ICOTT  INDUSTRY COALITION ON TECHNOLOGY TRANSFER  
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June 21, 2005  

VIA EMAIL  

U.S. Department of Commerce  
Bureau of Industry and Security  
Regulatory Policy Division  
14th Street & Pennsylvania Avenue, NW, Room 2705  
Washington DC 20230  

ATTENTION: RIN 0694-AD29  


Gentlemen/Ladies:  

The Industry Coalition on Technology Transfer ("ICOTT") herewith submits its comments on the above-captioned advance notice of proposed rulemaking ("Notice"). ICOTT is a nonprofit group of major trade associations (names listed below) whose hundreds of individual member companies export controlled goods and technology from the United States. ICOTT's principal purposes are two—to advise U.S. Government officials of industry concerns about export controls and to inform exporters about the U.S. Government's export control and embargo activities and policies.  

The Notice would tighten the deemed export regulation, which was promulgated in 1994. ICOTT long has objected to the existing regulation as being unduly restrictive and has seen no evidence suggesting that the pre-1994 regulation was inadequate.  

We oppose the proposals in the Notice not only for what they are but for what they are a part of. Although narrow in scope, the Notice has broad—indeed, fundamental—implications for our economy and the high technology companies that play a significant role in the health of that economy. Our nation's global leadership in technology is due in significant part to scientists and engineers who were born elsewhere, as well as by the relatively unhindered flow of ideas into and out of our borders. Conversely, science in totalitarian societies like the Soviet Union has suffered grievously because of their governments' unwillingness to allow scientists and their ideas to flow freely into and out of the country.  

Recent developments such as the 1994 revision of the deemed export rule and our post-9/11 visa policy are moving us away from the traditional U.S. model, which actively encouraged the participation of foreign-born scientists and engineers in our R&D infrastructure, and toward the model that proved so disastrous for the former USSR. The proposals contained in the Notice would continue that unfortunate and self-destructive trend. Our current policies already have had an adverse effect on the flow of foreign-born engineers and scientists coming here to work.
These policies also are leading many companies whose research and development activity has been based in the United States to conduct that work offshore, where it is easier to make use of intelligent, capable individuals who do not happen to be “United States persons.” For example, Sun Microsystems recently announced an expansion of its research and development facilities in four foreign locations\(^1\) and Bill Gates has complained that Microsoft is unable to hire the engineers it needs because of the visa restrictions.\(^2\) Although changes such as those proposed in the Notice ostensibly seek to ensure that “American” knowledge remains here, the proposals in fact are having the opposite effect because they discourage smart people from coming here to create “American” knowledge and encourage businesses to establish their R&D facilities outside the United States.

Several weeks ago, the National Academies\(^3\) released a report entitled “Policy Implications of International Graduate Students and Postdoctoral Scholars in the United States” (“NA Report”). The 2000 Census, the NA Report notes, found that thirty-eight percent of doctorate-level employees in science and engineering firms (“S&E”) were foreign born. NA Report at 1. This compares with twenty-four percent in 1990. NA Report at 1. The report found that “[i]nnovation is crucial to the success of the US economy,” that “[t]o maintain excellence in S&E research, which fuels technologic innovation, the United States must be able to recruit talented people,” and that “[a] substantial proportion of those people . . . come from other countries.” NA Report at 4. Further, the report points out, international competition to attract smart young S&E students and graduates is increasing sharply, NA Report at 7, though once foreigners decide to come here, most prefer to stay here after completing their training, NA Report at 95. Finally, the NA Report states that the deemed export situation in the United States “is causing immense frustration” among foreign students and workers. NA Report at 77.

It’s interesting to note that from a policy standpoint, the trend of which the Notice is a part is completely at variance with what Congress sought to do in the Exxon-Florio Act (1988)—namely keep high technology R&D here in the United States. The message today is “Conduct your R&D offshore. Stop ‘draining the brains’ of other countries, even though many of their best and brightestest want to come here, because some small percentage of them might be technology spies or eventually might decide to return to their native lands.”

We do not dispute that some who come here will acquire technological know-how and then take it back home. We believe, however, that such individuals are far fewer in number than those who come because they want to live in our open, democratic, and economically robust society—not only while they are students but also as they proceed on into their professional careers and the raising of their children. By tightening our visa policies and by considering

\(^1\) See “Sun Microsystems to Expand Overseas,” N.Y. Times, May 7, 2005, at B4:1 (reporting Sun Microsystems’ decision to expand its research and development facilities in Bangalore, Beijing, St. Petersburg, and Prague).


\(^3\) The National Academies comprise the National Academy of Sciences, the National Academy of Engineering, the Institute of Medicine, and the National Research Council.
export control policies such as those espoused in the Notice, we are discouraging *all* such individuals from coming here and thus are throwing the baby out with the bath water.\(^4\) Indeed, such policies probably deter the few with improper intentions *less* than they deter the many whose intentions are honorable. And an obvious consequence of our loss is the *gain* of other nations—many of them economic or military competitors of the United States—who are reaping the benefit of having foreign-born scientists studying at their universities and working in their high technology industries.

The Notice proposes three changes in the deemed export provisions of the Export Administration Regulations ("EAR").

*Use of country of birth, rather than country of most recent citizenship or permanent residence, as criterion for deemed export licensing.* The Notice would judge the need for a deemed export license, as well as whether the license would be granted, based upon the individual foreign person's country of birth. Currently the criterion is the most recent country of citizenship or permanent residence.

The proposal would be next to impossible to enforce, particularly against the dishonest. It is fairly easy to tell from an individual's passport and other documents where he currently has residence or citizenship but it is quite a different matter to ascertain where he was born. Moreover, it is unclear what good it would do the United States government to know that a person was born in a "questionable" country, as it is unlikely that such countries will permit United States agents to poke around asking questions about émigrés.

Further, the disruption caused to current and future research and development work would far outweigh any benefit in terms of national security. Each company would have to ascertain (as well as it could) the country of birth of each of the sometimes thousands of employees who are not United States citizens or permanent residents. Companies with offshore facilities would have to conduct the same exercise for every employee who is not a citizen of the host country. In some countries, even requesting such information is prohibited. The Notice does not offer any advice on how companies should deal with that type of situation. The disruption that will be occasioned by this hunt for information and the consequent effort to prepare and submit rafts of deemed export license applications—each of which can take months for the government to process and can be rendered nearly useless by limiting conditions and provisos—will not be outweighed by benefits to our national security.

Acting Under Secretary Lichtenbaum hinted recently, though, that the government may make the criterion the most export-restricted country of which an individual is a *citizen.* Although he stated during the May 6, 2005 discussion at the National Academies that neither the

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\(^4\) Interestingly, Congress appears to be awakening to the short-sightedness of these policies more quickly than the Executive branch. For example, the H-1B Visa Reform Act of 2004, signed in December 2004, adds 20,000 H-1B visas annually for those holding advanced academic degrees. *See Allocation of Additional H-1B Visas Created by the H-1B Visa Reform Act of 2004,* 70 Fed. Reg. 23775 (May 5, 2005).
IG Report nor the Notice seeks to impose new restrictions on green card holders or naturalized United States citizens, it is well known that there are influential individuals and agencies within the government who do wish to impose such tests. Indeed, we have been advised that Mr. Lichtenbaum and other interested parties negotiated with the Inspector General's staff until late on the night of May 5 to secure clearance for Mr. Lichtenbaum to back off from the IG Report's threat to extend the deemed export rule to green card holders. Moreover, even putting aside what our government might do in this regard, other allied governments doubtless would reciprocate and hence would ask similar questions of United States green card holders who seek employment within their borders.

Whether the criterion were to be country of nativity, as suggested in the Notice, or country/ies of citizenship, as suggested by Mr. Lichtenbaum, the entire issue rests upon the false premise that most, or even a substantial number, of those who come here to study or work in technical fields intend to return to their home countries bearing the knowledge they have acquired here. We anticipate that the comments of individual companies and universities will present statistics that demonstrate otherwise. The vast majority of students who come here from abroad to study for advanced degrees remain in the United States after graduation, at least for their first jobs.

Before 1994, the applicable rule was that a license was required only when the initial transmitter of controlled data had "the knowledge or intent that the data will be transmitted [by the recipient or a later recipient] from the United States to a foreign country."5 Neither in 1994, when the current deemed export rule was promulgated, nor subsequently has the government offered any evidence that the old rule was not working. Moreover, the First Amendment requires that even where the government's objectives are legitimate, restrictions on speech must be narrowly tailored to achieve those objectives.6 The government's failure to make a case for the broader rule imposed in 1994, let alone the still broader rule proposed in the Notice, raises serious questions about whether the Notice or the 1994 rule can pass constitutional muster.

We recommend that the change proposed by the Notice not be adopted and that the rule be restored to its pre-1994 state.

Definition of "use" technology. Controls are imposed on "use" technology in numerous instances. The current definition of "use," which is agreed upon by the United States and the other thirty-two members of the Wassenaar Arrangement, is phrased conjunctively and means "[o]peration, installation (including on-site installation), maintenance (checking), repair, overhaul and refurbishing."7

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Deemed Export Requirements  
June 21, 2005  
Page 5

The Notice would substitute “or” for “and” in the definition of “use” and would state that the definition covers technology for “all” aspects of use:

“Use”. * * * Means all aspects of “use,” such as: operation, installation (including on-site installation), maintenance (checking), repair, overhaul, or refurbishing.\(^8\)

The Notice also would revise a question-and-answer in the EAR (Question D(1)) to state that even if a student is conducting fundamental research, a deemed export license may be required for her if she is to receive “use” technology that would require a license to her home country.\(^9\)

The “use” proposal raises significant policy issues. Because the companies of ICOTT’s member associations conduct relatively little non-proprietary work, the effect on them will be more indirect, in that the proposal will discourage universities from conducting research using foreign students and such students—who ultimately would have gone on to join the work force of high technology companies in the United States—accordingly will be less likely to come here to study.

The policy issue, of course, is the fact that controlling the transfer of “use” technology in the fundamental research setting\(^10\) will deprive many foreign students of the opportunity to be educated here and further exacerbate the post-9/11 diversion of research and foreign-born researchers from the United States. Notwithstanding any niceties about disjunctive versus conjunctive, the proposal is a backhanded attempt to undermine the principle that foreign-born students are important to keeping our economy strong. For scientists in particular and also for engineers, education in the United States also tends to orient them toward using United States products in their professional careers.

We accordingly recommend that the conduct of fundamental research carry with it the right to receive “use” technology for all equipment that is subject to the EAR and necessary or appropriate to such research. If our recommendation is not adopted, we ask that at a minimum, the phrase “according to the General Technology Note” be added to each “use technology” entry on the Commerce Control List (“CCL”) and that “operation” be excluded expressly from the CCL definition of “use.”

\textit{Effect of prepublication review on fundamental research}. The final OIG proposal set out in the March 28th notice addresses the following entry in the Commerce Department’s questions and answers:

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\(^9\) Id. at 15609.

\(^{10}\) To the extent that such transfers already are controlled by the regulations, the controls should be removed.
Deemed Export Requirements
June 21, 2005
Page 6

Question A(4): The research on which I will be reporting in my paper is supported by a grant from the Department of Energy (DOE). The grant requires prepublication clearance by DOE. Does that make any difference under the Export Administration Regulations [EAR]? 

Answer: No, the transaction is not subject to the EAR. But if you published in violation of any Department of Energy controls you have accepted in a grant, you may be subject to appropriate administrative, civil, or criminal sanctions under other laws.

Section 734.11 of the EAR, says the Notice, indicates that when a government sponsor imposes prepublication review with a right to withhold permission for publication, the fundamental research exception is inapplicable.11 The Notice says that the question and answer should be modified “to state . . . that if the government sponsor reviewer imposed restrictions on publication of the research, then the technology would [not constitute fundamental research].”

One problem with the proposed change is that it would prevent the sponsoring agency from agreeing to treat a project as “fundamental research” even though the agency retained clearance rights in respect of ultimate publication of results. Will a university make a project available to foreigners if it must subject itself to the bureaucratic and other hassles that will attend doing so? We rather doubt it.

We recommend that the proposal set out in the Notice not be adopted.

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A further issue—one that relates to the entire deemed export program, not just the proposals set out in the Notice—is whether there’s any credible evidence that deemed export licensing does anything to protect our technology. How many spies will provide accurate information—as opposed to a carefully composed and documented cover story—to a United States employer or the Commerce Department? Only one percent of last year’s 995 deemed export applications were turned down. In all probability, most if not all of those rejections were due to lack of information, or poor presentation of information, rather than affirmative conclusions by the government that the individuals were security risks.

One additional, important point can be made in a Jeopardy-type format: What is the question to which the answer is “Zbigniew Brzezinski, Henry Kissinger, Madeleine Albright, John Shalikashvili, Albert Einstein, Niels Bohr, Enrico Fermi, Edward Teller, Werner von Braun, and many other scientists who spearheaded the Manhattan Project and our space program”? The question, of course, is “Name a few of the prominent Americans who’ve helped make our country strong and successful, and had considerable access to controlled technology,

despite having been born abroad?" To be sure, some of these people were naturalized before they gained such access, but some were not. Werner von Braun, for example, did not become a citizen until five years after he began directing the technical development of the Army's ballistic missile program in 1950. The important point, though, is whether they would have come here in the first place if we had the kind of society that the proponents of the Notice seek—deliberately or otherwise—to create.

Again, we appreciate the opportunity to comment on the Notice. ICOTT and its members would be happy to meet with appropriate Administration officials to discuss this matter further.

Sincerely yours,

Eric L. Hirschhorn
Executive Secretary

ICOTT Member Trade Associations

American Association of Exporters and Importers
Semiconductor Equipment and Materials International
Semiconductor Industry Association

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12 Drs. Brzezinski and Kissinger are former Assistants to the President for National Security Affairs. Dr. Kissinger and Ms. Albright served as Secretary of State. Gen. Shalikashvili was Chairman of the Joint Chiefs of Staff. Drs. Einstein, Bohr, Fermi, and Teller were leading physicists and were involved in this country's nuclear weapons programs. Dr. von Braun was one of the leading scientists in our missile and space programs in the decades following World War II; he previously had been a prominent scientist in Nazi Germany's missile program.