



Legal Issues Affecting
Graduate School Administrators
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TOPICS

❖ Responsible Conduct of Research

- ❖ Federal regulations
- ❖ Key topics
- ❖ Intellectual Property Issues
- ❖ Authorship

❖ Deemed Exports



Federal Regulatory Framework

- ❖ Federal Research Misconduct Policy (OSTP 2000): Required all federal agencies conduct or support research to implement a policy requiring universities & other research entities that conduct federally-funded research to adopt and implement a policy defining research misconduct and establishing a process for identifying, investigating and adjudicating misconduct.



OSTP Defined Research Misconduct

- ❖ **Fabrication, Falsification, or Plagiarism** in proposing, performing, or reviewing research, or in reporting research results.
 - ❖ Fabrication is making up data or results and recording or reporting them.
 - ❖ Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.

Research Misconduct

- ❖ Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.
- ❖ Research misconduct does not include honest error or differences of opinion.
- ❖ Research * * * includes all basic, applied, and demonstration research in *all fields of science, engineering, and mathematics*[, including] economics, education, linguistics, medicine, psychology, social sciences, statistics, and research involving human subjects or animals.



OSTP Policy Requirements

- ❖ Primary responsibility to detect, inquire into, investigate and adjudicate research misconduct lies w/universities but with department oversight
- ❖ Findings of misconduct require
 - ❖ “significant departure from accepted practices in the relevant field”
 - ❖ Intentional, knowing or reckless misconduct
 - ❖ Proven by preponderance of evidence



Compliance with OSTP Policy

- ❖ At this point, all but 6 departments have complied
- ❖ Energy and Agriculture have proposed policies
- ❖ Commerce, Interior, Justice & Education have policies under internal review



NSF & NIH Training Requirements

- ❖ NSF regulations: Effective 1/4/2010, universities must certify at the time they submit proposals to NSF that they provide training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research; must be able to verify completion of training; training plans subject to review
- ❖ NIH regulations: effective 1/25/2010, universities must provide RCR instruction to all trainees, fellows, participants, scholars receiving support through NIH funding & maintain records documenting compliance. NIH does not consider online training alone adequate. 11/24/2009 notice



RCR Instructional Topics

- ❖ Not specified in OSTP policy.
- ❖ NIH identifies topics covered in acceptable plans
 - ❖ Conflict of interest (personal, professional, financial)
 - ❖ Human subject and animal welfare policies
 - ❖ Laboratory safety policies
 - ❖ Mentor/Trainee Responsibilities
 - ❖ Collaborative research, including research w/corporations



NIH Topics Continued

- ❖ FFP (fabrication, falsification, plagiarism)
- ❖ Data acquisition, management, sharing and ownership
- ❖ Responsible publication practices and authorship
- ❖ Societal impacts of scientific research
- ❖ Additional topics sometimes included
 - ❖ Intellectual Property
 - ❖ Harassment
 - ❖ Discrimination
 - ❖ Financial accounting



Importance of Research Data Issues

- ❖ Universities have obligation to provide federal agencies, Inspector General, Comptroller General access to “books, documents, papers and other records pertinent to an award.” OMB Circular A-110, § 53



Definition of Data

- ❖ OMB A-110: Research data are “the recorded factual material commonly accepted in the scientific community as necessary to validate research findings”
 - ❖ Does not include preliminary findings, drafts of scientific papers, future research plans, peer reviews, communications with colleagues, protected information
 - ❖ Format irrelevant



Duty to maintain

- ❖ Must keep a record of the procedures used to create data in enough detail that readers can assess the reliability of methods and data
- ❖ Implement measures to ensure data are accurate, accessible, permanent, secure



Duty to Share

- ❖ NIH: Must include plan for sharing data in applications seeking \$500,000 or more in direct costs in any single year or state why data sharing is not possible
- ❖ NSF: For all proposals due on or after Jan. 8, 2011, researchers must include a data management plan w/their proposal or explain why there is no need for a plan. Leaves many issues to “community of interest”—definition of data, how long to keep them, when to make them accessible



Duty to disclose to public

- ❖ Public may request “research data related to published research findings developed under an award that were used by the federal government in developing an agency action that has the force and effect of law.” “Shelby Amendment” to OMB A-110
 - ❖ Institution is responsible for providing data



University Policies on Data

❖ Generally nonexistent, but if they do exist, the policies typically only address ownership of data

Typical provision: University owns data & other research material, including lab notebooks, generated by student &/or faculty researchers. Students must submit records to advisor before leaving. Department responsible for retaining.

Who should establish and convey data standards? Lab manager? Advisor? PI?



Legal Basis of Copyright & Patents

- ❖ Congress shall have the power to “promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”

Art. 1 Section 8 of the U.S. Constitution

Copyright

- ❖ Copyrightable works: literary, musical, dramatic, choreographic, pictorial, audiovisual, sound recordings, architectural
- ❖ Must contain originality and be “fixed in a tangible form of expression”
- ❖ Copyright attaches immediately
- ❖ 70 yrs. from author’s death/95 corporate works (for works created today)



Overview of Copyright

- ❖ Ownership of Copyright (17 USC 201)
 - ❖ Copyright vests initially in the author
 - ❖ Employer is considered to be the author of works made for hire & as author, owns copyright
 - ❖ Copyright law does not recognize exception from employer ownership for faculty. That is the result of tradition, a very early copyright decision and practical considerations.



Rights of Copyright Owner

- ❖ Exclusive rights to reproduce, distribute, publicly display, publicly perform, make derivative works, & to grant others any or all of those rights
- ❖ Fair use rights & other 3rd party uses authorized under specific provisions in copyright law



Common University © Policy

Statements re Grad Students

- ❖ Students own © in their thesis or dissertation
 - ❖ Some require students grant university a free right to reproduce and distribute them
- ❖ University owns © in student dissertations & theses when, for example, they are created with financial support of university, use of university equipment, under sponsored research agreement or while student is employed
- ❖ Silence



Using 3rd party works

- ❖ Need to educate graduate students about using the works of others in teaching and research
- ❖ Educating university community is required under copyright law to safe harbor status for some copyright infringements



Professional Writing Practices

- ❖ Who qualifies as an author
- ❖ Courtesy authorship
- ❖ Citations
- ❖ Text recycling in articles
- ❖ Notice to publishers of previous dissemination

See ORI Guide to Ethical Writing

<http://ori.dhhs.gov/education/products/plagiarism/>



Inventions/Patents

- ❖ Inventions: any discovered product, composition, or method, whether or not patentable.
- ❖ Inventions become patentable when they are developed beyond an abstract idea and are (1) new, (2) useful, & (3) nonobvious.
- ❖ Under U.S. patent law, a patent gives the patent owner the right to exclude others from making, using, selling, offering for sale, or importing the invention during the patent term.
- ❖ Patent owner does not acquire right to practice the patent because other patents may block it.



Inventions/Patents

- ❖ When patent expires, anyone may use the invention freely.
- ❖ Most common type of patent is a "Utility Patent" for any "new and useful process, machine, manufacture, or composition of matter, or improvement" thereto. Utility patents last for 20 years after filing date.



Ownership of Inventions/Patents

- ❖ Bayh-Dole (P.L. 96-517, P.L. 98-620) to inventions created by students/faculty with federal funds to give universities right to retain title in inventions provided universities:
 - ❖ have written agreement with employee/inventors to assign rights to university;
 - ❖ Disclose inventions to government;
 - ❖ Share revenue with inventors



Requirements of Bayh-Dole

- ❖ Universities must grant USG a free, nonexclusive right to use inventions for government purposes
- ❖ If universities elect to keep title, they must file a timely US patent application
- ❖ In licensing invention, universities should give preference to small businesses

Most universities apply the ownership provisions of the Bayh-Dole Act to all inventions created by faculty and staff using any university resources.



Typical University IP Policies on Graduate Student Ownership of Inventions

- ❖ University owns inventions based on use/provision of facilities, labs, faculty time, financial support
- ❖ Students own inventions unless conceived in the scope of student employment or in performance of sponsored research (including federally funded research)
- ❖ Silence



Export Controls

- ❖ Commerce—Dual Use technologies
- ❖ State--Defense, military and satellite technologies
- ❖ OFAC-- Broad prohibitions on contacts of any kind with selected countries. Not technology based
- ❖ Countries w/greatest risk and complications: Burma, Iran, Iraq, North Korea, Syria, Sudan



Deemed Exports

- ❖ Refers to disclosure or release of controlled technology (data, information, etc.) to foreign nationals inside or outside the US
- ❖ Disclosure may be written, oral, visual
- ❖ If foreign national is from a country for which the information is controlled, a license may be required to disclose the information



Points for Graduate Schools

- ❖ Licenses are not required for “fundamental research”
 - ❖ Basic and applied research in science & engineering;
 - ❖ Normally published and no restrictions on publication of research results; and
 - ❖ No restrictions on access to information received in connection with research or on access to results
- ❖ Fundamental research exclusion does not apply to research conducted outside the US, equipment & other physical materials, software, or encrypted materials



Points for Graduate Schools

- ❖ Licenses are not required for graduate catalog courses
- ❖ If you conduct classified, export controlled or proprietary research, foreign nationals may need a license to participate in that research
- ❖ All interactions with & travel to sanctioned countries (Cuba, North Korea, Iran, Syria, Sudan) must receive institutional approval



Points for Graduate Schools

- Export control concerns of arts & humanities, social sciences, business & other non STEM programs should focus on:
- Compliance with OFAC sanction programs
- Not dealing with restricted parties—lists maintained by Commerce, State & OFAC of persons, universities and businesses with whom dealings are prohibited.

J. Reece Roth, engineering professor, University of Tennessee, Knoxville

- ❖ Received export controlled information in connection w/Air Force plasma research contract
- ❖ Ordered US graduate student to release those controlled data to Chinese graduate student
- ❖ Ordered the Chinese graduate student to release those controlled data to professor at Chinese university
- ❖ Convicted on 18 criminal counts: 4 yrs in jail & 2 years supervised probation