

THE IMPACT OF U.S. EXPORT CONTROLS AND  
ECONOMIC SANCTIONS ON  
COLLEGES AND UNIVERSITIES

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## I. INTRODUCTION<sup>1</sup>

At the core, a University holds most dear the ability for faculty and students to freely engage in research in an open environment, permitting unrestricted access to the University's underlying research data, the research methods used, and the dissemination of the final research results. Unfortunately, this core value may at times run in direct conflict with a University's obligations to comply with U.S. export controls and economic sanctions.

## II. THE INHERENT CONFLICT BETWEEN UNIVERSITY OPENNESS AND EXPORT CONTROLS AND SANCTIONS.

There is a great likelihood that University research conducted by faculty and students, at one time or another, will be subject to U.S. export control and economic sanctions that (a) impose access, dissemination, and/or participation restrictions on transfers to foreign persons of research regulated for national security reasons or (b) prohibit or limit collaborations with certain foreign persons. This may arise when a University accepts research grants and enters into agreements with governmental agencies or even private companies from the defense, aerospace, or satellite industries. It can place limits in some way on the publication of research results or on the participation of researchers on the basis of citizenship, which thereby takes research in sensitive areas outside of the realm of "fundamental research" that otherwise could be more freely released. This can happen in other circumstances outside of the research setting as well when, for example, University faculty and students participate in an international outreach effort with foreign persons. Additionally, Universities may face item-based restrictions when performing research within industries such as defense, aerospace, or satellite industries, or destination-based controls when involved in outreach to certain destinations, or end-use based controls when performing research for restricted end-uses such as nuclear.

Many Universities are unaware of the increasing impact U.S. export controls and economic sanctions have on the University setting. As will be explored later in this article, there have been a myriad of investigations and prosecutions of Universities, as well as faculty and students, in recent years for violations or suspected violations of U.S. export control laws and sanctions.

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1. For the sake of brevity, colleges and universities will hereinafter be referred to collectively as "Universities" in this article.

### III. U.S. EXPORT CONTROLS AND ECONOMIC SANCTIONS.

In general terms, U.S. export controls and economic sanctions serve to regulate (a) the release of sensitive items, and (b) the conduct of certain international collaborations for U.S. national security reasons. If an item or collaboration is controlled, then a University may be required to obtain a license or governmental authorization before the University, professors, or students may proceed with the project.

U.S. export controls and economic sanctions consist primarily of (a) the International Traffic in Arms Regulations (ITAR) administered by the U.S. Department of State which regulates munitions,<sup>2</sup> (b) Export Administration Regulations (EAR) administered by the U.S. Department of Commerce which regulates dual-use items,<sup>3</sup> and (c) U.S. economic sanctions administered by the Office of Foreign Assets Control (OFAC) of the U.S. Department of the Treasury which regulates transactions to certain listed person/entities or destinations.<sup>4</sup>

The four types of restrictions arising from U.S. export controls and economic sanctions consist of the following: (1) item-based controls regulate items listed on the ITAR's U.S. Munitions List (USML)<sup>5</sup> or the EAR's Commerce Control List (CCL);<sup>6</sup> (2) end-use-based controls under the EAR regulate the export of all U.S. items put to restricted uses, such as use with military applications, rocket systems, maritime nuclear propulsion, foreign vessels, or foreign aircraft;<sup>7</sup> (3) end-user-based controls restrict the export of any items to certain listed persons and business entities; while (4) destination-based controls restrict transactions with certain destinations such as Iran, Syria, and the Crimean Peninsula of Ukraine.<sup>8</sup> In sum, if University professors and students engage in controlled technology research or participate in international outreach programs with foreign persons, then the University may be required to obtain a license or government authorization before proceeding. Without a license or government authorization the University may be obligated to refrain from the controlled technology research or outreach program.

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2. 22 C.F.R. Parts 120-130, "ITAR."

3. 15 C.F.R. Parts 730-774, "EAR."

4. *Office of Foreign Assets Control - Sanctions Programs and Information*, US. DEPT. OF TREAS. (Jan. 15, 2016, 1:49 PM) <https://www.treasury.gov/resource-center/sanctions/Pages/default.aspx>.

5. ITAR Part 121.

6. EAR Part 774.

7. EAR Part 744.

8. *Id.*

## IV. EXPORT CONTROL REFORM.

Since 2010, the U.S. government has engaged in major reforms of U.S. export controls by reassessing controlled items category-by-category (Export Control Reform).<sup>9</sup> Export Control Reform focuses on transferring items unnecessarily listed on the strictly controlled USML to the lesser controlled CCL.<sup>10</sup> The items of high strategic importance remaining on the USML are subject to the ITAR, while the items transferred to the CCL are only subject to the less strict EAR.<sup>11</sup>

Also, with the advent of Export Control Reform, there has been an expanded focus on controlling items that could convey a significant intelligence advantage.<sup>12</sup> This would include intelligence technologies, such as information gathering, surreptitious listening, personnel location and tracking, and communication obfuscation technologies.<sup>13</sup> The heightened focus of export controls on intelligence technologies is an important new consideration for Universities.

To embrace Export Control Reform, Universities must assess existing compliance programs and take advantage of the new classification of items and technology transferred from the strictly controlled USML to the lesser controlled CCL by performing the following:

1. Identification of University Projects Subject to U.S. Export Controls.

Whether as an initial baseline assessment, or as a reassessment, Universities should conduct a comprehensive audit of current and future research projects to determine the effect of Export Control Reform. More specifically, Universities must establish: (a) whether research subject matter constitutes a controlled technology subject to the item-based or end-use-based controls, or (b) whether a collaboration partner could be subject to end-user-based or destination-based controls. Universities neglecting to perform such an assessment run the risk of complying with the wrong U.S. export controls (e.g., ITAR, not EAR). Or worse, the University may fail entirely to identify controlled technologies or collaborations violating U.S. export controls. Additionally, new intelligence technologies, such as information gathering, surreptitious listening, personnel location and

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9. THE WHITE HOUSE, *Fact Sheet on the President's Export Control Reform Initiative* (Apr. 20, 2010), available at <http://www.whitehouse.gov/the-press-office/fact-sheet-presidents-export-control-reform-initiative>.

10. *Id.*

11. *Id.*

12. BUREAU OF INDUSTRY AND SECURITY, *Remarks of Eric L. Hirschhorn, Under Secretary for Industry and Security, United States Department of Commerce; Export Control Reform Workshop, Colorado Springs, Colorado* (May 19, 2014), available at <https://www.bis.doc.gov/index.php/enforcement/oe/89-about-bis/newsroom/speeches>.

13. *Id.*

tracking, and communication obfuscation technologies may require heightened focus, as the item-based restrictions on such technologies continue to strengthen.

## 2. University Projects Subject to Multiple U.S. Export Controls.

As a result of Export Control Reform, the ITAR's USML and the EAR's CCL now contain "positive" (i.e., quantifiable) measurements that make controlled item identification and classification easier.<sup>14</sup> However, the measurement criteria introduced by Export Control Reform must be reviewed with care because similar technologies with varying performance capabilities may be listed on either the USML or the CCL. For example, a research project on camera technology that enables a ground vehicle to see in the dark may be listed either on the USML (e.g., cryogenically cooled) or the CCL (e.g., non-cryogenically cooled), and therefore, variants in the technical data arising from the research may be subject to the ITAR or EAR. Universities that have traditionally been accustomed to complying with ITAR may now find research projects governed by both the ITAR and EAR.

## V. UNIVERSITY PROJECTS SUBJECT TO U.S. ECONOMIC SANCTIONS.

As a component to the U.S. destination-based and end-user controls, OFAC administers and enforces economic sanctions in support of U.S. foreign policy and national security goals.<sup>15</sup> Economic sanctions target foreign countries and regimes, terrorists, international narcotics traffickers, those engaged in activities related to the proliferation of weapons of mass destruction, cyber-terrorists, as well as other threats to U.S. national security, foreign policy, or the economy.<sup>16</sup> In varying degrees, the countries currently sanctioned by the U.S. are Afghanistan (Taliban), Balkans, Belarus, Burma, Cuba, Democratic Republic of the Congo, Iran, Iraq, Lebanon, Libya, North Korea, Southern Sudan, Russian Federation, Somalia, Syria, Yemen, and Zimbabwe.<sup>17</sup> If the University, professors or students intend on engaging in collaborative research or international outreach to any of these destinations, or with persons from these

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14. Amendment to the International Traffic in Arms Regulations: United States Munitions List Category XI (Military Electronics), and Other Changes, 79 Fed. Reg. 37,536 (July 1, 2014).

15. *Office of Foreign Assets Control—Sanctions Programs and Information*, U.S. DEP'T OF THE TREAS. (Apr. 23, 2016, 1:49 PM), available at <https://www.treasury.gov/resource-center/sanctions/Programs/Pages/Programs.aspx>.

16. *Id.*

17. *Id.*

destinations, then care must be taken to ensure the proposed collaboration or outreach is not restricted.

#### VI. UNIVERSITY SCREENING FOR END-USER CONTROLS.

For end-user-based controls, there are eleven export screening lists within the Departments of Commerce, State, and the Treasury that require Universities to conduct screens of potential parties before engaging in collaborative research or international outreach efforts with foreign persons.<sup>18</sup> In the event that a company, entity or person on the list appears to match a party potentially involved in the collaborative endeavor, a University should conduct additional due diligence before proceeding. There may be a strict export prohibition for this party, a requirement for seeking a license application, or an evaluation of an end-use or end-user required to ensure the collaborative endeavor does not result in an activity prohibited by end-user-based controls.

#### VII. UNIVERSITY EXCLUSIONS FROM U.S. EXPORT CONTROLS.

There are certain U.S. export control exclusions specific to the University setting:

##### 1. ITAR Exclusion: Technical Data in the Public Domain.

Technical Data normally controlled by ITAR may be excluded from control, if the Technical Data is within the Public Domain. “Technical Data” within the “Public Domain” is defined under ITAR §120.10 and §120.11 respectively.<sup>19</sup> ITAR §120.10(b) excludes from the definition of controlled Technical Data information concerning general scientific and engineering principles commonly taught in Universities.<sup>20</sup> While, ITAR §120.11(a) defines “Public Domain” to include data that is published and generally accessible to the public via libraries open to the public or unlimited distribution at a conference, meeting, seminar, trade show or exhibition, or through University “*fundamental research*,” as such term is further defined and limited within ITAR §120.11(a)(8).<sup>21</sup> This ITAR exclusion must be narrowly construed and followed closely by Universities. There is a proposed rule that would change the ITAR definition of Public Domain, specify the requirements therefore, and provide a separate standalone definition in ITAR for Technical Data arising

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18. *About Export Control Reform*, EXPORT.GOV (Oct. 15, 2015, 10:55 AM), available at [http://export.gov/ecr/eg\\_main\\_023148.asp](http://export.gov/ecr/eg_main_023148.asp).

19. 22 C.F.R. §§ 120.10 & 120.11 (2016).

20. 22 C.F.R. §120.10(b) (2016).

21. ITAR §120.11(a).

from fundamental research.<sup>22</sup> These developments must be monitored for the final rule language and timing for implementation.

## 2. EAR Exclusion: Published Controlled Information and Software.

Information and software listed on the CCL may be excluded from control under the EAR by publication in compliance with EAR §734.7.<sup>23</sup> EAR §734.7 includes information and software which is publicly available through any of the following means of distribution at a price not exceeding the cost of production/distribution:

- Generally available periodicals, books, print, electronic, or any other general distribution media;
- University libraries open to the public;
- Releases at open conferences, meetings, seminars, or trade shows; or
- Websites that provide free uncontrolled access.<sup>24</sup>

There is a proposed rule that would change EAR §734.7 to more closely harmonize the U.S. definition of published information with multilateral export regimes to which the U.S. is a member.<sup>25</sup>

## 3. EAR Exclusion: Fundamental Research.

Research in areas involving sensitive export-controlled subject matter may be excluded from control, if the research is fundamental in nature. “Fundamental Research” under EAR §734.8 is basic and applied research in science and engineering, conducted by scientists, engineers, or students at a University and published and shared broadly.<sup>26</sup> Research will not be “Fundamental Research” (i) if the University or its researchers have agreed that a sponsor may withhold from publication some or all of the information provided by the sponsor, (ii) if access and dissemination controls are placed by a funding agency of the U.S. Government, or (iii) if the University or individual researchers otherwise accept or place restrictions on the publication of the resultant scientific and technical

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22. International Traffic in Arms: Revisions to Definitions of Defense Services, Technical Data, and Public Domain; Definition of Product of Fundamental Research; Electronic Transmission and Storage of Technical Data; and Related Definitions, 80 Fed. Reg. 31,525 (proposed June 3, 2015).

23. 15 C.F.R. § 734.7 (2016).

24. *Id.*

25. Revisions to Definitions in Export Administration Regulations, 80 Fed. Reg. 31,505 (proposed June 3, 2015).

26. 15 C.F.R. § 734.8(a) (2016).

information.<sup>27</sup> A University cannot cavalierly assume a particular research project qualifies as Fundamental Research. The University must perform a specific documented analysis to determine whether a research project qualifies under the Fundamental Research exclusion.

#### 4. EAR Exclusion: Educational Information.

Under EAR §734.9 “Educational information” is not to be subject to the EAR, if the information is released by instructions in catalog courses and associated teaching laboratories of academic institutions.<sup>28</sup>

There is a proposed rule to revise EAR §734.8 and §734.9, which would serve to harmonize the EAR terminology used therein with the same terminology in the ITAR, post-Export Control Reform.<sup>29</sup> For these sections, this new proposed rule is not intended to change the scope of the EAR.<sup>30</sup> The developments must be monitored for the final language and timing for implementation.

### VIII. WHAT TO WATCH FOR IN THE UNIVERSITY SETTING.

The following typical University activities may pose concerns and should receive greater compliance scrutiny by the University:

- Direct exports, Cooperative Research and Development Agreements (CRADAs); and donations, sales, or transfers of surplus equipment;
- International and domestic collaborations and technical exchange programs, including lab-to-lab programs;
- Publications, such as conference papers, abstracts, and journal articles;
- Written materials in general, ranging from memos and letters to trip reports and work notes;
- Presentations at conferences and other public meetings, both domestic and foreign;
- Visits and assignments by foreign nationals;
- Foreign travel by University professors and other employees; and,
- Other types of communication, including telephone calls, faxes, emails, and the placement of materials on a website.

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27. *Id.*

28. 15 C.F.R. §734.9 (2016).

29. Revisions to Definitions in Export Administration Regulations, 80 Fed. Reg. 31,505 (proposed June 3, 2015).

30. *Id.*



IX. U.S. EXPORT CONTROLS AND ECONOMIC SANCTIONS ENFORCEMENT CASES.

The following are some recent cases involving Universities, professors and students who have been investigated or prosecuted for potential violations.

- **Dr. Mohammad Nazemzadeh, MD, research fellow at University of Michigan.** As of the date of this article, Dr. Nazemzadeh is being prosecuted for sending a medical MRI coil device to Iran, a country subject to OFAC Sanctions. Dr. Nazemzadeh allegedly arranged to ship the item through an intermediary in the Netherlands, this constitutes “transshipping” through the Netherlands to Iran, which is prohibited. His plans were discovered by an undercover federal agent.<sup>31</sup>
- **Dr. Thomas Campbell Butler, MD, professor at Texas Tech University.** Dr. Butler was convicted of forty-seven (47) counts of a sixty-nine count indictment that stemmed from a U.S. Commerce Department investigation. Dr. Butler was convicted of illegally exporting a plague bacterium to Tanzania, and falsely reporting to U.S. government authorities that the material was stolen. Dr. Butler was sentenced to two years in prison.<sup>32</sup>
- **Dr. John Roth, professor at University of Tennessee.** Dr. Roth was convicted and sentenced to four (4) years in prison for violating the ITAR. Dr. Roth developed plasma technology for use on an advanced unmanned air vehicle which is a technology controlled under the ITAR. Dr. Roth then released the corresponding Technical Data to a Chinese and an Iranian student. Dr. Roth traveled to China where he downloaded his project data using a Chinese colleague’s computer.<sup>33</sup>
- **University of Massachusetts at Lowell Charged with Export Control Violations.** University of Massachusetts at Lowell was charged with exporting atmospheric testing equipment to a party

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31. *United States v. Nazemzadeh*, 2013 WL 544054 (S.D. Cal. 2013).

32. Janice Hopkins Tanne, *Infectious Diseases Expert Convicted Over Missing Plague Bacteria*, 327 BMJ 1307, 1307 (2003).

33. Press Release, U.S. Attorney’s Office, Former University of Tennessee Professor John Reece Roth Begins Serving Four-Year Prison Sentence on Convictions of Illegally Exporting Military Research Data (Feb. 1, 2012), *available at* <https://www.fbi.gov/knoxville/press-releases/2012/former-university-of-tennessee-professor-john-reece-roth-begins-serving-four-year-prison-sentence-on-convictions-of-illegally-exporting-military-research-data>.

in Pakistan who the U.S. Commerce Department designated on their Entity List and subjected to end-user-based export controls. As part of its settlement agreement with the U.S. Commerce Department, the University paid a \$100,000 fine and is required to change their procedures, and hire dedicated export control staff.<sup>34</sup>

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34. Order Relating to University of Massachusetts at Lowell (Mar. 2013), *available at* <http://efoia.bis.doc.gov/exportcontrolviolations/E2306.pdf>.