The Multiple Institution Database for Investigating Engineering Longitudinal Development (MIDFIELD) consists of individual student data from higher education institutions across the United States with programs in engineering. The original database was developed in 1996 with support by the National Science Foundation (NSF) as the Longitudinal Database of the Southeastern University and College Coalition for Engineering Education (SUCCEED) and included a wide variety of student record data, but did not include data describing the courses students had taken or the individual grades students had earned. By 2003, data storage and processing options made it more feasible to expand the database to include full transcript information, including course and grade data. With the support of studies using MIDFIELD, the partner institutions agreed to provide additional course and grade data beyond the term of the original database. These additional data make possible a broader range of research questions. The MIDFIELD database contains records for 857,001 unique students of whom 462,443 received at least one bachelor’s degree, and identifies 135,860 who at some point were enrolled in engineering, of whom 71,277 received a bachelor’s degree in engineering.

1.0 INTRODUCTION.

This Memorandum of Understanding (MOU) is made between MIDFIELD and <INSTITUTION NAME>. MIDFIELD and <INSTITUTION NAME> are referred to herein as “the Parties” to this MOU.

1.1 The Parties intend by this MOU to establish a mutually beneficial partnership.

1.2 This MOU will address the basic relationship, roles and responsibilities of the Parties but leaves for later agreement the more precise terms that will constitute the substance of the partnership.

2.0 PURPOSE.

The Parties enter into this MOU for the primary purpose of transferring to MIDFIELD data (see attachment A) on individual students who matriculated at <INSTITUTION NAME> from summer 1987 through the termination of this MOU. <INSTITUTION NAME> will also give consent to release certain data collected by the National Council of Examiners for Engineering and Surveying (NCEES) for each administration of the Fundamentals of Engineering Examination.
from fall 1996 administration through the termination of this MOU. The Parties believe that this data transfer and the studies that are derived from the database will provide the higher education community a better understanding of engineering student performance and aid in the enhancement of academic programs in engineering at <INSTITUTION NAME>. Particular emphasis will be placed on understanding pathways taken by under-represented minorities.

3.0 AUTHORITY.

This project is governed by Purdue University IRB protocol 1006009458. The collection and analysis this data is permissible under Section (1)(b)(1)(F) of the Family Educational Rights and Privacy Act (FERPA) 20 U.S.C. § 1232g (1994 & Supp. 2001, 2008).

4.0 ROLES AND RESPONSIBILITIES OF THE PARTIES.
The Parties intend to undertake the following activities pursuant to this MOU:

4.1 MIDFIELD agrees to:
   4.1.1 maintain the database only on secured computer systems in secured facilities;
   4.1.2 obtain confidentiality agreements from all those who have access to the data;
   4.1.3 release only aggregate data so that no individually identifiable data are released.
   4.1.4 identify institutions only if the data presented is publicly available;
   4.1.5 file study documentation with the appropriate Institutional Review Board;
   4.1.6 provide standard and ad hoc reports to <INSTITUTION NAME> on a regular basis;
   4.1.7 ask local <INSTITUTION NAME> personnel to interpret validation reports and local policies;
   4.1.8 run programs written for MIDFIELD by designated researchers at <INSTITUTION NAME> and return results in a timely manner, and
   4.1.9 communicate results of studies to <INSTITUTION NAME> and to the broader community.

4.2 <INSTITUTION NAME> agrees to:
   4.2.1 supply electronic data files containing institutional, demographic, enrollment, and performance data typical of the fields in the MIDFIELD data dictionary in which each undergraduate can be tracked from summer <YEAR> through the termination date of this MOU – Attachment 1 is a list of the data files and variables requested;
   4.2.2 identify the format of these electronic data files to ensure their correct interpretation;
   4.2.3 transmit data within three months of this agreement and transmit annual updates;
   4.2.4 provide copies (printed or electronic) of all undergraduate catalogs for the period covered by this MOU; and
   4.2.5 give consent to NCEES to release data for each administration of the Fundamentals of Engineering Examination from the fall <YEAR> administration through the termination of this MOU as follows:
      4.2.5.1 Topic-by-topic results, by discipline program, by afternoon exam selected, by academic year, currently enrolled, with national comparison, with number of takers and number of passers (similar to Report 5 data generated by NCEES)
      4.2.5.2 Scaled score statistical information (number of samples, mean, standard deviation, minimum value, maximum value, median), by discipline program, by afternoon exam selected, by academic year, currently enrolled.
5.0 FUNDING.

The Parties have secured reasonable funding to allow for the successful completion of the activities described herein. A separate subcontract will be negotiated between the Parties regarding payment for institutional data extraction. Both Parties, however, expressly acknowledge that the activities under this MOU shall be subject to the availability of appropriated funds and personnel of each Party. Nothing in this MOU shall be construed as establishing a contract (or other legally binding commitment) obligating MIDFIELD or <INSTITUTION NAME> to provide money, goods or services of any kind to any legal entity.

6.0 AGREEMENTS.

In order to foster the successful completion of this MOU, the Parties agree to the following terms and conditions:

1. Each Party pledges in good faith to go forward with this MOU and to further the goals and purposes of this MOU, subject to the terms and conditions of this MOU. The Parties shall attempt to resolve disputes through good faith discussions.

2. Either Party may withdraw at any time from this MOU by transmitting a signed writing to that effect to the other Party. This MOU and the partnership created thereby shall be considered terminated sixty (60) days from the date the non-withdrawing Party actually receives the notice of withdrawal from the withdrawing Party.

3. The Parties agree that if <INSTITUTION NAME> withdraws at anytime from this MOU previous student data submitted by <INSTITUTION NAME> will remain in MIDFIELD to ensure the reproducibility of previously issued reports.

4. By mutual agreement, which may be either formal or informal, the Parties may modify the list of intended activities set forth in Paragraph 4.0 above and/or determine the practical manner by which the goals, purposes and activities of this MOU will be accomplished. However, any modification to any other written part of this MOU must be made in writing and signed by both Parties or their designees.

5. Nothing in this MOU shall be construed to authorize or permit any violation of any Federal, State or local law imposed upon the Parties, including, but not limited to FERPA.

6. MIDFIELD agrees that it does not expect, nor will it ever seek to compel from <INSTITUTION NAME> in any judicial forum, the payment of money, services or other thing of value from <INSTITUTION NAME> based upon the terms of this MOU. The foregoing provision does not in any way affect any legal rights accruing to MIDFIELD by virtue of any other law, contract and/or assistance agreement.

7. MIDFIELD understands that <INSTITUTION NAME>’s participation in this MOU does not constitute an endorsement, express or implied of (a) any policy advocated by MIDFIELD or any stakeholder; or (b) any good or service offered or sold by MIDFIELD or any stakeholder.

8. MIDFIELD shall maintain full right, title and interest in any intellectual property right, including a copyright, in any work product developed solely by MIDFIELD under this MOU. Intellectual
property developed by MOU with financial assistance from external grant funding shall be subject to the conditions set forth by the applicable assistance regulations. Any intellectual property developed collaboratively by the Parties will also be governed by the Federal Copyright Statute at Title 17 of the United States Code or by the Federal Patent Statute at Title 35 of the United States Code.

7.0 PRIMARY CONTACTS.

The Parties intend that the work under this MOU shall be carried out in the most efficient manner possible. To that end, the Parties intend to designate individuals that will serve as primary contacts between the Parties. The Parties intend that, to the maximum extent possible and unless otherwise approved by the other Party, all significant communications between the Parties shall be made through the primary contacts.

MIDFIELD Primary Contacts:

Mailing Address:
Seng-Liang Wang Hall
516 Northwestern Avenue, Suite 3511
West Lafayette, IN 47906

Matthew Ohland  ohland@purdue.edu  765-496-1316 (Work)  765-494-5819 (FAX)
Russell Long  ralong@purdue.edu  765-496-9521 (Work)

<INSTITUTION NAME> Primary Contacts:

<MAILING ADDRESS>

<NAME>  <E-mail>  <OFFICE PHONE>  <FAX>
<NAME>  <E-mail>  <OFFICE PHONE>  <FAX>

8.0 TERMINATION.

Unless terminated by a written agreement executed by either Party, this MOU shall remain in effect.
9.0 AUTHORIZED SIGNATORIES.

The Parties hereby agree to the foregoing MOU, which shall be effective immediately upon full execution by the signatories listed below.

Matthew W. Ohland, Ph.D.  
Project Director of Multiple-Institution Database for Investigating Engineering Longitudinal (MIDFIELD)  

(Signature)  
(Date)  

(Signature)  
(Date)
ATTACHMENT 1

What data are collected?

The following data are collected from each member institution. No reformatting of data is required. Data should be submitted with institutional values and MIDFIELD staff will convert institutional values to common MIDFIELD values. **Data are collected for all undergraduate, degree-seeking students.**

Four data files are required (**Variable names** are bolded and italicized):

- **Student table (one record per undergraduate, degree-seeking student):**
  - *MID* - Unique student identifier that connects the four data sets
  - *MTerm* - the term the student first entered the institution
  - *MYear* - the calendar year the student first entered the institution
  - ACT scores - scores used as part of the admissions process
    - *ACTComp* - Composite test score
    - *ACTMath* - Mathematics test score
    - *ACTEnglish* - English test score
    - *ACTReading* - Reading Test Score
    - *ACTScience* - Science Test Score
  - SAT scores - scores used as part of the admissions process
    - *SATV* - Reading
    - *SATM* - Mathematics
  - Birthdate:
    - *Bday* - day
    - *Bmonth* - month
    - *BYear* - year
  - *Ethnic* - Ethnicity as self-reported by the student and as reported to IPEDS
  - *Sex* - Sex (M=Male, F=Female) as self-reported by the student
  - *Country* - Country of citizenship,
  - *Visa* - If a non-US citizen, Visa type a defined by the U.S. Department of State Bureau of Consular affairs
  - *State* - State of residence at time of entry - please use two character state postal codes.
  - *County* - County of residence at time of entry - county identifies will vary by state.
  - *HomeZipCode* - Five or nine digit Home Zip Code at time of entry
  - High school - the last high school attended before entering a post-secondary institution
    - *HighSchoolCode* - High school code
    - *HighSchoolGPA* - High school final grade point average
    - *HighSchoolRank* - High school rank
    - *HighSchoolSize* - High school size
  - *Veteran* - Is the student a veteran of the U.S. Armed Forces? (Y=Yes or N=No)
  - Disability status – if disability information is not available at the student level
    - *Disability Status* – Has the student been granted accommodations or auxiliary aids and services by the University? (Y=Yes or N=No)
• **Disability Type** – The type of disability for which the student was granted accommodations (e.g. blind, hard of hearing, deaf, neurological, visually limited, emotional/psychological, orthopedically impaired, chronic medical condition, learning disabled, traumatic brain injury, multi-handicapped)

If disability information is not available at the student level, please report aggregate disability status and disability type information by academic term, year, and academic discipline (CIP).

- Transfer status
  - **Transfer** - Did the student transfer into the institution? (Y=Yes or N=No)
  - **TransferHours** - Transfer hours accepted at your institution.
  - **TranInst1, TranInst2, TranInst3**... - Previous post-secondary institution(s) attended - codes should be one of the following: ACT Assessment, The College Board's Admissions Testing Program, USIS, CSIS, FICE, or the IPEDS Unit I.D. - please inform which codes are used.
  - **TranInst1GPA, TranInst2GPA, TranInst3GPA**... - Previous college(s) grade point average

• **Term table (one record per student per enrolled term):**
  - **MID** - Unique student identifier that connects the four data sets
  - **TTerm** - the enrolled term
  - **TYear** - the calendar year of the enrolled term
  - **TCIP** - Major during this term expressed as IPEDS Classification of Instructional Programs (CIP) code
  - **TDesc** - Major during this term expressed as a name.
  - **InstCode** - Unique codes that the institution might use to identify the major during this term
  - **Coop** - Was the student a COOP student during this term? (Y=Yes or N=No)
  - **EnrStat** - Enrollment status for the reported term (e.g. special, continuing, re-admit, new freshman, non-degree, new transfer, unclassified) - institutional codes may be unique - please provide an explanation of your codes
  - **Level** - the student level assigned to the student by the institution during this term (i.e. FR, FRESH, 1, Freshman)
  - **OnOffCampus** - Was the student living on campus during this term? (Y=Yes or N=No)
  - **Status** - Academic standing during the reported term (e.g. good standing, academic warning, probation, withdrawn, deceased, suspended) - institutional codes may be unique - please provide an explanation of your codes

• **Course table (one record per student per attempted course taken):**
  - **MID** - Unique student identifier that connects the four data sets
  - **CTerm** - the term the course was attempted
  - **CYear** - the calendar year the course was attempted
  - **CName** - course name (e.g. Molecular Biology, Engineering Fundamentals, Calculus I)
  - **CAbbrev** - course alpha identifier (e.g., ENGR, MATH, ENGL)
  - **CNumber** - course numeric identifier (e.g. 101, 3429)
  - **CCredits** - the number of credits awarded upon successful completion of the course.
- **CAP** - Was credit for this course awarded as the result of advanced placement? (Y=Yes or N=No)
- **CSection** - course section identifier.
- **CGrade** - the grade awarded for the course.
- **CMethod** - the means by which instruction is predominately delivered for this course section
- **CPassFail** - Was the course offered pass/fail? (Y=Yes or N=No)
- **CProfRank** - academic rank of the person teaching the course.

- **Grad table (one record per undergraduate degree awarded):**
  - **MID** - Unique student identifier that connects the four data sets
  - **GTerm** - the term in which the student graduated
  - **GYear** - the calendar year in which the student graduated
  - **Degree** - the type of undergraduate degree awarded
  - **GCIP** - Graduation major expressed as IPEDS Classification of Instructional Programs (CIP) code
  - **GDesc** - Graduation major expressed as a name.