

# *The New Economy and Restructuring Higher Education*

*By Clyde W. Barrow*

**R**esource allocations in American higher education are increasingly governed, on the one hand, by the constraints of a continuing fiscal crisis and, on the other, by pressures from business and political leaders who insist that colleges and universities help meet the challenges of a new economy. The result is a seemingly contradictory imperative that higher education do more with less.<sup>1</sup> Achieving this objective may be impossible for the individual institution or faculty member, but I want to suggest that the contradiction is being resolved at a systemic level, through a combination of institutional responses to market forces and strategic planning at the state, regional, and federal level. These responses and plans—budget cuts, program eliminations, retrenchment, reallocation, curriculum reform, and a plethora of other changes—may seem bewildering and chaotic to individual faculty. It is my contention, however, that these responses are *not* confused, short-term measures that will go away “once the economy recovers.”<sup>2</sup> Consequently, union tactics or other responses that are merely reactive and that depend on holding the line until things return to normal are not likely to prove successful in meeting the challenge of higher education restructuring.

## **What is the New Economy?**

Since the mid-1970s, U.S. economic development has been characterized by the historic intersection of two underlying struc-

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***Business leaders prefer to compete in the more advanced sectors of the global economy.***

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tural changes: the resurgence of global competition and the shift to postindustrialism. The once dominant position of the United States in the world economy has eroded over the last two decades. Japan and the major European nations have acquired increasingly larger shares of the world market in basic manufacturing industries such as automobiles and steel, while companies based in those nations are also increasing their share of high technology markets to the detriment of U.S. companies.<sup>3</sup> The developing economies of the Pacific Rim—South Korea, Taiwan, Hong Kong, and Singapore—are surging ahead with export-led strategies in the electronic, garment, and textile industries, among others. The net result: The U.S. share of the gross world product fell from over 55 percent in the late 1940s to 22 percent in the late 1980s. For the first time since the end of World War II, the United States is being forced to *respond* to trends in the world economy, rather than to *dictate* these trends unilaterally. The North American Free Trade Agreement (NAFTA) and the General Agreement on Tariffs and Trade (GATT), many believe, will accelerate current trends as labor intensive and low-wage manufacturing industries relocate from the United States to the developing countries of Latin America, the Caribbean Basin, and Asia.<sup>4</sup>

During the same period, the United States has been shifting from an industrial to a postindustrial economy anchored by information, service, and technology based industries.<sup>5</sup> Federal trade policy (including NAFTA and GATT) and individual state economic development strategies have fundamentally ceded low-technology and low-wage mass manufacturing industries to the developing countries. Business leaders and government officials prefer to compete in the more advanced postindustrial sectors of the global economy, where U.S. companies still enjoy a comparative advantage.<sup>6</sup> The key goal of this competitive strategy: to enable U.S. companies to compete effectively by remaining at the forefront of high-wage sectors such as finance, professional and business services, telecommunications, information processing, high technology, and computer-assisted manufacturing.

To help achieve this competitive position in the new global

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economy, business and political leaders are looking to higher education to close two identifiable “gaps” in the postindustrial development strategy.<sup>7</sup> First, as a number of studies have documented, the success of a high-wage postindustrial trade and development strategy requires a workforce that is more highly educated and more widely educated than the current workforce.<sup>8</sup> In 1987, the Hudson Institute’s report, *Workforce 2000*, first called attention to this emerging “skills gap,” a theme that has been echoed in subsequent reports from conservative and liberal economists, as well as government officials from both political parties.<sup>9</sup> Robert Reich, now the U.S. Secretary of Labor, argues that, as capital becomes globally mobile, one of the only remaining ways for high-wage developed nations to attract private capital investment will be the skills and productivity of its domestic workforce.<sup>10</sup>

Business leaders, labor market analysts, and federal policy makers largely agree upon the basic skills that are crucial to a core postindustrial workforce. Consequently, there is a strong bipartisan consensus that college and university curricula must start to emphasize:

- Symbolic skills (conceptual, mathematical, and visual), rather than specialized disciplinary content.
- Research skills, rather than established expertise.
- Communications skills (oral and written), rather than mere “self-expression.”

Because these skills cut across traditional disciplinary boundaries, there is increasing support from government and business for the interdisciplinary programs that focus on identifiable long-term problems in the economy, society, and government, as opposed to department-based programs that focus on academically defined disciplinary paradigms.

A second gap in the postindustrial development strategy is the innovation gap that derives from how research is organized in U.S. universities. Historically, a division of scientific labor has evolved in which universities conduct basic or pure research, federal laboratories conduct applied research, and private industry engages in the development of new products and processes.<sup>11</sup> For the most

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part, basic research and technological innovation have been conducted by different individuals physically separated by location and further divided by the “two cultures” of academia and business. Consequently, the basic research on which technological innovation depends is usually pursued without regard to its practical applications and, as a result, there is typically a long time delay before basic discoveries work their way through federal laboratories and on to industrial laboratories for commercial development.<sup>12</sup>

Business concerns about the innovation gap have been addressed recently with a series of policy recommendations from the President’s Council of Advisors on Science and Technology (PCAST). A major concern expressed by PCAST is that:

The pressure of international competition has introduced a critical time dimension into the system. The issue is not simply how much new knowledge is being generated but also how fast it is being translated into economically and socially beneficial products and processes.<sup>13</sup>

Several widely publicized examples of the gap between basic research and technological development in the United States have highlighted this dilemma. For example, American university scholars pioneered the basic research for such products as high-density television, micro-chips, magnetic levitation railroads, and satellite launch vehicles. But commercial applications of the research are being pursued successfully in Europe and Japan, rather than in the United States. U.S. industries, PCAST suggests, must “have the benefit of easy and immediate access to the new knowledge and new talent generated by universities.” The problem, according to the PCAST report, “argues for a more deliberate effort to move information and, especially, people between universities and industry.”<sup>14</sup>

The thinking of U.S. policy-makers, whether Democrats or Republicans, liberals or conservatives, elected officials or corporate executives, is now dominated by concerns with human resource development and international competitiveness. This concern with workforce quality and technological innovation has moved higher education into the forefront of national debates about U.S. econom-

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ic policy. Indeed, Frank Newman, chair of the Education Commission of the States, suggests that our ability to redesign higher institutions in response to these concerns will be pivotal to an American resurgence.<sup>15</sup>

### **The Strategy of Selective Excellence**

The problems of workforce quality and technological innovation have preoccupied corporate executives, economists, and federal officials for more than a decade, but it is the development of a fiscal crisis in higher education that has provided the wedge for injecting these concerns into college and university communities.<sup>16</sup> University administrators have been fairly quick to accept the idea that the fiscal crisis in U.S. higher education is not likely to abate with economic recovery.<sup>17</sup> As a result, more and more university administrators are under pressure to adopt reorganization strategies that slow expenditure growth in real terms, while reallocating resources into programs and research areas that will make it possible to rebuild business and government support for higher education. The contradictory imperative that higher institutions do more with less has catalyzed a historic upsurge in strategic planning, restructuring, and reallocation in U.S. higher education that is forcing higher education administrators to move beyond the old ideals of the multiversity.<sup>18</sup>

A common theme in many strategic master plans and restructuring proposals is the idea that individual institutions must sharpen their educational focus by concentrating on specialized areas of institutional strength or on areas of high student demand. As an example, the Western Interstate Commission on Higher Education's new strategic agenda dramatically rejects the ideal of the multiversity with its conclusion that:

No single higher institution can meet all of the current and emerging needs of society. . . . Given limited fiscal and human resources the efficient, effective, and quality state system of higher education will be one in which different campuses devote their energies to addressing different needs.<sup>19</sup>

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In this vein, Daniel S. Cheever, Jr., director of the Massachusetts Higher Education Assistance Corporation, also insists that the future of most higher institutions will depend on specialization and differentiation. He predicts that colleges and universities will emphasize their specialized differences, as opposed to their comprehensiveness, by developing a well-focused “core business” that appeals to a sharply defined niche market.<sup>20</sup> The theme is echoed by James Martin and James E. Samels, higher education consultants, who observe that the most effective colleges and universities are reviewing their educational niches and beginning to “focus on programs that enhance their quality and competitiveness.”<sup>21</sup>

In fact, under the pressures of fiscal crisis, numerous institutions are abandoning the multiversity ideal of offering a comprehensive range of undergraduate majors or graduate programs by adopting the strategy of *selective excellence*.<sup>22</sup> The strategy of selective excellence entails the systematic identification of comparatively “weak” academic programs and areas of low student demand on a campus.<sup>23</sup> Once such programs are identified, they can be reduced to a service role through faculty attrition, or even eliminated, so that financial resources can be reallocated to offset rising institutional costs and so that personnel can be reallocated to maintain program quality in a fewer number of academic fields.<sup>24</sup> As a strategy for dealing with fiscal crisis, selective excellence policy advocates narrow but deep cuts (growth by substitution), as opposed to across-the-board reductions in academic programs or growth by addition as in the past.<sup>25</sup>

Significantly, the new strategic plans often emphasize that programs with a high degree of multidisciplinary support within an institution are programs that should be targeted for selective excellence. The assumption: A relatively small departmental nucleus can better offer high quality programming when it is able to draw on the personnel and resources of cognate disciplines. Programs with extensive multidisciplinary linkages are also likely to enjoy the strongest political support among a wider on-campus constituency.<sup>26</sup> Programs or departments that are not targeted for

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selective excellence clearly fare better to the extent that they develop a network of interdepartmental connections that wire individual faculty members into the institution's targeted areas of selective excellence. Indeed, as administrators target and concentrate institutional resources in fewer and fewer areas on campuses, a new entrepreneurial faculty (as opposed to an older bureaucratic faculty) will supposedly be induced to create intra-campus and inter-campus networks that build on a defined area of selective excellence to gain access to the scarce targeted resources both on and off campus. Conversely, departments and individuals that fail to develop high levels of programmatic interface and interdisciplinary connectivity will simply wither on the vine until they are phased out and terminated through attrition and budget reductions.

In this vein, an internal survey conducted by the Association of American Universities finds that nearly 60 percent of its U.S. members are consolidating, eliminating, or reducing academic departments.<sup>27</sup> The American Council on Education estimates that up to two-thirds of U.S. public research universities also made substantial cuts beginning in the 1991-92 academic year and similar reductions are continuing in many states.<sup>28</sup> Indeed, annual meetings of the American Council on Education have apparently succeeded in forging a consensus among university presidents and federal education officials that universities must downsize and specialize by streamlining and restructuring their curriculum and, in some cases, by altogether redefining the basic form of higher education.<sup>29</sup>

As a symbolic gesture to the new strategic agenda, President Clinton delivered the commencement address at Northeastern University in May of 1993.<sup>30</sup> As both Clinton and the national media observed, Northeastern University is widely admired among education officials as the most dramatic example of a higher institution that came out of a fiscal crisis by explicitly adopting the strategy of selective excellence. Northeastern University, formerly the nation's largest private university, successfully managed a 16 percent decline in student enrollments (from 33,032 in 1987 to 27,619 in 1993), and closed a \$40 million dollar structural deficit,

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by cutting 600 faculty and staff positions, merging academic programs and, in some cases, eliminating entire academic departments. Even prestigious private institutions such as Yale, Columbia, Stanford, Syracuse, and Boston University have followed Northeastern's lead, although in less dramatic fashion.

In the public sector, especially, official advisory groups, coordinating councils, and governing boards have begun recommending that master plans "force institutions to focus on what they do best by mandating that institutions have differentiated roles and missions."<sup>31</sup> Notably, proposals for further differentiation now go beyond the traditional sectoral distinction between research universities, teaching colleges, and community colleges, to emphasize the development of sharply defined niche roles for individual institutions within the same sector. The state colleges of Massachusetts, Brandeis University, and the University of Rhode Island are either implementing or considering various models that illustrate this theme.

For example, a 1992 Commission on the Future of the State College and Community College System in Massachusetts recommended that the state focus its scarce resources cost-effectively by redesigning each of its nine state colleges around distinctive "focus areas" based on current enrollment patterns and regional labor market requirements. The Commission suggested that a more efficient resource allocation could be achieved by requiring each college to adopt a profession-based focus area such as health, communications, or applied science and technology. Under the proposed system design, each college would offer a limited core program of majors, while programs that do not complement the campus' unique focus mission would be phased out and program resources reallocated within the campus.

Under the new plan, most degrees awarded by each college would be in fields clustered around a particular focus area. For instance, if a college had health as its focus area, the major departments and most degrees awarded would be in fields such as nursing and medical laboratory science. Majors would be available in other selective fields, but their faculty would be specialized in some

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aspect of the college's focus area. Faculty in education, for instance, might specialize in health education, political scientists in health care policy, or business faculty in hospital and health care management. This model, while maintaining traditional departments, shifts the faculty center of gravity in each college from departments toward a common interdisciplinary focus area, creating the synergy necessary to maintain quality on a smaller scale.

Once implemented, this institutional strategy shifts coursework and curricula away from disciplinary foundations onto extra-academic problem area concerns, while drawing on the substantive knowledge and methodological approaches of many disciplines. Two of the nine Massachusetts colleges already specialize in the arts and maritime professions. The one predominantly liberal arts state college has embraced the commission proposal and is now moving to safeguard its focus area. Similarly, a fourth college is now moving to capture a niche in professions related to biotechnology.<sup>32</sup>

Brandeis University also moved to introduce a new curriculum in fall 1994 that emphasizes interdisciplinary studies within the framework of existing departments and disciplines. The curriculum has been redesigned around 39 interdisciplinary clusters defined by a theme or topic such as "The Aging Process." Each interdisciplinary cluster consists of five to ten courses. According to Irving Epstein, the dean of arts and sciences who chaired the reform committee, the new curriculum seeks to provide students with "transportable skills" that "regardless of the type of job they hold, they will be able to use."<sup>33</sup> Consistent with the shift to flexible specialization, the curriculum emphasizes the development of reading, writing, and reasoning skills, and the capacity to apply those skills to a variety of situations by drawing on the substantive content provided by interdisciplinary knowledge.

A more dramatic response along similar lines has come from Robert L. Carothers, the president of the University of Rhode Island (U.R.I.). Carothers has proposed reversing U.R.I.'s "downward spiral" by abolishing existing departments altogether and reconfiguring the entire university around eight research cen-

***There has been little systematic analysis of the results of restructuring higher education.***

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ters.<sup>34</sup> Research centers would be constructed around teams of faculty from a variety of disciplines who share common interests and strengths in areas such as marine studies, families and children, or human culture. In a further departure, undergraduate students would each be enrolled in a research center, instead of a department, and by their senior year all students would be full members of a research center. In this manner, Carothers hopes to reemphasize the University's research mission, carve out targeted areas of selective excellence, and offer an innovative type of undergraduate education that erases the boundary between teaching and research and between theoretical and applied science. Undergraduate students would not merely take classes. They would be directly involved in the multidisciplinary applied research projects being conducted by their center.

As a practical matter, it is unlikely that most state systems or individual institutions are really prepared to break so radically with the current model of higher education to the extent that some of the administrative rhetoric might suggest. Indeed, the restructuring movement is still in such an early stage of development that there has been little systematic analysis of the actual *results* of restructuring in higher education. Moreover, some of the best findings available present a mixed and contradictory picture. On the one hand, a survey of 101 public colleges and universities in nine Northeastern states by Marvin Druker and Betty Robinson offers considerable insight into the formal criteria being employed for planning program reductions and cutbacks in public higher education. They find that a majority of higher institutions at all levels are using four interrelated criteria: centrality to mission (77 percent), quality of programs (74 percent), student demand (66 percent), and relevance to a strategic plan (56 percent). The formal criteria cited by public university officials, they conclude, clearly "exhibit a concern . . . with the long-term missions of the institutions and the attempt to maintain the quality of the programs."<sup>35</sup>

On the other hand, a recent analysis by Sheila Slaughter documents that, despite elaborate planning models and formal criteria for program evaluation, the final administrative decisions involved

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in institutional change are ultimately “political.” Administrative and trustee committees develop formal criteria to legitimate restructuring initiatives, but they tacitly jettison those criteria as bargaining and conflict move them to adopt political weakness, as opposed to programmatic weakness, as the real basis of final decisions on programming mix.<sup>36</sup> This means that interdisciplinary programs (which lack a real base within most campuses) are often targeted rather than promoted by restructuring; that arts and humanities are targets for cuts more often than business or engineering (regardless of enrollment trends); and that programs without a strong external constituency can be attacked with little political cost to administrators.<sup>37</sup>

Furthermore, the internal faculty resistance created by efforts to downsize and restructure higher institutions may well promote a further degree of politicized irrationality in implementation of strategic plans. Given the age distribution of the existing professoriate, faculty retirements are scheduled to accelerate in the latter half of the 1990s, so it will be possible to downsize or restructure academic programming by eliminating or reallocating *vacant* faculty lines.<sup>38</sup> In fact, strategic planners and university administrators increasingly understand that the anticipated surge in faculty retirements presents a once-in-a-century window of opportunity to completely recast the structure of academic programs.<sup>39</sup> For example, the California Postsecondary Education Commission expects that “as senior faculty members retire, there will be an opportunity for new appointments to be made in areas of current enrollment demand, which will result in a net reallocation of positions away from some fields and toward others.”<sup>40</sup> Similarly, the report of the Massachusetts Commission on the Future of the State College and Community College System concludes that “the substantial projected turnover of state college faculty during the 1990s will provide an unprecedented opportunity to refocus campus missions and programs and build new program strength.”<sup>41</sup>

Significantly, the elimination or reallocation of vacant lines is almost completely within the realm of administrative prerogative, even at unionized campuses. It is a tactic that clearly provides

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administrators and trustees with a path of least (effective) resistance in pursuing restructuring programs. To the extent that administrators fail to achieve satisfactory results (from their perspective) by bargaining with faculty, there will be strong incentives to fall back on those areas of discretion that they control exclusively.

But retirements and, consequently, faculty vacancies do not necessarily proceed according to a master plan. They occur in patterns based on hiring decisions made three decades earlier. As a result, the path of least resistance for administrative planners will not necessarily be consistent with any planned institutional restructuring. There is certainly no guarantee, from campus to campus, that retirements will be massed in “weak” programs, programs with low enrollment, or programs peripheral to a designated institutional mission.

Finally, in many cases, a strategy of selective excellence is being implemented in cooperation with faculty, partly in order to safeguard future salary increases and partly to protect their own programs from the alternative of across-the-board reductions. Indeed, proposals for program eliminations and program reductions at Cornell, Johns Hopkins, Yale, Princeton, and Washington Universities have all been linked to the goal of providing faculty with future salary increases.<sup>42</sup> To the extent that administrators use this inducement, the final implementation of any strategic restructuring will have to be bargained. As in all bargaining situations, the final compromise result will at least take into account some faculty concerns.

## **Conclusion**

Publications by business organizations, government agencies, and higher education management organizations suggest that business leaders, government officials, and higher education administrators have been successfully organizing a nationwide coalition to promote the restructuring of higher education.<sup>43</sup> The publications emerging from these organizations, and the consistency of the master plans being adopted by higher institutions

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throughout the country, indicate that this coalition is successfully promoting “a new action agenda” based on corporate-campus cooperation and fiscal restraint. Indeed, the business, government, and administrative policymakers who make decisions about resource allocation in higher education increasingly share a general consensus about the strategy of selective excellence. It is the details of that strategy that are being worked out in national higher education associations, coordinating councils, governing boards, legislative commissions, and federal agencies. Budget cuts, program eliminations, curriculum reform, and other changes may seem disjointed and chaotic to the individual faculty member, but they are not temporary or confused responses to a short-term crisis.

Yet, if one views these current initiatives as part of a long-range political agenda, rather than a short-term response to fiscal crisis, it becomes necessary for faculty and their representatives to think seriously about their own action agenda and to engage the restructuring process with more than reactive solutions aimed at “holding the line” against institutional change.

First, it is important to acknowledge that the fiscal crisis in higher education is *structural* (not cyclical) and not likely to abate for the foreseeable future. Higher institutions are being buffeted by the same competitive, technological, and economic forces that have led to reengineering in the corporate sector, and it is naive to think that higher institutions can remain permanently insulated from those forces. Yet faculty perceptions of the current fiscal crisis have been shaped primarily by previous experience with the retrenchments of the mid-1970s and early 1980s.<sup>44</sup> These prior retrenchments were directly related to recessions that lasted for a relatively short time. Before long, most higher education budgets returned to “normal” levels of growth.

Reactive strategies based on these previous experiences, that seek to “hold the line” against an erstwhile temporary crisis, are more likely to replicate union tragedies of the past two decades. The lesson to be learned from corporate restructuring and union resistance over the last two decades is that union officials in the steel, automobile, and other basic industries failed to recognize the

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difference between a business cycle and fundamental economic restructuring until after the decisive struggles had been lost. Put simply, higher education will undergo a dramatic restructuring as it moves into the 21st century, and sustained fiscal restraint will generate systemic pressures toward institutional differentiation and workforce reduction. Faculty bargaining should not be aimed at preventing these changes, but at how each campus defines its new mission, how these changes are implemented, and how to insure that faculty and students participate in the benefits of any increased efficiencies or productivity.

Faculty resistance to many of the proposed curriculum reforms has sometimes been based on anachronistic dichotomies between vocational and cultural education or between teaching and research. The strategy of selective excellence is designed to promote the integration of these two antinomies. The new emphasis on interdisciplinary studies that integrate flexible symbolic skills with a specialized subject knowledge is a philosophical goal that most faculty can probably embrace. A constructive strategy is to insure that these integrative goals are achieved through the implementation of new curriculum (which faculty still control individually and collectively at the classroom level).

The best response to intrusive master planning may be for faculty to insist on participation in the development of program evaluation criteria and then insist on strict adherence to them. The long-range results of this strategy may prove more satisfactory than resistance strategies that aim to restore the *status quo ante*, especially for political reasons. For better or worse, higher education is suffering from a profound decline of public confidence and when faculty invoke the hackneyed claims that "higher education is different" or that "quality cannot be measured," it will only reinforce public suspicion. Indeed, if faculty make a serious and honest effort to develop criteria for evaluating and measuring institutional performance, they can probably generate better evaluative mechanisms than those that may otherwise be imposed by trustees or legislatures.

Finally, if the objective of reallocation and restructuring is to

genuinely improve the quality of higher education by providing students and faculty with more educational resources, then why not explicitly link such initiatives to identifiable improvements? It can be a powerful bargaining strategy to insist that administrators specify exactly what they hope to achieve by restructuring in terms of programming, student services, salary improvements, professional development, library services, and plant improvements. The most effective strategy may be to hold administrators, trustees, and state legislators accountable to their own rhetoric. ■

## Endnotes

- 1 Finifter, Baldwin, and Thelin, 1991.
- 2 Most states are now into the fourth or fifth year of an economic recovery and most higher education budgets have not improved substantially, while higher institutional restructuring continues unabated.
- 3 Thurow, 1992.
- 4 Reich, 1991.
- 5 Bell, 1976.
- 6 Porter, 1990.
- 7 Business-Higher Education Forum 1983,1984, 1986.
- 8 Carnevale, 1991.
- 9 See Johnston, 1987; Silvestri and Lukasiewicz, 1987; Mangum 1989; Commission on the Skills of the American Workforce, 1990; Johnston, 1991; Thurow, 1991. Even scholars who are critical of projected labor shortages in the United States, agree that skill levels are probably increasing too slowly given the pressures of international competition, see Mishel and Teixeira, 1991.
- 10 Reich 1991, Chap. 12.
- 11 Dupree, 1957.
- 12 Business-Higher Education Forum, 1988.
- 13 President's Council of Advisors on Science and Technology (PCAST) provides private sector advice to the President on national science and technology policy. The Council is currently composed of thirteen members from industry, private foundations, academia, and research institutes. See PCAST, 1992, xvii.
- 14 *Ibid.*, 30-31.
- 15 Newman, 1985.
- 16 Barrow, 1993.
- 17 Massy and Meyerson, 1992.
- 18 Kerr, 1977.
- 19 Western Interstate Commission on Higher Education, 1992a, 3-4.
- 20 Cheever, 1992.
- 21 Martin and Samels, 1994.
- 22 See Grassmuck, 1990. At a recent conference on the fiscal crisis in higher education, Newman argued that "the world has changed and we [educators] have to adapt...We have to speed up our capacity to respond." Newman argued that higher education must become a more nimble industry that can change quickly just as the steel and auto industries have discovered (see Flint, 1992).

- 23 Academy for Educational Development, Inc., 1979.
- 24 See, for example, Office of the Commissioner of Higher Education, 1986, Chaps. 12-13 and *Report of Colorado Commission*, 1987.
- 25 Langfitt, 1989; Cameron and Tschirhart, 1992; Mortimer and Tierny, 1979.
- 26 Gumport, 1993.
- 27 "Cornell Faculty Panel Urges Cuts in Jobs So Pay Can Go Up." *The Chronicle of Higher Education*, 6 December 1989, A25.
- 28 El-Khawas, 1992.
- 29 Dembner, 1994.
- 30 Flint, 1993.
- 31 Western Interstate Commission on Higher Education 1992b, 2.
- 32 North Adams State College, 1994; Russell, 1992.
- 33 Shein, 1994.
- 34 Carothers, 1992; McVicar, 1992.
- 35 Druker and Robinson, 1994, 93.
- 36 Slaughter, 1993.
- 37 Gumport, 1993.
- 38 Bowen and Sosa, 1989.
- 39 Western Interstate Commission on Higher Education, 1992, 48-51.
- 40 California Postsecondary Education Commission, 1991, 7.
- 41 Commission on the Future of the State College and Community College System, 1992.
- 42 "Cornell Faculty Panel Urges Cuts in Jobs So Pay Can Go Up." *The Chronicle of Higher Education*, 6 December 1989, A25.
- 43 Slaughter, 1990; Scott, 1983.
- 44 Scott, 1983.

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