Policy on Research Data Management

Background

In the course of their mission to increase and advance the frontiers of knowledge, Rice research investigators, including University faculty, research staff, postdoctoral fellows, graduate students, and undergraduate students, perform research using many different methods and approaches appropriate for their disciplines. In this process, researcher investigators inevitably make a record of their methods, approaches and findings, known broadly as research data. This policy describes the responsibilities and interactions between the University and the research investigators who carry out research under the University’s auspices.

A primary right of research investigators is the freedom to choose the nature and direction of their research inquiries, and to use the research data generated to pursue future research and to publish related scholarly works. Another primary right of research investigators is the freedom to disseminate and share their research findings with the scientific and academic community. The research investigator’s exercise of these rights and freedoms is subject to compliance with laws and regulations, as well as any contractual obligations, regarding the conduct of research. In addition, the research investigators must assist the University in fulfilling obligations related to the appropriate use of human and animal subjects, the safe use of hazardous materials, the protection of the University’s intellectual property rights, and compliance with the requirements of research sponsors and governmental agencies. Research data must also be protected to ensure that the University can effectively oversee and investigate any conflict of interest and research misconduct issues.

Definition of Research Data

This policy concerns research data, also referred to as research records. While the meaning of the term research data can vary from field to field, research data is broadly defined as information recorded or produced in any form or media during the course of a research investigation. Research data may be in hard-copy form (including research notes, laboratory notebooks, photographs) or in electronic form, such as in computer software, computer storage or digital images. Research data is not limited to raw experimental results and instrumental outputs, but also encompasses the associated protocols, numbers, graphs and charts used to collect and reconstruct the data. It also includes materials such as: original biological specimens, research animals, environmental samples, and materials and products generated by the research. Any reports, publications, correspondence, and summaries regarding research results are also part of the research records. Intellectual property rights related to research data shall be subject to the University’s intellectual property policies, including, but not limited to, Patent and Software Policies (No. 333) and Copyright Policy (No. 334), and their respective successor policies, as well as the requirements of any research sponsors and governmental agencies.
Responsibilities Regarding Research Data

The research investigator directing the research is responsible for the selection of the appropriate scope and methodology of research data collection, management, retention and archiving for the type of research being conducted. Typically, this person is the principal investigator of the grant or project. In collaborative or multi-principal investigator grants, this person may be one or more of the co-principal investigators or the designated project lead principal investigator. The principal investigator, who is the primary steward of the research data, and the University, which holds legal title to the research data, share responsibilities regarding such research data. The principal investigator, in consultation with the Office of Sponsored Research, must determine that the selected scope and methodology standards are of sufficient detail and duration to comply with laws and regulations, as well as contractual obligations, regarding the conduct of research. Some sponsors may require that a data management plan be submitted to the sponsor with the grant proposal and adhered to during the course of the research. The data management plan must meet the sponsor's requirements regarding the retention, dissemination and sharing of the research results. The determination of the time period for research data retention must take into consideration the specified requirements of any sponsor of the research, as well as the nature of the research data itself. Normally, research data shall be retained for a minimum period of five years following conclusion of the research project. However, this time period may need to be extended in the event that there are unresolved issues concerning the conduct or outcome of the research, or such other matters requiring the continued retention of the research data, as determined by the Vice Provost for Research.

The principal investigator is responsible for educating the other faculty, fellows, students, and staff involved with the research about their obligations regarding research data. The principal investigator is also responsible for taking reasonable measures to ensure the accuracy and authenticity of the research data, as well as the security of the research data against theft or loss. Possible security measures include: encryption and secure handling of any research data that may involve confidential information, human subjects, or intellectual property; and maintenance of backup and archival copies of research data that may be needed in the event of a disaster, as well as any software that may be necessary for accessing the data.

Research Data Access, Sharing, and Use

The principal investigator, as primary steward of the research data, will usually have possession and control of the research data generated by the project, and will make such research data available to other individuals involved in the research as the principal investigator deems appropriate. Issues among research team members involving access, sharing, or use of research data not resolved satisfactorily by the principal investigator will be resolved by the Vice Provost for Research. In some cases, sponsors may have research data requirements different than those typically encountered in academic research. In such cases, it is the responsibility of principal investigator to be cognizant of any such requirements and to ensure that the research team members are also made aware of and comply with these requirements.
Research records for projects that involve research performed by University faculty, staff and students, research performed under grants or other support administered by the University, and research performed with significant use of University facilities and equipment, must be accessible by the University. When access to research data is needed by the University, the University will generally coordinate and work together with the principal investigator. In certain rare instances, the University may need to take immediate custody of the research data without consultation or coordination with the principal investigator. Such action will not be taken without approval by the Provost (or, in the Provost’s absence, the Vice Provost for Research) following consultation with appropriate University officials and due consideration of the research needs of the principal investigator and other members of the research team. In addition, there may be instances when research data may be required for delivery to a research sponsor or for intellectual property protection. All such requests will be coordinated with the principal investigator through the Offices of Sponsored Research, Technology Transfer and General Counsel, as appropriate.

In the event that a research investigator leaves the University, research data (originals or duplicate originals, if such duplicate originals are determined to be acceptable by the Vice Provost for Research) must be retained by the University at an appropriate location, taking into consideration the nature of the research data and the need for access by Rice research investigators and others at the University. Under normal circumstances, a departing research investigator should be able to transfer research data generated by that research investigator to the investigator’s new institution. A departing research investigator who wishes to transfer research data from the University may do so if approved in writing by the principal investigator, or the Vice Provost for Research if the departing research investigator is the principal investigator. The principal investigator is responsible for being cognizant of any regulatory, intellectual property, export control, and third party contract issues related to the research data, and shall check with the Vice Provost for Research for clarification or to address issues when appropriate. The University will work with the departing research investigator and the investigator’s new institution to craft an appropriate material transfer agreement to accomplish the transfer of such research data when the University determines it is necessary or desirable to have such an agreement because of the nature of the research data (i.e., physical samples), or regulatory, intellectual property, export control, or third party contract issues. In the rare event that the research data cannot be divided, replicated, or otherwise reproduced, the University will work with the departing research investigator and the investigator’s new institution to develop an appropriate plan for access, sharing and use of the research data.