ASSESSING THE REFORM OF GENERAL EDUCATION


A vigorous debate about the quality of undergraduate education has been taking place in the national media and on college campuses. It focuses on the curriculum, especially general education, that part of the curriculum that is required of all students. Calls for reform have been sounded by national reports, best-selling authors, and a range of critics. Some of the better-known institutions of higher learning, such as Harvard and Stanford universities, have responded with curricular revisions that have generated controversy in the national press. But it is not clear to what extent the broad range of colleges and universities have changed their general education curricula. What kinds of changes are undergraduate colleges making in their curricula, and what are the consequences?

The project on General Education attempted to answer these questions. A national sample of chief academic officers of 305 colleges and universities was surveyed in January 1990. The institutions were selected because they were thought to have made some kind of change in general education during the last decade. The sample included approximately the same proportion of each type of college in the country, according to the Carnegie classification system, with two important exceptions. The exceptions are that community colleges were underrepresented, and professional and specialized institutions were omitted altogether. The sample includes approximately 10 percent of all colleges and universities in the United States, 20 percent of the four-year institutions. To blunt any regional effects on curriculum change, every state was represented in the survey. Responses were received from 226 institutions, a response rate of 74 percent.

The questionnaire included both structured and open-ended questions about descriptions of the general education program, special features of the curriculum, faculty development activities,
the amount of change planned and achieved, and consequences of
the new program, among others. Respondents were asked to send
copies of institutional reports on their programs, promotional bro-
chures, evaluations, and any other information they believed ef-
fectively described their programs of study.

Types of Changes

What are the “reformed” programs like, and how have they
changed? Changes in the structure of the curriculum were quite
common. A total of 153 colleges, 68 percent of the sample, re-
ported changing the distribution system, mainly by adding require-
ments, tightening them, and making them more specific. New types
of courses, such as freshman or senior seminars, were added at
144 (64 percent) of the institutions. Interdisciplinary “core”
courses were increased at 52 percent of the colleges. As is appar-
ent from the percentages, most colleges made more than one kind
of change.

Changing graduation or admissions requirements was another
area of activity. A total of 54 percent of the colleges were reported
to have changed graduation requirements, typically by raising them
and making them more specific (e.g., by requiring a course in his-
tory rather than two social science courses that may or may not
include history). And 35 percent of the institutions reported chang-
ing admissions requirements, usually by raising them. By raising
requirements, colleges were attempting to set higher expectations
and standards for students.

Some colleges worked to improve individual courses, either
in lieu of altering the graduation requirements or the structure of
the curriculum, or in addition to these other changes. A total of
175, or 77 percent, of the deans reported that their colleges had
stressed certain skills, such as writing or critical thinking, “across
the curriculum.” Incorporation of “new scholarship” on such top-
ics as gender and global studies was reported at 64 percent of the
colleges, and revision of introductory or other courses was done
at 57 percent of the sample. Increased attention to “the canon,”
which has been a hot topic in the debate, was found in only 24
percent of the cases, although many courses relied more heavily on primary texts.

One other arena of activity has been faculty development. Some colleges sought to rejuvenate general education not by changing the requirements, the structure of the curriculum, or the design of courses but by helping faculty members do a better job of teaching. Others utilized faculty development as a means to implement a new program. Among these respondents, 168 (74 percent) reported faculty development programs to improve teaching or pedagogy, and 126 (58 percent) focused on updating or upgrading subject-matter knowledge.

Most colleges took more than one of the above approaches to improve the quality of their general education programs; each college averaged more than six of these separate initiatives.

Even more important than the general approach taken is the content of the program actually adopted. A profile of a “typical general education curriculum” at four-year colleges with a semester calendar can be obtained by averaging credit hour requirements for all colleges and rounding them off into conventional three-credit courses. It includes two courses in writing, one course in mathematics, four courses in the humanities, one course in the fine arts, two courses in natural sciences (which are four-credit courses with a laboratory), and three courses in the social sciences. In addition, there are several components that are less commonly found. About half the colleges require foreign language averaging eight semester credits (some require one year and others require two years); somewhat less than half require a speech course; and about 30 percent require a course on computer literacy. In terms of content, this typical program seems fairly comprehensive and broad. In its outlines it approximates the proposal by Cheney (1989) for a fifty-hour curriculum.

But there is more to most general education programs than this broad-brush outline. They often include special features that attempt to capture the distinctive qualities of the particular college, its heritage, or its students. Another set of questions solicited information about several special features that are employed. Again in the interest of clarity, the data here are from the four-year colleges. A total of 73 percent have advanced or upper divi-
sion courses, 67 percent utilize interdisciplinary core courses, and 56 percent offer courses using original sources. In most cases these features are required, but often they are options available to students who want them. For example, a little over one-half of the colleges operate freshman seminars, and a little under half have senior seminars or projects; such seminars are required in 61 percent and 55 percent of the cases, respectively.

Most colleges today have a diverse student body, and the general education programs often address this circumstance. Two-thirds of the colleges have honors programs for accelerated students, and slightly more than half offer courses for underprepared students. Some of these courses are special sections of mathematics or English, and some are noncredit courses designed to remedy deficiencies from earlier schooling. Another set of learning experiences offered, typically on a voluntary basis, include independent study, internships, and service learning. Although a minority of institutions offer these opportunities in general education, and the vast majority make them optional, a few colleges require them and feature them as part of their distinctive programs. Colleges with these emphases include independent study at Hamline University, internships at Bradford, and service learning at Wittenberg. Similarly, religion or philosophy is sometimes required, especially at church-related colleges, to reinforce their commitment to their distinctive legacies.

Finally, there is a relatively new phenomenon of this wave of reform. Rather than require a course in a valued area, colleges often teach that area in several courses “across the curriculum.” These are common parts of new general education curricula, but they do not often show up in surveys of content because they are infused in existing courses to alter the way content is taught and learned. For example, 93 percent of the deans reported some kind of writing across the curriculum, and 71 percent cited critical thinking. This is not surprising, since the idea of teaching writing in courses beyond the English department is an old one, and student expression is directly related to their critical-thinking abilities. It is a rare college that has not at least dabbled with the idea. Other themes that are handled “across the curriculum” include global studies (63 percent), cultural pluralism (58 percent), ethics and
values (57 percent), gender issues (53 percent), and computer literacy (50 percent).

The main danger of this approach is that the guidelines for teaching these special emphasis courses may be ignored by the faculty. One dean expressed it this way: “Across the curriculum components are only gradually receiving more than lip service from some of the faculty, partly because of scholarly narrowness, partly because of no budget support for better faculty workshops and better administrative evaluation.” The questionnaire asked about the mechanisms used to implement the “across the curriculum” emphases so that they would become more than lip service. Several were widely employed, including:

- helping faculty develop new knowledge or skills, largely through workshops and seminars (75%),
- supporting faculty development of new or revised courses (65%),
- establishing a writing, speaking, or other resource center to support student learning (60%),
- charging a committee to approve such special courses (48%),
- making the particular emphasis a criterion for general education courses (46%),
- identifying courses with the special emphasis, which students could take if they choose (42%),
- requiring students to take a certain number of special emphasis courses (41%), and
- appointing an administrator, usually a part-time faculty member, to provide leadership for the program (41%).

In combination, these “quality control” mechanisms help this kind of program to work, but as the comment from the dean above illustrates, they are not foolproof. Indeed, without some mechanisms such as these, “across the curriculum” strategies will not succeed.

By and large, the changes made in general education appear to be responsive to the charges leveled by both the critics and the public. In some fundamental sense, each curriculum must be
judged in its own particular context, and these aggregate numbers tell little about the operation of any single program. But they do give an overall view of the kinds of changes that have been taking place on many college campuses. Collectively, the changes appear to be bringing more rigor, structure, and quality into the course of study of all undergraduates at these colleges. This is a condition currently not recognized or accepted by the American public, indeed not even by many academic leaders.

Consequences of the Changes

“The most sweeping changes ever undertaken in the academic plan and curriculum at California State University, San Bernardino will be implemented in the fall of 1989,” a brochure proudly proclaimed in 1988. At the other extreme, a respondent to the survey said bluntly that the college had created a “bland cafeteria” program, and even that dubious achievement happened only when, after ten years of discussion, the dean “took the committee off-campus, locked them in a room, and kept them there until a compromise was reached.” These two extremes illustrate the range in degrees of improvement actually taking place in colleges in this sample. Neither extreme characterizes the majority of the reforms of the 1980s. To get a better view of this matter, the survey asked deans to report on a group of consequences of their curriculum changes.

One way of answering the question of consequences is to look at how large the amount of change was. If only a small change was made, the amount of improvement could not have been very great. On the other hand, a large change does not guarantee that it was for the better, although it does make a large improvement possible. Further, the amount of change doesn’t tell anything about the absolute level of quality; it might be either high or low.

On the whole, the colleges and universities responding to this survey have undertaken a substantial amount of change. Fifteen percent of the deans reported that they had made a “small” change, 42 percent a “moderate” change, and 42 percent a “large” change in their general education program. With more than four out of five deans reporting at least a moderate change, there is obviously
a great deal of movement taking place in general education. The
number reporting a small change also includes several places in
the midst of reviewing their offerings whose work has not yet
come to fruition.

The amount of change achieved is better understood if viewed
in relation to the amount of change attempted. Eight percent of
the deans reported that they planned to achieve a “small” change,
37 percent a “moderate” change, and 54 percent a “large” change.
As might be expected, achievements were somewhat less than
aspirations; more planned a large change than accomplished it.

Yet, when examined together in greater detail, there is sig-
nificant consistency between plan and reality (see Table 1). Al-
though there may be some slippage, the evidence indicates that a
large plan commonly results in a large change; a moderate plan in
a moderate change; and a small plan in a small change.

On the other hand, few colleges accomplished a larger change
than they intended at the outset, whatever the level of aspiration.
That is because all the political pressures in the institutions are to
whittle down ideas to call for significant change from the status
quo. This is particularly the case in regard to general education,
which touches the interests of so many departments and faculty
members. As reformers have learned, it takes an enormous amount
of time, wits, energy, and wise strategies to succeed with even a
modest curriculum revision (Gaff 1980). One can conclude from
these data that a planned moderate or large change is attainable.

The perceived impact of the new program is another way to
assess the consequences. Deans were asked to indicate whether
their program had a “negative impact,” “no impact,” or a “posi-
tive impact” on several other parts of the institution. Table 2 shows the results, which are remarkable. First of all, changes in the general education program appear to have produced negative results at very few colleges. For the vast majority, the changes either had a positive impact on the institution or no impact at all.

Curriculum reformers face a daunting task. There are many dangers both at the outset and during the time they manage the process of change. The major risk is alienating faculty colleagues. But in terms of institutional results, curriculum change seems to be almost risk-free. There may be other negatives than those included in Table 2, but the data indicate that curriculum reform is a prized “win or no lose” kind of game. This is precisely the kind of game any educational leader should be eager to play. (It should be kept in mind that while a curriculum reform may prove to be successful, faculty who are wounded in the process may bear grudges against faculty and administration colleagues who are perceived to be responsible for the reform. Reformers may succeed institutionally and lose personally.)

Further the kinds of positive impacts are noteworthy. More than seven out of ten deans said the new program sharpened the college’s identity and developed a greater sense of community. Shaping an identity and developing community around that identity are activities at the very heart of a college and are essential

Table 2. Impact of General Education on the Institution

<table>
<thead>
<tr>
<th></th>
<th>Negative Impact</th>
<th>No Impact</th>
<th>Positive Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional identity</td>
<td>2%</td>
<td>26%</td>
<td>72%</td>
</tr>
<tr>
<td>Faculty renewal</td>
<td>2</td>
<td>27</td>
<td>71</td>
</tr>
<tr>
<td>Sense of community</td>
<td>2</td>
<td>33</td>
<td>65</td>
</tr>
<tr>
<td>Public relations, visibility</td>
<td>1</td>
<td>38</td>
<td>61</td>
</tr>
<tr>
<td>Efficient utilization of faculty</td>
<td>13</td>
<td>37</td>
<td>48</td>
</tr>
<tr>
<td>Student retention</td>
<td>6</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>General education budget</td>
<td>11</td>
<td>42</td>
<td>46</td>
</tr>
<tr>
<td>Student admissions</td>
<td>2</td>
<td>59</td>
<td>40</td>
</tr>
<tr>
<td>Institutional fundraising</td>
<td>1</td>
<td>62</td>
<td>36</td>
</tr>
<tr>
<td>Faculty reward structure</td>
<td>4</td>
<td>72</td>
<td>24</td>
</tr>
</tbody>
</table>

Note: Totals may not add up to 100 percent due to rounding.
determinants of its vitality and perhaps even its survival. It is a rare institution of higher learning today that is not working at defining its identity, developing a strategic plan, positioning itself in relation to its competitors, and aggressively marketing its special qualities. The data suggest that general education reforms have involved far more than jiggling graduation requirements or tinkering with courses. In calling everyone’s attention to the core of the curriculum the process of curriculum review seems to have redirected attention to the purpose of the entire enterprise.

How does this happen? For one thing, a revision in the curriculum brings together people from all parts of the institution, gets them acquainted with each other, and puts them to work on an important common endeavor—designing the best general education program possible. The task elevates individuals from their specific circumstances and lifts their sights from the narrow confines of their own department to the college or university as a whole. Because general education is the one program that touches all parts of the instructional program, restructuring it, if successful, is a community-building exercise. Further, many committees conduct reviews by examining their institution’s mission, distinctive features, heritage and traditions, and the specific qualities of their students and faculty, and they usually consciously try to develop a program that is tailored to the particular needs of faculty and students and builds on their identified strengths. The discussions within the committee and with the broader constituencies—faculty, students, administration, alumni, and board—often recall basic values and commitments.

In addition, once a curriculum change is adopted, a college usually goes to great lengths to promote it. Articles in the alumni magazine and student newspaper, eye-catching brochures, special mailing to high school guidance counselors and to prospective students, and speeches by campus leaders are common. The files from this survey are salted by articles from the print media about the new programs of colleges, since they respond to concerns of the reading public. It is not accidental that institutional identity, community, and visibility are common consequences.

The impact of new programs on faculty renewal deserves special comment. Faculty dissatisfaction with low standards, frustra-
tion with students’ skills, and the inability to assume a certain level of what E. D. Hirsch Jr. (1987) calls “cultural literacy” helped to fuel many of the changes. Most faculty suffer their frustrations in isolation, grumble to their colleagues, or struggle with their individual efforts. This results in an inevitable and often unspoken alienation from their colleagues and institution, who are seen as not supportive. A curriculum reform process validates the educational concerns of faculty and supports their impulse toward high-quality education. Improved faculty morale is a dividend of a successful revision of general education.

A second reason for faculty renewal is that they have worked together on a valued corporate enterprise, an inherently social activity that at its best stimulates and vitalizes individuals. Often faculty do not know – or do not know well – their colleagues in other departments or units of the institution, and this kind of activity gives them an opportunity to discover how much they share in common. Third, most institutions conducted faculty development programs as a part of their curricular changes. Much of the usual activity for faculty or course development is individual, in such forms as research projects, sabbatical leaves, travel to professional meeting, and individual grants. But curriculum reform requires frequent work with colleagues in groups to discuss proposals, participate in seminars, attend retreats, and develop new kinds of courses. Gerald Gibson (1990), dean at Roanoke College, expressed well the consequences of this activity for faculty:

Although strategy for getting a new curriculum designed and implemented was my most passionate concern during those first few years at Roanoke, I don’t think that even I guessed what a tremendous impact work on the curriculum would have on our faculty. Reading and debating curricular issues, then writing grants and planning for implementation, placed general studies center stage for our faculty, and has provided relief from the academic narcissism that majors tend to represent. More and more the Roanoke faculty are seeing “education” to mean a much broader and richer consequence of four years of college and a much sharper Roanoke imprima-
tur than they had thought of it being, perhaps ever, but certainly in decades.

Another set of institutional impacts that deserves comment has to do with enrollment and fund-raising, areas that have a direct impact on the budget. It is significant that about half of the deans in the survey reported that retention increased and more than 40 percent said that the impact on admissions was favorable. This is not what one would expect from common conceptions of students as seekers of higher education that poses the least challenge and guarantees the highest reward. Higher education has adopted a view of the student as consumer, and sophisticated marketing strategies are used to identify the interests of students and prospective students and to satisfy them. In their zeal to attract students, some colleges appear willing to offer any course on any topic at any place that might conceivably be a market. But the colleges in this survey have emphasized educational purposes and raised standards, increased rigor, limited choice – in short, increased the difficulty for students. In the vast number of institutions, these actions have not turned students away, and in a large minority of cases they have actually attracted and retained students. This is important evidence that our traditional conception of students as consumers needs to be revised, that many students are actually attracted to higher-quality education. College officials may have been selling students short. When general education is conceived and presented properly, students seem willing to reach higher and to work harder than many have assumed.

A related area is fund-raising, which was reported to have increased in more than one-third of the cases. It is not hard to see why. A college that has a clear sense of its identity and purposes cultivates a vigorous community around those purposes, makes a commitment to a strong core curriculum that responds to many of today’s criticisms, receives favorable publicity for its efforts, has a revitalized faculty, and is attractive to students – and that college can make an excellent case for support. This is true whether the institution is private and must rely heavily on support from alumni and individual donors, or whether it is public and must rely primarily on state appropriations. Indeed, a member of a
member of a newly assembled curriculum review committee at a Big Ten university confided her belief that the only way it could get major new funds from the state is by making a significant improvement in its undergraduate general education program.

A final observation has to do with the 13 and 11 percent who cite a negative impact on the efficient utilization of faculty and the general education budget, respectively. A president at one college lamented that small class sizes required in their first-year symposium, senior seminar, and skill-intensive courses would create a need for more faculty and increase the cost of the program. This may well be the case in those aspects of the program; small classes are necessary to achieve the purposes of those components. Quality is more expensive than mediocrity. But as the bumper sticker proclaims, “If you think education is expensive, try ignorance.” Further, with careful academic planning, a curriculum with less choice should allow for more efficient utilization of faculty. This is because enrollment in required courses is both stable and predictable, unlike enrollment in majors and electives. This may be why more than three times as many deans said the new program had positive rather than negative impact on both the efficient utilization of faculty and the budget.

We must keep in mind that this sample includes colleges with many different types of curricula and with many different kinds of changes. It is not possible to know what kinds of impacts are associated with what kinds of curriculum or curricular components. In fact, the specific kind of curriculum is probably less important than the fact that the college conducted a review and that the faculty and administration agreed on a program of study and on its rationale and endowed it with their authority. Declaring what an institution stands for in terms of general education, and placing it in the center of the students’ academic program, is probably more important, for example, than whether there are distribution requirements or core courses. The process of vitalizing the heart of the academic enterprise, whatever its particular configuration, is probably most responsible for these consequences.

The educational significance of the changes was another interest. Even though this is quite difficult to assess, some approximation can be made by asking deans to make judgments about the
consequences of their efforts. Respondents were asked for their overall judgments about the extent to which the new general education programs resulted in various educational outcomes. The results are shown in Table 3.

Table 3. Extent Various Outcomes Resulted from New Programs

<table>
<thead>
<tr>
<th></th>
<th>Not Very Much</th>
<th>Somewhat</th>
<th>Quite a Lot</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher-quality education</td>
<td>5%</td>
<td>35%</td>
<td>41%</td>
<td>20%</td>
</tr>
<tr>
<td>Greater curricular coherence</td>
<td>13</td>
<td>28</td>
<td>34</td>
<td>25</td>
</tr>
<tr>
<td>Faculty renewal</td>
<td>16</td>
<td>32</td>
<td>32</td>
<td>20</td>
</tr>
<tr>
<td>More active learning</td>
<td>20</td>
<td>35</td>
<td>26</td>
<td>19</td>
</tr>
<tr>
<td>Revitalized institution</td>
<td>16</td>
<td>40</td>
<td>27</td>
<td>18</td>
</tr>
<tr>
<td>Greater appreciation for racial and cultural diversity</td>
<td>21</td>
<td>35</td>
<td>26</td>
<td>17</td>
</tr>
</tbody>
</table>

Note: Totals may not add up to 100 percent due to rounding.

Higher-quality education for students, greater coherence for the curriculum, and renewal for the faculty were judged the most frequent results. Respondents from the overwhelming majority of the institutions reported at least “somewhat” of an increase in each of these areas, and roughly twice as many reported that these consequences were achieved either “quite a lot” or “very much” as were “somewhat” achieved. Because greater quality and coherence are central goals of the reform movement, in one sense it is no surprise that they resulted in large proportions of these colleges. But it is one thing to talk about those goals and quite another to hear from knowledgeable informants that they actually resulted from the various changes that were made. Unfortunately, these data do not explain which curricular components are associated with these outcomes. Another limitation is that the response must be characterized as informed opinion or perceptions, rather than direct measures. Even so, three out of five of the institutions were conducting an evaluation or had completed it; presumably the respondents’ views were informed by these results. On the whole, they do suggest that the kinds of changes in college curricula that were described above appear to be having generally positive effects.
Approximately 80 percent of the deans noted that the reforms resulted in active learning and greater appreciation for racial and cultural diversity. Many of the campus reforms included a greater emphasis on cultural diversity and the study of other peoples, and that may be the reason for this result. Active learning may have resulted from colleges making that a goal of general education courses, and sometimes a criterion for approving them. A high degree of learner involvement may also result from an emphasis on such skills as writing and critical thinking, which require students to assume responsibility for actually doing things, and from small classes for freshman and senior seminars or for skill-intensive courses, for instance, which make it more difficult for students to be passive spectators. At the same time, it must be noted that cultural diversity and active learning were the two areas of least change. That is because higher education has been white-dominated and lecture-dominated, with a few important exceptions, for its entire history. No one should underestimate the difficulty of altering the course of that history, but nonetheless, the vast majority of colleges that changed their general education programs report improvement on a range of educational outcomes, with most of them indicating a larger rather than a smaller improvement.

One other set of consequences has to do with how members of the college community respond to changes in the general education program. Table 4 summarized the deans’ assessment of the change in attitudes of faculty, students, and administrators.

<table>
<thead>
<tr>
<th>Change in Attitudes</th>
<th>Less Favorable</th>
<th>Not Much Change</th>
<th>More Favorable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>5%</td>
<td>33%</td>
<td>62%</td>
</tr>
<tr>
<td>Students</td>
<td>7</td>
<td>53</td>
<td>40</td>
</tr>
<tr>
<td>Administrators</td>
<td>5</td>
<td>25</td>
<td>70</td>
</tr>
</tbody>
</table>
Unlike during the 1960s, when radical students and their faculty allies drove change, change in general education today typically is brought about by an alliance between the leaders in the academic administration and faculty. Not only the impetus but also the planning and operation of programs are in the hands of these more mainstream groups. It appears that large percentages of faculty and administrators grew more favorably disposed, and a minority of each did not change their attitudes. Students tended to show less change, but most of what did occur was in a positive direction. That student attitudes were less likely to change for the better may be due to the fact that students played a less prominent role in changing the programs. In addition, it may simply be a matter of timing. Faculty and administrators who have spent years discussing and planning the change are more likely to see the benefit of a new program right away. On the other hand, students, who are progressing a class at a time through the program, are more likely to take years to appreciate the value of their general education experience.

The conclusion that must be drawn from so many positive results and from so few negative ones is that it is in the institution’s self-interest to operate a strong general education program. And if that central program is not up to snuff, then it is in its own self-interest to strengthen it. The very process of revising general education, although formidable and difficult, can be a major vehicle for institutional renewal.

Comprehensive Versus Piecemeal Change

The institutions in this sample adopted a wide variety of changes. One question this survey data could answer was whether the kinds of consequences and their significance might be differentially associated with different kinds of program changes. Might institutions making large-scale change derive greater benefits than those that had adopted a more modest or piecemeal approach?

In order to answer this question, the size of the change made in the general education program was compared with the several outcomes discussed above. The size of program change was posi-
tively related to virtually all those outcomes, as shown in Table 5. Specifically, a large change was related to:

- More positive attitudes toward general education among administrators, faculty members, and students
- The extent to which several valued outcomes were reported: higher-quality education, greater curricular coherence, faculty renewal, greater appreciation for diversity, more active learning, and revitalized institution
- A positive impact on faculty renewal, institutional identity, public relations, sense of community, general education budget, retention of students, admissions, fund-raising, and faculty reward structure

| Table 5. Outcomes Associated with Small and Large Changes in General Education |
|---------------------------------|---------------|---------------|
| Attitudes toward general education more favorable: | Small Change | Large Change |
| Administration                  | 42%           | 89%           |
| Faculty                         | 29            | 85            |
| Students                        | 26            | 49            |

<table>
<thead>
<tr>
<th>Quite a lot or Very much change in:</th>
<th>Small Change</th>
<th>Large Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher-quality education</td>
<td>19</td>
<td>82</td>
</tr>
<tr>
<td>Greater curricular coherence</td>
<td>22</td>
<td>80</td>
</tr>
<tr>
<td>Faculty renewal</td>
<td>19</td>
<td>72</td>
</tr>
<tr>
<td>Greater appreciation for diversity</td>
<td>19</td>
<td>63</td>
</tr>
<tr>
<td>More active learning</td>
<td>16</td>
<td>61</td>
</tr>
<tr>
<td>Revitalized institution</td>
<td>9</td>
<td>64</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Positive impacts on:</th>
<th>Small Change</th>
<th>Large Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty renewal</td>
<td>44</td>
<td>85</td>
</tr>
<tr>
<td>Institutional identity</td>
<td>41</td>
<td>85</td>
</tr>
<tr>
<td>Public relations, visibility</td>
<td>19</td>
<td>82</td>
</tr>
<tr>
<td>Sense of community</td>
<td>36</td>
<td>74</td>
</tr>
<tr>
<td>General education budget</td>
<td>23</td>
<td>64</td>
</tr>
<tr>
<td>Retention of students</td>
<td>16</td>
<td>58</td>
</tr>
<tr>
<td>Admissions</td>
<td>16</td>
<td>47</td>
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<tr>
<td>Fund-raising</td>
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<tr>
<td>Faculty reward structure</td>
<td>3</td>
<td>36</td>
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The lesson to be drawn from this analysis is that if a little bit of reform is good, more is better. Those institutions that made the largest and most comprehensive changes derived the greatest benefits for their students and their own functioning. The process of strengthening general education curricula is like a pebble dropped in a pond. Ripples radiate out from it and have an impact on all other parts of the educational enterprise. A comprehensive revision tends to make a larger splash than a smaller one.

Conclusion

Colleges and universities that have worked to improve their general education curricula have derived important benefits. They tended to improve the quality and coherence of education for students, renew faculty members, and strengthen aspects of their institutions. A more purposeful and tighter general education curriculum with a grounding in the liberal arts and sciences produced valuable benefits in most cases. Some of the benefits were modest, but most were rather substantial. Although one must issue a disclaimer that past results do not guarantee future performance, these data suggest that the quality of higher education generally may be improved by enlarging the circle of colleges reviewing and improving their curricula. This could be achieved in a number of ways. First, the opportunities for meaningful dialogue among faculty and administrative leaders considering general education should be increased. There is much to learn about strategies for curriculum change, and dissemination of what has been learned already should be systematized. Second, institutional, governmental, and philanthropic agencies should increase their support for curricular review, experimentation, and evaluation of reform efforts. Third, the frequency of communication with the public regarding general education should continue and increase. A decade of criticism deserves a serious and ongoing response in the public arena. The more frequently general education is mentioned, and the more its image is improved in terms of costs and benefits, the more likely improvements will spread. Most important, colleges and universities should recognize, as this study dem-
onstrated, that strengthening the general education program is in their own self-interest.

References
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