

The material in the box (including the footnotes) comprises an exact quotation from page 76,262 of

Office of Science and Technology Policy. 2000. "Federal policy on research misconduct." *Federal Register* 65(235):76,260-76,264. <http://www.gpo.gov/fdsys/pkg/FR-2000-12-06/pdf/00-30852.pdf> (verified 01/29/2014)

Federal Policy on Research Misconduct¹

I. Research² Misconduct Defined

Research misconduct is defined as 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.³
- 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.

II. Findings of Research Misconduct

A finding of research misconduct requires that:

- There be a significant departure from accepted practices of the relevant research community; and
- The misconduct be committed intentionally, or knowingly, or recklessly; and
- The allegation be proven by a preponderance of evidence.

¹ No rights, privileges, benefits or obligations are created or abridged by issuance of this policy alone. The creation or abridgment of rights, privileges, benefits or obligations, if any, shall occur only upon implementation of this policy by the Federal agencies.

² Research, as used herein, includes all basic, applied, and demonstration research in all fields of science, engineering, and mathematics. This includes, but is not limited to, research in economics, education, linguistics, medicine, psychology, social sciences, statistics, and research involving human subjects or animals.

³ The research record is the record of data or results that embody the facts resulting from scientific inquiry, and includes, but is not limited to, research proposals, laboratory records, both physical and electronic, progress reports, abstracts, theses, oral presentations, internal reports, and journal articles.

Legal terms adapted from <http://legal-dictionary.thefreedictionary.com/>

Responsibility

- If the *goal* and the *result* are the same, the act is **intentional**
- If the actor knows that *the result is virtually certain*, the act is **knowing**
- If the actor is aware that the act *carries a large and unjustifiable risk*, the action is **reckless**
- If the actor is *unaware* that the act *carries a large and unjustifiable risk*, the action is **negligent** if the actor *should have been aware* of the risk
- Intentional implies knowing; knowing implies reckless

Note that *negligent* actions do not fall under the definition of research misconduct.

Standard of evidence

- preponderance of the evidence – more likely than not; 51+%
- clear and convincing evidence – highly probable
- beyond a reasonable doubt – a reasonable person would not have enough doubt to counter the finding

The *preponderance of the evidence* and *clear and convincing evidence* are the standards in civil law, in which the punishment is usually money. Proof *beyond a reasonable doubt* is the standard in criminal law, in which the punishment is often imprisonment.