The following document was presented in Washington to members of Congress, particularly those from the Delaware Valley, by President Hackney and other members of the administration and Trustees on March 20.

The Federal Investment in the University of Pennsylvania

The history of the University of Pennsylvania, founded by Benjamin Franklin in 1740, predates the establishment of our Federal government, but its recent history, especially since the Second World War, has seen an increasingly close involvement with Washington. The Federal government has made a major investment in Penn, in the research of its faculty and in its students. Among the nation's universities, Penn ranks sixth in support of biomedical research sponsored by the National Institutes of Health and thirteenth in the total amount of Federal support for research and development activities. Among Pennsylvania's colleges and universities, Penn ranks first in Federally-sponsored research, and its support from NIH exceeds that of all other Pennsylvania institutions combined.

To illustrate the importance of the Federal government in Penn's activities, in the current fiscal year, approximately 27% of the University's budget originated from Federal sources, in the form of student assistance, research support, and health care reimbursement. Over 8000 students, 50% of our full-time student body, are recipients of Federal student assistance, receiving $42.8 million in grants, work-study support, and loans to help them, and their families, meet their educational expenses. Last year, our faculty received more than 1100 research awards from the Federal government, representing more than $110 million, or 80% of our total research support. Finally, the Hospital of the University of Pennsylvania (HUP), our teaching hospital, received $67.7 million in Medicare reimbursements last year for acute care of the region's elderly, accounting for 34% of HUP's net patient revenues. Clearly the Federal government has a considerable stake in the success of the teaching and research enterprise at Penn, and the University has a strong interest, in meeting its teaching and research mission, in the continuation and extension of Federal support.

This Federal investment in Penn and its products—enhanced human capital, research, and health care—does not go unrewarded, but garners a significant return. The usefulness of sponsored research at universities, for example, is not always immediately evident, but the investment of the Federal government in the research enterprise at Penn has been multiplied many times over by the tangible benefits which have derived to the region and to the nation. To cite a few of the many examples of government-assisted research:

- The Veterinary School, the sole such school in the Commonwealth, is with NIH and USDA support developing genetic transplantation of animal growth hormone, which will help enhance the quality, production, and disease resistance of commercial livestock. This gene transfer research may revolutionize scientists' understanding of genetic processes and genetically-based diseases, including some types of cancer.
- Penn's Institute of Environmental Medicine has, since the Second World War, been perhaps the nation's premier facility for basic and applied research on human tolerance to environmental extremes. This research has been instrumental in NASA's development of the manned space flight program and in expanding industrial applications of undersea mineral recovery technology.
- Penn's School of Nursing is conducting NIH-sponsored research into alternative forms of care for premature infants to consider whether early discharge and home followup by neonatal specialists may be more effective, in terms of family bonding, decreased family stress, and cost, than acute hospital care.
- Penn scientists at our Laboratory for Research on the Structure of Matter (LRSM) have developed a durable and inexpensive sensor for detecting pollutants that cause acid rain. The key to this device is a new ceramic material produced by LRSM that can withstand elevated temperatures and feed data directly to microprocessors to regulate industrial emissions.
- Collaboration among scientists at Penn's schools of Engineering and Medicine has produced an advanced computer imaging system to improve medical diagnosis and surgical planning. This system creates three-dimensional pictures of the spine and skull that can be rotated to increase diagnostic options. The 3-D image can also be sliced open electronically to reveal internal structures.
- Last year, researchers in our Oriental Studies Department and University Museum published the first dictionary of the Sumerian language, with support from the National Endowment for the Humanities. This work on the Sumerian language, the first known written language, has provided us not only with insights into this ancient civilization but, equally important, has brought us new knowledge about sophisticated symbolic communication which may be integrated into modern systems of artifical intelligence and computing.

Penn and the Philadelphia-area Environment

The quality and magnitude of the educational enterprise at Penn has substantial reverberating effects on the Philadelphia region. Penn has the second largest student population in the region, with more than 22,000 students. We are the fourth largest employer, and the largest *private* employer, in the region, with 17,000 employees in academic, administrative, and hospital positions. This represents a regional wage base of $310 million, and combined city and state income taxes of more than $20 million.

The regional and state economy benefits from the current expenditure of $834 million by the University and its Hospital. Included in this budget are expenditures for the building industry and associated enterprises, including renovation of Penn's historic Quadrangle and a $150 million facilities construction program that includes the HUP Phase IV project and a new Clinical Science Center on the Philadelphia General Hospital site. In addition, the University has helped establish new entities which promote economic activity in the region:

- The Pennsylvania Small Business Development Center, coordinated by Penn's Wharton Entrepreneurial Center, has helped businesses create 8750 new jobs and secondary employment growth of 5750 jobs, according to a study of Chase Econometrics. These jobs add some $255 million to the State and local tax base. The Small Business Development Center, supported by the Small Business Administration, the Pennsylvania Department of Commerce, and other colleges and universities throughout Pennsylvania, offers entrepreneurs free management and technical counseling in accounting, loan packaging, marketing, and strategic and financial planning.
- The University City Science Center, established through a Penn initiative, houses 75 organizations employing 5000 people, with an aggregate payroll of $100 million. The nonprofit Science Center encourages new starts of high-tech enterprises through its programs of basic research, evaluation, training, and management.
- Penn's Joseph Lauder Institute, designated a National Resource Center in International Management by the U.S. Department of Education, utilizes the unique foreign language and area studies capability of Penn's Faculty of Arts and Sciences and the expertise of its Wharton School to train future business leaders in management in foreign economic environments. At a time when domestic industries need help in dealing with business practices and customs abroad, the Institute's program promotes the international development of both the regional and national economy.

Penn not only contributes to the general economic vitality of the Philadelphia region, but has also developed increasingly strong bonds within its home base, the West Philadelphia community. As an active member of the West Philadelphia Partnership, chaired by President Sheldon Hackney, Penn has embarked on a "Buy West Philadelphia" campaign, and has committed to promote local business and purchase $1 million annually in products and services from West Philadelphia firms. Estimates to date indicate that we will far exceed that goal. Penn is expanding on its support for the Partnership by participating in a new project, "Hire West Philadelphia", to promote employment at the University for local residents. Penn has also developed, in conjunction with neighborhood organizations, a West Philadelphia "Greening" project, a comprehensive landscaping plan for the community designed by our Department of Landscape Architecture.

Penn students are equally committed to their community. Evolving from an undergraduate honors seminar on University/community relationships, the West Philadelphia Improvement Corps, directed by the Partnership, provided last summer neighborhood jobs for 120 youths, including many affected by the Osage Avenue tragedy. Penn students and faculty serve as teachers, supervisors, and counselors in this program, which has continued operation throughout the school year. Step One, the University volunteer tutoring service, matches Penn and local elementary school students to teach children academic skills and build new interests and friendships.

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Penn's Mission and Federal Policies

Notwithstanding the complexity, diversity, and magnitude of the University's endeavors, Penn's mission is actually quite a simple one: to instruct students and conduct research in an environment of excellence. Performing this mission is indeed a public service, carried out primarily through private means. More than 2/3 of the revenues needed to meet the teaching and research mission come from private sources—student tuition and fees, charitable gifts, patient fees, investment income from endowment.

Yet Penn could not perform this public service without enlightened government policies—and government support—to advance our mission: policies which help afford financially needy students the opportunity to choose the institution which best suits their academic needs; policies which encourage charitable donations; policies which promote the research necessary to enhance our nation's economy, health, and security.

Student Financial Assistance

Thousands of Penn students, and tens of millions of other students throughout the nation, have been the beneficiaries of more than a quarter century of Federal programs of financial aid, beginning with the National Defense Education Act of 1958. Indeed, even before NDEA, thousands of America's veterans, and a multitude of our national, political and industrial leaders, benefited from the tuition aid provided under the G.I. Bill. The principles which have guided the Federal student aid programs—the principle of access, affording students, without regard to economic circumstance, the opportunity to participate in higher education and the principle of choice, affording students, based on their ability, the opportunity to select the institution which best suits their needs—should remain the keystones of Federal policy.

These principles have helped Penn to enhance substantially the economic and cultural diversity of its student body, and have thereby immeasurably strengthened the fabric of the University. Thousands of talented economically disadvantaged and middle-class students, who would not otherwise have had the opportunity for a Penn education, have been able, with Federal aid in the form of grants, work assistance, and loans, to attend Penn. This Federal assistance is not merely an investment in the University, but is an investment in human capital that bears fruit in a broadly-educated, technologically literate, and ethically sensitive citizenry.

Yet the increased cost of providing higher education, at Penn and at our sister institutions, combined with the leveling off of Federal student aid (a 24% decline at Penn in real terms since the 1982-83 academic year), has widened the gap between cost and available student and family resources. Penn is doing its share both to maintain its commitment to need-based aid and to provide for equitable and stable financing of a Penn education through our "Penn Plan", which has been financed internally. But the Federal government must continue to maintain a leadership role, in partnership with students, parents, states, and institutions, in assisting students to participate in higher education.

The Administration's FY 87 budget proposal represents a substantial departure from the Federal government's historic participation in this partnership. At Penn, the proposed reductions and restrictions would have the following effects: All of our current Federal student aid recipients would see their assistance terminated or reduced; 2200 undergraduates would have their aid reduced by an average of $2100 each; all borrowers under the Guaranteed Student Loan program would experience increases in debt of at least 30%. These proposals would irreparably harm the diversity and pluralism which has characterized Penn specifically and American higher education generally, and should be rejected. This is not to say that certain changes in the operation and administration of the student aid programs should not be made as Congress continues its deliberations on the Higher Education Act; rather, the fundamental structure of these programs is sound and balanced and serves important national purposes.

Research

The development of new knowledge and new technologies has historically been founded in basic research, 70 percent of which is conducted on college and university campuses. If we are to maintain and extend our nation's leadership in science and technology, Federal policies must strenghten the capacity of Penn and other leading universities to conduct basic research.

During the past decade, Federal support for basic research has declined dramatically in real terms. This trend, however, has begun to be reversed through actions by Congress during the past three years that have substantially increased research funding in both the physical and biomedical sciences. Even if this balanced Federal support of the physical and biomedical sciences represents the restoration of Congress' past commitment to research and the setting of an appropriate course, there remain for Penn and for other universities two critical policy issues that the Federal government must address if it hopes to maintain the strength of its university-based research enterprise. The first is the issue of reimbursement for the indirect costs of performing Federally-sponsored research; the second is the issue of replacement of research facilities and equipment needed to carry out such research.

A. Indirect Costs of Research: Since the early 1950's, when the Federal government began to provide substantial support for University-based research, it has recognized that institutions bear, and should be reimbursed for, cost of both specific research projects and costs associated with the general research enterprise, such as maintenance and depreciation of equipment and facilities and administration of research programs. The principle of full recovery, by the performer of research, of costs attendant to Federally-sponsored research has remained in place for more than 30 years.

However, new rules scheduled to be imposed by the Administration would abrogate this principle, and would seriously diminish both the capacity of universities such as Penn to conduct research and the quality of research performed. Last month, the Office of Management and Budget proposed a revision of its Circular A-21, a revision that would limit the administrative component of indirect costs, effective April 1 of this year.

Penn vehemently objects to this administrative action which, when fully implemented, would result in a reduction of Federal research support for Penn of at least $9 million annually, and a potential reduction in research personnel of 350 to 400 employees. Such an impact could not be absorbed without fundamentally diminishing the character and quality of research at Penn and at other universities which are performing research in the biomedical and physical sciences, in engineering, and in defense, that the Federal government has deemed to be important and worthy of support. We at Penn cannot fathom why the OMB, while ostensibly emphasizing the Federal commitment to a healthy research enterprise, has chosen to erode the capacity of the principle performers of basic research—the nation's universities—to sustain and improve the enterprise. We urge that Congress oppose the OMB's revision of Circular A-21 for the following reasons:

1)The 30-day comment period is unreasonably short and does not allow for serious discussion among the research community, the Administration, and Congress. By establishing an April 1 effective date, OMB has effectively precluded any possibility of change in the proposal;

2) Universities alone are subject to the cap in administrative overhead. Independent research institutes and private sector research contractors, both of which have substantially higher overhead rates, are immune from the revision;

3) The proposal to cap the administrative portion of indirect costs is taken out of context from a White House Science Council draft report on the health of university research. That draft suggests that such a proposal should *only* be entertained as part of an integrated package that included recommendations for improving research facilities. According to the draft, were the recommendations to be implemented selectively, "they would result in significant damage to the academic enterprise."

4) Reasonable and equitable changes that will meet deficit reduction targets and will reduce conflict over cost accounting methods can be negotiated, if OMB can be directed to negotiate with representatives of the research community in a good-faith effort.

B. Research Facilities/Equipment: Without the renovation and replacement of antiquated University research facilities and equipment, which tend to be twice as old as those of industry, the conduct of basic research can only proceed at half-speed, at best. In the 1940's and 1950's, the Federal government, at Congress' behest, embarked on a series of ambitious programs of support for health-related and other scientific research facilities. These programs, which reached full fruition in the 1960's, were an appropriate response to a national imperative to build a research infrastructure that could be sustained and enhanced over time. According to a recent NIH analysis, however, "it has been 15 to 26 years since institutions received federal support . . . . research laboratory requirements have changed, brought about by the growth in the knowledge base, the development of new technologies, more effective handling and processing of information, and requirements for higher standards. Research space of two decades ago, for the most part, cannot accommodate research requirements today without major renovation or replacement."

This is particularly true of older, more established research universities such as Penn, which were early recipients of Federal research program support. Our School of Engineering and Applied Science, for example, has doubled enrollment during the past decade in response to regional and national needs, especially in the fields of Computer and Cognitive Sciences and Bioengineering. In 1984, our Cognitive Science program received more than $7 million from the Army Research Office for the establishment of an artificial intelligence center, one of two such awards made nationally. Bioengineering has received similar support, and this recent activity and growth has occurred in facilities that have not changed in twenty years. Graduate students have been housed in trailers, and facilities are desperately in need of repair, new equipment and expansion. In Chemistry, Penn's successes of the last decade, in laser chemistry, in development of new superconducting materials, in assessing the structure and function of biological micromolecules, in synthesizing new natural products for medicinal use, have been achieved in large part with the assistance of Federal research support. Among the by-products of these achievements is the need to renovate teaching and research laboratories, so that such essential research can continue.

These research efforts will not be fully successful in the future without a reaffirmation of Congress' commitment to rebuild and replenish our research infrastructure. The labors of our researchers—however exceptionally talented they might be—will not bear fruit if their physical facilities and tools of their world are inadequate. Adoption of HR 2823, the University Research Facilities Vitalization Act, would signal this reaffirmation.

Professional Training in the Health Sciences

Among Penn's greatest and most successfully met public responsibilities is in training the generation of professionals—physicians, nurses, veterinarians, dentists—who will implement the research advances of our scientists and promote the health and well-being of our people. In 1985-86, Penn has enrolled 2500 students in its undergraduate nursing program and its professional degree programs in medicine, nursing, veterinary medicine, and dentistry. The University, in seeking to meet national and regional needs for health care personnel, annually awards all the State's degrees in veterinary medicine, 30% of its graduate degrees in nursing, 25% of the state's degrees in dentistry, and 16% of its medical degrees.

The cost of educating these health professionals is substantial, and is borne mostly by the University, partially offset by tuition payments from students, who are in turn partially aided by loans from the Federal government. This Federal assistance, provided under Title VII of the Public Health Service Act in the form of Health Education Assistance Loans (HEAL), Health Professions Student Loans (HPSL), and Nursing Student Loans, enables more than 800 Penn students to meet their tuition expenses. In the current academic year, these students borrowed about $5.7 million under these programs, accounting for approximately 18% of tuition payments to the four health professions schools at Penn.

We are, therefore, particularly concerned with the prospective elimination of Federal health professions assistance programs in the Administration's FY 87 budget. These funds are not grants, but constitute loan aid that must be repaid. In the case of HPSL, this assistance is based on student financial need, with a modest interest subsidy applied. The HEAL program is completely unsubsidized and is supported by private capital, subject to a limitation on the Federal guarantee. The Administration's proposal of a $100 million nationwide cap on HEAL loan guarantees would reduce the availability of HEAL by 60%, and would produce no cost savings to the Federal government. Although we are extremely mindful of the debt incurred by our professional students in all fields, particularly in the biomedical professions, we do not believe that severe constriction of a program with no direct Federal cost represents good public policy.

The financing of graduate medical education—the period of specialization beyond the four year M.D. degree—is more complex, supported predominantly by teaching hospitals, with modest support provided by the Federal government through the Medicare system. Medicare helps pay for a portion of the direct costs incurred by HUP and other teaching hospitals in establishing and operating residency programs (approximately 28% of these costs, according to the Association of American Medical Colleges). In addition, Medicare helps pay for the indirect costs incurred by teaching hospitals that participate in the Medicare program. This reimbursement for indirect costs is based on a formula which, under the Medicare prospective payment system, considers the ratio of residents to beds in teaching hospitals. This resident-to-bed factor was established by Congress as a proxy for severity of hospital case load and to compensate teaching hospitals for their higher cost of Medicare service.

Last year, both the House and the Senate adopted budget reconciliation measures that would limit the growth of Medicare costs. Although that legislation remains under consideration by House-Senate conferees, it will, when enacted, have a considerable impact on physician training and medical care. The five-year limitation for payment for postgraduate training, for example, would increase hospital and medical school costs of training for such subspecialties as thoracic surgery and neurosurgery. This limitation, and the reduction in the indirect cost adjustment upon which the conferees have agreed, would increase the portion of care and training covered by HUP by $4.7 million in FY 87. This loss would be partially offset by a "disproportionate share" adjustment for hospitals, like HUP, that serve a substantial proportion of medically needy patients.

The Administration's budget proposals for Medicare would further erode the ability of HUP and other urban teaching hospitals that serve the poor and medically needy to continue to provide such service. Under the provisions of the Gramm-Rudman amendment, Medicare prospective payment to hospitals is likely to remain at present levels through FY 1987, with an increased cost for HUP of $1.4 million. Administration proposals to reduce the indirect medical education adjustment by an additional 25% would increase the portion of residency training carried by the hospital by $2.2 million *more* than would Congress' reconciliation plan. Furthermore, the Administration plan would not provide for a "disproportionate share" adjustment to partially offset these losses. The Administration also proposes to phase capital costs of all hospitals into the Medicare prospective payment system. Such a proposal, made without regard to urban or regional cost or case mix differences, represents unwise Federal policy. These prospective actions by the Administration would pose an added economic burden on HUP that will strain its ability to afford care to all patients, regardless of economic circumstance. In 1985, while serving over 13,000 patients covered by Medicare or Medicaid (47% of its case load), HUP provided $16.4 million in free, uncompensated care to needy patients not covered by private or government medical insurance.

Tax Policy

Since 1917, it has been a fundamental tenet of Federal policy that donations made to charitable institutions are deductible, for tax purposes, from the income of the donor. The charitable deduction is a mechanism unique to the United States, an incentive which promotes the giving of private income for public purposes. Generations of students and researchers at Penn have benefited immensely from this Federal policy of encouraging private voluntary support. In 1984 alone, Penn received more than $80 million in private contributions, ranking ninth among the nation's universities. These donations enable the University to provide institutional financial aid to undergraduate and graduate students, undertake new research initiatives, recruit and retain faculty, and develop facilities necessary to enhancing the quality of life at a residential urban university.

The 99th Congress is deeply involved in discussions about how to simplify the tax code and make it more equitable. We at Penn recognize the virtue of efforts toward simplification and equity, efforts intended to promote important national economic objectives. Yet we would be remiss if we did not identify actions and proposals that might seriously impede our mission of teaching and research, and that are contrary to the objectives of Federal tax policy since 1917—to enhance private initiative and choice.

A. Charitable Giving: We are especially concerned that Congress, in its continued deliberations on tax policy, may restrict incentives to make gifts to Penn and thereby compromise our ability to meet our mission.

The tax legislation passed last year by the House, H.R. 3838, would substantially limit the deductibilty of gifts of appreciated assets for many taxpayers subject to the alternative minimum tax. Last year, Penn received more than $3.5 million in gifts of property—securities and real property—representing 15% of all giving by individuals, from persons we believe might be subject to such a tax. Such donations are being used to endow professorships and academic programs, and to support construction and renovation projects. An alternative minimum tax that includes appreciation of donated assets as an offset to other tax preference items is likely to reduce the willingness of donors who might plan to make large donations to actually make such gifts. Such potential donors might either keep these assets, or sell them, rather than donate them for charitable purposes. Indeed, under current law, the taxpayer who makes such a gift will be worse off, after tax, after making the gift, than if he or she kept the asset or sold it and paid capital gains tax.

Current law treatment of charitable gifts of assets should be maintained. Certainly, continuing current law would not compromise the purpose or effectiveness of the alternative minimum tax. Because annual deductibility for gifts of appreciated property is limited to 30% of adjusted gross income annually, no high income taxpayer can reduce taxable income to zero solely due to such a charitable donation. Furthermore, substantial reduction of the full deductibility of gifts of property is both costly for charities and economically inefficient for the Federal government; it is estimated that this provision of HR 3838 will reduce giving by approximately $560 million annually, while increasing revenues by only $330 million. Therefore, for every additional dollar gained by the Treasury, charitable institutions would lose $1.70 in gifts.

Neither fairness nor simplicity is served by the proposal to include gifts of appreciated property in the alternative minimum tax. Many of the resources that would otherwise be transferred to the nonprofit sector for meeting public purposes—education, health care, social services—would likely remain in private hands. Given the reduced incentives for charitable giving that will attend the reduction in marginal tax rates, and the potential reductions in direct Federal support for student aid and research, restricting the ability of institutions like Penn to attract major leadership gifts would be extremely shortsighted policy.

B. Financing of Facilities and Equipment: As described earlier, in order to meet its mission of teaching and research and maintain an environment conducive to a strong academic enterprise, Penn requires support not only of its human, but also of its physical capital, its plant and facilities. As a charitable institution with an excellent credit rating, we have been fortunate in securing low-cost tax-exempt financing to meet purposes such as development of an intra-campus computer network for academic and administrative purposes; construction of a new clinical sciences building; renovation of antiquated student residences; and rehabilitation of the School of Engineering and Applied Science.

HR 3838, however, would substantially restrict the ability of Penn and many other research universities to engage in necessary tax-exempt financing of facilities. That legislation would establish a per capita annual state volume ceiling for "nongovernmental" bonds, with section 501(c)(3) organizations subject to a sub-cap under the volume ceiling. For Pennsylvania, the sub-cap would limit 501(c)(3)'s to a maximum of $300 million in annual bonding authority. In 1984, Pennsylvania 501(c)(3)'s had $782 million in tax-exempt financings issued on their behalf.

HR 3838 also imposes an additional indebtedness cap of $150 million on all tax-exempt organizations except hospitals. Under this provision, HUP could still undertake tax-exempt bonding within the general per capita ceiling for 501(c)(3)'s, but the rest of the University, with aggregate debt exceeding $150 million, could not. Not only does this provision discriminate against larger institutions with substantial facilities needs, but it also will harm smaller colleges which frequently pool their tax-exempt issuances with those of more creditworthy institutions in order to secure more favorable financing terms.

These provisions would eliminate Penn's ability to maintain and modernize our facilities through the tax-exempt market. Moreover, HR 3838 creates an arbitrary and irrational distinction between the facilities needs of public and private institutions. A laboratory at Penn State, for example, could be financed through this mechanism, but not an identical lab at Penn. A reasonable alternative to making this distinction as to whether the user of the proceeds from a tax-exempt financing is a governmental or "nongovernmental" entity would be to consider the *function* of the user. If the user is a 501(c)(3) tax-exempt entity, it must by definition serve a public purpose. Therefore, tax-exempt entities, particularly those engaged in education and health care, should be accorded the same status in tax-exempt financing of facilities as government entities that perform equivalent functions.

C. Employee Retirement Plans: HR 3838 would also affect the retirement programs of Penn and virtually all other colleges and universities significantly and adversely: the bill would raise retirement program costs and reduce the flexibility currently available to Penn and other institutions to design and implement retirement programs that suit the needs of a wide range of faculty and staff. In addition, it would limit the ability of many participants, particularly long-term faculty, to accumulate and use retirement funds.

In particular, the bill fails to distinguish between the *basic* tax-deferred annuity plans that comprise the principal retirement programs of colleges and universities and supplemental deferred compensation plans that frequently characterize savings programs in private industry. Substantial distinctions between the labor market needs and compensation structures of higher education and those of private industry also require differential treatment of their respective plans. Not least of these differences is the highly compressed salary structure of a university in comparison to that of a private sector enterprise. Congress has historically recognized the patterns of employment, compensation, and retirement in higher education to be unique, and has accordingly developed Federal retirement policies to accomodate these distinctions. It should contiue to do so.

D. Treatment of Scholarship and Fellowship Support: HR 3838 would include scholarship and fellowship awards to students and faculty as part of gross income, except to the extent that grants are spent for tuition and equipment. Students would thus be taxed on scholarship funds, including Federal student aid, used to meet room and board and other living expenses. Although increased personal exemptions and higher zero bracket amounts may mitigate the effects of this provision on most students, those who work while in school or have working spouses, particularly graduate students, are likely to be affected. As most students do not have substantial incomes, and as much scholarship and fellowship support is based on financial need, such a modification of tax policy is likely to be an additional financial disincentive to students who might otherwise wish to pursue careers in research or teaching.

Second, the proposal to tax scholarships and fellowships is contrary to two recently reinforced tenets of Federal research policy: to promote research by young, highly talented faculty and to encourage private sector support of research. By taxing Federal fellowships such as the new Presidential Young Investigator Awards (Penn scholars received six of these prestigious awards last year), Congress would diminish both their financial value and the importance of nurturing young scientific talent as a national priority. Second, taxation of private awards such as the Sloan and Guggenheim fellowships for faculty would likely result in the reduction of the number of awards made in order to provide sufficient support to each recipient. This element would clearly reduce the breadth of support for research from a critical element in such support, the charitable foundations.

E. Expired Provisions: Notwithstanding these concerns with structural changes in the tax system, we are also deeply interested in three provisions of the current tax code that expired at the end of 1985. We are pleased to note that each of these provisions has been incorporated into HR 3838, but suggest that prompt adoption of separate legislation addressing these specific issues would eliminate confusion as to their status.

First, we support making permanent the non-taxable treatment of tuition remission provided to graduate teaching and research assistants at America's universities. If an extension of this expiring provision is not enacted, more than 600 graduate assistants at Penn would find the tuition payments made by the University on their behalf subject to tax. Such nontaxable tuition payments are essential for these students, most of whom plan to embark on teaching or research careers in academic fields that are not likely to be highly renumerative.

Second, we support the provision that will enable employers to provide non-taxable educational assistance to their employees, subject to the current $5000 limitation on such non-taxable assistance. Seven of the ten Fortune 500 companies in the Philadelphia area now offer educational assistance programs for their employees, in the hope that employees will acquire skills and knowledge which will enhance job mobility and career advancement. Penn's College of General Studies has developed an innovative program with CIGNA Corporation, enabling 150 clerical and operations employees to pursue a full academic program, leading to a bachelor's degree, at the work site. The tax code has helped to make such programs feasible for employees by removing economic disincentives to participation in education programs.

Third, the university portion of the research and development tax credit, which has encouraged corporate sponsorship of basic research at Penn and other universities, should be extended and enhanced. At a time when our nation is deeply concerned with our economic and technological competitiveness over the short and the long-term, the R&D credit, enacted in 1981, has helped promote investment in innovation and technology. We believe that it is in the national interest to make each of these expired provisions a permanent part of the Internal Revenue Code.