

# **Federal Policies and Higher Education in the United States**

By Anne Prisco  
Alicia D. Hurley  
Thomas C. Carton  
and  
Richard C. Richardson Jr.

March 2002



*ANNE PRISCO is assistant vice president for enrollment management at Lehman College of the City University of New York. She previously served as a research scientist with the AIHEPS Project at NYU. Dr. Prisco has experience in financial aid administration and has been an enrollment management consultant to many postsecondary institutions, most recently with Pace University and Northeastern University. Her areas of interest include comparative educational policy, the economics of education, and higher education administration.*

*ALICIA D. HURLEY is senior policy analyst for New York University's Government Relations Office. She is a doctoral candidate in higher education administration with an emphasis in policy at New York University. Ms. Hurley has an extensive background in higher education policy and financial aid. She worked in the financial aid offices of both the University of Colorado at Boulder and New York University, and served as a policy intern for the Advisory Committee on Student Financial Assistance in Washington, D.C. Her research interests include federal policy and higher education, including student aid policy, science policy and tax policy.*

*THOMAS C. CARTON has been a legislative aid with the New Jersey Legislature. Tom is currently a full-time doctoral candidate in the Department of Administration, Leadership, and Technology at New York University's Steinhardt School of Education. He holds an MPA from the Robert F. Wagner Graduate School of Public Service at New York University, and a BA from Rider University. His areas of interest include policy theory, state-level policy analysis, and higher education performance.*

*RICHARD C. RICHARDSON JR. is director of the Alliance for International Higher Education Policy Studies (AIHEPS); co-principal investigator of the AIHEPS Project; professor of higher education in the Department of Administration, Leadership and Technology at NYU; and professor emeritus of educational leadership and policy studies at Arizona State University.*

# Contents

About the AIHEPS Project .....	iv
Introduction.....	1
The Federal Context.....	2
The Federal Policy Environment During the 1990s .....	6
The Federal Higher Education System .....	9
Federal Fiscal Policy in the 1990s .....	12
Student Financial Assistance .....	12
Research and Development.....	17
System Behaviors.....	19
Communication.....	20
Collaboration.....	21
Accountability.....	22
Performance Indicators .....	24
Preparation .....	25
Participation .....	26
Affordability .....	27
Completion.....	28
Benefits .....	28
Conclusion .....	29
References.....	30
Glossary of Acronyms .....	34

## About the AIHEPS Project

The Alliance for International Higher Education Policy Studies (AIHEPS), a collaboration between New York University and the Centro de Investigación y Estudios Avanzados (CINVESTAV) in Mexico City, was funded in September 1999 by The Ford Foundation to conduct policy research in Mexico and the United States over a three-year period with two primary objectives: (1) to improve comparative understanding of how changes in higher education policies (rules of the game) alter the nature of higher education services produced as well as the conditions under which they are provided; and (2) to serve as a vehicle for training a small cadre of younger policy scholars in both nations. The project is also aimed at building capacity at New York University and CINVESTAV for conducting further policy studies, and making the information available to appropriate policy audiences.

The following questions reflect some of the lines of inquiry the project has pursued:

- Higher education systems operate in very different policy environments as measured by such attributes as constitutional status, federal/state influence, political culture, and executive powers. Are there aspects of the policy environment that seem to be associated with particular performance patterns? Have states attempted to alter their policy environments? Are there particular combinations within policy environments that seem either to facilitate or constrain the capacity of a state to adapt to changes in the external environment?
- Starting from quite different points, states appear to be changing their system designs, their arrangements for collaboration, communication and accountability, and their fiscal policies to incorporate greater emphasis on market mechanisms. How have these changes influenced performance as measured by the indicators conceptualized by the National Center for Public Policy and Higher Education in the U.S. and comparable indicators in Mexican settings? Can aspects of performance be traced to particular configurations of these “rules of the game?”
- Federal governments may play the defining role in a national system of higher education (as in Mexico), or the role of change agent, consumer advocate, and research contractor (as in the U.S.). How are federal roles changing? To what extent are federal roles complementary to those enacted by states? Are there discernible differences in system performance patterns that can reasonably be

related to differences in the “rules of the game” as these are defined and implemented at the federal level?

The AIHEPS project has produced the following products, all of which are or soon will be available in Spanish and English on our Web site: <http://www.nyu.edu/iesp/aiheps/>. Links to these products are also available through the National Center for Public Policy and Higher Education (National Center) and through several sites that are regularly visited by the Mexican audience for these products. Products are written according to a mutually agreed upon framework that facilitates comparative analysis.

- Case reports for the states of Guanajuato, Jalisco, New Jersey, and New Mexico.
- This federal report for the United States, as well as one for Mexico.
- A conceptual overview describing our model for understanding linkages between policy and performance.
- A summary report of the younger scholars who have been involved with the project, and their contributions.<sup>1</sup>

The following products are planned for the third year of the project and will be available on the Web site.

- A synthesis report for the U.S. that incorporates insights from the federal report and the two state reports. The intent here is to suggest propositions about the linkages between policy and performance that can be inferred from the data collected in the U.S. studies. This report will provide a “jumping off” point for the discussion involving policy leaders to be held in Jersey City, New Jersey, on June 21, 2002.
- A similar synthesis report for Mexico that serves as the “jumping off” point for the policy discussion to be held in Guanajuato in April 2002 (tentative).
- A policy paper reporting the conclusions from the U.S. meeting written in a format designed for wide distribution to a policy audience. The National Center will assist in the development and distribution of this paper.
- A policy paper reporting the conclusions from the Mexico meeting designed for wide distribution in that nation.
- A synthesis report that incorporates the results of the cross-national analysis of data from the two countries by the project co-directors.
- A revised report of the grounded model for understanding how policy can constructively contribute to the attainment of public priorities.

---

<sup>1</sup> Since inception of the project, ten younger scholars have contributed to the research.

A proposal is pending to refine the model, add Canada to the national profiles, and increase from four to twelve the number of state and provincial profiles constructed around the model. Profiles will individually and collectively expand our understanding of the linkages between policy environments, rules of the game, and higher education performance in the U.S., Mexico and Canada. The addition of Canada will focus attention on the variation in federal involvement in higher education systems and provide a contrast between a system that is entirely “public” and systems that are mixed between public and private institutions. It will also make possible some comparison of the policies within different higher education systems for improving access and opportunity, including provisions for indigenous/aboriginal peoples.



New York University  
239 Greene Street, Suite 300  
New York, NY 10003  
(phone) 212.998.5515  
(fax) 212.995.4041  
[www.nyu.edu/iesp/aiheps](http://www.nyu.edu/iesp/aiheps)

*Richard C. Richardson*  
New York University  
[richard.richardson@nyu.edu](mailto:richard.richardson@nyu.edu)

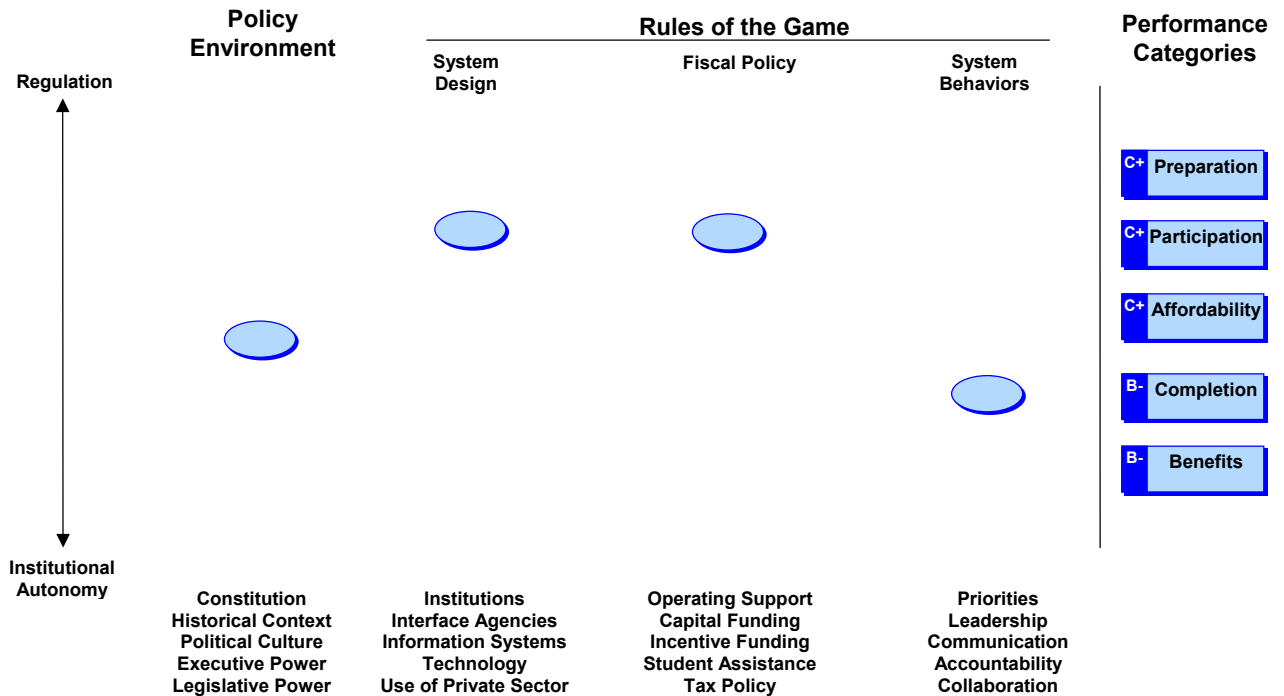
*Rollin Kent*  
Mexico  
[rkent@palenque.gemtel.com.mx](mailto:rkent@palenque.gemtel.com.mx)

## Introduction

The purpose of this report is to describe federal policies that have helped to shape the context within which state systems of higher education operated during the past decade. We also present descriptive statistics about the higher education enterprise in the United States, including available performance data. The report is based on the scholarly literature, official reports and documents, archived data, and a series of interviews with Washington-based higher education representatives and congressional staff. It was written to provide a basis for comparing public policies and higher education outcomes in the U.S. and Mexico, and to serve as a backdrop for our analysis of similarities and differences in system performance in New Jersey and New Mexico.

We organized this report, as well as those written for study states and for the comparative studies under way in Mexico, using a model that distinguishes three general areas of inquiry: the policy environment, rules of the game, and performance (see Figure 1).

**Figure 1: How Rules of the Game Influence Performance**



The policy environment, by adopting a mix of state regulation and institutional autonomy, shapes the rules of the game for higher education through which system behaviors are influenced. Rules of the game determine the mix of central planning and consumer choice that characterize each of the educational services a system delivers.

Rules of the game also influence system behaviors, which in turn have a major influence on system performance.

Policy environments change incrementally and, to a degree, unpredictably as a consequence of the political process. Rules of the game, we believe, are the principal means governments use to encourage higher education to address public priorities. The National Center for Public Policy and Higher Education has developed measures for assessing the performance of state higher education systems. From their report, *Measuring Up 2000*, we calculated weighted means for each of the five categories to provide estimates of national averages in these five areas (see Figure 1). While the priorities of the federal government may include outcomes not incorporated in *Measuring Up 2000*, arguably all governments should be concerned about the outcomes the National Center does define, and we use the national averages we calculated for these measures as part of our discussion (National Center for Public Policy and Higher Education, 2000).

During the remainder of this introduction, we examine the ways in which the federal policy environment for higher education evolved during the decade of the 1990s. We then return to our conceptual model (see Figure 1) to consider first the federal policy environment and then the “rules of the game”: (1) the design of the interface between federal government and higher education; (2) federal fiscal strategies that have been used to encourage institutions to respond to national needs and priorities; and (3) the system behaviors that have developed from the interplay of policy, structure and fiscal policy. We conclude by reporting available performance data for the postsecondary education enterprise in the United States.

### ***The Federal Context***

Because the Tenth Amendment to the U.S. Constitution effectively delegates all authority for education to the 50 states, each state defines and develops its own arrangements for higher education. With the exception of land grants and sporadic appropriations, a substantive federal role in higher education emerged only in the closing days of World War II with the passage of the Serviceman’s Readjustment Act of 1944 (G.I. Bill). Along with the post–World War II baby boom, the G.I. Bill set in motion forces that culminated in a national transformation from elite to meritocratic, and then to mass or universal, higher education. This transformation placed substantial pressure on states to create new and expand existing public institutions to absorb the enormous growth of new enrollments.

The need for specialized skills highlighted by the launch of Sputnik led to considerable federal support for research on university campuses. The National Defense Education Act of 1958 (NDEA) provided massive subsidies in the form of loans, grants and fellowships—to states, institutions and students. Research and development appropriations reinforced the federal government’s growing partnership with higher

education. They also signaled that these institutions were both centers for basic research and key players in the pursuit of national security.

Until the mid-1960s, federal support for higher education consisted primarily of research, development, and student or institutional subsidies in areas defined as national priorities. This changed with the Higher Education Act of 1965, an omnibus bill, covering such items as community service and continuing education; library assistance, training, and research; strengthening developing institutions; student assistance; teacher programs; and facilities construction. To support these activities, the Congress appropriated \$804 million. Even with such unprecedented investment, the clear intent of federal policymakers was that higher education remain a federal concern but a state responsibility. To this end, the enabling legislation specifically stated that federal authority did not extend to the curriculum, administration, personnel, or library resources of any institution. Subsequent reauthorizations have pressured states to establish some form of coordinating agency, initially to monitor academic quality and later to become involved in accreditation-like activities.

While the most significant governance structures—for both public and private institutions—exist at the state and local levels, there are exceptions to the general rule of state dominance. Formal federal influence over institutions of higher education occurs in such areas as: (a) congressional legislative enforcement under the Fourteenth Amendment (equal protection); (b) research and development appropriations; and (c) matching funds generated by federal legislation in the area of loans for postsecondary students. Title VII of the Civil Rights Act of 1964, for example, makes no mention of higher education institutions, yet applies to all public institutions and private institutions receiving federal funds. Likewise, Title IX of the Education Amendments of 1972 (opportunities for women) and the Americans with Disabilities Act of 1991 further extend requirements for equal protection to groups of citizens for whom different treatment had been the norm.

The legacies of the G.I. Bill, the National Defense Education Act, and the Higher Education Act endure, serving as the foundation for current relationships between the federal government and higher education in the United States. A reauthorization of the Higher Education Act occurs every four to five years, building on, extending or modifying the programs established by the 1965 law. Reauthorizations reflect the changing needs of higher education and associated constituencies, as well as policy leaders' perceptions of national priorities. The 1998 reauthorization, for instance, included provisions for the establishment of a Web-based education commission to address technology-driven needs.

The federal government influences higher education behaviors and outcomes primarily through altering the terms under which financial resources are made available. To achieve national objectives, the federal government funds: (1) individual students directly via student financial assistance, and (2) individual institutions through incentive

grants based upon a competitive proposal process. Attached to funding streams are regulatory requirements.

Postsecondary institutions are generally categorized as public four-year, private four-year, public two-year, private two-year, and proprietary. Mission focus is reflected in such descriptors as research, doctoral granting, comprehensive, liberal arts, technical and community. Four-year institutions offer, at a minimum, bachelor degree programs and may also offer masters and doctoral level programs. Two-year institutions offer associate degree programs and certificates. They traditionally offer more vocational and technical training. Proprietary institutions are privately owned, operate on a “for profit” basis, and increasingly offer baccalaureate and graduate programs as well as the historically more typical short-term associate degree or certificate programs in specific vocational/technical fields.

Both private (commonly referred to as “independent”) and public institutions receive federal funding and are therefore bound by the rules and regulations that accompany these funds. The federal government’s policies are uniform for every state and for any institution (public or private) that participates in the federal funding programs. The states have general oversight over institutions within their borders—and particular governing control over public colleges and universities. The degree to which private institutions follow state guidelines depends on state policies. Some states provide financial assistance to eligible residents regardless of whether they attend public or private institutions. A few provide direct subsidies to private institutions, either in the form of *per capita* grants based on the number of residents who attend or graduate, or through contracts for student spaces in such specialized programs as engineering, medicine or dentistry. The more support a state provides to a private institution, the more likely that it will exercise regulatory authority. Federal and state policies do not necessarily align and, as a senior Washington policy analyst told us, “If they do, it is probably accidental.”

As of 2000, there were 4,096 postsecondary institutions in the United States serving over 14 million students (see Table 1). During the 1990s, the number of institutions increased by 561 and enrollments grew by 7.8%, about half the rate of growth during the previous decade. Most of the enrollment increases occurred in public two-year and private four-year colleges. Despite the large number of small degree-granting colleges, most students attended the larger public universities and colleges. In the fall of 1998, 40% of the total number of institutions had fewer than 1,000 students each and enrolled 4% of college students, while 10% of the campuses enrolled 10,000 or more students and accounted for 49% of total college enrollment.

**Table 1: U.S. Institutional and Enrollment Data: 1991, 2000**

	1991	2000
<b>Number of Colleges and Universities</b>		
Public 4-year	595	615
Public 2-year	968	1,092
Private 4-year	1,532	1,705
Private 2-year	440	684
Total number of colleges and universities	3,535	4,096
<b>Student Enrollment</b>		
Public 4-year	5,694,000	5,835,433
Public 2-year	4,821,000	5,360,686
Private 4-year	2,680,000	3,061,332
Private 2-year	263,000	244,883
Undergraduate	11,666,000	12,450,587
Graduate	1,518,000	1,753,489
Professional	274,000	298,258
Total student enrollment	13,458,000	14,502,334
10-year change in total student enrollment	+ 15%	+ 7.8%

Source: *Chronicle of Higher Education* (1991, 2000).

U.S. trends in funding for postsecondary education have shifted over the past 20 years. From 1975 to 1985, federal funding for higher education decreased by 27%. From 1985 to 2000, it increased by 21% (National Center for Education Statistics, 2000a). Both public and private institutions experienced a decrease in the percentage of their current fund revenues that come from government sources. The sources that have compensated for the shortfall are striking. The public sector has come to rely more on tuition revenue, while the private sector has become more reliant upon endowment income (see Table 2).

**Table 2: Sources of Current-Fund Revenues, Percentage Distribution**

	Public Degree-Granting Institutions			Private Degree-Granting Institutions		
	1980–81	1990–91	1996–97	1980–81	1990–91	1996–97
<b>Tuition &amp; Fees</b>	<b>13</b>	<b>15</b>	<b>19</b>	<b>37</b>	<b>40</b>	<b>28</b>
<b>Federal Government</b>	13	10	11	<b>19</b>	<b>15</b>	<b>8</b>
<b>State Government</b>	<b>47</b>	<b>40</b>	<b>36</b>	2	2	1
<b>Local Government</b>	4	4	4	0.7	0.7	0.6
<b>Private Sources</b>	3	4	4	9	9	12
<b>Endowment Income</b>	0.5	0.5	0.6	<b>5</b>	<b>5</b>	<b>25</b>
<b>Sales &amp; Services</b>	20	23	22	23	23	25
<b>Other</b>	2	3	3	4	5	*

Source: National Center for Education Statistics (1993, 2000b).

Note: Percentages are rounded except when the value is less than one.

\* This "Other" figure is included in Sales and Services.

## **The Federal Policy Environment During the 1990s**

The early 1990s proved challenging for higher education advocates, institutions, and policymakers. Recession-driven domestic discontent and a \$350 billion budget deficit shaped the political landscape. As in other areas of domestic social policy, the deficit led to imperatives to slash government spending. The competitive position for postsecondary education was not improved by “horror stories of fraud, abuse, and defaults” involving student financial assistance in the late 1980s and early 1990s. These provided Congress with “a wedge to rethink landmark education programs” (Zuckman, 1991a, p. 674).

Loan default rates of the early 1990s, combined with Democratic concerns about grants for needy students, stimulated debate over the composition of the entire student loan system. The chairmen of the Senate Labor Subcommittee on Education and the House Education Committee advocated dramatic changes in the loan system, changes that one aide described as “not tinkering with deck chairs on the Titanic, but building something that’s seaworthy” (Zuckman, 1991a, p. 675). One proposed change was a boost in grants to cut back the number of poor students who take out large loans. In 1975, grants composed 80% of all federal financial assistance; in the early 1990s, they accounted for 49% (Zuckman, 1991a).

The Higher Education Amendments of 1992 were predominantly geared toward expanding programs that served the middle class. The family income eligibility limits for Pell grants and Stafford loans were increased, with Pell eligibility extended from a family income limit of \$30,000 to one of \$49,000. The law also extended Pell eligibility to part-time students.

Despite relatively little support for low-income students and a direct loan provision (Federal Direct Loan Demonstration Program) that the George Bush administration opposed, the president signed the election year reauthorization. That fall, the nation elected William Jefferson Clinton as President. The same year was marked by a resurgence in the economy that led to 108 straight months of growth, which would turn into the longest running economic expansion in U.S. history. While the details of party platforms and messages varied during the election, both campaigns aggressively solicited support from America’s largest voting block, the middle class.

The new President supported the idea of direct lending. Like his Democratic colleagues in Congress, he believed that savings associated with an across-the-board direct lending policy would be very large. Clinton was also interested in how he could use direct lending’s flexible repayment structure to complement one of his main campaign issues: national service. In his first state of the union address in 1993, the President introduced a National Service Program promoting community service, and he suggested that college loans should be available to all Americans. He compared the breadth of his proposal with that of the creation of Land Grant Colleges and the G.I. Bill

(Clinton, 1993). This initiative became an important signal concerning the agenda of the new administration.

Although opposed by Republicans in Congress, Clinton's proposals on direct lending and national service passed the 103<sup>rd</sup> Congress in the Student Loan Reform Act of 1993 and the National Service Trust Act of 1993—both elements of the Budget Reconciliation Act of 1993. The student loan law transformed the direct loan program from its pilot status of 100 institutions to a more ambitious participation level of 1,000 institutions. The administration projected \$6.8 billion in savings from FY 1995 to FY 2000 (Glickman and Babyak, 1995). The new loan system also permitted students to tailor their monthly payments to their income level. The national service law created *AmeriCorps* and established a National Service Trust to address community problems and to offer student assistance grants of nearly \$5,000 per year for college costs to individuals serving in the program after a year of full-time public service. Grant awards could be earned for community service undertaken before, during, or after postsecondary education (White House, 1994).

In November 1994, Republicans gained control of both houses of Congress. Led by Newt Gingrich (R-GA), they drafted the *Contract with America*, which they planned to enact within the first 100 days of the 104<sup>th</sup> Congress. The ten proposals grouped several ambitious reforms, including the Fiscal Responsibility Act, the Taking Back Our Streets Act, and the American Dream Restoration Act. The contract described a broad range of initiatives, including a cut to the student loan subsidy program, which generated one of the fiercest battles that the higher education community (including students and associations) had ever waged.

The Budget Reconciliation Act of 1995 contained a subtitle, the Higher Education Efficiency Act of 1995, which provided for the termination of direct lending, the elimination of grace period interest subsidies on student loans, and PLUS program reductions. The President, however, vetoed the measure and won over a higher education community that until then had been hesitant to embrace him.

In January 1997, Clinton renewed his commitment to middle-income Americans. Foreshadowing more robust, deficit-free federal budgets, the 1997 Taxpayer Relief Act called for tax reductions as one element of a “national crusade” (Clinton, 1997a) to improve education. The centerpiece of the budget was \$38.4 billion worth of education tax cuts over five years, including the HOPE Scholarship tax credit, a Lifetime Learning Credit, Individual Retirement Account (IRA) withdrawals, and an extension of the exclusion for employer-provided educational assistance. Also included were presidential honors scholarships, Pell grant increases, and student loan fee reductions. In the President's words, the aim of these programs was “to expand higher education and training to all Americans” (Clinton, 1997b).

The Clinton proposals on education and taxes did not meet strong opposition. After learning that tax cuts focused on education constituted the core of the president's

budget, the Republican-led Congress supported the proposals, adding some small education tax breaks from their own agenda (Rubin, 1997, p. 333). Those who opposed the proposals argued that the Clinton plan offered assistance to families who were already able to send their children to school but did not address the nation's neediest families because the credit offered in the proposal was refundable only to those owing income taxes. Such arguments generated a fair amount of skepticism within the higher education community during the debates.

Student loans and college costs served as a focus for the 1998 Higher Education Reauthorization. Republicans convened an 11-member National Commission on the Cost of Higher Education. In its controversial report, *Straight Talk about College Costs and Prices*, the Commission warned that for families, financing college was a "serious and troublesome matter":

The phenomenon of rising college tuition evokes a public reaction that is sometimes compared to the "sticker shock" of buying a new car. Although this reference to automobile prices may irritate some within the higher education community, it serves to remind all of us that higher education is a product, a service and a life-long investment bought and paid for, like others. (National Commission on the Cost of Higher Education, 1998)

Members of Congress criticized the report and considered it hyperbolic. The chairman of the House Committee on Education and the Workforce argued that most students attend state schools, where tuition is "about what a decent used car would cost" (as quoted in Kirchoff, 1998, p. 189). Other associations and student groups disagreed, welcoming the findings of the Commission, and citing increased concerns about access, affordability and accountability. These concerns and the Commission's were echoed by those who feared that tax credits and direct loans simply precipitated tuition increases rather than expanding access to lower-income Americans.

The events of 1997–98 also saw one of the more visible attempts to use the higher education system to address a national need through teacher training and preparation programs. In November 1997, the President signed into law a bill that would help 100,000 teachers become certified as master teachers. The Higher Education Amendments of 1998 repealed numerous small, categorical—and unfunded—teacher training programs and replaced them with a comprehensive model for change and improvement, arguing that "well-prepared teachers play a key role in making it possible for our students to achieve the standards required to assure both their own well-being and the ability of our country to compete internationally" (*Congressional Record*, 1998, see Message from the President). By 1999, the President in his State of the Union Address was calling for all new teachers to pass performance exams (Clinton, 1999).

The debate over reauthorization included proposals to simplify the Higher Education Act through program reductions as well as provisions for performance-based

policy and accountability initiatives. Concerns over loan interest rates produced a compromise, as questions of the government capacity to lend without the presence of private banks remained unresolved.

National service has enjoyed bipartisan support in Congress. Federal appropriations for AmeriCorps and Learn and Serve America remained stable at \$600 million annually from fiscal year 1996 to 1999, and increased to \$731.6 million in fiscal year 2000. According to Representative Shays, “AmeriCorps is one of the most successful experiments in state and local control [that] the federal government has ever embarked upon; two-thirds of AmeriCorps funding goes directly to governor-appointed state commissions which then make grants to local nonprofits” (*Congressional Record*, 2000, p. E1100; Corporation for National and Community Service, 2001).

## **The Federal Higher Education System**

The design of the higher education–federal interface is intentionally vague. Key participants in determining federal higher education policy include elected officials and staff from the executive and legislative branches of government, as well as staff from associations representing institutional and interest group constituencies who advise, lobby, and provide information. Rules (formal and informal) of the National Center for Education Statistics (NCES), the National Institutes of Health (NIH), the National Science Foundation (NSF), and the Office of Postsecondary Education (OPE) are established at the discretion of the President and usually change when a new President takes office.

The Department of Education’s Office of Postsecondary Education is responsible for policy formulation and program administration, working through three major subunits: Policy, Planning, and Innovation (PPI), Higher Education Programs (HEP), and Accreditation and State Liaison (ASL). Postsecondary education policy development, legislative proposals, and budget formulation and forecasting are responsibilities of PPI. Administration of international education, graduate fellowships, programs to improve access, and institutional capacity building fall under the purview of the HEP. The ASL oversees the accrediting agency recognition process and coordinates those activities that impact participation in the Federal Financial Assistance Program by the 50 states.

The Office of Postsecondary Education (OPE) has close ties to the National Institutes of Health (NIH) and the National Science Foundation (NSF), which together provide a significant share of research and development support to higher education. The NSF supports, through grants and contracts, fundamental research and education in academic institutions. The NIH, the principal health research agency of the federal government, uses grants, cooperative agreements, and contracts to pursue its objectives. In addition to its ties to the NIH and NSF, OPE works in conjunction with several cabinet-level departments and federal agencies in areas ranging from information

collection, analysis and dissemination to research in a broad spectrum of disciplines. Key collaborators in the current 449 programs that offer funding or services for postsecondary education include: The National Center for Education Statistics (NCES), the Department of Agriculture, and the Department of Energy (Office of Postsecondary Education, 2000).

The National Center for Education Statistics (NCES), housed within the Department of Education's Office of Educational Research and Improvement, serves as the federal government's primary information clearinghouse and data dissemination agency. It fulfills a congressional mandate to collect, analyze and report statistics on the condition of American education; to conduct and publish reports; and to review and report on international education activities. Congress, federal agencies, state and local officials, educational institutions and associations, the news media, business organizations, and the general public use NCES statistics. Data products of NCES that focus on higher education include: academic libraries; cost of attendance; institutional characteristics and financial statistics; salaries, tenure and fringe benefits of faculty; and student enrollment.

The Senate Health, Education, Labor and Pensions Committee is responsible for all proposed legislation pertaining to agricultural colleges; arts and humanities; biomedical research and development; Gallaudet College and Howard University; and student loans. The Committee on Education and the Workforce considers comparable issues in the House. Both standing committees work through their respective subcommittees.

Higher education advocacy organizations, which have no statutory authority, complete the policy triad. Although there are hundreds of higher education advocacy organizations, the six that represent institutional interests through their respective presidents enjoy preeminent status. The six are: the American Council on Education (ACE), the American Association of Universities (AAU), the American Association of State Colleges and Universities (AASCU), the National Association of Independent Colleges and Universities (NAICU), the National Association of State Universities and Land-Grant Colleges (NASULGC), and the American Association of Community Colleges (AACC). Most nonprofit postsecondary institutions hold memberships in at least two of these associations. Since the early 1980s, the Washington-based higher education associations have gained a reputation as powerful policy actors, with the federal authorities seeking the opinions of—and being influenced by—the associations and their lobbyists. The relationship between mainstream associations and the federal government has evolved to a point where some observers refer to the relationship as a partnership (Parsons, 1997).

Four other groups have also emerged as significant players in higher education policymaking, including:

- Organizations that depend on the student loan program—Consumer Bankers Association, the National Council of Higher Education Loan Programs, Sallie

- Mae (the largest private lender of student loans in the U.S.);
- Other influential associations—National Association of Student Financial Aid Administrators, National Educational Opportunity Associations, United Negro College Fund, the National Association for Equal Opportunity in Higher Education, and the Association of Catholic Colleges and Universities;
  - Campus lobbyists hired by larger and more complex individual institutions to deal with specific issues their associations do not address; and
  - “Hired guns,” usually from for-profit law firms, consulting firms, and lobbying firms, who are employed by postsecondary institutions to provide assistance with policy analysis and to provide substantive expertise and influence on the intricacies of federal policy issues (Parsons, 1997).

Beyond enhanced effectiveness of the higher education lobbying community, the 1990s brought a number of important changes to the federal/postsecondary education interface. Direct lending changed the student loan industry by providing competition to commercial lenders. Direct lending also required large internal shifts—a new office, a new delivery system, and a management structure. And direct lending brought the Department of Education (DOE) into direct contact with student borrowers—not a typical relationship.

Because of these changes, the 1998 reauthorization created a Performance-Based Organization (PBO) within the DOE dedicated solely to student assistance, highlighting dominant policy themes of the 1990s, including: streamlining, cost saving, and middle-class tax relief. The PBO management unit now administers more than \$60 billion in federal student assistance each year and is responsible for:

- Improving services to students and other participants, including making student assistance programs more understandable;
- Reducing the costs of administering the programs;
- Increasing accountability of those responsible for administration;
- Providing greater flexibility in the management of operational functions;
- Integrating the supporting information systems and developing and maintaining complete, accurate and timely data to ensure program integrity; and
- Implementing an open, common, integrated system for the delivery of student financial assistance.

The National Service Program also represented a new governmental office for oversight and management, and it changed the standard for giving out federal student assistance. For the first time, serving one’s community was considered—like military service—as a way to obtain financial support for college attendance.

## Federal Fiscal Policy in the 1990s

Relationships between higher education and the federal government evolve most commonly through changes in fiscal policy and the accompanying regulations. We now turn to a more detailed look at the changes in fiscal policy during the 1990s.

The federal government provides postsecondary funding primarily through student financial assistance and grants for research and development. When compared with other nations, total funding from all levels of government for postsecondary education in the U.S. ranks among the highest in the world. U.S. government spending on postsecondary (tertiary) education per student is considerably higher than that of its North American Free Trade (NAFTA) partners (see Table 3). Both Canada and the U.S. are spending 3% to 4% more on research and development than the Organisation for Economic Co-operation and Development (OECD) average, while Mexico is spending less than half of the OECD average.

**Table 3. OECD Postsecondary Education Expenditures: Canada, Mexico, United States**

	Average expenditure per student in tertiary public and private institutions. <sup>a</sup>		Expenditure on tertiary education as a percentage of GDP. <sup>a</sup>	Expenditure per student relative to GDP per capita	Expenditure on research and development funds to tertiary institutions as a percentage of GDP
	1995 <sup>b</sup>	1998 <sup>b</sup>	1998 <sup>b</sup>	1998 <sup>b</sup>	1998 <sup>b</sup>
<b>Canada</b>	\$11,000	\$14,579	1.9	58	0.38
<b>Mexico</b>	5,000	3,800	0.9	48	0.16
<b>United States</b>	16,000	19,802	2.3 <sup>c</sup>	61 <sup>c</sup>	0.37
<b>OECD Mean</b>	8,000	9,063	1.3	44	0.34

Source: OECD (1999, 2001).

<sup>a</sup> Expenditure represents equivalent U.S. dollars converted using purchasing power parity.

<sup>b</sup> Note that there is typically a three-year lag in the data OECD publishes in *Education at a Glance*: 1995 data are reported in the 1998 edition; 1998 data are reported in the 2001 edition.

<sup>c</sup> Postsecondary non-tertiary data included.

Federal funding continues to emphasize consumer choice; most financial aid funds are awarded to students rather than institutions. Most research funds are awarded to institutions through an incentive grant method that is based on a competitive process. Funds for specific institutional projects are also provided by a system of earmarking.

### *Student Financial Assistance*

Student financial assistance is at the core of federal strategies for influencing higher education priorities and outcomes. In 1995–96, 50% of all undergraduates received financial aid through programs funded by the federal government, the states, the

postsecondary institutions themselves, or other organizations. *Two-thirds* of all full-time students received financial aid (National Center for Education Statistics, 1998a).

Federal student aid—which is typically awarded based on financial need—increased by 16% during the 1990s (National Center for Education Statistics, 2000a). The \$60 billion commitment during 2000–01 exceeds all other federal appropriations for higher education combined. During the 1990s, total aid nearly doubled (in constant dollars), while loan aid increased by 136% (College Board, 2001). Federal student assistance programs include federal Pell grants, Federal Family Education Loans (FFEL), the William D. Ford Federal Direct Loan Program, Income Contingent Loans (ICL), State Student Incentive Grants (SSIG), Leveraging Educational Assistance Partnerships (LEAP),<sup>2</sup> Perkins Loans, Federal Work Study Grants, and Supplemental Educational Opportunity Grants (SEOG). The last three programs are distinguished as “campus-based.”

In existence for almost three decades, the federal Pell grant program serves as the foundation for need-based student aid. Pell grants are made directly to students based upon financial status as well as the cost of attendance. Increases in funding need-based aid suggest that the federal government has maintained its commitment to access and choice. However, funding levels have not kept up with increases in the costs of going to college. As a result, the buying power of the Pell grant has eroded both at public and private four-year institutions (see Table 4). The Pell grant maximum would need to increase from \$3,750 to over \$7,000 to reach its 1975–76 buying power at a four-year public institution (Advisory Committee on Student Financial Assistance, 2001). Although the Pell grant does not carry the purchasing power that it did upon its inception, it continues to serve as an important source of need-based assistance, and as a mechanism to correct the growing imbalance between grants and loans.

**Table 4: Pell Grant Maximum Award as a Percentage of Institutional Cost of Attendance**

Year	Institution Type	
	Public Four-Year	Private Four-Year
1975–76	84%	38%
1985–86	57%	26%
1995–96	34%	13%
1999–00	39%	15%

Source: College Board (2000); National Center for Education Statistics (2001b), as quoted in Advisory Committee on Student Financial Assistance (2001).

The Federal Family Education Loan (FFEL) program subsidizes and guarantees low-interest loans to students and parents. It remains the largest federal student assistance program. The program includes federal Stafford loans (subsidized and unsubsidized),

<sup>2</sup> LEAP was enacted in 1998 and replaced the SSIG program.

federal Parent Loans (PLUS), and federal Consolidation Loans. Private or commercial lending agencies make and manage the loans while the government backs or guarantees the loan. The only need-based element is the subsidized Stafford loan, for which the student pays no interest while in school. The federal government pays interest subsidies to approximately 4,100 lenders and guarantees loans against default through reinsurance programs for 36 state and private, nonprofit guarantee agencies that serve as intermediaries between the government and FFEL. Consolidation loans help student and parent borrowers consolidate several types of federal student loans with various repayment schedules into a single loan.

The Student Loan Reform Act of 1993 modified the FFEL program by creating new “risk structures” that place additional responsibility on states, loan holders, and guarantee agencies for default costs (National Center for Education Statistics, 2001b). Congress reduced the program in the 1994–95 academic year, supplementing it with the William D. Ford Direct Student Loan program, which was designed to streamline the system by eliminating banks and commercial lenders as the intermediaries between federal aid funds and student borrowers (Glickman and Babyak, 1995). Government borrowing at lower interest rates and low-cost loan service contracting made the Direct Student Loan program less expensive than the subsidies paid to lenders and guarantee agencies under the FFEL program. In its first year of operation, the program accounted for 7% of the total loan volume. As of FY 2000, direct lending accounted for 30% of the volume.

Direct lending and FFEL programs continue to operate side by side in providing grant awards and loan services. Private lenders, who under the guaranteed loan program sometimes provided sub-standard services, now openly compete for the student loan business. Following the lead of the direct lending program, all lenders now offer lower service fees and flexible repayment terms, including the option to repay as a share of income. One source has estimated that students and taxpayers have already saved \$15 billion through student loan reforms (Burd, 2001a). A DOE representative told us: “This really was a reinventing government proposal. By taking out the middle man, you’re not only saving money for the government through lower fees, but you are also improving services for the borrower.”

The State Student Incentive Grants (SSIG) program, authorized in the 1972 Higher Education Amendments, provided federal grants to states to promote state-level, need-based grants and community service work-study assistance. Under the 1998 reauthorization, SSIG became the Leveraging Educational Assistance Partnership (LEAP) program. Through the 1990s, federal funding for SSIG and LEAP consistently declined, although state governments continue to support the program ardently. In 1997, states overmatched their federal SSIG (LEAP) funds by 20 to 1 (National Center for Education Statistics, 2001b).

Three programs, administered primarily by participating institutions, complete the picture of federal student assistance. Enacted as National Direct/Defense Loans under the National Defense Education Act of 1958, the Perkins program provides long-term, low-interest loans to graduate and undergraduate students. Program resources include over 40 years of federal on-budget capital contributions, institutional matching funds, repayments on previous loans, and reimbursements for cancellations. Under the 1998 reauthorization, undergraduate students are eligible to borrow up to \$4,000 and graduate students \$6,000 (National Center for Education Statistics, 2001b).

Under the Work Study (College Work Study, Federal Work Study) Program, federal grants to institutions subsidize the salaries of on-campus student workers. Not all institutions participate in the program. Eligible students begin the academic year with a specified work-study funding level. The funds are non-transferable and apply only to student salaries for part-time employment. Institutions provide matching funds equal to 25% of the total (prior to 1993 it was 30%) (National Center for Education Statistics, 2001b).

The Federal Supplemental Educational Opportunity Grant (FSEOG) program is need-based and provides assistance to both part- and full-time graduate and undergraduate students. Because the Student Loan Reform Act of 1993 stipulated that the federal portion of the grants could not exceed 75% of the total, institutions must provide 25% of the total amount awarded. Students receiving Pell grants are given FSEOG priority, although in contrast to Pell grants, not every eligible student receives the FSEOG. Those receiving an award are eligible for up to \$4,000 a year in funding.

Table 5 illustrates changes (in millions of *constant dollars*) in aid awarded to students during the 1990s. Student loan volume soared following the 1992 Amendments, which extended borrowing eligibility to middle- and upper-income groups. Federal student loans currently cover approximately 60% of all student aid, compared to 40% in 1980, and 30% in 1970 (College Board, 2001). Since the inception of the federal education loan program in the mid-1960s, students and their parents have borrowed more than \$300 billion to finance the cost of college.

**Table 5: Aid (in millions) Awarded to Postsecondary Students, in *Constant* Dollars: 1990–1991 to 1999–2000**

Program	1990–91	1993–94	1994–95	1995–96	1996–97	1997–98	1998–99	1999–2000
<b>Pell Grants</b>	6,453	6,771	6,425	6,201	6,369	6,854	7,703	7,464
<b>SEOG</b>	599	698	678	661	643	631	654	641
<b>LEAP</b>	77	86	84	73	35	54	26	27
<b>Work Study</b>	952	924	882	865	855	981	973	950
<b>Perkins Loans</b>	1,138	1,100	1,130	1,166	1,126	1,150	1,140	1,140
<b>Income Contingent Loans</b>	7	0	0	0	0	0	0	0
<b>Ford Direct Loans</b>			2,087	9,477	10,960	11,833	11,686	11,213
<i>(Subsidized Stafford)</i>			1,303	5,730	6,414	6,641	6,398	5,808
<i>(Unsubsidized Stafford)</i>			575	2,836	3,507	4,009	4,002	4,110
<i>(Parent Loans)</i>			209	911	1,039	1,183	1,286	1,295
<b>Family Education Loans</b>	14,328	21,204	26,685	21,832	23,217	23,878	23,873	26,009
<i>(Subsidized Stafford)</i>	13,077	16,950	16,628	12,942	13,214	12,963	12,511	12,948
<i>(Unsubsidized Stafford)</i>	0	2,424	8,089	7,073	7,997	8,654	9,011	10,406
<i>(Parent Loans)</i>	1,251	1,830	1,930	1,818	2,005	2,260	2,351	2,655
<b>Total</b>	<b>23,554</b>	<b>30,783</b>	<b>37,934</b>	<b>40,275</b>	<b>43,204</b>	<b>45,380</b>	<b>46,054</b>	<b>47,862</b>

Source: College Board (2001).

Table 6 summarizes the substantial increases in average loan indebtedness occurring from 1992–93 to 1995–96.

**Table 6: Average Loan Indebtedness per Student**

Stafford Student Loans	1992–93	1995–96
<b>Public 4-year Institutions</b>	\$7,400	\$11,950
<b>Private 4-year Institutions</b>	\$10,190	\$14,290

Source: National Center for Education Statistics (1995, 1997b).

Funding for merit-based programs (grants and scholarships awarded based on academic criteria regardless of the student/family’s ability to pay) also increased by 336% in real dollars from 1993 to 2000 (Advisory Committee on Student Financial Assistance, 2001). By fall 1998, 13 states offered scholarships based on merit patterned after Georgia’s HOPE Scholarship Program, which awards in-state students who have at least a B average their full tuition and fees at a public campus, or \$3,000 at a private campus in state regardless of family income. On average nationwide, 15% of state aid awards currently are *not* based on need (National Center for Education Statistics, 2000b). Such programs are as much concerned with keeping higher performing students in state as with making higher education affordable (Schmidt, 1998, p. 9).

Concomitantly, the emphasis on merit-based aid also has increased at the institutional level, where the average grant for middle-income students now exceeds that for low-income students at private institutions (Advisory Committee on Student Financial Assistance, 2001). The shift in federal student aid policy toward expanding eligibility to the middle class has been gradual but relentless over the last two decades (Spencer, 1999). Nothing has exemplified that trend better than the federal HOPE Scholarship Program.

The Taxpayer Relief Act of 1997 authorized HOPE Scholarships—\$1,500 tax credits for up to two years—to be offered to families with adjusted annual gross incomes no greater than \$80,000 to \$100,000. The Lifetime Learning proposal applies to families with the same income criteria and enables them to offset the cost of education by taking up to \$10,000 a year in tax deductions. The IRA provision eliminated penalties for account withdrawals if the money was used for postsecondary education. The extension of the exclusion for employer-provided education assistance allowed workers to exclude from their income the cost of any graduate or undergraduate course work paid by their employer. Tax credits clearly benefit primarily middle-income students attending higher-priced institutions.

Many in the higher education community opposed the program, arguing that it is too expensive and will ultimately leave less funding available for need-based aid directed to low-income students. In 1998, only about a third of the families who were estimated to be eligible actually claimed a federal education tax credit (including the HOPE Scholarship) and they claimed only \$3.4 billion of an estimated \$7 billion liability (Riley, 2001).

### ***Research and Development***

The federal government uses an incentive grant system to fund research and development projects it deems necessary for the national interest. Federal support for research at universities and at university-sponsored research and development centers amounted to \$22.8 billion in FY 2001 (National Center for Education Statistics, 2001b). Total nonfederal spending on research and development increased during 2000, as institutions used more of their own funds to finance research. In the public sector alone, research expenditures rose by 26% per student at public universities, and by 36% at other public four-year colleges (National Center for Education Statistics, 2000a). On average, the federal government funds 59% of the funds an institution spends on research and development, while institutions fund 19% (*Chronicle of Higher Education*, 2000).

The National Institutes of Health (NIH), under the auspices of the Department of Health and Human Services (HHS), is the single most important source of federal research dollars. Total HHS support of universities and university-sponsored research and development totaled \$11.0 billion, or 48% of the \$22.8 billion in federal research funding

in FY 2001. The Department of Energy (DOE) and the National Science Foundation (NSF) provided \$3.5 billion and \$3.0 billion, respectively. Other federal research funding sources exceeding \$1 billion in FY 2001 included the National Aeronautics and Space Administration (NASA) and the Department of Defense (DOD) (National Center for Education Statistics, 2001b).

Table 7 reports government expenditures by source at colleges and universities from 1990 to 1999. In all years, the federal government provided the lion’s share of all expenditures.

**Table 7: Research and Development Expenditures at Universities and Colleges, by Source of Funds: Fiscal Years 1990 to 1999 (in millions of dollars)**

Fiscal Year	Total	Federal Government	State and Local Government	Industry	Institutional Funds	All other Sources
1990	16,286	9,638	1,324	1,127	3,006	1,191
1991	17,585	10,234	1,474	1,204	3,367	1,307
1992	18,818	11,092	1,491	1,279	3,547	1,409
1993	19,951	11,956	1,559	1,360	3,589	1,486
1994	21,020	12,644	1,553	1,422	3,826	1,574
1995	22,161	13,326	1,689	1,488	4,046	1,613
1996	23,035	13,833	1,810	1,605	4,169	1,618
1997	24,338	14,300	1,906	1,729	4,691	1,711
1998	25,837	15,131	1,946	1,894	5,000	1,868
1999	27,489	16,047	2,028	2,048	5,366	2,000

Note: Because of rounding, detail may not add to totals.

Source: National Science Foundation (2001).

The institutions receiving these funds engage in a wide range of research endeavors ranging from agricultural cooperatives to defense initiatives; from medical research to exploring new frontiers in the physical sciences. There is strong congressional support for research, as evidenced by the remarks of Senator Frist: “Innovation is a key element of economic growth in the United States. It is the principal element behind our long-term growth and our rising standard of living. . . . R & D drives the innovation process, which in turn drives the U.S. economy” (*Congressional Record*, 1999, pp. S897–898).

The top recipients of federal research funding remained relatively stable throughout the decade; for instance, seven of the top ten institutions receiving the largest amount of federal research dollars were the same in 1998 as in 1989 (see Table 8).

**Table 8: Top Institutions in Total Research and Development Spending: 1989, 1998**

1989	1998
1 Johns Hopkins University*	1 Johns Hopkins University*
2 Massachusetts Institute of Technology*	2 Stanford University*
3 Cornell University	3 University of Washington*
4 Stanford University*	4 University of Michigan*
5 University of Wisconsin at Madison*	5 Massachusetts Institute of Technology*
6 University of Michigan*	6 University of California at San Diego
7 University of Minnesota	7 Harvard University
8 Texas A & M University	8 University of Pennsylvania
9 University of California at Los Angeles*	9 University of Wisconsin at Madison*
10 University of Washington*	10 University of California at Los Angeles*

Source: *Chronicle of Higher Education* (1991, 2000).

\*Institution ranked in top ten for both years.

During the decade, colleges and universities came under increased pressure to collaborate with private sector business and industry. A college president, after describing the increasing emphasis on consortia, told us that the trend “is away from individual projects.” Academic acceptance of collaboration was also spurred by apprehension over the possibility of reductions in federal research and development in light of the end of the Cold War (Committee on Forces Shaping the U.S. Academic Engineering Research Enterprise, 1995).

Although research and development funding in fact increased steadily through the 1990s, questions of oversight and concerns over earlier instances of scientific misconduct prompted policymakers to investigate whether institutional self-regulation and peer review were sufficient safeguards against academic fraud. In 1993, Congress passed legislation signed by the President to require oversight by the Office of Research Integrity, within the Department of Health and Human Services (Glazer, 1997).

## System Behaviors

Federal requirements for collecting and reporting data are critical to all levels of government that are interested in assessing the degree to which postsecondary institutions are responsive to public priorities. Federal requirements for reporting information in specified formats apply to all institutions and systems that receive federal funds. For practical purposes, this includes all nonprofit and most proprietary (for-profit) institutions in the U.S. The databases produced through this massive collection and reporting effort support ongoing studies of a wide range of higher education indicators, including student progress; effects on financial assistance; progress in improving access and equity for underserved populations; student completion; faculty characteristics and job satisfaction; accountability; and consumer protection.

Increasingly, federal strategies have also incorporated mandates for collaboration among segments of the educational system and their respective stakeholders. In this section of the paper, we describe available information and the uses that are made of it to promote accountability across institutional, sector and system boundaries. We also summarize several initiatives that have reshaped the pursuit of long-standing priorities in ways that require greater collaboration.

### ***Communication***

A network of data collection activities coordinated at the federal level by the National Center for Educational Statistics (NCES) facilitates communication within the higher education community and among its stakeholders. The Integrated Postsecondary Education Data System (IPEDS) is the core postsecondary education data collection program of NCES. IPEDS is a single, comprehensive system built around a series of interrelated institutional data surveys. Complementing IPEDS are survey and reporting activities carried out under the auspices of the National Study of Postsecondary Faculty (NSOPF), National Postsecondary Student Aid Study (NPSAS), the National Postsecondary Education Cooperative (NPEC), the Postsecondary Education Quick Information System (PEQIS), and the Postsecondary Education Descriptive Analysis Reports (PEDAR).

NSOPF provides data ranging from faculty hires and departures to tenure, departmental composition, and socio-demographic characteristics. NPSAS is a periodic comprehensive national study of how students and families pay for postsecondary education. NPEC's principal charge is to "identify and communicate issues germane to postsecondary education, and to promote quality, comparability and utility of postsecondary data and information that support policy development, implementation, and evaluation." PEQIS offers quick access to data on approximately 1,500 institutions and 51 state higher education agencies for those who do not have the ability to use the large, recurring surveys such as NSOPF or NPSAS. PEDAR uses multiple databases to develop publications that address topics such as student persistence, academic preparation, staff and faculty background characteristics, employment outcomes of graduates, and student debt burden.<sup>3</sup>

The National Student Loan Clearinghouse (Clearinghouse) is a DOE technology-based initiative aimed at improving the federal capacity to monitor student loan borrowers. Most postsecondary institutions provide the Clearinghouse with current information about individual student enrollment and receipt of financial aid. The system permits the federal government to track borrowers and has assisted in efforts to decrease the student loan default rate. Improved record keeping through the Clearinghouse is

---

<sup>3</sup> Unless otherwise cited, the data in this section are taken from the National Center for Education Statistics Web site at [www.nces.ed.gov](http://www.nces.ed.gov).

credited in part with reducing the default rate dramatically—from 22.4% in 1990 to 5.6% by 1999.

In addition to agencies specifically charged with the development and maintenance of national databases, Congress tied reporting requirements to much of its legislation during the 1990s. The Higher Education Amendments of 1998 included disclosure requirements that Congress thought would provide necessary “consumer” information for students making decisions about which college to attend (*Congressional Record*, 1998, p. S11069). The College Tuition Reduction and Information Act of 1997 established a National Commission to grapple with the issue of rising college tuition. Following congressional dissatisfaction with the commission’s report, legislation was passed requiring colleges to make public their prices, costs and many of the associated factors.

Overall, the 1990s brought an unprecedented number of disclosure rules and regulations. At the beginning of the decade, higher education was not regulated in such areas as student loan default rates, the costs associated with college, access for students with disabilities, graduation rates of students and student athletes, pass rates of teachers on state licensure examinations, campus crime, or hate crimes. By 2000, colleges had to report information and comply with federal regulations in all of these areas (Ikenberry and Hartle, 2000).

### ***Collaboration***

The federal government has historically encouraged articulation between secondary and postsecondary education to improve academic preparation of low-income and disadvantaged students. Unlike TRIO grants awarded to individual institutions beginning in the 1970s, however, the decade’s most significant federal effort to assist low-income students, GEAR-UP, required collaboration among colleges and universities, schools, and outside organizations. Focused on cohorts of seventh grade or younger students, GEAR-UP provides counseling, mentoring, academic support, outreach, and information about the advantages of and alternatives for financing postsecondary education to elementary, middle, and secondary school students who are at risk of dropping out (and to their parents). Participants who obtain a secondary school diploma (or its recognized equivalent) are guaranteed the financial assistance necessary to attend an institution of higher education. Collaborating partners must provide a dollar-for-dollar match of federal funds and are expected to focus on systemic change, to ensure that all students are held to high standards, and to provide the necessary academic core curriculum students need to succeed in postsecondary education (Silver, 2001)

The new emphasis on partnerships and consortiums incorporated in the GEAR-UP legislation can also be found in at least two other federal programs:

- Tech Prep education, established in 1990, was a planned sequence of study in a technical field beginning as early as the ninth year of school. The sequence extends through two years of postsecondary occupational education or an apprenticeship program of at least two years following secondary instruction, and culminates in an associate degree or certificate. Tech Prep is an important school-to-work transition strategy, helping all students make the connection between school and employment (U.S. Department of Education, 2001).
- The school-to-work initiative of 1991 provided venture capital for state and local partnerships to design systems to help young people make the transition from school to careers and lifelong learning. Designed to develop young people's competence, confidence and connections to help ensure successful careers and citizenship, the initiative encouraged the incorporation of existing models, including cooperative education, youth apprenticeships, career academies, and Tech Prep. The intent was to provide youth with multiple options for making school-to-work transitions, including four-year college, two-year college, technical training, skilled entry-level work on a career path, and pursuit of lifelong learning. The legislation expired in 2001, by which time school-to-work systems were to be institutionalized at the state and local levels.

Research programs funded by the federal government also placed greater emphasis on partnerships and collaborations with private industry. The president of a college of technology told us that institutional leaders welcomed this emphasis, especially in fields where advances in knowledge were occurring at a rapid pace. Partnership projects also expanded the number of institutions eligible to compete for the funding. A community college president noted that his institution lacked the resources to compete for research funding in the absence of partnership grants, which encouraged participation with the local business community.

### ***Accountability***

Increased federal interest in accountability during the 1990s led to new regulatory requirements, institutional penalties, and the inclusion of academic performance measures in accreditation reviews. While institutions and their Washington-based representatives complained about the heavy regulatory burden and more adversarial role they saw in these federal initiatives, policy officials argued that the shift simply involved more emphasis on consumer advocacy and less on institutional deference. The changes in accountability requirements emphasized four strategic actions:

- Accreditation and audit changes that included more involvement by the states;
- Default rate triggers calculated for each institution and used to signal “bad practices”;

- Information disclosure requirements calling on institutions to report some typical and some new data; and
- Mechanisms that capped indirect cost rates for federal research grants.

The 1992 Amendments brought important changes to accreditation. All accrediting bodies had to be approved by the secretary of education. Those that conducted institutional reviews were required to devise a set of outcome standards that would allow them to assess quality and performance based on such indicators as graduation and completion rates, grades received on state licensure exams, and job placement. The same legislation expanded accrediting and audit requirements as well as the states' roles in oversight to help identify institutions whose practices led to misuse of federal student aid funds (*Congressional Record*, 1992, p. H1736). The creation of State Postsecondary Review Entities (SPRE) as part of the strategy for implementing the legislation met with great resistance from the higher education community, whose leaders argued successfully over a two-year period that it would set a bad precedent and intrude on institutional autonomy. A Republican Congress repealed the SPRE program in 1994, but other parts of the accountability legislation remained intact.

At the beginning of the decade, there was no mechanism in place to penalize institutions for high student default rates because loans were made directly to individual students. Many institutions were reporting student loan default rates well over 50%. In 1990, the cumulative default rate for all proprietary institutions was 41%, and the rate for four-year institutions was 22% (U.S. General Accounting Office, 1996). The response was to impose "default rate triggers," through which institutions whose students defaulted at high rates were barred from further participation. After 1991, the DOE barred more than 1,100 institutions (mostly for-profit proprietary ones), from the loan programs (Burd, 2001b). In addition, some institutions serving populations with high proportions of low-income students voluntarily chose to end participation because, as one inner-city community college president told us, "if the default rate went above 25% for more than three years, our school would lose eligibility for *all* federal aid programs. I just could not take that chance."

Following reports of fraud and abuse published in the early 1990s, the federal government established a 26% cap on reimbursements to universities for three components of their administrative costs for conducting sponsored research. The rules were further modified in July 1993, clarifying and tightening indirect cost accounting procedures (U.S. General Accounting Office, 1996). While the calculation of the indirect cost recovery rate allows some institutions to have a higher rate, many are effectively limited to 26% (Executive Office of the President, 1999). The Clinton administration resisted congressional pressures for further caps on the indirect cost recovery rate, warning, "Cost-shifting could potentially affect the quality of research, and could, for example, cause universities to delay needed renovations and construction of facilities if

they are no longer reimbursed for the interest costs associated with these projects” (Executive Office of the President, 1999, p. 16).

## **Performance Indicators**

While it is too soon to evaluate the effects of many of the federal initiatives described in this paper, there are changes in higher education behaviors and outcomes that can be inferred as responses to the decade-long emphasis on better consumer information, improved collaboration across sectors and among stakeholders, and greater institutional accountability. Collaboration has increased among postsecondary institutions and their constituencies, including K–12 schools and business and industry. While high school completion and graduation rates have improved, the percentage of low-income individuals who pursue postsecondary education has remained relatively unchanged. The public seems to have more relevant information about higher education as institutions comply, often reluctantly, with increased reporting requirements.

Table 9 compares national statistics for 1991 and 2000, organized according to five of the performance categories (preparation, participation, affordability, completion, and benefits) established by the National Center for Public Policy and Higher Education in *Measuring Up 2000*.

Improvements are most apparent in the categories of preparation, completion, and benefits. For preparation, high school drop-out rates are lower, test scores are higher, and more previous high school drop-outs completed their general equivalency diplomas (GEDs). Under the completion category, the proportion of students receiving certificates or degrees increased at all levels, with particularly striking advances for graduate and associate degrees. Our single measure related to benefits indicates that the loan default rates declined precipitously. Participation improved slightly, but at a declining rate. Affordability is the one category in which performance appears to have gotten significantly worse. Intuitively, these outcomes seem to reflect the policy emphases during the past decade.

To report that an indicator has improved provides no indication of whether current performance is good or bad. In this section of the paper, we used the performance indicators and numerical grades from *Measuring Up 2000* to create “national averages” (calculated as a weighted average of each state’s population relative to the total population of the 50 states). These national averages provide some basis for understanding the relative performance of states. We also report international comparisons with Mexico, Canada and other OECD countries where such information is available. Our intent is to say as much as the available information will permit about higher education performance as the nation enters a new millennium.

**Table 9: United States National Data**

<b>Preparation<sup>1</sup></b>	<b>1991</b>	<b>2000</b>
High school drop-out rate	29%	10%
GED recipients	409,898	498,015
Average test scores on: SAT	896	1,008
ACT	18	21
<b>Participation<sup>1</sup></b>	<b>1991</b>	<b>2000</b>
10-year change in total enrollment	+15%	+7.8%
<b>Affordability<sup>1</sup></b>	<b>1991</b>	<b>2000</b>
Average annual tuition and fees:		
Public 4-year	\$1,781	\$3,226
Private 4-year	8,446	14,003
Public 2-year	758	1,328
Private 2-year	5,324	*
<b>Completion<sup>2</sup></b>	<b>Percentage increase in number of degrees conferred, 1987–88 to 1997–98</b>	
Associate degrees	28%	
Bachelor's degrees	19%	
Master's degrees	44%	
Doctoral degrees	32%	
First professional degrees	11%	
<b>Benefits<sup>3</sup></b>	<b>1990</b>	<b>1999</b>
National Student Loan Default Rate	22.4%	5.6%

\* Data not available.

<sup>1</sup> Source: *Chronicle of Higher Education* (1991, 2000).

<sup>2</sup> Source: NCES (2000a).

<sup>3</sup> Source: Burd (2001a). These figures are for 1990 and 1999, respectively.

### ***Preparation***

Preparation is defined in *Measuring Up 2000* to include high school completion, K–12 course taking, and K–12 student achievement. The national average is C+.

Internationally, the U.S. ranks among leading nations in preparing students for postsecondary education (see Table 10). Of the 28 countries represented in the OECD, 62% of the adult population (25–64 years of age) has on average completed upper secondary school; but there is wide variation. Canada, Czech Republic, Denmark, Germany, Japan, Norway, Switzerland, and the United States each have an adult population where 79% or more have completed upper secondary school. Conversely, Italy, Mexico, Portugal, Spain, and Turkey have adult populations where less than 50% have completed this level (Organisation for Economic Co-operation and Development, 2001).

**Table 10. OECD Completion Rates, Upper Secondary and Tertiary Education**

	Percentage of the adult population (25–64 year-olds) who completed upper secondary school	Percentage of the adult population (25–64 year-olds) who completed tertiary education
<b>Canada</b>	79.5	39.2
<b>Mexico</b>	20.2	13.2
<b>United States</b>	86.9	35.8
<b>OECD Average</b>	62.0	21.0

Source: OECD (2001).

Over the past two decades, primary and secondary education has been the focus of much concern in the United States. Despite some improvements, the general consensus is that much room for improvement remains. A higher percentage of high school students are now taking advanced classes in mathematics, science, English, and foreign languages. However, national trends in reading, math and science scores are mixed. The average scores of 17-year-olds were higher in 1999 than in 1973 in mathematics, about the same in reading, but lower in science (National Center for Education Statistics, 2001a). The high school drop-out rate decreased over the past decade from 29% in 1991 to 10% in 2000. During this same period, the number of GED recipients increased from 409,898 to 498,015 and average scores on the SAT exam increased from 896 to 1,016; while the average ACT score increased from 18 to 21 (*Chronicle of Higher Education*, 1991, 2000).

### ***Participation***

*Measuring Up 2000* calculates its scores for participation based on the following indicators: high-school-to-college going rates, young adult enrollment rates, and the proportion of working-age adults enrolled in postsecondary education. The national average for participation is a C+.

By the mid-1990s, 57% of all U.S. high school graduates went on to college (Halstead, 1996). During the 1990s, college enrollments increased by 7.8%, down from 15% during the previous decade, partly as a result of declining high school graduation classes in many states. Much of the growth was fueled by increases in the proportion of women going on to college; by the year 2000 women were the majority in associate, bachelor's, and master's degree programs. During the 1990s, about 50% of all first-year students enrolled in community colleges. The proportion of minority college students increased from 16% in 1976 to 27% in 1997. Much of this change was accounted for by the rising numbers of Hispanic and Asian-American students. African-American and Hispanic students disproportionately depended upon community colleges as their access institutions (National Center for Education Statistics, 2000a).

While participation increased for all groups, low-income 18- to 24-year-olds attend college at much lower rates than those with high income, and the gaps remain about as wide as they were in 1972 (Gladieux, 2001). While socioeconomic status is an important factor in determining whether or not an individual will pursue postsecondary education, family income is the key variable for determining the type of institution an individual attends. Lower- and middle-income students are almost equally represented in various price categories of institutions. However, the percentages of undergraduate students from lower- and middle-income families enrolling at the highest priced institutions remain lower than those from the higher-income group (National Center for Education Statistics, 2001c).

Concerns about access for both lower-income and middle-income students continue. Both have difficulty affording the highest-priced, private institutions. For the two groups, financial assistance may not be adequate to make a high-cost institution a realistic choice. A former governor wrote, “Despite the accomplishments of American higher education, its benefits are unevenly and often unfairly distributed, and do not reflect the distribution of talent in American society. Geography, wealth, income, and ethnicity still play far too great a role in determining the educational opportunities and life chances of Americans” (National Center for Public Policy and Higher Education, 2000).

### ***Affordability***

*Measuring Up 2000* includes the following components in its category of affordability: (1) family ability to pay at community colleges, at public four-year colleges and universities, and at private four-year colleges and universities; (2) strategies for affordability, including state grant aid targeted to low-income families and share of income needed by poorest families to pay tuition at lowest priced colleges; and (3) student reliance on loans. The national average for affordability is C+.

Sharing the cost of education between the government and individual students and families is a guiding principle of federal student assistance programs. Between 1989–90 and 1999–2000, both the prices and the financial burden for families have increased. During the decade, prices at public colleges increased by 22% and those at private colleges by 27% (National Center for Education Statistics, 2000b). Student financial assistance programs have not kept pace with these increases. Both lower- and middle-income students and families are paying more in net price (the amount students and families pay after deducting student financial assistance) than the amount determined by the federal government as reasonable based on their financial situations (National Center for Education Statistics, 2001c). In 1972–73, middle-income families needed 13% of their income to meet the average price of attendance at a four-year public institution. In 1999–2000, they needed 16%. For attendance at private institutions, middle-income

families needed to pay 27% of their income to pay the price in 1972–73 and 43% by 1999–2000. Fifty-eight percent of middle-income dependent students (those with family incomes between \$35,000 and \$69,999 in 1994) had unmet need after financial aid and their expected family contribution were taken into account (College Board, 2000). The difference is increasingly offset by reliance on loans.

### ***Completion***

Grades for completion in *Measuring Up 2000* are based on first-year community college students returning for a second year, freshmen at four-year colleges and universities returning for their second year, the proportion of first-time, full-time students completing a bachelor's degree within five years, and the certificates, degrees and diplomas awarded at all colleges and universities per 100 undergraduate students. The national average for completion is a B–.

The OECD average for the percentage of adults in a country who completed a tertiary education is 21%. Among the North American Free Trade Agreement (NAFTA) partners, Canada ranks first at 39%, with the U.S. following at 36% and Mexico at a significantly lower 13%.

Over the last decade, more people in the U.S. completed college. Between 1987–88 and 1997–98, the number of degrees conferred at all levels rose: associate degrees increased 28%, bachelor's degrees increased 19%, master's degrees increased 44%, and doctoral degrees increased 32%. About half (53%) of the students who enrolled in a four-year college in 1989–90 had completed their degree by the spring of 1994 (National Center for Education Statistics, 2000b). Striking the appropriate balance between access and completion remains a challenge for most U.S. states and for the nation as a whole (New Jersey Commission on Higher Education, 1996).

### ***Benefits***

*Measuring Up 2000* includes in its benefits category the percentage of adults with a bachelor's degree or higher, the increase in personal income due to education, the percentage of eligible residents voting in national elections in 1996 and 1998, the percentage declaring charitable gifts of those who itemized on their federal tax return; and three measures of adult literacy (quantitative, prose, and document). The national average for benefits is B–.

Historically, Americans have relied on higher education for social and economic mobility. Most observers consider the country's productivity and technological progress, as well as its general health, to be linked to higher education. Individuals who accrue some college credits or hold a degree earn significantly more than their peers who have not pursued education beyond upper secondary school. As reported by the OECD (2001), upper secondary school is a breaking point in many countries, beyond which additional

education attracts a particularly high premium. In the U.S., the average college graduate will earn 80% more than a high school graduate and experience fewer incidents of unemployment.

## **Conclusion**

The rules of the game at the federal level have changed during the past decade. There is now less emphasis upon need-based grants and more on subsidized loans. While low-income and underserved populations remain a federal concern, the middle-class has become the focus in the majority of new initiatives. Direct lending has arguably altered the role of the federal government in relation to institutions. And tax credits, for which students and families must have substantial income to benefit, have shifted the focus of federal financial aid dollars from low-income to middle-income families.

Despite increasingly effective federal lobbying efforts by organizations representing the higher education community, institutions must now report far more information than they would like about behaviors, activities and outcomes that have not been a matter of federal concern previously. And the new federal requirements do not end with the reporting of data. New standards have been defined in areas such as student loan default rates, with penalties for institutions that are judged to be below acceptable levels. Historically, accreditation has been the province of institution- or discipline-based associations. Now these organizations must operate under federal oversight and enforce federal reporting requirements.

The higher education community has reacted with criticism, rationalizations and doomsday predictions. Many of these assessments are reasonable from the perspective of the traditional higher education enterprise. Increasingly, however, the enterprise is not traditional, and public opinion seems solidly on the side of more rather than less oversight.

## References

- Abramson, H. N., Encarnacao, J., Reid, P., Schmoch, U. (1997). *Technology Transfer Systems in the United States and Germany: Lessons and Perspectives*. National Academy Press:  
<http://www.nap.edu/catalog/5271.html> [September 2001].
- Advisory Commission on Intergovernmental Relations. (1981). *The Federal Role in the Federal System: The Dynamics of Growth/The Evolution of a Problematic Partnership: The Feds and Higher Ed*. Washington, D.C.
- Advisory Committee on Student Financial Assistance. (2001). *Access Denied—Restoring the Nation’s Commitment to Equal Educational Opportunity*. Washington, D.C.
- Basinger, J. (2001). Universities Are Urged to Promote More Research Ties with Industry. *Chronicle of Higher Education* (June 11): [http://chronicle.com/search97cgi/s97\\_cgi](http://chronicle.com/search97cgi/s97_cgi) [September 2001].
- Burd, S. (2001a). “Direct Lending’s Last Stand?” *Chronicle of Higher Education*:  
<http://chronicle.com/weekly/v47/i40/40a01801.htm> [August 2001].
- . (2001b). “Default Rate on Student Loans Drops Again, But Worsening Economy Could End Trend.” *Chronicle of Higher Education*: <http://chronicle.com/daily/2001/09/2001092008n.htm> [November 2001].
- Chronicle of Higher Education*. (1991). Almanac Issue 1991–92. 38 (1).
- . (1993). Almanac Issue 1993–94. 40 (1).
- . (2000). Almanac Issue 2000–01. 47 (1).
- Clinton, W. J. (1993). “Address Before a Joint Session of Congress” (State of the Union). *Washington Post* (February 17): <http://www.washingtonpost.com/wp-srv/politics/special/states/states.htm> [October 2001].
- . (1997a). “Address Before a Joint Session of Congress” (State of the Union). *Washington Post* (February 4): <http://www.washingtonpost.com/wp-srv/politics/special/states/states.htm> [May 2001].
- . (1997b). *Budget of the United States Government, The Budget Message of the President, Fiscal Year 1998*. U.S. Government Printing Office:  
<http://w3.access.gpo.gov/usbudget/fy1998/maindown.html> [June 2001].
- . (1999). “Address Before a Joint Session of Congress” (State of the Union). *Washington Post* (January 20): <http://www.washingtonpost.com/wp-srv/politics/special/states/states.htm> [May 2001].
- Cohen, A. (1998). *The Shaping of American Higher Education*. San Francisco: Jossey-Bass.
- College Board. (2000). *Trends in College Pricing* (Report 992991). New York: College Board Publications.
- . (2001). *Trends in Student Aid* (Report 992992). New York: College Board Publications.

- Committee on Forces Shaping the U.S. Academic Engineering Research Enterprise. (1995). *Forces Shaping the U.S. Academic Research Enterprise*. National Academy Press: <http://www.nap.edu/books/030905284X/html/index.html> [August 2001].
- Congressional Record*. (1992). "Higher Education Amendments of 1992." Washington, D.C.: U.S. Congressional Record. March 25. <http://rs9.loc.gov/cgi-bin/query/D?r102:1:/temp/~r102gQxRsH> [May, 2001].
- . (1998). "Higher Education Amendments of 1998—Conference Report." Washington, D.C.: U.S. Congressional Record. September 11. <http://rs9.loc.gov/cgi-bin/query/D?r105:32:/temp/~r105NEtkL2> [May, 2001].
- . (1999). "Statements on Introduced Bills and Joint Resolutions." Washington, D.C.: U.S. Congressional Record. January 22.
- . (2000). "The National and Community Service Amendments Act of 2000." Washington, D.C.: U.S. Congressional Record. June 23.
- Cook, C. E. (1998). *Lobbying for Higher Education*. Nashville and London: Vanderbilt University Press.
- Corporation for National and Community Service. (2001). [http://www.nationalservice.org/about/leg\\_history.html](http://www.nationalservice.org/about/leg_history.html) [March 2002].
- Executive Office of the President. Office of Management and Budget. (2001). "Budget of the United States Government" (unpublished). Washington, D.C.
- . Office of Science and Technology Policy. (1999). *Analysis of Facilities and Administrative Costs at Universities*. (Electronic version). Washington, D.C.
- Gladieux, L. E. (2001). "Federal Student Aid." In D. E. Heller (ed.), *Condition of Access: Higher Education for Lower Income Students*. Washington, D.C.: Advisory Committee on Student Financial Assistance.
- Glazer, S. (1997). "Combating Scientific Misconduct." *Congressional Quarterly Researcher* 7 (1).
- Glickman, J., and Babyak, S. (1995). "Direct Loans Work for Students, Schools and Taxpayers" (press release). U.S. Department of Education: <http://www.ed.gov/PressReleases/02-1995/yeadl.html> [October 2001].
- Halstead, K. (1996). *The Higher Education Report Card: 1995*. Washington, D.C.: Research Associates of Washington.
- Hebel, S. (1999). "New Tax Credits Create Costly Tasks for College Officials." *Chronicle of Higher Education* (January 29): A35.
- Ikenberry, S. H., and T. Hartle (2000). *Where Have We Been and Where Are We Going: American Higher Education and Public Policy*. Washington, D.C.: American Council on Education.
- Kingdon, J. W. (1995). *Agendas, Alternatives, and Public Policies* (2nd ed.). New York: HarperCollins.
- Kirchhoff, S. (1998). "Commission on College Costs Comes Back with a Warning." *Congressional Quarterly Weekly*: [http://library.cqpress.com/weekly/bydate/1998\\_1/january](http://library.cqpress.com/weekly/bydate/1998_1/january) [November 2001].
- National Center for Education Statistics. (1993). *Digest of Education Statistics* (Report 93232). Washington, D.C.: U.S. Department of Education.

- . (1995). *National Postsecondary Student Aid Study* (Report 95365). Washington, D.C.: U.S. Department of Education.
- . (1997a). *Current Fund Revenues and Expenditures of Institutions of Higher Education: Fiscal Years 1987 Through 1995*. Washington, D.C.: U.S. Department of Education.
- . (1997b). *National Postsecondary Student Aid Study* (Report 98073). Washington, D.C.: U.S. Department of Education.
- . (1998a). *State Comparisons of Education Statistics: 1969–70 to 1996–97* (Report 98018). Washington, D.C.: U.S. Department of Education.
- . (1998b). *Student Financing of Higher Education: 1995–96* (Report 98076). Washington, D.C.: U.S. Department of Education.
- . (2000a). *Digest of Education Statistics 2000* (Report 2001-34). Washington, D.C.: U.S. Department of Education.
- . (2000b). *Trends in Undergraduate Borrowing: Federal Student Loans in 1989–90, 1992–93, and 1995–96* (Report 2000-151). Washington, D.C.: U.S. Department of Education.
- . (2001a). *The Condition of Education* (Report 2001-072). Washington, D.C.: U.S. Department of Education.
- . (2001b). *Federal Support for Education: Fiscal Years 1980 to 2001* (Report 2002-129). Washington, D.C.: U.S. Department of Education.
- . (2001c). *Middle Income Undergraduates: Where They Enroll and How They Pay for Their Education* (Report 2001-155). Washington, D.C.: U.S. Department of Education.
- National Center for Public Policy and Higher Education. (2000). *Measuring Up 2000: The State-by-State Report Card for Higher Education*. San Jose, California.
- National Commission on the Cost of Higher Education. (1998). *Straight Talk about College Costs and Prices: Report of the National Commission on College Costs*. Washington, D.C.
- National Science Foundation. Division of Science Resources Studies. (2001). *Academic Research and Development Expenditures, Fiscal Year 1999*. Arlington, VA.
- New Jersey Commission on Higher Education. (1996). *New Jersey's Renewable Resource: A Systemwide Accountability Report*. Trenton, NJ.
- North, D. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge, UK: Cambridge University Press.
- Office of Postsecondary Education. (1999). *Federal Campus-Based Programs Data Book 1998*. U.S. Department of Education: [www.ed.gov/offices/OPE/Data](http://www.ed.gov/offices/OPE/Data) [September 2001].
- . (2000). *Directory of Federal Postsecondary Education Programs*. U.S. Department of Education: <http://www.ed.gov/offices/OPE/directory> [November 2001].
- . (2001). *Program Data, Loan Volume FY 2000*. U.S. Department of Education: [www.ed.gov/offices/OPE/Data](http://www.ed.gov/offices/OPE/Data) [November 2001].
- Organisation for Economic Co-operation and Development. (1999). *Education at a Glance, OECD Indicators—1998*. Paris.

- . (2001). *Education at a Glance, OECD Indicators—2001*. Paris.
- Parsons, M. (1997). *Power and Politics—Federal Higher Education Policy Making in the 1990s*. Albany: State University of New York Press.
- Redd, K. E. (1999). “The Changing Characteristics of Undergraduate Borrowers.” In J. King (ed.), *Financing a College Education: How It Works, How It’s Changing*. Phoenix: Oryx Press.
- Riley, R. (2001). “Remarks as Prepared for Delivery by U.S. Secretary of Education Richard W. Riley.” Paper presented at the Association of American Colleges and Universities, Washington, D.C.
- Rubin, A. (1997). “Education Taxes Debated.” *Congressional Quarterly Weekly* 55 (6): 333.
- Scherschel, P. (2000). *Student Debt Levels Continue to Rise. Stafford Indebtedness: 1999 Update*. Indianapolis, IN: U.S.A. Group Foundation.
- Schmidt, P. (1998). “More States Try to Stanch ‘Brain Drains,’ But Some Experts Question Strategy.” *Chronicle of Higher Education* (February 20): [http://chronicle.com/search97cgi/s97\\_cgi](http://chronicle.com/search97cgi/s97_cgi) [September 2001].
- Silver, D. (2001). *GEAR-UP: A Capstone for Reform*. Washington, D.C.: Department of Education, Gaining Awareness and Readiness for Undergraduate Programs: [http://www.ed.gov/gearup/GEAR\\_UP-A\\_Capstone\\_for\\_Reform.doc](http://www.ed.gov/gearup/GEAR_UP-A_Capstone_for_Reform.doc) [December 2001].
- Spencer, A. C. (1999). “The New Politics of Higher Education.” In J. E. King (ed.), *Financing a College Education: How It Works, How It’s Changing*. Phoenix: Oryx Press.
- U.S. Department of Education. (2001). *Division of Vocation-Technical Education, Tech-Prep Education*. <http://www.ed.gov/offices/OVAE/techprep.html> [June 2001].
- U.S. General Accounting Office. (1996). *Higher Education: Ensuring Quality Education from Proprietary Institutions* (GAO/T-HEHS-96-158). Washington, D.C.
- White House (1994). “Press briefing by Assistant to the President for National and Community Service Eli Segal, Attorney General Janet Reno, Interior Secretary Bruce Babbitt, Health and Human Services Secretary Donna Shalala, Housing and Urban Development Secretary Henry Cisneros, and Environmental Protection Agency Administrator Carol Browner.” Office of the Press Secretary: <http://www.ed.gov/PressReleases/06-1994/americor.html> [June 2001].
- Wolanin, T. R. (2001). “Rhetoric and Reality: Effects and Consequences of the HOPE Scholarship” (working paper). Washington, D.C.: The Institute for Higher Education Policy.
- Zuckman, J. (1991a). “Cherished Student Loan Program Plagued by Tattered Image.” *Congressional Quarterly Weekly* 49 (11): 674–81.
- . (1991b). “Ford’s Tactics.” *Congressional Quarterly* (October 5): [http://library.cqpress.com/cqweek/lpext.dll?f=templates&fn=tools-contents.htm&cp=weekly%2Fbydate%2F1991\\_1%2Foctober\\_11&2.0](http://library.cqpress.com/cqweek/lpext.dll?f=templates&fn=tools-contents.htm&cp=weekly%2Fbydate%2F1991_1%2Foctober_11&2.0) [June 2001].
- . (1992). “House OKs College Aid Bill; Emphasis on Middle Class.” *Congressional Quarterly Weekly* (March 28): 804–10. <http://library.cqpress.com/cqweek/lpext.dll?f=templates&fn=hitlist-frame.htm&2.0> [September 2001].

## **Glossary of Acronyms**

### ***Student Aid***

FFEL:	Federal Family Education Loan
FSEOG:	Federal Supplemental Educational Opportunity Grant
GEAR-UP:	Gaining Early Awareness and Readiness for Undergraduate Programs
ICL:	Income Contingent Loan
IRA:	Individual Retirement Account
LEAP:	Leveraging Educational Assistance Partners
PLUS:	Federal Parent Loans
SSIG:	State Student Incentive Grant
TRIO:	An aid program encompassing three initiatives: Upward Bound, Talent Search, and Student Support Services

### ***Associations/Organizations***

ACE:	American Council on Education
AACC:	American Association of Community Colleges
AASCU:	American Association of State Colleges and Universities
AAU:	American Association of Universities
NAICU:	National Association of Independent Colleges and Universities
NASULGC	National Association of State Universities and Land Grant-Colleges
OECD:	Organisation for Economic Co-operation and Development

### ***Federal Agencies, Sub-Agencies and Offices***

ASL:	The Accreditation and State Liaison subunit of the Office of Postsecondary Education, U.S. Department of Education
DOE:	U.S. Department of Education
HEP:	The Higher Education Programs subunit Office of Postsecondary Education, U.S. Department of Education
HHS:	U.S. Department of Health and Human Services
NCES:	National Center for Education Statistics, U.S. Department of Education
NIH:	National Institutes of Health, U.S. Department of Health and Human Services
OPE:	Office of Postsecondary Education, U.S. Department of Education
OSI:	Office of Scientific Integrity
NSF:	National Science Foundation
PBO:	Performance-based organization
PPI:	The Policy, Planning, and Innovation subunit of the Office of Postsecondary Education, U.S. Department of Education

### ***Miscellaneous***

Amendments:	Reauthorizations of the Higher Education Act of 1965
NAFTA:	North American Free Trade Agreement