Testimony of Robert N. Pangborn, Ph.D.
Vice-President and Dean for Undergraduate Education
The Pennsylvania State University
Re: HB 1317

May 21, 2009

Good morning Chairman Santoni, Minority Chair Schroder, and members of the Gaming Oversight Committee. My name is Rob Pangborn, and I am Penn State's Vice-President and Dean for Undergraduate Education. I am also a Professor of Engineering Mechanics, and a former Associate Dean of the College of Engineering and Interim CEO and Dean of Penn State Altoona.

We are here today to discuss a proposed solution to a troubling problem that is more than 30 years in the making – the growing concern that the price of a college education is exceeding the grasp of many Pennsylvanians who desire to attain one. The Governor has proposed to establish a substantial scholarship program for students from low and middle-income families attending State System schools or community colleges, to be funded out of proceeds from legalizing video poker. I am not here to discuss how the program is to be funded, though I urge you to provide for a reliable funding stream to support this program. I am here, rather, to discuss the major flaw in the proposal – the exclusion of students attending state-related institutions such as Penn State from access to this financial support. At Penn State, 31,000 undergraduate students from Pennsylvania families with incomes of less than $100,000 – the eligibility criterion the Governor has prescribed for tuition relief – would be left out of the program. This constitutes 55% of the total PA-resident undergraduate enrollment at the University.

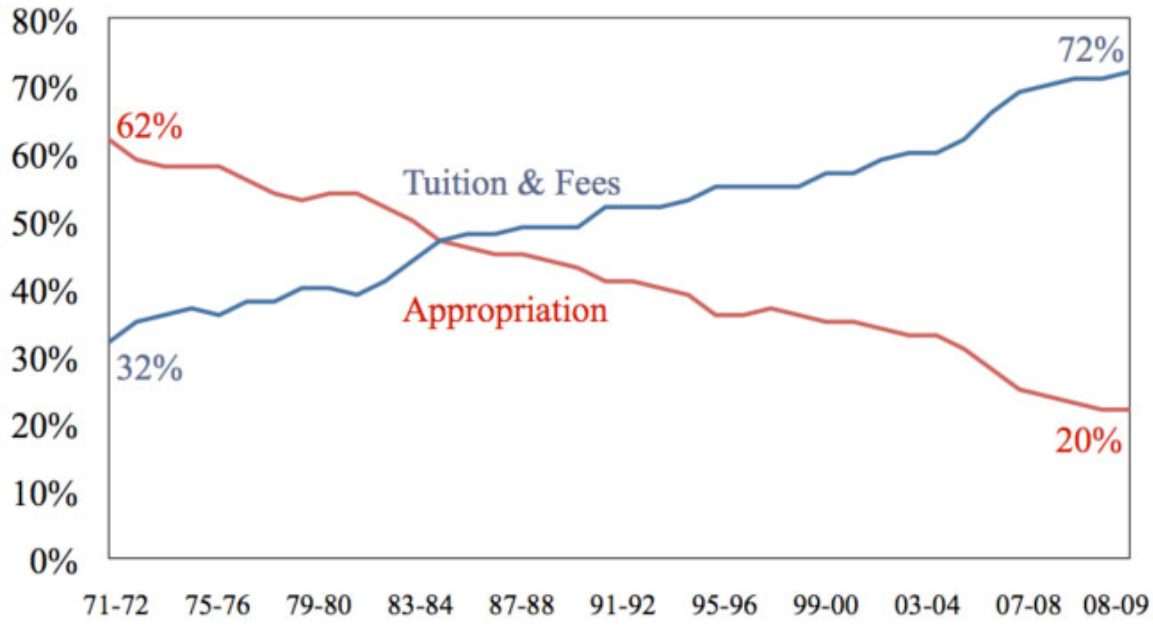
College affordability is an issue that has been central to Penn State's mission since its inception. First established by Acts of Congress and the Pennsylvania General Assembly in the 1860s – at the height of the Civil War – the founders of the "land grant" school were given three objectives: first, to establish a college in which scientific research and engineering were the backbone of the academic instruction; second, to share that newly created knowledge with citizens throughout the state; and third, to make these academic programs accessible to the average citizen.

For nearly 150 years Penn State has successfully met and exceeded all three objectives, to the enormous benefit of the Commonwealth. The University, with over $715 million in annual research, has become a top-ten research institution in the nation, and the largest in Pennsylvania. Through its 67 extension offices, public TV, outreach, and scores of other vehicles, Penn State delivers cutting edge knowledge to nearly all Pennsylvanians. And through its 24 campuses throughout the state, Pennsylvanians have for generations acquired an affordable Penn State education, which is widely acknowledged as one of the nation's finest.

But the state began falling behind on college affordability in the 1970s. Not too long before then, Penn State was **THE** Pennsylvania public university. Before the

Universities of Pittsburgh and Temple were converted to public institutions, prior to the creation of community colleges, and before the teacher colleges broadened their mission, the Commonwealth had an established and affordable statewide public higher education system through The Pennsylvania State University. Its nineteen undergraduate campuses, stretching from Erie to Delaware County, from Scranton to Fayette County, shared curricula that were fully integrated into the academic programs which students largely completed at the University Park campus in State College.

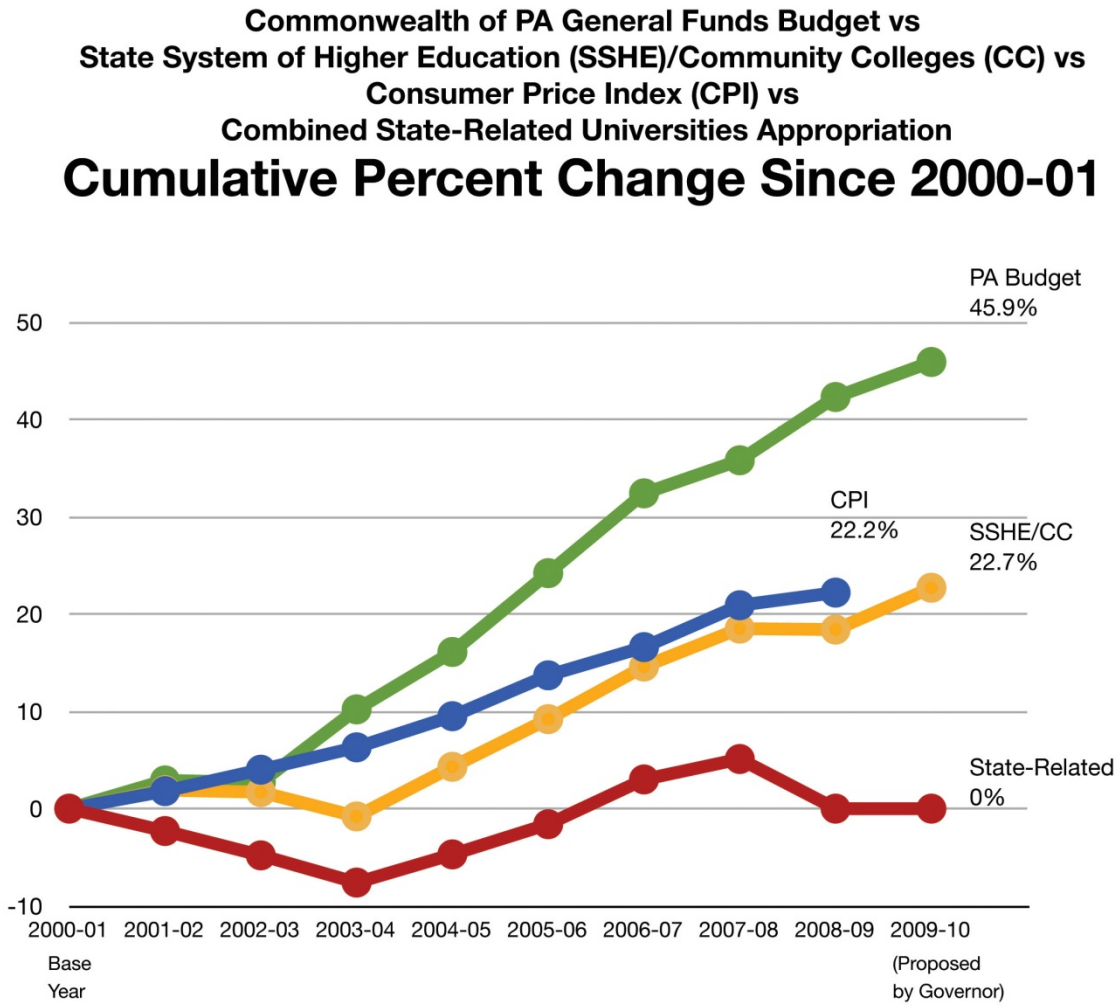
Since then, public funding for higher education has become more and more diffused across the new public institutions. And, with the establishment of PHEAA, public funds were directed in support of private colleges as well. The following graph demonstrates the effect of this spreading of the Commonwealth's investment in higher education. While not too long ago the State picked up nearly two-thirds the cost of a Penn State degree, now it pays just 20%. The State's share of our total budget has fallen to 8.5%. Tuition and fees, once furnishing just 1/3 of a Penn State education, now must account for 72% of our General Funds budget.



Throughout this period, Penn State has remained dedicated to its three-part mission of teaching, research and service. Despite the proliferation of other "public" or "publicly supported" institutions of higher education, the fact is there is no other university in Pennsylvania like Penn State. Its research and extension programs are unmatched. Its Agricultural Sciences programs are completely integrated with the state's food and forestry industries. Further, the Colleges of Science, Engineering, Earth and Mineral Sciences, and others, are national leaders in many disciplines critical to the economy of Pennsylvania.

The Governor himself, in his budget address, emphasized how crucial the education of more scientists and engineers is to economic development in the state. Yet, later in that same address, the governor proposed a massive new investment in higher education that omits support for the vast majority of the state's future scientists and engineers studying at its public research universities.

The Governor has said that our students should not benefit from this new assistance because Penn State has not kept its tuition in line with the community colleges and State System schools: those State System schools that receive nearly $1,470 more per student in state subsidy than Penn State receives for its students. Furthermore, he fails to mention that during his administration, appropriations to state-related schools has remained stagnate, while appropriations to other institutions and priorities have grown significantly.



But the tuition differential is also influenced by the educational model and product. The truth is, there is an enormous difference between the nature of the academic programs at Penn State and those at State System schools or community colleges, and there is a cost associated with that difference. Many highly technical degrees can only be offered at research universities where the faculty engage in cutting-edge research and students have access to state-of-the-art facilities.

- In Engineering, for instance, students mix study in foundational technical subjects with practical design projects. For students starting at Penn State's many undergraduate campuses such as Penn State Dubois or Penn State Lehigh Valley, the first-year design often means working under the mentorship of faculty who have partnered with local industry in defining real-world problems and projects. But one cannot study to become a nuclear engineer or gain experience in an on-campus reactor, for instance, at Clarion University, or any other SSHE school. In fact, there are no engineering programs available at SSHE schools. Penn State's Engineering school, on the other hand, is one of the largest in the nation, enrolling over 8,000 students in fields such as Acoustics, Aerospace, Biological, Chemical, Civil, Electrical Industrial, Mechanical and Nuclear engineering, and others. (The governor even used Penn State ranking as the nation's largest provider of nuclear engineers in convincing Westinghouse to reestablish its nuclear power division outside of Pittsburgh.) And, as you might imagine, the infrastructure needed to deliver these programs is not inexpensive.

- When Pennsylvania's farmers are confronted with a new disease threatening their livestock, flocks, or crops, they don't turn to a community college or a State System School. They turn to Penn State, as they have for over 150 years. Along with studies in engineering, conducting and educating agricultural scientists was the impetus for the creation of the "land grant" college in 1862. The scientists and educators in the College of Agricultural Sciences deliver new knowledge to our largest economic sector, the food and fiber industry, and educate the next generation of leaders in that field. These, too, are not inexpensive programs.

- When a Penn State scientist, working for over thirty years on this problem, reassessed the size and value of the natural gas in the Marcellus Shale play, it created an explosion of economic activity in Pennsylvania not seen since the discovery of oil. This scientist is on the faculty of the College of Earth and Mineral Sciences at Penn State, a world leader in Energy and Mineral Engineering, Geography, Geosciences, Material Science, and Meteorology. The graduates of these programs will address the significant challenges of energy and environment in the future, but their education and training are not inexpensive.

- Often working with their colleagues at University Park, faculty at Penn State's other undergraduate campuses have themselves attracted nearly $60 million in external grants over the last two years from agencies from the National Science Foundation to the US Fish and Wildlife Service. The 800+ members of the campuses' faculty have contributed over 2,000 `refereed journal articles and

written almost 300 books and over 600 book chapters. Students who learn from such faculty will be primed with up-to-date knowledge, but this kind of education requires continuous and sustainable investment that is not inexpensive.

These are but a few of the scores of Penn State academic programs that are among the best in the world that require world-class faculty and facilities throughout the Penn State system, and that are critical to our state's future. And, like it or not, they require more of an investment than programs needing only classrooms and a library. (The proportion of students at Penn State pursuing study in the STEM fields – Science, Technology, Engineering and Math – is three times higher than in the State System schools.)

An unfortunate consequence of the Governor's tuition assistance proposal is that it has needlessly pitted institutions of higher education against each other. Some of the institutions in line to benefit from the Governor's proposal have played along by feeding misinformation about the nature of a Penn State academic program and its costs.

"...the 14 state universities are cheaper and more efficient than the branch campuses of Penn State..."

SSHE Chancellor John Cavanaugh

"Tuition and fees for Montgomery County families add up to $2,910... On the other hand, a Penn State freshman pays $14,426 for in-state tuition and fees. There's just no comparison."

President Karen Stout, Montgomery County Community College

None of this finger pointing, however, has contributed to good public policymaking. It has just muddied the water, and confused many students and families.

As policymakers you have a very difficult task determining the best and most efficient use of state tax revenues. I am suggesting that limiting the first major new investment in higher education in decades to students choosing only the majors available at State System schools and community colleges is bad public policy due to its inefficient use of the state's resources, and its patently unfair treatment of many Pennsylvanians.

Now more than ever, Pennsylvania should be investing in our future leaders in fields that will help jump-start and maintain a vibrant economy. We need to be encouraging students to become scientists and engineers, rather than making it disproportionately more difficult for them to do so.

And what is the message being sent by this proposal to that talented high school student in your legislative district, who may be from a low income family, and who aspires to be a meteorologist, a food scientist, a petroleum and natural gas engineer? This program tells that student that he or she should not hold such lofty aspirations; will not be able to afford to take one of those paths. And what about the student who wants to maintain the family farm? Should that student instead be redirected to a less expensive option in another field or less fulfilling enterprise? Won't it be a win-win proposition to provide

opportunities in those fields of great benefit to the Commonwealth, for students with the drive and talent to successfully pursue them?

In conclusion, we are not here to urge you to kill or abandon this proposal, but rather to improve it – to make it a fairer and better use of state resources – by including students from state-related schools as eligible recipients of this needed and long overdue state assistance.