

David Stocum

March 28, 2014

Regenerating the Values of Public Higher Education: Thoughts of an Unreconstructed Dean

Thank you Dr. Nguyen for your kind introduction, and good afternoon ladies and gentlemen. I wish to thank the Senior Academy for the honor of representing them in the delivery of this year's Last Lecture.

I thought it best to begin by describing to you something of myself that may be useful in understanding the thoughts I want to share with you today. My friends and colleagues of long standing know me to be basically skeptical and irreverent, sometimes with unintended consequences. Others have mistaken these traits for cynicism, but I do not consider myself a cynic. True, I have no proclivity to call a lemon anything but a lemon, and anyway, the medics tell us that the sugar required to make a lemon into lemonade can have inimical effects on your health. I have been described as passionate about things I care about, and this is certainly true. It is also true that I am anti-authoritarian. But I am also pro-authority. One of the things I learned early in life is that authority and authoritarian is not the same thing. Authority is earned—by personal characteristics that include vision, competence, character, compassion, and fairness. People react positively to those traits. Authoritarians use position and rank to demand obedience, to which people react negatively. I have always found authoritarianism distasteful and a mark of weakness masquerading as strength.

I grew up as the oldest of four children in the small central Pennsylvania town of Jersey Shore, on the West Branch of the river Susquehanna. My youthful ambition was to be a jet pilot in the Air Force. I thought one could apply for pilot training right out of high school, but soon found out that you needed at least two years of college to be considered. My German teacher, Joyce Gilbert, thought I might like her alma mater, 60 miles downriver in Selinsgrove. I applied and was admitted to Susquehanna University in the fall of 1957 as a first-generation student. College was an intellectual awakening for me, and I became a passionate believer in the power of higher education to generate skills and thought patterns important to personal and societal development. To this day, I remember the names and faces of inspirational professors: Bruce Hansen in Biology, Phil Bossart in Psychology, Fred Gross in Physics, William Russ in History, David MacKenzie in English Literature, Russell Gilbert in German, and Benjamin Lotz in Religious Studies. I graduated in 1961, with a double major in Biology and Psychology. I also took the Air Force examinations for pilot training in my senior year, and was selected. But I was in the first stages of near-sightedness, which would disqualify me as a pilot. Moreover, my interests had changed, so I declined and went to graduate school in the School of Life Sciences at the University of Illinois in Urbana-Champaign, where in 1963 I earned a MS in Zoology under

Professor Ray Watterson, who introduced me to the subject that would become my life's work, regeneration.

My first academic job was a one-year appointment at Iowa Wesleyan College in Mt. Pleasant Iowa, where I found that I enjoyed (and was possibly even good at) teaching. There I interacted with several very talented junior and senior students. One of those students, and now a life-long friend, was William H. McClain, who is here this afternoon. Bill is a Purdue PhD and is Halvorson Professor Emeritus of Molecular Biology at the University of Wisconsin, where he has earned distinction for deciphering the steps in the synthesis of molecules called transfer RNAs, which work in the assembly of proteins by the cell. Enough distinction, I might add, to be in that elite group of people who are considered for the Nobel Prize!

In the spring of 1964, I was admitted to the graduate school at the University of Pennsylvania in Philadelphia. Four years later I earned the PhD in cell and developmental biology. I will always cherish those years at Penn as one of the most exciting intellectual times of my life, thanks to my lab-mates and our beloved mentor, Dr. Charles E. Wilde Jr.

In the fall of 1968, I began a 20-year teaching, research, and administrative career at the University of Illinois. I taught courses in cell and developmental biology, directed the Honors Biology Program, was Acting Head of the Department of Anatomy in the School of Medical Sciences, and pursued a successful NSF and NIH-funded research program on regeneration. One of my best colleagues at Illinois was Dr. Jo Ann Cameron, and she is here today as well.

In 1989, I became Dean of the School of Science at IUPUI, a position that I held for 15 years. I will always be proud of what our faculty, staff and administration accomplished during those years. We developed research programs that synergized with our undergraduate academic programs. Our research programs were small, but based on big ideas that eventually resulted in getting the requisite funding to pursue those ideas. Yesterday, I was privileged to take a trip down memory lane with one of our most stellar faculty, Professor Nageswara Rao, who reviewed the history of his research on characterizing enzymes that use ATP, the energy-storing molecule that powers our cells.

Math was a big obstacle to a lot of our students, so we set up a Math Assistance Center that has been highly successful. Embracing the idea of several of our African-American students we established what is now called the Diversity Research Scholars Program. Other efforts established a Forensic Science Program, an external development office, and community connections. Most of all, we hired faculty better than ourselves. One of those faculty members, Dr. Simon Rhodes, leads our school today.

Now comes the unreconstructed dean part—the dark side. As exciting as it was to have the opportunity to build a strong academic unit, it soon became clear to me that IUPUI was not highly regarded, largely due to its lack of identity and autonomy, and that its parent institutions wanted to keep it that way. State funding per student was the lowest of all Indiana universities. Through my own experiences as dean, and a broader comparison of state institutions nationally, I gradually came to the conclusion that American public higher education is a caste system, dominated in each state by one or two massive flagship universities characterized by a culture of

snobbish exclusivity and entitlement that compete in a frantic arms race for money and research prestige rankings. The flagships treat their subordinate campuses and other state supported universities with patronizing condescension, if not outright contempt. The caste system is disguised under the euphemism of “mission differentiation,” the assignment of different academic missions based on presumptions of intellectual quality of students and faculty and the apportioning of resources according to those presumptions. The science fiction writer Dean Koontz succinctly summarized all this with one line in his book *Brother Odd*: “Most universities are no longer temples of knowledge, but of power, and true moderns worship there.”

This system is ugly and dysfunctional. To understand its origin, we need to examine a paradigm shift driven by an influx of federal and state money into the largest of the state universities after WWII. These were primarily land grant universities created by the Morrill Acts of 1862 and 1890 with the visionary purpose of making higher education available to persons of all social classes. For a long time, there was a strong value system in these universities that put students first. Throughout the first decade after WWII, they were especially effective in educating millions of returning military men under the G.I. Bill. One of America’s great cell biologists at Indiana University Bloomington, Professor Tracy Sonneborn, reflected these values when in response to a question on teaching vs. research, he said that first he gave his 40 hours to the university, then his forty hours to research. Sonneborn’s meaning was clear: the core function of the university is undergraduate education. Research is a core function as well, but is not more important than undergraduate education. There is no question that in this form the large state universities made significant contributions to the agricultural, scientific, technological, and civic and cultural strength of the nation, to the upward mobility of its citizens, and to the building of a more equitable and opportunity-filled society.

This tradition of providing upward mobility and opportunity began to unravel in the 1960’s, as the largest of the state universities became defined as flagships and research money and publications became the currency of success. By the 1980s, the flagships had become addicted to research prestige rankings. This prestige has become an end in itself, where rank, size, money, and power are used for self-aggrandizement and to deny aspirations and respect to “inferior” universities.

The flagship academic culture that has developed around research prestige can be toxic and bring out the worst in people. Too many flagship faculty, administrators and trustees come off as arrogant, narcissistic snobs, lacking in conscience and integrity. As a faculty member at Illinois, I saw how faculty and administrators looked down on the University of Illinois at Chicago, and I experienced the flagship arrogance and snobbery directly as a dean at IUPUI. Thirty years ago, a colleague at Illinois shared with me a letter he had received from a highly acclaimed colleague who described the culture of the public flagship he had just left as follows: “... minimal good will, in-turned protectiveness of self, intense competitiveness, glee in the belittlement of others, insecure self-esteem, the plodding progress through life with little of its joy, the loss of ideals of integrity, of concern for others, of the beauty of life and sharing it with others”. This man died recently at age 100 with over 1600 publications in his field. He has, I think, given an accurate description of the beast.

The focus on research prestige rankings and the educational and social costs they exact has been extensively documented over the past five decades, though largely ignored. Recently, renewed criticism of public higher education has taken center stage. The criticism is aimed at the rising cost and declining quality of a college education. Rising tuition is the result of many factors, but a major target is administrative bloat—the increasing specialization and proliferation of high-salaried administrative positions. The declining quality of undergraduate education is also due to multiple factors. A major one, in my view, is the flagship addiction to research prestige. How does this addiction contribute to the decline in quality?

First, grants and publications have become the primary basis for professorial advancement and reward. Professors must teach less to free up time to continually write multiple grants. Flagships now have two faculties, one a highly paid research faculty, the other a lower paid teaching faculty. Competition for grant money has increased to the point of absurdity and will get even worse because of unsustainable federal research budgets and overproduction of PhDs that increases the pool of competitors. Amidst this competition, medical schools are pressing research faculty to fund a substantial percentage of their base salary from grants. Might this be coming soon to schools of liberal arts, science, engineering, law and business as well?

Second, the research prestige game requires large sums of money for research and graduate program administration. Indirect cost recovery money (money for administrative and facilities expenses) of grants does not completely cover these expenses, and tuition and state appropriation dollars must be injected. This is one reason why out-of-state enrollment in flagships is as high or higher than 35% and growing, because these students pay three times what an in-state student pays. Data suggest that this disparity is creating two economic tiers of students, an upper class that can afford the triple tuition, and a lower class that struggles to pay the in-state rate. This disparity is reflected in a widening resource inequality between flagships and other state institutions. At the same time, the so-called lower-tier universities are expected to educate the majority of the state's students with fewer resources. They are discouraged from doing research, yet the research prestige by which flagships measure each other has become the default state by which every state university is measured. So there is a "ripple effect" here, where the non-flagships feel compelled to add or expand research programs in order to gain some measure of respect. This quest for respect is then derisively called "mission creep."

The worst effect of the addiction to research prestige has been the devaluation of undergraduate learning, to the point where the prestige of individual faculty members is inversely proportional to the amount of undergraduate teaching they do. I have always viewed teaching, research and administration as synergistic, with a need to be balanced with respect to one another. Most flagship administrators and faculty do not. Their number one priority is research. In my first year at Illinois a senior colleague took me aside to explain the unwritten rules for promotion and tenure. "Your time needs to be spent getting grants and publications," he said, "so spend as little time with the undergraduates as possible." Another colleague, when asked to teach an undergraduate course, responded that he didn't come here to teach undergraduates but to do research. In a 1989 publication titled "Values Added: Undergraduate Education at the Universities of the CIC", the Committee on Institutional Cooperation (consisting of all the Big Ten universities plus the University of Chicago) professed that in addition to the evaluation of research in tenure and promotion decisions "...we also require clear evidence of teaching ability;

and both are valued and rewarded”. During my career at Illinois I never saw any evidence that teaching ability or success was valued or rewarded, at least in my discipline of the biological sciences; the only thing valued and rewarded was externally funded research and publications.

The fact that public flagships reward only research, while marketing and selling undergraduate education is clearly a contradiction in professed values. That this contradiction can be maintained before the public is explained by the fact that prospective students and parents naively think that research and athletic prestige equates to quality undergraduate education. This perception is one of the great myths of public higher education. Murray Sperber played myth-buster in his book titled “Beer and Circus”, arguing persuasively that flagships pander to students with alcohol-fueled sports entertainment as a proxy for quality undergraduate education. The evidence suggests that research prestige is a similar proxy. Far too many students choose to attend universities based on a halo effect of social, athletic and research prestige, not knowing or caring whether or not they actually get a quality education.

The Association of American Universities (AAU) plays a major role in the flagship arms race for research prestige. The purpose of the AAU is to promote strong programs in academic research and scholarship and graduate and professional education and to lobby in Washington to fund member research. Membership is by invitation only, based on four criteria: federal research spending per faculty member, the percentage of faculty who are members of the National Academies, faculty awards, and citations. Approximately 34 public universities and 25 private ones are members. AAU membership is a powerful opiate in the research prestige arms race. Current members and wannabes will do anything in their power to maintain or acquire membership. The AAU weeds unworthy members from its ranks. All of the Big Ten universities are members of the AAU except Nebraska, which was expelled in 2012 after falling below the research dollar threshold. The problem was that the University of Nebraska did the right thing and gave credit where credit was due, by reporting the research dollars of the Medical Center in Omaha separately from those of the Lincoln campus. Perhaps Nebraska should now be removed from the Big Ten athletic conference?

As you might suspect, a disease of human nature underlies the pathological prestige seeking of public flagships. During my college summers, I worked in two Baltimore-based YMCA camps located in the tobacco country on the western shore of Southern Maryland. The camps were segregated. I spent one summer at Camp Conoy for white kids, on the lower Chesapeake Bay, and my final two summers at Camp Mohawk for brown kids on the Patuxent River. We all very much admired and respected the Director of Camp Mohawk, Mr. Al Moss. It was 1960, and the camp had bought a motorboat at Solomons Island where the Patuxent empties into the Chesapeake. Two white friends from Conoy and I, along with Mr. Moss, took the boat up the Patuxent toward Mohawk. Around noon, we stopped at a resort area to get lunch, but as we were scrambling out of the boat, Mr. Moss said matter-of-factly, “Sorry fellas, but I can’t go in there.” For a moment we were confused, but then remembered that these places were segregated. So we got take-out and continued on. Mr. Moss was not outwardly bothered by this incident—he had probably experienced it more times than he could remember—but my friends and I were furious that he was refused service simply because of his skin color. This was my first encounter with overt racism and it was a moment that forever defined my attitudes toward civil rights and liberties. Many years later, I read Robert Fuller’s 2004 book titled “Somebodies and Nobodies:

Overcoming the Abuse of Rank”, and realized that this incident—and much of what I had experienced as a dean at IUPUI—fell under the umbrella of what Fuller called “rankism”, defined as the use of rank to demean the value, dignity, and accomplishments of individuals or groups. He made a powerful case that isms such as racism, elitism, sexism, and authoritarianism, are all manifestations of rankism. Individuals and institutions use rankism to strip the ranks below them of dignity and self-worth in order to feed their own sense of self-importance. The more me, the less you! I see rankism, in the form of elitism and authoritarianism, as the disease that afflicts our public flagship universities.

Let me be absolutely clear—there is nothing wrong with striving to be elite, meaning to be the best you can be. Nor is there anything wrong with authority and rank earned on the basis of performance. Elitism, on the other hand, means the belief in, and practice of, **rule** by an elite. Coupled with authoritarianism, such rule brooks no dissent, aspiration or evolution. In the academic world, it translates into active or subtle demeaning by flagships of institutions with lower research prestige, and erodes the real purpose and value of higher education.

I would now like to turn to how we might regenerate a value system in public higher education that is based, not on rankism, but on a core mission of excellence in undergraduate education, synergized with research excellence. To do this, we must first answer the question of what is the primary purpose of higher education, which today appears to be progressively more consumerist and vocational. In the 1920s, Charles Grosvenor Osgood, Holmes Professor of Belles Lettres at Princeton University, answered this question succinctly: “The supreme end of education is expert discernment in all things—the power to tell the good from the bad, the genuine from the counterfeit, and to prefer the good and the genuine to the bad and the counterfeit”. We pursue this end through learning—by study, through experience, by discovery, and most importantly of all, from mistakes and failures. Learning is arguably the most important process we engage in throughout our lives, says Josef Martin in his book *To Rise Above Principle*, and the commitment to learning for its own sake, to scholarship and the search for truth, is a very strong statement of values held and advocated. Learning instills honesty and offers ample opportunity to acquire a decent humility that enables one to acknowledge their own limitations. “It advocates education rather than indoctrination and it manifests the faith that free and well-educated people will not succumb to authoritarian or totalitarian dogma.”

Within this context, I would like to share with you some values that I believe must be regenerated within our academic culture.

In General: Be honest, and try to do the right thing. I recommend the Rotary four-way test to determine if an action or view is the right thing: *1. Is it the truth? 2. Is it fair to all concerned? 3. Will it build goodwill and better friendships? 4. Will it be beneficial to all concerned?* Be the best you can be, but remember that life isn’t an unbroken string of successes. In fact, you can learn more from the inevitable failures.

Teaching: Set high standards, and honor achievement under those standards. Creative teaching depends on a passion for, and understanding of, subject matter, but also organizational skills, and an attitude that treats students as an investment in the future. Here I think of the great Cal Tech physicist Richard Feynman, who taught freshman physics so successfully and inspirationally that

his course was published as the three-volume Feynman Lectures. Said a colleague speaking of Feynman's inimitable style, "Here's the deal. If ya wanna do this physics thing vanilla-style, go buy and read a nice physics textbook. If you want to **taste** physics—really take it in like a delicious chocolate mousse, a symphony orchestra or Shakespeare done by British folk, this is where you have to be."

Research: Research is fundamental to the health and wealth of society. But funding for research should be open, and should be awarded to those with the best ideas, never favored or suppressed based on some half-baked notion of mission differentiation or research prestige. Work on interesting problems, whether or not they have immediate application. Adhere to a high standard of science and research ethics. Question everything you think. Here I think of the superb comparative paleogeneticist, Svante Paabo. In his wonderful book on Neanderthal genomes, Paabo describes the extensive precautions and controls he had to run to distinguish genuine Neanderthal DNA from contaminating modern human DNA that is everywhere! Paabo's research includes another message: do not cut corners! Too many scientists are in a rush to be first, or to make a big splash, and they make big mistakes, or worse, commit fraud.

Administrators: I love administrator jokes; there must be hundreds of them! A small sample: There are administrators who can sometimes be counted on to do the right thing—but only after they've tried everything else. Then there was the dean who bragged that his faculty would follow him anywhere, to which a faculty member muttered, "Yeah, but only out of morbid curiosity."

Jokes aside, administrators need to be cognizant of what is on the cutting edge and have a vision for the future that takes advantage of current and buildable strengths. Always hire people better than yourself. The goal should be increased quality, not prestige. Don't make the biggest mistake many administrators make—surrounding oneself with "yes" people—and being a micromanager. You have to be willing to challenge the status quo when necessary. Other desirable characteristics are humility, empathy, willing to listen, inclusiveness, ability to delegate, collegiality and trustworthiness. In short, the perfect—and non-existent—person! Leadership is everywhere—use it! Finally, administrators often have to deal with people who have good hearts, but difficult personalities. I have gotten good advice on this from the Godfather films. Don't get angry with people, just reason with them. It's not personal, it's just business.

Regenerating our academic value system will require substantial changes in the structure of public higher education. I find the original land grant vision of Justin Morrill as powerfully persuasive as ever, but that vision was not based on the idea of creating an educational caste system. The flagships want to maintain the status quo while gaining more money, prestige and power. Some now claim that their system-associated campuses damage their ability to maintain prestige. They want to separate from their systems and accept slightly lower state funding in exchange for fewer strings on how they use state dollars. Simultaneously, select flagships would like to have the federal government subsidize their research and graduate education, augmented by corporate and private gifts. The federal subsidy required has been estimated at between 22 and 30 billion dollars per year, in addition to the current NIH and NSF research budgets. Non-flagships would focus their resources on undergraduate education, supported by student tuition and private gifts.

One possible change in the status quo would be to spin off the research function into institutes that have no university affiliation and are financed solely by grants and philanthropy. Many such institutes already exist, primarily on the east and west coasts, and are highly successful. All of the state universities could now focus on undergraduate education. They would all receive a certain state appropriation and charge the same tuition. The formation of research institutes would reduce university rankism based on research prestige because reputation would now have to be earned solely on the basis of how well the institutions performed in delivering undergraduate education.

On the other hand, an argument can be made that research and graduate education, and undergraduate education, belong together under the same roof, but need to be more integrated and synergistic. This is what I favor, but without the caste system. A research mission should be open to any university that chooses it. The nature of the research mission would be the choice of the individual university, but this mission would not be allowed to take precedence over the educational mission. Each public university would receive the same legislative appropriations and charge the same tuition. Furthermore, teaching would be rewarded on a par with research.

This structure would be beneficial on several levels: harnessing a multi-level work force to meet the state's economic needs, solving the problem of student retention and graduation rates, applying the full economic and cultural power of faculty research talent and expertise could be applied over a much broader area of the state, and making it easier to join with the K-12 system in setting standards of student preparation for university work and teacher training, and in forming collaborations to address educational issues. In short, this structure would recommit to the original vision of Justin Morrill, but addressing modern needs, problems, and responsibilities using modern technological tools and concepts. State universities would not be operating in isolation from one another, but rather in networks enabled by inter-institutional collaboration, thus maximizing the investments made in the higher education system.

To keep research and undergraduate education together under this scenario would require a huge change in the mission differentiation culture of higher education. The flagships would need to give up their rankism and their arms race for research prestige (though not the goal of research excellence), and be willing to collaborate with other institutions in their states and beyond. How realistic is this scenario? Not very! Realistically, the effort needed to overcome the inertia of the status quo would be enormous, and there would be fierce resistance from the flagships, from their alumni and students whose identities are wrapped up in their school's symbols and rankings, and from the politicians who perpetuate the status quo.

Flagship ability to adapt is low because of their focus on brand and research prestige. Therefore I want to conclude by suggesting that there may be an evolutionary solution to the problem, whereby a new species of university, better adapted to the needs of the 21st century, will arise by natural selection. This species is the urban university. The selective pressures will be changing demographics, a global information-based economy, a shift to technology-oriented manufacturing, the need for a much higher quality of education, and most importantly, the need for cities as cultural centers and centers of economic development to have strong multipurpose public universities that are engaged with the real world.

Donald Langenberg, former Chancellor of the University of Maryland, said in his keynote speech celebrating the 20th anniversary of the founding of IUPUI that, "...the urban university is bringing to the cities the populist land-grant spirit that propelled our older state universities to greatness. It is upon these urban universities that the future of our cities, and hence our nation, depends." A number of such universities across the country are emerging as leaders in integrating teaching, research, and service into a balanced whole that serves their state, national, and global constituents with the maximum impact. We can hope that IUPUI will some day be one of them, if it can achieve the necessary degree of autonomy, but for now a prime example is the University of Maryland Baltimore County (UMBC), led by its president, Freeman Hrabowski III, who will be at the Madame Walker Theatre on April 8 to speak on creating a culture of academic excellence. UMBC has a highly diverse student body, and is known for producing graduates in the sciences and engineering, but also in the liberal arts. In evolutionary terms, I liken universities such as UMBC to the small mammals of 65 million years ago. They are diversifying in the undergrowth, waiting to see how the dinosaurs fare!

Thank you for your attention.