

Plan Overview

A Data Management Plan created using DMP Tool

DMP ID: <https://doi.org/10.48321/D168CF1023>

Title: How freedom to change majors affects students' choice and public universities performance

Creator: Yifan Lei - **ORCID:** [0009-0006-6915-6750](https://orcid.org/0009-0006-6915-6750)

Affiliation: Columbia University (columbia.edu)

Funder: National Science Foundation (nsf.gov)

Template: NSF-EHR: Education and Human Resources

Project abstract:

This research project aims to explore the implications of allowing students the freedom to change their majors on both their academic choices and the performance of public universities. The study will analyze how such policies impact student satisfaction, retention rates, and academic success. Additionally, it will assess the administrative challenges and benefits that universities experience as a result of these policies. By examining a range of public universities with varying degrees of flexibility in changing majors, the project seeks to identify best practices and provide recommendations for policy makers. The ultimate goal is to determine whether the freedom to change majors enhances the educational environment and outcomes for students, as well as the overall effectiveness of public higher education institutions. This project is scheduled from April 26, 2024, to April 26, 2029, and is supported by the National Science Foundation (NSF).

Start date: 04-26-2024

End date: 04-26-2029

Last modified: 07-08-2024

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How freedom to change majors affects students' choice and public universities performance

Roles and responsibilities

Specify the roles and responsibilities of all parties with respect to the DMP activities.

Creator: Yifan Lei, Fan Ye

Investigator: Yifan Lei, Fan Ye

Data Manager: Yifan Lei, Fan Ye

Administrator: Yifan Lei, Fan Ye

Affiliation: Teachers College, Columbia University

ORCID: 0009-0006-6915-6750 ,0009-0004-3659-1292

Types of data or products

Specify the types of data or products that will be generated (e.g., test scores, survey responses, images, data tables, video or audio data, software, curricular or exhibit materials).

Survey Data: Detailed responses to structured and semi-structured questionnaires aimed at assessing student satisfaction, preferences, and experiences with major change policies.

Interview Transcripts: Transcriptions of in-depth interviews with students, faculty, and administrative staff exploring personal perspectives and anecdotal experiences regarding the flexibility to change majors

Institutional Data Tables: Quantitative data from university records, including retention rates, graduation rates, and academic performance metrics, correlated with the flexibility of major change policies.

Video and Audio Recordings: Recordings from interviews and focus groups, providing firsthand insights into the impacts of major change policies on various stakeholders.

Analytical Reports: Comprehensive reports and publications summarizing research findings, policy implications, and recommendations for stakeholders.

Educational Materials: Development of curricular or informational materials designed to aid universities in implementing or improving major change policies.

Data storage, preservation, and sharing

Specify how data or products are to be stored, preserved, and shared.

Data Storage:

To make sure the data is backed up during the research, the project will be stored in a password-protected file on Research SharePoint, and backed up on OneDrive. The data manager Yifan will be responsible to backup the data and for recovery. Both platforms have enough storage capacity for our data dataset (one drive= 1TB) .

Data Preservation:

- Long-term Preservation: This research will last for 5 years and will be stored on the Teachers College, Columbia University cloud server for 10 years after the project is completed.
- Documentation and Metadata: To make sure the data can be read and interpreted in the future, documentation and metadata will accompany it. Including data dictionary, data model and other documentation to facilitate future researchers to reuse.

Data Sharing:

Data will be released for open access on completion of the project. It will have a DOI ascribed when it goes into the University repository. Findings from the data will be shared at conferences such as The International Learning Analytics and Knowledge Conference, and possibly through eventual publication, as well as team meetings within Educational Data Mining, Learning Analytics, and/or the wider academic team.

Restrictions on data or product storage, access, preservation, or sharing

Specify any restrictions on data or product storage, access, preservation, or sharing

Storage: Due to the presence of sensitive information such as student demographics, academic records, and transfer request details, data must be stored securely. Use of encrypted databases and restricted access protocols is mandatory.

Restricted Access: Access to sensitive data (individual student records) will be limited to authorized project personnel only. This includes access controls at both physical and digital levels to ensure data security.

Long-term Storage: Critical data will be preserved in a format and location that guarantees access over the specified retention period. The data will only be preserved for ten years after the plan terminates.

Sharing: All data sharing will comply with applicable laws and institutional policies, including the Family Educational Rights and Privacy Act (FERPA) in the U.S., which protects students' educational records.

Data formats

Specify what data formats will be used (e.g., XML files, websites, image files, data tables, software code, text documents, physical materials).

Survey Data: CSV (Comma-Separated Values) or Excel spreadsheets.

Interview Transcripts: DOCX (Microsoft Word) or PDF (Portable Document Format)

Institutional Data Tables: CSV (Comma-Separated Values) or Excel spreadsheets.

Video and Audio Recordings: MP3 or WAV formats

Analytical Reports: DOCX (Microsoft Word) or PDF (Portable Document Format)

Educational Materials: DOCX (Microsoft Word) or PDF (Portable Document Format)

Period of data retention

Specify how long access to data and products, and sharing of data or products, will be maintained after the life of the project, and how any associated costs will be covered and by whom.

Access and Sharing Duration: Data and research products will be available for a minimum of 10 years following the conclusion of the project. This duration is chosen to ensure sufficient time for the research community and stakeholders to access and utilize the findings, contributing to further research and policy development.

Third-party preservation

If data or products are to be preserved by a third party, please refer to their preservation plans if available.

Additional possible data management requirements

More stringent data management requirements may be specified in particular NSF solicitations or result from local policies and best practices at the PI's home institution. Additional requirements will be specified in the program solicitation and award conditions. Principal Investigators to be supported by such programs must discuss how they will meet these additional requirements in their Data Management Plans.

Question not answered.
