No nation has ever been so actively committed to universal schooling as are the people of the United States. But what is the system for? What ends does it serve? That it gives opportunity to many who would otherwise lack it is undeniable. [But] if our public school system merely turns out efficient industrial fodder and citizenship as other schools in other nations have efficiently turned out cannon fodder, it is not helping to solve the problem of a distinctive American culture. That which prevents the schools from doing their educational work freely is precisely the pressure—for the most part indirect, to be sure—of domination by the money motif of our economic regime.

—John Dewey

If he were around today, John Dewey would drop the qualification “indirect.” To the long familiar military-industrial complex a fraternal twin has been added: an academic-industrial complex through which American and multinational corporations siphon the publicly created resources of our universities and thereby convert publicly financed research into private gain. America’s largest corporations are harvesting intellectual and scientific capital built up over many years, a harvest bought and paid for by the U.S. taxpayer. We are witnessing a mammoth transfer of...
We are witnessing a mammoth transfer of invaluable public resources to private corporate balance sheets.

Invaluable public resources to private corporate balance sheets.

Novel business arrangements between industry and universities are proliferating at previously unheard of rates. University scientists are leaving their departments to set up their own companies. Others are sitting on newly founded company boards while retaining their university posts—or acting as consultants while trying to teach and do university-based research at the same time. Meanwhile, university administrators are themselves in hot pursuit of partnerships with major pharmaceutical, chemical, microelectronic, and biotechnical companies. Out of these partnerships are emerging academic “institutes” that are removed only theoretically from their corporate godfathers.

At Stanford's new Center for Integrated Systems, the executives and scientists of 17 different companies will be permitted direct access to university scientists and students. For an “entry fee” of approximately $750,000, these companies effectively "buy" university personnel and basic researchers.

Corporations are investing close to $235 million in university-based research and development—only 4 percent of the total national R&D investment. But for that small investment, corporations have won control of technologies that will generate profits in the billions. Genetic engineering alone will produce a market of $40 billion by the year 2000.

The federal government, which foots 66 percent of the nation’s R&D bill, has cultivated these new ties between industry and university. The result has been a growing series of agreements—first between universities and companies negotiating face-to-face, more recently through a variety of mediating mechanisms—designed to obscure the impact of corporate intrusion into the academy.

The Washington University and Monsanto have established, for instance, an internal (to the university) granting agency that now receives applications from six departments and eventually will receive applications from the entire medical school. The contract specifies that 70 percent of the funds awarded will go to projects of commercial utility and creates a disbursing agency controlled by four university scientists and four Monsanto scientists. This arrangement gives Monsanto effective control over research topics. Four university scientists, after all, are hardly likely to reject research funding that targets 30 percent of the grant towards basic science research in their departments.

It is the scale and intensity of the new arrangements that disturb.
The profit motive now dominates the consciousness of professors and students alike.

We have known for a long time that university boards are overwhelmingly packed with corporate administrators. The traffic between universities and corporations has been intimate for generations. But the increased quantity of such exchanges has produced a qualitative change in the relationship. When university researchers are consultants en bloc, when funds are specifically tied to the generation of commercially useful products, and when corporate scientists effectively choose the topics of research for university scientists, we have reached an entirely new level of corporate control. The profit motive now dominates the consciousness of professors and students alike.

Meanwhile, the impetus generated by the stunning rapidity of new developments creates a craving to test new products immediately. This lust denies to everyone involved—the public, politically responsible oversight committees, and scientists themselves—the time necessary for reflection upon and consideration of possible hazards and consequences. Public interest groups have had to race toward litigation to prevent imprudent testing.

There has been remarkably little criticism of the novel arrangements between universities and industry, in part because of the imprudence just cited, in part because the difficult-to-detect nature of the underlying problems, in part because of the sophistry with which company and university officials beguile the public. The new industrial-academic ties, these officials promise, will provide a painless high-tech panacea that will transform environmentally untidy smokestack industries into cleaner, less hazardous, and ecologically benign enterprises.

Simultaneously, we are charmed by appeals to our patriotism. “We are entering a period of intense economic and military competition,” says Edward David, Jr., of Exxon, “and the nation [has] much to gain if academic research can reinforce our industrial innovation system.” This subversion of an independent ethical perspective in the universities is reinforced by a circumstance that has received scant analysis. Universities, like industrial companies, are corporations that require labor and capital to operate. But until now they have had no tangible product. This has all been changed by a new patenting law that essentially makes business the university’s business. The 1980 University-Small Business Patent Policy Act vests patents for university-based inventions in the university and encourages universities to grant exclusive licenses to private corporations. Exclusive
Corporate access to the research heart of universities amounts to a giveaway of taxpayer equities.

Licenses effectively make the university a partner in profit-making corporate enterprises. Exclusive licenses also tend to raise the prices of products generated by university-based invention by denying information to competitors.

With the new Patent Act, universities can now set up their own business ventures. And even where they merely participate in consortia with profit-oriented firms, they will find it difficult to exclude the profit motive from internal staffing, promotion, and tenure policies. Despite protestations to the contrary, the intrusion of the profit motive into the heart of the university may be as destructive of the spirit of freedom and independence as selling pardons and indulgences was to the integrity of the medieval church.

From the university's perspective, there is ample incentive to join in these new for-profit arrangements. The federal government is pursuing a deliberate policy of shrinking non-defense related university-based research. With a starvation or steady-state diet of federally funded R&D, the universities naturally turn to private industry for support.

But what's in it for the companies? In a word, a bargain. For a small investment, corporations gain direct access to the research-heart of the university. These research capabilities are, of course, built with federal tax dollars, in public and private universities alike. Corporate access to these resources amounts to a giveaway of taxpayer equities—modern taxation without representation.

This process has accelerated under the Reagan Administration. The Administration is widening the tax loopholes already exploited by corporations through the 1981 Recovery Tax Act (P.L. 97-34). This Act includes several provisions aimed at stimulating increased industry support for academic research and development:

- an increase in charitable deductions for research and training in the physical and biological sciences. A manufacturer who donates equipment can deduct the equipment's cost plus one-half the difference between the cost and fair market value.
- a change in regulations that allows corporate taxpayers to depreciate research equipment over three years instead of five.
- a 25 percent tax credit for incremental increases in industry R&D expenses over historic R&D expense levels. This credit covers direct in-house industry expenses (wages, supplies, and payments for leased equipment), contributions to qualified research funds, and research
This new corporate dominance represents an unprecedented intrusion into the heart of academic freedom.

contracted out. The credit does not apply to research in the social sciences and humanities.

This tax credit, according to a recent study by Edwin Mansfield of the University of Pennsylvania, has generated a substantial tax break for business but very little R&D. In 1981 and 1982, the first two years the tax credit was in effect, R&D spending jumped 0.3 and 1.0 percent. Each dollar of increased corporate R&D spending costs the federal treasury between three and six dollars in lost corporate taxes.

The public, in effect, pays three times: first for basic research (federal tax dollars), second for the material requirements of that research (through tax credits for plant, wages, and equipment), and lastly for the product plus profit once it reaches the so-called “free” market.

In this new R&D atmosphere, the very meaning of academic freedom is changed. Traditional safeguards of academic freedom no longer apply. For example, the new private, for-profit Whitehead Institute at M.I.T. can hire new professors directly without biology department participation in the process. These professors receive automatic appointment in the University.

The present biology department at M.I.T. was first gutted to supply staff to Whitehead, the vacated posts to be refilled by the biology department's normal hiring procedures. But, at this writing, those procedures remain inoperative. In effect, personnel decisions in the biology department of one of this nation's greatest publicly built and publicly supported research institutions are largely controlled by a private, for-profit corporation. This dominance represents an unprecedented intrusion into the heart of academic freedom—the hiring process—and an unprecedented giveaway of a public resource.

Given this climate of contempt—contempt for both traditional academic values and traditional democratic values—what is to be done? Are the critics of the corporate "new deal" to be confined to sterile carping?

To begin with, we must fashion a federal budget that respects the importance of the social and economic sciences. These are now running 50 percent below their 1980 levels. This funding trend threatens to deaden consciousness of all social objectives other than the corporate.

We must also see to it that the rights of the public are restored to patents paid for by federal funding. The usurpation of the public right to these patents is an important step in the movement to redirect research priorities and to make academia a junior partner in the corporate production process.
The pace and direction of technological change must be controlled by the public. The federal government is the only agent capable of performing this task in the public interest.

Finally, we must avoid the social misery brought upon us by reliance on the wisdom of the unregulated market in the name of corporate profits. We must urge that the United States seek some path to industrial democracy. The corporate version of "free enterprise" produces militarization to protect its profits, deregulation to maximize them, and alienation to keep our productive workers glued to their TV screens and whatever else will pass in this decade for bread and circuses. It also escapes accountability and so smother its critics.

Our colleges and universities cannot survive the theft of their capacity to criticize. Democratic institutions are fed and maintained by the free flow of information and critique that emanates from them, and both the public and the government require their independent perspective. Without articulate and independent alternatives to the corporate worldview, the public and government must choose blindly, trusting the information and diagnosis offered by corporations who are by their very nature self-interested. Corporations operate solely on the basis of one criterion—their own profit—and they cannot be trusted to judge the common profit.

It is imperative that we maintain (or restore) the independence of our universities and remove from them the temptation of corporate largesse. It is essential to affirm and reaffirm the value of an independent critique of the corporate elite. Within the university that affirmation amounts to a protection of academic freedom for those who most need it—the critics of the status quo. Tacitus long ago observed of the Romans that "they made a desert and called it peace." We risk a similar outcome if we fail to protect our universities from incorporation.

**AUTHOR'S POSTSCRIPT**

Since the first issue of Thought and Action laid bare the nature of the corporate invasion of the academy and warned about the consequences of this invasion, there have been unnumbered cases of scientific fraud and misconduct, a general decline in academic civility and ethics, and coordinated attacks on academic integrity and intellectual property.

University governing boards have been packed with conservatives attempting to usurp faculty authority over curriculum, while at the same time university administrators have moved aggressively to undermine faculty rights to intellectual property.

David Noble, in Digital Diploma Mills, has recently exposed corporate university partnerships that assert university ownership of course outlines, lecture notes, and E-mail exchanges with students. Lab directors now routinely assert their ownership of the intellectual property of junior faculty and graduate students, in some instances removing their names from patent applications. All the while, the suppression of intellectual dissent and whistleblowers continues.

The progress made by "corporatization" since the early 1980s is alarming. To preserve the academy, faculty across the nation must respond to this trend by developing a broad and coordinated strategy of resistance.