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Minutes

Senate Committee on Finance and Planning

Tuesday, August 28, 2001

8:30 - 3:00

Fireplace Room, Landscape Arboretum

Part II

Present:

Charles Speaks (chair), Brittny McCarthy Barnes, Jean Bauer, Charles Campbell, Daniel Feeney, Elo Charity Oju, Richard Pfutzenreuter

Regrets:

Stanley Bonnema, David Chapman, Stephen Gudeman, Wendell Johnson, Michael Korth, Terry Roe, Susan Carlson Weinberg

Absent:

Eric Kruse, Michael Volna, J. Peter Zetterberg

Guests:

Executive Vice President Robert Bruininks; Vice President Charles Muscoplat

Other:

none

[In these minutes: (3) a presentation by Vice President Muscoplat on "myths and realities in higher education"; (4) numerous items of business the Committee made decisions about]

3. Myths and Realities in Higher Education

Professor Speaks turned next to Vice President Muscoplat to make a presentation on "Higher Education: Myths and Realities." Dr. Muscoplat explained that he had a series of slides from which he would talk; these minutes are a narrative summary of the slides, which included text as well as graphs and charts.

"Are we seeing cyclical or structural changes? How is higher education to handle these changes according to "Internet time"? "Is it urgent, or unrelenting, insidious, and chronic change?"

Key points about tuition are these. "Tuition rose far in excess of inflation over the last 20 years. The CPI rose 297% while tuition rose 750%. College funding has declined as a percentage of state funds everywhere." College enrollment has continued to grow as a percentage of high school graduates and returning adults. There is

universal recognition of the importance of a college education for lifetime earnings (but not as well recognized that higher incomes generate higher tax revenue).

"The costs per student in public higher education have risen for at least 30 years, escalating sharply since the late 1970s." A graph of the CPI and the HEPI (Higher Education Price Index) shows curves heading up and to the right, 1960 to 1995, with the HEPI diverging (higher) from the CPI beginning about 1980. "A sector whose costs grow faster than inflation for an extended period ultimately reaches the limits of available resources, as has been demonstrated in the health care industry."

Labor Force and Tuition Issues are these. There is a growing wage premium from college education historically (that may be slowing). There is increased participation of women and minorities in higher education. The "coexistence of rising prices and rising enrollments is not apparent contradiction for now, although it may be in the future." "Changing economic and societal conditions helped increase the demand for higher education, thus creating an era in which more students attend college in the face of rapid price increases."

A graph of average annual earnings by educational attainment, 1995, shows this:

1-3 years of high school 14,683

HS graduate 21,431

Associate degree 27,780

Bachelor's degree 36,980

Master's degree 47,609

Doctorate 64,550

"Society and public policy makers increasingly regard a higher education as a private benefit."

A graph of lifetime earnings by educational attainment (2000 dollars) shows the following:

HS graduate 930,000

Bachelor's degree 1,850,000

Master's degree 2,250,000

Doctoral degree 3,500,000

1st Professional degree 4,000,000

The U.S. higher education system enrolls 22% of all "tertiary" students on the planet (with 5% of the population). U.S. higher education enrolls 440,000 citizens of other countries. Tuition and cost recovery from foreign students is \$7.1 billion per year. This is important for the balance of trade. The total higher education budget in the U.S., about \$800 billion, is about 8% of the U.S. economy.

Demand for higher education is unlikely to lessen soon. The number of high school students will increase to 3.2 million from 2.5 million by 2008. There will be significant increases in students from among Asian-Americans, Hispanics, American Indians, and African-Americans.

"U.S. college and university enrollments now exceed total high school enrollments (grades 9-12). The number of first-time freshmen equals approximately 90% of the previous spring's high school diplomas. This has been accomplished by older students, adults returning for additional training, and foreign students. These sources may

shift in the future for a variety of reasons, including competition among colleges and universities, non-traditional educational sources, saturation of selected markets, and cost prohibition."

A graph illustrating 60-year trends in faculty and students shows the following.

Faculty Students

1940 147,000 1,500,000

1960 381,000 3,600,000

1980 675,000 11,600,000

2000 833,000 14,400,000

The key message is that the growth rate will slow.

A graph of U.S. colleges and higher education budgets over 60 years shows this:

Colleges U.S. Higher Education

Budget

1940 1700 675,000,000

1960 2000 5,600,000,000

1980 3150 57,000,000,000

2000 3700 213,000,000,000

Total costs are growing faster than the number of institutions.

The rate of increase of the higher education budget is important; between 1960 and 2000 the budgets grew nearly exponentially. Growth cannot continue at this pace.

An inflation comparison during the 1980s shows that the price of home increased about 90%, a car about 38%, health care about 118%, and public colleges about 110%.

Social factors and campus trends: Press reports frequently cite academic issues: political correctness, curricular erosion, amorality on campuses, ethical lapses by administrators, college sports programs and cheating. "How do we respond to unfunded mandates and the need to do the right thing?" This includes things such as the Americans with Disabilities Act, the need for translators and interpreters, and so on. "54% of Americans believe higher education in their states needs a 'fundamental overhaul.' This has been confirmed by six polls over a three-year period by different polling organizations."

Accountability: States have raised performance and accountability measures. 37 states now use performance measures in higher education. 23 states use performance measures in the budgetary process. 8 states link institutional performance score to budget allocation (about 1 to 4% of the budget). Most accountability measures are process and/or performance measures; examples include "how resources are allocated, output, faculty teaching loads, class size, faculty teaching undergraduate courses, and adoption of new technologies. These measures do NOT measure VALUE AND MAY MISS THE TARGET!"

The Value of Higher Education: Costs. Individual and Societal Benefits. The benefit to the individual in the form

of higher post-tax income and to society in the form of higher pre-tax income has to be weighed against the cost of the education to individuals and society. Averaging results for men and women and using a discount rate of 6%, a bachelor's degree is worth about 700,000.

"Studies have shown that the private rate of return has exceeded the social rate of return by about 5%. In other words, individuals are getting more for their investment than society when measured by return on investment. Evidence such as this has provided the rationale for cutting back on public expenditures per student and asking individuals to make a greater personal contribution." The private return on investment is about 20%; the public return is about 15%.

"The individual incurs tuition costs and foregoes some income. Society incurs the cost of the education subsidy and lost output while the individual is being educated. Thus, the investment can be viewed like other 'cash flow' investments, and evaluated for their rate of return."

Preliminary studies in Australia suggest that the private rate of return has been falling due to higher education costs and the increased time taken to get a degree and begin work. As the private return on investment declines, the public return may increase due to lower input costs (the subsidy) and related factors.

The social rate of return to research and development at research universities tends to be substantially higher than the private rate of return because of spillover effects to other parties than the one who funds the research; this provides a strong rationale for public support for research and development. Research universities have a return on investment that exceeds 25%. The rate of return on agricultural research is often over 40%.

What someone will pay for your product determines its value! Period!" Corporate models of valuation methodology include earnings/share and earnings multiple, NPV (everything is NPV), internal rate of return, return on investment, return on equity, multiple of sales, comparables (what similar companies sell for), and growth rate. Public modes of valuation methodology include cost/subsidy versus investment theory, social rate of return model, need base-superfund, sputnik model (security), public good model (medical schools), vocational model (teachers), prestige model (Michigan versus Michigan State, Carleton versus the University).

In the market price comparison model, who is the University's competition? Wisconsin, Brookings, Carleton, or Southwest State University? In the niche model, does the University have "identifiable niches": medical school, electrical engineers, psychology, law school, chemical engineering, etc.? In the brand loyalty model, can the University calculate "goodwill" in the financial equation? In the technology transfer model, the "Extension Model", can the University deliver a return on investment to society and PROVE IT? The University of Minnesota must develop a complex valuation model for convincing investors (citizens) to buy the "stock" for the long term. This must include both psychic and economic income returns.

The future of colleges, according to an article by Arthur Levine, in the Chronicle of Higher Education: Higher education providers will become more numerous (Motorola, Microsoft, etc.). Three types of universities are emerging: brick universities, click universities, and brick and click universities. Higher education is becoming more individualized, the functions of higher education are becoming unbundled, faculty members will become increasingly independent of colleges and universities, and degrees may diminish in importance. Dollars will follow students more than educators. There will also be a rise in global universities.

Who will run "click" universities? Will they be "for profit?" Will there be mission differentiation, with research, teaching, and service separated? Service is not historically remunerative. Will superstar faculty reach thousands via technology? Will they get book deals? How will institutions attract superstars? Will degrees convey the same value? They will not!

Legislative - University Issues

At the federal level, the growth of entitlements--most notably, Social Security, Medicare, and Medicaid--has dominated federal spending. Mandatory spending on entitlement programs and interest on the national debt

consumed about 38 percent of the federal budget in 1965. In 1995, they accounted for about 67 percent. The entitlement programs focus largely on older Americans, which means that as the baby boomers age, the population drawing on these programs will increase. The Congressional Budget Office estimates that in 2005--less than 5 years from now—these programs will consume almost 75 percent of federal revenues, compared to 38% in 1965. This vast intergenerational transfer of wealth is squeezing higher education out of the federal budget.

So the world is changing: the population is aging and priorities are shifting. The public increasingly believes that a higher education is a private benefit. Over the past 20 years, public financial support for higher education has declined nationwide. State priorities change as society changes. A graph of the relative share of state spending (national average) on higher education and Medicaid show this:

Higher Education Medicaid

1987 12.5% 11%

1988 12.5 11.5

1989 12.5 12

1990 12.5 12.5

1991 12 15

1992 <12 17

1993 <12 17.5

1994 >11 18

1995 11 19

1996 11 20

1997 <11 20

Older people vote and are more numerous.

A graph of population cohorts in the United States is nearly a perfect "X" from 1978 to 1992: the numbers in the age group 18-24 declines while the cohort aged 65 and older increases.

"The situation at the state and local levels is very similar. Like the federal government, state and local governments are increasing allotting greater shares of their budgets to health and welfare programs. And the plight of higher education in state and local budget battles is exacerbated by rapid increases in spending on corrections, mainly prisons." A graph extrapolating state spending trends through 2015 suggests a shrinking share for higher education and an increasing share for health and welfare and for corrections.

"The U.S. population growth is expected to continue into the next century, as is the rate at which Americans go to college." If the trends continue, "the total number of students in colleges and universities will increase from the 1995 level of 10.3 million to about 13.2 million full-time equivalent students by 2015."

"All indicators of state support for higher education point in the same direction--down." A graph of state funding for the University as a percentage of total state spending, 1971 to 2001, shows that the percentage declined from over 8% to about 5%, with the overall decline reversed only slightly during 1987, 1989, and 1991.

"The consequence of declining state support: tuition must cover a higher percentage of expenditures for instruction." A graph of tuition revenues as a percentage of expenditures for instruction shows an increase from 1982 (about 31%) to projections for 2003 (about 60%). How does the University address this change? "Quality: maintain quality by increasing revenue from non-state sources. The major source of new revenue has been, and will continue to be, tuition revenue. Access: maintain access by increasing institutional support for need-based financial aid and scholarships. Accountability: continued attention to accountability, efficiencies, productivity, and cost-cutting measures. Service: continue attention to services for students."

Entrepreneurialism Abounds. There is outsourcing, such as bookstores, food services, janitorial services, dormitory management, printing, security, student health, etc. There is also exploration of 3-year degree programs, including year-round study and curricular compression coupled with high school college courses.

Some interesting ideas. Oregon charges higher tuition rates for those who accumulate more credits than necessary. North Carolina has a tuition surcharge of 25% for those who take more credits than required for a degree. Indiana pays for a student's 5th year if it placed obstacles in the student's pathway.

The transformation of higher education: "the way we respond to structural change will determine our future." Changes have been brought about by the information revolution and the shift from a natural resource/energy-based to a knowledge-based economy. "During the past 25 years, these shifts have enabled productivity gains in virtually every economic sector except higher education. Higher education has not enjoyed productivity gains because our primary cost (labor) are growing disproportionately to the cost of living and we have not experienced offsetting growths in productivity." College costs are growing out of proportion to costs in other sectors of society. Outside forces are prescribing change!

Change

The cultural norm of higher education nationally holds that growth comes from addition rather than reallocation. Higher education must do things better, faster, cheaper, and that requires reallocation. What is the role of technology?

What to do? Close obsolete buildings, close branches, ask if there are non-essential services, reallocate, discontinue, shift people, look at productivity. "Why we don't do it?" Public pressure, legislative pressure, tenured faculty, unions, protesting students, nostalgic alumni, tradition, make-no-wave administrators, and collegial decision-making.

"The general public believes this place is here to serve them and their unique particular need/cause/issue/community." The general public and various interests place significant pressure on the University through the press, legislature, and oftentimes before the conversation begins. Some say "Why bother? The Board of Regents won't change anyway."

"What can one do?" Substitute technology for personnel, change incentives for faculty and staff, alter the teaching day, week, month, year to increase productivity, and cut the cost of remediation. "Comprehensive research institutions employ 25% of U.S. faculty. If these faculty spent more time teaching it would not make them more productive per se. It would just be different. That is not necessarily a solution. Should business bear some responsibility for the kind of education necessary for us to remain economically competitive?"

The Land Grant Doctrine

Farms which earn a complete living by farming have declined 98% since 1900. Agricultural policy is NO LONGER rural policy. Not one scintilla of evidence exists to prohibit charging higher fees for service! Service has a return on investment and net present value to all parties (e.g., 4-H clubs, Yard and Garden Line, University Hospital, short courses on the Internet, etc.). The Hatch Act only requires matching funds. The Smith-Lever Act is for economic development. Should technology transfer be an extension activity?

"It's all about money! When they say it's not about money--it's about money!!"

What are the myths?

What They Say: Apropos the report from the Council of Undergraduate Deans on "Improving Our Graduation Rates" says that students are too poor, rankings are not relevant, urban factors rule, Midwest factors rule, students work too much, it's a commuter campus, and there is not enough financial aid.

What They Say! Myths!

Students are too poor

-- yes some are but all indications are that wealthier students are attending public institutions in greater numbers)

Rankings are not relevant

-- don't believe it; best faculty attract the best students and financial support. The University attracts about \$500 million in grants each year.

Urban Factors Rule

-- analysis proves otherwise

Midwest Factors Rule

-- analysis proves otherwise

Students Work too Much

-- not compared to other major Universities

It's a Commuter Campus

-- maybe this is important

Not Enough Financial Aid

-- students are largely protected

The University is trying to be all things to all people

-- Minnesota is one of four Big Ten schools with agriculture and medical schools

-- Students vote with their feet

-- Legislature and citizens push a complex agenda

Tenure is the problem. [But] enrollment is over 60,000.

-- Tenured faculty are down 500 over 10 years

-- Tenured faculty turn over 50 percent per decade

The University has duplication with MnSCU

-- There are over 100 joint UM/MnSCU agreements

- What is undesirable overlap? Nursing needs cannot be met even if everyone produces nurses
- What about teachers?
- What about 2+2 programs?
- Each has physics, math, English, history, etc. The question is "what is our comparable advantage?" and what is "undesirable overlap"?

The Academic Health Center is not producing enough health care workers

- State government pays only 9% of medical education
- Medical school faculty attract about \$400,000 each in research funds

The University won't change with the times

- The University changes research focus for rapidly-escalating grant awards is among the best
- The University is ranked in the top 30 and recently among the top 3 public institutions.

The University is inefficient

- The state pays about 40% of the budget, or about \$700 million
- The University raises about 60% of the funds it expends, or about \$1.5 billion (tuition, grants, services, donations, endowments) This is efficient.
- The University is 1% of the total annual state economy
- The University has reallocated \$100 million

The Big Myths are contrary to 30-year trends.

- If we only explained ourselves better the funding will improve?
- It will be better next year? We'll work harder!
- The era of liberal education is over? Be a geek and dot.comer!
- Curiosity driven research is over.
- Cross subsidies and industrial policy work?

These are myths in good times, bad times and all times.

The University is not accountable

The various parts of the University (the Regents, administration, institutional-level measures, the compact process, colleges and administrative units, and departments) are responsible both up and down as well as to the people of Minnesota, the Governor and Legislature, students, faculty and staff, parents, federal agencies, state agencies, private business, donors, and accreditation associations.

When they say it's not about money, it's about money.

The Minnesota Legislature accountability reports include:

- biennially: allocation of the total state appropriation, tuition rates and fees, and the amount of state money used to leverage money from other sources
- biennially: identification of the 5 highest-priority undergraduate degree programs and revenue needed to become centers of excellence; reallocation of money and curricular offerings, and staff changes to advance priorities; benchmark, track, and plan to increase the progress of first-generation students; progress toward increasing 4-, 5-, and 6-year graduation rates; progress toward increasing revenues from all sources to support research; and progress of the Academic Health Center in developing new strategies for health care delivery and professional training.
- annually: progress under post-secondary master academic plan for the metropolitan area, and in statewide cooperating between post-secondary systems.
- once, 2002: University of Minnesota Extension Service programmatic mission and cost effectiveness
- once, 2002: Commission on University of Minnesota Excellence (the "Pawlenty Commission")

It could get worse. There could be an economic slowdown, a growth in federal/ state entitlements, competition for students and grants to those who develop more competitive or more efficient models, new educational models, or reverse compounding is a possibility if quality slips.

Key indicators of expected economic performance in 2000 and 2001 [are now perhaps knocked into a cocked hat with the events of September 11]. The GDP and inflation are expected to be down, unemployment to be up, and industrial production down significantly.

Professor Speaks thanked Vice President Muscoplat for his presentation.

4. Committee Business

The Committee dealt summarily with several items:

- Mr. Pfutzenreuter should be more involved in alerting the Committee to issues that are coming and in that way help with the agenda.
- Vice President Brown should be invited to talk about the audits of the Twin Cities athletic departments and the financial situation in athletics. Mr. Volna, the acting Controller, and Ms. Klatt, the auditor, should also be invited.
- The Committee will look at the possible development of a policy governing college and department reserves.
- The Committee will have to decide whether to take up, again, the issues raised by the Budget Management Task Force, or to recommend that the Budget Advisory Committee take them up.
- The Committee should hear about possible changes in tuition policy with respect to non-resident students.
- The Committee should receive the report from the Committee on Faculty Affairs analyzing the proposal for a tuition reduction plan for children of University employees.
- There will be two substantial reports to the Regents in the fall: debt management in October and the annual financial report in December. The Committee should hear those reports as well.
- The Committee should hear about the financial implications of the change in health care systems.

-- The Committee should learn what will happen with parking rates.

-- The Committee should receive a status report on capital projects.

After concluding this list of business items, Professor Speaks adjourned the retreat at 3:00.

-- Gary Engstrand

University of Minnesota