

*G. L. ...*

N.Y. Times  
Dec. 13, 1976, p. 23

## Academics at Meeting in Capital Voice Resentment Over Federal Regulation of Higher Education

By GENE I. MAEROFF  
Special to The New York Times

WASHINGTON, Dec. 12—The simmering resentment in the academic community over the growth of Federal regulation of higher education boiled over at a two-day conference at George Washington University that ended yesterday.

Federal officials were strongly criticized by college professors and administrators for the costs in money, time and effort of having to comply with an expanding list of Government requirements. There were many suggestions, though there was little documentation, that the growing Federal role represented an infringement of academic freedom.

But the conference also was marked by a vigorous defense of the Federal position by two Government officials who challenged the idea that higher education should be immune from regulations similar to those imposed on business and other institutions.

"What is not correct and what I have heard in the pronouncements of university presidents," said Robert H. Bork, the Solicitor General of the United States, "is the thought that the Federal Government makes a unique kind of error when it undertakes to regulate universities, or that universities are so different and more subtly complex than other institutions that regulation is bound to be uniquely destructive when applied to them.

"None of these things are true," said Mr. Bork, a former law professor at Yale University.

Martin Gerry, the director of the Office for Civil Rights of the Department of Health, Education and Welfare, main-

tained that his agency had a necessary concern in protecting the rights of women and members of minorities, people "who have been classically excluded from universities."

The conference was entitled "The University and the State: The Proper Role of Government in Higher Education." However, many of the discussions repeatedly gravitated toward one particular aspect of Federal intervention, affirmative action.

The sponsoring organization, the University Centers for Rational Alternatives, has helped lead the opposition to the Government's system of targets and goals for adding more women, blacks and other minority members to the faculties of higher educational institutions.

Spokesmen for the group call the targets and goals "quotas" and allege that such an approach is "reverse discrimination."

One panelist, Dr. Kenneth S. Tollett, spurred a caustic exchange of opinions by his remarks on this issue.

"We are very much disturbed by those who seem to be disturbed by what the Federal Government is doing in higher education," said Dr. Tollett, director of the Institute for the Study of Educational Policy at Howard University. "We're not sure they are upset by the red tape or disturbed by the support and advancement that the Federal Government has brought for blacks in higher education."

### Question of Racism Raised

Members of the audience objecting to Dr. Tollett's comments charged that he unfairly raised the specter of racism.

Beyond the question of affirmative action, there was hardly any specific men-

tion by the critics of how they thought the Federal Government was infringing on academic freedom.

The concrete examples of the effect of Federal intervention revolved around financial matters.

Institutions of higher education have had to add staff members and spend greater sums of money to deal with the increasing number of forms that must be filled out to comply with regulations that are similar to those imposed on business and industry.

Rules covering occupational safety, welfare, retirement programs, equality of opportunity and other aspects of employee relations have been involved.

"I would estimate that Columbia University spends easily in excess of \$1 million each year in meeting its various Federal reporting obligations," said Dr.

A recent study by the American Council on Education found that the average in-William J. McGill, Columbia's president, stitution of higher education spent just under 1 percent of its total budget to meet the paperwork requirements of the Federal Government.

In return, the nation's colleges and universities are receiving the benefit of \$15 billion a year in Federal assistance, according to Chester E. Finn Jr., a researcher for the Brookings Institution, who spoke at the conference.

"Authority is deeply resented in any form," Solicitor General Bork told the conference. But he added, "There is a pleasure which is nonetheless real, even if perverse, in seeing elitist institutions scream when the remedies they have prescribed for others are applied to them."

Wash. Star  
Dec. 11, 1976, Op-Ed

**John P. Roche**

## Affirmative action: every legitimate break

Previously I suggested that the goal of "affirmative action" programs cannot be a quick fix.

Problems that have been ignored for decades, if not centuries, cannot be remedied by ignoring their bases. Requiring schools to admit a quota of the "unqualified" is, in fact, a cheap way of ducking the structural issue: enlarging the pool of qualified applicants.

Once this has been accomplished — and we have been moving towards it more rapidly than many realize — another question comes up: Assuming there are three candidates, equally qualified, for an opening in graduate or professional school, or an academic post, is it legitimate to choose the woman or the black in preference to the white male?

My answer to this, one on which I have acted over the years, is, "Of course."

First, it seems to me thoroughly in keeping with the American tradition that accords certain benefits on the basis of experience. Veterans, for example, have been given certain breaks over non-veterans though most were drafted and never fired a shot. There is no reason why women or members of minority groups should not — assuming full qualifications — go to the head of the line.

Second, I believe this sort of affirmative action is important in developing diversity, a particularly significant value in the educational context. I suspect one of the reasons I got my first job as an instructor at Haverford College grew from such an unarticulated

form of affirmative action.

I became vaguely aware of this possibility when, in the fall of 1949, the political science departments at Haverford, Swarthmore and Bryn Mawr held a joint dinner. I felt a bit like a cat at a dog show. All evening the discussion centered on "Carl," "Bill," "Arthur" and other luminaries of the Harvard government department. I appeared to be the only person present who had not received his doctorate on the Charles!

In short, it seems to me essential to a healthy educational environment that all the peas don't come from the same pod. This applies even more forcefully to women against whom discrimination has (with rare exceptions) been utterly irrational.

Thirty years ago, for example, women who at-

tended law school were expected to go forth in the world and be — law librarians! If you suggested a woman to a big firm (on the sound basis she topped her class) there would be a profound silence — after all, she might get married, have children and generally destroy the firm's morale. Universities, with even less justification, followed much the same pattern.

To summarize, as one whose whole career was founded on an affirmative action program, I am not going to abandon the concept because some idiots have diverted the concept from its proper course.

The Supreme Court should sustain the California ruling outlawing reverse discrimination by quotas. For a university, of all places, to enshrine such anti-intellectual nonsense is

bad enough, but even worse are the rulings by various government agencies that, while on their face repudiating quotas, demand body counts.

At the same time that I repudiate what Nathan Glazer has called "affirmative discrimination," I insist that, on the level of common sense, every legitimate break be given to qualified women, blacks or members of other historically disadvantaged groups.

We are, after all, a national community with roots in the past and, although I refuse to feel guilty for sins I have never committed, I am quite willing to take exceptional action to cope with the consequences of past discrimination. It's not just that we owe it to "them"; we owe it to ourselves.

*file with [unclear]*

Wall Street Jour.  
Dec. 8, 1976, p. 46

## Red Tape in Academe

# Universities See Their Autonomy Slipping Away Due to U.S. Rules on Bias, Pensions and Privacy

By JONATHAN SHIVAK

Staff Reporter of THE WALL STREET JOURNAL

The unwanted intrusion of Washington bureaucrats is a familiar grumble of conservative businessmen. But now these same complaints are coming from an unexpected quarter: the often-liberal presidents of American universities.

Listen, for example, to Derek Bok of Harvard: "Government should not penalize you legislatively without giving you a chance to state your case." Or Kingman Brewster, of Yale: "The mere fact that the cause is a good one does not mean it justifies bypassing the Constitution."

The reason for these complaints is the belief that the government is engulfing the universities in bureaucratic rules and regulations which are costly to implement and which challenge the universities' autonomy. Once, these same educators were allies of Washington. Now they feel bitter and estranged by the demands imposed by such requirements as occupational health and safety standards, bans on discrimination in hiring, and new pension and privacy laws.

The costs of compliance can be painful. The American Council on Education, which represents most of the nation's colleges and universities, has found that compliance with a dozen federal programs costs \$9 million to \$10 million a year at six representative schools, and consumes 1% to 4% of operating budgets.

### Linking Dollars to Demands

The government can impose its will because the universities depend on federal aid, and many of the demands are linked to the receipt of government dollars. Federal support for higher education totals \$2.6 billion a year, up from \$338 million a decade ago. Most major universities get about one-third of their income from the federal government; the University of California, for example, receives \$275 million a year for its nine campuses. Ironically, the institutions are crying out for more federal money even as they protest federal controls.

Certainly these controls are far-reaching. An amendment to an education law, designed to protect students' privacy for example, makes it difficult for schools to publish complete student directories because any student can insist that his presence at a university not be disclosed publicly. And before Congress recently softened the amendment, the institutions couldn't legally reveal grades to students' parents.

Yale's Mr. Brewster sees a particular hazard in the recently enacted health manpower law which requires U.S. medical schools, all of which are government-aided, to accept all American students who have completed part of their education at foreign medical schools. This, he fears, sets a precedent for federal control of university admission policies generally. For this reason, some medical schools are considering avoiding the requirements by refusing all federal aid.

The schools' bill for federal health and safety requirements is estimated to be \$3 billion. The rules dictate such things as the height of safety railings; one school complains it had to paint its fire extinguishers red; another had to outfit science students with goggles.

At Harvard, an unofficial study estimates that nondiscrimination requirements have raised the university's cost of hiring a fac-

ulty member by at least \$6,800, largely through added expenses for advertising, interviewing and processing of applications. For the same reason, Notre Dame claims it now spends an added \$2,000 a year in recruiting a woman faculty member and \$5,000 a year more in the case of a black professor.

The universities must process four similar forms for each student who seeks a federally insured loan to finance tuition. They claim that the government fails to reimburse them fully for this paperwork. Harvard complains that meeting the reporting and other requirements of the new federal pension law costs \$500,000, without any improvement in employees' coverage.

Accusations of unnecessary federal interference came not only from powerful private institutions, such as Harvard, but also from the big state universities and small liberal arts schools. The complaints have won a sympathetic hearing in Washington, particularly from David Mathews, Secretary of Health, Education & Welfare, who is the former president of the University of Alabama, a post to which he will shortly be returning. "If we make the universities the home for people who are more adept at dealing with forms than ideas, we have corrupted the institutions in such a way that they have very little hope of doing what society wants them to," he says.

### An Effort to Cut Red Tape

With the backing of President Ford, Mr. Mathews is leading a government effort to reduce red tape and to lessen the regulation of universities. President-elect Jimmy Carter is expected to pursue the same goal.

An advisory committee, headed by Joseph Sutton, vice president of the University of Alabama, has offered 16 recommendations to ease the universities' burden. Among the proposals: reimbursing the universities for the cost of complying with federal regulations, and consolidating the sometimes conflicting civil rights enforcement activities of three government agencies.

The universities have their own ideas for dealing with the government. The Council on Education wants to be consulted on federal educational regulations before they are issued in final form. Influential university leaders, like President Bok of Harvard, urge fellow-educators to make their case to Congress before it can impose new burdens on them.

They can claim some success in swaying Congress. The Higher Education Act passed this year, gives the institutions an extra \$10 for each government grant or loan to students, and raises to 4% from 3% the share allowed them for processing the applications. The universities persuaded lawmakers not to discourage charitable contributions in this year's Tax Revision Act, and they stopped the Postal Service from raising rates on college catalogs.

Not everyone in academia is critical of Washington, however. Some educational leaders praise the government for imposing needed national goals, such as non-discrimination, which they feel the universities were late in recognizing and lethargic in pursuing. "In a sense, the universities brought this on themselves," contends Jean Mayer, the new president of Tufts University.

### Two Schools Defy Government

"I'm not much impressed by the argument that the federal government is about to suffocate higher education; on the contrary, I want more federal legislation and support," Robert Wood, president of the University of Massachusetts, said recently in a letter to an education magazine.

Still, two schools have openly defied the government, Hillsdale College in Hillsdale, Mich., and Brigham Young University in Provo, Utah. They are challenging the HEW Department's regulations against sex discrimination on political or religious grounds. Brigham Young, a Mormon institution, claims that government rules forbidding discrimination against women who have abortions conflict with its own code of sexual morality.

Yale's Kingman Brewster has taken the lead in expressing academia's broad objections to Washington's demands. A former law professor, Mr. Brewster perceives a real constitutional threat in the government's willingness to attach conditions to its support of higher education to achieve other social purposes. He says: "I think one of the real dangers is the ease with which the Congress can attach any damn condition to the grant or contract, which is wholly contrary to the notion of a government of limited powers."

Clearly, the universities' standing on Capitol Hill has sagged from the peak it reached in the mid-1960s. Legislators have been angered by the steady rise in tuition costs, what they see as an arrogant "we can do no wrong" attitude among some academics, and the opposition of many universities to federal aid to individual students rather than to the institutions themselves. "We don't have any heroes left to help us," frets one university official.

### Uncle Sam as a Cop

As a result, increasing government requirements are installing Uncle Sam as a cop on the campus and are giving fits to university administrators. Among the particular causes of their complaints:

**DISCRIMINATION IN HIRING:** The move to increase hiring of minority faculty and women is probably the single most controversial federal undertaking on campus. It poses the threat of a cutoff of federal research and other grants if the institutions fail to take "affirmative action" to recruit more women, blacks and other minorities for faculty posts. Many university officials fear the cost and bureaucratic headaches of compliance outweigh the gains. They also claim non-discrimination requirements have lowered academic standards for minority students at some law, medical and other graduate schools as efforts have been made to develop potential faculty members.

**DISCRIMINATION BY SEX:** The Higher Education Act of 1972 bans all forms of sex discrimination on campus and has enveloped universities in a web of regulation. One immediate impact has been to open up athletic facilities to women and force higher spending on women's athletics. At Yale, the huge Payne Whitney gym is now used by women as well as men, and in the last year the university's outlays for women's sports have increased to \$500,000 from \$300,000 annually.

**DISCRIMINATION AGAINST THE HANDICAPPED:** The Vocational Rehabilitation Act of 1973 bans discrimination against the mentally and physically handicapped in federally aided programs. It's likely to be a big sleeper. Recently issued HEW regulations extend the definition of handicapped to millions of the mentally ill, alcoholics and drug addicts, and require that handicapped students be given equal access to educational opportunities. The universities complain that the cost of modifying buildings for the physically handicapped will be immense. They want to pool resources and provide access for the handicapped on a regional basis only, but so far HEW officials have said no.

**PRIVACY PROTECTION:** The Privacy Act gives students the right to read information on them in university files, such as instructors' evaluations and records of disciplinary action, and to control its disclosure to third parties. Some professors complain that these requirements will deter them from candid evaluations, making letters of recommendation useless. In any event, it's not a fit area for federal intervention, some say. "The more you bureaucratize our lives... you have constrained relations between students and professors," argues Harvard's counsel, Daniel Steiner.

### Mothers

cont. from page 1

Sandra Sanford, a supervisor of single-parent services in Prince George's County, has worked with scores of pregnant teenagers, and while she finds that ignorance of contraceptive techniques a part of the problem, a much more important aspect is ignorance of what parental responsibility entails.

Sanford believes that a large number of young girls, "consciously or unconsciously get pregnant to satisfy their own need for love." They may come from families where their own emotional needs are not met and may think of a baby as someone who will give them unquestioningly the love they crave, she said.

"They don't seem to understand that the baby will grow up, that it will have physical and emotional needs they may not know how to meet. Many of them seem to think of a baby almost like a doll.

"Many times, after about a year, the grandmother will be taking care of the baby, while the mother returns to school. When that happens, the mother may find herself more in the role of a sister to her own child, and the mother may resent it to the point where she will go and get pregnant again"—like getting a new doll.

Sanford says that many of the girls she counsels either get pregnant or decide to keep their babies once they are accidentally pregnant for a hodgepodge of questionable reasons: They believe it will help them hold on to their boyfriends or that it will confer upon them certain adult privileges. "Some keep their babies for monetary reasons—\$89 a month if they are under 18 and living at home, \$156 if they are over 18."

Both she and Morse doubt that there are very many women who do it for the money, however. As Morse puts it, "If that old canard about having babies for the welfare check is true, then why are there so many Medicaid abortions? (Approximately 7,000 of the nearly 10,000

cont. on page 4

narrow black tube down the throat of a sedated but awake patient. He peered down the tube to examine a whitish-pink cavern splitting into two tunnels, the bronchi, that carry air to the lungs. A bundle of tiny glass

also enable doctors to examine organs previously accessible only through major exploratory surgery.

Fiber optic medical probes function much like tiny flashlights. Bundles of the

the touch of a button.

For some applications, the future is now. AT&T's research arm, Bell Telephone Laboratories, is testing a 144-fiber cable that could transmit 60,000 telephone calls

operate over its lifetime, engineers say.

# A patent search for technology trends

Latest study by U.S. Patent Office zeroes in on fields of active technology and high foreign interest. It also shows that costs of getting a patent in men and money are rising sharply

The table on p. 31 is a summary of chemical activities uncovered by the U.S. Patent and Trademark Office in its ambitious program of screening U.S. patents and reported in its "Technology Assessment & Forecast, Sixth Report."

The goal of the program is twofold:

- To isolate areas of high scientific activity, which presumably will be a prelude to major new commercial developments.

- To identify areas in which residents of foreign countries are receiving a disproportionately high share of U.S. patents. This may indicate that the U.S. research and development effort is lagging in those areas.

**Genesis of the Forecast:** Almost 4 million patents have been issued in the U.S. since the first one was granted on July 1, 1790. For classification purposes, the Patent Office divides all patents into more than 300 broad technological groupings (classes) and almost 90,000 specific technological categories (subclasses). The office, with considerable logic, considers this data bank a unique national resource. And to foster "use and useability," it has set up the Office of Technology Assessment and Forecast (OTAF).

For some time, the Patent Office has been intrigued with the possibility of using computerized scanning of files to spot patent trends. Five years ago, for example, it suggested that such a system might have given advance notice of key developments such as the Dutch approach to continuous welding and Sweden's development of tower cranes (*CW Washington Newsletter, July 21, 1971*). When it set up the new system (*CW, Apr. 5, 1972, p. 37*), the Patent Office said a trial run showed that the spate of patents on glassmaking could have presaged the use of float-glass.

**Proof of the Program:** Those test runs had, of course, the formidable advantage of hindsight. The proof of the program has to be its ability to forecast and project. And to that end, OTAF has been constantly refining its approach.

In its sixth report, for instance, it includes a number of two-page mini-reports. They give a brief description of the activity, a summary of recent trends and activity data. The latter consists of a tally

of U.S. patents for the years 1966 through 1975, broken down by country of origin and by year of grant and year of application. For the first time, data on patent applications from 1966 through 1973 are included, which, says OTAF, gives a more accurate reflection of activity.

In addition to the mini-reports, the latest study contains seven examiner reports prepared in greater depth by knowledgeable patent examiners. Three of direct interest to the chemical process industries are:

- **Catalytic mufflers.** In the 1966-1975 period, 236 patents issued on catalytic treatment of automotive exhausts and in 1966-1973 a total of 164 patent applications in the area ended up as U.S. patents.

The examiner, George O. Peters, traces the history of patents in the field, notes that additives to increase the stability of ceramics and active and corrosion-resistant alloys crop up frequently. He also points out that some recent patents have centered on catalysts that are more stable to the wide variety of operating conditions encountered in treating automotive exhaust or to compensating for such variations. He feels the major effort will continue to be to extend catalyst life and to develop materials that will better accommodate the wide range of temperature and operating conditions.

- **Algicides.** During the 1966-1975 period, 288 U.S. patents issued on algicide compositions; and in 1966-1973, there were 213 patent applications that resulted in issued patents.

Examiner Glennon H. Hollrah lists a variety of algicides categories and their mode of action. He reports that while a number of compounds possess broad-spectrum activity, usually several organisms are resistant to a single type. These resistant types may thrive while the others are being killed off, so the idea of using mixtures should come in for considerable research attention. Moreover, many of the combination being patented exhibit synergism and he feels that more work on synergism is in the cards. At the same time, he feels that work will continue on bringing out new and different algicide compositions.

- **Aminoglycoside antibiotics.** From 1966 through 1975, 151 U.S. patents were

granted on these compounds; and in 1966-1973, 124 applications resulted in issued patents. The category includes potent antibiotics such as streptomycin and neomycin. Original research effort aimed at isolating and purifying naturally occurring materials. Then structural modifications and synthesis of analogs proved rewarding.

More recently, says examiner Johnnie R. Brown, new analytical methods (such as thin-layer chromatography, mass spectrometry, X-ray analysis) have facilitated discovery of new natural compounds. He expects the future will see development of new, more effective aminoglycosides. He also thinks that refinements in isolation techniques (including gel and molecular-sieve chromatography) will permit more effective separations to obtain crystalline products. And that will facilitate structural determinations.

**Energy, Too:** In a separate section of the report, OTAF looks at energy technologies. The percentage growth rates between energy patents and those in the rest of the report are not comparable. In the energy section, the base period is the preceding decade, 1963-1972. In the earlier section of the report, the base is the entire body of patents that have issued in the subclasses.

Among the fields that could have a big impact on the CPI (with percentage growth in patents between 1973 and 1975):

- **Fuel from waste (31.1%).** The category includes equipment and processes for generating gas (e.g., methane), liquids (e.g., synthetic oil) and solids (e.g., logs and briquettes) from municipal, industrial and other wastes. Recent efforts are aimed at improving efficiency, increasing energy content and producing cleaner fuels.

- **Geothermal energy (46.6%).** In this category are methods of tapping geothermal energy and from temperature differentials in natural fluids (as in the sea). New work is aimed at increasing the efficiency and, in the case of hot brine, reducing the corrosive effect of the brine minerals on equipment.

- **Direct conversion of solar into mechanical energy (11.9%).** The methods generally employ a thermally expandible or vaporizable working fluid that

Chemical activities revealed by U.S. patent screening program

Five chemical technologies with high foreign ownership of U.S. patents

Technology	Focus	Average annual growth of U.S. patents issued (1973=1975)	Foreign ownership of U.S. patents issued (1973=1975)
Polypyridyls	Chlorinated bipyridines as pesticides; ultra-violet stabilizers for plastics; intermediates for dyes and pharmaceuticals	15.1%	79.6%
Axole derivatives	New optical brighteners for textiles; pharmaceuticals; antihalation agents in photography	5.5%	77.3%
Blast-furnace fuels	Use of liquids as fuel; production of blast-furnace gas; injecting fuel into the furnace	6.2%	76.9%
Pyrazolines and pyrazolidines	Pharmaceuticals; intermediates; optical brighteners; light-sensitive photographic agents	7.1%	72.7%
Fermentations	Nucleic acid derivatives for pharmaceuticals; L-glutamic acid seasoning agent; single-cell protein; penicillin precursors	6.1%	66.0%

Seven high-technology areas in chemistry

Photothermic compositions	Support film with a light-stable organic silver salt, light-sensitive silver halide, a reducing agent and a transparent polymeric binder. On exposure to light, the compositions develop a latent image that can be developed by heat alone	28.0%	32.3%
Plant growth retarders	Methods to control turf grass with minimal toxic side effects; to reduce lodging in cereal grains; and to stunt sugar cane growth to boost sugar concentrations	25.4%	30.9%
Catalytic mufflers	Single- and multistage oxidation-reduction employing monolithic ceramic supports as well as metallic or less porous supports	22.4%	35.3%
Tissue culturing	Methods to prolong red blood cells in storage; to treat blood cells in vitro to inhibit sickle-cell anemia; media and processes for culturing mammalian cells	22.2%	20.0%
Olefin disproportionation	New catalysts to improve the yield of ethylene and butene from dimerizing propylene	17.4%	24.2%
Algicides	A broad variety of compounds to control algae and the synergistic effects of mixtures	17.3%	15.0%
Aminoglycoside antibiotics	Structural modifications and isolation of new naturally occurring compounds with higher antibacterial activity or lower toxicity or both	16.3%	49.5%

heated by solar radiation. The pressurized fluid so produced drives a fluid motor. In one patent cited (3,287,901), solar energy heats a low-boiling substance (such as carbon dioxide) to a gas that drives a turbine.

**More for Less:** In another section, OTAF shows the increasing cost of obtaining a successful patent application in both manpower and money. It selected six industrial groups: food and kindred products; chemicals and allied products; fabricated metal products; machinery (except electrical); electrical and electronic machinery, equipment and supplies; measuring, analyzing and control instruments along with photographic, medical and optical goods and watches and clocks.

Results are revealing. For the six industrial groups, the number of patents per million dollars spent declined from 4.8 in 1965 to 3.3 in 1973. And the manpower necessary to obtain a patent application rose from 6.0 in 1965 to 7.9 in 1973.

For chemicals, the situation was somewhat better. In 1965 the number of successful patent applications was 5.3 per million dollar of R&D effort. In 1973 this dropped to 3.9. And in 1965 the manpower-to-patent application ratio was 5.1; in 1973 it rose to 7.4.

**Restricted Conclusion:** The data clearly indicate that for chemicals and other industries the personnel and money needed to obtain a patent is rising sharply. However, this does not necessar-

ily mean that R&D productivity is falling off. OTAF offers a number of explanations.

First, it is possible that the increasing complexity of technology makes it more difficult to find a patentable invention. Second, it is possible that the newer patents cover broader pieces of technology. A third possibility is that U.S. industry may have become less concerned with patents. And if that's the case, it would also explain the sharp increase in U.S. patents issued to foreign owners.

In short, the section on efforts needed to obtain a patent has to be assessed with considerable caution. But that is true of the entire report, which should be viewed as a long-range forecast that can provide a measure of guidance in planning.

## Toxic controls: maybe we'll get lucky

By the time you read these words, President Ford most likely will have signed the toxic substances control bill into law. It is academic now, of course, but we still feel this umbrella legislation is, in its present broad form, unneeded. (Interestingly, Allied Chemical was sentenced last week in connection with Kepone pollution under provisions of the Federal Refuse Act of 1899 and the Federal Water Pollution Control Act, as amended in 1972.) Still, we don't think toxic substances legislation of itself will topple the chemical industry. Several industry leaders have said it is a law they can live with. The Manufacturing Chemists Assn. has endorsed it. Typical of comments: it is "tough but workable."

In fact, among large chemical companies, only Dow Chemical continues to publicly object and question its need. Meanwhile, among small chemical companies, Fike Chemicals continues its worried protest.

Indeed, feisty Elmer Fike, president of the small Nitro, W. Va., firm, probably has sized up things as well as anyone. "Few really understand the bill and its implications," Fike recently told *CW's* environment editor, Irvin Schwartz (*CW*, Sept. 22, p. 13).

But we can conjecture. And we don't like some of the possibilities.

While Fike obviously has his own ax to grind (as do we all), his oft-repeated complaint that stringent toxic substances legislation will be harder on small companies than on large ones is plausible. To be sure, the bill as finally passed by Congress eases certain provisions where small firms are concerned (exemption, for example, from reporting requirements, lower fees). But in any serious contest with the government, larger companies almost certainly will fare better if only from the standpoint of staying power. The ultimate result could be a significant and unwelcome shift in composition of the industry and a lessening of competition.

Innovative potential, a hallmark of the chemical industry, may also suffer. For one thing, smaller companies have often been in the innovative vanguard. And even for larger companies, the increasing burdens associated with new-product development are bound to influence R&D budgets.

But the aspect of the pending law that troubles us the most is the arbitrary power over the industry, and therefore indirectly over every citizen, that it places in the hands of a single Washington agency. Environmental Protection Agency officials, we are told, insist this should not be a concern. "Don't worry," they say in effect. "We're reasonable people." And EPA Administrator Russell E. Train has promised a "go-slow" approach in enforcing the law (*CW*, Feb. 18, p. 12).

But can we count on EPA officials to

continue to be reasonable or for such reasonable people to be followed by equally reasonable successors? Recent pronouncements by Train himself might make one wonder. At last June's spring luncheon of the Drug, Chemical and Allied Trades Assn., Train came across as "firm but fair" (*CW*, June 30, p. 5). At the December 1975 meeting of the Chemical Specialties Manufacturers Assn., he seemed conciliatory (*CW*, Dec. 17, 1975, p. 5). But at the October 1975 meeting of the American Forestry Congress, he was urging environmentalists to "rally together to fight for the real essentials" (*CW*, Dec. 3, 1975, p. 5). And last February at the National Press Club, he described Americans as "often engaging in a grim game of chemical roulette," "without their knowledge or consent" (*CW*, Mar. 10, p. 5). The chemical industry could presumably live with the Train of June and December past. But what of the Train of October and February? And how about the Train of days to come or future EPA administrators?

In spite of some compromise in the industry's favor, the current bill still sets the administrator up with a great amount of arbitrary authority and broad latitude. If the industry is to live with toxic substances controls, it will apparently be largely at EPA's discretion and on its terms. We may get lucky. But then again, we may not.

Patrick P. McCurdy

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Murphy; San Francisco, Margaret Ralston Drossel;  
Washington, Robert E. Farrell.

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European Economic Correspondent, Axel Krause  
(based in Paris); Bonn, Robert Ingersoll; Brussels,  
James Smith; Buenos Aires, Ernest McCrary; Lon-  
don, James Trotter; Madrid, Jules Stewart; Milan,  
Andrew Heath; Moscow, Charles Peter Gall; Paris,

Michael Kolbenschlager; Singapore, Peter Rutledge;  
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cial private lines, commercial phone equipment and fancy Design Line telephones that A T & T introduced two years ago. If part of that business is lost to competitors, rates to home subscribers will have to go up. A T & T claims it subsidized home service to the tune of \$4.6 billion last year.

Opponents of the bill question Bell statistics. One public study in Massachusetts showed that Bell's local phone service was returning 26% on investment. The notion that home phones were subsidizing other services, instead of the other way around, was supported in a report last week by the FCC. Opponents of the bill also point out that in the company's third quarter (ending Aug. 31), A T & T earned \$1.01 billion, up 25% from the same period last year—the largest amount ever earned in a single quarter by a U.S. company.

**Industry United.** The bill has already gained the nominal backing of 16 sponsors in the Senate and 175 in the House. Also supporting it is the Communications Workers of America, whose members stand to lose jobs to foreign equipment makers. The independent phone companies back the bill because they receive substantial revenues from traffic over A T & T long lines. Some small companies get as much as 85% of their revenues that way. Says Jack E. Herington, chief lobbyist for the independents: "This is the only time the industry has been united on an issue."

Currently, the competition the bill seeks to eliminate is not big. Between them, the specialized communications carriers and the equipment makers had revenues last year of only \$178 million, v. Bell's \$28.9 billion. Clearly—although A T & T Chairman John D. deButts denies it—the bill is aimed at stifling newcomers to the lucrative communications markets of the future. Those potential billion-dollar markets are in such areas as facsimile communication, satellite transmission and computers that "talk" to each other over great distances. With its bill, the telephone establishment wants a guarantee that it will have the biggest slice of the action.

## CRIME

### Tobacco Road

Late one muggy afternoon last month, two men carrying bulging paper bags got out of a 1975 Mercury Marquis, walked up to a cigarette wholesaler's warehouse in Queens, pushed a bell above the steel door and were admitted. A few minutes later, another man rang the bell. "Whaddaya want?" he was asked over an intercom. "This is Jerry. I came to pick up the order," said the caller. "It's too late. I can't give you the stuff," said the voice, clicking off. The caller made a quick gesture to a building across the street. Out stepped Patrick Vecchio, assistant director of the

special investigations bureau of the New York State tax department, carrying a bullhorn. "We are state investigators," announced Vecchio over the amplifier. "Open the door."

Thus began the most successful series of raids that Vecchio and his men have ever carried out. Their quarry: cigarette smugglers. Inside the warehouse, they found three tax-stamp counterfeiting machines—two still in the paper bags brought by the men from the Mercury, the third already mounted and in operation. Fanning out, Vecchio's men raided four other tobacco distributors, confiscated 50,000 cartons of cigarettes and arrested eleven men—including three major wholesalers and Murray Kessler, 52, identified by police as a high-ranking member of the Vito Genovese mob. But, says Vecchio, "it was only a drop in the bucket."

That is right. Cigarette bootlegging—"butterlegging" to police—is a multimillion-dollar business. It is a phenomenon of the past decade, when hard-pressed state governments discovered that levying stiff cigarette taxes was a politically painless way of raising money. The taxes, however, are easy to evade. Buttleggers, according to one police source, now smuggle nearly half a billion cartons a year—or one-sixth of all cigarettes smoked—into 42 high-tax states. The Council Against Cigarette Bootlegging, an organization financed by the tobacco industry, estimates that 44 million cartons will be smuggled into New York State alone this year, at a cost of \$110 million in lost tax revenue.

In New York City, where cigarette taxes have grown from 9¢ to 23¢ a pack since 1965, some experts believe that half of all cigarettes sold are contraband. The number of legitimate dealers has been cut in half, and those that are left

are either going broke or salting their stocks with untaxed packs. Says Murray Baratz, Secretary-Treasurer of the tobacco distributors' workers' union: "If nothing is done to correct the conditions, there will be in the very near future only bootleggers."

The principal source of bootlegged cigarettes is North Carolina, where tobacco is king and the state tax is only 2¢ a pack. On one 100-mile stretch of highway, known locally as "Tobacco Road," there are more cigarette dealers than pine trees, and their lots are jammed with out-of-state cars loading up for the run north. Profits average \$1.25 a carton and the risk is relatively low: according to police, the odds against getting caught are 200 to 1.

Small operators, although still numerous, are being muscled out of the bootlegging business by organized crime. Police say all five of New York's Mafia families have moved heavily into the business, and that their profits from the illicit trade now approach \$100 million a year.

**Elusive Racket.** The Mob's operation is highly sophisticated. Some families are believed to own North Carolina dealerships, which supply them with cigarettes free of the North Carolina tax stamp. Their trucks are equipped with two-way radios and escorted by scout cars on the lookout for police. On a typical run, the cigarettes are loaded onto giant tractor-trailers capable of hauling as many as 60,000 cartons at a time. As they near their destination, they are transferred to smaller trucks to reduce the risk of detection and the loss in case of seizure. Once in New York, some of the cigarettes are sold at cut rates—often 35¢ a pack below normal retail prices—by underworld operatives in bars, offices, factories, beauty

TAKING INVENTORY OF CONTRABAND CIGARETTES IN A POLICE WAREHOUSE



## ECONOMY & BUSINESS

parlors and apartment buildings. Others are marked with counterfeit tax stamps and distributed to ostensibly legitimate retail dealers. The counterfeiting, say state authorities, is often so expert that it can be detected only by laboratory tests.

Against these dodges, police are all but helpless—partly because of budget and personnel cuts, although it is difficult to see how even vast hordes of police could stop this particular, elusive racket. Also there has been a concerted lack of interest on the part of the courts and state prosecutors. Only nine buttleggers were sent to jail in New York City last year—seven of them for three months or less.

A New York State task force of police and tax officials conducted hearings last spring, then issued three recommendations: tax laws should be stiffened, police should be given more money and enforcement powers, and cigarette taxes should be slashed by as much as 10¢ a pack to reduce the smugglers' incentive. The last proposal is probably utopian. Cutting taxes might well reduce the buttleg traffic, but it would also cost the state an estimated \$33 million a year in lost revenue—assuming, of course, that the buttleggers do not take over all the business.

## INVESTMENT

### More Worker-Owners

WELCOME TO SOUTH BEND LATHE AMERICA'S LARGEST 100 PERCENT EMPLOYEE OWNED COMPANY. So reads the proud sign in front of a sprawling red brick factory in South Bend, Ind. Little more than a year ago, the 70-year-old machine-tool maker faced liquidation because its performance was not up to the expectations of its owners, Amsted Industries Inc., a Chicago-based conglomerate. But South Bend was a solid company with good years ahead of it, thought some of its top executives. They went shopping for a way to buy the company and pump in enough working capital to keep it going until times got better. Today South Bend is doing well and is totally independent, with most of its stock already deposited in a trust in which each of the company's 440 employees share, according to salary and seniority. SBL's turn-around probably owes much to the U.S. economic recovery, which has sharply driven up orders for machine-tool producers. But the company might not exist at all were it not for a financial device called ESOP, or Employee Stock Ownership Plan.

ESOP is no fable. The device is becoming increasingly popular as a way for companies to raise needed capital and give employees a stake in the business. As in the case of South Bend Lathe, an ESOP can help a basically sound business to keep going when it would otherwise be sold off or closed down. But



WILLIAM FRANKLIN MCHASSON



WELCOME TO  
SOUTH BEND LATHE  
AMERICA'S LARGEST  
100 PERCENT EMPLOYEE  
OWNED COMPANY

INDIANA WORKERS KEEP A FALTERING BUT SOUND BUSINESS GOING  
"You've got your hand in my pocket if you don't do your job."

its use is not limited to such last-chance situations. According to the Internal Revenue Service, more than 250 firms now operate some form of ESOP program, including such corporate successes as Hallmark Cards of Kansas City, Mo.; Gamble-Skogmo, a Minneapolis-based retailer with 18,000 employees; E-Systems, Inc., a Dallas defense contractor; and Houston's Zapata Corp.

**Tax Break.** The main attraction is that an ESOP gives a company a huge tax break. The mechanism: an employee trust is set up, borrows money and uses it to buy newly issued stock from the company. Then the company makes contributions to the trust that are used to repay the loan; they are contributions to an employee benefit plan and are tax deductible. Had the company borrowed the money directly, it would be able to deduct only the interest as a business expense. When the money goes through ESOP, the company can in effect deduct principal repayments too, thus cutting borrowing costs by as much as half.

Even that is not all. In recent years Russell B. Long, the conservative but populist chairman of the Senate Finance Committee, has become an evangelical disciple of Louis O. Kelso, a San Francisco attorney who has long championed various forms of "worker capitalism." In 1974 and 1975, Long pushed through legislation increasing the 10% investment-tax credit that a company gets for purchases of new equipment to 11%—provided that the extra 1% is used to pay for company stock distributed to employees through an ESOP. This year Long pushed further; that 1% special credit (which is directly subtracted from the tax a company owes) has increased to 1½% in the tax-reform bill that Congress passed last month (TIME, Sept. 20). The extra half-point, however, is available only if employees dig into their own pockets and invest a matching amount in the company's stock. American Telephone and Telegraph Co., which has more than 770,000 employees, is now considering setting up a limited ESOP. Such a plan could have saved Ma Bell \$80 million in 1975 taxes alone.

Critics of the tax breaks argue that they amount to a gift from the Government that will mainly benefit high-salaried workers in such capital-intensive industries as oil drilling and machine tools. They are the industries that use the investment-tax credit most heavily, and their capital needs make them especially likely to grab at what amounts to a chance to borrow at low cost.

But the ESOP idea has strong support from Congress's Joint Economic Committee, and the Economic Development Administration of the Department of Commerce is actually requiring that some companies to which it gives loans establish ESOPs.

The most powerful defense of ESOP comes from Long, who waxes as fervent on the subject as Kelso. The Louisiana Democrat contends that the idea will spur managers to invest more of the \$3 trillion to \$5 trillion that economists say will be needed over the next decade to modernize U.S. industry—besides the philosophical benefits to capitalism of having workers become owners. ESOP, says Long in a burst of lyricism, "is better than Geritol. It will increase productivity, improve labor relations, promote economic justice. It will save this economic system."

**Measuring Up.** Labor leaders have been ambivalent about ESOP, but at South Bend Lathe, United Steelworkers Union members are enthusiastic, and two local representatives sit on the company's board of directors. Union Organizer June Molnar, 26, a tool and cutting grinder, reports that workers check out new recruits to be sure they measure up. Slacking off is not tolerated. Says Molnar, who expects to get about \$2,000 deposited in her ESOP account this year: "It's 'Hey, you've got your hand in my pocket if you don't do your job.'" Molnar's boss, SBL President Richard Boullis, 53, is just as ebullient. Contemplating a 20% rise in productivity in the past year and close to 10% more pretax profits during the first year of independent operation, he exults, "Worker-owned companies are the way to go."



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## Polyester film prices are hiked by major marketers

Polyester film prices have been raised by Celanese, Du Pont and ICI United States. Celanese, which led off with an effective date of Aug. 1, hiked tabs 7-13%, with 75-gauge Celanar 2000 for audio tape applications up 15¢/lb., to \$1.45/lb.; 300-gauge 3000 for drafting and reprographic uses up 9¢, to \$1.42/lb.; 300-gauge treated film for drafting up 9¢, to \$1.50/lb.; and 50-gauge 2000 for packaging up 15¢, to \$1.60/lb. Du Pont's increases, effective Aug. 2, average 10%, with Mylar S and D films for reprographic uses up 20¢/lb. in 48-500 gauges, 700-gauge D film up 25¢/lb. Most other boosts were 10-15¢/lb. ICI U.S. made its increases, generally about 15-25¢/lb., effective Aug. 9, with customers having the option of buying at existing prices for shipment by Sept. 1 under a past purchase ratio.

## Markets for industrial oils and lubes will top 1.2 billion gal. in 1976

Markets for industrial oils and lubricants have rebounded well this year, will hit about 1.25 billion gal. vs. 1.14 billion last year. Longer-term, they're expected to resume their 1.7%/year uptrend, reaching 1.385 billion gal. in 1981. That's the view of a major producer. But consultant Charles H. Kline (Fairfield, N.J.) takes a slightly more optimistic view. He estimates 1981 demand at 1.455 billion gal. vs. 1.22 billion in 1976. Kline pegs the volume of machine oils, the biggest category, at 570 million gal. in 1976 and 700 million in 1981. He figures metalworking oils at 245 million and 280 million gal., greases at 95 million and 195 million. Average value is about \$1/gal.

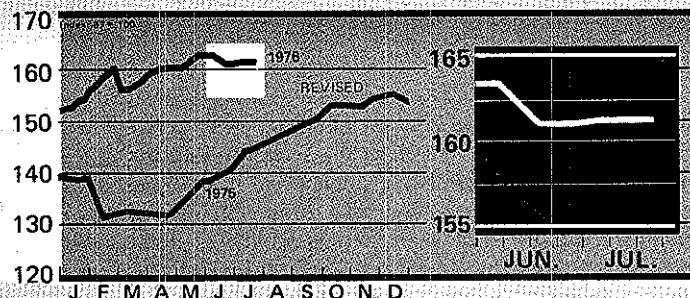
## Silicone producers increase more prices

Silicones producers are continuing to raise prices. Dow Corning posted an increase of 6-12% for one-part general industrial- and construction-grade silicone sealants, effective Oct. 15. Examples: Silastic 732 RTV sealant and 781 building sealant, up 6%, to \$1.99/cartridge; 790 building sealant, up 12%, to \$1.85/cartridge, and up 10% in bulk, to \$17.50/gal. In other moves, General Electric boosted RTV construction sealants 7.4-9.4%, effective Sept. 1, industrial sealants by similar percentages on Sept. 15 and other construction sealants effective Oct. 1.

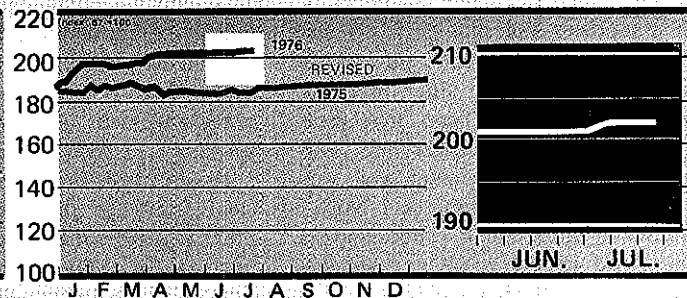
## Plastic resin production exceeds sales and use

Plastic resin production outpaced sales and use in May. The Society of the Plastics Industry says that May output of thermosets rose 37.1%, to 312 million lbs., while sales and use increased 32%, to 295 million. Production of thermoplastics jumped 52.9%, to 2.3 billion lbs., and sales went up by the same margin, to 2.14 billion.

chemical output index



cw chemical price index



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Wash. Star  
Nov. 29, 1976 Edit.

## Working, learning and playing

"Clearly," writes Liz Gallese of the *Wall Street Journal* in a fascinating report on the nation's latest educational hobby-horse, "the case for career education hasn't been proved to everyone's satisfaction."

We would go farther. Not only is the case unproven. A great many parents whose school-age children are, or soon may be, targeted for indoctrination in the work ethic probably know little or nothing of "career education."

The program, launched by Dr. Sidney Marland during his recent term as U.S. Commissioner of Education, flourishes in a climate of public inattention. And it does flourish. "Some 9,000 of the country's 17,000 school districts have launched programs," writes Ms. Gallese. "But the biggest impetus has come from federal legislation. One bill has provided \$64.5 million since 1968 . . . Another bill set up the U.S. Office of Career Education and authorized \$15 million annually for four years."

The idea — the exact goals of career education are less than definite — is roughly this: Children must be drilled from the earliest grades in the direct connection between study and work — "the world of work," in the favorite cant phrase. The director of the Office of Career Education sees it as "an effort to put proper emphasis on education as preparation for work." "We can no longer afford," says another booster of the program, "to send people to school just to send them. They must have a purpose, and that purpose is preparation for careers." There is a certain exasperating obtuseness in these statements, as if those who make them do not understand how many eternal questions of educational philosophy they beg.

In any case, Ms. Gallese reports that first-grade children in Old Bridge, N.J., "spend two weeks . . . behind the scenes at a local clothing store, drawing pictures of people weaving cloth," while others, for homework, "record the sizes they take in shoes, pants and hats."

The occasional field trip to see how clothes are made and fitted would be objectionable only to educational curmudgeons. But *two weeks*? Obviously, the ambitions of career educationists go well beyond the familiar susceptibility of teachers and students to entertaining distractions from reading, writing and arithmetic.

Indeed, of primary interest to us — and, we are glad to note, to the doughty skeptics of the Council on Basic Education, which keeps a jaundiced eye on educationist fads — is the attempt to clothe familiar distractions from schoolwork in high-flown theorizing.

To most of us, it may seem exactly the wrong kind of theorizing. To most of us, that is, it might seem that American public education suffers enough now from gross utilitarian preoccupations, and needs no further coaching in them.

Let education be useful, by all means; let it appear so to students, no harm in that. But it hardly follows that children of elementary school age should be dragged into anxiety about career choices long before they're mature enough to consider those choices — and at the probable expense of basic academic instruction, at that.

As we were reading with some apprehension of the latest strides in career education, there came opportunely to hand the reflections of President Steven Muller of Johns Hopkins University on the undergraduate frame of mind. If Dr. Muller is to be believed, and he is a first-hand observer, what students need today is not systematic indoctrination in the work ethic from infancy up, but greater faith in the joy of learning from adulthood down.

Dr. Muller's observations form, in both tone and content, a healthy antidote to career education faddism. Johns Hopkins students, as he sees it, are too much affected — even depressed — by "an adult American world in which a sharp and unhealthy distinction persists between work and pleasure — a world in which extreme utilitarianism has driven pleasure out of work and sensible purpose out of pleasure . . . The tendency today in universities and colleges is to become even more explicitly prevocational . . . to dismiss learning as a frivolous luxury and to focus on what is considered socially useful in the most immediate sense . . . What is missing increasingly on campuses and throughout American life is the intellect at play, the joy of learning not for economic gain but for relaxation . . . No human society can sustain itself on the basis of work alone, but the utilitarian imperative nurtures the concept of leisure as an escape from work."

Perhaps it is mere coincidence, not a sign that the students at Dr. Muller's institution and others already suffer from the grim indoctrination of the career education theorists, that the scene he laments is just the dubious ideal they seek.

Certainly his comments invite a question. If, as he suggests, students are unhealthily obsessed by pressure to make an immediate, direct connection between their studies and "the world of work," why should the taxpayers be spending millions of dollars to aggravate that obsession, and indeed extend it all the way down to the first-grade level?

Work has its place. But there is every indication that our school-age youngsters need no instruction in its value. They need, rather, to be taught the importance of training their minds and enriching their spirits, with the expectation that if they do so the opportunity for useful work will not be lacking.

Wash. Post  
Dec. 10, 1976, p. A-30

## Delay Urged in State College Desegregation Case

RICHMOND (AP)—Further arguments on desegregating Maryland's public colleges and universities should wait until the entire Fourth U.S. Circuit Court of Appeals can hear the case, a three-judge panel said Thursday.

Judge C. Braxton Craven said he was concerned that a decision by the panel could place the Fourth Circuit Court on a collision course with the U.S. Court of Appeals for the District of Columbia, which may also have jurisdiction in the dispute.

The appeal by the Department of Health, Education and Welfare is on a ruling by a federal judge in Baltimore, but the HEW action that led to the Baltimore ruling was based on an order from a federal judge in Washington involving Maryland and several other states.

"We think it would be best to let the whole court decide," said Craven, agreeing with HEW's position that the case was important enough to warrant a full-court hearing.

Wash. Star  
Dec. 9, 1976, p. 1

## IN FOCUS Virulent New VD Strain Has Nation's Doctors Worried

By Lance Gay  
and Robert Pear  
Washington Star Staff Writers

SALT LAKE CITY — In the third week of August, a 16-year-old woman dragged herself singly and painfully into the modern mountainside emergency room of University of Utah Medical Center complaining of abdominal pains.

She was routinely admitted to a room and doctors took blood samples and cultures and began running tests to find out what caused the pains that got more severe as the hours passed.

She had a pelvic inflammation "and the hospital did every test they could think of and couldn't come up with what caused it," recalls Bonnie Bullock, the director of the Salt Lake County Venereal Disease Clinic.

Then they decided to see if it was gonorrhea. The test unequivocally proved it was. But then the hospital lab technician did an unusual thing. Instead of assuming it could be treated with penicillin, as it normally is, the technician tested to see what drug would kill the strain and found that it was strangely resistant to penicillin.

"THEY THEN CALLED us to see if we knew anything about this," recalls Bullock. "Well, we had heard of a new strain of penicillin-resistant gonorrhea and told them the test they had to do to see if that was it. . . ."

"It was."

That was almost four months ago. The county now reports it has 16 cases of the powerful and dangerous new strain that appears to be slowly spreading through the bedrooms of America after being discovered in the brothels of the Far East and the Philippines.

"We thought we had it all isolated until yesterday, but then we had one person who named 29 contacts in a three-month period. We now have a problem," Bullock said.

As most high school students can tell you, gonorrhea is as common as the common cold, easily diagnosed through symptoms in the male and quickly cured with a simple shot of penicillin.

### Why? 'Superbug' just laughs at penicillin shots

THAT'S TRUE OF common gonorrhea. But not this strain.

D.L. Gunter, chief of the V.D. control unit for the State of California, has dubbed it "the Superbug" because of its resistance to penicillin and its apparent virulence.

There is another drug recommended for treatment of penicillin-resistant

gonorrhea — spectinomycin, sold by the Upjohn Co. under the brand name Trobicin.

But be forewarned: According to Dr. Harry Gibbons, head of the Salt Lake County Health Department, physicians in England report they have two cases in the seaside industrial center of Liverpool that seem to have developed resistance even to that drug.

Because of the virulence of the mutated strain and its threat to society, Gibbons last week asked the county's top prosecutor to be ready to issue warrants, if needed, to bring in and isolate anyone suspected of having the disease.

"WE'RE GOING TO lose our nice-guy image over this," says Bullock, "but if necessary we're going to get a little tougher. In the past we've relied on patients bringing contacts in and giving them medical and not moral assistance. That might change."

"Salt Lake City is a relatively isolated community," explains Gibbons, who believes that his cases may be the first in the nation indicating secondary spread of the disease. "There's no reason why we still can't get a lid on it and control it."

One of the first two confirmed cases in the nation was spotted in the Washington area by Dr. William J. Marek, health officer of St. Marys County, Md.

cont. on page 5

cont. from page 3

reported abortions in D.C. were either paid by Medicaid or performed free at D.C. General Hospital. How many were performed by private physicians and unreported is anybody's guess.)

If what Sanford says is true—and social workers everywhere tend to confirm her—then it is no wonder that the what-to-use-and-where-to-get-it advice that has been a major part of the sex-education programs for so long is not having any significant effect in reducing the number of out-of-wedlock births among teenagers.

A more hopeful direction may be the trend already established in some high schools where childrearing classes are a regular part of the curriculum, often with the students' own children in the nurseries. In addition to teaching these young parents and potential parents important lessons in parental responsibility, and in the necessity for enhancing their children's physical, emotional and intellectual growth, they also can help to drive home the fact that parenting is hard work, not an escape from anything.

Emily Moore, director of Planned Parenthood of Metropolitan Washington, believes that giving young people a sense of the reality of childrearing is as important as birth-control techniques in giving them the basis for an intelligent choice between having children or not having children.

Finally this: One reason we believe it is wise for youngsters to delay raising families is that having children too early can place severe limits on their educational and vocational aspirations.

That so many young girls, especially from low-income families, decide to keep their babies may be a way of saying that they never expected much in the first place and, therefore, saw themselves as having little to lose.

It will take far more than sex education to deal with that one.

N. Y. Times  
Dec. 12, 1976, p. E-8

# Some Drugs Are Clarifying the Mind

By RICHARD M. RESTAK

In the hallway outside of the Society for Neuroscience meeting last month in Toronto, a group of young neuroscientists were swapping research gossip. "The catecholamines are out — the endorphins are in" was the group's summation delivered by a neurochemist.

The endorphins, a new class of naturally occurring opiates found in vertebrates as far-ranging as albino rats and Mensa scholars, are providing the stimulus for a fresh assault on the biochemical basis for mental illness. Where the research may lead, and what contributions the endorphins may finally make, remains speculative. "It's just too early to tell," according to Dr. William E. Bunney, chief of the adult psychiatry branch of the National Institute of Mental Health.

Although the endorphins are the most recent attempt at a biochemical "fix" on mental disorders, the idea that biochemical factors might be important is not a new one. It was in the 1950's and '60's that the major tranquilizers and anti-depressants were developed. At the same time other scientists were learning how nerve cells communicate with each other at special contact points (synapses) via chemical messengers (neurotransmitters). It was not long before one class of neurotransmitters, the catecholamines, provided an imperfect but still useful biochemical model for mood disorders based on transmitter imbalance.

Equally important were studies coming out of Harvard and the National Institute of Mental Health demonstrating that the genes play a significant role in schizophrenia, our most challenging and crippling mental illness. Although the exact contribution of heredity is controversial, the evidence so far favors a genetic predisposition that in combination with key environmental stresses can trigger the full-blown illness. "Genetic predisposition is an overwhelming argument for biochemical causation," according to Dr. Seymour Kety, professor of psychiatry at Harvard Medical School. "The genes are biochemical units regulating biochemical processes."

Much of the early experimental work was taken up with the prosaic task of perfecting tools for biochemical exploration. Experimental methods are now available to pinpoint the site of action of a drug and the neurotransmitter it affects. In addition elaborate maps are in preparation that will soon tell the location of naturally occurring neurotransmitters, where they are released, even the precise cells where they act.

Although at least 15 possible biochemical neurotransmitters are now known, only four are usually invoked in psychochemical theories of mental illness—dopamine, norepinephrine, acetylcholine and serotonin. Researchers are far from an air-tight theory specifically relating any of these chemicals to a major mental illness. Still, certain generalities are possible. Depression seems to be associated with a deficit of dopamine or norepinephrine at the synapse, while just the opposite occurs in mania. Schizophrenia may be due to disturbances in the dopamine system, as suggested by the action of anti-schizophrenic drugs which act selectively on dopamine receptors.

## Suicide Predictor

One of the more controversial areas of research involves recent attempts to identify biological markers that could predict vulnerability to a mental illness. If such markers could be found in samples of blood or urine, for instance, some individuals might be diagnosed soon enough for prevention, or at least early treatment. Some critics of such research consider the approach unethical in the absence of a cure for any of the major mental illnesses.

Less controversial is the search for a biochemical indicator of suicide potential. One test developed at the National Institute of Mental Health 10 years ago, and involving urinary steroid concentrations, has not been entirely replicated by other workers. "Since we're missing somewhere between 5,000 and 25,000 suicides a year," states the test's discoverer, Dr. William E. Bunney, "it would be tremendously valuable to develop a highly accurate predictive test. But even with our present test, a clinical suspicion of suicide combined with repeated high urinary ster-

oids should alert a psychiatrist that his patient may be acutely suicidal."

Research may eventually lead to better methods of diagnosing, defining and treating mental illness. Already some psychiatrists are employing amphetamines as helpful diagnostic tools in questionable cases of schizophrenia. In defining mental illness, future psychiatrists may substitute biochemical determinations for their present reliance on confusing and sometimes contradictory symptoms. Although basic brain research has not resulted in a "cure" for any mental illness, significant advances have already been made. It is now possible, for example, to measure in the laboratory the antipsychotic activity of untested drugs, thus making possible a prediction of a new drug's clinical effectiveness.

Despite these revolutionary changes in our approach to mental illness, few researchers expect biochemistry to supply all the answers. Future attempts at prevention are likely to remain oriented more to changes in a patient's lifestyle rather than in his biochemistry. "Although schizophrenia, for instance, has both a genetic and a biochemical component, it is still best understood in terms of a heightened vulnerability to stress," according to Dr. Ernest Hartman, professor of psychiatry at the Tufts University School of Medicine in Boston. "In times of stress there may be a shift in the balance of neurotransmitters resulting in the development of schizophrenic symptoms in predisposed individuals."

When it comes to treatment, psychiatrists are divided over the likely effect of future biochemical discoveries on traditional methods of psychotherapy. Many authorities believe that psychological approaches, including psychoanalysis and the other "talking" therapies, will remain necessary and valuable. Others believe that simple biochemical remedies will increasingly supplant or supplement more time-consuming methods. But according to Dr. Hartman, "We're not by any means headed for a 'take this chemical and call me in the morning' approach to the mentally ill."

Richard M. Restak is a neurologist in Washington, D.C.

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## U.S. drug council urges less strict marijuana laws

Washington (AP)—The government should consider reducing penalties for marijuana smoking because of the "relatively high price" society pays to enforce anti-marijuana laws, a federal drug abuse panel says.

In a report to President Ford, the Strategy Council on Drug Abuse said it unanimously believes marijuana is harmful and "federal policy ought to strongly discourage its use."

The council stopped short of a recommendation that criminal penalties for marijuana use be eliminated. But it questioned the usefulness of criminal sanctions against marijuana smoking because of its "widespread recreational use" and "the relatively low social cost associated with this type of use."

The council, which includes four Cabinet members—Henry A. Kissinger, Secretary of State; David Mathews, Secretary

of Health, Education and Welfare; Donald H. Rumsfeld, Secretary of Defense, and Edward H. Levi, Attorney General—issues recommendations annually on federal anti-drug strategy.

Mr. Ford may leave the 56-page report for his successor to act on. President-elect Carter has said he favors decriminalizing the possession of small amounts of mari-

juana but increasing penalties for selling and distributing the drug.

The report said criminal sanctions do discourage some potential marijuana smokers, but it added:

"On the other hand, society pays a relatively high price for this form of deterrence. High in terms of stigmatizing casual users with criminal records; high in terms of diverting limited criminal justice resources from other, more serious matters; and high in terms of contributing to

an atmosphere which nurtures disrespect for the law.

The council said the government should study the experience of eight states and three countries that have reduced marijuana penalties in various ways. The states are California, Alaska, Colorado, Maine, Minnesota, Ohio, Oregon and South Dakota. The countries are Italy, the Netherlands and Colombia.

The council said marijuana was the most widely used illicit drug in this country. But it said serious health crises resulting from marijuana use were only half as frequent as those resulting from tranquilizers, a third as frequent as those from barbiturates and only slightly more frequent than those resulting from aspirin.

Robert L. DuPont, director of the National Institute of Drug Abuse, called the council's report "a very positive step."

Mr. DuPont has long favored civil instead of criminal penalties for marijuana use. He has estimated there are 400,000 arrests each year in the United States for marijuana possession.

"If you assume they cost only \$100 apiece, a very minimal estimate, that comes to \$40 million a year," he said.