

# Privatization of the Public University: A Risk/Benefit Analysis

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The privatization of the public university is seen by some as a major step forward, while others view it as a great danger to the very structure of a university system that has yielded significant benefits to modern society. That is to say, there are both benefits and risks if public universities are to be more private-like and entrepreneurial in their dealings and operations. Likewise, it can be said that there are risks and benefits to remaining the same. Thus, caution dictates that any changes to be made in the public university system in the United States must be made with great care and deliberation so that the end product is better than, or at least

as good as, the present system in serving society. To explore this further, I conducted a risk/benefit analysis of the "privatization of the public university with the attendees of the 2006 Merrill Retreat, a distinguished set of public university administrators and professors with many years experience in higher education.

To accomplish this, I selected what I think are key functions of university research as well as basic factors that affect it. I provided a list of what I see as the major risks and major benefits associated with each of these functions or factors and had the group individually measure the degree of risk or benefit associated with each. These evaluations were compiled and used to determine if there are functions of university research that are perceived as being in great danger from privatization

or if there are promising clear-cut rewards to the university and society if privatization proceeds.

## **Perspectives**

Each of the "evaluators" in our risk/benefit analysis came from various locations, have diverse educational experiences, and hold differing values. As the selector of the items to be evaluated and the commentator on the criteria, I need to disclose my background so the reader can better judge if I come with built-in biases that could have flavored the discussion.

Briefly, I was brought up in a very small farming community where individual accountability was highly important and where everyone was expected to "pull their own weight." I was educated in public schools and received my advanced degrees from two land-grant universities: Purdue Univer-

sity and the University of Illinois. I was a scientist for nearly 15 years at the Institute for Cancer Research, Fox Chase Cancer Center, Philadelphia, where I was engaged in fundamental studies of protein synthesis and gene regulation. Because this work involved pioneering explorations into the newly emerging field of molecular biology, I soon realized from my early training in agriculture and biochemistry that the techniques I was developing held great promise for agriculture and food production. For this reason, I moved to a small start-up company where the promise of plant molecular biology was being formed into what emerged as plant biotechnology. After nearly ten years in industry, I was offered the opportunity to assist in establishing the Center for Biotechnology at the University of Nebraska. Thus, I became a Professor and administrator in a land-grant public university. It is important to know also that the research programs I established at the University of Nebraska have always involved both very basic studies of an area along with potential applications of that research to improving agriculture and food production. For example, our work in developing herbicide (i.e., dicamba)-resistant plants has advanced side-by-side with studies of the biochemistry, molecular biology, cell biology and ecology of the bacteria, bacterial genes and plant systems employed in our studies. Likewise, our fundamental studies of the mechanisms and regulation of the carbon-concentrating mechanism in eukaryotic green algae are undertaken with a close eye to the long-term potential of portions of this

mechanism being transferred to crop plants where it may increase internal CO<sub>2</sub> levels and allow for higher biomass and/or food production for people throughout the world. Thus, the person who assembled this risk/benefit analysis can be seen as a chimera—a beast with many parts and many different perspectives.

### **Food for thought**

As noted above, before beginning a risk/benefit analysis and the evaluation of the results of such an analysis, it is important to realize that different people have different attitudes toward risks and benefits. This is exemplified by the bits of advice provided in the following statements: *If the turtle does not stick out his neck, he goes nowhere.; Better safe than sorry.; With nearly all benefits come risks. The opposite is not true.; Without risks, there rarely are benefits.; Don't take strong risks without the potential for strong benefits.* In the end, risk/benefit analysis is largely a subjective, qualitative exercise—but an important exercise in a rational society.

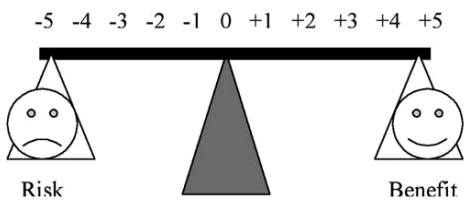
### **Functions of university research and factors affecting it**

What are the major risks and benefits associated with privatization of university research? To answer this question, we must also ask, “What are the functions of university research and the factors that affect it”? My list:

- Expansion of knowledge / discovery
- Education and training of students
- Funding of the research enterprise
- Betterment of society

For each of these, I have listed some of the risks and benefits I see as important to consider. After group

discussion, I asked each retreat participant to provide their assessment of the degree of danger or opportunity (i.e., risk or benefit) privatization offers to university research. Specifically, participants were asked to consider each of the risks and benefits below, along with others that may have come to mind, and to decide if overall the risks are greater than the benefits, or vice versa. To provide a semi-quantitative analysis, I had the participants rank the degree of risk or benefit on a -5 to +5 scale.



### Expansion of knowledge/ discovery

<i>Risks of Privatization</i>	<i>Benefits of Privatization</i>
Stymies the creative process	Focuses discoveries on societal needs
Ignores "unimportant" areas	More "efficient" use of funds
Rewards the "money makers," not the innovators or pioneers of new fields	Rewards those who benefit society most (in the short term)
"Outsiders" have influence	"Outsiders" have influence
Money drives goals	Money available to achieve goals

### Student education and training

<i>Risks of Privatization</i>	<i>Benefits of Privatization</i>
Students narrowly trained	Students ready for jobs
Liberal education deemphasized	In-depth training for specialization
Technology changes (specialization dangers & obsolescence)	Technology advances (job creation)
Narrow perspectives	Focused goals

### Funding of the Research Enterprise

Funding is essential for all university research; the question is, will privatization of university research offer greater opportunities or greater dangers to this factor in the relative success or failure of future university research?

<i>Risks of Privatization</i>	<i>Benefits of Privatization</i>
Government funding may decrease	Private funds may increase
Increased "mission oriented" research	Rapid progress in chosen areas
Business leaders help choose directions	Business leaders help choose directions
More "fickle," short-term funding	Potentially more funds in chosen areas
Government has less say in goals	Government has less say in goals

### Betterment of Society

The reason taxpayers invest money in universities is their belief that the university will yield dividends by providing well-educated people and by generating knowledge that is beneficial to society. So, how will privatization of

research in public universities affect the payoff in this investment? Here are factors on both side of the issue.

<i>Risks of Privatization</i>	<i>Benefits of Privatization</i>
Decisions made for profit, not to address “unprofitable” societal challenges	Directs resources to important human or environmental problems
Feeds the body, but not the soul	Feeds, heals and soothes personal wants and needs
A few make important decisions	Decisions are made efficiently
Bad decisions may be made for society	New goods, services delivered efficiently and inexpensively to society
The rich get richer	Wealth is created

### Another important risk

A strong case can be made that the phenomenal economic success of the United States, since World War II particularly, has evolved due to the production, largely through public universities, of well-trained, innovative and motivated individuals from almost the entire economic strata of society. This was made possible in large part by the fact that public education was affordable by almost all families. With a sharp decline in funding of the public universities by state governments, that situation has changed dramatically. A university education now is affordable to many students only with part-time or full-time jobs during college and/or by encumbering long-term debt that impedes their economic progress until mid-career. This comes at a high cost to our society and presents a significant

risk to our continued prosperity that few citizens or state governments, recognize. Such a situation deserves a separate, serious risk/benefit analysis of its own. See the keynote address of this Merrill Retreat, by Dr. John Wiley, Chancellor of the University of Wisconsin, for an insightful perspective on this issue.

### Results of the Evaluation

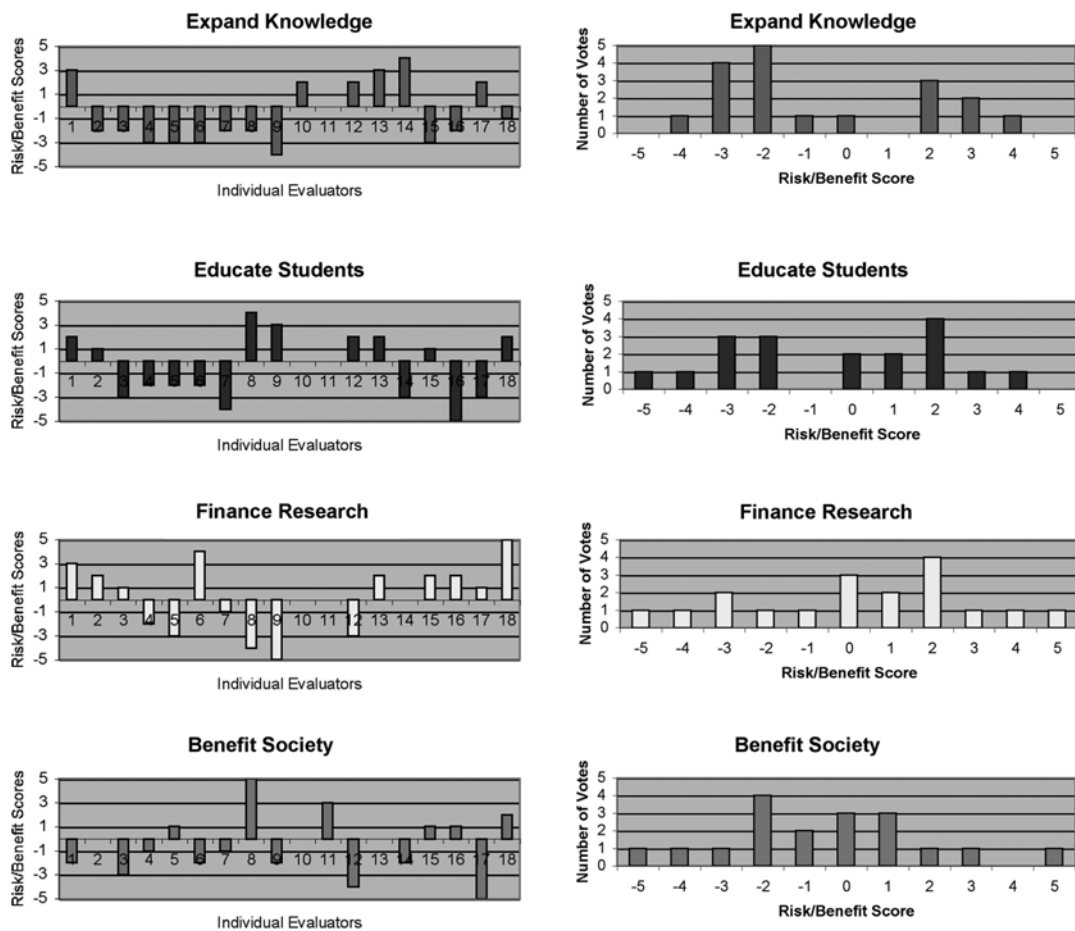
Eighteen people participated in the risk/benefit analysis at the Merrill Retreat; the summary data is below. Again, the ratings ranged from -5 indicating an extremely high level of risks to +5 signifying very strong benefits. The averages of evaluation scores for each category were as follows:

- **Expansion of knowledge / discovery**  
Evaluation  $\pm$  -0.61  $\pm$ 2.57 (SD)
- **Education and training of students**  
Evaluation  $\pm$  -0.39  $\pm$ 2.66
- **Funding of the research enterprise**  
Evaluation  $\pm$  +0.22  $\pm$ 2.78
- **Betterment of society**  
Evaluation  $\pm$  -0.50  $\pm$ 2.48

At first glance, the average score for each category might lead one to believe that the group of university administrators, technology transfer specialists, and professors saw neither great risks nor great benefits from the privatization of university research. A second examination, however, of the standard deviation of opinions immediately indicates a wide range of opinions regarding risks and benefits. This dramatic mix of opinions regarding the hazards and opportunities of privatization is more clearly seen in the histograms on the next page. The left column depicts the scores given by

individuals (presented in a semi-randomized fashion) in regard to risks and benefits privatization offers in each category. The right column offers perhaps a better view of the spread of opinions, ranging in two cases from -5 (very high risk) to +5 (very great benefit). There appears to be a bimodal distribution of votes cast in the categories of “expand knowledge” and “educate students” indicating perhaps

two camps with potentially distinctly diverging views. In the “finance research” category there certainly appears to be no general consensus, but, nonetheless a slight majority opinion that there may be more benefits than risks associated with financing research under a more privatized system. The positive leanings here are perhaps not so surprising given that increased external funding is one of the virtues trumpeted



**Left column of graphs:** Evaluations from eighteen participants in regard to risks and benefits for each of four major functions and factors associated with university research. The order of depiction of evaluations by individuals has been semi-randomized between histograms so that all evaluations by any one person cannot be deduced. **Right column:** Distribution of evaluation scores on the -5 to +5 risk/benefit scale for each of four major functions and factors associated with university research.

by advocates for more involvement of industry in university research. However, the perception of somewhat greater risks for universities in the other three categories may reflect a more conservative view of dangers inherent in universities becoming more financially independent of state governments and more closely affiliated with the corporate world.

Although the voters in this evaluation, on average, expressed some concern about the contributions university research will make to society under a more privatized system, there was stronger concern in respect to the traditional role of a university in expanding knowledge through discovery-focused basic research. In other words, there may be some timidity that we may begin to starve the goose that has routinely produced golden eggs for society in favor of diverting feed to fatten the turkey we can have on the table next week. Or is this simply a reflection of the slow pace at which universities are willing to change even

though they are part of a society that, at times, appears to be subject to an ever increasing pace of change and upheaval?

In the end, one person's risk may be another person's opportunity and vice versa. Indeed, a cold-hearted risk/benefit analysis may leave out even more important factors ultimately leading to success or failure. Is it more important that we, as research universities, create visions for a better world and a determined plan to get to that better world? There will be no benefits without risks, but an unwavering will to achieve lofty goals in spite of perceived obstacles, in the end, may be a more important factor than all the risks laid out before us. This has been better articulated by others.

"It is only by risking our persons from one hour to another that we live at all. And often enough our faith beforehand in an uncertified result is the only thing that makes the result come true."

William James, *The Principles of Psychology* (ch. 4), 1890