Classroom Committee) for 2007–2008 include Elizabeth J. Anderson, Jill Carlton, Mark Francis, Judith Hackman, Edward Kairiss, Peggy McCready, John Meeske, Charles Powell, Diane Rodrigues, William Segraves, and Evelyn Streater-Frizzle.

Examples: Five Areas Under
Present Stress

When thinking of adding students to the Yale undergraduate population, it is important to remember the following: (1) some courses and programs or administrative services can expand without significant impact (e.g., courses that are well below capacity) with no need for new resources, (2) some courses, programs, and services can expand with proportionate increases in budgets, (3) other courses, programs, and services are already under significant pressure that will be exacerbated if there is an increase in students (e.g., advising, large lecture courses, research opportunities in certain disciplines), and (4) a relatively small number of courses and programs are already at or beyond the breaking point and cannot accommodate any further increase without structural or other major changes.

The committee heard from five areas where the addition of new students – distributed the way they now are across departments – would add special challenges, and asked those with special responsibilities in each area to deliberate about what might be needed if 600–700 students were added to the student body. We add a sixth: some examples of special programs and opportunities that would need to be augmented if the new colleges are to be built.

It should be especially noted that what is proposed here was developed by those faculty we consulted, generally in consultation with others in administrative roles in their departments, as *examples* of what might be expected if population is added. Departments were not asked to vote on the proposals; they are models of the kind of proposals that could be expected and that would be worked out, as usual, in consultation with the deans, the provosts, and the divisional committees. The experience of discussing these issues with faculty and administrators made one thing very clear to us, and it can be expressed in the phrase "one size does not fit all." There is no wholesale way to prepare for the scaling up of Yale College. Scaling up will have to be done department by department, program by program, administrative area by administrative area, if the strength of Yale College is to be maintained.

Chemistry. The tension in staffing the offerings in Chemistry—a medium-sized department of 16 tenured and 6 nontenured faculty—is between the conflicting demands of the large introductory chemistry lecture courses (mostly filled with premedical students or students fulfilling chemistry prerequisites for life sciences, physical science, and engineering majors) and a range of smaller courses, such as advanced seminars in a faculty member's own specialty, or individual and group research courses. With regard to the introductory courses, the department has responded with exceptional resourcefulness to the increasing diversity in the preparation of incoming students by offering a number of different points of entry to the study of chemistry,

each calibrated to student needs and goals. This responsiveness, and the demand for courses to fulfill the new Science and Quantitative Reasoning requirements, have stretched the department's faculty roster thin. A surge in enrollments — as has happened before and might happen again — would be certain to reduce the variety and might also compromise the quality of the department's offerings.

In general there are two issues that need special attention, especially if the College is to augment enrollment. First, there is a lack of available and qualified Teaching Fellows (TFs) for laboratory courses. Limitations on teaching by the Graduate School and high enrollments in the introductory courses already result in persistent shortages of TFs. Twice between 1998 and 2006, 25% of the TF equivalents in Chemistry were from outside the department. In addition, while there is some extra capacity in current laboratory space on paper, 100% utilization is simply not practical because of scheduling conflicts elsewhere in Yale College. Times already full will become impossibly tight without some new space, and plans must include provisions for the height of the next enrollment surge.

Proposed Solutions

- Adding more ladder faculty. This would "make all the difference" in Chemistry's
 capacity to offer the kind of substantive intermediate and advanced courses a
 department of its stature should offer.
- Developing alternative methods to deliver instruction in hands-on laboratory courses, so that the department will be able to respond to surges in enrollment.
- Creating a proportionate increase in flexible teaching laboratory space in the shared science teaching center to be housed in the new SCL. It is absolutely essential that this space be ready for use before there is any significant increase in the number of Yale College students. This kind of project requires a long lead-time, so it must be a priority in the planning for any expansion of Yale College.

English. The Department of English currently finds it difficult to staff its sections of English 114 and 120, the principal introductory expository writing courses in Yale College; and that problem will be exacerbated if two new colleges are built. In the fall semester of 2007, a significant number of students were unable to preregister in the two courses, and some of those most in need of English 114, in particular, become discouraged from trying to secure places in its sections because it has become challenging to do so. Even with the recent and continuing increases in the number of sections scheduled in the second semester, students often find that they are unable to enroll in these courses when they feel that they need to take them.

Deans, writing tutors, and administrators can offer no more than one section a year, and even without scaling up, this argues for the development of a new staffing model. The department therefore proposes hiring a number of Postdoctoral Fellows in English, several of whom would be drawn from the full-time instructors recently employed. If two new colleges are built, their ranks should increase. Their course loads would ensure that they could devote to their own scholarship, and to their work at Yale, the kind of time required by the demands of English 114 and 120, which stress writing as a process involving multiple drafts of numerous papers. Fellows would attend a seminar that supports them in their own efforts to prepare manuscripts for publication, and they would be urged and expected to take part in the intellectual life of the department. Because these Fellows will bring to Yale the intelligence and commitment attested to by their recently completed Ph.D.s, and because they will be recruited only from universities with first-rate training in writing instruction, they will be the source of continually renewed energy and experience, both in the classroom and at the staff meetings of the courses that they teach.

Proposed Solution

Hiring recent Ph.D.s in English, to be called Postdoctoral Fellows in English, who
intend to find tenure-track positions at other institutions, but who will value the
opportunity to teach writing at Yale for a limited period – three to four years –
because that experience, combined with the University's impressive opportunities
for research, will allow them to enhance their credentials.

Economics. Economics is a central component of undergraduate education at Yale. About half of all undergraduates take introductory microeconomics, and Economics is one of the largest majors. Course enrollments have been growing over time, and in 2007 were the highest since 1998—a total of 3,493—possibly buoyed by Yale's new QR requirement. Teaching microeconomics and other introductory courses that attract such a large variety of constituencies is quite a challenge. At the entry level, the department must satisfy the needs and interests of some relatively sophisticated students with advanced quantitative skills; a cohort of students who are interested in economics as a core social science or as grounding for another discipline; a group of students whose primary interest is in finance; and dedicated humanists who feel it is imperative in today's world to understand the fundamentals of economics. It takes thought, effort, dedication, and creativity to meet the great variety of needs with the appropriate teaching resources.

Above the introductory level, the Economics department attempts to meet the varied interests and quantitative skills described above by offering a regular Economics major

as well Mathematics & Economics, which is a joint activity with the Math department. In addition, the department plays a role in the Ethics, Politics, and Economics (EP&E) major. Again, the department must staff the required courses for all these programs, a rich set of electives for both majors and nonmajors, and a large number of upper-level seminars for the great number of students in the major.

For all these reasons, the department has encountered many of the same challenges that beset other large majors in the Social Sciences, but with some special twists. The market for top faculty in Economics is very tight, making recruitment and retention a challenge. At the same time, the large number of majors means that students must compete for attention from professors and advisers who have many students. The number of majors in Economics has fluctuated between 135 and 190 in the time period 1996–2007. Last year the number of majors was 180. Certain statistics illuminate staffing needs: 34 of the 58 elective courses were taught by ladder faculty, 5 by those from other departments, and 19 by visiting faculty (most very distinguished economists at Yale for the year, able to enrich the curriculum with their specific expertise). Of the 75 seminars offered between spring 2005 and fall 2007, 23 were taught by ladder faculty from Economics, 13 by ladder faculty from other departments, 3 by the finance gurus David Swensen and Dean Takahashi, 19 by part-time or full-time visitors who teach multiple years, and another 17 by one-time visitors – again, some of them very distinguished. There is consensus that the number of elective lecture courses should be augmented even for the current undergraduate population, and that any expansion will require both more such lecture courses and additional seminars for majors.

In order to address some of the challenges of the very large introductory microeconomics lecture course, Economics has established some seminar-style courses in microeconomics and macroeconomics. These smaller courses, in conjunction with an alternative introductory lecture course that teaches the standard material but concentrates on environmental applications, should help—if they continue to develop well and remain well taught—in addressing the pedagogical and administrative difficulties of the largest two courses in the department. Filling positions already authorized will go a long way to maintaining and enhancing the program and closing gaps in the curriculum.

Proposed Solution

• Adding additional ladder faculty beyond existing unfilled positions, in addition to other nonladder faculty and graduate students in an appropriate mix.

Political Science. Over the past twenty years, the average number of senior majors in Political Science has increased from 70 a year in the mid-1980s to 100 a year in the

mid-1990s to 180 a year in recent years. This dramatic increase means that many more students each year seek places in seminars, since the department requires all majors to take at least two seminars. Since most majors in Political Science write their senior essay in the context of a seminar course, the insufficient supply of seminars has a compound effect, sometimes leading students to write their essays with advisers in fields in which they often are not well prepared or deeply invested.

The department has benefited enormously from the additional ladder faculty hired under a hiring initiative over the last decade. But over that period, the number of students that they advise and teach on a rather intensive basis — that is, majors — has increased substantially more than the number of ladder faculty. The combined impact of faculty leaves, course relief, and teaching commitments (for Directed Studies; Ethics, Politics and Economics; International Studies; and other programs), along with increased graduate teaching, leaves the department with an anticipated shortfall of undergraduate courses each year. Even if the decision were made not to increase the size of the College, the department would have need for more faculty in order to maintain the undergraduate curriculum.

Because of its rapid growth and popularity, Political Science also requires nonladder faculty along with ladder faculty to educate its students. Many nonladder faculty are distinguished practitioners in the field or other highly trained political scientists, and they help teach seminars and advise senior essays. In order to give undergraduates the continuity they need and deserve in faculty, the department has gravitated toward hiring such faculty — more often than not exceptionally popular with students — on a multi-year basis so that they are available for further course work, to advise senior essays, provide career advice, and write letters of recommendation for fellowships and jobs.

Proposed Solutions

- Scaling up ladder faculty in the field of American Politics and International Relations is critical, even if the College is not expanded.
- Continuing to hire additional faculty on multi-year appointments.

The Arts. Yale is blessed with outstanding professional schools in the arts, and their very presence—in addition to Yale's rich tradition of extracurricular arts opportunities—attracts gifted undergraduates in this area. To underline a point made in the Student Life section, most students who take classes in the arts also engage them in extracurricular areas, so that the curricular and extracurricular are in many ways seamlessly intertwined. Since this part of the report emphasizes the academic area, it is well to underline here, as well as in the Student Life section, that the areas of Art,

Architecture, Creative Writing, Film Studies, Theater Studies, and Music present special challenges when we consider an increase of students in Yale College. As mentioned before, faculty and students worry deeply that scaling up the student body will make these even more difficult to access.

Good facilities are a *sine qua non* for the performing arts programs, as the Student Life section also indicates. One can't even attempt to conduct a dance class, mount a play with costumes and scenery, or have an orchestra without well-equipped, well-maintained venues that also conform with safety considerations. The need is no less in the other arts. Film requires screening facilities and film libraries. Photography increasingly requires digital facilities (mentioned in other parts of the report). The dean of the School of Art points out that the School has worked hard to ensure that any Yale undergraduate who wishes can take an elementary course in drawing and painting. If the enrollment expands, more sections of each course would be required, and the principal barrier to such sections would be space. Like chemistry labs, drawing and painting rooms require that classes can be set up and left as they are for extended periods. Increasing the population of the College will require an additional drawing and painting room, and the School of Art has no available space for these. This is one example of the challenges that lie ahead in this area.

Faculty also will need to be scaled up. Because arts courses are generally small, they place students in very close proximity to their teachers, in whom they often find mentors and advisers. Obviously more faculty will have to be hired to maintain the distinctive character of instruction in the creative and performing arts and to give students the sense of working closely with skilled practitioners.

Proposed Solutions

- Working with the programs and departments, and with the University leadership, on facilities development. Several recent reports chaired by faculty have favored the design and construction of a Yale Center for Undergraduate Creative and Performing Arts that would serve all six of these programs/majors as well as provide support for extracurricular arts activities on campus. Harvard and Princeton have lately opened comprehensive performing arts centers. If the University decides to go in a different direction—with specialized and distributed facilities for the arts—it should set high standards for new facilities and see to the updating and improvement of existing ones.
- Increasing the number of ladder and full-time faculty. The very nature of the arts implies that some who teach, and particularly those who bring their experience in the practice of the arts into the classroom, will not all be full-time teachers nor

necessarily pursue research in some aspect of theory, criticism, or history. However, arts faculty want arts programs to be grounded by a core of full-time faculty, and each area should have a vision about how to realize this and a detailed plan of resources needed to accomplish it.

Committee Recommendation: The committee recommends a process to ensure that the detailed planning for an increase in student population take place between academic departments and the apposite divisional committee and the provost. We anticipate an approach along the lines of the annual budgeting process to ensure that the impact of expansion is fully taken into account.

The committee seconds the recommendation of the Student Life Committee for creating an associate dean for the arts in Yale College. In addition to setting policies for oversight, scheduling, and management of facilities in Yale College and the residential colleges (in consultation and collaboration with the masters), the dean should work in many areas of arts enhancement, including with the Provost's Office and the professional arts school administrators, in addressing the curricular and staffing issues in each of the arts. Long-range comprehensive planning—which needs to take into account any possible expansion of the arts schools as well—must begin soon to meet demand for more opportunities to take courses in art (drawing and painting), photography, sculpture, film production, acting, music lessons, and creative writing. As with the sciences, new arts facilities have to be in place in advance of any increase in the size of the student body.

Special Programs
Under Stress

According to Yale undergraduates, two of the most stressed, even at-risk, areas of academic life are special programs and the long list of interdisciplinary majors, since these depend for their continuance, let alone their quality, on the commitment of faculty who are already stretched thin by the demands of their home departments. These programs are especially important to Yale in the twenty-first century because they can provide small learning experiences for students: both those in need of special help and those who need and want special intense learning experiences. They offer the kind of opportunity that the students on the committee were worrying about when they thought of having to compete for opportunities with an increased number of fellow students, or when they imagined that special help sessions and advising could become more difficult to access. A short list of some of these programs follows, once again as models of the kind of scaling up that will need to be accomplished in multiple areas.

Perspectives on Science. Perspectives on Science (PS) already has more than twice as many applications as places in the course. PS is a valuable recruiting tool and introduction to the Yale scientific community, and the exclusion of qualified students is bad both for the individual and for the institution. Limiting factors on the program now are the number of summer fellowships (largely rectifiable with more resources) and places in discussion sections. Sections are already at or beyond the size that permits full student participation. Expansion is hindered by a problematic faculty staffing model that cannot ensure continuation even of the current number of sections. PS is an interdepartmental course that "lives" in Yale College and is not seen as central to the teaching mission of any of the constituent departments. Participation doesn't "count" toward teaching load, so the course relies almost completely on the good will of volunteers whose teaching in PS comes on top of a full load of other duties. Competition with other Committee on Yale College Education (CYCE) initiatives in the sciences and quantitative reasoning has exacerbated staffing pressures by drawing key faculty members away from PS and into other courses and programs.

Directed Studies. Directed Studies (DS) has been a jewel in Yale's crown for over thirty years and acts not only as a wonderful experience in itself but as a superb introduction to Yale for 150 students. Yet, despite widespread admiration for its mission among faculty and administrators, the program suffers from most of the same problems of other interdisciplinary programs. Like the Freshman Seminar Program, it aims to offer first-year students the opportunity to work closely with ladder faculty and begin to build intellectual relationships with them that will last over their four years at Yale. But it has been a perennial challenge, often calling for interventions by the dean of the College and the dean of the Graduate School, to recruit ladder faculty into the programs, often because of the reluctance of department chairs to release these faculty from teaching in their home departments. This is not so much a turf war as it is a fight over precious resources. In recent years, DS has been given the authority to appoint a few junior faculty positions conjointly with the relevant departments (e.g., Philosophy, Political Science). These joint positions have been held by excellent young scholars and teachers, the terms of whose appointments are clearly set to include a certain amount of teaching in DS each year. However, it is not clear how much weight will (or even should) be given to their contributions in DS when these junior faculty members come up for tenure, since the department, and not DS, takes the lead in the promotion process. The persistent staffing challenges have been somewhat relieved by the addition of these new joint hires, but this arrangement cannot in itself eliminate the annual wrangling with departments for the "loan" of their faculty.

Health Studies. The Report of the Committee on Yale College Education (CYCE) envisioned a new program in interdisciplinary health studies. Such a program would speak to the tremendous interest of current students in domestic and global health issues as diverse as the AIDS epidemic, burgeoning health care costs, and varying cultural understandings of health and disease that could be addressed from perspectives rooted in the biological sciences, social sciences, or humanities. The CYCE and the Health Studies Advisory Committee charged with implementing this recommendation each recognized that a rich and coherent curriculum must be in place before a new major could potentially be launched. Many FAS and professional school departments could make important contributions to such a program, but strains on these departments to meet other current needs have made it difficult for them to commit resources to new initiatives and have slowed progress in the development of new courses and establishment of a road map for the development of a robust Health Studies program. Growth in the undergraduate population will only increase student pressure for the expansion of enrollment capacity in existing health-related courses, the development of new courses, and the creation of a major.

Interdisciplinary and Interdepartmental Majors. Yale College has a growing roster of lively, distinguished interdisciplinary majors, some of which are among the most desired majors in Yale College and attract the attention of thousands of those applying to the College. Although they differ somewhat in organization, resources, and staffing models, such programs as Ethics, Politics, and Economics (EP&E), International Studies, Environmental Studies, Women's, Gender, and Sexuality Studies (WGSS), and the many area studies majors (e.g., African Studies, Latin American Studies, South Asian Studies) all face difficulties in staffing their curricula. A few of these programs have dedicated faculty lines, usually for visitors or postdocs, but most do not and depend heavily on the same set of departments to supply the faculty for their courses. Political Science and Economics departments that are already under stress just to meet the demands of the large number of their own majors are intellectually key to the success of almost all of these interdisciplinary programs. The problems actually start even before faculty members are hired into these departments, as the department, rightly, exercises its prerogative to describe new or vacant positions to suit its own needs and interests. Rarely does an interdisciplinary program get consulted at the stage of describing a new position, and rarely does it play an active role in interviewing or recruiting a new hire for a departmental position. And yet these new faculty are crucial to the success of interdisciplinary programs, since – sometimes by only the slightest tweak of the target for the position – the search may result not only in meeting the department's needs, but in bringing expertise that fills out the range of a cognate interdisciplinary program.

Residential College Math and Science Tutors. This program places graduate students in colleges and the Science/QR Center at designated office hours in order to tutor students in the sciences and quantitative disciplines. The assistance provided by this program is a critically important resource for a diverse student population. A significant challenge faced by this program, and not by the Writing Tutor program, for instance, is the need to provide tutoring tailored to specific courses and disciplines: most physicists cannot tutor organic chemistry, and a biologist cannot be expected to tutor economics. Students therefore visit tutors based on discipline, rather than by college, and the program attempts to staff each area of campus with tutors covering as wide a range of disciplines as possible. The program currently experiences persistent shortages in economics and mathematics tutors, and significant difficulty in recruiting sufficient physics tutors. Chemistry tutors are disproportionately drawn from one lab, and the program's ability to meet chemistry needs is potentially endangered if the number of students in that lab were to diminish. Shortages are already resulting in overcrowded sessions and, occasionally, require compromises on tutor qualifications. Tutors are second-to-fifth-year graduate students and are normally expected not to be teaching in the same terms they are tutoring. When departments are stretched in their Teaching Fellow staffing needs, there is no one left for the Math and Science Tutoring Program. This means that if Yale College were expanded, there would likely be dramatic shortages in the ability to staff this program.

Committee Recommendation: The committee recommends asking the dean of Yale College to take up the challenge of finding solutions to these seemingly recalcitrant problems in the special programs and interdisciplinary opportunities that contribute so much to undergraduate academic life, of which the above are examples. We understand this asks a great deal, since the dean, chairs, directors of programs, and DUSs are involved in trying to solve these problems all the time. Nevertheless, if Yale is to scale up and not lose its special character, it will have to have the institutional will to develop solutions to address these challenges.

Teaching Assistants

At the moment, teaching assistant needs vary from department to department, program to program, and semester to semester depending on who is teaching what courses when, the size of the Graduate School, the somewhat unpredictable pattern of undergraduate choices among Yale College's nearly 2,000 courses a year, and similar factors. In the Humanities and Social Sciences, graduate student education and funding includes four terms of teaching, usually in years three and four; in the natural

sciences this differs more widely, but most science departments require teaching as part of their students' education. A few departments find it difficult to identify Teaching Fellow positions for their students in "teaching years." On the other hand, other departments and programs scramble for enough teaching assistants, especially if they have a few unusually large lecture or lab courses, and must go outside their departments to find them. It is widely agreed that unless a particular field or discipline is rich enough in job opportunities to warrant it, an increase in the number of graduate students admitted to a department and program will not and should not be driven by teaching assistant needs. So consideration of this question, particularly in terms of the increase of population entailed by building new colleges, is important and timely.

Teaching assistants are a critical part of study at Yale, and students are very clear concerning what must be done to address an issue that needs imaginative attention. Addressing this issue should be a priority, before added students compound the current challenges. Once again the committee emphasizes its theme: "one size will not fit all." Instead of the default "two lectures and a discussion section" model, the committee proposes investigation of different pedagogical and staffing models for different courses.

A faculty member on the committee offered one suggestion for how teaching assistants might work in certain disciplines, most likely in areas of the Humanities. In this scenario – a model of one kind of approach that might be considered – all undergraduate teaching would be carried out by experienced full-time faculty, and graduate students would act as apprentices to them. Rather than the current system, which allows graduate students to teach sections largely on their own, every teaching fellow would be assigned to a faculty mentor who would both teach the section and train the teaching fellow how to teach it at the same time. The mentoring by faculty would be in addition to the excellent courses on methodology and workshops for prospective teaching fellows that are now in place. The teaching fellow would participate in all the classes taught by the mentor and would be systematically introduced to all aspects of teaching, including preparing syllabi and classes, conducting classes, advising students, and grading their work. As the semester progresses, the teaching fellow would be allowed to teach some sessions, or parts of sessions, by himself or herself, but always with the direct collaboration of the mentor. The teaching fellow would also be shown how to evaluate students' written work, and then would be allowed to evaluate some written work on his or her own, with the mentor reviewing the results. The faculty mentor would also regularly discuss the teaching fellow's performance with him or her. This would go on for three or perhaps four semesters, during the third and fourth years of graduate study. As a result, teaching fellows would be trained by three or four different mentors. Under this system, graduate students would truly be teachers in training – in short, genuine apprentices. At the end of each term, mentors would pool their

impressions of the teaching fellows they have supervised and, because of the amount of time they had spent with the teaching fellows, would have a very good impression of their abilities as teachers.

In another scenario — once again a model of an approach that might be considered — the University would appoint a limited number of outstanding recent Ph.D.s as postdoctoral fellows, primarily to help them develop their scholarship, but also to offer them robust teaching experience as a part of their career trajectory. They would be hired specifically to teach sections and to help mentor the next generation of teaching fellows. Individuals would apply for these positions, and the selection process would be competitive and rigorous, requiring applicants to demonstrate aptitude for (and interest in) teaching as well as scholarship. Such positions might appeal to Ph.D.s who want to get even more experience in teaching than they did as teaching fellows, and/or to those who have not yet succeeded in finding traditional positions immediately after graduation.

Proposed Solution

• Considering different models for teaching assistance in addition to the traditional use of teaching fellows: for example, graduate students as apprentices to senior faculty, or as postdoctoral fellows, or in equivalent positions that would be in their interest as well as in the interest of the undergraduates they would teach.

Committee Recommendation: The committee recommends appointing a joint committee from the College and the Graduate School to explore new experimental models for undergraduate courses. This committee should investigate a range of possibilities: courses without sections, sections with peer facilitators, help sections, optional homework sections, sections that meet less often than once a week, among other options. Although this array of alternatives will not help address the challenges of lab courses in the Sciences, it could open up different models for Humanities, Social Science, and non-lab Science courses.

Advising and Student-Faculty Relationships Nothing highlights the paradox of a great undergraduate college set within a major research university so much as the issues of advising, a large subject that takes in pre-major and major advising and something else — a kind of "life advising" or access to intellectual and personal engagement with mentors, and to their experience and wisdom, for which students hunger. Indeed the student report that the committee received was focused on the wish for greater connection with adults. As one student put it: "Students come to Yale to experience great professors, and while the big names

doing top research may be what initially draws them, once on campus, the 'great professors' are the ones with the inclination and ability to engage students in and outside the classroom." Students worry that the swell in enrollment will compromise the special opportunities that now exist for these kinds of interactions and might make it even more difficult for them to have the kind of adult interaction they desire. For all these reasons, constantly addressing issues concerned with all kinds of advising is critical, whether Yale scales up or does not, but especially if it does.

There is likely no single perfect solution to pre-major advising. The current system of assigning residential college fellows to first-year students in their college has its value, but it cannot meet all the reasonable expectations of students. While there is much about the nature of undergraduate education at a liberal arts institution that a broad variety of advisers may have a shared commitment to, and even a shared experience of, freshmen want more than general guidance from their advisers. They often have very specific questions about fields that they may be exploring for the first time or that seem to be very different at the postsecondary level from their experience in high school. They are looking for informed advice about course offerings and independent opportunities in the fields they have singled out, either for potential concentration or for fulfilling distributional requirements. They hope for the assignment of an adviser whose interests will coincide with their present interests, thinking that the best advice can be obtained from such an adviser – when actually that is only sometimes true. They neglect the fact that some of the challenges of their transition would require trial and error, no matter who was advising them. Further, good advising is more than knowing a field or what courses someone should take; it often means knowing the student, what he or she is prepared to do, and what individual path might be the best start. The truth is that the very best advising comes in unforced relationships that evolve when people know one another, from shared interests and experience in common, whether that is residential experience such as they might have with graduate students or freshman counselors, or classroom experience such as they might have with the instructors of freshman seminars.

The dean of freshman affairs and members of the Yale College Dean's Office have been working on advising issues. However one lesson seems clear: there is no single magic bullet. The answer rather may be in many initiatives rather than just one, addressing the hydra-headed problem with a plethora of solutions.

Proposed Solutions

• Revisiting the way the residential college fellowships are used in advising and galvanizing a different approach to the college advising system.

- Assigning a more experienced "buddy" to first-year advisers to help them in their first efforts.
- Increasing the number of freshman (and now especially sophomore) seminars. It would be imperative if the Yale population increases for the same likelihood of being selected for a seminar to be preserved. A larger number of seminars would go a long way to satisfying students' craving for closer contact with their teachers, if only a way could be found to mount them. The sad fact is that the most stressed programs, with the most students, who need the advising the most, are the ones least able to offer such seminars. Considering imaginative ways to get this moving forward should be a high priority. It is difficult since departments are taxed to serve departmental and programmatic and interdisciplinary needs, but there is no better way to foster faculty-student relationships.
- Encouraging the development of special opportunities growing out of individual
 courses or special programs, such as extended field trips over the recess periods or
 at the end of the academic year, or long-term research projects that students and
 faculty work on collaboratively.
- Finding ways to give freshmen and sophomores opportunities for directed research, supervised laboratory experience, the appropriate equivalent of Mellon Forum participation for younger students, and any other experiences where they are likely to find advising and mentoring.
- Adding more faculty apartments to the residential colleges as an excellent way to foster natural relationships for college-based academic advising.
- Adding graduate student and professional affiliates with specific roles pre-law, premedical, or other kinds of advising to the colleges, either by giving them apartments in the colleges (ideal) or having them affiliated with specific duties.
 Although graduate students are not faculty, their mentoring and friendship in informal settings can be productive for undergraduates and beneficial to graduate students as well.
- Introducing events into the colleges where college fellows talk to students in small groups about their areas of expertise. Students who are not eager to sit down next

^{10.} It is important to note that Yale, unlike some peer institutions, requires its freshman seminars to meet twice a week. At other schools they meet but once – an arrangement the members of the CYCE, as well as the deans of Yale College, found incompatible with the goals of a freshman seminar. Yale sacrifices some seminars for this reason but preserves quality, believing that freshmen – who came from high schools where courses meet five times per week – need to meet with their instructors at least twice.

to an adult they don't know feel entirely differently if they know that person is a master printer, a professor of management or law, an ophthalmologist, a judge, a renowned fisherman, or a newspaper columnist from whom they can learn or with whom they can network. This kind of interaction becomes its own form of advising.

Major Advising

Major advising also presents issues. At Yale, History – traditionally one of Yale's biggest majors – still has the most students. But Political Science is now close behind History, and Economics is also near the top. Partly this is because such issues of current interest as public health, government policy, and international studies depend on a core of social science courses. But it is also because students and families – especially those from income levels and parts of society that are upwardly mobile – think vocationally, and science and some social science subjects lead more naturally in a vocational direction.

For these reasons, we expect the Sciences — where faculty must run large research labs and where teaching loads are comparatively small — and the Social Sciences — which have increasing numbers of students for varying societal reasons — to continue to be under strain. These are exactly the departments that cannot offer freshman/sophomore seminars because they are so stretched in so many ways. And it is in these areas where major advising is under the most stress.

Each of these departments already is working to meet the challenge of teaching and advising many students. They should be helped and encouraged in thinking of new and imaginative ways to do so, and added resources should be promised to those who develop good or novel ideas. Early research in labs is the natural way to enhance student experience and bring students close to those who might offer them good advice throughout their careers. But students must have the right experience, and finding room in labs – as well as lab assistants and faculty with time and energy for appropriate guidance and mentoring – is not always easy. Nevertheless, departments might be encouraged to consider imaginative ways of doing this. Anything that helps students forge relationships is valuable. According to undergraduates, departmental clubs, shared coffee rooms, and weekly lunch tables with faculty are all excellent in forging the relationships important for good advising. A class that spent two weeks in the Peruvian rainforest experiencing the Amazon and collecting plant samples that might yield useful endophytic compounds, and a freshman seminar trip to Mexico, while very expensive in a number of ways, were among the best experiences of students' careers and have led to lasting bonds between faculty and students. What about other creative possibilities that bring students and faculty together in intense experiences?

Committee Recommendation: The committee recommends asking the dean of Yale College to bring greater coherence and consistency to the design and oversight of advising for freshmen and sophomores and for majors in those departments where teaching and advising resources are stretched.

Conclusion

It is clear that the proposed expansion of the Yale College student body is likely to have a big and not always proportionate impact on departments and academic support services that seem already under stress. Carefully addressing these issues on a caseby-case basis and encouraging each area to develop fresh and imaginative solutions is essential before new students are added to the College. There are no across-the-board solutions to ensuring the strength of the College if more undergraduates are added at Yale. The only solutions are individual. Each department, and each administrative area that supports the University's academic mission and is likely to be heavily impacted by the addition of students, must be asked to demonstrate what, in particular, it needs to ensure good teaching, advising, and support, and what it will take to keep itself strong. The deans and provosts must then work with them to ensure they will be able to meet the expanded needs.

Student concerns about academic opportunities as they are articulated in this report must be addressed. Many of the tensions articulated here between a research university and an undergraduate college are age-old and can be productive of good outcomes for both students and faculty. The push and pull between research and teaching ensures intellectual innovation and keeps a school academically fresh and vigorous: this is the value of a college set within a research university and a part of why students come here. Nevertheless, students are especially sensitive to the trade-offs and challenges of such a charged environment. They expect Yale College to be what it is known far-and-wide for being: a great undergraduate college set within a distinguished research university. They should be heeded about what needs attention before the College census increases.

Committee Recommendation: The committee recommends that the president and provost set in motion a process by which each Faculty of Arts and Sciences department, program, and administrative office undertakes the kind of detailed planning suggested in this report, in order to strengthen Yale College and to ensure its excellence should the undergraduate population increase. Only when such planning is in place should the University move forward with the proposed new colleges.

RESIDENTIAL COLLEGES: STRENGTHENING THE PRESENT, PREPARING FOR THE FUTURE

Almost from the beginnings our institutions of higher learning have had to wrestle with [the] riddle of how to expand without hurt. For essentially they were "collegiate." That is, our Colonial foundations had been not just collections of teachers and students but organic, residential associations Ideally, the students in a classic American liberal-arts college all ate, studied, played, worshipped, and lived together, in a single building or cluster of buildings, under a single government and discipline, sharing a common tradition, and generating a common loyalty. The aim was unity; the method, collegiate living.

George Pierson, Yale College, a History, vol. II, 220-21

History

The student life committee recognized from the start that it would be difficult, and surely imprudent, to assess the advisability of building two new residential colleges without some sense of the original design and historical development of the entire college system. What was the initial vision for the system? How have Yale and the colleges changed in the last seventy-five years? To what extent have the colleges fulfilled or failed to achieve their intended purposes? What needs to be taken into account about them in a world that has changed and for a future we can only partly imagine? Detailed accounts of this history are readily available through a variety of sources, so we have not attempted to reproduce a comprehensive survey in this report, but we wish to highlight here a few themes that stood out to us and informed our discussions. We have also included a narrative time line of residential education at Yale (see Attachment F).

One of the first things we noted in our reading was the enduring importance of residential education to Yale's leaders. Many things have changed at Yale over the last three hundred years, but the belief that students should live and learn together in common physical spaces under the oversight of resident faculty has remained constant. Indeed, Yale's institutional and architectural history—from the original "Old Brick Row" to the residential college system and their extensive renovations currently under way—could be largely traced through its ongoing efforts to provide suitable residential facilities and meaningful educational communities. It can be easy today to overlook the significance of this commitment and forget that there were alternative—and surely less expensive—ways to house students. Yet, as is often noted, the residential college system has contributed enormously to Yale's excellence as both a premier research

university and an outstanding undergraduate college. For this success, we owe much to the wise planning and investment of Yale's leaders in previous generations.

Despite this long-standing dedication, however, we were struck by the constant challenge to honor this commitment as Yale continually grew and changed. It often seemed that no sooner had plans for expansion been implemented than overcrowding would creep in again, and within a few years the problem of inadequate housing was just as acute as before. We were also struck by the ongoing difficulty of articulating common objectives for the colleges and clear roles for the masters as Yale evolved. Each new generation of students has seemed to come with ever broader needs and ever higher expectations, and each new generation of faculty has come with increasingly little time to participate in residential college life. The responsibilities of college masters and deans have consequently expanded in ways never imagined decades ago, whereas the role of faculty fellows has evolved in a nearly opposite direction, and their profile in the colleges has gradually diminished. Significant enhancements to the residential college system, particularly in the 1960s, brought valuable common programs and additional resources to all the colleges, but there are still lingering missed opportunities.

As we wrote this report, we took inspiration from a similar document, written almost exactly fifty years ago: President A. Whitney Griswold's "A Proposal for Strengthening the Residential College System in Yale University" of 1958. 11 His proposal ultimately recommended building two new colleges – what would become Ezra Stiles and Morse Colleges – because, as his title suggests, he believed that they would strengthen the residential college system as a whole. At the time of his writing, the college system was only twenty-five years old, but Griswold discovered that the facilities, staffing, and other resources of the colleges were already overtaxed. He hoped and believed that two new colleges would provide an occasion for Yale to "realize the original ideals and full educational values of its residential college plan." His report has a strikingly contemporary ring, and we share many of his concerns and aspirations. As we describe in this section of the report, we too have identified some ways in which the present residential college system, successful as it is, could be strengthened. We could imagine that building new colleges might provide the necessary catalyst for doing this, as well as for giving Yale College all of the advantages that greater size will make possible. Yale has greatly benefited from the wise planning of past leaders; we know we owe it to future generations to consider carefully how we might make the most of this momentous decision. (See Attachment F for a narrative time line of residential college history.)

^{11.} The Kagan Report of 1984, *Report on the Future of the Residential Colleges*, is also a very valuable document, with much to say to contemporary readers. It is available at http://www.yale.edu/terc. Look in the left column under Collectibles and Publications and then scroll to Special Documents in Yale's history to find this and many other Yale reports.

Opportunities to Strengthen Present Residential Colleges This is the seventy-fifth anniversary of the residential colleges. From the start President Levin noted that a consideration of the new colleges should have the accompanying attribute of allowing for a review of the present residential college system to see what is working well and what might be improved. Our review demonstrated that much about the present system is working at a high level and is exceedingly successful. But there are challenges that, left unaddressed, might expand in complexity and magnitude and become more difficult and expensive to solve later on. This, therefore, seemed an appropriate moment to address these topics, before new residential colleges might appear to compound the present challenges.

The residential colleges have evolved into complex organizations with an ambitious agenda and a more complex set of expectations than at their founding in 1930. Not simply places where students sleep and take meals, they are communities that provide students with a sense of belonging and an almost family-like affiliation. True, a student's primary allegiance is not always to the college; it sometimes may be to an organization, an activity, a department, or a set of friends. Nevertheless, for most students, most of the time, the residential college is their university home.

Ideally, the college plays a major part in the development of the people who live there. It offers settings where lifelong friends are made, where an intense social life gets lived, where successes are celebrated, where failures are addressed, where discipline might be administered when required, and where solace and comfort are offered when needed. It is the place where talent and achievement are admired and fostered, but also the place where students are accepted simply for who they are. It is a place of initiation and experimentation among young people who are beginning to make their way in the world as adults and who benefit from the presence of adults for advice and direction, no matter how much they may feel from time to time that they do not require such guidance. It is the place where students start their college career, and it is where they receive their diploma when they are done.

It is also the most important setting where students transact much, if not most, of their business with the University, especially in the early years of college before a major or course of study is decided. What distinguishes the Yale residential college from most other housing arrangements in modern American higher education is its ability to accomplish all these administrative and developmental tasks together in one small-scale setting, which provides a student with continuity and support from matriculation to graduation. In their colleges, students are not known just by their transcript, or their dining hall contract; they are known by name, as individuals with comprehensive roots in their communities.

Variation Among the Colleges

Variation in culture and character among the colleges sustains and promotes local identity, ideally such that each Yale undergraduate can assert not only that his or her college is one of the best but also that it is distinctive. Local identity grows out of location, architecture, history, and tradition, along with the particular contributions of masters, deans, alumni, and fellows, whose interests and passions give each college its character.

On the other hand, for reasons of equity, variations in opportunity - especially for resources for which there is no alternative resource – should not exist. All students must feel that they have equal opportunity both to be known by the leaders of their residential settings, and to petition for access to the discretionary funds under their master's control. Students should also feel confident that the support available to them from their college is roughly equivalent to that available to their peers in other colleges. The genius of Yale's system has long been that students (1) trust that no individual or class of students within their residential college is privileged above others, and (2) trust that no residential college is privileged above others. These perceptions, intrinsic to the system's health and credibility, are threatened by conspicuous discrepancies of opportunity within and between the colleges. The current policy of random assignment will grow troubled unless both these features are present. As we go forward, fair access to both human and financial support within the colleges should be underscored. For students in the new colleges to feel on an equal par with students in the existing twelve, it is essential to select the right personnel for staffing the new colleges even as they are taking preliminary shape and to establish a comparable level of funding that will encourage fair financial access.

Yet it should be noted that some on the committee are concerned that too heavy an emphasis on bureaucratic or organizational solutions will have a stifling effect on the ability of leaders in the colleges to use their own passion and inspiration to build effective communities. We call, therefore, for ongoing discussions about the proper balance between the creativity of the individual masters in developing the special character of each college and the administrative need to have them regulated in a similar fashion and to offer students parallel opportunities.

Proposed Solution

The Council of Masters should develop and agree upon concepts and practices of
what are the crucial services to be provided by all colleges and what should be a set
of opportunities offered by all colleges.

What New Colleges Will Need There are many moving parts – figurative and literal – that make the residential colleges at Yale the crown jewels that they are. If two new residential colleges are to be built, they must possess the most successful academic and social aspects of residential college life as currently experienced. Furthermore, the master, dean, and the entire staff (administrative, tutoring, custodial, dining hall, facilities, etc.) of each new college must have the same support currently enjoyed by the established residential colleges. Indeed, in the transition and early years of the colleges it will be critical that the University administration augment its support in critical ways so that students will not experience their colleges as places that are "starting from scratch" even when, in fact, they will be.

Because the colleges are crucial sites for academic exploration and enrichment as well as for student life, we address both areas in the comments that follow.

Funds. The expansion of the residential college system would create strain on some of the funds that masters regularly use during the course of the year to fund undergraduate research (e.g., Richter and Bates), to bring in special guests (Hoyt and Hendon), and to support academic programming (Mellon). Some of these funds may be scaled upward to accommodate the needs of two new colleges without much difficulty. For those funds that cannot, the University will have to find additional resources so that students in the new colleges will be afforded the same opportunities as their peers in the older twelve. For example, the Gordon Grand Fellowship might be designated to support speakers in the two new colleges for their first five years of existence.

One area of serious concern is the Parents' Fund, which in some colleges accounts for more spendable dollars than the GA. The Parents' Fund is critical to supporting the creative, intellectual, and social endeavors of the entire college community. But funding streams for the Parents' Fund will not yet be established for the new colleges. The University will need to provide several years of material support to ensure that the masters of the new colleges have discretionary funds that are in line with those available to their fellow masters.

Proposed Solution

Planning for new colleges to include the establishment of operating funds comparable to those of most present residential colleges and the development of plans for ongoing operating funds for the indefinite future.

Equity of Physical Space. Variation in the colleges creates an atmosphere of friendly competition that allows most Yale students to believe that their college is the best. It is imperative, then, that the new colleges are outfitted in a similar manner as the current, post-renovation colleges. Yale should hope to create an aura of respective superiority among each of the colleges, but it cannot allow the new colleges to be seen as poor cousins to the older twelve. Conversely, the University must be careful to manage the creation of spaces in such a way that the two new colleges are not so much better equipped than the older colleges that real tensions emerge concerning the physical quality of life in all of the colleges. In short, the sense that X College is better than Y College will be healthy when it is fostered through variations in cultural practices, student life opportunities, and community spirit. It will be undesirable if there is a clear difference in the opportunities presented by the respective colleges' physical plants.

To that end, it is important when creating new residences that the planning processes pay careful attention to the current space "practices" among the colleges, making sure to create an environment that is conducive to the successful execution of a robust academic program and an equally fulfilling student life experience. Some requirements include the following. The new colleges must have an appropriately sized and situated administrative suite that includes master's and dean's offices as well as offices for the administrative support staff. Some members of the committee strongly endorse the role of faculty offices in the residential colleges and advocate enthusiastically for them. In this view, faculty offices in the colleges create opportunities for intellectual and social interaction between student and professor and also create the opportunity for on-site freshman advisers. Others feel the space would be better used for increasing the faculty apartments within the colleges and believe that faculty members prefer to have their offices near those of their intellectual colleagues. The new colleges should have the opportunity for some of both: at least two to four faculty offices as well as no fewer than two residences for residential fellows.

The new colleges must have library space, with rooms for collections and for private as well as group study. The new colleges must have dedicated spaces for writing as well as math and science tutors. The new colleges must have an appropriate number of classrooms, which would be managed by the registrar, and, in addition, small meeting rooms with flexible use, which could be managed by the college master's office. There must also be a computer room/cluster, exercise facilities, exhibition space, dedicated theater/performance space, music practice rooms, a student kitchen, a buttery, a TV room, a game room, and facilities for student laundry and storage.

Proposed Solution

Ensure equity of physical space, including offices, tutoring rooms, computer clusters, and arts and fitness facilities, between the new residential colleges and the older ones.

The College Master and Dean. The master is the head and the chief administrative officer of the college. The dean is the chief academic adviser of the college. While each individual has specific obligations relative to his or her position that will not change with the advent of two new colleges, it will be important to keep in mind that there are unique challenges for the leadership of a new college. The new master, for example, will be tasked with building up a college fellowship composed of faculty and of associate fellows from the community. She or he will also need to organize master's teas without having the luxury of a developed network of alumni and fellows or a backlist of potential guests. Many elements of the dean's day-to-day life will be determined by the guidelines established by the Yale College Dean's Office with regard to academic regulations, but the new deans may face significant challenges gaining the trust of students who may have been transferred in en masse from other colleges (although we hope to avoid this means of populating the new residential colleges if they are built). These positions are complex and demand skill and judgment, and new masters and deans would benefit from some sort of mentoring program from their counterparts in the existing colleges. During the implementation phase, the Council of Masters and the dean of Yale College must also think carefully about the migration/transfer of students into the new colleges.

Graduate Affiliates and Residential Graduate Affiliates. The Graduate Affiliates Program can provide opportunities for graduate students to mix with and advise undergraduates and to interact with other graduate students from other departments or schools within the University. Graduate affiliates, some of whom live in the college, but most of whom do not, provide both formal and informal advising about undergraduate courses or programs of study, research opportunities for undergraduates, graduate and professional schools, and fellowship opportunities. Having a critical mass of graduate affiliates is essential. Graduate and professional students, properly trained and supervised, can provide invaluable advice and counseling to undergraduates about decision making, academic and otherwise, and can play particularly important mentoring roles in the arts, sports, science, and fellowship and professional school applications.

Proposed Solutions

- Working with the Graduate and professional schools to enhance the Graduate Affiliates Program.
- Ensuring a minimum number of rooms for residential graduate affiliates within each residential college.

Residential Fellows. All colleges have apartments for residential fellows, most of whom are faculty or senior administrators. If managed creatively by the college master, these fellows can play a major role in the college community. The residential fellows can help conduct mock interviews, advise students informally or formally, hold study breaks, organize guest speakers, and merely be a calming presence among so many high-spirited undergraduates. Residential fellows' apartments must be preserved.

Proposed Solution

Preserving residential fellows' apartments and engaging those living there substantively in activities of the college

College Fellowship. The faculty fellowships of colleges are a natural resource to consider the development of a more robust academic program for the residential colleges, but significant changes must be implemented to make this an effective and well-functioning resource. When the faculty fellowship program is functioning most effectively, faculty members create a visible presence in the residential colleges through living in the colleges (in apartments for faculty fellows), eating meals in the colleges, maintaining offices and open office hours in the colleges, advising students, helping the college masters and deans identify potential resources and contacts for undergraduates, and serving on college committees to select students for college-sponsored fellowships or to conduct mock interviews of students preparing for interviews with the national fellowship selection committees. Similar attention must be given to the creation of a viable community of associate fellows—a pool of individuals who often receive little attention but who may be able to play significant roles in the lives of undergraduates.

Proposed Solution

 The Council of Masters, together with the Yale College Dean's Office, should develop a new approach to college fellowships that structures them to be more explicitly supportive of the educational tasks of the college. Academic Programs. The residential colleges should play a substantial role in some elements of academic development, especially in the earlier stages of a college career, since they are stable forces in students' lives and offer the intimacy of community important in fostering relationships with mentors. Particularly appealing opportunities in this regard include the enhancement of already existing advising and counseling, tutoring, on-site teaching opportunities, and the possibility of more occasions for enhanced contact between graduate and professional students and undergraduates as noted above.

Proposed Solution

• The Council of Masters, together with the Yale College Dean's Office, should develop ambitious academic programs for the college.

Advising. Some forms of advising are well suited to the small-scale, close community that the college offers. This may be true for pre-major advising, as well as other forms of career and personal counseling. (The advising issue was taken up in more detail in the Academic Resources section; see pages 54–58.)

Tutoring. The residential college is an ideal site for many forms of tutoring. Yale College's Residential College Writing Tutors and Math and Science Tutors Programs have a long and distinguished history of providing effective support. The construction of new colleges would present both challenges and opportunities for these programs. The committee urges that care be given to the allocation of appropriate space and accessibility of tutoring spaces to students from within and outside the new colleges, and that effort be expended to ensure that the tutoring programs and tutors themselves feel at home.

The richest mentoring relationships develop when tutors think of the colleges not just as places where they have one-room offices, but as places where they develop deeper connections with undergraduates, not only through their work, but also through conversations in the dining halls, or participation in intramural competition, or informal meetings and exchanges in entryways and courtyards. For this reason, efforts must be made to integrate the tutors as effectively as possible into the intellectual and social fabric of the colleges.

Proposed Solution

Creating an effective college-based tutoring program for writing, math and science, and language skills development that honors the distinctive academic needs of those programs, but as much as possible takes advantage of the relationships that can be developed in the college environment.

Mellon Research Forum

Presently the Mellon Senior Research Forum serves as a model for how residential colleges foster the academic and intellectual development of undergraduates. The present Mellon Senior Research Forums turn a formal academic exercise (the presentation of the student's senior thesis/project topic to peers) into a rich social and intellectual event. These programs, which are led by faculty fellows and graduate student affiliates, require intense time and commitment. Although the specific model of the Mellon Senior Research Forum might not be appropriate for younger students not yet working on substantial independent projects, opportunities for sophomores and juniors to interact around academic issues with members of their class within their residential college and to make public presentations should be a high priority.

Proposed Solution

 The Council of Masters, together with other appropriate academic bodies of the University, should investigate the possibility of extending the Mellon Forums, or something akin to them, to the sophomore and junior classes.

Masters' Teas

And finally, the residential colleges sponsor Masters' Teas and other special events to bring in outside guests who are notable for their accomplishments in business, civic, or academic life, or in art, culture, journalism, entertainment, or athletics. These programs should be supported in every way possible because of what they bring to the students' lives in terms of content, inspiration, and pleasure, as well as their contributions to morale and pride in the college.

Committee Recommendation: The committee recommends that the Council of Masters, in conjunction with the dean of Yale College, continue discussions about the nature and organization of the academic and cultural mission of the residential colleges in order to ensure their continued health and strength. The committee further recommends continuing to spell out, in detail, all those elements that the new colleges, should they be constructed, would need to make them equitable with other colleges.

* * * * * * * *

The members of the study group appreciate the opportunity President Levin has given us to contribute to the conversation about the impact of the proposed new colleges on Yale undergraduate education. While we are confident that the challenges pointed out to us by faculty, administrators, and students are real and need attention—indeed many need attention whether or not new colleges are added—we do not make the claim that the suggestions and conclusions in this report tell the whole tale or are enough alone to indicate what should take place. We believe that our findings provide a solid launching point for future planning efforts. We understand that, as someone once said, creativity requires the courage to let go of certainties. We look forward to hearing the views of the rest of the community and to providing whatever help we can if the University decides to take the next step.

Report of the Study Group to Consider New Residential Colleges

FEBRUARY 2008

ATTACHMENTS

Attachment A

MEMBERS OF THE STUDY GROUP TO CONSIDER NEW RESIDENTIAL COLLEGES

Academic Resources

Committee

Joseph Gordon, Dean of Undergraduate Education and Deputy Dean of Yale College, Lecturer in English (Chair)

Penelope Laurans, Associate Dean of Yale College, Special Assistant to the President, Lecturer in English (Vice Chair)

Vladimir Alexandrov, B. E. Bensinger Professor and Chair of Slavic Languages and Literatures

Joseph Altonji, Thomas DeWitt Cuyler Professor of Economics

Janice Carlisle, Professor of English

Jonathan Dach, JE '08

Bradley Gano, Associate Director of the Center for Language Study

Jonathan Holloway, Professor of History, African American Studies, and American Studies, Master of Calhoun College

Mary Miller, Vincent J. Scully Professor of the History of Art, Master of Saybrook College

Alice Prochaska, University Librarian

Diane Rodrigues, Senior Deputy Registrar

Lauren Russell, DC '09

William Segraves, Associate Dean for Science Education of Yale College, Lecturer and Research Scientist in Molecular, Cellular, and Developmental Biology

Lloyd Suttle, Deputy Provost for Undergraduate and Graduate Programs

Jesse Wolfson, TD '08

Kurt Zilm, Professor of Chemistry and Chemical Engineering

Student Life Committee

William Sledge, George D. and Esther S. Gross Professor of Psychiatry, Lecturer in the Special Program in Humanities (Chair)

Penelope Laurans, Associate Dean of Yale College, Special Assistant to the President, Lecturer in English (Vice Chair)

Woo-kyoung Ahn, Professor and DUS of Psychology

Thomas Beckett, Director of Athletics, Physical Education, and Recreation

Jenny Chavira, Director of Major Cities for the Association of Yale Alumni

Pamela George, Assistant Dean of Yale College, Director of the Afro-American Cultural Center

Nina Glickson, Assistant to the President

Harvey Goldblatt, Professor of Medieval Slavic Literature and International Area Studies, Professor and Acting Chair of Slavic Languages and Literatures, Master of Pierson College

Kevin Hicks, Dean of Berkeley College, Lecturer in History

Ernst Huff, Associate Vice President of Student Financial and Administrative Services

Judith Krauss, Professor of Nursing, Master of Silliman College, Chair of the Council of Masters

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George Levesque, Assistant Dean of Yale College

Richard Schottenfeld, Professor of Psychiatry, Master of Davenport College

R. Shankar, John Randolph Huffman Professor of Physics, Professor of Applied Physics

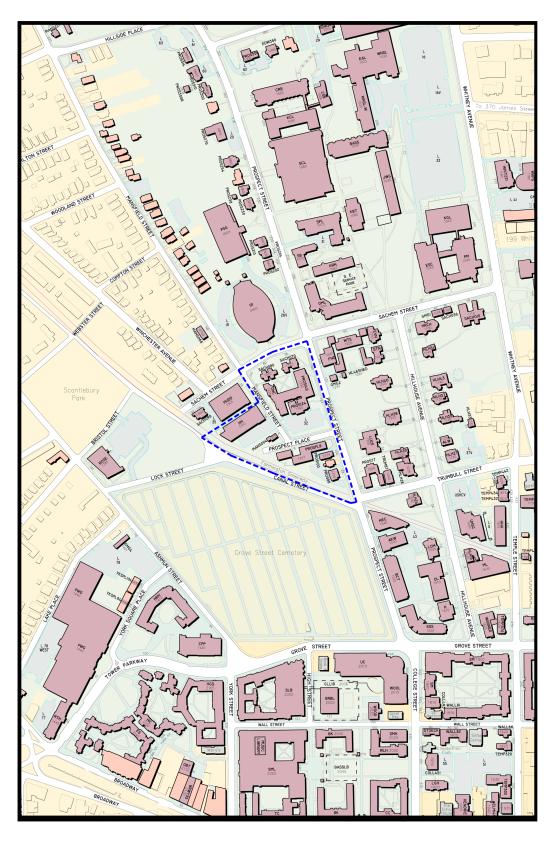
Alice Shyy, ES '08

Betty Trachtenberg, Associate Dean of Yale College (1984–2007)

Emily Weissler, CC '09

Larry Wise, MC '08

Attachment B map of the prospect-sachem triangle site



Attachment B • February 2008 • PAGE 75

Attachment C

STUDY GROUP CONSULTATIONS

Student Life Committee Secu

Security

Consultations Ma

Martha Highsmith, *Deputy Secretary*James Perrotti, *Chief of Police*George Aylward, *Head of Security*

Transportation

Janet Lindner, Associate Vice President for Administration

Athletic Issues

Tom Beckett, Director

Dining Issues

Ernst Huff, Associate Vice President for Student Financial and Administrative Services

Campus Use

John Bollier, Associate Vice President for Facilities Operations
Eric Uscinski, Director of Facilities Operations
Lloyd Suttle, Deputy Provost for Undergraduate and Graduate Programs
Susan Adler, Director of Conference Services

Residential College Issues

Judith Kraus, *Chair of the Council of Masters* Council of Masters Residential College Deans

Performing Arts

Professors Toni Dorfman, Judith Krauss, Richard Lalli, Mary Miller, and Joseph Roach James Brewczynski, *Supervisor of Undergraduate Productions and Special Events* Rorie Fitzsimons, *Technical Adviser for Yale College*

Students

Focus group members on housing issues

Academic Resources Committee Consultations

Graduate School

Jon Butler, Dean

Provost's Office

Charles Long, Deputy Provost

Lloyd Suttle, Deputy Provost for Undergraduate and Graduate Programs

Emily Bakemeier, Associate Provost

Bruce Carmichael, Associate Provost for Science and Technology

Chemistry

Professor Kurt Zilm

Economics

Professor Joe Altonji

English

Professor Janice Carlisle

Political Science

Professor David Cameron

Undergraduate Science Programs

William Segraves, Associate Dean for Science Education

University Library

Alice Prochaska, University Librarian

Danuta Nitecki, Associate University Librarian

Registrar

Jill Carlton, Registrar

Diane Rodrigues, Senior Deputy Registrar

Center for Language Study

Bradley Gano, Associate Director

Classroom Committee

Judith Hackman, Associate Dean of Yale College and Dean of Resources and Development

Additional Faculty

Two breakfasts with Yale College Dean Peter Salovey and Chairs and DUSs invited from a range of FAS departments

Joint Committee Admissions

Consultations Jeff Brenzel, Dean of Undergraduate Admissions

Finance and Administration

Tim Vest, Senior Financial Analyst

Campus Planning and Third Building

Laura Cruickshank, University Planner

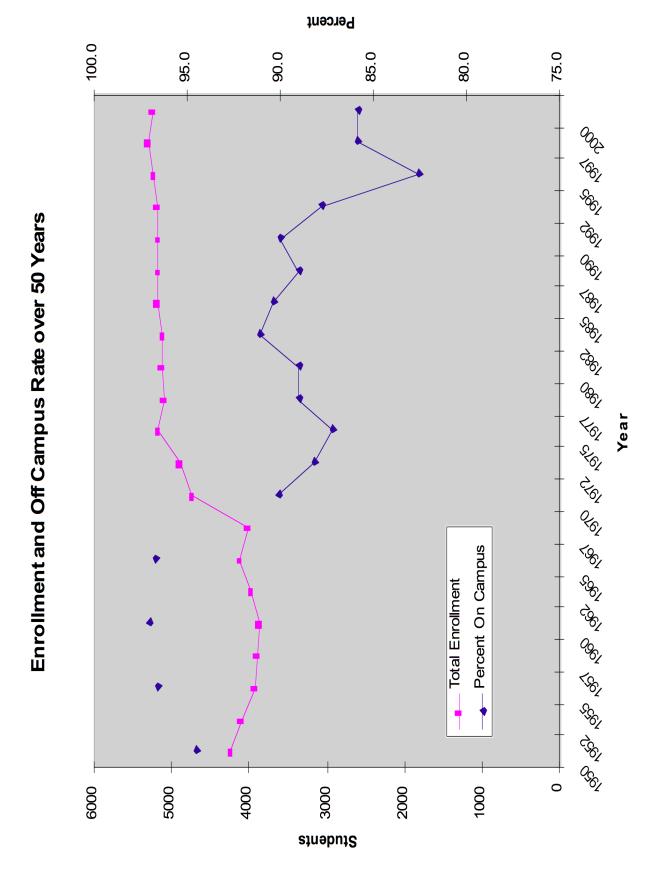
Daniel Cox, Planning Management Presentation Coordinator

Students

Five residential college forums in Calhoun, Morse, Pierson, Saybrook, and Silliman

Attachment D

ENROLLMENT AND HOUSING GRAPHS



Percent 2007 2006 **Graduation Year** 2005 2004 **Percent**76.0%
72.0%
70.0% 82.0% %0.99 %0.98 84.0% 80.0% 78.0% %0'89 64.0%

Of Off Campus Jrs, % Off as Srs

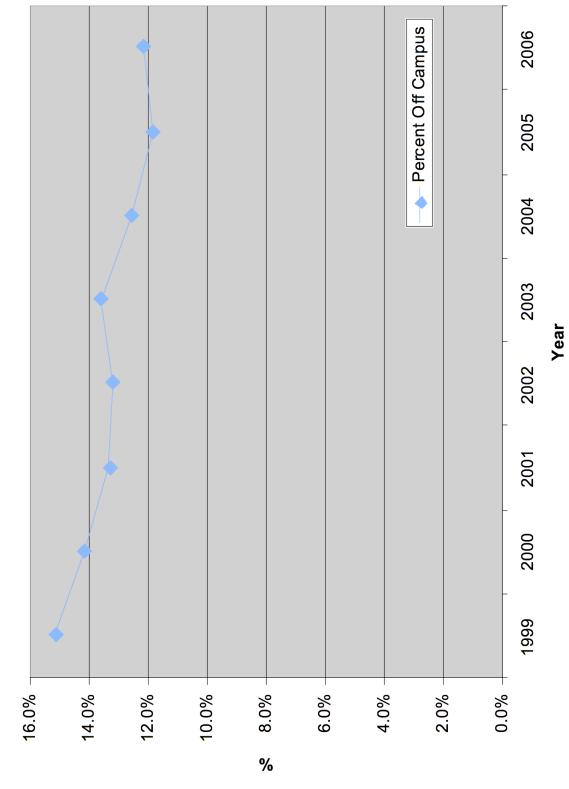
Percent 2007 2006 **Graduation Year** 2004 %0.09 0.0% 20.0% 40.0% 10.0% 30.0% 20.0% Percent

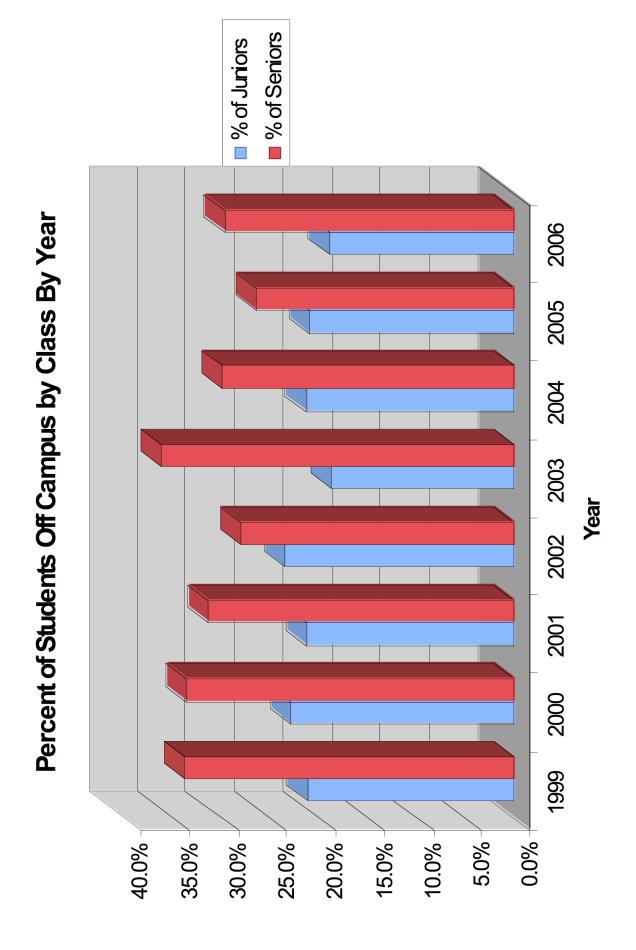
Of Off Campus Sr, the % who were off as Jrs

Attachment D.3

Enrollment, On Campus, Off Campus, Annex, and Vacancies On Campus Off Campus Vacancies -- Annexed * Enrolled Students

Off Campus Rate as Total of Enrollment





BR CC CC BC BC SY SY SY TC TC 80.0 70.0 60.0 50.0 40.0 30.0 20.0 JE MC PC SY SM TD TC Percent of Jrs and Srs In College by College Average **Over 5 Years** DC ES \mathcal{S} BR

Attachment E

YALE'S LEARNING SPACES

Recommendations from the Classroom Planning Group¹ 10 October 2007 (revised 7 January 2008)

At this time, when the addition of two residential colleges is likely, when such key buildings as Sterling Chemistry Laboratory may be off-line for one or more years, and when construction and renovation of classrooms continue apace, the Classroom Planning Group recommends the following strategies for improving Yale learning spaces in order to maintain the unique quality of a Yale education and enhance support for pedagogy.

- Yale's learning spaces should fully support and amplify the exemplary quality of Yale faculty and students. The highest standards should be established based on internal research and collected best practices from around the country.
- 2. Yale should develop a strategic plan for the next five years that identifies how to improve and ensure the quantity and quality of all learning spaces on campus. This roadmap should identify current deficiencies and future needs by campus area in order to inform planning by the Provost's Office. The Classroom Planning Group would be pleased to participate as part of this process.
- We recommend conducting an accurate institutional census of available learning spaces and then treating these spaces as University-wide assets, rather than school or departmental assets.
- 4. To improve and maintain our current learning spaces, Yale should develop, fund, and implement an ongoing operational classroom review process to assess and then correct any problematic conditions and needs within all current Yale learning spaces. After initial analysis of all classrooms to prioritize projects, there should be follow-up reviews and prioritized improvements of one-third of the spaces annually on a three-year rotational cycle.²
- 5. To create the best possible new and renovated learning spaces, the Classroom Design Review Committee³ should continue to work with architects and project managers early in the classroom design and building phases.

- 6. New and renovated classrooms should be designed to suit the needs of all departments and schools who will potentially use them, not just to meet the needs of the school or department(s) that has been identified to occupy the building. The Classroom Design Review Committee can continue to serve as an institutional voice.
- 7. Yale should move toward more centrally managed, scheduled, and supported teaching spaces.⁵ We should develop clear policies regarding three categories of control and their related levels of support: central, joint, and departmental/school.
- 8. To maximize use, a centralized scheduling system, including learning space attributes and contact information for assistance with reservations and media support, should be accessible and used by all.
- 9. Finally, the Classroom Planning Group will evaluate available data in order to recommend what new spaces are most urgently needed. For example, a likely recommendation might be the addition of one or more lecture halls in the Hillhouse area.

Classroom Planning Group members (appointed by the FAS Classroom Committee) for 2007–2008 include Elizabeth J. Anderson, Jill Carlton, Mark Francis, Judith Hackman, Edward Kairiss, Peggy McCready, John Meeske, Charles Powell, Diane Rodrigues, William Segraves, Evelyn Streater-Frizzle.

^{2.} The CDRC is developing a set of review criteria based on "Guidelines for Yale Learning Spaces" for implementation by an annual review team.

^{3.} CDRC members (appointed by Dean Peter Salovey) for 2007–2008 include the following faculty and staff. Faculty: Kathryn Alexander (Music), Hannah Brueckner (Sociology), Keith Darden (Political Science), Jeff Kenney (Astronomy), John MacKay (Slavic Studies and Film Studies), Kurt Zilm (Chemistry); Staff: Elizabeth J. Anderson, George Aylward, Jeffrey Carlson, Mark Francis, Bradley Gano, Edward Kairiss, Peggy McCready, Joyce McJunkin, John Meeske, Joseph Paolillo, Charles Powell, Diane Rodrigues, William Segraves, Evelyn Streater-Frizzle.

^{4.} Traditionally, the University has fostered independence in the planning and management of school and/or department learning spaces. While this independence has accommodated specific local needs, it has also resulted in support and management challenges and a lack of long-term planning for the right quantities and types of learning spaces.

^{5.} At Yale, equipment acquisition, facilities maintenance, and classroom scheduling are primarily decentralized; responsibility is diffused; and efficiency is low. Schools and departments have frequently been left to make independent decisions about equipment, furnishings, and software; they tend to select either the least expensive solution due to budget constraints, or expensive, unique, and often unsupportable solutions due to lack of knowledge or over-reliance on vendors and outside consultants. This reduces the University's ability to leverage purchasing contracts and also creates additional support challenges. This decentralized approach to managing classrooms is especially troubling given the increasing interdependence among schools, departments, and programs that are engaging in joint academic programs. Faculty, students, and administrative staff often have difficulty identifying whom to contact for assistance with technology, for reserving classrooms for events or discussion sections, and the like. We believe that movement toward more central and shared classroom management and away from school/departmental classroom management should help address these concerns. See, for example, the University of Minnesota classroom Web site at: http://www.classroom.umn.edu/.

Attachment F

RESIDENTIAL EDUCATION AT YALE: A NARRATIVE TIME LINE

- Yale is founded as the "Collegiate School." The first students live in the homes of their instructors, often in multiple sites, along the Connecticut coastline and in the greater Hartford area. Over the next decade, as students migrate from instructor to instructor, rival factions in different regions of the state begin to compete for the permanent location of the college. Without a building or an established location, the college's survival remains precarious.
- 1716 After town leaders in New Haven raise enough funds to begin erecting a wooden dormitory and classroom building for the college, the trustees decide to locate the college in New Haven. With the support of a wealthy Welsh merchant, Elihu Yale, construction is completed in 1718. The all-purpose building, called "Yale College House" in honor of the benefactor, includes student bedrooms, classrooms, a library, a dining hall (which doubled as a chapel), and chambers for resident tutors. The building effectively secures the college's permanent location in New Haven.
- 1750 Construction begins on Connecticut Hall, a more sturdy, brick version of the college's first building; it will serve as a model for future construction.
- 1763 With the construction of the College Chapel on the south side of Connecticut Hall, housing a new chapel on the ground floor and a new library on the second floor, religious and academic spaces are for the first time separated from residential ones.
- John Trumbull, the famous Revolutionary-era artist, and James Hillhouse, Yale's treasurer and a New Haven city planner, develop the "Brick Row" campus plan, making Yale the first planned college campus in America. From 1793 to 1835, a series of multiuse brick buildings Union Hall (South College), Lyceum, Berkeley Hall (North Middle College), Second Chapel, North College, and Divinity College is erected beside and in line with Connecticut Hall (South Middle College) and the original Chapel (reconfigured as an academic building).

As Yale enrollments rapidly expand during the second half of the nineteenth century, several new dormitories (Farnam, Durfee, Lawrance, Welch, and Vanderbilt Halls) are constructed along the perimeter of Elm, College, and Chapel Streets, marking the beginning of a new quadrangle plan. Another quadrangle, later known as the Berkeley Oval, is begun at the northeast corner of High and Elm Streets. Meanwhile, all the buildings of the Old Brick Row, except Connecticut Hall, are razed. The linear axis of Yale's campus slowly yields to a series of quadrangles and courtyards.

In Yale's bicentennial year, a series of buildings, later known as Hewitt Quadrangle, is completed two blocks north of Yale's Old Campus. The quadrangle is anchored by a massive new dining hall (University Commons) and a cavernous assembly hall (Woolsey Hall) to accommodate Yale's recent growth in enrollment, as well as a new central administrative building (Woodbridge Hall) for Yale's growing organizational complexity.

1917 Construction on the Harkness Memorial Quadrangle begins at the southwest corner of High and Elm Streets to provide additional residences for upperclassmen and to reduce the number of students who live off campus. Designed by James Gamble Rogers in collegiate gothic style – evocative of the colleges at Oxford and Cambridge – the quadrangle is completed four years later.

Yale begins, for the first time, to set strict annual limits on freshman enrollment in response to large increases in applications for admission and ongoing problems with overcrowding.

President James Rowland Angell proposes a new campus plan based on a residential college system. Continuing the architectural vision and style of the Harkness Quadrangle, Angell's proposal is a hybrid of the quadrangle plan that Yale had been following in recent years and the traditional college system at Oxford and Cambridge. Beyond providing dormitory space, each college would also include common dining and recreational facilities for students, as well as residences for a handful of faculty. Angell argues that this system would allow Yale to recover its original commitment to "collegiate" education whereby a society (*collegium*) of scholars would share a common life and common goals. An important feature of the plan to Angell is its scalability: as enrollment grew, new colleges with virtually the same facilities and amenities could be added to accommodate increased enrollment.

^{1.} Between 1850 and 1875, the total campus enrollment nearly doubled (from 555 to 1,081), then more than tripled (to 3,806) by 1905. The size of the faculty also grew, from 20 in 1850 to more than 60 by 1905. George Pierson, *A Yale Book of Numbers: Historical Statistics of the College and University,* 1701–1976 (New Haven: Yale University, 1983).

Angell and Samuel Fisher, a member of the Yale Corporation, find financial support for the plan from Edward S. Harkness, whose mother had funded the Memorial Quadrangle. Harkness had been concerned about Yale's social stratification when he was a student, and he was persuaded that the college system would provide a better alternative to the boarding houses, fraternities, and senior societies that had proliferated around campus.² Harkness promises to fund the system but insists on confidentiality and anonymity.

Angell seeks to work out the details of the college plan and build consensus on the faculty for the idea, but secrecy about the gift and the lack of clarity about the academic implications of the plan lead to delays. Meanwhile, Harkness grows restless and offers a comparable gift to Harvard instead. News of the gift to Harvard prompts a quick response from Yale's leaders and assurances about Yale's commitment to the plan. Harkness agrees to repeat his offer to Yale.

Nine residential colleges are completed. Two colleges (Branford and Saybrook) are created within the Harkness Quadrangle. One college (Jonathan Edwards) is built by annexing preexisting buildings (Weir, Wheelock, and Dickinson Halls) and adding two new wings. Another college (Trumbull) is incorporated into the plans of the new Sterling Memorial Library, using funding still available from the Sterling bequest. Five colleges (Davenport, Pierson, Calhoun, Berkeley, and Timothy Dwight) are created by new construction.

1940 A tenth college (Silliman) is created out of buildings from the Sheffield Scientific School (Byers Hall and the Vanderbilt-Sheffield dormitories) and new construction.

1941–1950 World War II transforms the campus, and overcrowding returns. During the war, many of the colleges are converted into informal barracks packed with servicemen; after the war, they are overstuffed with veterans. The occupancy of many rooms is doubled to accommodate the huge influx, and even after enrollments level off, the residential population of the colleges is fifty percent more than what they were intended to house.

As the colleges approach their twenty-fifth anniversary, President A. Whitney Griswold leads a series of conversations about the current state and future of the colleges, which he synthesizes in a report, "A Proposal for Strengthening the Residential College System in Yale University." Griswold argues that the college system, despite its successes, is not completely fulfilling the expectations the initial visionaries had outlined, largely because of overcrowding and lingering ambiguities about the mission of the colleges. Griswold identifies two particularly urgent needs: relieving overcapacity

^{2.} George Pierson, *Yale: The University College*, 1921–1937 (New Haven: Yale University Press, 1955), 215.

in the colleges and strengthening all of their "essential educational features." Among the chief recommendations of the report is the construction of two new colleges.

1960 Construction of two new residential colleges (Ezra Stiles and Morse) is begun with generous funding from John Hay Whitney and Paul Mellon's Old Dominion Foundation. The new colleges are warmly received by the Yale community. Students from the other ten colleges are permitted to transfer to the new colleges and are admitted by lottery. The new colleges are added without expanding enrollment and effectively ease overcrowding.

Ooob, to reconsider the relationship between the Freshman Year, chaired by Professor Leonard Doob, to reconsider the relationship between the Freshman Year—a separate academic unit of the College—and the residential colleges. The committee's wide-ranging report appears a year later and calls for several radical changes: adopt a need-blind admissions policy; assign students to residential colleges before the freshman year, thereby creating four-year residential colleges; decentralize academic advising to the residential colleges, thereby creating the residential college dean positions; and admit women into Yale College as soon as feasible. Over the course of the next decade, all of these recommendations are approved and enacted, with significant implications for the residential colleges.

Yale College enrolls 580 women (230 freshmen and 350 transfer students), marking the beginning of undergraduate coeducation at Yale. Despite the addition of women, Yale President Kingman Brewster assures alumni that Yale remains committed to producing the current number of "1,000 male leaders" every year. The admission of women therefore increases total enrollment rather than replaces some of the male students admitted. To create more room on the Old Campus for freshmen and to allow a separate dormitory for women, freshmen assigned to Silliman and Timothy Dwight Colleges begin to live in their residential colleges.

1970 To combat overcrowding, President Brewster indicates the need to "start to plan for the expansion of housing facilities for undergraduate students and for graduate and professional students." John Hay Whitney donates \$15 million for this purpose.

A site at the corner of Whitney and Grove Streets is identified as a possible location for two colleges, and architectural designs are developed. Several influential New Haven politicians and city leaders resist the plan, citing concerns about property tax liability. After many hearings and attempted negotiations with the Board of Aldermen and the City Planning Commission, city and university leaders cannot reach an agreement, and Yale abandons plans to expand.

- President A. Bartlett Giamatti appoints a Committee on the Future of the Residential Colleges, chaired by Professor Donald Kagan. The committee's report appears one year later. Among its recommendations: increasing the resources of the colleges, especially those with comparatively small endowments; providing more administrative assistance to the college masters; expanding educational programs in the colleges; renovating outdated facilities; and considering construction of a new residential college and student activities center "without an increase in enrollment."
- The number of students living off campus increases significantly, from roughly 500 students in previous decades to over 900. Among the reasons students cite for moving off campus are the poor living conditions in the colleges: the large number of double bedrooms; the cost, convenience, and quality of dining hall food; and the aging college facilities.
 - 1996 Concerned about the increasing number of students who move off campus after freshman year and therefore develop little connection to their residential college, the University requires all sophomores, in addition to all freshmen, to live in University housing. Although this decision is widely supported, it increases the proportion of juniors who are forced into annexed housing.
 - 1999 Comprehensive, fifteen-month renovations of each of the twelve residential colleges begin.
 - 2007 President Richard Levin appoints two committees to investigate the potential impact of expanding enrollment in Yale College and constructing two new residential colleges.

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