

May 2006 Update on Developments in “Deemed” Export Controls in the University Context Jamie Lewis Keith, Senior Counsel, Massachusetts Institute of Technology

In the post-September 11, 2001 world, our federal government regards export controls as a tool to guard against terrorism, and is devoting heightened focus on “deemed” exports in commercial as well as academic settings within the United States. The three principal export control regimes in the United States are the International Traffic in Arms Regulations (ITAR) of the Department of State, the Export Administration Regulations (EAR) of the Commerce Department, and the regulations of the Office of Foreign Assets Control (OFAC) of the Treasury Department.¹ The following developments over the last two years are worthy of note for colleges and universities. In recent months, there has been recognition by some individuals who are currently or previously in government security roles that the deemed export controls regulations may be outdated and may not be effective to protect security interests. Changes to the interpretation or revision of these controls to make them more restrictive and burdensome on the academic research endeavor would be particularly counter-productive if the controls are not effective. The impending appointment of a Deemed Export Advisory Committee by the Department of Commerce is a very helpful development that will support an ongoing and thoughtful dialogue among government regulators, academic research institutions, and industry about ways of effectively protecting the nation’s security without undermining the academic research endeavor.

1. History of the Current Deemed Export and Fundamental Research Issues

Defense-oriented interests at the export control, major science funding, and defense agencies have, over the last few years, been questioning and assessing the effectiveness of export controls to stem what they perceive to be a threat that academic institutions might transfer sensitive technology to potential terrorists. The National Defense Authorization Act² requires the Commerce Department, the Department of Energy, the Defense Department, and the State Department, in consultation with the Central Intelligence Agency and the Federal Bureau of Investigation, to assess whether U.S. export controls are adequately preventing acquisition by foreign governments, agents of foreign powers and other non- U.S. citizens of sensitive U.S. technology and services on how to use it. The Department of Homeland Security has also joined this effort. These agencies are required to report on their findings annually to Congress over an eight-year

¹ ITAR, 22 C.F.R. 120-130; EAR, 15 C.F.R. 730-774; and OFAC, 31 C.F.R. 500. For a summary of the rationale, basic requirements and common exclusions and exemptions under EAR, ITAR and OFAC, refer to part VI (export controls) of *The War on Terrorism Affects the Academy: Principal Post-September 11, 2001 Federal Anti-Terrorism Statutes, Regulations and Policies That Apply to Colleges and Universities*, by Jamie Lewis Keith, Senior Counsel, Massachusetts Institute of Technology, published in Vol. 30, No. 2 of the *Journal of College and University Law*. The author’s copy is available at http://web.mit.edu/srcounsel/resource/Final25_Apr04_JLKversion_Same_As_PDF_Journal_version.pdf. Also refer to resource materials available at <http://web.mit.edu/srcounsel/> and at <http://web.mit.edu/osp/>, to *Export Controls and Universities: Information and Case Studies*, published by the Council on Government Relations, and to the report, *Restrictions on Research Awards: Troublesome Clauses, A Report of the AAU/COGR Taskforce*” by Julie T. Norris, Office of Sponsored Programs, MIT, at <http://www.aau.edu> and <http://www.cogr.edu>.

² National Defense Authorization Act for Fiscal Year 2000, Pub. L. No. 106-65, 113 Stat. 512 (1999).

period beginning in 2000. After modest review in past years, these agencies' Inspectors General used the reporting process for 2003 to propose heightening controls and enforcement at universities. The agencies (particularly the Commerce Department) and the academic research community have been working since then to achieve a common understanding of the research and security interests and to ensure that any response to these reports does not undermine the nation's research enterprise or security.

An important focus of the agencies in their reports for 2003 is whether academic research institutions, with their multi-national campus communities, are well informed about and complying adequately with controls on "deemed exports" to foreign nationals on U.S. campuses. "Deemed exports" are the transfer or disclosure, visually, electronically, or in any other medium, of controlled software, "technologies," or "technical data" (i.e., information, beyond general and basic marketing materials, on use, development or production of export-controlled equipment, materials and items ("Materials or Items")), to a foreign entity or individual in the U.S. Deemed exports do not include the mere transfer in the U.S. of the actual controlled Materials or Items without any accompanying controlled information.³

In the fall of 2003, Inspectors General's staff representing the Department of Commerce, the State Department, the Defense Department as well as the Department of Energy, visited twelve major academic research institutions across the country.⁴ In March 2004, the Inspectors General of the Defense Department and the Commerce Department issued reports to Congress. A combined multi-agency report was issued in April 2004.⁵

These reports focus particularly on the application of deemed export requirements to fundamental research on U.S. university campuses. The "U.S. university fundamental research" exclusion under EAR and ITAR is one of the most commonly applied exclusions from export controls by academic research institutions. This exclusion is based on National Security Decision Directive 189 ("NSDD 189"), which defines "fundamental research" as "basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production and product utilization, the results of which ordinarily are restricted

³ See 15 C.F.R. 734.2; 22 C.F.R. 120.17(2)-(5) ("deemed exports") and 15 C.F.R. 772, 774, Supp. 1 and 2; 22 C.F.R. 120.10 ("technologies" and "technical data"). There are some limitations on transfers of certain ITAR-controlled Materials or Items in the U.S. For more information on deemed exports see the guidance for researchers at http://web.mit.edu/srcounsel/resource/Deemed_Export_Information_September.pdf or <http://web.mit.edu/osp>.

⁴ The Department of Energy's staff did not actually participate in the visits. The Commerce Department Inspector General's staff visited California Institute of Technology, Carnegie Mellon University, Emory University, Georgia Institute of Technology, Johns Hopkins University, MIT, Stanford University, University of California at Berkeley, and University of Maryland at College Park, and the Department of Defense Inspector General visited three of these institutions as well as the University of Southern California, the University of Texas at Austin, and the University of Alabama at Huntsville.

⁵ See <http://www.dodig.osd.mil/Audit/reports/FY04/04-061.pdf>, <http://www.oig.doc.gov/oig/reports/2004/BIS-IPE-16176-03-2004.pdf>, and <http://www.dodig.osd.mil/audit/reports/fy04/04-062.pdf>.

for proprietary or national security reasons.”⁶ NSDD 189 was issued during the Reagan Administration despite concerns that the former Soviet Union might take advantage of U.S. openness. The Directive provides that the classification process is the appropriate means of securing information related to “fundamental research” by colleges and universities when security is warranted, and otherwise, except as required by statute, fundamental U.S. university research should be freely disseminated because it supports our nation’s security. The George W. Bush Administration, in November 2001 confirmed that NSDD 189 continues to be the policy of the federal government.⁷ In October 2004, Condoleezza Rice again confirmed the importance of both the academic research endeavor and security.⁸

The fundamental research exclusion under EAR and ITAR applies literally to (a) information (but not to export controlled Materials or Items) (b) “*resulting from*” or “*arising during*” “basic and applied research in science and engineering” (c) conducted at an “accredited institution[] of higher education” (EAR) or “higher learning” (ITAR) (d) “located in the United States” (e) that is “ordinarily published and shared broadly within the scientific community” and (f) that is not “restricted for proprietary reasons or specific national security reasons” (EAR) or subject to “specific U.S. Government access and dissemination controls” (ITAR).⁹ This exclusion permits U.S. universities to allow foreign members of their communities (e.g., students, faculty, and visitors) to participate in research projects involving export-controlled information on campus in the United States. Also, once fundamental research occurs on campus in the U.S. in accordance with the exclusion’s prerequisites, the research results (information) may be transferred abroad without restriction. The nature and purpose of this information is to be public; hence it is *excluded*, not merely exempted, from controls. This exclusion does not allow the transfer of controlled Materials or Items abroad, with very limited exceptions under ITAR.

Colleges and Universities have for many years assumed that a reasonable interpretation of the “fundamental research” exclusion from ITAR and EAR must include the right for foreign researchers to use, alter and create, *and to receive information on how to use, alter, and create*, controlled equipment while conducting fundamental research on U.S. university campuses. One of the most troubling aspects of the Commerce Department Inspector General’s report, that is adopted by the Multi-agency Inspectors General’s report, is its recommendation that a deemed export license be required in order for any controlled technology or technical data (i.e., controlled information beyond basic and general marketing materials) to be conveyed in any medium or manner (including through instruction) to foreign nationals on the “use” (i.e., “operation, installation...maintenance...repair, overhaul and [/or] refurbishing,”) of EAR-controlled (or ITAR-controlled) equipment used in the conduct of fundamental research (even if the

⁶ See <http://www.fas.org/irp/offdocs/nsdd/nsdd-189.htm>.

⁷ In a November 2001 letter to Dr. Harold Brown, then-Co-chairman of the Center for Strategic & International Studies, Dr. Condoleezza Rice, then-Assistant to the President for National Security Affairs, stated, “the policy on the transfer of scientific, technical, and engineering information set forth in NSDD 189 shall remain in effect, and we will ensure that the policy is followed” while a “broad-based review” ensues of “technology transfer controls.” See <http://www.aau.edu/research/Rice11.1.01.html>.

⁸ See http://web.mit.edu/srcounsel/resource/Condoleezza_Rice_Letter.pdf.

⁹ 15 C.F.R. § 734.3(b)(3), 734.8 (a), (b); 22 C.F.R. 120.11(8).

information is only conveyed visually, through careful observation or demonstration of the operation of controlled equipment).¹⁰

Since the issuance of the report, Commerce Department staff have emphasized that it is not the mere use of controlled equipment, but rather the conveyance of information constituting controlled technology or technical data on the use of controlled equipment that requires a deemed export license. Commerce Department staff have explained that, under one interpretation of the regulations, the following analysis determines whether a deemed export license is required to convey information to foreign nationals on use of equipment in fundamental research projects:

- 1) is the equipment controlled,
- 2) if so, is it controlled for use technology,
- 3) if so, for what aspects of “use” is it controlled (e.g., installation, mere operation, repair, maintenance, etc.)
- 4) is it controlled for use technology for all countries, or only for certain countries (which ones),
- 5) is the use technology already publicly available under EAR,
- 6) is the use technology subject to any blanket licenses or exceptions,
- 7) if so, do the licenses or exceptions apply to all countries or only to certain countries (which ones)?

If controls apply under 1 and 2, then, under this interpretation, a deemed export license is required before use technology of the type controlled (under 3) is conveyed in the United States to any national of a country that is subject to the controls under 4, unless an exclusion applies under 5 or a license or license exception applies under 6 and 7.

Note that the information being conveyed would have to be controlled technology concerning use-technology-controlled equipment that is not already excluded from export controls as a consequence of being in the public domain (ITAR) or being publicly available (EAR), in order for the information to be subject to the requirement of a deemed export license under any interpretation. To qualify as in the public domain (ITAR) or publicly available (EAR), the information must be already published, not just ordinarily published, through: a) libraries open to the public, including most university libraries; b) unrestricted subscriptions, news-stands, or bookstores for a cost not exceeding reproduction and distribution costs (including a reasonable profit); c) published patents; d) conferences, meetings, seminars, trade shows or exhibits held in the U.S. (ITAR) or anywhere in the world (EAR), which are generally accessible by the public for a fee reasonably related to the cost and where attendees may take notes and leave with their notes; or e) websites accessible to the public for free and without the

¹⁰ See 15 C.F.R. 772, 774; 22 C.F.R. 120.10. The regulatory definition of “use” under EAR lists “operation, installation...,repair,...and refurbishing,” among other activities, as “use,” literally requiring all of the listed activities to be conducted to constitute “use.” However, the Commerce Department has stated that they may interpret the “and” in this list to mean “and/or,” finding that any one of the listed activities may constitute “use.” This raises the issue of whether Commerce’s interpretation requires a regulatory change or whether Commerce has the authority as the administering agency to interpret “and” as “and/or.” This issue will likely be considered by the Deemed Export Advisory Committee addressed in Part 3 below.

host's knowledge of or control of who visits or downloads software/information (clearly an acceptable method of publication under EAR, and likely an acceptable method under ITAR).¹¹

One important question is whether the use technology in an equipment manual that requires the purchaser to accept a "click on" license is still publicly available. The license is intended to ensure that the user pays a fee and, unlike an exclusive license or nondisclosure agreement, the click on license is not intended to – and doesn't – restrict broad dissemination. This use technology should, in my view, be considered "publicly available" and may arguably fall under clause b) of the definition set out in the last paragraph. This is an issue for discussion and interpretation with the regulators.

Note, however, that even if the use manual for use technology-controlled equipment is publicly available through one of the EAR or ITAR-prescribed means, the Commerce Inspector General has left open the question of whether a deemed export license (or EAR/ITAR-prescribed publication) is required to involve foreign nationals in creating or altering that equipment in campus research (thereby showing them how to do so through their participation), or whether the fundamental research exclusion would apply as academic research institutions assert. If the information sought to be conveyed on creating or altering, or on how to use newly created or altered, equipment arises during or results from fundamental research (i.e., it doesn't already exist and isn't already controlled), the creation or alteration of equipment and conveyance of related use information should not require a deemed export license. However, if controlled information already exists and is conveyed in the process of altering the equipment and creating new use technology, there is a question. (These distinctions are open issues and are too fine to be feasibly made in the 24-hour, dynamic and spontaneous academic research setting in any event.)

¹¹ See 22 C.F.R. 120.10(5), 120.11, 125.1(b), 125.4; 15 C.F.R. 734.3(b)(3), 734.7-734.10.

Note that manufacturers and retailers who routinely sell controlled equipment such as certain GPS equipment, fermenters, cameras and computers with operating manuals and other use instructions do not typically determine whether purchasers in the U.S. are foreigners or U.S. citizens or permanent residents. If the equipment is controlled for use technology, if the manuals or other operating instructions convey controlled information (beyond basic and general marketing materials) that is not already published by one of the above-referenced methods, and if the purchasers are not U.S. citizens or permanent residents, then the Commerce and Multi-agency Inspectors General's reports would interpret the conveyance of information on use (including, if controlled, mere operation technology) to foreign nationals of the countries for which the technology is controlled as a "deemed export" without a license in violation of export controls. The fact that many large companies which sell such equipment include in the small print of materials accompanying the purchase a notice that export controls apply and that the purchaser may not export the equipment or related information abroad, would not address the problem of a deemed export in the conveyance of controlled information at the point of sale in the U.S. There is a general license exception (TSU) in the EAR for the conveyance of mass-marketed software, i.e., software sold by retail counter, mail or telephone outlets, to purchasers in the U.S. other than those from certain terrorist countries. See 15 CFR 774, Supp. 2. However, manufacturers and retailers do not check the nationality of purchasers in the U.S. to determine whether they are citizens of these terrorist countries. In addition to causing serious problems for academic institutions (that do not track the nationality of members of their campus communities prior to engagement in research or other academic activities), this interpretation would have significant effects on the U.S. marketplace.

2. Academic Research Institutions and Government Agencies Have Been Engaging in a Helpful Dialogue

In a September 9, 2004 letter to Condoleezza Rice, then-Assistant to the President for National Security Affairs, John H. Marburger, III, Director of the Office of Science and Technology Policy, Stephen Friedman, then-Assistant to the President and Director of the National Economic Council, and Margaret Spellings, then-Assistant to the President for Domestic Policy, the presidents of 22 major United States research universities,¹² led by then-President Charles Vest of MIT, expressed their concerns about the export policy developments reflected in the Commerce Inspector General's report and their effects on university research. The presidents also affirmed their commitment to the success of the nation's academic research endeavor and to the nation's security, and emphasized that these interests are intertwined.¹³ In an October 13, 2004 response from Dr. Rice, the Administration stated, "U.S. leadership in science and technology is a critical element of our economic and physical security. Accordingly, we are committed to working with the academic community to ensure that our export control policies do not undermine the openness and strength of our academic institutions, while still achieving our legitimate national security goals." Dr. Rice committed to engaging in a dialog with academic research institutions to reach a common understanding of current export policies. She stated that the deemed export rules and their interpretations have not changed and that there appears to be a misunderstanding about the rules. (While the words of the regulations may not have changed, the Inspector General's interpretation of the deemed export rules as they apply to fundamental research has not been previously widely, if ever, articulated or enforced. Also, the Commerce Department's Questions and Answers (Q&A) in Supplement No. 1 to Part 734 of the EAR, including Q&A D.1, do not support the Inspector General's interpretation.) Dr. Rice also stated that neither the rules nor their interpretation will change without a "thorough understanding of the possible ramifications" and an opportunity for dialog and public comment. She suggested that representatives of the Commerce Department, the State Department and the National Security Council be involved in the dialog with academic research institutions.¹⁴

On November 8, 2004, the Association of American Universities ("AAU") convened a presidential task force co-chaired by President Jared Cohon of Carnegie Mellon University and President Richard Levin of Yale University, and comprising President Ralph Cicerone of University of California, Irvine, President Larry Faulkner of University of Texas at Austin, President Marye Anne Fox of University of California,

¹² The universities are: Massachusetts Institute of Technology, California Institute of Technology, Columbia University, University of Oklahoma, Johns Hopkins University, Georgia Institute of Technology, Carnegie Mellon University, University of Michigan, University of California System, University of Texas at Austin, University of California, San Diego, Texas A&M University, Stanford University, Ohio State University, Cornell University, Yale University, University of Florida, University of Chicago, Harvard University, Princeton University, University of Wisconsin-Madison, and Washington University in St. Louis.

¹³ See <http://web.mit.edu/srcounsel/resource/PresidentsExportControlLetter.pdf> .

¹⁴ http://web.mit.edu/srcounsel/resource/Condoleezza_Rice_Letter.pdf .

San Diego, President Robert Gates of Texas A&M, President John Hennessy of Stanford University, President Susan Hockfield of MIT, President C. D. Mote, Jr., of University of Maryland, College Park, and President Lawrence Summers of Harvard University, to lead discussions of this critical issue with the Administration. There has been a very helpful dialogue with the Commerce Department and other interested government representatives over the last almost two years.

On March 28, 2005, the Commerce Department published an Advance Notice of Proposed Rulemaking (“ANPR”) in the Federal Register¹⁵ asking for comments on the Commerce Inspector General’s recommendations to increase deemed export licensing requirements and limit the application of fundamental research on U.S. university campuses, as a precursor to developing regulatory changes. There were over 300 comment letters filed, including one by the Council on Governmental Relations (“COGR”) and another by the AAU that raised serious concerns about the Inspector General’s recommendations.¹⁶

Many of the concerns are based on the fact that, if the Inspector General’s recommendations were implemented, some number of fundamental research projects is likely to require a deemed export license in order for foreign students, faculty, visitors, technicians and other research and research support staff to work on such projects. Although technically not required for the mere use of equipment or for participation in research, as a practical matter, a license would be required prior to foreigners’ participation in research due to the spontaneous and collaborative manner in which research groups use, alter, and create, and provide information on how to use, alter and create virgin, newly created, and altered equipment. More importantly, regardless of the number of deemed export licenses ultimately required, the nationalities of members of our campus communities would have to be tracked; the many pieces of equipment used in research would have to be analyzed to determine whether they are controlled for use technology and require a deemed export license before being put to use in research in the United States (with instruction on use);¹⁷ and security would have to be implemented on our otherwise open campuses to ensure that non-licensed foreign members of and visitors to the campus community will not have access to controlled technology/technical data on the use of controlled equipment. In view of the international demographics of our campuses and our critical open and collaborative research practices, this interpretation would likely subsume the fundamental research exclusion and significantly affect the openness of our campuses and the nature and productivity of our academic research endeavor.

¹⁵ See 70 Fed. Reg. No. 58, 15607-15609 (March 28, 2005).

¹⁶ The COGR letter is available at <http://www.cogr.edu/docs/ExportControlCommentLetter.doc> and the AAU letter is available at http://www.aau.edu/research/AAU_Comments_on_Export_Controls-06-27-05.pdf.

¹⁷ Note that making this determination for the many pieces of research equipment at a large research university would, in and of itself, be a Herculean task. Of course, this analysis must be done before exporting equipment abroad, but under universities’ longstanding interpretation of the fundamental research exclusion, it has not been necessary to undertake this analysis merely to use equipment in fundamental research on campus in the United States even in circumstances where information on the use of the equipment may be conveyed.

While the adverse effects that such changes would cause are clear, the evidence of the need for greater restrictions on university research--and of the effectiveness of the complex and antiquated export controls regime to protect our nation's security in a global, Internet-driven economy and society--is less clear. COGR, AAU and many universities have stressed the need for high levels of the government to do a cost benefit analysis that balances the well-defined adverse effects on the academic research endeavor that limiting the application of fundamental research and increasing the requirements for deemed export licenses would have, with any to-be-defined benefits to national security that applying those controls would have. Universities support national security and believe that the productivity and creativity of the open, international academic research endeavor is critical to our nation's competitiveness in the world economy and leadership in innovation. Undermining the academic research endeavor would ultimately affect our national security and to do so by using overly complex and outdated controls that are not effective to protect security would be the worst possible outcome.

3. Recent Developments are Promising

On April 24, 2006, the Commerce Department noticed its intent to respond to the comments to the ANPR and Inspector General's recommendations and indicated that the current provisions of the EAR relating to deemed export licensing and the definition of "use" are adequate and do not need to be amended. The notice also states that another notice will be forthcoming to announce the creation of a Deemed Export Advisory Committee. On May 22, 2006, the Commerce Department published its notice announcing the creation of the Deemed Export Advisory Committee and noting that the Committee will review current deemed export policies for purposes of most effectively protecting national security without undermining the nation's competitiveness and leadership role in innovation.¹⁸

The Committee is expected to include senior representatives of government, academia, and industry. It will ensure the continuation of the ongoing dialogue about deemed exports and provide an opportunity to undertake a useful cost-benefit analysis of the consequences of different interpretations of "fundamental research" and "deemed exports." The Committee holds much promise for the resolution of outstanding issues and concerns in a manner that will effectively protect our nation's security without undermining the academic research endeavor that supports our strengths as an innovator and leader in the world's economy.

The May 22nd notice states that the current regulatory means of determining foreign nationality, definition of "use," and relationship of fundamental research to deemed exports, will not be changed at this time. The notice also states that the Commerce Department will separately respond to the comments to the ANPR. It appears that the Deemed Export Advisory Committee will be given the opportunity to assess current policy and regulations, and the consequences of any potential changes to the regulations or their interpretation, to determine whether any changes should be implemented.

¹⁸ 71 Fed. Reg. No. 78, 22392 (April 24, 2006), 71 Fed. Reg. No. 98, 29301-29303 (May 22, 2006).

The two notices also mean that some of the Inspector General's specific troubling proposals, such as basing "foreign national" status on country of origin as well as country of citizenship, rather than just country of citizenship or U.S. permanent residency,¹⁹ and changes in the fundamental research exclusion to require actual publication rather than intent to publish,²⁰ will not be implemented at this time. Although not specifically

¹⁹ The Commerce Department Inspector General's report and Multi-agency Inspectors General's report recommend that the Commerce Department consider an individual's nationality at birth, as well as current nationality and permanent resident status, in applying EAR licensing requirements, purportedly because a person born in another country could be expected to travel there, possibly exporting controlled Materials or Items or related controlled information (i.e., technologies and technical data). In our global world, this logic applies equally to U.S. citizens. If this recommendation were followed, more deemed export licenses would be required and there would be further deterrents on international participation in U.S. university fundamental research. The Commerce Department responded to this recommendation with reservations initially and has declined to amend its regulations at this time. It is not clear that discrimination on the basis of national origin, as opposed to current citizenship, would pass the "strict scrutiny" standard that applies under the Equal Protection Clause of the 14th Amendment to the U.S. Constitution. See, e.g., City of Cleburne v. Cleburne Living Center, 473 U.S. 432, 440 ("race, alienage, or national origin...are so seldom relevant to the achievement of any legitimate state interest that laws grounded in such considerations are deemed to reflect prejudice and antipathy [and] are subject to strict scrutiny and will be sustained only if they are suitably tailored to serve a compelling state interest"); Espinoza v. Farah Manufacturing Co., Inc., 414 U.S. 86 (1973)(distinguishing between proscribed national origin discrimination and permitted citizenship distinctions under Title VII).

²⁰ The Commerce Department Inspector General expressed discomfort with the notion that "intent to publish" research results is enough to satisfy one of the prerequisites of the fundamental research exclusion and implied that actual publication may be more appropriate. This point is also adopted by the Multi-agency Inspectors General's report. Some export control experts have suggested that the State Department might interpret fundamental research as requiring actual publication (such as submission for publication), particularly when ITAR-restricted or embargoed countries are involved. However, neither the language of NSDD 189, nor the language of the EAR and ITAR fundamental research exclusions, requires actual publication. The Commerce Department has declined to amend its regulations at this time.

The Commerce Department Inspector General's report and Multi-agency Inspectors General's report also appear to evaluate whether research is fundamental based on its subject matter, results and usability for a particular purpose, rather than relying on whether the research is free of publication and dissemination restrictions and is being undertaken at a U.S. university whose mission and focus are expansion and dissemination of knowledge, not commercialization. Although fundamental research undertaken at universities may ultimately lead to product development research and commercialization in industry (and this is good for our nation), university fundamental research is intended to increase knowledge and to be broadly shared. The fundamental research process can take a very long time and is not motivated by profits. Industry depends on the patient efforts of universities, funded by federal and other sponsors, to lay the knowledge foundation for industry's later commercialization. Universities have depended on openness and broad international participation to produce the best fundamental research. Industry research, by contrast, is generally shorter term, motivated by profits, and aimed at commercialization. For these reasons, industry research results are typically proprietary and not intended to be shared. EAR recognizes a "fundamental research" exclusion for industry to address the rare circumstances in which there are no publication or other restrictions on industry research results. 15 C.F.R. 734.8(d).

Context really does matter in characterizing research as fundamental and this is recognized by NSDD 189. If the Inspectors General's recommendation were followed, it is unclear how the line between fundamental research and other research would be drawn. If industry is working in a general subject area because there is a potential use for the research and this fact forecloses a university from treating research in the same

addressed in the notices, it seems likely that other troubling Inspector General recommendations beyond deemed export licensing and fundamental research, such as changes to limit the educational exclusion from export controls,²¹ will not be implemented at this time.

4. Defense Department DFARS

The Defense Department Inspector General's report finds that the Defense Department's research funding programs and its funded institutions lack "adequate processes to identify unclassified export-controlled technology and to prevent unauthorized disclosure to foreign nationals." The Inspector General recommends that the Defense Department incorporate export control requirements in their funding contracts. In doing so, the Inspector General fails to recognize the fundamental research (and other) exclusions and exemptions that remove otherwise controlled research from export control licensing and sometimes other requirements. The only mention of the effect of fundamental research is on page 9 and in a footnote where the fundamental research exclusion is only partially quoted, and its interaction with restrictive contract provisions is only alluded to and not analyzed. This focus invites the imposition of contract conditions (e.g., publication and access restrictions) that destroy the fundamental research exclusion and lead to the imposition of license requirements, security and the exclusion of foreign nationals in university research or lead to long negotiations to remove the conditions and research delays. (See Part 5 below.) If the Defense Department does not recognize NSDD 189 and a U.S. university's right to conduct fundamental research, export controls will apply more broadly to university research or universities will have to seek funding elsewhere. This is not good for higher education or the nation as discussed above.

general area as fundamental, or if there is a requirement to transition a research project from fundamental research at its inception to non-fundamental research once the project produces something of use for a particular purpose mid-course, the restrictions on university research would over-burden and diminish fundamental research. (It is also unclear what benefit would be derived from such a requirement when foreign nationals have been involved in the research since its inception.) The symbiotic relationship of academia (doing fundamental research) and industry (doing product development and commercialization) would weaken or collapse. This would adversely affect our nation's competitiveness in the world and ultimately our national security.

²¹ The Commerce Department and Multi-agency Inspectors General's reports imply that the educational information exclusions from EAR and ITAR are overbroad and problematic. These exclusions allow universities to teach foreign nationals general science, math, and engineering commonly taught at schools, colleges and universities (ITAR), see 22 C.F.R. 120.10(5), and any information taught in courses listed in course catalogues and in associated teaching laboratories of academic institutions (EAR), see 15 C.F.R. 734.3(b)(iii), 734.9, even if the information concerns controlled Materials or Items and would otherwise be controlled. If this recommendation were adopted and the educational exclusion were limited or eliminated, colleges and universities would have to exclude foreign students, faculty and others from our campuses, obtain deemed export licenses, and/or strictly secure and control the subjects taught in, or individuals' entry into, classrooms and teaching laboratories. This would have a severely limiting effect on the diversity and richness of the academic environment in U.S. higher education and would threaten our nation's leadership position in higher education in the world. The best and the brightest international talent (and even the best U.S. students potentially) would have strong incentives to seek to study at other countries' colleges and universities where a rich, international, and open academic environment is preserved. The Commerce Department seems to have decided not to amend its regulations at this time.

On July 12, 2005, the Defense Department published a proposal in the Federal Register to amend its Defense Federal Acquisition Regulation Supplement (“DFARS”) that is applicable to Defense Department contracts, by adding a new subpart 204.73 for university and federally funded research and development centers and by adding a corresponding new contract clause to address export controlled information and technology.²² There are many issues with the proposal, and I will highlight some of them. The proposal did not make clear that information that is subject to the fundamental research exclusion is not subject to export controls and, consequently, should not be subject to contract clauses imposing controls and related compliance programs. The resulting ambiguity would likely lead contracting officers to include contractual provisions that should not apply, resulting in long negotiations to seek their removal and overburdening and delaying important research. The proposal was overbroad by imposing contractual obligations, in addition to the regulatory requirements that apply in any event, on activities that are not subject to a Defense Department contract. This, in effect, would unfairly expose universities to liability to the Defense Department for breach of contract, as well as liability to the government for violations of export controls regulations, for activities that are not under the contract. Where export controls do apply, the proposal is overly prescriptive as to the means of ensuring compliance. In addition, by making changes to the DFARS for export controls before the Commerce Department resolves outstanding issues, the Defense Department is assuming the role of interpreting the regulations as an administering agency, which should be reserved for the Commerce Department.

AAU and COGR, as well as many institutions, commented on the proposed rule.²³ The Defense Department has been considering the comments and indicates that it will be responsive in the final rule. A notice of the final rule is expected in the near future.

5. Federal Funding Agencies That Impose Restrictions on the Dissemination of Information and/or Participation of Foreign Nationals In Unclassified Research, Subject Colleges and Universities to Export Controls and Act In Contravention of National Security Decision Directive 189 of September 21, 1985 (NSDD 189).

The impending DFARS amendments raise issues of contractual provisions that could unnecessarily apply export controls. However, it is important to recognize that other conditions to awards also give rise to the application of export controls, even in the absence of contractual provisions that expressly apply export controls and even under the longstanding university interpretation of “fundamental research.” A university that accepts, as a condition in a government agency award, a requirement for the agency’s *approval* prior to publication of the research results or a restriction on access to or participation in the research by non-U.S. citizens, is accepting that the fundamental research exclusion will not apply to the research and that “deemed” export controls will apply if use-technology-controlled Materials or Items will be used in the research. A

²² 70 Fed. Reg. No. 132, 39976 - 39978 (July 12, 2005).

²³ The COGR letter is available at <http://www.cogr.edu/docs/DFARSExportClause.doc> and the AAU letter is available at <http://www.aau.edu/research/AAUCommDODECrule101205.pdf>.

joint AAU and COGR report in 2004 documents a trend of agencies attempting to require such approval and access restrictions for “sensitive but unclassified” research.²⁴

Universities must understand what these restrictions mean and resist them or be willing to diligently comply with deemed export controls relating to the research.

5. Conclusion

Progress has been made to increase regulators’ and academic research institutions’ understanding of security, innovation and competitiveness interests associated with deemed exports. From any perspective, it is extremely important that an outdated regulatory regime, which is not very effective to protect our nation’s security in a world of global travel, communication, and commerce, not be interpreted in a manner that would undermine the academic research endeavor, which is so critical to our nation’s leadership in innovation and the global economy. There is more work to be done, but the Deemed Export Advisory Committee, a shared interest in protecting the nation’s security, and recognition that the academic research endeavor is critical to our nation’s leadership in innovation and the global economy provide a solid foundation to reach a constructive resolution.

²⁴ The report, *Restrictions on Research Awards: Troublesome Clauses*, of a joint task force of the Association of American Universities and the Council on Government Relations issued in March 2004 finds that over a six-month period (August 2003 through February 2004), the 20 institutions participating in the task force experienced 138 instances of publication or foreign national restrictions being imposed by federal funding agencies on unclassified federally-funded research. This report is available on COGR’s website at <http://www.cogr.edu> and on AAU’s website at <http://www.aau.edu>. The task force was headed by Julie T. Norris, then Director of MIT’s Office of Sponsored Programs and included representatives of California Institute of Technology, Carnegie Mellon University, Duke University, Georgia Institute of Technology, Harvard University, MIT, Northwestern University, University of Pennsylvania, Stanford University, Texas A&M, University of California at Berkeley and San Diego, University of Cincinnati, University of Colorado at Boulder, University of Maryland at College Park, University of Michigan, University of Minnesota, University of Texas at Austin, University of Wisconsin, and Washington University in St. Louis. The restrictions sometimes were imposed directly in an award to a university and other times were passed through a prime commercial company awardee to a university under a subcontract. A minority of schools accepted the restrictions as initially imposed; a minority of schools declined the funding; some schools negotiated changes in the conditions to eliminate unacceptable restrictions (although the negotiations took many months and delayed the research); and some schools were still negotiating at the time of the report. In accepting these types of restrictions, institutions accept the application of export controls and corresponding fundamental changes to campus openness and nationality blindness in the related research. If export controls apply to research, foreigners cannot participate or an export or deemed export license must be obtained and/or other requirements satisfied, and security measures must be implemented to ensure that foreigners do not have access to the controlled research except as permitted under the license and other controls.