Introduction

The cultural and economic significance of higher education continues to grow both in the United States and globally, even as the higher education “industry” faces major new challenges. Growing demand for education at all levels coupled with the application of new technologies to research, teaching, and learning are transforming traditional models with which we are all familiar. Moreover, the influence of market forces on colleges and universities is well established and escalating. As campus leaders guide their institutions in this new environment, they face myriad strategic decisions arising from questions such as: How might traditional colleges and universities best respond to the challenges posed by the emerging for-profit sector? Can technology reduce costs and improve quality and productivity? Which public policies might best advance the goal of greater access to higher education for all our citizens regardless of their incomes?
Each fall, the Forum for the Future of Higher Education culminates its research agenda during its annual symposium at the Aspen Institute, where Forum scholars present papers they have worked on throughout the course of the year.

At its 2000 symposium, the Forum launched the Ford Policy Forum, a new initiative that we chair whose purpose is to identify emerging economic issues and to develop a research and policy agenda for higher education. The Ford Policy Forum’s overarching goal is to equip campus leaders with the intellectual framework they need to make informed and beneficial decisions for their institutions.

Five scholars, mostly higher education economists, provided an overview of the state of the art in policy-oriented research on higher education as part of the first Ford Policy Forum. Their work appears in this volume and is briefly summarized below.

**Higher Education: Outputs and Supply**

The American higher education system is an incredibly diverse mix of over 3,800 public and private two- and four-year degree-granting institutions. Likewise, its outputs—the education offered by each institution and the short- and long-term effects that education has on each student and society at large—vary dramatically as well.

David Breneman, university professor and dean of the Curry School of Education at the University of Virginia, presents a review of efforts over the last several decades to assess the outputs of higher education, including economic and noneconomic, and public and private benefits. The seminal work on quantifying the economic benefits of higher education dates back to 1964, when Gary Becker’s *Human Capital* was published. Becker took the concept of investment in people to a new level, positing that it was analogous to investment in physical capital and could be measured in much the same way. Becker estimated both private and social rates of return to college graduation at 13 and 12.5 percent, respectively—a rate higher than that generally obtainable on investments in physical capital.

Breneman observes that while economic benefits have been precisely measured over the years, the less tangible noneconomic benefits of higher education do not lend themselves to quantification. He suggests that attempts to quantify intangible benefits are not likely to be of much value because people either believe in the public and social benefits of higher education or they do not, and weak evidence of such benefits will rarely persuade the doubters. He recommends that this area be left to the powers of political persuasion and oratory.

Scholarly interest in the economic returns to higher education often coincides with a high wage premium for college over high school graduates, as in today’s environment. Breneman warns, though, that neglecting the noneconomic public and private benefits of higher education risks losing the language of such discourse altogether. We must resist viewing higher education merely in terms of its quantifiable economic returns in the marketplace, even when they are considerable, as that line of reasoning diminishes higher education’s substantial intangible contributions to society.

Ronald Ehrenberg, Irving M. Ives professor of industrial relations and economics at Cornell University, considers how the U.S. higher education supply—a heterogeneous mix of over 3,800 institutions—is adapting to the evolving new world of higher education. He suggests several areas where research would shed light on the strategic choices institutions are making and help guide policy decisions to move forward.

Ehrenberg notes that although approximately 80 percent of students are enrolled in public institutions, very little research is directed toward understanding the behavior of public colleges and universities. He recommends research on the effects of tuition levels on state appropriations and out-of-state enrollment levels, as well as the effect of admissions policies on students from different socioeconomic, ethnic, and racial groups within a state. One key question is how the benefits from state support of higher education are distributed across these groups.

Ehrenberg also discusses the evolution of American
higher education, subject as it is to external forces such as the GI bill in the 1940s, the increase in federal financial aid beginning in the 1970s, and continuing growth in high school graduation rates—all of which have fueled significant growth in public higher education. Continued evolution is evident in the growth of the for-profit sector, particularly as technology has expanded markets for distance and lifelong learning. The critical need for nonprofit institutions to diversify their revenue streams should also spur structural changes. How institutions respond to the imperatives inherent in evolutionary change and the results of their efforts present fertile areas for further research.

The U.S. Financial Aid System

Thomas Kane, professor of policy studies and economics at UCLA, specifically addresses the nation’s financial aid system, which has evolved very little since the inception of what would become today’s Pell Grant program nearly 30 years ago. Despite that program’s focus on providing financial aid to low-income students, large differences in college attendance rates across income levels remain: For the class of 1992, 66 percent of the highest-income youths attended a four-year college within 20 months of their high school graduation, whereas just 28 percent of the lowest income youths did so. Most disturbing is that even after controlling for test scores, high school grades, and elementary schools attended, much of the difference in college entry by family income remains.

Kane argues that it is time for the higher education community to rethink the structure of higher education finance from its basic foundations. The classic trade-off underlying the financial aid system is reflected in the “low-tuition low-aid” versus the “high-tuition high-aid” debate. In the former case, across-the-board subsidies prevail; in the latter, means-tested aid dominates. It is entirely unclear at this point whether we have achieved an appropriate mix of the two. Kane suggests that future research focus on how the method of delivery of public subsidies—across-the-board subsidies, in-school interest subsidies on student loans, or Pell Grants—influences their effectiveness for different groups of students.

Kane urges the higher education community to address this fundamental issue and others so that they can offer meaningful proposals in a political environment ripe for new policies—regardless of how ill conceived they may be. He notes the tremendous growth in college-age youths projected over the next 20 years and the resultant strain on public budgets for higher education should college enrollment rates remain high. In such a scenario, limited financial aid dollars need to be directed where they will be most effective. Well-planned research will help fill the holes in our understanding of financial aid and result in better policies that can begin to close the gap in college enrollment by family income.

Digital Dilemmas

Casey Green, visiting scholar at Claremont University, describes the evolution of American higher education as an organic process. He points out that over time, new institutions have emerged to assume new roles and functions reflecting the changing nature of American society and the nation’s changing demands for higher education. Today, technology-enabled distance learning and distributed education are filling the need for greater access and more convenient learning opportunities for postsecondary students of all ages.

Green addresses several dilemmas stemming from today’s fundamental evolutionary changes. The appropriate role of information technology in higher education presents a number of issues, particularly in regard to the relationships among costs, quality, and productivity, which are unclear and debatable. Information technology is expected by many to increase productivity—at least in terms of providing increased access—at reduced costs. Yet it is clear that additional capacity, whether on campus or in cyberspace, will require significant capital investments. Another view of productivity focuses on improving the
quality of teaching and learning, one of technology’s great promises. It is unlikely that one mix of costs, quality, and productivity will be appropriate for broad sectors of institutions; instead, campus leaders will need to consider the trade-offs and make strategic decisions based on their institutional missions, strengths, and markets.

Other issues raised by the information age include intellectual property and plagiarism, the original sin in academe. The intellectual property issue is complex—Green focuses simply on copying. He warns that the Web fosters a new kind of plagiarism, given the ease with which content can be cut and pasted across documents, for example, and from one Web page to another or directly into PowerPoint presentations. He believes that the capabilities of technology in this respect will inevitably create problems for some academics at some point in their careers.

Encouraging Higher Education Policy Research

John Siegfried, professor of economics at Vanderbilt University, suggests several possibilities for encouraging higher education economics research. The relative dearth of such research over the last 30 years has hindered our understanding of the institutional framework of higher education and, likewise, the development of theories and models that would help guide policymaking in this realm is lacking as well.

Siegfried’s proposals center on generating scholarly interest in the field of higher education economics, increased sharing and publication of such research, and improved data collection. To stimulate research, Siegfried suggests a week-long retreat for economists and education leadership and policy scholars, where papers would be shared and discussed at length. The retreat should mix younger and older scholars and improve the flow of knowledge between economists and policymakers—who currently have surprisingly little contact. Siegfried also recommends that a dissertation fellowship program be established. The program would offer financial support to young scholars willing to write dissertations on the economics of higher education and the welfare implications of various higher education policies.

With regard to data collection, Siegfried encourages discussion about how to improve the usefulness of data sets such as the Department of Education’s Integrated Postsecondary Education Data System, the National Longitudinal Survey, and High School and Beyond. He maintains that collection of good primary longitudinal data will help resolve many of the important questions confronting higher education today.

Conclusion

As moderators of the Ford Policy Forum, we have guided the nascent forum’s efforts to generate informed and robust discussion of complex issues likely to influence the quality and performance of institutions throughout the higher education community. Having started with the basics—outputs, supply, access, technology issues, and stimulating the field of higher education economics—we have laid the foundation for a scholarly platform from which to launch further inquiry into economic and policy questions key to the future of higher education.

The remainder of this volume contains the papers that elaborate on these brief descriptions of the work presented at the 2000 Ford Policy Forum.