GENERAL EDUCATION IN THE 21ST CENTURY

A REPORT OF THE UNIVERSITY OF CALIFORNIA
COMMISSION ON GENERAL EDUCATION IN THE 21ST CENTURY



















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April 2007

Center for Studies in Higher Education University of California, Berkeley

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This report was made possible by funding from Carnegie Corporation of New York and the William and Flora Hewlett Foundation.
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PREFACE

he seeds of this report date from the years 1996-1999, the active years of the Penn Commission on Society, Culture and Community, which was convened by Judith Rodin, then-President of the University of Pennsylvania, and supported by the Atlantic Philanthropies. This Commission concerned itself with a wide range of cultural, moral, and political issues connected to the quality of public discourse and political culture in our democracy. The results of its work were published in 2003, in a volume entitled *Discourse in America: Conversation and Community in the Twenty-First Century*.

We, Michael Schudson and Neil Smelser, were both members of the Penn Commission and contributors to its summary volume. We had known one another professionally before we were invited to join the Commission, but we grew close during its work, discussing between ourselves issues that arose, and developing our own views about the Commission and its work. We discovered how similar our thoughts were on many issues of the day.

In 2002, we began an email exchange, raising concerns about the state of general education in the United States and discussing how we might in some way join forces to contribute to and possibly influence the dialogue on that perennial topic. Over the next months we refined our ideas and came to focus on a collective project that would look at general education at the University of California (UC), where we had both made our careers. Our hope was to create a commission—which later came to be known as the Commission on General Education in the 21st Century—that would focus on the UC system, but would also raise questions and develop diagnoses and recommendations that might apply more generally.

We subsequently brought these ideas to the Office of the President of the University of California, to the Systemwide Academic Senate, and to the Center for Studies in Higher Education (CSHE) on the Berkeley campus. The Office of the President and the Academic Senate received our ideas very warmly and gave official expressions of support. CSHE expressed a willingness to house the hypothetical project. In fact, we received every imaginable form of support—except financing—from the University of California. The Office of the President provided funds for a small feasibility meeting, but a budget to support the work of a major commission could not be guaranteed. The feasibility group met on April 21, 2003, explored issues and prospects in-depth and, in the end, voted its strong support for the envisioned commission.

Buoyed by all of the institutional support and not overly discouraged by lack of resources, we turned to philanthropic foundations to seek the major funding. In the end, we received grants from Carnegie Corporation of New York and The William and Flora Hewlett Foundation of Palo Alto. We give special thanks to Dan Fallon of the Carnegie Corporation and Mike Smith of the Hewlett Foundation for their personal interest and support. We are grateful for this generous private support which, among other things, allowed the Commission an important degree of autonomy. We repeatedly sought advice from the Office of the President, officers of individual campuses, and officials of the Academic Senate, but nothing about their advice was mandatory, since we were assured support from other sources. We have thus proceeded independently throughout the entire course of our work.

With institutional support and financial resources in hand, we turned to the formidable task of constituting the Commission. This called for extensive consultation with university-wide officials, campus administrators and faculty members, and officers of the Academic Senate. We included at least one representative from every UC campus, and added several representatives from non-UC private institutions. We strove for disciplinary diversity as well as a mix of administrative and faculty personnel. We were gratified that almost all of the individuals initially invited to join the Commission on General Education in the 21st Century agreed to serve and we regard this as a measure of commitment to the general education process on the University of California campuses. The members of the Commission are listed on page v.

Our plans for the Commission's work included five collective meetings, held between 2004 and 2006. We were impressed with the intellectual vitality of each of these meetings. In the intervals between meetings, Diane Harley, Senior Researcher at the Center for Studies in Higher Education and a member of the Commission, coordinated research, dealt assignments to individual Commission members, directed the work and activities of a series of research assistants hired to work on behalf of the Commission, provided editorial oversight, and advised on the section covering new technologies. In the later phases of the Commission's work, we drafted materials to reflect the discussions and points of consensus generated in the meetings.

As co-chairs, we would like to extend our thanks to the Commission members for their time, work, and insights, as well as to the university administrators and faculty members who offered strong and continuous support for the project. Chief among the latter were Julius Zelmanowitz of the UC Office of the President; Gayle Binion of the Academic Assembly; Karl Pister, Director of the Center for Studies of Higher Education (CSHE) from 2002-2004; and C. Judson King, Director of CSHE from 2004-present and Provost and Senior Vice President Emeritus, Academic Affairs, UC Office of the President. We are grateful also to Carol Schneider, president of the American Association of Colleges and Universities, who shared her insights with Commission members at one of our meetings. We record our warmest thanks to Diane Harley, whose work was invaluable,

to several research and editorial assistants, including Deborah Apsel, Meghana Acharya, Cam Rutter, and Jonathan Henke, and to the administrative staff at CSHE and UC San Diego. Our special thanks to Shannon Lawrence for managing the final editorial process.

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EXECUTIVE SUMMARY AND RECOMMENDATIONS

iagnosis and understanding are prerequisites to sound recommendation. With this in mind, this report analyzes the historical, institutional, and cultural contexts of general education in the United States. We focus mainly (but not exclusively) on large public universities, with special reference to the California higher education system. We provide an overview of the history of U.S. higher education, with special attention to the emergence of major research institutions and the dominance in them of discipline-based departments.

Reform of general education must recognize the dominant academic culture in major research institutions, which gives precedence to recognition for published research and other creative activity. This culture exercises a decisive influence on the incentives and motivations of professional academics. Institutional, organizational, budgetary, and cultural contexts that we identify constrain the vigorous development of courses and programs in general education. At the same time, only if we understand these features of higher education can we realistically identify opportunities for improving general education in its university context.

The first line of improvement the Commission envisions is administrative. Our starting-point is the recent creation of positions of chief undergraduate education officer² on the University of California campuses in the past dozen years. The Commission regards this as a very important and positive step toward improving campuses' general education programs, although we have found a number of anomalies and weaknesses that characterize these positions. Correspondingly, we recommend bringing these positions more centrally into the administrative core of the university, giving high priority to their innovative potential and providing the incumbents with a renewable pool of funds to dedicate to innovation and experimentation.

With respect to curricular innovation in general education, the Commission readily acknowledges the obstacles to innovation that reside in the structure and culture of the contemporary university, and in the orientations of most faculty, students, and administrators. As one alternative to the dominant structure of general education—a sprawl of cafeteria-style breadth requirements—we recommend the creation of structured interdisciplinary bundles of courses on timely intellectual and applied issues, made available to students as discrete, named sets and identified as such on students' transcripts.

We also recommend extension of and improvements in freshman-sophomore seminars, capstone courses, problem-oriented courses offered by departments, and undergraduate involvement in research.

The Commission highlights especially the need for renewed attention to civic education as part of general education. We identify the new dimensions and problems of civic education in our rapidly changing world and the necessary components of good civic education in a democracy. In light of this, we advocate that campuses intensify the "civic experience" of students in their collegiate years, specifically in the form of student activities that combine civic engagement with research and reflective analysis.

The Commission considers next the difficulty for universities in governing general education requirements that students take outside the university from which they will graduate. This includes two large and increasingly important phenomena: the taking of "advanced placement" (AP) courses in high school and the transfer of AP credits, and the process of transferring to the university after some experience in community college or state-university settings. We recommend two strategies: first, that universities continue and extend working cooperatively with high schools and "feeder" colleges to coordinate general education expectations and offerings, and, second, that they extend and improve their general education offerings at the upper-division level.

The Commission sees implications for general education in the spread of new technologies in higher education. They can help improve educational quality, reduce costs, and widen access. At the same time, they are no panacea, and we identify a number of limits and excesses that uncritical application of new technologies can generate.

Improving general education requires not only initiating structural changes but sustaining a campus culture that supports general education. There is a need to publicize general education's value and, where possible, to reward the constituents and individuals involved in it. With this in mind, the Commission addresses methods for informing, supporting, and encouraging faculty, graduate students, and temporary faculty, as well as advising staff, undergraduates, parents, chancellors and presidents, and alumni.

Finally, while acknowledging the difficulties of effective educational evaluation, we recommend that campuses build in systematic machinery to evaluate general education courses and programs in their various phases of development and execution.

The following recommendations are directed to the University of California campuses in particular, but have implications for public and private universities nationwide:

- 1. Campuses should systematize their commitment to general education by re-casting and extending the role of chief undergraduate education officers. In particular, these positions should (a) be assured a conspicuous place, voice, and role in the central administration of campuses; (b) be given ample discretionary, renewable annual budgets and other resources to promote courses and programs in general education; and (c) be protected, where appropriate, from routine administrative chores, in order to enhance opportunities for initiative and innovation. (See Section 4: Integrating General Education into the Fabric of the University.)
- 2. Campuses should give high priority to ensuring appropriate incentive structures that enable faculty to participate in general education enterprises, thus easing a principal impediment to faculty involvement in general education. (See Section 4: Integrating General Education into the Fabric of the University.)
- 3. As one alternative to the "cafeteria approach" to general education—when students choose a set of courses from an unwieldy list of general education courses—campuses should develop a discrete number of thematic, interdisciplinary bundles or sequences of courses around substantive and timely topics. These packages could be considered a substitute for discipline-based minors and could receive full academic recognition, so indicated on students' transcripts. Students could select any given thematic package voluntarily, but once selected, all of its constituent parts would be required. (See Section 5: Curricular Innovation.)
- 4. Campuses should give the highest priority to advancing the civic education and engagement of their undergraduates. In particular, they should expand and consolidate courses and programs that combine (a) students' volunteer, service, or political work; (b) instruction in the academic significance and importance of that work; and (c) individual or group-based student research related to their community involvement. (See Section 6: Thinking through the Civic Dimension.)
- 5. The University of California and its campuses should evaluate the implications of advanced placement credit and the academic work of transfer students for the general education of its students. They should cooperate fully and equally with high schools, community colleges, and state universities, in order to safeguard the integrity and maximize the quality and effectiveness of the general education of students who spend only part of their educational careers at the University. (See Section 7: Transfer of Credits and Transfer Students.)

- 6. Administrators and faculty should pursue applications of new information and communication technologies to enhance teaching and learning, and potentially lower costs and increase access to their institutions. At the same time, administrators should assure that educational quality is not inadvertently sacrificed in the process. (See Section 8: New Technologies and General Education.)
- 7. Campus administrators and faculty should actively and continuously strive to educate all of their constituencies on the value, rationale, and goals of general education, and make clear the opportunities for its pursuit on their campuses. Academic Affairs, as well as Student Affairs, should engage in efforts to integrate transfer students into the university, with specific course work designed for transfer students (including one-unit courses modeled on freshman seminars). (See Section 9: Encouraging a Culture that Supports General Education.)
- 8. To assure the quality of general education, campuses should (a) establish machinery in their Academic Senate divisions dedicated to initiating, monitoring, and reviewing general education courses, programs, and experiments; and (b) require designers and teachers in general education to provide statements of the goals of their efforts, to specify means of implementing these goals, and subject their work to periodic internal and external evaluation. (See Section 10: Evaluating General Education Courses and Programs.)

PROLOGUE

riting in 1867, John Stuart Mill noted that education was "one of the most inexhaustible of topics." Several years later, he described his age as one in which "education, and its improvement, are the subject of more, if not profounder, study than at any former period of English history." Mill was referring to the never-ending debates about British working-class education—shrouded in issues of religion and class as well as public concerns about the performance of middle class schools and the role of the historic public schools in the cultivation of the nation's elite. In the first three-quarters of the century, these issues had consumed more pages in the reports of Parliamentary debates than any other subject save the Irish Question.

The history of American education is similarly wordy. Educators, politicians, and the general public have all placed heavy demands on public education. Why should this be? Through its history, American education has been asked to instill the values of republican virtue in the young people of a young nation, to assure literacy, to aid in the formation of a competent and civil working class as the country industrialized, to Americanize immigrants, to foster upward social mobility, and to contribute to great war efforts. In recent decades, education has been both blessed and burdened with new expectations: to provide the United States with tools to catch up with and surpass the Soviet Union in space, to generate the skills needed for an economy with a burgeoning service sector, to carry much of the weight of affirmative action, and to assure international economic competitiveness. In effect, the institution has been asked to provide the answers for a host of social problems that it alone cannot realistically solve.

This fact alone would be sufficient to breed disappointment and repeated episodes of wordy recrimination. If we add—particularly at the primary and secondary levels—that education and teachers have never been accorded the resources or prestige that such great demands would seem to justify, the stage is fully set for a history of public ambivalence toward the educational system in the United States.

We might extend this discouraging logic to the topic of general education in the nation's universities and colleges. Later we will note the multiple definitions—along with the correspondingly multiple demands—that have been assigned this function. We note also the pulsating—but, on the whole, increasing—condemnations of universities and colleges for failing in their general education missions. We have seen countless analyses, reports, and articles in academic journals that, in almost ritual repetition: (a) bemoan the failures and identify the "crisis" of general education, (b) sing its praises in general terms, and (c) call for its revitalization along one set of lines or another. We also witness a historical parade of reform efforts, most of which are short-lived, and none of which, either individually or cumulatively, have managed to stem the torrents of public criticism.

Given this apparent compulsion for repetition, we might legitimately ask: Why add yet another report at this time? How worthwhile is it to add another episode to the cycle of diagnosis-innovation-routinization, followed by renewed impatience? We address this question in the next section.

1 JUSTIFICATION

he Commission believes that there is not only justification but also urgency in providing the best diagnoses and recommendations about general education. We justify this belief as we respond to three questions: Why now? Why concentrate on public institutions? Why give special salience to California's system?

Why Now?

The beginning of the 21st century poses a qualitatively new challenge for general education and merits a fundamental and searching inquiry. This challenge is a complex one, resulting from many developments affecting higher education, including trends in the structure of American higher education itself, developments in the external environment of higher education, changes in the nature of citizen participation, new information and communication technologies, and increased difficulty in creating interdisciplinary offerings. We mention these five general developments directly below, and will enlarge on some of them in subsequent sections.

- 1. Trends in the organization and culture of American educational institutions. These trends are partly independent but partly connected with one another, and have changed the face of undergraduate education, including general education:
 - i) Long-term consolidation of the "culture of research" in academia, not only in major research institutions but also, to a lesser extent, in non-doctoral state institutions and liberal arts colleges.
 - ii) Fifty years of heavy involvement by the federal government in sponsoring and supporting large-scale research in universities, focusing mainly on the natural and life sciences.
 - iii) Developments that have led to increasing vocationalism of undergraduate education. This is reflected in the rise of education in engineering, business, and other technical and professional fields, and the related shrinking of the percentage of "liberal arts" faculty at many universities. After 1970, students enrolled in traditional arts and sciences programs at four-year institutions became out-numbered by students in engineering, business, computer science, communication, and other pre-professional fields. Today, universities and colleges also compete with corporations that do in-house training and with commercial educational ventures that undertake to develop occupational skills. There is an important counter-current: some accreditation

organizations, notably in engineering, have grown insistent that professional schools require more, not less, general education. This is a rhetorical resource for advocates of general education that has not yet received the attention it deserves.

- iv) A subtle but profound change in curricular emphasis, with an eroded consensus on (and discomfort with) setting priorities for what constitutes necessary general knowledge for undergraduates. One facet of this change is the continued dominance of the "cafeteria-ization" of course selection. Another facet of this change is reflected in the cultural controversies over curricula of the 1980s, which generated dissatisfaction with long-standing priorities for general education and disputes as to what should be regarded as the country's shared heritage.
- 2. Exceptional changes in the environment of higher education. Several significant social changes have altered the environment for curriculum in higher education. These include notably:
 - i) The continuing diversification of students along the lines of age, gender, social class, ethnicity, race, religion, and culture.
 - ii) The continuing interdependence of the world—including globalization—with an increased international flow of ideas, goods, capital, and people. This includes positive exchanges that lead to collaboration and innovation, as well as negative ones, such as the proliferation of disease.
 - iii) The uncertain future of the nation-state and political democracy around the world.
 - iv) Changing forms of warfare, with the threat of international terrorism extending indefinitely into the future.
 - v) Changing and increasing demands for accountability from legislatures and accrediting organizations, with a growing emphasis on measurable educational outcomes.

Taken together, these forces pose serious questions for colleges and universities. How should an educated person confront the radically altered circumstances of the 21st century? What are the obligations of these institutions of higher education to prepare educated citizens through general education?

3. Changes in the nature of citizenship and citizen participation. In recent decades, this country has seen a decline in deference to traditional cultural authorities or, to put this more positively, an increase in critical thought and inquiry. This stems in part from the rapid expansion of higher education itself and the reflective habits of mind that it is meant to inspire. It derives also from the civil rights movement and the many other movements it inspired for advocating a more inclusive, pluralistic, democratic society. A growing recognition that "the personal is political" has stretched conventional notions of what "the political" is and where and how civic engagement can be practiced. A shift of many political issues from local to global reference has

also challenged a traditional understanding of citizenship as primarily a matter of participation in local and national elections. If general education is regarded as a preparation for civic engagement, that engagement now makes new and different demands on those institutions that prepare the young.

- 4. Changes in the delivery of education via new information and communication technologies. These changes offer both new opportunities for teaching and learning, efficiency, and access to information, as well as challenges and limitations for instruction in colleges and universities.
- 5. Consolidation of some structural and organizational impediments to interdisciplinary education and programs of general education. These include the organizational dominance of discipline-based departments, decentralization of curricular responsibility, budgetary traditions, and the structure neentives.

The cumulative weight of these developments offers a compelling answer to the question of "Why now?" and calls out for a fundamental assessment of collegiate general education.

Why Focus on Public Institutions?

The question "Why public institutions?" denotes the focus of our report, but the word "public" is unavoidably imprecise and demands clarification. We focus on the public sector for the reasons outlined below, but we believe that our diagnoses and recommendations apply more widely.

The main types of institutions we have in mind fall into two categories:

- The discrete number of public universities that have grown in size, selectivity, commitment to excellence in research and graduate training, and salience of professional schools—as well as some public universities that are striving to grow in such a fashion.
- Some large, selective private universities that have also developed those characteristics, and other private institutions—including some liberal arts colleges—that strive to develop research and creative activity by their faculties.

Despite this public/private convergence, commitment to liberal education in the United States remains more vital and evident in private universities. Over time, most of the noted general education initiatives have been implemented in private institutions, including the Harvard elective system as well as its Red Book general education innovations, the core curriculum at the University of Chicago developed in the 1930s and 1940s, and the "contemporary civilization" program at Columbia, which began in 1919.

The relative strength of liberal education at private universities can also be partially attributed to differing financial situations faced by public and private institutions. Both private and public institutions have had their financial ups and downs but, in general,

the privates have been able to maintain more favorable student-faculty ratios than large public institutions. In addition, because public universities rely on state financing, sustained and resource-rich programs of general education have proved more vulnerable to vicissitudes in state budgets.

In the second half of the twentieth century, most public institutions and many large, research-oriented privates were transformed by the burgeoning of graduate programs and externally funded research. This has overshadowed the commitment to undergraduate education at both public and private universities. Four-year liberal arts colleges retain a general education emphasis in its purest form, and state colleges and universities (a historical outgrowth of the normal schools) still regard themselves primarily as teaching institutions; however, the values of scientific and scholarly productivity and the competition for academic prestige (via research) have filtered into both. Emphasis on undergraduate education over the last fifty years has diminished most at large private and public institutions.

By virtue of their involvement in mass education, public institutions are characterized by a larger proportion of students who are not residential, by a larger proportion of students who transfer from community colleges and four-year colleges, and by higher rates of drop-out and stop-out, and lower graduation rates than private institutions. Sequential general education programs that assume the regular freshman-through-senior experience are, accordingly, less viable in the publics than in the privates.

On all counts—historical commitment, "massification" of education, level of wealth, financial vicissitudes, distraction by competing missions, and continuity of undergraduate experience—general education programs have faced, and do face, much greater obstacles in the publics than in the privates, and their institutional health is correspondingly more fragile.

Why California?

Within this scope of identified institutions, we give greater emphasis to the University of California system. California has institutionalized the largest, richest, and arguably the most successful system of public higher education in the United States. Its institutional arrangements among the community colleges, California State Universities, and the University of California, embodied in the Master Plan of 1960, have served as a model to be consulted, if not fully emulated, by other state and national educational systems. As a system, the University of California has been remarkable for its level of individual campus experimentation in general education programs, as documented in appendix A of this report. For these reasons, a systematic and thorough assessment of California's unique situation offers particular salience and influence.

For better or for worse, California represents a dramatic case, one in which the forces affecting higher education—including general education programs—are likely to be extreme in the coming decades. We refer to the crisis occasioned by the explosive increase in college-age students, and the state's capacity to accommodate these numbers within the context of the Master Plan. We refer also to California's budgetary ups and downs occasioned by trends in the state's economy, fluctuations that are likely to continue. Finally, we refer to the fact that California is among the leading states in the presence and growth of ethnic and racial minorities, and in the resultant political complexities occasioned for higher education.

In sum, California's higher education system presents great potential for innovation and leadership in educational programs. The system lends itself well to systematic assessment of its educational missions and will have relevance for the issues faced by systems of higher education nationwide.

2 CLEARING THE UNDERBRUSH: SOME DEFINITIONAL AND HISTORICAL REFLECTIONS

he terms "general education" and "liberal education" evoke a family of meanings rather than a single universal one. For purposes of this report, the two terms will be used more or less interchangeably, although we will use "liberal education" to refer to a historic ideal to which a whole collegiate education should aspire. "General education" will refer to a specific set of programs in American education intended to offer a counter-balance to what is provided by a disciplinary "major." In this sense, "liberal education" refers to an educational ideal with roots in a training in classical languages and a gentlemanly education offered in European and American universities for centuries, while "general education" refers specifically to aspirations institutionalized in 20th century American universities to preserve elements of a liberal education in the face of the decline of a common collegiate curriculum.

In the context of the contemporary American university, the idea of general education represents a variety of overlapping emphases. It may refer to the importance of a set of common texts or common experiences in a world of increasingly splintered, multiple, and individualized educational offerings. Sometimes it emphasizes "basic" education—a number and variety of courses that comprise a minimum field of knowledge necessary for advanced work in many academic disciplines, as well as more general areas such as fundamentals of writing, critical thinking, mathematics, and courses related to civic responsibility. At other times, general education emphasizes breadth and diversity as opposed to the specialization for a disciplinary major. In this regard, general education may be specifically intended to introduce students to ways of thinking in a variety of disciplines. In addition, general education is often conflated with interdisciplinary education, particularly when a college or university has an administrative structure that offers some autonomy to a set of courses not offered by any individual department, but designed explicitly to cross disciplinary borders. General education may also refer to the knowledge and thinking required for civic and social responsibility.

Finally, proponents of general education avow that their aims cannot be attained by any particular content of courses taken, but only by habits of mind that students acquire regardless of course content. In a content-centered model of general education, it may be more important to read Shakespeare than science fiction for a host of reasons. In addition to becoming acquainted with one of the giants of the Western literary canon, understanding Shakespeare requires knowledge of historical context and an appreciation

of how aesthetic standards change or remain the same over time. Moreover, even an introductory acquaintance with the classics puts the student in touch with a culture shared broadly by educated members of society, thus bringing the student into that circle.

In a habits-of-mind general education model, however, there is limited value in knowing enough Shakespeare to recognize that Bugs Bunny is referring to Hamlet when he says, "To be or not to be, that is the question." In this model, it is much more important for a student to acquire in literary studies—whether studying Shakespeare or J.K. Rowling—an ability to read critically, to read between the lines, to recognize how rhetoric and argument are deployed, and to appreciate but also to resist the power of narrative or a tale well-told. What faculty hope to instill is the ability to generalize from one course or topic to the next, to write fluently and critically, to master a body of material, and to take a step beyond. They also hope to teach students to communicate logically about a common body of evidence and common rules of inference orally and in writing, and to link scientific or humanistic materials that seem remote from one another and from contemporary civic and social issues. [2]

Faced with such a variety of meanings, do we have to settle on one? A negative definition is not difficult: "general education" is the catch-all phrase that educators in higher education use to refer to those educational aspirations of their institutions that are not claimed by departments and disciplines. An encompassing positive definition may be more tentatively ventured: general education is the vehicle in higher education specifically focused on introducing students to ways of knowing, integrative knowledge, appreciation of historical context and common themes of human experience, social responsibility, civic (global and local) engagement, and the development of practical skills and reflective habits of mind.

The aspirations of higher education are by no means confined to education transmitted by faculty in classroom settings. For a century (and with growing sophistication and professionalization since World War II), college education, particularly in, but not restricted to, residential colleges, has been directed by both academic faculty and by student affairs personnel. These leaders coach sports teams; advise fraternities, sororities, and a plethora of student organizations; organize and supervise—whether for academic credit or not—off-campus internships; attend to students' religious, spiritual, and psychological needs; maintain residence halls as educational centers in themselves; and work with students on, or plan for students, a wide variety of non-credit educational activities whether lectures, mountain climbing trips, or film festivals. Finally, we cannot forget the educational significance of informal interaction among students themselves outside formal academic settings. Thus, while the particular concern of this report is on the classroom side of general education, we acknowledge that liberal education expresses an ideal about educating the whole person, and universities do not entrust that responsibility exclusively to their academic faculty.

Historian Sheldon Rothblatt has suggested that the greatest significance about the history of "the idea of a university" is that there has been such a long search for a single pure and enduring purpose for higher education. As Rothblatt observes, however, colleges and universities over time have served a multiplicity of purposes, "contradictory, confusing and ambiguous." Robert Hutchins described the university as a set of schools and departments held together by a central heating system and Clark Kerr considered it "a series of individual faculty entrepreneurs held together by a common grievance over parking." It should be clear that, like the idea of the university itself, the definitions and goals of general education are often ambiguous and difficult to pin down.

History

As indicated, many current educational scholars lament what they see as the collapse of collegiate general education for private and public institutions alike. The Commission subscribes neither to this extreme diagnosis nor to its opposite—that we have no cause for concern. Throughout this report we will attempt to identify both the strengths and vulnerabilities of general education as it exists in the 21st century.

Although contemporary images and ideals of what colleges should be are derived from practices going back hundreds of years, the specific concern with general education programs dates only to the late 19th century. Before that time, in the American tradition, colleges were designed to cultivate an elite class, both for those reared in wealthy families and for those from various ranks in society who would take on leadership roles in the clergy and other professions. Early colleges, going back to Harvard in 1636, were hierarchical, undemocratic, and faithful to a concept of the unity of knowledge under principles of Christian morality. This view of the character of knowledge did not change radically until the end of the 19th century. Vocational training, apart from preparation for the clergy, did not play an important role. Engineering, law, and medicine were taught through apprenticeship rather than classroom instruction. Where there was classroom instruction, it was frequently in independent, proprietary schools unaffiliated with non-profit colleges.

Early American colleges rarely lived up to their "liberal" billing or provided an "education to deepen and refine the capacity for significance response," in Raymond Williams' definition of liberal education. 10 Richard Hofstadter's portrait of the "old college" is probably on the mark: it was sectarian; paternalistic; under-funded; interested in character at the expense of intellect; resistant to teaching science, social science, or modern languages and literatures; and endlessly devoted to recitation as a method of teaching that "could deaden the most interesting subjects and convert faculty men of genuine intellectual and scholarly distinction into drillmasters." 11

Until the middle of the nineteenth century, most institutions of higher education, whether religious or secular, were private, although the distinction between "private" and "public" institutions was less clear-cut than it is today. Harvard and Yale received state subsidies

and included government officials on their governing boards while early state universities, beginning in the South at the end of the 18th century, had self-perpetuating governing boards and installed classical curricula that resembled those of private institutions. All catered to the elite and well-to-do, and many had the mission of cultivating future political and community leaders. Instruction was dominated by the humanities, classics, philosophy, and history, though mathematics and science had roles as well.

All of this changed dramatically in the late 19th century. One vital development—still not fully assimilated into leading histories of higher education—was the expansion of public higher education after the Morrill Act of 1862. Public higher education from that time forward embraced the goals of vocational education and service to the practical needs of society. Education in agriculture, technology, engineering, and teacher training became important elements of the public university. State universities established or incorporated law schools, medical schools and, somewhat later, business schools, journalism schools, and others.

In the meantime, changes in the 1870s and after were also rapid and far-reaching in the leading private institutions. With the explosion of scientific knowledge and challenges to a religion-based concept of the world, there was a shift from a view that education transmits specific content to a view that schooling teaches a set of processes, methods, and attitudes in the acquisition of knowledge. This shift in view resulted in a radical change in the curriculum, from an emphasis on a prescribed set of courses capped with a final course in Christian ethics to a sense that knowledge of the world was growing, changing, and pluralistic. With the establishment of Johns Hopkins University in 1876, this new conception of knowledge was coupled with a growing identification of universities with research. At the undergraduate level, in the same era, Harvard initiated—and other universities quickly adopted—the elective system as a basic curricular principle. Early in the 20th century, in reaction to the shapelessness of the elective system, most colleges adopted a blend of concentration (or a "major") and distribution in the curriculum. Even so, the elective principle was by then well established, and held that the faculty should have the freedom to teach what it wanted and students should have the freedom to take the classes they preferred.

The elective system made sense in a world of growing religious skepticism, growing prestige for scientific research, and growing interest in the German model of a research university that The Johns Hopkins University imported. In this new world, where Christian-based moral philosophy no longer was an unrivaled claimant for defining the college experience, different areas of knowledge each made bids to be the central moral element in college education. The sciences claimed that a new moral discipline emerged in the acquisition of scientific knowledge—a critical mind, a skeptical intellect, and an intensely difficult set of concepts and accumulation of facts that required mental and

moral discipline to master. As college educators saw students fall away from organized religion—refusing to attend daily chapel, for instance—the appeal of science as moral discipline, linked to democracy and to the absence of prejudice, grew stronger.¹²

The social sciences claimed not only to inform students of the social world around them, but also to equip them with tools to determine how society's problems might be solved. In this way, the social sciences also offered to reintegrate academic knowledge around a principle of morality, a loosely Christian principle of social reform on behalf of the people least advantaged in a society.

Finally, the humanities made claim by the 1910s and 1920s that—in a world where both science and social science insisted on the neutrality of fact and the detachment of the investigator's own values and preferences from the content of investigative work only the humanities continued an education of character through a direct examination of and growing sophistication about the moral life of the human being. As historian Julie Reuben argues, the developing identity of the humanities was "closely related to the efforts to find a secular substitute for religiously-based moral education and to the adoption of the idea that science was morally neutral."13

Elements of all of these claims survive. They compete with a variety of other claims that urge a set of specific requirements on the contemporary student and—like the claims of the sciences, social sciences, and humanities—are justified implicitly or explicitly as moral obligations. There are requirements designed to prepare students for life in a globalizing world, or for life in a multi-ethnic, pluralistic American society, or for life in a world where scientific and technological developments are unusually influential.

Early 20th century curricular reform sought to curb the excesses of elective education. It did not seek to restore a standardized curriculum but, as Reuben explains, to modify the elective system "to reduce the arbitrariness of the average student's education." It identified 'the college' as "a distinct entity within the university" and brought back notions of character formation as a key goal of college education. 4 Rarely did this lead to a core curriculum or a strong notion of general education. Faculty by the 1920s were fully committed to specialization in their disciplines and did not want to teach general education courses. But, in the 1910s and 1920s, reformers settled on "concentration and distribution requirements" as a brake on the elective principle. This turned out to be an enduring reform that remains at the heart of the curriculum in most American colleges and universities to this day. 15 More dramatic efforts to create a core curriculum or a common body of study for all students achieved partial success at Columbia University, the University of Chicago and, after World War II, Harvard. But these efforts tended to become distinctive—and very partial—features of a few institutions rather than innovations that were widely adopted across higher education. At the present time, the dominant picture at public and private universities throughout the United States is one that focuses on the major along with some requirements for breadth.

3 STRUCTURE AND CULTURE OF THE ACADEMIC DISCIPLINES

e continue our diagnosis of the decisive features of the environment for general education by turning to the contemporary structure of higher education. We concentrate on major research institutions, where the forces we identify are in clearest evidence.

The Structure of Academic Departments

For more than a century, the discipline-based academic department has been the backbone of the American university and college system. It is the primary unit of Colleges of Letters and Sciences (or Arts and Sciences), which are, in turn, the largest and most pivotal units for undergraduate education. Typically, departments are named after academic disciplines such as physics, psychology, or history, and are inhabited by faculty members who identify themselves by those disciplines, calling themselves not "college professors" but "physicists," "psychologists," and "historians." The departmental structure has proved remarkably stable, though new departments (for example, biophysics) are added when new and viable areas of knowledge emerge, and sometimes wholesale realignments are made (as in the recent history of the biological sciences). Increasingly, interdisciplinary and group majors have come to supplement the academic disciplines, but these are often composites of departmental offerings and have not replaced discipline-based departments as the core structural units of the college and university system.

Academic departments are central to the intellectual, organizational, budgetary, and curricular structure of colleges and universities. Each department has an internal administration of its own, comprised of graduate and undergraduate curriculum committees, personnel committees, admissions committees, and others. These departments are the career homes for their constituent faculty members, in that the department is the point of initiation for recommendations to appoint, promote, and advance faculty. (These recommendations are reviewed and made final or reversed at higher administrative levels.) In major research institutions, the department divides its teaching between graduate and undergraduate instruction, and the department chair oversees each and arranges—mainly through persuasion—the teaching schedules of his or her colleagues. Through the graduate degree programs, the department trains future professionals of their own design.

Academic departments are also the key budgetary units of the college, with department chairs submitting annual requests that are reviewed, altered, and ultimately approved by higher administrators. The special feature of the multiple-year commitment to "regular" faculty in the form of the FTE or "full-time equivalent" (carried to its extreme in the principle of tenure) means that the largest portion of the departmental budget is fixed and carries over from year to year. The budget for service staff (administrative and clerical personnel) is likewise relatively invariant. The variable part of the budget—new positions, funds for temporary hires, etc.—is competed for on a year-by-year basis. Thus, department chairs are competitive fighters while higher administrators act as referees and arbiters.

The academic department also plays a major role in shaping curricula within the university, as it is responsible for designing and teaching courses that constitute a "major" for undergraduate students who choose it, and frequently for designing "service courses" offered mainly to non-majors.

The disciplinary base of departments also permeates the non-university world, and is thereby consolidated further. All disciplines have national and regional (and sometimes state and local) professional associations. Many of those who teach and conduct research in universities are members. These associations provide an identity base, an occasion for periodic reaffirmation of disciplinary membership in annual meetings, an intellectual forum, a publication outlet through journals, a job market, and sometimes a political lobby. They also endow their members with professional prestige through prizes, honors, and election to office. National honorary societies, such as the National Academy of Sciences and the American Philosophical Society, similarly honor scientists and scholars by disciplinary category.

Other organizations, central to the life of the university, likewise run along disciplinary tracks in large measure. Some government and foundation granting programs (for example the National Science Foundation and the Guggenheim Foundation) use disciplinary categories to organize their giving. Publishers array their publications into "lists" with disciplinary emphases, partly to provide authors with publication outlets in their own fields and partly to organize their marketing for adoption in graduate and undergraduate courses offered along disciplinary and sub-disciplinary lines in universities and colleges. In a word, the disciplinary principle, like some anthropological principle of clan or moiety, insinuates itself throughout the structure of academic life.

Academic Culture

Corresponding to the structural dominance of the discipline-based department is an academic culture that is equally powerful and pervasive within the American university and college system. The core of that culture is a scientific and scholarly prestige system based on peers' judgment of contribution to the discipline's field of knowledge through scholarly research and publication in articles and books and other kinds of creative

activity. Scientists' and scholars' stature in their respective fields depends primarily on the originality, creativity, quantity, and soundness of this work. Public recognition accrues to the most successful through prizes, publicity, and acclaim. Needless to say, this culture constitutes a powerful incentive system, and professors judge their trainees in terms of their promise to attain excellence within that system. In this way, the system serves as the major device for socializing graduate students and trainees, and fosters the well-known tendency on the part of academics to clone themselves through training younger prospects.

The dominant academic value system pervades major research universities and affects other educational institutions to a lesser degree. The prestige of universities is determined in large part by the prestige of their faculty. Faculty prestige, in turn, is determined in large part by the degree to which faculty measure up to the standards of the dominant academic culture. We should remind ourselves that the excellence-in-research-and-publication culture is not the only principle in higher academic life. The academic manuals of the campuses of the University of California and most kindred institutions typically list four criteria on which their faculties are to be rewarded and advanced: originality and creativity of research, teaching, service to the profession, and service to the community. Many institutions, aware of the importance of their teaching missions and sensitive to criticism from parent funding bodies such as legislatures, have made sustained efforts to raise the importance of teaching in this mix. They have instructed review bodies to heed teaching excellence, and have instituted systems of teaching evaluation, largely in the form of student course evaluations.

In practice, however, the review processes still tend to give disproportionate weight to scientific and scholarly accomplishments and their recognition in wider circles. In addition, when lower-ranked universities, state universities, and liberal arts colleges decide to "go for it" in the system of academic competition for prestige, they almost always emulate the major research institutions by emphasizing research productivity and publication in prestige outlets, as well as tabulating the external research support their faculty can generate.

Implications for General Education

The current pervasiveness of this research-and-publication-focused culture within academic departments, coupled with their structural saliency, is central to understanding the status of general education programs in the American university and college system. Most of the effects are self-evident from the foregoing discussion. They arise from a natural tension between meeting the needs of a department for achievement in an academic discipline and serving a general education mission for undergraduates.

In summary, we find:

- Over time, universities have delegated responsibility for courses and curriculum to academic departments, producing a situation of extreme decentralization. As a result, curricular development is seldom in the portfolio of deans' responsibilities.
- Departments may be motivated to offer general "service" courses to non-majors out of a desire to swell their enrollments, but departments are rarely motivated to develop general, interdisciplinary offerings.
- Department chairs may be hard-pressed to staff their own discipline-based courses for undergraduate majors and graduate students, and may discourage their faculties from teaching outside their department.
- Faculty members are often advised—or conclude on their own—that teaching in general, and interdisciplinary programs specifically, does not weigh centrally among the criteria for career advancement in their university and in their discipline.
- Situated centrally in the budgetary process, department chairs wield more clout than leaders of and faculty participants in general education programs, which are typically funded on a temporary basis. These programs are weaker and more vulnerable in the process of in-fighting for budgetary support.

In advancing this diagnosis, we neither assume that the problems of general education are unsolvable nor do we take the next (politically naïve) step of recommending the wholesale dismantling of either the contemporary university and collegiate structure or its culture. We simply wish to acknowledge the harsh realities that discourage innovation and sustainability of general education programs and courses. We also aim to specify the parameters that have to be taken into account and accommodated in efforts to revitalize general education in the academy.

4 INTEGRATING GENERAL EDUCATION INTO THE FABRIC OF THE UNIVERSITY

ne of the striking institutional innovations throughout the University of California over the past two decades has been the creation of an administrative position to oversee undergraduate education (with a title of Vice Provost, Associate Vice Provost, or Dean). These chief undergraduate education officers are responsible in different ways for general education programs (within the rubric of undergraduate education as a whole). Every UC campus, with the exception of the fledgling Merced campus, has developed such a position, and their incumbents meet periodically with one another to discuss their ideas, activities, and problems. We regard this development as a welcome response to the impulse to give greater salience to general education. That impulse arises within the University, but also emanates from the state legislature and other agencies (including the Board of Regents), which are ever cognizant of the University's obligation to provide quality undergraduate education to the young citizens of the state. States also appreciate the economic value and national prestige that accrues to them from graduate and professional programs. At the same time, however, states regard such programs as well as the university and faculty cultures that drive them—as in tension with the undergraduate mission of universities.

As part of the Commission's work, its co-chairs conducted detailed and confidential interviews with every incumbent of these administrative positions—three of whom were Commission members—asking about the range of their responsibilities, their place in the campus administrative structure, the kinds of support they receive, and the quality of their experiences as administrators. (See appendix B.) The descriptions, conclusions, and recommendations that follow are based in significant part on the results of these interviews. We here record our appreciation for our interviewees' cooperation and candor.

The creation of these new administrative positions has been a positive development, and their incumbent administrators have been responsible for initiating and participating in much of the ferment and innovation of general education recorded in appendix A. Our interviews revealed an encouraging picture. All incumbents are admirably committed to their missions, and all reported pleasure in improving the educational lives of undergraduates. Each enumerated and took pride in specific innovations that promise to improve the quality of undergraduate life.

Within this generally positive context, we view the creation of these administrative positions as only the first in a series of steps necessary for reinvigorating general education in the University of California system. This judgment is based on what we perceive as a number of anomalies and weaknesses in the situations of these officers. At the risk of ignoring some variations and exceptions, we list these limitations as follows:

- These officers are endowed with the widest variety of titles. There is nothing inherently wrong with this dispersion of titles, as they reflect the distinctive cultures, structures, and historical initiatives of the different campuses. The dispersion, however, symbolizes a certain ambiguity of place in the established administrative structure of the University.
- The functions of these officers are as diverse as their titles. Some oversee undergraduate education in general; others focus primarily on general education programs and projects. The specific aspects of general education that each administrator oversees likewise vary significantly from campus to campus. Again, we do not notice this out of any fetish about uniformity of function. We believe, however, that this reflects the fact that such positions have been grafted onto other administrative structures traditionally responsible for the territory of undergraduate education—and general education. Much of this territory is already occupied by offices of undergraduate affairs, other central administrators, deans, and chairs.
- On a few campuses, these officers have been urged to place a high priority on innovation. At the same time, we notice a tendency for them to be assigned responsibility for routine administrative monitoring of a great diversity of ongoing or new activities. Among these are: academic advising, honors programs, writing courses, preparation for accreditation, education abroad, institutional research, summer enrichments programs, special tutoring programs, and, in one case, student discipline. All of these activities are worthy enterprises and are potential sites for innovation, but they tend to fill up the time of the officers, to crowd in on their time for other innovative activities, and to lead to the observation ventured by a few that their work is largely what others put on their desks.
- In some cases, these positions have been accorded parity with other administrators with respect to reporting arrangements, power and autonomy, and participation in the central administrative apparatus of the campus, but, in other cases, they have not. Individuals in these chief undergraduate education officer positions have been, with great variability and with some exceptions, left to work their way around the administrative system, using influence rather than delegated authority. Furthermore, their efforts are sometimes resisted by other administrators who have long regarded themselves as responsible for the educational and curricular life of the campus. While this does not always result in open conflict, our informants reported that a great deal of their time is spent on consulting, coordinating, persuading, and maintaining diplomatic relations with other interested parties.

- With few exceptions, these officers do not have flexible budgets and therefore do not have guaranteed access to a reservoir of funds to sustain innovative programs and projects from year to year. The major exception is the UCLA campus where, in 1997, Chancellor Charles Young set aside an annual sum of \$2 million to grant course relief for faculty, to support cluster courses and other general-education projects, and to seed new general-education projects. UC Berkeley originally set aside a sum of \$650,000 for innovation and experimentation in undergraduate education that was to be augmented annually but, in the lean budgetary years of the early 1990s, this allocation was eliminated. In most cases, support is usually authorized on a case-bycase basis and revocable on a year-by-year basis as budgets are forged.
- Budget and clout are closely correlated in the university setting, so the limited budgets these officers control often place them in a begging relationship with other administrators, budget officers, and external funding agencies. This circumstance exemplifies a long-standing problem with general education efforts. They generate enthusiasm at the beginning and persist for a while but, by virtue of the competing demands of established budgetary units and the tug of primary obligations on participating faculty, they very often lose support and fade. It is apparent that the combination of significant budgetary resources, aggressive leadership, and an atmosphere of campus support has enabled UCLA to emerge as something of a model among the campuses for innovation and sustainability in general education.
- The relationships that chief undergraduate education officers have with academic departments are limited in one important respect. Typically, department chairs are responsible for mediating matters that concern the university administration's relations with individual faculty. With notable exceptions, chief undergraduate education officers do not have line authority in which department chairs or faculty report to them. In some cases, these officers maintain steady and helpful relations with faculty, but often they negotiate with faculty on a case-by-case basis. They have few routine avenues to contact individual faculty, although here, too, there are exceptions. For instance, at UC San Diego, the chief undergraduate education officer meets regularly with the departmental "vice chairs" who oversee their department's undergraduate curriculum. It must be added that the very establishment of this new administrative position encourages faculty to turn to its incumbent with suggestions, ideas, and complaints: communication goes to the officer, not just from him or her. Still the capacity of chief undergraduate education officers to recruit faculty for education projects and programs outside the academic department structure is limited and irregular. They must rely on ad hoc begging for participation in educational projects as well as for moral support from interested faculty groups, with few inducements other than pleading their case.

 Academic Senate authorization for most new general educational efforts is required and exercised on the campuses but, with a couple of exceptions, the systematic tracking and overview of general educational work by the faculty does not measure up to that of academic programs of established schools, colleges, and departments.

The Commission endorses the decisions of various campuses to create and implement these chief undergraduate education officer positions (including those administrators whose focus is general education) and applauds the imaginative and difficult work carried out by many who have worked in this capacity. We are convinced, however, that these offices are still limited in their usefulness and that campuses would benefit by taking a next evolutionary step. We do not have a stock formula in mind. In fact, past experience suggests that campuses do best when they innovate within their own unique context. With this caveat in mind, we recommend the following:

- Each campus should make a major effort to assess and re-specify, definitively, the position, authority, and responsibility of its chief undergraduate education officer. This effort should emanate from the chancellor's office, and should involve other units, such as student affairs, colleges, and the Academic Senate, which are, in some ways, "in the same business" of general education, and with whom the designated chief undergraduate education officers overlap. What should emerge is a new balance of responsibility and authority for general education and educational innovation. All campuses would profit from clarification and authorization of what have been too often ill-defined and floating administrative responsibilities.
- On campuses where this has not already been done, incumbents of the redefined chief undergraduate education officer positions should be given parity in the chancellor's cabinet, thus involving them more centrally in the fabric of the campus administration. In addition, they should maintain a formal and ongoing relationship with each Academic Senate's Committee on Educational Policy.
- Each chief undergraduate education officer should be assigned a flexible pool of funds to carry out his or her responsibilities for innovation. We do not have in mind creating a new, separate academic department of general education with its own faculty that is responsible for fixed programs. We are well aware of the dangers of ossification and devolution into fixed constituencies that this pattern of funding might hold. Rather, funds should be renewed year to year but should remain as a pool for launching curricular experiments, recruiting and compensating faculty, and giving continuity to experiments and programs that prove themselves after a season of trial. General education projects that are launched should have built-in, mandatory sun-setting-orrenewal reviews after a few years.

- The interest and participation of the Academic Senate in general education should be augmented on those campuses where general education is lacking. We have in mind machinery above and beyond routine review by an Academic Senate Committee responsible for approving all courses. We hesitate to suggest a specific locus for this function for every campus. We do suggest, however, ample senate provision for approving and reviewing new programs of general education, whether initiated by the chief undergraduate education officer or by colleges and departments. The relevant senate body might also be responsible for periodic reviews of general education as a whole on campus, thus moving toward regularizing interest and reform rather than relying on periodic, one-shot committees or commissions.
- The campus should redefine where and in what ways undergraduates are advised with respect to general education requirements and opportunities. The advising roles played by undergraduate affairs, colleges and schools, and departments should be more clearly delineated. We are aware that current advising arrangements are scattered and tend to focus on what students "have to take" in order to "meet" graduation requirements. These requirements reinforce student perceptions that general education is something mandatory, undesired, and to be gotten out of the way. Improvements in the understanding and execution of advising are one element of a broader effort to strengthen general education.

All of these recommendations are aimed at improving the structural conditions that define the capacity of campuses to innovate in the area of general education. We regard such changes as the sine qua non for improvement.

We turn now to content, first addressing general curricular issues and then discussing the very important topic of preparing the young for civic engagement in a radically changed and changing world.

5 CURRICULAR INNOVATION

arly in the work of the Commission, we contacted the administrations of approximately two-dozen mostly public universities around the country, each of which has certain characteristics comparable to the University of California. We asked about their general education provisions and about recent or ongoing efforts to improve them. We make no claim for the representativeness of this sample. From the information gathered, however, there emerged several patterns which have helped to inform this Commission's work. (See appendix C.)

First, almost all of the institutions contacted revealed the common formula of specifying a number of subject areas (natural and life sciences, social sciences, humanities, and arts) from which students are required to select a certain number or combination of courses. Within each of these subject areas is typically a wide range of specific classes from which students can choose. This formula of elective breadth is often designated as the "cafeteria" approach to general education. 16

Second, most institutions had recently undertaken or were undertaking some kind of review of general education, but most had resulted in only incremental suggestions for change. This is what might be described as the formula of tinkering.

Third, curricular innovations in general education revealed a concentration on a discrete number of themes:

- An emphasis on *interdisciplinary* offerings, though the specific manifestations varied widely.
- A widespread effort to keep up with major changes and problems in the larger society, manifested, for example, in courses on social and cultural diversity, globalization and internationalization, environmentalism, terrorism, and moral and political dilemmas in contemporary democratic society.
- Courses emphasizing advanced *literacy*—for example, computer skills, quantitative reasoning and skills, and writing.
- Courses designed to cultivate analytical and critical thinking.

These "results" were not surprising, and we dare to think that a fully comprehensive survey would reveal similar responses. We were struck with the relatively modest scope of changes and with the fact that so few of them took into account the structural realities of university life (administrative, faculty, budgetary) to which we give special attention in this report. Attention to such changes is a fundamental precondition for enduring reform of general education programs.

With respect to the third item—curricular innovation—the Commission concludes that, on the whole, the impulse to innovate is strong and that universities are doing a commendable job of responding to real and emerging changes in the larger society and world. All of these emphases seem consistent with the diverse goals of general education. We also conclude that if we were to try to generate a general list of timely topics to be given curricular emphasis, we would do no better than the cumulative efforts we observe. In fact, there may be some mischief in attempting to produce uniform general formulas, given the different institutional conditions and regional variations that characterize American institutions of higher education. (The partial exception to this conclusion is in the area of civic engagement, which we address in the next section.)

In place of such an exercise, we will address additional issues connected with curricular offerings in general education: (1) required courses and programs, and (2) the avenues through which general education is delivered. In this section, we address forms of and settings for instruction; subsequently we will raise two additional issues—transfer students and educational technologies.

Requirements vs. Alternatives

We begin by identifying a widespread tension in general education—between no choice on one side, and maximum choice on the other. The former is represented in the University of Chicago's mandatory core courses, all of them extra-departmental; the Contemporary Civilization (locally know as "CC") courses at Columbia; the former American History and Institutions requirement at the University of California (which, at one time, consisted of one specific course in American History and one in Political Science); the current required freshman core course, "The World at Home," at UC Merced; the one- or two-year-long core sequences in four of the undergraduate colleges at UC San Diego; an upper-division counterpart at the new UC Merced campus; and freshman writing courses in many places.

In most American higher education institutions, however, the days of specific course requirements or sequences of courses for all undergraduate students on a campus appear to have passed. Almost everywhere, the cafeteria principle governs. At UC Berkeley, the number of courses that would satisfy the former American History and Institutions requirement grew to almost 90 by the 1980s when it was abandoned. The undergraduate requirement in American Cultures, which embodied the principles of diversity and multiculturalism, was enacted several years later. Currently, taking one of approximately 50 courses can fulfill that requirement at UC Berkeley. Many campuses have no such

specific requirements and rely on the cafeteria principle alone, specifying three or four major subject areas within which courses must be taken. In its famous "no requirements" approach, Brown University carried the cafeteria principle to its extreme.

Several forces appear to have contributed to this general tendency away from specific and universal requirements: (1) the sheer "massification" of university education, which makes offering the same course—much less the same sequence—to every student a logistical nightmare, unless it is broken into small sections, as in the case of required courses in writing. The freshman-junior core requirement of the new, small campus of UC Merced may prove sustainable, but it will certainly face pressures to evolve away from that pattern as the campus grows; (2) a long-term development of value emphasis on individual student choice; and (3) political and ideological disagreements on what, if any, curricular content should be imposed on everyone.

A cynic might describe this tension between requirements and alternatives (also structure vs. lack of structure and freedom vs. constraint) as a struggle between a principle of political impossibility on the one hand and a principle of institutional cowardice on the other. American higher education appears to have evolved into a mix of diverse and politically conscious—cultural constituencies with the result that efforts to impose specific, binding requirements on all students typically end in bitter conflict, paralysis, or watery compromises. Under these circumstances, the "cafeteria" style is an easy path because it requires the minimum from students (and ennobles the principle of free choice), and it does not require faculty to do anything different from offering the kinds of discipline-based courses they prefer. It is perhaps not too much to say that the "institutional cowardice" end of the continuum has won out in the long run, favored as it is by students and faculties, and preferred by administrators weary of chronic conflict and institutional headaches.

The Commission cannot pretend to resolve this endemic tension, and acknowledges that it is impossible to turn the clock back to past visions of uniformity. We do envision, however, one creative way of working within the contemporary landscape to the benefit of undergraduates. What we have in mind is further developing and publicizing structured and interdisciplinary instructional collections or packages of courses around timely issues such as environmental sustainability, technology and society, bureaucracy and society, military and society, and political and ethical dimensions of biological knowledge. Course packages might consist of a specified number of courses and include special ingredients, such as a term of original themed research. These bundles of courses could be named, formally recognized as something like "thematic" minors, and listed on students' academic transcripts. As it is, many students seek official recognition for their classroom work and currently they receive that recognition mainly in their identification with a major. That they normally have no way to be recognized for their work in general education courses reinforces the subordinate place of general education

in their overall college program. If a general education bundle could be acknowledged as worthy of official recognition on a transcript, this could enhance the role of general education on campus.

These curricular bundles would organize general education more like a prix fixe dinner menu rather than an a la carte or cafeteria array. To Students would be free to choose a specific collection of courses, but, once chosen, its curricular ingredients would become self-imposed requirements. Some campuses are already experimenting with variations of this principle. We encourage its development as a way of guiding interested students into in-depth and timely interdisciplinary experiences that are clearly consistent with the aims of general education. These course packages could provide students both recognition and coherence for their general education choices and could also lead to new relationships among faculty. The faculty who teach different courses that are part of the same bundle of courses would not become members of a quasi-department governing these collections, but could, nonetheless, develop a loose inter-departmental intellectual colleagueship.

The Commission also encourages all campuses to pursue a policy of aggressive development of a number of curricular arrangements that have accumulated or been proposed in recent decades, all of which enrich undergraduates' educational experiences and further the aims of general education. We have in mind the following kinds of on-going and potential pedagogical innovations:

- Orient freshman and sophomore seminars toward timely and problem-oriented topics. The growth of freshman and sophomore seminars in the UC system over the past fifteen years has been a remarkable institutional accomplishment in a public system. Such seminars have developed on almost all the campuses and now appear to be in the life-blood of the University. They have, however, evolved according to a cafeteria-like principle. In general, the principle of faculty volunteerism has reigned, with faculty free to determine themes and often choosing specialized topics in their own research. One way to bring freshman-sophomore seminars closer to the purposes of general education would be to encourage faculty to select as seminar topics contemporary social problems and policy issues that lie in their own areas of expertise. Another way to link freshman-sophomore seminars more closely to the purposes of general education would be to provide incentives to faculty who offer seminars aligned with a particular general education cluster or package.
- Develop capstone courses on the frontiers of knowledge for relevant departments and clusters of departments. This is one path toward enriching upper-division general education.

- Induce departments—or better, clusters of departments—to shape existing courses and create new ones in the interest of applying knowledge to ethical, moral, and political issues. These courses would involve a stretch beyond existing "service" courses, which are designed primarily to make specialized fields of knowledge available to non-majors.
- Develop more possibilities for involving undergraduates in research activities in academic, laboratory, and "field" settings. Research involvement has proven to be a very potent educational device, and, as a side benefit, it involves faculty, graduate students, and undergraduates in a collective enterprise. In the following section, we indicate the special importance of these activities for civic engagement.
- Continue efforts to improve and evaluate instruction and teaching methods on the part of regular faculty, temporary faculty, and graduate teaching assistants. The benefits of this effort include, but are not limited to, general education.

The above-mentioned enterprises overlap with one another, but there is no reason why campuses should not pursue multiple paths to maximizing the availability and value of general education offerings. In fact, a multi-sided attack seems the most rational strategy if we acknowledge that richness-rather than requirements-will continue to be the dominant motif of universities' efforts to revitalize general education.

6 THINKING THROUGH THE CIVIC DIMENSION

olleges have long been expected and intended to serve broad social needs. Harvard College was founded in order to train the clergy so that the colonists, astray in a land far from the civilization they had known, would reproduce religious leaders to serve their welfare. Thomas Jefferson founded the University of Virginia with the intention that it would "develop the reasoning faculties of our youth, enlarge their minds, cultivate their morals, and instill into them the precepts of virtue and order." The task of the university in general was to instill what Jefferson called "habits of reflection and correct action"—in particular, because it was designed to educate what Jefferson called "the natural aristocracy," drawn from all classes, to fill the professional class and political leadership of the nation.

That being noted, specific curricular measures to enhance civic education—measures that stress citizenship more than leadership, unlike the class-bound ideals of the early colleges—emerged prominently only in the 20th century. Survey courses in "Western Civ" began during and after World War I as "War Aims" courses, designed to let young men know what they might be fighting for one day. Many colleges and universities today have requirements in American history—although this is less common than it was in the past. All UC campuses have an "American History and Institutions" requirement, but most students satisfy it by showing that they have passed courses in American history and government in high school. Many institutions also have more recently created a required course or courses on "diversity," emphasizing either the history and sociology of diverse cultural groups in the United States or the human-relations side of learning to get along with people who have different cultures and beliefs.

Contemporary Interest in Civic Education

The past two decades have seen a movement for civic education at the college level, driven by a sense that the United States is on a downhill slide away from good citizenship. Despite anxiety in the 1950s about the "silent generation" of students, worries in the 1980s about the "me" generation, and contemporary concerns about low voter turnout among young people, there remain doubts about the severity, the meaning, or even the fact of civic decline. The leading study of what Americans know of U.S. history and politics demonstrates no change at all between 1945 and 1989. 18

At the same time, data suggest that there has been a measurable decline in voter turnout since the 1960s, though this decline is more moderate than is normally recognized. Most of this decline took place in the fateful period between 1964 and 1976. In the succeeding 30 years, overall voter turnout has slipped only slightly, and inconsistently. At the same time, young people—who are indeed voting less, reading newspapers less, and following current affairs less than young cohorts in the recent past—may be engaged in a more active politics of everyday life than was once true. That is, students are making consequential political and personal decisions daily—and the line between political and personal is difficult to define—to use drugs or not to use drugs, to acknowledge publicly one's sexual orientation or not, to recycle or not to recycle, to drive a gas guzzler or a hybrid, to be vegetarian or not, to reach out across ethnic groups for friendship or not. Today, every one of these decisions is a politicized choice which has become more individualized.

This shift is most visible in discussions of adapting the curriculum to a world growing both more diverse and changing in politically consequential ways for which students are not prepared. Some educators call for a revitalized emphasis on foreign language study and, when possible, education abroad. They may also argue that today's world requires a more sophisticated knowledge of digital media, and how these media are both liberating and impose constraints and limitations that are rarely visible to the naïve user.

The worry that we are not preparing our students for civic life in a rapidly changing world also emerges from changes in the democratic process. Fewer and fewer institutions, from the United States Congress to the American university, are governed by a hierarchical leadership free to operate largely beyond the public view. In institutions in which students are involved, from colleges to churches, and into which they will be moving, from families to corporations, norms of open and democratic decision-making, in which all stakeholders have a say, have spread. There are increasing domains of life that call on individuals to decide matters for themselves.

All of these changes make broad civic goals more important than ever in higher education. At the same time, no other dimension of liberal education seems so far from consensus on classroom practices or leaves the faculty so uncertain about their own competence to instruct, or even to conceptualize, ways and means.

Civic education, in sum, has become a more complex idea over time, just as the world in which students are to participate has become more difficult to grasp. Higher education addresses these matters only at some peril, because different concepts of civic duty may divide people along partisan political lines. This does not mean that colleges can or should abandon civic education as an objective. It does suggest that civic education is a set of related objectives, rather than one general goal. We recognize four aspects of civic education to which colleges and universities can direct their efforts.

Four Goals of Civic Education

Civic Information. Faculty members would like to think that their students are sent off into the wider world knowing something about American history and politics and current affairs, enough to be able to read a newspaper or to vote with some appreciation for what might be at stake in an election. Simply "being informed" is a very important civic goal and the one that requirements in history, diversity, global issues, and non-Western cultures are designed to meet.

Civic "Search" Skills. In the past, research literature in political science has suggested that it is costly for citizens to acquire the knowledge they need to discern their interests and make considered choices at the voting booth. In this view, casting a well-informed vote is "irrational" because the cost of seeking out relevant information is greater than the benefit to the individual that his or her single vote is likely to affect. Today, in contrast, searching for information is much less costly to individuals. In fact, the problem is not one of searching for scarce information but of information "overload." Even very conscientious voters adopt informational shortcuts, trusting in the advice of a friend or acquaintance, the counsel of an interest group, or simply the general information that a candidate's party affiliation signals. Mastering informational abundance sometimes points to the benefits of new technologies, but it is unlikely that technological innovation can substitute for strengthening citizens' own capacities and habits as users of information. Citizens need skills and inclination that include a taste for wide reading and exposure to information; a drive or hunger toward a search beyond the first, superficial answer; a penchant for trying to understand opponents and figuring out how to address them on their own grounds; and a capacity to defer closure until some attempt has been made to weigh or balance multiple views. These motivations and capacities distinguish consumers, citizens, and students who are better able to protect themselves against the manipulations of advertisers, the spin of political candidates, and, for that matter, the political bias of professors. Such capacities distinguish employees who are able to work well in teams and to represent a company to a wide range of outside audiences. They also prepare individuals for leadership as citizens or as managers—and, of course, they are just the capacities that liberal arts education has traditionally sought to foster.

Civic education, then, should be oriented not only to information acquisition but also to the acquisition of skills and dispositions to enable life-long searching, sorting, and evaluation of information, as well as skill at turning information into an articulate argument in speaking and writing.

Appreciation of Democratic Values. A third objective relies on information but cannot be satisfied by information alone. It is a matter of learning to appreciate widely shared values and ideals of American civic life. This is, of course, difficult territory for teachers who are dedicated to helping students think for themselves. It suggests encouraging students to value civic participation, free expression, representative institutions, equality before the law, and due process. Should censorship, autocratic and arbitrary government,

and inequality get equal time? There is room for debate on these matters, to be sure, and the specifics of what counts as civic participation, legitimate public expression, and equality before the law are subject to recurrent debate and redefinition. Still, it would be a very rare instructor who does not situate himself or herself inside a broadly shared American consensus that these are values cherished in our society and that a purpose of civic education is to deepen students' appreciation of their worth and their fragility.

Civic Experience. A fourth objective recognizes that there is, for both students and citizens, a gap between "being informed" and "acting as a citizen in the wider world." There are limits to what academic instruction can achieve in the classroom if students do not reinforce academic instruction with the lessons of lived experience. Some evidence shows a civic benefit when students are encouraged to broaden civic participation through volunteer work or through service-learning courses—in which they do part of their coursework in community settings from scientific laboratories to soup kitchens and reflect on their experiences in these settings. Students who participate in volunteer work in college are more likely to develop leadership skills and to believe that individuals can make a difference in changing society.²⁰ Studies of students in service-learning courses frequently discover civic benefits in this kind of coursework, even when students have been randomly assigned to service-learning and non-service-learning sections of a large course.21

On the other hand, there is evidence that community service in high schools and colleges may lead students to see volunteer work as an alternative to politics, valuable precisely because it is not complicated or sullied by considerations of power and politics. As political scientist Gregory Markus writes, too many students believe that "politics is unsavory, politicians hopeless, and petitioning the government a waste of time."22 To the extent that civic education fosters the image that society is best seen as disconnected from politics, however, it hollows out the notion of citizenship and weakens the skills and outlooks students will need to act effectively as democratic citizens. We believe that community service, whether governed by Student Affairs or as part of service-learning courses in the curriculum, should include not only conventional non-profit "service" activities in hospitals, shelters, and social service agencies, but also service to political parties, lobbyists, advocacy groups, government agencies, and elected officials.

Civic Education: Conclusions

How should we think of the relationship among the four goals of civic education? These four objectives—the transmission of civically relevant information; education in "learning how to learn;" cultivation of an understanding and appreciation of democratic politics; and guided, structured opportunities to link civic education in the classroom with supervised service work beyond the campus—all merit support. They do not necessarily co-exist in easy harmony, however. Faculty who point to the importance of "learning how to learn" legitimately observe that this is very much what a traditional classroom education in liberal studies is supposed to provide. They sometimes add that this is precisely what universities are well equipped to do, while few faculty have the time, the training, or the first-hand experience to guide students effectively in experiential, service-learning, or community-based courses. They also suggest that experiential education in civics, while a legitimate objective for colleges, must be largely accounted for in extra-curricular rather than curricular instruction. Among the professional educators in Student Affairs at every college and university, there are many people in education, counseling, or related fields who do "leadership training," who advise and help to organize student groups in areas as diverse as fraternities and sororities, intramural athletics, and student publications. They teach yoga, karate, swimming, and self-defense classes. They set up language tables and volunteer opportunities, after-hours educational enrichment programs, and many other activities.

Still, the past two decades have seen the growth of a vigorous movement to get the academic side of the university more engaged in students' civic learning and to insist on partnerships between colleges and off-campus non-profit organizations. The national organization, Campus Compact, reports that more and more of its 400 member campuses maintain a service-learning office to support courses for an increasing numbers of faculty and students.

In 2005, Washington Monthly began an annual rating of colleges according to what they provide society. The magazine determined that colleges improve society when they (1) engender social mobility—measured by percentages of students with Pell grants enrolled and graduating, (2) produce "academic minds and scientific research," and (3) encourage students in an "ethic of service"—measured by the percentage of federal work-study grants focused on community service and by student enrollment in ROTC and the Peace Corps. By these measures, public universities do much better than the private institutions that dominate the famous U.S. News & World Report rankings of "the best" colleges. In the Washington Monthly list, seven of the top ten universities are public institutions (including four University of California campuses).²³

Research universities have obvious strengths in research capability, but these are not fully exploited in the service of undergraduate education. Harnessing the research skills of university faculty to improve the variety of service-learning programs that are proliferating in higher education is an area that deserves much greater attention. Service-learning or experiential learning programs at leading colleges and universities invariably require not just many hours of volunteer service but a "classroom component" in which students engage in relevant reading, critical discussion, and reflective papers on their field experience. They become not only volunteers but also field workers and anthropologists of their own societies. Supervising this activity and critically evaluating the papers or other projects the students prepare is a time-intensive teaching activity but one that can exploit the best of a research faculty.²⁴

7 TRANSFER OF CREDITS AND TRANSFER STUDENTS

niversity of California undergraduates increasingly fulfill their general education requirements outside of the UC system rather than on the UC campuses themselves. This happens because many students (1) gain credit for general education courses through the advanced placement system of courses and examinations [both the Educational Testing Service-run Advanced Placement (AP) system and the International Baccalaureate (IB) system], and (2) gain credit for general education courses taken at community colleges and other universities before they transfer to UC to complete the baccalaureate or, in the case of community colleges, while they are students at UC campuses. Generally positive in impact, these practices nonetheless raise new issues concerning the nature and quality of collegiate general education.

Advanced Placement

Advanced Placement is a system of courses and examinations that allows high school students to study college-level materials prior to coming to the University. The AP and IB systems, as used within the University of California, are significant in several ways. For admission purposes, the grades for AP, IB, and other approved honors-level courses are weighted differently from other courses and, as a result, good class performance in such courses can lead to stronger admission credentials. For our purposes, however, the features of the advanced placement systems of interest are those that award students course credit and placements as a consequence of scoring well on tests that are given to validate their levels of achievement. Again within the UC system, all students who score above certain cut-off points on the validating tests are awarded course credits that can be used toward graduation and most campuses then place students into appropriate-level courses. Thus:

- AP and IB credits typically waive courses taken at the lower-division level and these courses are often general education courses.
- AP and IB credits can afford greater flexibility for students in designing their curricula once they enroll in college.

 AP and IB courses have become important ingredients in the curricula of both private and public high schools, especially those that are motivated to place large proportions of their graduates into college. One should expect that students presenting substantial numbers of advance placement credits will be a continuing feature of undergraduate education.

We do not possess data on the precise number of AP and IB credits that undergraduates bring to college in their freshman year, but the general trend is that the number is large and continues to increase. Typically, substantial numbers of students enter with sophomore standing or attain that level mid-way through their freshman year. The Commission believes that the high level of accumulation of pre-college credits calls for two lines of augmented activity on the part of the campuses.

First, faculty who are involved with general education should take an active role in assessing the content and level of advanced placement courses and examinations to assure that, if general education courses are waived as a consequence of the advanced placement process, prior learning reflects the goals of the general education mission. Furthermore, faculty should understand that the decision to waive general education requirements as a result of advanced placement credit is an option, but there is nothing in the logic or rules of advanced placement that requires the waiving of general education requirements.

Second, UC campuses should be more actively engaged in making their own upper divisions the scene of increased activity in general education. Persistent attention to general education over the undergraduate career—in contrast to getting requirements out of the way early—is a value in itself. For instance, each of the general education bundles might require one upper-division "capstone" course to be taken in the student's senior year. These could be interdisciplinary courses especially designed for very popular bundles, or they could be departmental courses approved as "capstones" for bundles that attract fewer students. Moreover, the upper-division years are those in which the university campuses have all the students who will graduate from their campuses on campus and can, by virtue of this fact, have a more direct and guaranteed impact on their educational fortunes.

Transfer Students

The signature feature of California's 1960 Master Plan for Higher Education is the principle of differentiation of functions. Each of the three public segments—universities, state universities, and community colleges—is assigned a distinctive package of academic programs and degree-granting privileges. The community colleges typically offer two-year associate degrees, California State University (CSU) campuses confer bachelors and an array of masters degrees, and the University of California (UC) offers bachelors, masters, and doctoral degrees (joint doctoral programs between UC and CSU campuses are also in place). The University of California has a mandate to provide professional training in law, medicine, and veterinary medicine, and enhanced responsibility for research.

Differentiation of function has two corollaries: differential admissions and transfer, UC campuses are authorized to admit the top 12.5% of the state's high school graduates, CSU campuses the top 33%, and community colleges are designated as open-admission institutions for California residents with (and in some cases without) high school diplomas. The transfer function provides for community college students to transfer to the other two segments if, in all cases, their academic records justify it.

Taken together, the three principles of differential function, differential admissions, and transfer constitute an institutional compromise that urges the system as a whole to strive simultaneously for competitive excellence and open opportunity. The principles have shown a remarkable stability for almost a half-century, persisting through several state reviews and despite a number of episodes of intersegmental rivalry.

The Commission calls particular attention to the transfer function and its implications for general education. Transfer is an important counter-balance to the differentiation of functions, for it permits those who begin their college experiences in one of the non-University segments to move to the University (usually after two years) and to gain a full degree there. As such, it articulates productively with California's democratic and egalitarian traditions, and, in recent decades, has proved a meaningful ingredient in the state's efforts to provide all students an additional avenue to attain degrees in segments of California's system where they could not begin their higher education.

The rate of transfers has fluctuated over time, but has shown an overall pattern of growth. If we add these transfer data to a number of other significant numbers in higher education—numbers of dropouts and stop-outs, frequency of dropping courses without punishment, use made of summer school, moving from college to college several times in a student career ("swirling")—we clearly have to revise our notion that the college career is an orderly sequence of four years in the same institution.²⁵ This fundamental fact further dictates that colleges and universities must look to student experiences in institutions other than their own in assessing the collegiate experiences of their students.

Over time, the University of California's Office of the President has improved the situation of transfer students in several respects:

It provides systematic information (in an online publication called ASSIST) on how course credits earned at one segment of California public higher education can be transferred to other institutions. The current challenge is to make this system more widely known to potential transfers.

- There has been a steady climb in completion rates with respect to the Intersegmental General Education Transfer Curriculum (IGETC)—a series of courses offered by the community colleges that satisfy the lower division breadth and general education requirements for the University of California and the California State University system.
- Efforts have been made to help students understand the similarities and differences between similarly named majors (for example, psychology) at the community college level and at the University of California and California State University levels.
- A recent report from the Legislative Analyst's Office²⁶ calls for a standardized set of courses in any community college that could be transferred to the University of California. This suggestion is under study by the Office of the President but has not yet been put in place.

As citizens of the University of California community, we encourage all of the ongoing efforts to facilitate the transfer process and ease transition to university-student status. The contractual relations between the University of California and the other segments should continue to be honored and extended when feasible.

Special Issues

The expanding transfer function and the changing ratios between upper-division and lower-division students have highlighted two problem areas that are similar but not identical to those associated with Advanced Placement.

The first has to do with the "fit" between lists of core general education courses taken in the other segments of higher education and special general education requirements of individual UC campuses. If general education is mainly a matter of breadth of coverage of subject areas, few matching problems arise between these segments. Some campuses, however, have devised general education sequences that are difficult to replicate in satisfactory form in the other segments. We have in mind, for example, the different thematic emphases selected by the different colleges at UC San Diego, and the core course required of all freshman students at UC Merced.

One solution to this problem would be to require incoming transfer students, even those who have taken the "core" general education requirements in other segments, to complete the distinctive campus lower-division experiences after transfer. We do not recommend this solution, because it would constitute an obstacle to transfer and occasion delays in progress through the remaining collegiate years. As a matter of principle, particular campus programs should not trump the principle of educational access. Instead, campuses should turn to more active involvement in general education courses and programs at the upper division level, where the distinctive stamp of the campus would reach all. Campuses could also devise briefer versions of their distinctive core courses specifically designed for transfer students. Thurgood Marshall College at UC San Diego, for instance, offers for transfers a one-quarter version of its three-quarter core course entitled "Diversity, Justice, and Imagination."

The second issue concerns the nature and quality of general education offerings in the community colleges and state university systems. As more students come to meet their GE requirements in these segments, this problem becomes more salient. As a special commission on the status of general education, we ask that the University of California take a more cooperative interest in intersegmental discussions on the content, significance, and quality of general education courses offered in the other segments, and in how these articulate with the general education arrangements on the various University campuses. When students transfer, the interest has been primarily administrative—in what year will they be placed, how many university units of credit they will be offered, what past courses "count" toward general education requirements and the major—in a word, a series of translations to make transfers into "regular" UC students.

This concentration on procedures has inadvertently come to constitute a situation of selective inattention to the overall quality of the collegiate experience for this important minority of transfer students. We recommend that the University of California take special initiative in the general education of those students who transfer to their campuses. This initiative could take several forms:

- More active involvement of University admissions/transfer offices with relevant counselors and academic administrators, keeping them updated on the content and justifications of curricular and program developments in general education on their own campuses. In some cases, it makes sense for UC counselors to hold office hours at community colleges.
- Program and curricular cooperation of University administrators and faculty with parallel officers and bodies within the state university and community college systems. This could be a collective effort involving the Office of the President and the systemwide Academic Senate. It would no doubt be more advisable, however, to situate this kind of cooperation at the campus levels, given the diversity of general education programs across the system. These cooperative efforts might include advisory reviews of programs and courses of all three segments, with an eye to assuring better continuity and articulation. Normally, efforts to ease the transition to UC life have been located in Student Affairs. Academic Affairs should become more involved. Some campuses, such as UC Irvine and UC San Diego, have recently introduced "transfer seminars," one-unit courses modeled after freshman seminars but designed exclusively for transfer students.

The kind of initiative we envision would be beneficial in two ways. First, it would attend to a category of student citizens whose academic fate has tended to suffer from neglect. Second, it would establish even more positive cooperative ties among the several higher

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education segments, which, historically, have tended either to go their independent ways or compete with one another. It is our belief that improved communication and partnership between California's community colleges, state universities, and University of California campuses can only improve the general education of both transfer and non-transfer students in all segments of the system.

8 NEW TECHNOLOGIES AND GENERAL EDUCATION

he applications of information and communication technologies (ICTs) in higher education are many. They increase efficiency in administrative processes such as admitting students, managing classroom space, and evaluating faculty. They also provide infrastructure (for example, universal e-mail systems and digital libraries) for the educational process. Finally, they promise to change the face of teaching and learning. We concentrate on the last set of potentialities because they link directly, but not exclusively, to issues of general education. In the teaching and learning realm specifically, ICTs are cited as potentially effective tools for (a) improving academic quality through collaborative and "student-centered" learning, (b) containing or reducing costs of undergraduate instruction, especially in high enrollment general education courses, and (c) providing access to an increasingly diverse college applicant pool. We will focus on these three aspects insofar as they have the potential to affect general education.

Quality

Two faulty assumptions often confuse discussions of technology in undergraduate education: 1) educational technology equals online and distance education, and 2) the technologies themselves are monolithic and static in their qualities and potential. Regarding the first, most public universities use ICTs in "hybrid" environments, where ICTs both complement and facilitate face-to-face and "one-to-many" interactions in large introductory lecture courses. The ratio of online components to face-to-face interactions can vary from course to course, as well as between types of institution, with only a few traditional four-year institutions currently offering large numbers of courses entirely online.

Regarding the second assumption, ICTs combine production and delivery technologies with interactive communication technologies. They also include rapidly evolving hardware and software systems that can be combined in an almost infinite number of ways. Each modality has particular characteristics that contribute to its relative strength or weakness as a tool for traditional teaching/learning methods. These tools may be paired with particular pedagogical goals such as literacy (including quantitative, information seeking, computational, and writing literacy), analytical and critical thinking, and internationalization. Their promise includes increased and easier interaction (e.g., synchronous and asynchronous collaborations between students and teachers, seamless

communication with dispersed peoples and places), visualization of complex structures and processes, and unprecedented access to primary source and secondary study materials, data sets, and media from around the world.

There are as many examples of creative use of ICTs in general education as there are faculty who have the time and inclination to experiment with their potential. General education courses urge upon students both a global perspective and a historical perspective on whatever is under study. The Internet makes this more and more available to every classroom and every student and teacher with access to adequate bandwidth. Students studying contemporary affairs can get perspectives on the topic at hand with ease from the BBC, The Guardian, or Al-Jazeera. Students of history can view original sources from their laptops and gain access to materials once available only at the largest research libraries or specialized archives. Students working on topics in the arts and languages can download myriad audio and visual materials and, of course, teachers can do the same for classroom presentation. In the sciences, simulations and animations can make difficultto-visualize processes immediately comprehensible.

Assessing, not accessing, however, is at the heart of the critical intelligence that general education seeks to develop. Student facility with using new tools does not translate automatically to sophistication in navigating the online world for the substantive research needed in term papers and seminar discussions. The propensity of students to avoid the library and to cull most resources from the Web contributes to the perception that, although they are savvy about navigating online environments, they are less adept at discriminating quality. "Information literacy" is cited by many faculty and librarians as a skill that students desperately need (and perhaps, ironically, there are online tutorials available to teach these skills to undergraduates). Moreover, many faculty might suggest that perhaps the biggest challenge posed by ICTs is that they can limit the ability to think linearly and to concentrate long enough to construct a well-reasoned argument.

The Internet also permits easier plagiarism and cheating on exams at the same time it affords faculty with new resources for detecting cheating. While faculty may be trying to use new technology to teach classes more effectively, students in the classroom may be dodging their efforts by using laptops and handheld electronic devices to surf the Web, check email, text message their friends, order lunch, or play poker.

The new technologies and the attitudes of the younger generation who use them (often referred to as "digital natives") will afford not only new opportunities but also new challenges for general education and the generation of faculty who teach undergraduates. College students are heavy users of peer-to-peer file swapping, Google searches, "mashups," wireless instant messaging (IMing), and entirely new technologies and uses that are emerging at a rapid pace. Given choices about course modality, many students will gladly choose an online video lecture component, on grounds of convenience, as either a backup or a substitute for attending lectures. Students may actually prefer doing lab preparatory

work and taking quizzes online, and emailing their professors 24/7 rather than attending office hours. Their social interactions with peers and faculty are increasingly mediated through mobile technologies, and what was once assumed to be private interaction may become public (e.g., emails and blogs as confessionals). Despite a spate of experiments taking place in the schools and in higher education, it is simply too soon to assess how the willingness and interest of youth in creating digital content through blogs such as Facebook and MySpace, remixing audio and video, and spending hours engaged with virtual worlds and games, might influence the design of future undergraduate educational environments. We can predict with some assurance, however, that some of these technologies will be integrated into general education pedagogy over time.

Reducing Costs

Many large public universities are experimenting with technology to save money in delivering high-enrollment general education courses.²⁷ Some argue that in large lecture courses such as chemistry, history, and economics, substantial cost savings can be generated by substituting capital for labor. Course redesign projects focus on rejiggering course creation and delivery mechanisms so as to decrease duplicative teaching staff costs. Investments are made in well-designed "courseware" intended to both engage students and allow self-paced learning with prompt feedback. There is no doubt that these technologies have the potential to enable the creative reuse of space and time without resulting in a concomitant degradation of educational outcomes. Although some successes have been reported, one of the stumbling blocks to reducing costs through economies of scale is the difficulty of getting other faculty (either inside or outside of the institution) to use materials developed by someone else. It may be a model that can work only in public research institutions where the teaching of many large lecture courses has been assigned to adjuncts.²⁸

Widening Access

Modular learning materials and whole courses developed by faculty at many public universities can easily be located through Google-type searches or through specialized portals. These materials are developed by faculty innovators and often serve both an institution's own students and Web surfers from around the world.²⁹ The ubiquity of the Internet and the increasing availability of college courses nationwide have resulted in a growing tendency for students in the U.S. to meet various remedial or general education requirements through online courses, a phenomenon often referred to as "online swirling." These courses might be offered by a student's own institution or by others and include courses in information literacy, remedial math, and statistics. The danger, of course, is that the core of general education may be relegated to online courses that have to be "gotten out of the way." As noted in the section on transfer students, this trend may force institutions to look to student experiences in institutions other than their own and to set up mechanisms for better curricular cooperation to assure quality of courses.

We also take note of the explosion of "virtual high schools" that provide Advanced Placement courses to urban and rural high school students (and the home-schooled population, which has been a large driver of virtual high schools). 30 Such course offerings may not only increase college readiness among high school students but may also provide models for enhancing community college curricula to increase the rate of student transfer from two-year "open door" colleges into universities. Georgia, Illinois, Massachusetts, Maryland, and Michigan are among the states that have led the movement to utilize online courses to increase college preparedness or fill in general education requirements.³¹ A number of experiments have been discussed at the University of California, but rules regarding transfer of credit among sectors and the difficulty in recruiting faculty to engage in these novel forms of teaching may present obstacles to their realization. Unique technology partnerships among community colleges, the California State University (CSU) system, and UC campuses were embodied in the development of the new UC campus at Merced. It is too early to discern what role ICTs will play in this effort to ease transitions between the sectors.

Conclusions on ICTs and General Education

Information and communication technologies will become increasingly relevant to discussions of general education because of their pervasive role in our everyday lives—we need to sift critically through more and more information from a growing number of questionable sources. As citizens, we need more sophisticated knowledge of other cultures as the international flow of ideas, capital, goods, and people continues to increase.

With respect to amplifying general education improvements and innovations (e.g., breadth, civic engagement, knowledge of other cultures and societies, development of interdisciplinary knowledge, critical thinking), the case for the use of ICTs is mixed. ICTs supply a combination of (a) opportunities for improving general education, (b) neutral features (with no special relevance to general education goals), and (c) possibly negative implications.

We suggest several ways to integrate ICTs effectively into general education:

- Support faculty innovation in redesigning large lecture courses to take advantage of tools that can allow more creative use of faculty and student time.
- Train students in the disciplined use of information resources.
- Provide adequate technical infrastructure in the classroom and other teaching/learning environments.

SECTION 8

- Provide servers and other technologies that allow faculty to digitize and store their own teaching resources (e.g., digitized images, text, video, and audio). This may be particularly crucial in the humanities and "soft" social sciences where budgets are too small to permit conversion of analog materials to digital format.
- Develop mechanisms for assessing and ensuring the quality of online general education

9 ENCOURAGING A CULTURE THAT SUPPORTS GENERAL EDUCATION

eneral education arose early in the 20th century as a protest against and remedy to the diversification and specialization of college curricula. Its proponents sought to revitalize the generalist perspective in light of this increasing trend toward specialization and elective choice for students and tried to instill in students values and skills beyond simply enhancing their earning potentials or career prospects. The idea quickly gained traction. Yet, despite all the efforts devoted to the liberal ideal of general education, and despite decades of eloquent testimony to its values, the ideal still faces an uphill battle.

Most students come to college with little comprehension of what a general education is, or why it might be valuable. Most expect college to advance them vocationally, but fewer anticipate that college can help them develop culturally, morally, or politically. In this context, it should come as no surprise that many students do not really "get the point" of general education requirements; these seem to be an extension of high school and students want to get them "out of the way." It is not clear that anything can change this outlook dramatically. What is certain is that nothing will change if there is no mobilization among relevant campus constituencies.

It is possible to build a campus culture that is more supportive of general education. In the text that follows, however, we offer no silver bullets. Our emphasis throughout has been on formidable structural obstacles to general education. We have in mind, rather, the imagery of clawing at a granite boulder in the hope of gaining a finger-hold here and there, in the hope that, cumulatively, multiple efforts will make a difference.

Faculty

Faculty do not generally reap material rewards for teaching general education courses, although this varies according to the cultures and economics of particular universities. Some departments—typically in the humanities—do not attract high enrollments in their departmental courses and do not have large numbers of majors. These departments thus have a clear incentive to teach high-enrollment general education courses. Faculty positions are, to a significant extent, allocated according to the size of a department's enrollments. Departments define and redefine themselves collectively as they come together to hire new faculty. In addition, they typically measure their local success by growth in the number of their faculty positions. Larger departments do not necessarily offer better work environments than their smaller counterparts, but larger departments typically have higher morale. This logic leads low-enrollment departments to find rewards in teaching general education courses. Yet, even in these departments, the collective benefit of general education enrollments does not necessarily translate into individual benefits for a particular faculty member who might prefer to teach upper-division courses for majors or lead a graduate seminar.

How can faculty be encouraged to teach general education?

- One option is to offer faculty members a financial bonus for teaching general education courses. At UC San Diego, faculty who teach college core courses (the heart of the freshman general education program in several of the undergraduate colleges) receive modest support for research-related expenses the first time they teach a core course, and a lesser sum for each additional time they teach. Faculty across the UC campuses who teach freshman seminars receive \$1,500 in research funds. The amounts are modest and no doubt would be more effective if increased.
- A faculty member's total teaching obligation can be reduced as a reward for teaching general education courses. The Chemistry Department at UC San Diego, for instance, gives extra teaching credit to faculty who teach large lower-division or introductory courses that enroll both majors and non-majors.
- Faculty can be provided instructional resources when they teach general education courses. At some institutions, basic general education courses have their own office staffs who provide faculty with services such as ordering books, assembling photocopied readers, posting a course web page, and hiring teaching assistants.
- Faculty can be provided moral support from prestigious sources. Are there campuswide awards for teaching? Often such awards go to faculty who teach popular lowerdivision or general education courses. Is there an awards ceremony? Does the president, chancellor, or provost attend and speak at the awards ceremony? Does a leading administrator, a distinguished alumnus, or perhaps a leading donor, make remarks about the value of general education? Some high-powered cheerleading for general education can enhance the morale of those who devote time to general education.

This is not to suggest that external rewards alone matter. Many faculty members find intrinsic pleasure in teaching general education courses. Tackling materials beyond one's specialization can be challenging, enlightening, and gratifying. Many faculty appreciate the opportunity to work with colleagues outside of their own departments. Pleasing students at an introductory level and dazzling them with questions that open their eyes to the world is a source of narcissistic satisfaction—a powerful but rarely acknowledged motivation for many academics. Yet, the pressure in a research university for faculty to move toward specialization and graduate teaching is great; some measure of countervailing pressures in the form of economic and social rewards can make a difference.

Graduate Students

At most research universities, the first—and sometimes only—instructors that undergraduate students come to know, and become known to, are graduate students. This contact, however, is often governed by the rule that the more a graduate student focuses on his or her advancement in specialized research and on the distinctive language, culture, and presuppositions of the discipline, the more peers and instructors will admire that graduate student and the more successful the graduate student is likely to be in an academic career. Top graduate students are rarely directed to think about teaching and even less frequently urged to think about teaching undergraduate students who have no prospect or intention of becoming professionals in the discipline.

In this climate, what hope is there that undergraduates will learn to appreciate the value of a general education from the graduate students who teach them? There can be no strengthening of general education unless graduate students, as present and future instructors, are themselves welcomed into a culture that prizes general education. They, too, should reap additional rewards when they teach—as they frequently do—in general education courses. They, too, should be recognized with teaching awards. They could also be honored in an annual dinner or symposium on the meaning of general education, or with special invitations to receptions for distinguished visiting artists and lecturers on campus.

Some universities—UC campuses among them—have adopted programs for cultivating the teaching skills of graduate students and providing varying degrees of mentoring and support. Despite this, many graduate students find themselves in front of a classroom with little teacher training or support. In addition to exposing graduate students to the culture of general education, we endorse ongoing efforts to develop general teaching skills among graduate students.

Non-Ladder and Part-Time Faculty

In many institutions, a great deal of instruction in general education falls to non-ladder and part-time faculty. Colleges and universities, more and more dependent on these instructors and increasingly relating to them through standardized contracts negotiated with labor unions, do little to welcome these instructors into the wider culture of the institution. We urge campuses to develop policies and programs of faculty development for non-ladder faculty. These programs should include inviting (but not requiring) temporary faculty to participate in a discussion of the goals and opportunities of higher education, and to attend colloquia, seminars, and other events that advance the aims of general education. More generally, temporary faculty are often isolated from departmental and campus life, which can lead to marginalization and can depress morale. It is likely that the motivation of these faculty would be enhanced by incorporating them more closely and effectively into the intellectual, organizational, and social life of the departments in which they are visiting. Temporary faculty, too, should be eligible for faculty teaching awards.

Advising Staff

At small colleges, academic advising may be done exclusively or primarily by the faculty. At larger institutions, academic advising is normally assigned to staff with specialized training. While advising typically takes place at both the college and departmental levels, at both there is a tendency to rely on non-academic staff personnel. They are typically delegated a great deal of advising responsibility, even though they are, in principle, supervised by academic deans and faculty members, respectively.

Academic advisors are routinely overburdened with student demands. It is likely that many of them have not had much in the way of general education themselves, and it is not practical to require it of them. It is practical, however, to have one or several of the most distinguished faculty on campus address advisors annually in a talk or workshop on topics such as the "Aims of Education" or "The Curriculum Past and Present" or "What Liberal Education Means." These workshops would honor the advisors' important role in undergraduate instruction and remind them, in ways their daily activities rarely allow, about its larger purposes. In addition to exposing advising staff to the aims and values of liberal education, they ought to be reminded often about the actual availability and value of current general education offerings on the campus. Such efforts promise to reinforce the presence and strength of information on general education in the advising culture.

Undergraduates

Students may value general education courses at the time they take them, or in retrospect. Prospectively, however, general education strikes many of them as a deviation from the upward path to marketable skills. National surveys show that students have grown increasingly conscious of economic reasons for attending college: in 1971, 37% of college freshman listed "being very well off financially" as an essential or very important reason to go to college—this rose to 74% in 2001. The goal of gaining "a general education and appreciation of ideas" has held steady as an essential or important reason for attending college—64% of freshman listed it in 1971 and 66% in 2001—though these percentages declined relative to career and economic goals. There is a constituency among students for general education, but the motivation for general education currently finds itself in greater conflict with the pressure of economic and vocational ambitions than in the past. 32

The simplest way to teach undergraduates the value of general education is to speak to them about its value. 33 We should not allow the brute fact of requirements to substitute for a discussion about why those requirements exist, and we should inform students continuously of non-required opportunities for courses, programs, and activities with a general education component. Moreover, if universities adopt our proposal for clusters of general education courses (named "bundles"), then students who complete these bundles can be rewarded with recognition on their transcripts.

Parents

Many students in the UC system come from families where neither parent attended college. The percentage of immigrants and children of immigrants who attend UC institutions is likewise high. These students are especially likely to appreciate and be encouraged to pursue the vocational side of college education. Even for students from college-educated families, it cannot be guaranteed that their parents gained an appreciation of the value of general education during their own student days. How can universities communicate better with this constituency? Again, the first task is to take on a commitment to do so. One solution that has proved useful is integrating parents into the academic orientation for freshmen.

Chancellors and Presidents

One of the tasks of presidents and chancellors is to articulate and remind the various constituencies of higher education precisely what higher education aims to achieve. No one's words matter more in setting a tone and articulating the aspirations of the institution. This is one important reason for the chief undergraduate education officer to be a part of the chancellor's cabinet. The chancellor or president answers to multiple, powerful constituencies and cannot easily keep general education high on the agenda. The chief undergraduate education officer can remind the chancellor that the job of creating a supportive environment for general education begins with the chancellor. A supportive environment is one in which faculty, staff, graduate students, and undergraduates and their parents are periodically reminded of the liberal aims of higher education. Likewise, it is important to make available material, social, and symbolic awards to encourage the pursuit of liberal education. The chancellor's role here is fundamental. He or she organizes and focuses attention, broadcasts reminders of common values, and offers moral direction. Sunday sermons rarely tell people what they do not already know, but they remind, reinterpret, refocus, and can inspire action. No one in a church can do this as powerfully as the minister; no one in a university can do this with as much impact as the chancellor or president.

Alumni

Alumni can be advocates for general education in the university community. Many alumni feel that the college experience opened their eyes to the world around them, or helped make them citizens of the world rather than provincials. Many recall that their college experience provided not only vocational training but also a general education they have valued over a lifetime. This recognition of the worth of general education should be mobilized. Opportunities for alumni to speak to students about their college experiences can be fruitful. Development officers should be alert to the possibility that some alumni will be interested to support general education programs, not just promising research efforts and new construction.

10 EVALUATING GENERAL EDUCATION COURSES AND PROGRAMS

n putting forth this vision for general education within the University of California, we recognize that this is an era when public higher education must respond to wider pressures for accountability. Nationally, leaders of public campuses and state systems have been making concerted efforts to rethink their instructional practices and establish greater transparency in student outcomes along several dimensions. Higher education researchers have joined in this effort by designing survey instruments that seek to assess undergraduate education. (See, for example, the National Survey of Student Engagement, and Collegiate Results Instrument. 34

The assessment enterprise is fraught with confusion and controversy, given the absence of consensus on which outcomes should be measured and how. Aside from the inherent methodological challenges, the utility of assessment is questionable in the absence of measures that are standardized over time or across campuses. Another obstacle is that many campuses lack the resources to collect data on current students, let alone the resources to track their graduates.35

While we do not wish to jump into the fray of assessing undergraduate education in general, we do think it is worthwhile to discuss the evaluation of general education programs and courses. In principle, the assessment of offerings in general education is possible by specifying particular goals of these offerings with respect to student learning and development and by devising measures to determine how effectively these goals are met. We also know how difficult it is to perform this exercise well. To be specific: 1) input measures, such as time spent teaching, in office hours, or the study time demanded of students, may be necessary for purposes of administrative accounting, but these measures are poor indicators of the quality or effectiveness of the educational process, and 2) output measures are clearly more desirable because they are aimed at measuring effects.

Attaining scientific precision in measuring these effects and demonstrating that they are clearly the effects of the educational experience, and not of something else, is very difficult. For example, measuring student performance by grades that reflect a command of materials is a problematic measure of the quality of educational experience. Self-reports of satisfaction by students, which may be correlated with faculty popularity and level of ease of the subject matter, can be problematic as well if they do not in some way measure the quality of education imparted. Finally, in all cases, a student taking a single course

is experiencing many other things at the same time, including other academic courses, extracurricular activities, and influence from friends. In addition, students undergo rapid personal maturation over the course of their undergraduate years, which may be as, or more, important than the experiences in a given general education course in creating educational effects. Proper assessment of the isolated effects of a single program or course requires a very complex study design involving careful attention to measurement and measurement error, and the use of controls to isolate specific effects—in a word, rigorous clinical trials. In practice, to achieve a fully adequate design and to produce trustworthy results is both arduous and costly.

In light of these considerations, the Commission is obliged to take a middle ground between neglecting evaluation and striving for comprehensive quantitative analyses. We strongly recommend that campuses lay the groundwork to examine the outcomes of general education courses. This would entail requiring those designing general educational programs and courses to: 1) specify the general education goals for student learning, 2) demonstrate the relevance of readings and other curricular materials for these goals, and 3) seek both faculty and student exit interviews about the degree to which they felt targeted goals were achieved in the educational experience. Such practices would operate simultaneously as exercises in quality control and as means for obtaining feedback for instructors and those who oversee general education programs. We also recommend the periodic evaluation of general education programs by outside peers, as is done routinely with graduate programs. Some UC campuses have begun to implement these several practices. And finally, while acknowledging the risk of memory distortion and the tendency to sentimentalize the past, we note the value of interviewing students at various intervals of years and decades after they have graduated in order to ascertain the value of their collegiate general education experiences in later life.

RECOMMENDATIONS OF THE COMMISSION

The following recommendations are directed to the UC campuses in particular, but have implications for public and private universities nationwide.

- 1. Campuses should systematize their commitment to general education by re-casting and extending the role of chief undergraduate education officers. In particular, these positions should (a) be assured a conspicuous place, voice, and role in the central administration of campuses; (b) be given ample discretionary, renewed annual budgets and other resources to promote courses and programs in general education; and (c) be protected, where appropriate, from routine administrative chores, in order to enhance opportunities for initiative and innovation. (See Section 4: Integrating General Education into the Fabric of the University.)
- 2. Campuses should give high priority to ensuring appropriate incentive structures to enable faculty to participate in general education enterprises, thus easing a principal impediment to faculty involvement in general education. (See Section 4: Integrating General Education into the Fabric of the University.)
- 3. As one alternative to the "cafeteria approach" to general education, in which students choose a set of core courses from an unwieldy list of general education courses, campuses should develop a discrete number of thematic, interdisciplinary bundles or sequences of courses around substantive and timely topics. These packages could be considered a substitute for discipline-based minors and could receive full academic recognition, so indicated on students' transcripts. Students could select any given thematic package voluntarily, but once selected, all of its constituent parts would be required. (See Section 5: Curricular Innovation in General.)
- 4. Campuses should give the highest priority to advancing the civic education and engagement of their undergraduates. In particular, they should expand and consolidate courses and programs that combine (a) students' volunteer service or political work; (b) instruction in the academic significance and importance of that work; and (c) individual or group-based student research related to their community involvement. (See Section 6: Thinking Through the Civic Dimension.)
- 5. The University of California and its campuses should evaluate the implications of advanced placement credit and the academic work of transfer students for the general education of its students. They should cooperate fully and equally with high schools, community colleges, and state universities, in order to safeguard the integrity and maximize the quality and effectiveness of the general education of students who spend only part of their educational careers at the University. (See Section 7: Transfer of Credits and Transfer Students.)

- 6. Administrators and faculty should pursue applications of new information and communication technologies to enhance teaching and learning, and potentially lower costs and increase access to their institutions. At the same time, administrators should assure that educational quality is not inadvertently sacrificed in the process. (See Section 8: New Technologies and General Education.)
- 7. Campus administrators and faculty should actively and continuously strive to educate all of their constituencies on the value, rationale, and goals of general education, making clear the opportunities for its pursuit on their campuses. Academic Affairs, as well as Student Affairs, should engage in efforts to integrate transfer students into the University, with specific course work designed for transfer students (including one-unit courses modeled on freshman seminars). (See Section 9: Encouraging a Culture that Supports General Education.)
- 8. To assure the quality of general education, campuses should (a) establish machinery in their Academic Senate divisions dedicated to initiating, monitoring, and reviewing general education courses, programs, and experiments, and (b) require designers and teachers in general education to provide statements of the goals of their efforts, to specify means of implementing these goals, and subject their work to periodic internal and external evaluation. (See Section 10: Evaluating General Education Courses and Programs.)

ENDNOTES

- ¹ Judith Rodin and Stephen P. Steinberg (eds.), *Public Discourse in America: Conversation and Community in the Twenty-First Century.* (Philadelphia: University of Pennsylvania Press, 2003.)
- ² These positions include the titles of Vice Provost, Associate Vice Provost, or Dean.
- John Stuart Mill, "Inaugural Address at St. Andrews," in F. A. Cavenaugh (ed.), James and John Stuart Mill on Education. (Cambridge: Cambridge University Press, 1931), p. 132.
- ⁴ John Stuart Mill, *Autobiography*. (London: Longmans, Green, Reader & Dyer, 1873), p. 1.
- See, for example, Stanley Katz, "Liberal Education on the Ropes." *The Chronicle of Higher Education*, (April 1, 2005). Available at http://chronicle.com/weekly/v51/i30/30b00601.htm. John Guillory, "Who's Afraid of Marcel Proust? The Failure of General Education in the American University," in David A. Hollinger (ed.) *The Humanities and the Dynamics of Inclusion since World War II*. (Baltimore, MD: The Johns Hopkins University Press, 2006), pp. 25-49. Ernest L. Boyer and Arthur Levine, *A Quest for Common Learning: The Aims of General Education* (Washington, D.C.: Carnegie Foundation for the Advancement of Teaching, 1981). Sheldon Rothblatt, *The Modern University and Its Discontents* (Cambridge: Cambridge University Press, 1997).
- ⁶ California's 1960 Master Plan for Higher Education is the principle of differentiation of functions among the three public segments—universities, state universities, and community colleges. Each is assigned a distinctive package of academic programs and degree-granting privileges. The community colleges typically offer two-year associate degrees, California State University (CSU) campuses confer bachelors and an array of masters degrees, and the University of California offers bachelors, masters, and doctoral degrees (joint doctoral programs between UC and CSU campuses are also in place). The University of California has a mandate to provide professional training in law, medicine, and veterinary medicine, and enhanced responsibility for research. See the UCOP website "Master Plan for Education in California (available at http://www.ucop.edu/acadinit/mastplan/mp.htm).
- An "official" definition of liberal education published in 1998 by the American Association of Colleges and Universities incorporates the ingredients we have listed. See Kevin Hovland, Shared Futures: Global Learning and Liberal Education. (Washington, D.C.: American Association of Colleges and Universities, 2006), Appendix.
- Sheldon Rothblatt, The Modern University and Its Discontents (Cambridge: Cambridge University Press, 1997), p. 40.
- Olark Kerr, The Uses of the University (Cambridge: Harvard University Press, 1963, 2001 5th ed.), p. 15.
- ¹⁰ Raymond Williams, The Long Revolution (New York: Columbia University Press, 1961), p. 337.
- Richard Hofstadter, "The Revolution in Higher Education" in Arthur M. Schlesinger, Jr. and Morton White, eds., *Paths of American Thought* (Boston: Houghton Mifflin, 1963), p. 283.
- ¹² Julie Reuben, *The Making of the Modern University*, (Chicago: University of Chicago Press, 1996), p. 135.
- ¹³ *Ibid*, p. 211.
- 14 Ibid, pp. 237-238.
- 15 Ibid, p. 243.

- ¹⁶ For a description of the near-universality of standard distribution requirements for statewide general education programs, see Robert Schoenberg (ed.) General Education and Student Transfer: Fostering Intentionality and Coherence in State Systems (Washington, D.C.: American Association of Colleges and Universities, 2005), p. 9.
- For related examples, see a recent initiative of the Carnegie Foundation and Association of American Colleges and Universities: Integrative Learning Project's Public Report, online at http://www.carnegiefoundation.org/files/elibrary/integrativelearning/index.htm
- ¹⁸ Michael X. Delli Carpini and Scott Keeter, What Americans Know About Politics and Why It Matters (New Haven, CT: Yale University Press, 1997). A 2007 PEW Research Center update showed "little change over all levels of public knowledge." PEW Research Center. Online at http://www.people-press.org
- ¹⁹ U.S. Census data suggest that voter turnout during presidential elections for young voters, ages 18-24, showed a sharp decline between 1996 - 2000; however, voter turnout has been on the incline for more recent elections and is comparable to the 1976 turnout. Interestingly, this pattern reflects behavior for all voters, and turnout is still lower at present than in the 1960s. Young voter turnout for congressional election years has shown a steady decline since 1966, peaking slightly only during the 1982 election and showing a small .4% increase during the 2002 election. Figures for the 2006 election year have not been released at the time of this writing. See: U.S. Census Bureau. "Reported Voting Rates in Presidential Election Years, by Selected Characteristics: November 1964 to 2004." and "Reported Voting Rates in Congressional Election Years, by Selected Characteristics: November 1966 to 2002." Available at http://www.census.gov/population/www/socdemo/voting.html
- ²⁰ Linda J. Sax and Alexander W. Astin, cited in Derek Bok, *Universities and the Future of America* (Durham: Duke University Press, 1990), p. 180.
- ²¹ Gregory B. Markus, Jeffrey P. F. Howard, and David C. King, "Integrating Community Service and Classroom Instruction Enhances Learning: Results from an Experiment," Educational Evaluation and Policy Analysis, 15(4): 410-419 (Winter 1993).
- ²² Derek Bok, Our Underachieving Colleges: A Candid Look at How Much Students Learn and Why They Should Be Learning More. (Princeton, NJ: Princeton University Press, 2005), p. 183.
- ²³ Washington Monthly, September 2006, "The Washington Monthly College Rankings: National Universities," Available at http://www.washingtonmonthly.com/features/2006/0609.national.html
- ²⁴ In June 2005, representatives from all 10 University of California campuses and the Office of the President convened to explore the role of civic engagement. See the Center for Studies in Higher Education's Research and Occasional Paper Series report, Civic and Academic Engagement in the Multiversity: Institutional Trends and Initiatives at the University of California, (Berkeley: Center for Studies in Higher Education, 2005). Available at http://cshe.berkeley.edu/publications/publications.php?id=128
- ²⁵ Clifford Adelman, The Toolbox Revisited: Paths to Degree Completion From High School Through College. (Washington, D.C.: U.S. Department of Education, 2006). Available at http://www.ed.gov/ rschstat/research/pubs/toolboxrevisit/index.html. One study of student mobility in the states of Utah, Georgia, and Maryland indicates that almost 60% of baccalaureate degree recipients attended two or more institutions. See Robert Shoenberg (ed.), General Education and Student Transfer: Fostering Intentionality and Coherence in State Systems. (Washington, D.C.: American Association of Colleges and Universities, 2005), p. 7.
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- ²⁸ Diane Harley, Jonathan Henke, and Michael W. Maher. "Rethinking Space and Time: The Role of Internet Technology in a Large Lecture Course," Innovate, Vol. 1, No. 1 (October/November 2004). Available at http://cshe.berkeley.edu/publications/publications.php?id=34
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- ³³ A useful tool is the Association of American Colleges and Universities 2005 pamphlet: Why Do I Have to Take This Course? A Student Guide to Making Smart Educational Choices. Available at http://aacu-secure.nisgroup.com/acb/stores/1/product1.cfm?SID=1&Product ID=107
- 34 2006 National Survey of Student Engagement. Available at http://nsse.iub.edu/nsse 2006/index.cfm
- 35 The Secretary of Education's Commission on the Future of Higher Education (available at http://www.ed.gov/about/bdscomm/list/hiedfuture/index.html) may spur efforts to measure student learning at the post-secondary level by offering incentives to colleges and states who report such data. The commission's final report, A Test of Leadership: Charting the Future of U.S. Higher Education, (available at http://www.ed.gov/about/bdscomm/list/hiedfuture/reports/final-report.pdf) calls for several changes, including a shift towards a greater focus on student learning by the accreditation system. For a background on the Spellings' Commission, see the Inside Higher Education website (available at http://insidehighered.com/news/focus/commission).

APPENDIX A

Summary of Undergraduate General Education at University of California Campuses

Table A-1: University of California general education requirements, by campus		
Campus	General Education Requirements	
Berkeley	Each undergraduate college at UC Berkeley has its own set of general education distribution requirements. For Letters and Science (78% of undergraduates), this takes the form of a "breadth" requirement: one course in each of seven areas of knowledge (Arts and Literature, Biological Science, Historical Studies, International Studies, Philosophy and Values, Physical Science, and Social and Behavioral Sciences). In addition, all UC Berkeley students must fulfill an American Cultures breadth requirement. These courses focus on issues in U.S. history, society, or culture, and must also incorporate theoretical or analytical issues regarding race, culture, and ethnicity, and at least three underrepresented populations within American society.	
Davis	UC Davis has a campus-wide GE requirement with three components: topical breadth, writing experience, and social and cultural diversity. For the topical breadth requirement, each major is assigned to one of three categories—arts and humanities, science and engineering, and social science—and each student is required to take three approved GE courses from each of the two topical breadth areas that does not include his or her major. For social and cultural diversity, one approved course is required. Writing experience courses must have a specified minimum amount of writing that includes instruction, drafts, and feedback. Three approved courses are required. Some courses contribute simultaneously to more than one part of the GE requirement. In each of the areas, there are many approved courses so that student flexibility and choice are emphasized.	
Irvine	Undergraduate students at UC Irvine have three sets of requirements: campus-wide breadth requirement, school-wide requirements, and the requirements of individual majors. Students need to earn 180 units to graduate, and the full breadth requirement specifies a distribution of coursework for up to 76 units. The breadth requirement identifies an array of course options for students and tries to encourage sequences of courses rather than single, unrelated courses. It is organized into eight categories: Writing, Natural Sciences, Social and Behavioral Sciences, Humanistic Inquiry, Mathematics and Symbolic Systems, Language Other Than English, Multicultural Studies, and International/Global Issues.	
Los Angeles	In 2002, UCLA replaced its college's divisional-based GE requirements with a 10-course (most with a 5-unit value) GE curriculum centered on three foundation areas of knowledge: Foundations of Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry. As of Fall 2006, all incoming UCLA students will satisfy their GE requirements by taking a requisite number of courses across three foundation areas of knowledge.	
Merced	UC Merced enrolled its first class of students in the 2005-2006 school year. Initially, all undergraduate students will be members of College One. College One oversees UC Merced's GE program, which is comprised of a Core Course Sequence and a Freshman Seminar Program. UC Merced's core course, "The World at Home," is divided between students' freshman and junior years. The core sequences focus on introducing students to the issues "facing informed citizens in the 21st century." Students are required to take Core 1 in the first or second semester of their freshman year. In the spring of their junior year, students will take Core 100, a continuation of "The World at Home" which seeks to apply the lessons and themes of Core 1. The aim of Core 100 is to build upon freshman-year core coursework and to provide junior transfer students a core curriculum.	

Table A-1: University of California general education requirements, by campus		
Campus	General Education Requirements	
Riverside	UCR has cafeteria-style distribution requirements. Every student must take classes in World History, Ethnicity, Natural Sciences, and Social Science and Humanities. There is no campus-wide language requirement.	
San Diego	UCSD is comprised of six semi-autonomous undergraduate colleges: Revelle, John Muir, Thurgood Marshall, Earl Warren, Eleanor Roosevelt, and Sixth. Each of the colleges has its own general education requirements, allowing undergraduates to choose from among six distinct general education curricula supplementing their major requirements. These curricula range from a very structured liberal arts type program to a program with a broad range of electives. The general education requirements of the colleges are met through a series of courses approved for these purposes. Some courses are the regular course offerings of the instructional units (departments and programs) of the university, other courses have been developed specifically for the purposes of general education.	
Santa Barbara	The General Education Program requirements include seven General Subject Areas and five Special Subject Areas. The degree that a student is pursuing (bachelor of arts, bachelor of science, bachelor of fine arts, or bachelor of music) determines the distribution of courses within General Subject Areas. Four of the five Special Subject Area requirements are the same for all degree objectives; the "European Traditions" Special Subject Area requirement applies only to students pursuing their B.A. General Subject Areas include: English Reading and Composition; Foreign Language; Science, Mathematics and Technology; Social Sciences; Culture and Thought; Arts; and Literature. Special Subject Areas include: World Cultures Requirement; Quantitative Relationship Requirement; Ethnicity Requirement; and European Traditions.	
Santa Cruz	All undergraduates at UCSC satisfy the same general education requirements, regardless of their residential college affiliation or academic school. The core of the system is a breadth requirement that students satisfy by completing three courses in each of three broad areas of the curriculum: Arts & Humanities, Social Sciences, and Natural Sciences & Engineering. These nine courses are subject to further distribution requirements. In each of the three areas, two courses must be introductions to different disciplines while the third course is a "topical" course with a more interdisciplinary approach. In addition, one course must carry an "arts" designation, one a "quantitative" designation, and one an ethnic studies designation. Two lower-division writing courses are required (beyond the satisfaction of the Entry Level Writing Requirement). There is also a "writing in the disciplines" requirement that "provides instruction and substantial practice in writing within the context of any academic subject."	

Table A-2: Recent campus-specific general education initiatives		
Campus	Recent General Education Initiatives	
Berkeley	■ In 2000, the College of Letters and Science created L&S College Courses for students who wanted to study a subject in more depth than they could in the average introductory course. Some of these courses were interdisciplinary, some approached subjects from various epistemologies, and some examined case studies. This program ran from spring 2000 through spring 2005.	
	■ In fall 2002, Letters & Science launched a new course for undecided first-semester freshmen entitled "Exploring the Liberal Arts." It is intended to provide an intellectual overview of the College of Letters & Science—from the perspectives of engaging guest speakers chosen from the faculty, deans and recent alumni—and a preview of undergraduate research and other enrichment opportunities. The course goal is to help students become well-informed participants in their own educational experience, so they can make the most of their years in the College.	
	■ In fall 2005, the College of Letters and Science launched the L&S Discovery Courses program to provide students a more meaningful breadth experience. Only the most outstanding teachers among the faculty are recruited to teach in the program. In the first year, nine of the twenty-one Discovery Courses were taught by recipients of the campus' coveted Distinguished Teaching Award. Some Discovery Courses are developed especially for the program and offered exclusively through L&S others are existing courses that meet the program's goals, which are now cross-listed with L&S Discovery Courses when they are offered by exceptional teachers.	
Davis	■ The campus recently adopted educational objectives for undergraduate students intended to place the GE program in a more general conceptual framework and have given a clearer statement of the campus GE philosophy. In addition, a standing Academic Senate General Education Committee with responsibility for GE policy was established, and general education themes were developed by the College of Agricultural and Environmental Sciences and are coordinated sets of courses that satisfy both of the topical breadth requirements for students with majors in arts and humanities. In some instances, if properly chosen, courses in the theme options could also satisfy the writing and diversity components of GE.	
	■ The campus was awarded a Hewlett Foundation grant to facilitate improvements to the GE program. One outcome was the creation of the General Education Scholar certificate program. GE Scholars participate in one of the themes above and also take a capstone course that integrates and applies the knowledge gained in the theme. The Hewlett grant also led to improvements to the writing experience component of the GE program. This included strengthening the University Writing Program, which supports the writing instruction in GE writing experience courses.	
	■ Recently, the General Education Committee put forth a set of proposals that will form the basis for wider campus discussion, in response to a feeling among the faculty that the campus could further enhance the GE program. The Committee also recommended that a joint Senate-Administration task force be formed to lead that effort. It has been appointed and is now engaging its charge.	

Table A-2: Recent campus-specific general education initiatives		
Campus	Recent General Education Initiatives	
Irvine	■ In 2003, the campus established the joint Senate and Administrative UC Irvine Task Force on Undergraduate Education. The Task force was concerned that students were given few opportunities to take electives outside of their majors or to make informed decisions about which disciplines they wanted to pursue. The Task Force made three general recommendations:	
	■ Emphasize the benefits of not declaring a major to incoming freshman. The campus would instead offer an "Integrated First-Year Experience" (UCLA's Cluster Program provides one model), to expose students to a wide range of disciplines without sacrificing their time to degree.	
	Provide students greater flexibility within the structure of existing majors and breadth requirements. This may involve requiring departments to allow students room for electives within the major, or incorporate a research or practical experience.	
	■ Create new majors that support interdisciplinary learning. One option might involve creating tran-disciplinary majors, in which students could customize their area of specialization. The Task Force also recommended that multiple departments sponsor a major so that students could study a discipline through a variety of lenses.	
Los Angeles	■ In 1994, a faculty-student workgroup was organized to examine the General Education (GE) curriculum at UCLA, and in 1997 issued a report entitled General Education at UCLA: A Proposal for Change. This document called for GE requirements that were "simpler, fewer, more coherent, and clearer in purpose;" a common campus-wide GE curriculum and course list; first year clusters; and a permanent GE oversight authority.	
	■ In 1996, Judith L. Smith was appointed Vice Provost (VP) for Undergraduate Education and given authority over general education at UCLA. Vice Provost Smith worked with university administrators, Deans, faculty, and Academic Senate committees throughout 1997-98 to draft and implement plans for GE reform, and in 1998-99, Smith launched a pilot GE Cluster Program with the aim of developing ten clusters over five years to enroll up to 45% of the incoming freshman class. During the same academic year, UCLA's Undergraduate Council (UgC) established a GE Governance Committee.	
	■ UCLA's new GE Governance Committee submitted a formal proposal in January 2001 to replace the UCLA College's divisional based GE requirements with a 10-course (most with a 5-unit value) GE curriculum centered on three foundation areas of knowledge. This GE foundational framework was approved by the College faculty at the end of 2001, and throughout the winter and spring of 2002 three foundation area faculty workgroups evaluated all GE courses, old and new, for certification and inclusion in the new curriculum. This new curriculum was implemented in Fall 2002.	
	■ In March 2003, the Undergraduate Council adopted a proposal by GE Governance for a campuswide GE framework based on the foundational area of knowledge model with a common GE course list. In 2004, the School of Arts and Architecture and the School of Theater, Film and Television adopted the foundational area framework and course list. The Henry Samueli School of Engineering and Applied Sciences followed suit in the spring of 2005, as did the School of Nursing at the beginning of 2006. As of Fall 2006, all incoming UCLA students will satisfy their GE requirements by taking a requisite number of courses across three foundation areas of knowledge.	
	■ During Fall 2005-Winter 2006, the GE Governance Committee established the process by which the GE curriculum for each of the three foundation areas will be reviewed. A review committee for the Foundations of Scientific Inquiry has been appointed and is currently conducting an internal review of the curriculum in this area, to be followed by a full review administered by the Undergraduate Council. Review committees for the Foundations of Society and Culture and the Foundations of Arts and Humanities curricula will be appointed in 2007 and 2008, respectively.	

Table A-2: Recent campus-specific general education initiatives		
Campus	Recent General Education Initiatives	
Merced	■ UC Merced is a new campus. Please see the description of Merced's GE requirements in Table A-1 above. The entire Core Course Sequence will be reviewed by the UCM faculty every four years.	
Riverside	■ There are not currently any GE initiatives on the campus, though there is a GE Task Force currently in place. There have not been any recent major changes to the structure of GE at UCR. There have been periodic task forces over the years, but there have not been major changes in GE implementation.	
	■ At UCR there is currently an effort to create freshman "learning communities" through the establishment of a freshman cluster system in Fall of 2007. Each group of students will travel together into a humanities class, an introductory subject-area class, and a discussion section. These classes will be linked to a freshman seminar and writing section. While this is not a change to GE itself, since it is not required of students, it will be made available to as many students as possible. UCR hopes that this initiative will improve retention and success of freshman, as well as their transition into university-level learning.	
San Diego	■ Extensive changes in general education came with the creation of Sixth College, which began enrolling students in Spring 2005. The planning process for the college began with a university-wide colloquium on general education which occurred on February 5, 1999 to which all members of the UCSD faculty were invited. Following this general open meeting (and other activities such as a pre-planning committee which outlined the approaches to planning that should be taken), a Senate-Administration Task Force was appointed to develop a plan for a new college—including its general intellectual theme, its general education approach and general education requirements, its approach to University writing, as well as plans for the physical space needs of a new college. This Task Force submitted its report on June 30, 1999.	
	■ Following the submission of the plan, a Provost for Sixth College was appointed (Gabrielle Wienhausen) and current faculty were invited to become members of the Sixth College Faculty. Work then began on transforming the general plan into a detailed proposal that could be submitted to and be debated by the Senate. The plan was submitted to the Senate on May 14, 2001. After extensive debate (and some revisions) the plan was accepted by the Senate and Sixth College was launched. Sixth College will graduate its first students in the spring of 2005.	
	■ The establishment of Sixth College, and by implication, the establishment of a new general education curriculum was the result of a process involving a large number of faculty, administrators, and students. The model is one that is fundamentally different from those in which a single set of general education goals and requirements must be agreed upon for the entire campus. The system employed at UCSD allows six substantially different approaches to general education to co-exist within a single undergraduate student body. All six of the programs are dependent upon the disciplines to provide instruction for some part of the general education program. At the same time, however, through the development of their own core-course sequences, the college curricula are free from the intellectual constraints and sensibilities of disciplinary-based courses for other parts of their general education system.	

Table A-2: R	Table A-2: Recent campus-specific general education initiatives				
Campus	Recent General Education Initiatives				
Santa Barbara	■ In November 1999, UC Santa Barbara convened a General Education Task Force to review GE requirements, analyze them against GE programs at comparable universities, and recommend possible improvements to the general education program. The task force was also asked to look at the possibility of a community service component, and of additional ethnic studies courses, as part of the university's GE requirements.				
	■ In May 2002, the task force released its report, and recommended a GE plan with four components: skills courses; core courses; and one course each in ethnic studies and western civilization. There are three categories of skills courses: writing; quantitative reasoning; and foreign language. Core areas include: art studies; literary and textual studies; historical studies; social sciences; and science and mathematics.				
	■ The task force cited several goals in making its recommendations. Among these goals were: building GE around strong courses designed for non-majors; raising the academic standards in GE classes; providing freshmen with the opportunity to take small classes with regular faculty; increasing the number of GE courses taught by regular faculty; increasing the number of cross disciplinary and inter-disciplinary GE courses; and improving instruction in reading, writing, quantitative and research skills.				
Santa Cruz	■ In 1999, a taskforce of the Academic Senate proposed a revision that eliminated the distinction between "introductory" and "topical" courses, directed that the upper-division writing course be delivered in the major, and gave students the option of reducing the number of breadth courses required by satisfying an approved interdisciplinary topical cluster or by completing two years of a second language. The revision was narrowly defeated in the senate due to concerns about sustainability of the upper-division writing requirement and the reduction of required breadth.				
	Since the resolution's defeat, the Committee on Educational Policy has revisited one of the requirement areas each year to review the courses designated in the area to ensure that they remain aligned with the original intent of the requirements.				

Table A-3: Freshman and sophomore seminar status at each UC campus				
Campus	Description of Freshman and Sophomore Seminars			
Berkeley	UC Berkeley's freshman and sophomore seminars were originally launched in 1992. Approximately one hundred seminars are offered each semester. In fall 1992, Berkeley began offering one-unit freshman seminars in every department on campus. At the same time, the existing freshman and sophomore seminars (earning 2–4 units) were expanded considerably. In spring 2002, the College of Letters & Science piloted a new sophomore seminar program, which has since been expanded to become a campus-wide program, and consolidated with the other seminars to create the freshman and sophomore seminars.			
Davis	The UC Davis campus offers one- and two-unit freshman seminars. They are not part of the GE program, however. These seminars are open to sophomores and upper classmen after freshmen have enrolled.			
Irvine	The freshman seminar program at UC Irvine is limited to 15 students. In 2002, the campus began an initiative to expand the existing freshman seminar program to make them available to all interested freshmen.			
Los Angeles	The freshman cluster program includes over 70 five-unit freshman seminars during the spring quarter of each academic year. Freshmen can also enroll in any Fiat Lux freshman seminars, as well as seminars offered by UCLA's Collegium of University Teaching Fellows Program (CUTF). During the 2006-07 academic year, the UCLA College and the Division for Undergraduate Education launched a sophomore seminar sequence pilot to offer students the opportunity to combine a pair of GE courses to fulfill both GE foundation area requirements and the GE seminar requirement.			
Merced	UC Merced has freshman seminars that are electives, and while they fill core requirements, they are not required for students nor are staff obligated to teach them. There are no sophomore seminars.			
Riverside	UC Riverside offers freshman seminars, as well as a fewer number of sophomore seminars. Seminars are not required for freshman or sophomores.			
San Diego	In 2003, UCSD began offering one-unit freshman seminars that typically have an enrollment limit of 20 students. Enrollment priority is given to freshmen.			
Santa Barbara	UCSB offers 1-unit freshman seminars which do not carry GE credit. The campus does not offer sophomore seminars.			
Santa Cruz	UCSC offers both freshman and sophomore seminars.			

APPENDIX B

Chief Undergraduate Education Officers Interviewed				
Mark Appelbaum	Associate Vice Chancellor, Undergraduate Education	UC San Diego		
Andrew Grosovsky	Vice Provost for Undergraduate Education	UC Riverside		
William Ladusaw	Vice Provost and Dean of Undergraduate Education	UC Santa Cruz		
Christina Maslach	Vice Provost for Undergraduate Education and Instructional Technology	UC Berkeley		
Gregg Herken	Professor, School of Social Sciences, Humanities and Arts	UC Merced		
Sharon Salinger	Dean, Division of Undergraduate Education	UC Irvine		
Judi Smith	Vice Provost for Undergraduate Education	UC Los Angeles		
Fred E. Wood	Interim Vice Provost, Undergraduate Affairs	UC Davis		
Alan Wyner	Dean of Undergraduate Studies	UC Santa Barbara		

APPENDIX C

The accuracy of information in this table is deemed reliable but not guaranteed. Reform efforts are often fluid and website addresses can change frequently.

Institution	Type of Initiative	General Education Program	Year	Link
Columbia University	No known major reforms	■ Students at Columbia College are required to take the core curriculum, which includes courses in the humanities, sciences, contemporary civilizations, and major cultures. Students must also complete foreign language, writing, and physical education requirements.		
Dartmouth College	Curricular Review	 Dartmouth's general education curriculum is undergoing several changes. For the class of 2007, students will have to take English, a foreign language, a first-year seminar, a world culture and an interdisciplinary class, as well as courses in the arts, literature, philosophical or historical analysis or religion, international or comparative study, social analysis, quantitative and deductive sciences, natural sciences, and technology or applied science. The class of 2008 and beyond must take a course in systems and traditions of thought, meaning, and value, in addition to the aforementioned requirements. It is not clear when these reforms began. 	Not Known	http://www.dartmouth.edu/~reg/regulations/undergrad/degree-req.html#ger07
Duke University	Curricular Review	 The University's Arts and Science Council's report <i>Curriculum 2000</i> recommends redesigning Duke's liberal arts curriculum to meet the challenges of the 21st century. The Council launched this initiative in response to a study by Duke's Office of Institutional Research that found that 47 percent of 1996-97 graduating seniors had omitted one area of knowledge (e.g. 10 percent omitted quantitative reasoning, 19 percent omitted a foreign language, etc.). This initiative emphasizes global citizenship, multiculturalism, the ability to see issues from multiple perspectives, ethics, lifelong learning, and citizenship. <i>Curriculum 2000</i> recommends that students be required to take courses in four areas of knowledge (arts and literatures; civilizations; social sciences; natural sciences/mathematics); two modes of knowledge (quantitative, inductive, and deductive reasoning; and interpretive and aesthetic approaches); three focused inquiries (cross-cultural; science technology and society; and ethical); and three competencies (research, writing, and foreign language). 	1999	http://www.aas. duke.edu/admin/ curriculum2000/report html

Institution	Type of Initiative	General Education Program	Year	Link	
Harvard University	Curricular Review	 In 2002, the Dean of the Faculty of Arts and Sciences announced that Harvard's undergraduate curriculum would undergo a review. The working groups he created released a report entitled, A Report on the Harvard College Curricular Review. The curriculum that the 2004 report recommended emphasizes lifelong learning, critical and creative thinking skills, a large breadth of knowledge, and local and global citizenship. Additional recommendations were made in 2006, including adding American History and Religion. (At the time of this publication, the review was ongoing.) 	2004 2006-07	http://www.fas.harvard. edu/curriculum-review/ general_education.pdf	
Johns Hopkins University	Curricular Review	 The University's Commission on Undergraduate Education issued a report that contained recommendations for improving the quality of undergraduate education. It found that a liberal arts curriculum should focus on critical thinking skills, global citizenship, an understanding of diverse cultures, lifelong learning, and technological literacy. According to the report, Johns Hopkins was the first higher education institution that was designed to focus on research and graduate education. Thus, undergraduate education has not traditionally been its focus. 	2003	http://www.jhu.edu/ news_info/reports/cue/	
Massachusetts Institute of Technology (MIT)	Curricular Review	 In 2003, the President convened the <i>Task Force on the Undergraduate Educational Commons</i> to examine the goals, content, and structure of undergraduate education. As part of its work, the Task Force will be developing and articulating the content of the curriculum that should be common to all MIT undergraduates. Although MIT's focus is the engineering sciences, students are currently required to complete a humanities, arts, and social science requirement. MIT's mission statement lists humanities, social sciences, and management as core strengths. In 2006, a set of recommendations was made and includes study abroad; updating the traditional core of science subjects; foundational work in the arts, social sciences and humanities; and the elimination of applying AP credits to place out of requirements (except for calculus). 	2006	http://web.mit. edu/committees/ edcommons/ documents/task_force_ report.html	

Comparison	Comparison of General Education Reforms Among Institutions				
Institution	Type of Initiative	General Education Program	Year	Link	
Princeton University	Curricular Review	 Princeton's general education curriculum is designed to expose students to both specialized and broad areas of knowledge and to teach them critical thinking skills. Princeton's new general education requirements include courses in writing, foreign language (though engineering students are exempt from this), epistemology and cognition, ethical thought and moral values, historical analysis, literature and the arts, quantitative reasoning, social analysis, and science and technology. 	1995	http://www.princeton. edu/pr/pub/gen/	
Stanford University	Curricular Review	 The Commission on Undergraduate Education issued a report that recommended improvements in academic advising, curricular changes, and creating a new vice provost post for undergraduate education. The Commission focused their recommended curricular changes on creating a new core science requirement for non-science majors that teaches these students how to think scientifically. It also recommended requiring students to develop a thematic connection among their humanities and social science breadth requirements and to develop common sets of themes for the "Culture, Ideas, and Values" requirements. Finally, it recommended strengthening foreign language and writing requirements, and developing a course on oral communication. The Commission's report led to the development of freshman and sophomore seminar courses and undergraduate research programs. The report also led Stanford to launch its Campaign for Undergraduate Education (CUE). The money for this program was initially used to start up new curricular programs, but is now being used for a host of items that support undergraduate education, from scholarships to student organizations. The CUE has raised over \$1 billion thus far. 	1994	http://news-service. stanford.edu/news/2005/ january12/cue-011205. html http://www.stanford. edu/dept/news/pr/94/ 941012Arc4101.html	

Comparisor	Comparison of General Education Reforms Among Institutions				
Institution	Type of Initiative	General Education Program	Year	Link	
State University of New York (SUNY)	Curricular Review	 The Joint Task Force on General Education for SUNY and the state's community colleges issued a report expressing the need to adopt systemwide general education goals. SUNY responded to this report by adopting Resolution 98-241, which established a 30-credit hour general education core curriculum. The new curriculum was designed to affect student learning outcomes in 10 knowledge and skill areas and two competencies. The knowledge and skill areas include: mathematics, natural sciences, social sciences, American history, western civilization, other world civilizations, humanities, the arts, foreign language, and basic communication. The competencies include: critical thinking and information management (also technological literacy). 	1998	http://www.suny. edu/provost/ GeneralEducation/ campusgenedresources. cfm	
University of Chicago	Curricular Review	 The University developed a set of new general education guidelines in a report entitled, Three Views of Continuity & Change at the University of Chicago. The University streamlined its general education requirements so that students could complete these requirements within two years and move on to more specialized studies in their majors. The new general education guidelines also allowed students to fulfill their foreign language requirement by demonstrating proficiency on an exam rather than through coursework. To encourage students to develop their foreign language skills and to gain more exposure to other cultures, the University decided to offer grants to students to study in foreign-language institutes in other countries. 	1998	http://www.uchicago. edu/docs/education/ continuity-change/index. html	
University of Colorado at Denver	Curricular Review	 The University developed the Quality Undergraduate Education project to develop three new programs: a first-year experience program, a revitalized core curriculum, and an honors program. The purposes of this initiative are to raise the quality of the entering class, improve student retention rates, and attract out-of-state students. The development of a proposal for a revitalized core curriculum appears to still be in progress. 	2003	http://thunder1. cudenver.edu/ue/QUE. htm	

Comparison of General Education Reforms Among Institutions				
Institution	Type of Initiative	General Education Program	Year	Link
University of Florida	General Education Curriculum	 The University has a General Education Council that periodically reviews the curriculum. Currently, the goal of general education at the University of Florida is to provide students a "collective knowledge about the world [that] enables [them] to communicate, to make informed decisions about many aspects of [their] lives, and to understand and participate fully as informed citizens in matters local, national, and global." Six of the students' general education credits must have an international/diversity focus. 		
University of Georgia	Curricular Review	 The University's Council on General Education developed a set of general education learning outcomes that emphasized oral and written communication, quantitative reasoning, science, the arts, and cultural and social perspectives. In 2000, the faculty senate held a symposium on the future of general education in the 21st century to make general observations on the current structure of higher education - whether or not it should be limited to the first two years of undergraduate education or should be integrated into the entire undergraduate experience. The task force report was published in 2006. 	2000 2006	http://www.usg. edu/academics/comm/ gen_ed/ http://www. curriculumsystems. uga.edu/ucc/ ucctaskforce0306.pdf
University of Illinois, Urbana- Champaign	No known major reforms	Students are expected to develop fluency and literacy in English, literacy in at least one foreign language, exposure to different disciplines, and intensive study in one discipline (or an interdisciplinary major).		

Comparison of General Education Reforms Among Institutions				
Institution	Type of Initiative	General Education Program	Year	Link
University of Massachusetts, Amherst	Curricular Review, Hewlett Grant	 The University's Task Force on General Education issued a report on improving the general education curriculum. The report found that the main goal of general education should be to make students lifelong learners. To accomplish this goal, students must gain a breadth of knowledge from diverse disciplines. The task force recommended improving students' math, science, and analytical skills and requiring them to take courses in diversity and global perspectives and computer literacy. The University also received \$150,000 from the Hewlett Foundation to make general education more student-centered. The campus used the grant money to provide fellowships to teachers that focus on the needs of lower division students. 	2000	http://www.umass. edu/senate/fs_docs/ SEN_DOC_NO_01-035_ GEN_ED.pdf
University of Michigan, Ann Arbor	Curricular Review	 As part of its accreditation process, the University reviewed its general education programs and issued a report entitled, New Openings for the Research University: Advancing Collaborative, Integrative, and Interdisciplinary Research and Learning. Also, the University's College of Literature and Science examined and issued a report on the first-year undergraduate experience. The task force recommended developing the First-Year Seminar program, a quantitative reasoning requirement, and "theme" semesters to integrate learning across departments. 	1990 1993-94 1999	http://www.provost. umich.edu/reports/ slfstudy/pdf/research.pdf
University of Minnesota	No known major reforms	 The goals of the University's general education curriculum include: Familiarizing students with the process of liberal learning—acquiring intellectual and communication skills that they can apply to advanced areas of knowledge. Expanding students' intellectual perspectives across many subject areas. 		
University of New Mexico	No known major reforms	■ The University has a Bachelor of University Studies program that allows students to develop individualized interdisciplinary majors.		

Comparison of General Education Reforms Among Institutions				
Institution	Type of Initiative	General Education Program	Year	Link
University of North Carolina, Chapel Hill (UNC)	Curricular Review	 The University's Curriculum Review Committee released Making Connections, an Initial Proposal to Revise the General Education Curriculum. UNC's revised curriculum now focuses on improving foundational skills in the arts and sciences and training students to become "effective citizens of rapidly changing, richly diverse, and increasingly interconnected local, national, and worldwide communities" in the 21st century. 	2003	http://www.unc.edu/ depts/uc/docs/curric_ version1_4.pdf
University of Pennsylvania	Curricular Review	 21st Century Project – The President charged the Provost's Council on Undergraduate Education (PCUE) to design a model for the University's undergraduate experience according to principles outlined in the President's and Provost's statement on 21st century undergraduate education. This initiative emphasizes local and global citizenship, multiculturalism, technological literacy, and the marriage of theory and practice in instruction (e.g., service learning, research, etc.). As part of this effort, the University developed several multidisciplinary courses. 	1995	http://www.upenn. edu/almanac/v41pdf/ n34/052595-insert.pdf
University of Texas, Austin	Interdisciplinary programs	 Connexus – a set of programs designed to enhance the undergraduate experience and enable students to experience the breadth of the University's course offerings. These programs include: Bridging Disciplines - allows undergraduates to select area requirements, electives, major courses, internships and research experiences that relate to an interdisciplinary theme. Cross-Cultural Compass – a searchable database of courses that "explores the richness and variety of cultures and ethnicities within the U.S. and around the world." EUREKA – a searchable database of research opportunities around campus. 	Not known	http://www.utexas.edu/ student/connexus/

Comparison of General Education Reforms Among Institutions					
Institution	Type of Initiative	General Education Program	Year	Link	
University of Virginia (UVA)	No known major reforms	 UVA has several liberal arts seminars, and students have the opportunity to develop an interdisciplinary major. The Echols Scholars Program (est. 1960) is an honors program "predicated upon the Jeffersonian ideal of freedom of inquiry and the development of critical thought." This program allows exceptional students to develop their own curriculum rather than satisfy the College's "area" requirements. There is a University of Virginia, College and Graduate School of Arts & Sciences 2005-2015 Strategic Plan online. 		http://artsandsciences. virginia.edu/ strategicplan/index.php	
University of Washington	Curricular Review discussion	 The faculty senate sponsored a forum about the future of liberal education at the university. The result of these discussions was the establishment of a course on the comparative history of ideas. The faculty, staff, students and supporters of the College of Arts and Sciences are creating a vision and goals statement for the 21st century. 		http://www.artsci. washington.edu/ Services/Splanning/ ASPlan/SPdraft.htm	
University of Wisconsin	No known major reforms	 The University's general education requirements emphasize lifelong learning, critical thinking skills, multiculturalism, and global citizenship. As part of their general education, students are required to take courses in six areas: communication, quantitative reasoning, natural science, humanities/literature/arts, social studies, and ethnic studies. 		http://www.ls.wisc. edu/gened/FacStaff/ background.htm	
Yale University	Curricular Review	 The president of Yale College convened the Committee on Yale College Education to determine what a Yale graduate needs to know in the coming decades. This report reaffirms Yale's commitment to a liberal education and to undergraduate instruction. However, it departs from other curricular reviews in that it does not emphasize specific areas of knowledge such as ethics or cross-cultural inquiry. The report recommends that students take courses in the social sciences and natural sciences, and courses in any discipline that emphasizes writing skills, quantitative reasoning, and a foreign language. 	2003	http://www.yale.edu/ cyce/report/index.html	

