## The Virtue of an All-Volunteer Force

## BY WALTER Y. OI

University of Rochester

AST JANUARY, AS CONGRESS AND THE public grappled with the possibility of U.S. military action in Iraq, war opponent Rep. Charles B. Rangel (D-N.Y.) introduced "The National Service Act of 2003" to reinstate compulsory service for U.S. citizens and permanent residents between the ages of 18 and 26. According to a statement his office released on January 7, the nation's defense should not be "the sole responsibility of paid volunteers."

"If our great nation becomes involved in an all-out war, the sacrifice must be equally shared," Rangel said. "We must return to the tradition of the citizen soldier."

The congressman admitted that the legislation was intended in part to disrupt the push for war. But, putting that aside, is it true that the nation's defense is better provided through compulsory service or by an all-volunteer force?

Raising an army For most of U.S. history, volunteers have supplied the manpower for the nation's defense. There have been only four departures from that tradition, and each of those occurred in times of significant perceived threat to the survival of the nation.

The first U.S. draft bill was passed in March of 1863, nearly two years after the outbreak of the Civil War. It was met with riots in New York City and was temporarily suspended. The second draft bill passed Congress on May 18, 1917, six weeks after the United States formally entered the Great War. Draft calls were stopped fully three months before the end of hostilities. The third episode was the nation's first peacetime draft, enacted on September 16, 1940. It supplied more than 10 of the 15 million persons who served during World War II. and continued on until March 31, 1947. Then, for 15 months, the nation returned to an all-volunteer force. But the military failed to meet recruitment goals and, with the Cold War emerging, Congress established the Selective Service System on July 1, 1948. Under that law, compulsory service would affect the lives of young American men for a quarter of a century.

**Questioning the draft** Selective Service increasingly elicited challenge and outright opposition. One challenger was John Kenneth Galbraith who criticized compulsory service from a market perspective:

Walter Y. Oi is the Elmer B. Milliman Professor of Economics at the University of Rochester, A renowned researcher of labor economics and industrial organization, Oi served as staff economist for President Nixon's Commission on the All-Volunteer Force. He can be contacted by e-mail at oiwa@troi.cc.rochester.edu.

The draft survives principally as a device by which we use compulsion to get young men to serve at less than the market rate of pay. We shift the cost of military service from the well-to-do taxpayer who benefits by lower taxes to the impecunious young draftee. This is a highly regressive arrangement that we would not tolerate in any other area. Presumably, freedom of choice here as elsewhere is worth paying for.

The size of the tax – the difference between the wage needed to attract soldiers on a voluntary basis and the "below market rate of pay" of the draftee – was substantial. Further, the cost of collecting this hidden tax was more than the administrative costs of the Selective Service System; it also included the costs borne by young men trying to evade the tax. Some youths enrolled in college just to escape being drafted; others became fathers or ministers who were exempted; some feigned disabilities or fled to Canada or Europe. Lawrence Sjaastad and Ronald W. Hansen, in their influential 1970 study "The Conscription Tax: An Empirical Analysis," calculated that the full cost of the conscription tax, including the evasion costs, was higher than any other tax levied by the federal government.

The inequity of the arrangement led to the establishment in 1967 of a presidential commission, headed by Burke Marshall, to examine the issue. The commission's report, "In Pursuit of Equity, Who Serves When Not All Serve," led to the lottery draft. But the lottery failed to achieve equity and resentment of compulsory service grew.

**Ending the draft** In 1968, respected free-market economist and University of Rochester president W. Allen Wallis presented a speech to the Rochester chapter of the American Legion in which he argued that the draft was both ethically and practically unjustifiable. Wallis summarized the speech, which would be reprinted as the influential essay "Abolish the Draft," as follows:

My objections to the draft are of two kinds. First, it is immutably immoral in principle and inevitably inequitable in practice. Second, it is ineffective, inefficient, and detrimental to national security.

Wallis's comments resonated with policymakers across the political spectrum, and he helped to persuade President Richard Nixon to establish the President's Commission on the All-Volunteer Force, better known as the Gates Commission. The commission developed a plan: If the entry level pay of enlisted men could be raised, the recruiting



organization expanded, and the conditions of service life improved, the Armed Services could attract enough volunteers to staff the active duty strength objectives. The report of the Gates Commission was unanimously approved by its members and presented to President Nixon on February 20, 1970.

Congress took the first step toward implementing the plan in 1972 when lawmakers raised the pay of first-term enlisted men by 61.2 percent. Congress also refused to extend the draft authority, which expired on June 30, 1973. With more recruiters and a larger advertising budget, Secretary of the Army Howard H. Callaway announced a year later that the recruitment goals had been met. The nation's defense was in the hands of an all-volunteer force.

The quality of volunteers Unfortunately, over the first five years of the new all-volunteer force, military pay did not keep pace with civilian wages. In order to meet recruiting goals, the Army accepted lower quality recruits, some with police records. Attrition rates from training bases were found to be substantially higher for men with low mental test scores. An Army study found that to have 100 soldiers on board at the end of two years, it had to recruit, enlist, and train

131 high school graduates or 188 men who did not complete high school.

Gen. Maxwell Thurman established a high-quality personnel policy wherein recruiters were instructed to seek youths with a high school diploma and a score on the Armed Forces Qualification Test of 50 or higher (i.e., from the top half of the mental distribution). The higher-quality recruits allowed the Army to cut the size of its entry-level training bases by 27 percent and provided the military with soldiers who learned faster, could master sophisticated weapon systems, and were more likely to qualify for promotion.

Because labor became more expensive, the Pentagon shifted to a leaner, more capital-intensive force. There was a smaller fraction of the force in the combat arms (infantry, armor, airborne, and special forces) and a longer, more professional support tail.

Soldiers in the all-volunteer force can enroll in demanding individual training courses to learn how to operate and maintain advanced weapons. Such training courses would not have been effective in a conscript force with its high personnel turnover rates. For instance, by the time a conscripted sailor completed his training to be a submariner, he would only have two to three months to serve before his term of service was

completed. In the all-volunteer force, capital and training are substituted for raw untrained labor to economize not only on the cost of producing "defense" but also on the loss of life. A dozen years ago, the Gulf War was waged with a total of 147 battlefield deaths. At the time this article goes to press, the American military has experienced 79 deaths in Afghanistan's Operation Enduring Freedom and 177 deaths in Operation Iraqi Freedom. In comparison, during the Selective Service era, the U.S. military experienced 33,741 deaths in Korean and 47,414 in Vietnam.

**Shared burden** Rep. Rangel claims that the U.S. military's allvolunteer force is unacceptable because its demographics are not representative of the U.S. population. "It is apparent, however, that service in the armed forces is not a common experience and that disproportionate numbers of the poor and members of minority groups compose the enlisted ranks of the military," he said late last December. "We must be certain that the sacrifices we will be asking our armed forces to make are shared by the rest of us."

But history shows compulsory service does not produce a fair sharing of the burden of national defense. When the draft existed, many youths failed to satisfy the mental and physical qualification standards for induction and were rejected by their draft boards; in 1964, 35.6 percent of draft-eligible young men were exempted for those reasons. Under the draft, women made up only four percent of the active duty forces, but that number grew to 12 percent in 1990 and 15 percent in 2000. African American college graduates comprise some 12 percent of the officer corps in the all-volunteer force, yet only 7.6 percent of all college graduates are Black. Should we insist on a representative force by placing a cap on the number of African American officers?

Black enlisted men in the all-volunteer Army are underrepresented in the infantry and special forces, and over-represented in logistical support and administrative occupations positions that they can serve to retirement. For the sake of shared sacrifice, would Rep. Rangel require more African Americans to serve on the front lines?

The draft is a poor way to provide an effective common defense - it can raise a sufficient number of bodies to put it uniform, but it cannot guarantee the quality of the recruits. It discourages the adoption of military technologies that can reduce the loss of life during military operations. It increases the full economic cost of producing defense capability. And it does not make the military more representative. In a free society, individuals who serve by choice and not by compulsion should meet the call to arms.

## **Bootleggers and Biotechs**

BY HENRY I. MILLER, The Hoover Institution, AND GREGORY CONKO, Competitive Enterprise Institute

ROM THE CLAIMS OF OPPONENTS OF the new biotechnology, it would be easy to conclude that the biotech industry has vigorously fought government efforts to regulate its products. But in fact, the industry has been anything but a consistent opponent of extensive, and even unnecessary, regulation. It has lobbied for protectionism of various sorts including public policy that makes regulatory costs excessive – and in the process has forsaken science and common sense.

Since the 1980s, large biotech companies like Monsanto, Ciba-Geigy (now Syngenta), and Pioneer Hi-Bred International (now owned by DuPont), along with their trade associations, have actively and aggressively lobbied in favor of certain major regulatory or legislative initiatives that often are more restrictive even than those sought by regulators themselves. The industry's goal is ostensibly to placate anti-biotech activists and provide reassurance to consumers that government regulators have evaluated and approved gene-spliced products. The industry also wants to satisfy the packaged food industry; food companies see great potential in gene-

Henry I. Miller, a physician, is a fellow at Stanford University's Hoover Institution. He can be contacted by e-mail at miller@hoover.stanford.edu.

Gregory Conko is director of Food Safety Policy at the Competitive Enterprise Institute in Washington, D.C. He can be contacted by e-mail at gconko@cei.org.

spliced food crops and are willing to pay a high price to obtain some sort of governmental stamp of approval certifying that the foods are safe.

But there has been another agenda behind the industry's call for more government involvement: the concentration of market share in the hands of a small number of firms. In this, they have been very successful; by early 2003, four companies — Monsanto, DuPont/Pioneer, Bayer/Aventis, and Dow accounted for 57 percent of research and development on gene-spliced crops.

This is not a new phenomenon. As long ago as the eighteenth century, the patron saint of capitalism, Adam Smith, was wary of the motives of some capitalists. Acutely aware of the potential conflict between self-interest and the public interest, he warned that any policy advocated by businessmen ought never to be adopted until it had been "long and carefully examined, not only with the most scrupulous but with the most suspicious attention."

**Be careful what you wish for** As a result of industry prodding, during the mid-1980s the U.S. Department of Agriculture and the Environmental Protection Agency began promulgating rules and policies on gene-spliced plants and microorganisms. Those rules proved a decisive disincentive for many small biotech firms; the time required to develop a



gene-spliced plant now runs six to 12 years and the cost ranges from \$50 million to \$300 million. This began with the 1987 USDA rules that, through peculiar and circuitous logic, defined virtually all gene-spliced plants as posing an inherent risk of invasiveness or injury — treating the plants themselves as presumptive "pests."

Beginning in 1994, EPA began regulating gene-spliced plants with improved pest resistance under the terms of a proposed rule that treated them as more hazardous than chemical pesticides. In an effort to modify the EPA rule substantially before its final publication, scientific associations such as the American Society for Biochemistry and Molecular Biology and the American Society for Microbiology, as well as the University of California's Systemwide Biotechnology Program and even other federal agencies, openly criticized EPA's general approach and its specific proposals as creating unscientific barriers to early-stage research and, thus, contrary to the public interest. A report issued jointly by 11 scientific societies that represent some 80,000 biologists and food professionals

excoriated the Agency's approach and warned that it would discourage the development of new pest-resistant crops, increase the regulatory burden for the development of pest-resistant varieties of crops, expand federal and state bureaucracies, limit the use of biotechnology for the development of pest-resistant plants to a very few developers that can bear increased regulatory costs, and handicap the United States in competition for international markets. All of those ills have come to pass.

Although EPA's approach and proposed rule were egregiously flawed, they enjoyed the enthusiastic support of big agribusiness and biotech firms and their associations. The industry eventually succeeded in ensuring that EPA retained significant responsibility for regulating the field trials and commercialization of gene-spliced plants.

In 1992, the Food and Drug Administration established a "voluntary consultation procedure" for the biotech foods industry. Gene-spliced food crop varieties were not required to obtain a formal FDA approval prior to commercialization, but the agency made it clear that it "expected" producers to meet

with FDA officials during the pre-commercialization process in order to resolve any consumer safety issues that might arise. This should have satisfied the biotech and food industries' desire for an FDA "stamp of approval" because, in fact, every new gene-spliced plant undergoes pre-marketing review. Using the regulations that address food "adulteration" and "misbranding," the FDA also has the authority to take foods off the market if it believes them to be in any way unsafe.

Given the FDA's vast discretion and power, the consultation procedure is voluntary in name only, and the agency still wields great control over the market for gene-spliced foods. Nevertheless, the word "voluntary" attached to the process

has been a lightning rod for critics who argue that the Administration's oversight is a sham. Consequently, the food and biotech industries have continued to lobby for stricter, compulsory federal scrutiny. In a 1994 letter to the FDA, the Biotechnology Industry Organization requested that the agency develop a special notification scheme for gene-spliced crop plants, even though there was no evidence that they posed any health risk and foods derived from them were already subject to the FDA's routine, rigorous policing of the market-

place. In 2000, the agency announced that it planned to introduce such a requirement, and the proposal was published the next year. But much to the chagrin of the biotechnology industry, that pre-market notification rule still has not been finalized, and has been deleted from the FDA's regulatory agenda.

Aiding Big Biotech What is the result of this excessive and hugely expensive regulation? In the end, EPA and the USDA regulatory policies place federal bureaucrats in the middle of virtually all field trials of gene-spliced plants, spelling disaster for small businesses and academic institutions whose scientists lack the resources to comply with burdensome, expensive, unnecessary regulation. The cost of field-testing gene-spliced plants is as much as 20-fold higher than for virtually identical plants crafted with older, less precise genetic techniques. Limited research and development resources are siphoned away from productive research to paperwork and gratuitous field-testing requirements. Added production costs are a particular disadvantage to products in this competitive, low profit-margin market.

When late-stage development requires field trials, financial resources can be quickly consumed by paperwork burdens and superfluous tests and analyses. The biggest casualties have been research and development by small firms and university laboratories on products such as non-commodity crops and ornamental plants, staple crops that are important in less developed countries but not elsewhere, and gene-spliced microor-

ganisms used for crop protection and bioremediation (the cleanup of toxic wastes). To be sure, government research grants, donations from charitable foundations, and cooperative ventures with large biotech firms still allow for some of this research to be conducted, but with the diminishing potential for profit, the resources available for those kinds of projects are minuscule. When the burdens of excess regulation are added to biotech's trade- and public opinion-related obstacles to research and development, the disincentives to using a superior but "disfavored" technology are imposing, indeed. Consider, for example, the dilemma of the grape grower or papaya farmer who needs new genetic varieties that are resistant to devastating

predators such as Pierce's Disease and the papaya ring-spot virus, respectively, but is afraid that using gene-spliced varieties will compromise his ability to export a superior product.

Another casualty of excessive regulation has been the long-term survivability of small, highly innovative, venture-supported startups spawned by the experimental research that arises from university laboratories. The genesis of the new biotechnology was the confluence and synergy of academic and industrial research on fundamental questions in biochemistry, genetics,

tions in biochemistry, genetics, microbiology, and analytical chemistry. Today, academic labs still are the source of most new ideas in those fields, but the progression from early conceptual innovations to marketed products has become uncertain as many speculative research projects on low profitability organisms or products have become prohibitively expensive. Highly innovative small and mid-sized companies and the nation's academic research enterprise find research and development blocked by excessive costs, while American innovation, good old-fashioned competition, and free markets suffer. Virtually all of the biotech startups of the 1980s are gone. Many, including DeKalb, Agracetus, and Calgene, have been purchased by bigger competitors like Monsanto, Pioneer, and Ciba-Geigy, which themselves have been bought up.

Today, the six major agbiotech companies that remain — BASF, Bayer, Dow, DuPont, Monsanto, and Syngenta — control the industry. But they have generated meager returns after nearly two decades and many billions of dollars worth of research. The major beneficiaries are activist groups that have raked in hundreds of millions of dollars from gullible donors, the natural and organic food industries that have exploited the surfeit of misinformation, and the regulators themselves as bureaucracies to regulate gene-spliced organisms have grown in size and power.

All of us who foot the bill for government and who purchase consumer products — that is, society at large — are the losers from public policy that affords no incremental protection from risks, while it creates huge disincentives to using superior technologies.

The excessive and hugely expensive regulation of biotechnology has pushed out many innovative small firms and university researchers, leaving the field in the hands of the major agbiotech firms. Meanwhile, activist groups have raked in hundreds of millions of dollars.