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## **Key Issues Currently Facing American Higher Education**

**by**

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To paraphrase the title of one of my books, tuition keeps rising in the United States. During the last quarter of a century undergraduate tuition and fees have risen at annual rates exceeding the rate of inflation by an average of 2.5 to 3.5 percentage points.<sup>1</sup> Faculty salary increases have not been the major cause of increases in tuition – average faculty salaries at 4-year colleges and universities in the United States increased by only about 0.5 to 1.0 percent a year more than the rate of inflation during the period.<sup>2</sup>

The reasons for tuition increases differ in public and private higher education. In the private sector, factors include the increased costs of technology, student services and institutional financial aid; the unrelenting competition to be the best in every dimension of an institution's activities; and, at the research universities, the increasing institutional costs of scientific research (which I will return to below). In public higher education, all these factors are also important, however, another important driver is the withdrawal of state support.

In his recently completed Cornell PhD dissertation, my student Michael Rizzo documented that the share of state budgets going to higher education has shrunk by over one-third over the last thirty years.<sup>3</sup> Although there is no reason why higher education's share should remain constant over time, the net result of this decline is that per capita state appropriations per full-time equivalent student at public higher education institutions rose in constant dollars from \$5622 in FY1974 to \$6717 in FY2004 – an average increase of only 0.6 percent a year. This occurred during a period when the real costs faced by higher education institutions were rising much more rapidly and when private higher education institutions were relentlessly annually increasing their tuitions

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<sup>1</sup> Ronald G. Ehrenberg (2002)

<sup>2</sup> Ronald G. Ehrenberg (2004)

<sup>3</sup> Michael J. Rizzo (2003)

by a much greater percentage than state appropriations per student were increasing. Public higher education institutions responded to their diminishing state support by increasing their tuition levels at slightly higher percentage rates than the private institutions did, however, because public tuition levels started at much lower levels, the public institutions generated less income from these increases than their private counterparts did from their increases. Thus the resource base of public academic institutions fell relative to the resource base of private academic institutions.

As a result, while the average professor at a public doctoral university earned about 91 percent of what his or her counterpart at a private doctoral university earned in 1978-79, by 2003-04 the percentage had fallen to about 77 percent.<sup>4</sup> Increasingly public institutions are having great difficulty attracting and retaining high quality faculty, which surely influences the quality of what is going on in public higher education where the vast majority of our students are educated.

In the face of persistent rates of increase in tuition that exceed inflation, the changing pattern of financial aid in the United States has had an influence on who gets a college education. In 1982-83, over 50% of federal financial aid was in the form of grant aid, but by 2002-03, this had fallen to 40%.<sup>5</sup> Most federal financial aid now comes in the form of loans and research suggests that students from lower-income families are less willingly than other students to take on large loan burdens to finance their higher education. Federal grant aid has not kept up with increases in college costs. During the mid 1970s the average Pell grant received by students was about 46% of the average costs (including room and board) of attending a public higher education institution. Last

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<sup>4</sup> Ronald G. Ehrenberg (2004)

<sup>5</sup> *Trends in Student Aid* (2003), figure 6

year, the ratio was under 30% (the ratio is much lower at private institutions but they have more institutional resources for financial aid).<sup>6</sup> The Bush administration has proposed increasing loan limits (which private higher education institutions applaud) but has shown little interest in across-the-board increases in Pell grant levels.

The share of states higher education budgets that go to public academic institutions has also declined over time –putting added pressure on public tuitions - as states are now devoting a greater share of their higher education expenditures to providing grant aid to students.<sup>7</sup> Moreover, increasingly this grant aid is non-need based. As late as 1993, less than 10% of all state grant aid to students was non-need based, but the growth of programs such as the Hope Scholarship program in Georgia, which started in 1993, raised this to almost 25% by 2001.<sup>8</sup> Today there are 12 other states that have Hope type programs. Increasingly financial aid at private colleges and universities in the United States is also “merit” rather than needs based, as private institutions use financial aid for enrollment management purposes (to attracting a class with “desirable characteristics” at least cost) rather than to permit lower income students access to them. Probably less than fifteen to twenty private academic institutions provide financial aid based solely on students’ financial need today.

As a result, the U.S has not achieved its goal of reducing educational inequality based upon family income levels – differentials in college enrollment by family income quartiles are almost as large today as they were thirty years ago.<sup>9</sup> Moreover, more and more students from lower-income families are being forced, for financial reasons, to enter

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<sup>6</sup> *Trends in Student Aid* (2003), figure 7

<sup>7</sup> Michael Rizzo (2003)

<sup>8</sup> *Trends in Student Aid* (2003), figure 10

<sup>9</sup> *Trends in College Pricing* (2003), figure 11

higher education through public two-year colleges. Given projections of growing college-age populations during the next decade, primarily from under represented groups, and limitations on state resources for both operating and capital expenses, we may increasingly see limitations on access to college (such as is happening in California this year) and disparities in college attainment, by income and race/ethnicity, may worsen in the U.S in the years ahead.

Recent research indicates that, on average, only about 10 percent of the undergraduate students at the COFHE institutions, a set of 31 selective private colleges and universities, come from families whose family incomes are in the lowest two fifths of the distribution of family incomes – the vast majority of their students came from families in the upper tails of the family income distribution.<sup>10</sup> Other research shows more generally, that only a small percentage of undergraduate students at most of our nation’s most selective colleges and universities receive Pell grants, which is further evidence of the limited number of students from lower- and lower-middle-income families that enroll at these institutions.<sup>11</sup> These studies were at least partially responsible for Harvard University’s announcement last March that it will no longer require families whose family incomes are less than \$40,000 a year to contribute anything towards their children’s cost of attending Harvard.<sup>12</sup> However, other research that looked at the experience of Princeton University after it eliminated all loans from its financial aid packages, suggests that that that policy change had only a very small impact on the probability that students from lower-income families accept Princeton’s offers of admissions and we might infer from this that Harvard’s new program may not have a

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<sup>10</sup> Catherine Hill, Gordon Winston and Stephanie Boyd (2003)

<sup>11</sup> Richard D. Kahlenberg ed. (2004), table A1

<sup>12</sup> Julie Basinger and Scott Smallwood (2004)

very large impact.<sup>13</sup> President of the Andrew W. Mellon Foundation, William Bowen's, own research has led him to assert that if selective private academic institutions are sincere about wanting to enroll more students from lower-income families, it will be necessary to give applicants from this group preferences in admission in an analogous manner to the way these institutions currently give admissions preferences to legacies, athletes and underrepresented minorities.<sup>14</sup> If selective institutions move in this direction, they most confront the issue of which other categories of their applicants now will face lower probabilities of admission.

The importance of scientific research has grown at American universities fueled by major advances in genomics, advanced materials and information technology and by dramatic increases in governmental and private funding for research. However, in spite of the latter, a little known fact is that the costs of research are increasingly being born by the universities themselves out of their institutional resources. The share of universities R and D expenditures coming out of their own pockets grew from 11.2 percent in 1972 to almost 21 percent in 2000.<sup>15</sup>

There are many reasons for why universities are increasingly bearing the costs of their faculty members' research, but one important one is the magnitude of the start-up cost packages needed to attract new faculty members. At the private Research I universities, these costs average \$300,000 to \$500,000 for assistant professors and often well over a \$1,000,000 for senior faculty. While universities properly view these costs as investments in their faculty members' scientific research productivity, where they get the money to fund these investments is of great concern. Public universities, more often than

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<sup>13</sup> David Linsenmeier, Harvey Rosen, and Cecilia Rouse (2002)

<sup>14</sup> Peter Schmidt (2004)

<sup>15</sup> Ronald G. Ehrenberg, Michael J. Rizzo and George H. Jakubson (2003)

privates, sometimes leave faculty positions vacant until salary savings can generate necessary start-up cost funds funds; these vacant faculty positions surely have an impact on the quality of undergraduate education at the public institutions.<sup>16</sup> Researchers at CHERI have also found evidence that the increasing institutional costs of research have led both public and private institutions to increase student/faculty ratios and substitute part-time and full-time non tenure-track faculty for tenure-track faculty.

In fact, throughout American higher education institutions are increasingly relying on part-time and full-time non tenure-track faculty. During the 1990s, the share of full-time faculty not on tenure-tracks and the ratio of part-time to full-time faculty both grew significantly. Moreover, the share of newly hired full-time faculty that is not on tenure-tracks grew to over 50 percent.<sup>17</sup> Preliminary research findings obtained by PhD student Liang Zhang and myself suggest that as the shares of part-time faculty and non tenure-track full-time faculty grow at an institution, undergraduate students' graduation rates fall. Hence substituting lower-cost for higher-cost faculty members has a negative impact on undergraduate students.

As the share of faculty off of tenure-tracks increases and thus the demand for full-time tenure-track faculty declines, the attractiveness of entering PhD study also declines for American college graduates. This may be one of the factors that explain the increase in the share of PhDs granted by American universities going to temporary residents of the United States. During the last thirty years, this share rose from 10.4 to 26.3 percent. In key science areas the increase was more dramatic. In 2002 almost 40 percent of all PhDs in the physical sciences and 55 percent of those in engineering were awarded to

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<sup>16</sup> Ronald G. Ehrenberg, Michael J, Rizzo and Scott S. Condie (2003)

<sup>17</sup> Ronald G. Ehrenberg and Liang Zhang (2004)

temporary residents.<sup>18</sup> As higher education institutions improve around the world, as other nations increase their support for scientific research, and as we make it more difficult for foreign students to enter our country, there is no guarantee that foreign students will want to continue to pursue PhD study in the U.S and no guarantee that those who do will want to remain in the U.S for employment. Indeed, applications of foreign students to study in the United States declined dramatically this past year.<sup>19</sup> Given the decline in the number of PhDs produced in total by U.S universities in recent years and the large share of American faculty rapidly approaching retirement ages, a major problem facing American higher education is from where our next generation of professors will come.

The increasing shares of part-time and non tenure-track full-time faculty employed at universities, who are typically paid much less than their full-time tenure-track counterparts and who typically receive fewer, if any, employee benefits (such as health insurance) have led a growth in collective bargaining coverage for these faculty. The declining job market prospects for new PhDs, coupled with lengthening times to degree, has also led to an increase in the number of campuses in which graduate assistants are represented by unions. Historically, graduate student unionization occurred only in public universities, in 2002 New York University (NYU) became the first private university to sign a collective bargaining agreement with a graduate student union.<sup>20</sup> However, in a case involving Brown University, the National Labor Relations Board reversed its decision in the NYU case and this may preclude further collective bargaining

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<sup>18</sup> Thomas B. Hoffer et. al. (2003), table 11

<sup>19</sup> Jeffrey Selingo (2004)

<sup>20</sup> Scott Smallwood (2002)



for graduate assistants at private universities in the foreseeable future.<sup>21</sup> While to date collective bargaining coverage for graduate assistants does not appear to have led to substantial increases in the economic costs of operating universities, its growth does mean that many of the new entrants into faculty positions in the future will be more comfortable with the notion of faculty unions than previous generations of new entrants were.<sup>22</sup>

Finally, the growing need to raise revenues from sources other than tuition and state appropriations is leading both private and public academic institutions to increased efforts to expand fund raising operations, to expand research funding from corporations, and to expand commercialization of their faculty members' research. The resulting growing importance of individual donors and corporations to academic institutions is likely to place more pressure on the institutions to respond to the preferences of donors and corporations, both in the setting of academic priorities and in the institutions' operations. So too is the increasing propensity of presidents of public universities to receive part of their compensation from foundations and other private sources that are not directly under the control of the boards of trustees of the institutions. As the external pressures placed on academic institutions from these forces increase, it is increasingly important that the governance structure of academic institutions – the trustees, the central administration and college administrators and the faculty- remain fully aware of what the institutions' core academic values are and become increasingly able to articulate these values to external constituents.<sup>23</sup>

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<sup>21</sup> Scott Smallwood (2004)

<sup>22</sup> Ronald G. Ehrenberg, Daniel B. Klaff, Adam Kezsbom and Matthew P. Nagowski (2004)

<sup>23</sup> These themes are developed much more fully in Ronald G. Ehrenberg ed. (2004) and Derek Bok (2003)

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