KEY ISSUES IN UNIVERSITY RESEARCH

I. DEEMED EXPORTS

While exports are commonly associated with the shipment of a tangible item across the U.S. border, export controls have a much broader application. One of the most difficult issues with respect to export controls is the fact that an export is defined to include the transfer of controlled information or services to foreign nationals even when the transfer takes place within the territory of the United States. Though taking place inside the U.S., the transfer is “deemed” to be an export (as if exporting to the country of the foreign national). The term “deemed export” is unique to the EAR.

Both the ITAR and the EAR provide for deemed exports, even though in the case of defense exports the regulations generally speak of exports. While the ITAR distinguishes between the transfer of technical data and defense services, the EAR generally provides for the release of technology. Such transfer or release may be made through oral, visual, or other means. An export may occur through:

1. a demonstration;
2. oral briefing;
3. telephone call or message;
4. laboratory or plant visit;
5. presenting at conferences and meetings;
6. faxes or letters;
7. hand-carried documents, hardware or drawings;
8. design reviews;
9. the exchange of electronic communication;
10. posting non-public data on the Internet or the Intranet;
11. carrying a laptop with controlled technical information or software to an overseas destination; or
12. collaborating with other universities / research centers through research efforts.
The issue of deemed exports is particularly relevant to university research because of the activities that normally take place at a university. While a university may be involved in the shipment abroad of equipment or machinery to participate in a conference, a joint project, or equipment loan programs, most often faculty and students are engaged in teaching and research. Whenever teaching or research are related to controlled equipment or technology, foreign students' or researchers' involvement may trigger export control compliance issues.

II. U.S. AND FOREIGN PERSONS

For purposes of defense and dual-use exports, a U.S. person is defined as a U.S. entity or a U.S. citizen, a person lawfully admitted for permanent residence in the United States (i.e., green card holder), or a person who is a protected individual under the Immigration and Naturalization Act (8 U.S.C. § 1324b(a)(3) (i.e., certain classes of asylees)). A U.S. person may be engaged in activities that are export controlled, unless there are some additional restrictions that limit participation to U.S. citizens.

The regulations define foreign person as anyone who is not a U.S. person. BIS looks at the person's most recent citizenship or permanent residence. DDTC looks at the person's country of origin (i.e., country of birth) and all current citizenships.

Note that the definitions for a U.S. and a foreign person differ for purposes of the OFAC sanctions. For a discussion, see Overview of Export Controls, Section V, above.

III. INFORMATION NOT SUBJECT TO OR EXCLUDED FROM EXPORT CONTROLS

It is important to note that most of the activities that UNC Charlotte engages in are fundamental research. As such, most activities are not subject to export controls, or even if controlled, do not require licensing. Both the ITAR and the EAR have special provisions relating to information that is not subject to export controls, including limited exclusions regarding the release of information in the context of university research and educational activities. Additionally, the embargo regulations have exceptions for certain information and informational materials.

A. PUBLICLY AVAILABLE

The ITAR and the EAR do not control information which is published and generally accessible or available to the public. Note that even though the two regimes have similar scope, the ITAR and the EAR vary in the specific information that qualifies as publicly available.

- **ITAR provision:** The ITAR describes such information as information in the public domain. The information in the public domain may be obtained through:
  - sales at newsstands and bookstores;
  - subscription or purchase without restriction to any individual;
  - second class mailing privileges granted by the U.S. Government;
  - at libraries open to the public;

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1 22 C.F.R. § 120.15; 15 C.F.R § 734.2(b).

2 22 C.F.R. §§ 120.10(a)(5) and 120.11.
The EAR provision: The EAR does not control publicly available technology if it is already published or will be published. Information is published when it becomes generally accessible to the interested public in any form, including:

- publication in periodicals, books, print, etc., available for general distribution free or at cost;
- readily available at libraries open to the public or university libraries;
- patents and open patents applications available at any patent office; or
- release at an open conference, meeting, seminar, trade show, or other gathering open to the public.

The EAR requires that the publication is available for distribution free or at price not to exceed the cost of reproduction and distribution; however, the ITAR does not have such a requirement.

Note also that the EAR does not specify where an open conference, meeting, seminar or trade show must take place, and thus allows, for example, participation at a foreign conference so long as the conference is open to all technically qualified members of the public, and attendees are permitted to take notes. Unlike the EAR, the ITAR limits participation in conferences and similar events to those that are taking place in the United States.

B. EDUCATIONAL INFORMATION

Both the ITAR and the EAR address the issue of general educational information that is typically taught in schools and universities. Such information, even if it relates to items included on the USML or the CCL, does not fall under the application of export controls.

- ITAR provision: The ITAR specifically provides that the definition of "technical data" does not include information concerning general scientific, mathematical or engineering principles commonly taught in schools, colleges and universities.  

- EAR provision: The EAR provides that publicly available "educational information" is not subject to the EAR, if it is released by instruction in catalogue courses and associated teaching laboratories of academic institutions.

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3 15 C.F.R. §§ 734.3(b)(3) and 734.7.
4 22 C.F.R. § 120.10(a)(5).
5 15 C.F.R. §§ 734.3(b)(3) and 734.9.
Therefore, a university graduate course on design and manufacture of very high-speed integrated circuitry will not be subject to export controls, even though the technology is on the CCL. The key factor is the fact that the information is provided by instruction in a catalogue course. Foreign students from any country may attend this course because the information is not controlled.

The information will not be controlled even if the course contains recent and unpublished results from laboratory research, so long as the university did not accepted separate obligations with respect to publication or dissemination, e.g., a publication restriction under a federal funding.\(^6\)

C. **FUNDAMENTAL RESEARCH**

During the Reagan administration, several universities worked with the Federal government to establish national policy for controlling the flow of information produced in federally funded fundamental research at colleges, universities and laboratories resulting in the issuance of the National Security Decision Directive 189 (“NSDD”), National Policy on the Transfer of Scientific, Technical and Engineering Information on September 21, 1985. In a letter dated November 1, 2001, President George W. Bush’s administration reaffirmed NSDD 189. NSDD 189 provided the following definition of *fundamental research* that has guided universities in making licensing decisions relative to fundamental research exclusions provided under both the EAR and ITAR.

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 for proprietary or national security reasons.

Research conducted by scientists, engineers, or students at a university normally will be considered fundamental research. University based research is not considered *fundamental research* if the university or its researchers accept (at the request, for example, of an industrial sponsor) other restrictions on publication of scientific and technical information resulting from the project or activity. Scientific and technical information resulting from the research will nonetheless qualify as fundamental research once all such restrictions have expired or have been removed.

Both the ITAR and the EAR provide that information published and generally accessible to the public through fundamental research is not subject to export controls. However, there are certain restrictions. In order to take advantage of this exemption:

- such information must be produced as part of basic and applied research in science and engineering and must be broadly shared within the scientific community (*i.e.*, no restrictions on publication / dissemination of the research results);\(^7\)

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\(^6\) 15 C.F.R. § 734, Supp. No. 1, Questions C(1) to C(6).

\(^7\) ITAR § 120.11(a)(8); EAR §§ 734.3(b)(3) and 734.8(a).
it is essential to distinguish the information or product that results from the fundamental research from the conduct that occurs within the context of the fundamental research;

while the results of the fundamental research are not subject to export controls, an export license may be required if during the conduct of the research export controlled technology is to be released to a foreign national. Such export controlled technology may come from the research sponsor, from a research partner institution, or from a previous UNC Charlotte research project.

One major difference is that the ITAR requires that, to qualify as fundamental research, research must be performed at accredited institutions of higher learning in the United States. Under the EAR, fundamental research may occur at facilities other than accredited institutions of higher learning in the United States.

Under both the ITAR and the EAR, research performed at universities will not qualify as fundamental if the university (or the primary investigator) has accepted publication or other dissemination restrictions.

- **ITAR provision:** the fundamental research exception does not apply to research the results of which are restricted for proprietary reasons, or specific U.S. Government access and dissemination controls.

- **EAR provision:** the fundamental research is distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary reasons or specific national security reasons. Under the EAR, university-based research is not considered fundamental research if the university or its researchers accept restrictions (other than review to ensure no release of sponsor-provided proprietary or patent information) on publication of scientific and technical information resulting from the project.

The EAR instructs that prepublication review by a sponsor of university research solely to ensure that the publication would not inadvertently divulge proprietary information that the sponsor has initially furnished, or compromise patent rights, does not constitute restriction on publication for proprietary reasons.

The EAR also has provided examples of "specific national security controls" which will trigger export controls. These include requirements for prepublication review and approval by the Government, with right to withhold permission for publication; restriction on prepublication

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8 See BIS Revisions and Clarification of Deemed Export Related Regulatory Requirements, 71 Fed. Reg. 30840, 30844 (May 31, 2006). (This interpretation of fundamental research by BIS, while not binding, is instructive as to how DDTC might interpret its regulations.)

9 22 C.F.R. §§ 120.11(a)(8) and 120.10(a)(5).

10 EAR § 734.8(a).

11 EAR § 734.8(b)(5). However, once the sponsor has reviewed and approved the release, the results may be published as fundamental research.
dissemination of information to non-U.S. citizens or other categories of persons; or restrictions on participation of non-U.S. citizens or other categories of persons in the research.\footnote{12}

While the ITAR does not contain such descriptive provisions, the EAR is instructive as to interpreting the limitations on fundamental research.

**D. Full-time University Employees**

Under a specific exemption, the ITAR allows a university to disclose unclassified technical data in the U.S. to a foreign person who is the university’s \textit{bona fide} and full time regular employee. The exemption is available only if:

- the employee's permanent abode throughout the period of employment is in the United States;
- the employee is not a national of a country to which exports are prohibited pursuant to ITAR § 126.1 (See current list of countries at \url{http://www.pmddtc.state.gov/regulations_laws/documents/official_itar/ITAR_Parf_126.pdf});
- the university informs the individual in writing that the technical data may not be transferred to other foreign persons without the prior written approval of DDTC; and
- the university documents the disclosure of technical data under the exemption providing: (1) a description of the technical data; (2) the name of the recipient / end-user; (3) the date and time of export; (4) the method of transmission (\textit{e.g.}, e-mail, fax, FedEx); (5) the ITAR reference, \textit{i.e.}, ITAR § 125.4(b)(10), \textit{Full-Time University Employee}.

Note that the "full-time \textit{bona fide} employee" requirement will preclude foreign students and postdoctoral researchers from qualifying for access to technical data under this exemption. Generally, a H1B work visa would be required.

This exemption only applies to the transfer of \textit{technical data} and discussions related to the data. Discussions may occur between the foreign full-time employee and other university employees working on the project. Additionally, the outside company (sponsor of the research) would have to apply for a DSP-5 license to provide technical data directly to the foreign national employee, and if the outside party and the employee are to engage in discussions and interchange concerning the data, then the proper authorization would be a Technical Assistance Agreement (TAA) rather than the DSP-5.