DOCUMENT RESUME

ED 386 489 TM 024 058

AUTHOR Robertson, Nancy J.
TITLE Documentation of GRE Talent Flow Data Base--1978 to 1987. GRE Board Professional Report No. 91-19P.
INSTITUTION Educational Testing Service, Princeton, NJ. Graduate Record Examination Board Program.
SPONS AGENCY Graduate Record Examinations Board, Princeton, N.J.
REPORT NO ETS-RR-93-45
PUB DATE Nov 93
NOTE 56p.; For a related document, see ED 385 560, "Change in Field of Study from Undergraduate to Graduate School: Creation of a GRE Data Base for Studying Talent Flow" by Jerilee Grandy and Nancy Robertson.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Access to Information; *Databases; Graduate Students; Higher Education; *Information Retrieval; *Majors (Students); Research Methodology; *Talent; Undergraduate Students
IDENTIFIERS Data Files; *Graduate Record Examinations

ABSTRACT

The project described was an outgrowth of a recently completed study on the establishment of a data base of Graduate Record Examinations (GRE) for studying talent flow. Both examinee-level and matrix data files created and analyzed under the original project were rearranged to make them more accessible to researchers. These multiyear files (covering testing years 1977-78 through 1986-87) have also been documented so that they can be easily located and analyzed. Extension of the data base through 1991-92 is underway and will be completed in 1993. Seven tables provide information about the files. Appendix A contains 11 trend tables of broad undergraduate and graduate majors. Appendix B is a sample matrix output for detailed majors, and Appendix C is sample matrix for broad majors. (Author/SLD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 386 489

GRE®

RESEARCH

Documentation of GRE Talent Flow Data Base — 1978 to 1987

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it

☐ Minor changes have been made to improve reproduction quality

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

H. I. BRAUN

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

Nancy J. Robertson

November 1993

GRE Board Professional Report No. 91-19P
ETS Research Report 93-45

Educational Testing Service, Princeton, New Jersey

BEST COPY AVAILABLE

4024058

Documentation of

GRE Talent Flow Data Base --

1978 to 1987

Nancy J. Robertson

GRE Board Report No. 91-19P

November 1993

This report presents the findings of a research project funded by and carried out under the auspices of the Graduate Record Examinations Board.

Educational Testing Service, Princeton, N.J. 08541

****

Researchers are encouraged to express freely their professional judgment. Therefore, points of view or opinions stated in Graduate Record Examinations Board Reports do not necessarily represent official Graduate Record Examinations Board position or policy.

****

The Graduate Record Examinations Board and Educational Testing Service are dedicated to the principle of equal opportunity, and their programs, services, and employment policies are guided by that principle.

EDUCATIONAL TESTING SERVICE, ETS, the ETS logo, GRADUATE RECORD EXAMINATIONS, and GRE are registered trademarks of Educational Testing Service.

Copyright © 1993 by Educational Testing Service. All rights reserved.

Abstract

This project has been an outgrowth of the recently completed report Change in Field of Study from Undergraduate to Graduate School: Creation of a GRE Data Base for Studying Talent Flow by Jerilee Grandy and Nancy Robertson. Both examinee-level and matrix data files created and analyzed under the original project were rearranged to make them more accessible to researchers. These multiyear files (covering testing years 1977-78 through 1986-87) have also been documented so that they can be easily located and analyzed. Extension of the data base through 1991-92 is underway and will be completed in 1993.

INTRODUCTION

The project is prompted by the expectation that the talent flow data base will be a resource for researchers both within Educational Testing Service and at other organizations. The reduced-record examinee level data files for the years 1978 to 1987 are all available on one tape and, with the documentation presented in this report, are considerably easier to use than the series of Graduate Record Examinations (GRE) administration files that had been the only available source for researchers interested in data from these testing years. In one set of examinee-level files, records for those who did not take the GRE General Test have been removed, along with records for repeating examinees (those who took the General Test for a second or third time in the testing year) and those of non-citizens, and examinees without coded majors, leaving a group of examinees suitable for trend studies and other research purposes. The problem of inconsistency of coded majors has been resolved by a new coding scheme that remains constant across the years. Finally, the newly reorganized matrix data bases are presented with documentation and examples of their use.

DATA BASE DESIGN

Years of Data Included

The data base prepared and analyzed by Jerilee Grandy and Nancy Robertson for their April 1992 report Change in Field of Study from Undergraduate to Graduate School[1] began with 1978 and ended with 1987, excluding 1979 (because of problems with the coding of undergraduate and graduate majors in 1979). The data base is currently being extended to include the years 1988 through 1992.

Types of Data Included

Three types of data are available for each year:

1. individual examinee data in reduced-record format. There are two such files for each year:
   a. a file including all examinees
   b. a file including only those examinees who took the GRE General Test, who were U.S. citizens, who specified undergraduate and graduate majors, and who were not GRE repeaters
2. matrices of detailed major fields containing 102 rows by 102 columns
3. matrices of broad major fields containing 11 rows by 11 columns

Individual Examinee Data

Individual examinee records stripped down from their original size on the GRE administration or end-of-year files are available for each of the years 1978 through 1987 (excluding 1979). One set of such files includes all examinee records. The second set includes only those examinees who were U.S.

---

[1]Grandy, J. and Robertson, N. (1992) Change in Field of Study from Undergraduate to Graduate School: Creation of a GRE Data Base for Studying Talent Flow. (GRE Professional Report No. 86-12). Princeton, NJ: Educational Testing Service.

citizens, who indicated undergraduate and intended graduate majors, who had GRE scores and who were not "duplicate" test takers (that is, they had not taken the GRE for the second or third time in a given testing year). The final restriction on duplicate test takers was easily applied for the years 1978 through 1987 since examinees in those years could be identified by background question A on the GRE registration form ("Have you previously taken one or more GRE tests?") option 3 ("Yes--took the test[s] more recently than September 30, 19__"). When the data base is extended to include data from 1988 through 1992, a more time-consuming method of sorting and matching on identifying information will need to be employed to detect and remove individuals who have taken the GRE General test more than once in a given year.

Table 1 shows the number of examinees in the original GRE file for each year, the number removed for each reason (e.g., not being citizens), and the number put out in the file used for creation of the matrices for the years 1978 through 1987. For each year, "N In" is the number of candidates in the end-of-year file; "N Not Cit." is the number of noncitizens; "N No Major" is the number lacking either a specified undergraduate or a specified graduate major; "N Dup. Adm." is the number who were removed for having taken the GRE General Test a second or third time during the year; "N No Scores" is the number without GRE General Test scores, and, finally, "N Out" is the number written out to the files used to create the matrices.

Location of the Individual Examinee Data Files

Reduced-record GRE files for the "reduced" group (U.S. citizens with indicated majors and GRE scores who have not taken the General test before in the previous year) may be found on cartridge number K45251 (and also on backup cartridge K32106; all cartridges produced for this project have expirations dates of 12/31/96. Backups exist for each cartridge). There is a file for each of the years 1978 through 1987 (excluding 1979) on this cartridge. The data set names are of the form:

NJT6600.GREDBASE.CHANGEyy (where yy is the testing year)

The files contain the word "CHANGE" because they include an indicator of change/no change of major from undergraduate to graduate school. Access to the files (which reside on the ETS mainframe IBM computer) may be requested from the author. Interested researchers outside ETS may also request copies of the individual examinees files, subject to approval of the GRE Board. The files contain no information for identifying individual examinees or their attending institutions and are most readily conveyed on tape for use on a mainframe computer.

Format of the Individual Examinee Data Files

Table 2 presents the format of NJT6600.GREDBASE.CHANGE78 to CHANGE87. Note that the record has been reduced to 50 characters, partly by excluding some of the background questionnaire items, although all items ever treated in Talent Flow studies are present. Data in columns 40 through 50 have been appended. They include the recoded undergraduate and graduate majors (codes 1 to 101) and the recoded broad majors (1 to 10). A final column indicates whether or not the individual changed broad major field between undergraduate and graduate school. The 101 recoded undergraduate and graduate major field categories are the same as those used in the 1977-78 background questionnaire; however, they have been rearranged for easier look-up. The coding scheme starts with mathematics and

the "hard" sciences, passes through the social sciences and accords the highest codes to the arts and humanities fields.

A sample SPSS program is available for providing frequencies for data in any year of NJT6600.GREDBASE.CHANGEyy. The program is in member (CHNGFREQ) of NJT6600.MYGRE.CNTL. It is possible to expand upon this program to perform trend studies over several years in a cost-effective way since there is no need to access a large GRE end-of-year file (or a series of administration files) when a stripped-down file will serve. For the FORTRAN user, a program called (DEGOBJ) illustrates how several years of GRE data can be quickly accessed and summarized in a simple table. The author is available to help anyone adapt these SPSS and FORTRAN programs to user needs.

Matrix Data for 101 Detailed Majors

The individual examinee files for each year provide the input necessary for generation of large square matrices of 102 rows by 102 columns. The rows correspond to intended graduate major, and the columns correspond to undergraduate major. The 102nd row and 102nd column contain the marginals. Each matrix contains a single statistic, such as the number of students or the mean GRE score. Hard copies of these matrices would show, for example, how many undergraduate mathematics majors in 1980 chose a graduate major of physics, what percentage of these people was Asian, and what their average GRE quantitative score was. Probably these matrices are most useful in their hard copy form, but they are also available on the IBM mainframe in an accessible format.

Matrices with the statistics presented in the trend tables are available for the years 1978 through 1987 in the partitioned data set NJT6600.BIGMAT.Y78TO87. Each member of the data set contains a different statistic, for example counts, or mean GRE verbal scores. Table 3 summarizes the members of the partitioned data set and the corresponding matrices. The number of lines in each file is generally 918 (102 x 9 years), except for the (COUNTS) file, which also contains column percentages for each year and consequently has nine more lines.

A program to create trend tables from the data in Table 3 is available in NJT6600.MYGRE.FORT(BIG7887); the Job Control Language for running it is in NJT6600.MYGRE.CNTL(BIG7887). The program reads in the data from the partitioned data set with a subroutine called READIN and then presents it in trend table format. Copies of the tables may be requested from the author or obtained by executing the program.

Each of the matrices in NJT6600.BIGMAT.Y78TO87 is 720 columns across and 918 or 927 lines down and is therefore too large to download conveniently to floppy disk. Copies of the matrices may be printed off for consultation, however.

Matrices for additional variables and additional subgroups of examinees (males, females, and students intending doctoral study) are available in printout form from the author. An inventory of these variables is presented in Table 4.

Matrix Data for 10 Broad Majors

The 101 detailed majors were grouped into the following ten broad majors: arts/humanities, physical sciences/mathematics, engineering, biological sciences, applied biological and environmental sciences, social sciences, applied social sciences, health sciences and services, education, and business/public administration.

Matrices with 11 rows and 11 columns were generated for each of the years 1978 through 1987 (as always, excluding 1979). As with the matrices of detailed majors, the rows correspond to intended graduate major and the columns correspond to undergraduate major. The 11th rows and columns represent the marginals for each year. Each matrix features a particular variable in its cells, for example, counts or mean GRE analytical scores. For each variable, matrices are stacked on top of each other by year within a member of a partitioned data set. Therefore, the member (COUNTS) would contain nine 11 x 11 matrices, with the 1978 matrix first and the 1987 matrix last. Table 5 summarizes the data available in each member of a partitioned data set called NJT6600.SHORTMAT.Y78TO87.

All of the above matrix files in Table 5 fit comfortably on one floppy disk, which is available for copying from the author. In addition, programs are available for providing trend tables from the matrix files on the IBM mainframe. Users may consult the program NJT6600.MYGRE.FORT(SMAT7887) with JCL in NJT6600.MYGRE.CNTL(SMAT7887). This program produces trend tables that can be requested from the author or created by running the program. Printed output for additional subgroups (males, females and students intending to pursue a doctorate) is available from the author. An inventory is presented in Table 6.

Summary of Available Files

Table 6 summarizes the files available through the GRE data base project and includes a list of sample programs that analyze the data in question. The sample programs illustrate only a few of the many possible uses of the reduced-record files. It has proved to be very convenient amd cost-effective to have files that include all the "essentials" of the GRE record (scores and background questionnaire information) for multiple years on one cartridge.

Plans for Data Base Extension

A project is currently underway to add GRE data from 1988 to 1992 to the talent flow data base. When the background questionnaire was revised in 1988 the major field codes were expanded from two digits to four digits, allowing for subfields of previously existing fields as well as some new fields (and the phasing out of some old ones). An entirely new talent flow data base is presently being restructured to "equate" codes from 1978 to 1987 with codes from 1988 onward, thus permitting analyses of trends over a 15-year period. The revised data base will be completed and documented for public use by the end of 1993.

Exercises Using the GRE 1978 to 1987 Data Base

Perhaps the best way to appreciate the utility of the GRE data base is to imagine some of its potential uses. The following are some exercises that should better acquaint the potential user with various computer files and printed output.

Exercise 1: Full examinee data file for a specified year

The user would like a set of frequency distributions and crosstabulations for U.S. citizens in the 1986-87 testing year. The simplest way to obtain these would be to access the sample SPSS program in NJT6600.MYGRE.CNTL(CHNGFREQ) and to modify the program to produce the required analyses. Modifications would also need to be made to the Job Control Language in order to access the appropriate file. The file would be GREDBASE.CHANGE87, which is the ninth file on K45251.

Exercise 2: Trend analyses across years

The user would like to know whether the number of examinees with undergraduate majors in engineering has increased since 1978; this user would also like to know if the engineering majors have become more diversified (now have higher percentages of female, minority and older students). A program has been prepared to do such trend analyses both on the detailed fields (the program is NJT6600.MYGRE.FORT(BIG7887)) and on the broad majors (the program is NJT6600.MYGRE.FORT(SMAT7887)). An example of the broad major output is presented in Appendix A. This table has been tentatively expanded to include data from 1988 through 1991, because although we are still working on equating detailed majors from pre-1988 data to data from 1988 and beyond, the allocation of majors to the ten broad categories is unlikely to change very dramatically. The answer to the above question is that undergraduate engineering majors increased from 5% of total examinees in 1978 to 9% in 1987. In addition, the percentages of these undergraduate engineering majors who were female, Black, Hispanic, Asian and older than 30 all increased.

Exercise 3: Questions about detailed majors from large matrices in printed form

The large, detailed matrices are cumbersome to work with, both in printed form and on the computer. A sample matrix has been printed out in Appendix B. This matrix is for examinees who took the GRE General Test in 1987 and who intended doctoral study. The variable presented in this matrix (which continues for eight pages) is the percentage female in each cell. A user might wish to know, for example, what percentage of undergraduate mathematics majors planning to continue toward a doctorate in mathematics are female. The answer is 33%. If the user wanted to know what percentage of undergraduate math majors who go on to a doctorate in education are female, the answer is 67%. The author has not been successful in thinking of a way to present these matrices in a more user-friendly form. The large matrices seem easier to browse in printed form than on the computer. Printed output is available from the author or from Jerilee Grandy at ETS. Trend tables extended through 1992 should be available by the summer of 1993.

Exercise 4: Questions about broad majors from small matrices in printed form

The small matrices of broad majors are more accessible--in print, on the mainframe, and on a personal computer. Such matrices are available in the 24 members of NJT6600.SHORTMAT.Y78TO87 on the mainframe and in 24 data sets available from the author on floppy disk. Such matrices look like those presented in Appendix C (except that those residing on the computer are unlabeled). It is relatively easy to answer questions using these matrices. A user might, for example, wonder whether undergraduate Physical Science/Mathematics majors who remain in physical science/mathematics have higher GRE quantitative scores than do the examinees who leave physical science/mathematics for other fields. The tables in Appendix C show 11,894 examinees remaining in physical science/math who have

a mean GRE quantitative score of 654. Those who switch out of physical science/math into engineering (N=1,031) have a slightly lower mean GRE quantitative score of 649.

The GRE talent flow data base facilitates research on GRE data by providing reduced-record GRE files on one tape in a format that is economical and easy to use. The matrix data permit the user to look up various types of information about GRE examinees making the transition between undergraduate and graduate school. When the data base is expanded to include data from 1988 to 1992, it will provide 15 years' worth of examinee-level and matrix data that can be utilized and expanded upon well into the next century.

TABLES

Table 1: Total Number of GRE Examinees ("N In") and Number in the GRE Data Base ("N Out"), with Number Excluded for Various Reasons 1978 to 1987

Year	N In	N Not Cit.	N No Major	N Dup Adm.	N No Scores	N Out
1978	317.457	76,222	19,369	10,872	42,480	168,514
1980	329,563	78,956	20,217	6,341	42,713	181,336
1981	304,243	78,919	18,627	9,244	44,991	152,462
1982	287,512	96,134	20,607	5,602	30,622	134,547
1983	295,978	121,385	19,538	4,269	28,514	122,272
1984	298,496	121,925	19,057	5,065	28,695	123,774
1985	305,074	110,564	18,720	4,926	32,426	138,438
1986	311,230	99,344	19,590	9,412	36,396	146,488
1987	327,538	100,680	21,349	10,693	40,304	154,512

TABLE 2:

DATA SET RECORD LAYOUT

LAYOUT	PROJECT/JOB	DATA ANALYST	PAGE
GRE 1978-1987	54638	Nancy Robertson	1 of 2
DATA SET NAME		**PROJECT DIRECTOR**	**DATE**
NJT6600.GREDBASE.CHANGEyy		Nancy Robertson	12/30/92

RETENTION PERIOD
96365

RECORD LENGTH
50

BLOCKSIZE

NON-TECHNICAL DESCRIPTION
Reduced GRE records from GRE Talent Flow Data Base, 1978 to 1987 (excluding 1779) On cartridge K45251 or backup cartridge K32106.

START	END	SIZE	DATA FMT.	FIELD NAME	RANGE VALUES	DESCRIPTION
1	1	1		Sex	1,2	1=Male
2	2	1		Education Level	1-8	
3	4	2		Testing Year	78-87	
5	7	3		GRE Verbal Score	200-800	
8	10	3		GRE Quantitative Score	200-800	
11	13	3		GRE Analytical Score	200-800	
14	14	1		Previous GRE	1-3	BQA
15	15	1		U.S. Citizenship	1,2	BQB1
16	16	1		Ethnicity	1-8	BQD
17	17	1		English Best Language	1,2	BQE1
18	19	2		Year of Bachelor's Degree	00-99	BQH
20	22	3		Undergraduate Major	00-99	BQI
23	23	1		Degree Objective	1-5	BQJ
24	26	3		Graduate Major	00-99	BQK
27	27	1		Undergraduate Major GPA	1-7	BQO
28	28	1		Last Two Years GPA	1-7	BQP
29	29	1		Hours Worked For Pay	1-5	BQR
30	30	1		Hours of Community Service	1-5	BQS
31	31	1		Most Important Honor	1-8	BQT
32	32	1		Father's Education Level	1-6	BQU
33	33	1		Mother's Education Level	1-6	BQV
34	39	6		Date of Birth	MMDD YY	
40	42	3		Recoded Ugrad. Major	1-101	
43	45	3		Recoded Grad. Major	1-101	
	47	2		Recoded Ugrad. Major Group	1-11	

TABLE 2:

DATA SET RECORD LAYOUT

LAYOUT	PROJECT/JOB	DATA ANALYST	PAGE
GRE 1978-1987	54638	Nancy Robertson	2 of 2
DATA SET NAME		**PROJECT DIRECTOR**	**DATE**
NJT6600.GREDBASE.CHANGEyy		Nancy Robertson	12/30/92
RETENTION PERIOD 96365 **RECORD LENGTH** 50 **BLOCKSIZE**	**NON-TECHNICAL DESCRIPTION** Reduced GRE records from GRE Talent Flow Data Base, 1978 to 1987 (excluding 1779) On cartridge K45251 or backup cartridge K32106.		

START	END	SIZE	DATA FMT.	FIELD NAME	RANGE VALUES	DESCRIPTION
48	49	2		Recoded Grad. Major Group	1-11	
50	50	1		Indicator of Change, Ugrad. to Grad. Major	1,2	1=Changer

Table 3: Matrix Data in NJT6600.BIGMAT.Y78TO87				
Member	**Data Summarized**	**Format**	**N lines**	**Comments**
(COUNTS)	Number in each cell	102 I7	927	Column %s for each year
(PCTBLACK)	Percent Black	102 I7	918	9 years of data
(PCTHISP)	Percent Hispanic	102 I7	918	9 years of data
(PCTASIAN)	Percent Asian	102 I7	918	9 years of data
(GREVMEAN)	GRE Verbal Mean	102 I7	918	9 years of data
(GREQMEAN)	GRE Quant. Mean	102 I7	918	9 years of data
(GREAMEAN)	GRE Analyt. Mean	102 I7	918	9 years of data

Table 4: Inventory of Detailed Matrices Available in Printout Form	
Variable in the Matrix	Group(s) Represented
Counts	Total, Doctoral, Male, Female
GRE-verbal Mean	Total, Doctoral, Male, Female
GRE-quantitative Mean	Total, Doctoral, Male, Female
GRE-analytical Mean	Total, Doctoral, Male, Female
N fathers w. college degree	Total
N fathers w. grad./prof. school	Total
N mothers w. college degree	Total
N mothers w. grad./prof. school	Total
% fathers w. college degree	Total, Male, Female
% fathers w. grad./prof. school	Total, Male, Female
% mothers w. college degree	Total, Male, Female
% mothers w. grad./prof. school	Total, Male, Female
Mean age	Total, Doctoral, Male, Female
Percent over 30 years old	Total, Doctoral, Male, Female
N Black	Total, Doctoral
N Asian	Total, Doctoral
N Hispanic	Total, Doctoral
% Black	Total, Doctoral
% Asian	Total, Doctoral
% Hispanic	Total, Doctoral
N female	Total, Doctoral
N male	Total, Doctoral
% female	Total, Doctoral
% male	Total, Doctoral
Mean GPA last two years	Total
Mean GPA in major	Total

Table 5: Matrix Data in NJT6600.SHORTMAT.Y78TO87				
Member	Data Summarized	Format	N lines	Comments
(COUNTS)	Number in each cell	11 I8	99	9 years of data
(PCTTOTAL)	Percent of total N	11 F8.2	99	9 years of data
(PCTFEM)	Percent who are female	11 F8.2	99	9 years of data
(PCTBLACK)	Percent who are Black	11 F8.2	99	9 years of data
(PCTHISP)	Percent Hispanic	11 F8.2	99	9 years of data
(PCTASIAN)	Percent who are Asian	11 F8.2	99	9 years of data
(PCTPHD)	Percent seeking Ph.D.	11 F8.2	99	9 years of data
(PCTGT30)	Percent older than 30	11 F8.2	99	9 years of data
(GREVMEAN)	GRE Verbal mean	11 I8	99	9 years of data
(GREQMEAN)	GRE Quant. mean	11 i8	99	9 years of data
(GREAMEAN)	GRE Analyt. mean	11 i8	99	9 years of data
(NFATCOL)	N fathers 4 yr degree	11 i8	99	8 years (no 1978)
(NFATGRAD)	N fathers grad degree	11 i8	99	8 years (no 1978)
(NMOMCOL)	N mothers 4 yr degree	11 i8	99	8 years (no 1978)
(NMOMGRAD)	N mothers grad degree	11 i8	99	8 years (no 1978)
(NOVER30)	N over 30 years old	11 i8	99	9 years of data
(PFATCOL)	% fathers 4 yr degree	11 F8.2	99	8 years (no 1978)
(PFATGRAD)	% fathers grad degree	11 F8.2	99	8 years (no 1978)
(PMOMCOL)	% mothers 4 yr degree	11 F8.2	99	8 years (no 1978)
(PMOMGRAD)	% mothers grad degree	11 F8.2	99	8 years (no 1978)
(POVER30)	% older than 30	11 F8.2	99	9 years of data
(MEANAGE)	Mean examinee age	11 F8.2	99	9 years of data
(MEANGPAM)	Mean GPA in major	11 F8.2	99	9 years of data
(MEANGPA2)	Mean GPA last 2 yrs	11 F8.2	99	9 years of data

Table 6: Inventory of Broad Major Matrices Available in Printout Form	
Variable in the Matrix	Group(s) Represented
Counts	Total, Doctoral, Male, Female
GRE-Verbal Mean	Total, Doctoral, Male, Female
GRE-Quantitative Mean	Total, Doctoral, Male, Female
GRE-Analytical Mean	Total, Doctoral, Male, Female
N fathers w. college degree	Total, Male, Female
N fathers w. grad./prof. school	Total, Male, Female
N mothers w. college degree	Total, Male, Female
N mothers w. grad./prof. school	Total, Male, Female
% fathers w. college degree	Total, Male, Female
% fathers w. grad./prof. school	Total, Male, Female
% mothers w. college degree	Total, Male, Female
% mothers w. grad./prof. school	Total, Male, Female
Mean Age	Total, Male, Female
Percent over 30 years old	Total, Male, Female
N Black	Total, Doctoral
N Asian	Total, Doctoral
N Hispanic	Total, Doctoral
% Black	Total
% Asian	Total
% Hispanic	Total
% female	Total, Doctoral
% male	Total, Doctoral
Mean GPA last two years	Total, Male, Female
Mean GPA in major	Total, Male, Female

TABLE 7: FILES AVAILABLE FROM THE GRE DATA BASE PROJECT ALL FILES PREFACED BY USER I.D. NJT6600 UNLESS OTHERWISE NOTED					
FILE NAME	KART	DESCRIPTION OF FILE	YEARS	FORMAT	PROGRAMS
TJJ6600.GREDBASE. DATAyy	K36891 K06776	Reduced-record file of full N For Each year (39 characters)	1978-87	See table 2	ETHNIC. CNTL (TABLE2)
GREDBASE. CHANGEyy	K45251 K32106	As above, but with restriction to U.S. citizens with GRE scores and ugrad. and grad. majors	1978-87	See table 2	ETHNIC. CNTL (MAJOR87) MYGRE. CNTL (CHNGFREQ)
BIGMAT.Y78TO87	DISK	Partitioned D.S. with 8 Members containing 102 x 102 matrices for 8 variables for 9 years	1978-87	102 I7	MYGRE. CNTL (BIG7887)
SHORTMAT.Y78TO87	DISK	Partitioned D.S. With 24 members containing 11 X 11 matrices for 24 variables for 9 years	1978-87	11 I8 OR 11 F8.2	MYGRE. CNTL (SMAT7887)

APPENDIX A: TREND TABLES OF BROAD UNDERGRADUATE AND GRADUATE MAJORS

TREND TABLES FOR EXAMINEES WITH UNDERGRADUATE MAJOR IN ART/HUMANITIES

*

YEAR OF GRE

	1978	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
NUMBER OF EXAMINEES	25676	28638	23228	20162	18003	18096	20584	22083	23611	26611	28983	32861	37341
% OF TOTAL EXAMINEES	16.06	16.67	15.92	15.66	15.29	15.24	15.40	15.64	15.86	15.67	15.79	16.07	16.38
PERCENT FEMALE	58.10	57.49	59.20	57.89	57.76	58.01	57.82	58.64	58.96	59.12	60.66	61.03	61.10
PERCENT BLACK	4.38	4.54	4.00	4.08	3.96	3.73	3.61	3.43	3.48	3.54	3.75	3.68	4.01
PERCENT HISPANIC	2.60	2.80	2.62	2.89	3.07	3.21	3.06	2.89	3.25	3.34	3.24	3.28	3.64
PERCENT ASIAN	1.19	1.06	1.17	1.26	1.27	1.45	1.60	1.50	1.63	1.98	2.20	2.34	2.53
PERCENT PURSUING PH.D.	36.21	37.53	35.82	37.02	38.69	39.60	38.27	40.91	41.92	39.85	39.89	42.04	42.84
PERCENT OLDER THAN 30	16.56	25.88	23.89	25.06	25.96	27.42	28.45	31.14	31.04	32.08	30.31	28.54	27.01
GRE VERBAL MEAN	542	547	537	534	541	543	541	548	548	552	554	557	549
GRE QUANTITATIVE MEAN	495	496	494	500	506	506	503	507	507	517	517	521	521
GRE ANALYTICAL MEAN	528	522	529	520	526	535	536	541	541	546	550	554	555

*

DATA FOR 1979 NOT AVAILABLE; MAJORS FOR 1988 THROUGH 1991 ARE RECODINGS OF NEW FOUR-DIGIT MAJORS

TREND TABLES FOR EXAMINEES WITH UNDERGRADUATE MAJOR IN PHYS. SCI./MATH

*

YEAR OF GRE

	1978	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
NUMBER OF EXAMINEES	14196	15027	13561	12936	13709	13681	14976	15936	16032	17304	17399	18181	19416
% OF TOTAL EXAMINEES	8.88	8.75	9.29	10.05	11.64	11.52	11.21	11.29	10.77	10.19	9.48	8.89	8.52
PERCENT FEMALE	28.44	28.08	30.58	30.09	30.16	31.55	32.30	32.58	32.19	33.32	33.91	34.22	34.13
PERCENT BLACK	3.67	3.91	3.64	3.73	3.68	3.57	3.83	4.27	4.58	5.15	4.99	5.26	5.92
PERCENT HISPANIC	2.26	1.66	2.25	2.33	2.71	2.79	2.54	2.33	2.93	2.88	2.64	2.99	3.11
PERCENT ASIAN	2.29	2.09	2.68	2.68	2.91	3.00	3.66	4.26	4.45	5.10	5.13	5.58	5.55
PERCENT PURSUING PH.D.	48.05	51.17	47.23	46.44	45.56	46.51	46.94	47.29	48.77	42.79	43.35	44.84	46.32
PERCENT OLDER THAN 30	7.84	14.79	11.24	11.66	12.04	12.88	13.32	14.70	16.22	17.82	18.91	20.10	19.70
GRE VERBAL MEAN	529	533	531	527	531	533	527	528	529	531	536	533	530
GRE QUANTITATIVE MEAN	644	649	642	640	641	643	645	649	649	653	657	656	656
GRE ANALYTICAL MEAN	582	579	585	584	587	603	606	608	609	608	610	609	608

*

TREND TABLES FOR EXAMINEES WITH UNDERGRADUATE MAJOR IN ENGINEERING

*

YEAR OF GRE

	1978	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
NUMBER OF EXAMINEES	7595	7362	7577	7701	8792	9568	10834	12265	13095	15251	16090	17581	19609
% OF TOTAL EXAMINEES	4.75	4.29	5.19	5.98	7.46	8.06	8.11	8.69	8.60	8.98	8.76	8.60	8.60
PERCENT FEMALE	11.09	8.61	11.65	13.45	14.97	15.45	15.53	17.55	16.95	16.86	16.87	17.34	16.92
PERCENT BLACK	2.55	2.44	3.09	3.36	2.73	3.34	3.08	3.05	3.54	3.34	3.86	4.19	4.52
PERCENT HISPANIC	3.37	3.12	3.44	3.57	3.55	3.52	3.73	3.91	4.10	4.52	4.44	4.54	4.81
PERCENT ASIAN	5.33	4.62	5.46	6.80	5.70	6.68	7.06	7.88	8.94	9.61	10.07	10.59	10.16
PERCENT PURSUING PH.D.	27.53	28.89	28.40	28.98	28.78	29.99	29.54	28.91	28.84	27.03	28.64	30.67	31.18
PERCENT OLDER THAN 30	8.66	18.98	11.14	10.88	10.52	11.76	11.53	11.77	12.52	14.55	15.97	17.27	17.32
GRE VERBAL MEAN	517	518	516	514	527	525	518	520	517	522	524	518	517
GRE QUANTITATIVE MEAN	675	673	674	674	679	677	680	682	681	687	689	686	687
GRE ANALYTICAL MEAN	585	578	587	587	597	611	609	611	610	610	609	607	606

*
DATA FOR 1979 NOT AVAILABLE; MAJORS FOR 1988 THROUGH 1991 ARE RECODINGS OF NEW FOUR-DIGIT MAJORS

TREND TABLES FOR EXAMINEES WITH UNDERGRADUATE MAJOR IN BIO. SCIENCES

*

YEAR OF GRE

	1978	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
NUMBER OF EXAMINEES	16643	19112	14945	12875	10510	10336	11442	12214	12635	12755	13126	14270	15405
% OF TOTAL EXAMINEES	10.41	11.13	10.24	10.00	8.92	8.71	8.56	8.65	8.49	7.51	7.15	6.98	6.76
PERCENT FEMALE	47.20	41.91	49.21	51.12	50.80	52.27	52.08	53.22	54.71	55.19	56.61	57.89	56.75
PERCENT BLACK	4.55	4.55	4.73	4.89	5.02	5.07	4.80	4.57	4.77	5.17	5.71	5.50	5.28
PERCENT HISPANIC	2.86	2.68	2.91	3.56	3.82	4.29	3.67	4.28	4.16	4.16	4.47	4.44	4.42
PERCENT ASIAN	2.61	2.33	2.66	2.50	3.04	3.05	3.29	3.65	4.11	4.52	4.85	4.58	5.10
PERCENT PURSUING PH.D.	52.96	54.89	52.49	52.43	53.49	53.65	53.43	53.89	54.14	48.17	46.72	46.89	48.17
PERCENT OLDER THAN 30	6.32	11.45	9.64	11.05	12.29	13.62	14.35	15.32	16.47	18.30	17.84	17.72	16.98
GRE VERBAL MEAN	519	520	518	519	520	519	518	520	517	523	525	522	522
GRE QUANTITATIVE MEAN	566	568	569	570	576	571	573	575	572	580	579	579	580
GRE ANALYTICAL MEAN	554	545	555	552	559	564	570	572	569	575	573	575	578

*

BEST COPY AVAILABLE

TREND TABLES FOR EXAMINEES WITH UNDERGRADUATE MAJOR IN APPL BIO/ENVIR SCI

*

YEAR OF GRE

	1978	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
NUMBER OF EXAMINEES	3184	3244	2928	2670	3052	2937	3160	3227	3048	4155	4151	4475	4936
% OF TOTAL EXAMINEES	1.99	1.89	2.01	2.07	2.59	2.47	2.36	2.29	2.05	2.45	2.26	2.19	2.17
PERCENT FEMALE	30.56	25.46	33.57	32.62	36.99	36.74	36.01	36.10	36.91	41.35	42.30	43.82	44.23
PERCENT BLACK	2.10	2.03	1.98	1.95	1.67	2.11	1.55	1.67	2.36	2.17	2.36	2.08	2.65
PERCENT HISPANIC	2.04	1.70	2.39	2.36	2.46	2.25	2.50	1.92	2.43	2.43	2.94	2.82	3.06
PERCENT ASIAN	0.75	1.05	0.68	0.94	0.98	0.92	1.01	1.18	1.05	1.20	1.78	2.10	1.68
PERCENT PURSUING PH.D.	36.06	35.45	36.44	34.53	31.75	34.05	32.78	33.41	34.25	35.09	37.10	34.39	36.71
PERCENT OLDER THAN 30	6.51	13.88	9.65	9.70	10.99	13.40	15.96	18.45	19.03	20.36	21.85	22.88	23.93
GRE VERBAL MEAN	480	478	478	482	488	494	489	488	491	492	497	491	490
GRE QUANTITATIVE MEAN	549	546	548	553	556	554	548	544	545	553	556	548	550
GRE ANALYTICAL MEAN	531	519	529	532	540	550	546	546	546	552	554	548	549

*

DATA FOR 1979 NOT AVAILABLE; MAJORS FOR 1988 THROUGH 1991 ARE RECODINGS OF NEW FOUR-DIGIT MAJORS

TREND TABLES FOR EXAMINEES WITH UNDERGRADUATE MAJOR IN SOCIAL SCI

*

YEAR OF GRE

	1978	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
NUMBER OF EXAMINEES	41789	46499	37764	32725	27420	27712	31005	33152	35814	41679	46506	53257	62343
% OF TOTAL EXAMINEES	26.13	27.07	25.88	25.42	23.28	23.34	23.20	23.48	24.06	24.54	25.33	26.05	27.35
PERCENT FEMALE	53.20	49.68	55.65	55.88	56.06	56.69	57.37	57.71	57.82	58.79	59.98	60.36	61.00
PERCENT BLACK	7.76	8.05	7.69	7.68	7.82	7.12	6.43	6.03	6.16	7.09	7.04	6.91	6.97
PERCENT HISPANIC	3.11	3.20	3.21	3.71	3.77	3.91	4.01	3.76	3.80	3.98	4.11	4.12	4.26
PERCENT ASIAN	1.31	1.33	1.54	1.67	1.66	1.71	1.80	1.87	1.87	2.25	2.35	2.33	2.62
PERCENT PURSUING PH.D.	48.16	48.65	48.95	50.54	50.46	51.70	50.77	51.43	52.60	49.04	48.85	49.81	49.93
PERCENT OLDER THAN 30	13.52	22.15	19.35	20.64	21.47	22.41	23.09	24.62	24.81	25.30	24.25	23.10	21.06
GRE VERBAL MEAN	513	518	511	508	513	515	512	517	516	517	517	516	511
GRE QUANTITATIVE MEAN	499	502	500	502	507	505	504	509	508	516	515	516	516
GRE ANALYTICAL MEAN	522	517	525	514	522	530	532	537	536	539	541	542	546

*

TREND TABLES FOR EXAMINEES WITH UNDERGRADUATE MAJOR IN APPL SOCIAL SCI

*

YEAR OF GRE

	1978	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
NUMBER OF EXAMINEES	5980	5709	5732	5006	4424	4400	5068	5375	6039	7863	8902	10369	11936
% OF TOTAL EXAMINEES	3.74	3.32	3.93	3.89	3.76	3.71	3.79	3.81	4.06	4.63	4.85	5.07	5.24
PERCENT FEMALE	68.70	66.61	70.15	69.88	69.21	70.16	68.80	69.34	69.47	69.35	69.94	70.26	70.53
PERCENT BLACK	12.27	11.98	11.64	11.77	11.98	11.75	10.10	10.57	9.74	9.81	9.76	10.61	10.41
PERCENT HISPANIC	2.98	2.59	2.83	3.58	3.50	4.14	4.22	3.59	3.89	3.62	3.37	3.69	3.79
PERCENT ASIAN	1.02	1.12	1.12	0.98	0.90	1.23	1.30	1.02	1.51	1.50	1.45	1.79	1.75
PERCENT PURSUING PH.D.	18.80	20.53	19.02	20.40	20.41	20.91	20.30	22.72	21.36	20.58	20.52	22.15	21.70
PERCENT OLDER THAN 30	11.34	20.12	17.49	18.77	19.52	20.55	23.46	25.70	25.05	26.06	26.15	25.61	24.45
GRE VERBAL MEAN	472	478	471	469	470	467	472	474	473	481	479	478	476
GRE QUANTITATIVE MEAN	446	451	446	447	449	444	447	447	450	465	461	461	463
GRE ANALYTICAL MEAN	483	479	486	484	486	485	493	494	496	505	505	504	509

*
DATA FOR 1979 NOT AVAILABLE; MAJORS FOR 1988 THROUGH 1991 ARE RECODINGS OF NEW FOUR-DIGIT MAJORS

TREND TABLES FOR EXAMINEES WITH UNDERGRADUATE MAJOR IN HEALTH SCI/SERVICE

*

YEAR OF GRE

	1978	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
NUMBER OF EXAMINEES	13434	12722	12595	11416	10069	9836	11216	11462	11800	16694	17462	19151	20831
% OF TOTAL EXAMINEES	8.40	7.41	8.63	8.87	8.55	8.28	8.39	8.12	7.93	9.83	9.51	9.37	9.14
PERCENT FEMALE	87.09	85.97	88.03	87.44	88.22	89.38	88.92	88.81	88.66	87.94	88.35	87.96	87.49
PERCENT BLACK	5.54	5.48	5.01	4.94	4.85	4.69	4.96	4.57	4.75	5.19	5.49	5.83	5.70
PERCENT HISPANIC	1.40	1.32	1.56	1.66	1.65	2.16	1.80	1.68	1.97	2.23	2.53	2.44	2.76
PERCENT ASIAN	1.31	1.52	1.57	1.49	1.29	1.58	1.35	1.61	1.97	1.77	1.94	1.92	2.16
PERCENT PURSUING PH.D.	24.49	24.63	24.61	24.79	24.31	22.68	22.87	25.00	25.08	19.68	19.37	19.14	18.08
PERCENT OLDER THAN 30	21.76	32.15	29.18	31.97	35.73	37.57	39.63	43.53	45.38	41.46	42.70	43.45	41.98
GRE VERBAL MEAN	484	486	483	482	480	481	484	482	478	473	474	470	466
GRE QUANTITATIVE MEAN	480	482	484	486	487	484	484	484	480	483	480	478	476
GRE ANALYTICAL MEAN	505	496	509	502	508	506	512	510	508	509	508	504	506

*

TREND TABLES FOR EXAMINEES WITH UNDERGRADUATE MAJOR IN EDUCATION

*

YEAR OF GRE

	1978	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
NUMBER OF EXAMINEES	25229	26783	21795	18171	17183	17762	20438	20336	20935	20227	22791	25160	25681
% OF TOTAL EXAMINEES	15.78	15.59	14.93	14.11	14.59	14.96	15.29	14.40	14.07	11.91	12.41	12.31	11.27
PERCENT FEMALE	76.02	74.88	76.70	76.58	78.63	78.14	79.02	78.77	78.68	77.67	77.23	77.52	78.45
PERCENT BLACK	8.28	9.39	7.49	8.01	7.11	6.31	6.30	6.06	5.87	6.33	6.31	6.32	6.04
PERCENT HISPANIC	2.92	2.76	3.19	3.79	3.46	3.38	3.75	3.15	3.23	3.47	3.57	3.31	3.78
PERCENT ASIAN	0.73	0.57	0.65	0.64	0.68	0.74	0.74	0.92	1.06	0.79	0.75	0.81	0.84
PERCENT PURSUING PH.D.	20.54	20.40	20.71	22.31	20.72	21.65	19.84	21.42	21.09	20.78	19.59	20.00	20.12
PERCENT OLDER THAN 30	25.10	36.45	34.01	36.69	35.19	36.99	40.26	42.92	44.15	52.12	50.22	49.42	47.48
GRE VERBAL MEAN	436	438	439	437	438	441	439	445	443	453	448	448	446
GRE QUANTITATIVE MEAN	440	439	442	442	448	445	443	450	450	459	458	457	457
GRE ANALYTICAL MEAN	458	452	461	462	470	473	474	478	478	482	480	481	483

*

DATA FOR 1979 NOT AVAILABLE; MAJORS FOR 1988 THROUGH 1991 ARE RECODINGS OF NEW FOUR-DIGIT MAJORS

TREND TABLES FOR EXAMINEES WITH UNDERGRADUATE MAJOR IN BUSINESS/PUB ADM

*

YEAR OF GRE

	1978	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
NUMBER OF EXAMINEES	6181	6684	5819	5078	4615	4399	4913	5129	5832	7305	8174	9121	10451
% OF TOTAL EXAMINEES	3.87	3.89	3.99	3.94	3.92	3.71	3.68	3.63	3.92	4.30	4.45	4.46	4.58
PERCENT FEMALE	37.60	32.72	40.76	40.84	43.62	44.12	47.26	48.41	49.11	47.87	50.53	51.73	53.38
PERCENT BLACK	12.15	12.25	12.08	11.95	12.70	10.96	10.65	11.02	11.45	10.83	10.75	10.63	12.28
PERCENT HISPANIC	2.94	3.07	2.56	3.76	3.27	4.43	3.85	3.43	3.89	4.37	4.12	3.89	4.05
PERCENT ASIAN	1.49	1.23	1.31	1.50	1.45	1.70	1.51	1.31	1.85	1.89	2.20	1.94	1.95
PERCENT PURSUING PH.D.	21.02	22.13	21.33	20.70	21.32	23.32	22.06	24.49	23.34	21.94	22.24	22.48	23.36
PERCENT OLDER THAN 30	20.66	33.89	28.18	29.09	29.42	32.97	32.10	34.41	34.47	38.37	37.99	37.96	36.87
GRE VERBAL MEAN	456	456	458	457	457	466	460	466	464	473	473	474	471
GRE QUANTITATIVE MEAN	499	501	501	501	498	499	496	498	496	513	513	513	514
GRE ANALYTICAL MEAN	489	481	492	489	494	503	504	508	506	518	516	519	519

*

TREND TABLES FOR EXAMINEES WITH UNDERGRADUATE MAJOR IN TOTAL

*

YEAR OF GRE

	1978	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
NUMBER OF EXAMINEES	159907	171780	145944	128740	117777	118727	133636	141179	148841	169844	183584	204426	227949
% OF TOTAL EXAMINEES	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
PERCENT FEMALE	55.14	52.53	56.41	55.78	55.32	55.74	56.30	56.31	56.46	56.92	58.10	58.72	58.82
PERCENT BLACK	6.39	6.67	6.14	6.19	5.95	5.58	5.33	5.18	5.34	5.75	5.91	5.99	6.18
PERCENT HISPANIC	2.73	2.67	2.81	3.22	3.24	3.44	3.39	3.20	3.43	3.56	3.61	3.63	3.87
PERCENT ASIAN	1.60	1.48	1.73	1.89	1.94	2.14	2.28	2.53	2.78	3.03	3.14	3.21	3.33
PERCENT PURSUING PH.D.	37.02	38.47	37.15	37.96	37.41	38.15	37.21	38.62	39.13	35.85	35.73	36.77	37.48
PERCENT OLDER THAN 30	15.09	24.01	21.02	22.18	22.60	23.99	25.31	27.02	27.70	29.37	29.15	28.76	27.17
GRE VERBAL MEAN	501	505	500	499	503	505	502	506	505	509	509	508	505
GRE QUANTITATIVE MEAN	515	516	517	522	530	529	527	533	531	539	536	535	535
GRE ANALYTICAL MEAN	521	515	524	520	528	536	538	542	541	544	544	544	546

*

DATA FOR 1979 NOT AVAILABLE; MAJORS FOR 1988 THROUGH 1991 ARE RECODINGS OF NEW FOUR-DIGIT MAJORS

APPENDIX B: SAMPLE MATRIX OUTPUT FOR DETAILED MAJORS

STUDENT FLOW FROM UNDERGRADUATE MAJORS (COLUMNS) TO GRADUATE FIELD OF INTEREST (ROWS)
THOSE CONDSIDERING DOCTORAL OR POSTDOCTORAL STUDY
PERCENT OF FEMALE STUDENTS

1987

UNDERGRADUATE MAJORS ARE NUMBERED TO CORRESPOND TO GRADUATE FIELDS ON LEFT

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1 MATHEMATICS	33	42	0	18	0	100	0	50	29	0	0	0	0	0	7	50	25	0	40	100	0	0	0	0	0
2 APPLIED MATH	27	35	0	50	0	0	0	0	0	0	0	0	0	0	50	0	33	33	0	0	0	0	0	0	0
3 STATISTICS	44	75	38	0	0	0	0	100	33	0	0	0	100	0	0	100	0	0	0	100	0	0	0	0	0
4 PHYSICS	18	50	0	16	0	0	0	0	100	0	0	0	0	0	9	0	0	24	33	0	0	0	0	0	0
5 ASTRONOMY	0	0	0	26	11	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 GEOLOGY	33	0	0	33	0	30	0	83	0	0	25	0	0	0	0	0	0	50	60	0	0	0	0	0	0
7 OCEANOGRAPHY	50	0	0	25	0	54	44	14	0	100	33	0	0	0	0	0	50	50	37	0	0	0	0	0	0
8 CHEMISTRY	33	0	0	0	0	0	100	31	0	0	0	0	17	0	0	0	0	100	55	42	0	0	0	0	0
9 COMPUTER SCIENCE	23	12	0	9	0	0	0	10	18	0	17	0	8	33	4	11	15	22	25	0	0	0	50	0	0
10 METALLURGY	100	0	0	0	0	0	0	0	0	24	0	0	100	0	0	0	29	0	0	0	0	0	0	0	0
11 OTHER PHY. SCIENCE	56	100	0	27	0	41	0	7	0	0	21	0	36	0	0	0	0	11	0	100	0	0	0	0	0
12 ENGIN., AERONAUTICAL	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	11	20	0	0	0	0	0	0	0
13 ENGINEERING, CHEMICAL	0	0	0	0	0	0	0	43	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0
14 ENGINEERING, CIVIL	100	0	0	0	0	11	0	100	0	0	0	0	20	22	0	0	0	15	33	0	0	0	0	0	0
15 ENGINEERING, ELECTR.	10	0	0	10	0	0	0	0	14	0	0	0	13	0	11	25	7	18	0	0	0	0	0	100	0
16 ENGINEERING, INDUST.	60	33	0	0	0	0	0	100	50	0	100	0	0	0	10	36	14	14	0	0	0	0	0	0	0
17 ENGINEERING, MECHAN.	25	0	0	21	0	0	0	0	0	100	0	11	0	0	0	0	12	33	0	0	0	0	0	0	0
18 ENGINEERING, OTHER	56	25	0	23	0	25	0	60	30	25	25	0	56	33	21	50	24	24	0	50	0	0	0	0	0
19 BIOLOGY	20	0	0	33	100	0	0	20	0	0	0	0	0	0	0	0	0	0	50	67	0	25	0	39	0
20 BIOCHEMISTRY	0	0	0	0	100	0	0	45	0	0	0	0	100	0	0	0	0	0	38	42	0	0	0	60	0
21 BIOPHYSICS	0	0	0	31	0	0	0	50	0	0	0	0	0	0	0	0	0	0	10	50	27	0	0	67	0
22 BOTANY	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	53	50	0	37	0	100	0
23 GENETICS	100	0	0	0	0	0	0	57	0	100	100	0	50	100	0	0	0	0	57	41	0	0	50	75	100
24 ZOOLOGY	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	40	0	0	0	0	38	0
25 ENTOMOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	18	24
26 ANATOMY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	50	0	0	0	0	43	0
27 MICROBIOLOGY	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	57	82	0	50	40	30	0
28 PARASITOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 PHYSIOLOGY	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	50	48	36	0	0	0	33	0
30 MOLECULAR & CELL BIO.	0	0	0	0	0	0	0	39	0	0	0	0	50	0	0	0	0	0	46	33	100	29	67	45	0
31 BACTERIOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	0	0	0	0	0	0
32 AGRICULTURE	0	0	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	0	43	0	0	33	0	0	0
33 MINING	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 FORESTRY	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	20	100	0	100	100	0	0
35 ENVIRONMENTAL SCIENCE	100	100	0	25	0	41	100	50	50	0	100	100	0	0	25	0	0	0	42	33	0	63	0	26	0
36 AUDIOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	0	0	0	0	0	0
37 PHYSICAL THERAPY	100	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	67	100	0	0	0	0	0
38 OCCUPATIONAL THERAPY	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0
39 NUTRITION	0	0	100	0	0	0	0	89	0	0	0	0	0	0	0	0	0	0	75	20	0	0	0	60	0
40 HOME ECONOMICS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 DENTISTRY	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	25	100	0	0	0	0	0
42 MEDICINE	67	0	0	17	0	0	0	47	50	0	0	0	50	0	30	0	20	18	59	54	0	0	0	58	0
43 OPTOMETRY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 OSTEOPATHY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 NURSING	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	0	0	0	0	0	0
46 PATHOLOGY	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	14	100	0	0	57	0
47 PHARMACOLOGY	50	0	0	0	0	0	0	28	100	0	100	0	0	0	0	0	0	0	55	43	0	0	0	25	0
48 PHARMACY	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	50	57	0	0	0	50	0
49 VETERINARY MEDICINE	80	0	0	40	0	0	0	59	100	0	0	0	67	0	0	0	100	50	68	66	0	100	60	66	0
50 OTHER BIOLOGICAL SC.	50	0	0	50	0	0	0	11	0	0	0	0	100	0	0	0	0	67	53	57	0	33	80	30	0
51 PUBLIC HEALTH	56	0	100	0	0	67	0	31	0	0	0	0	100	100	0	0	0	25	67	100	100	0	50	44	0
52 HOSP/HEALTH SERVICE A	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	68	0	0	0	0	0	0
53 PUBLIC ADMINISTRATION	100	100	0	33	0	50	0	0	0	0	0	0	100	50	67	0	0	0	67	0	0	0	0	0	0
54 URBAN DEVELOPMENT	0	0	0	0	0	50	0	0	0	0	0	0	0	50	0	0	0	33	100	0	0	0	0	0	0
55 GEOGRAPHY	0	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	100	50	0	0	0	0	0	0
56 GOVERNMENT/POL. SCI.	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	67	0	0	0	0	0	0
57 HISTORY	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	100	0
58 INTERNATIONAL RELAT.	33	0	0	0	0	33	100	0	33	0	50	0	0	0	50	0	0	0	83	0	0	0	0	0	0
59 LAW	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60 INDUST. REL/PERSONNEL	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
61 BUSINESS & COMMERCE	17	0	0	50	0	0	0	33	14	0	0	0	0	0	0	33	0	20	17	0	0	0	0	50	0
62 ECONOMICS	41	33	0	0	0	14	0	0	29	0	0	0	33	0	0	0	20	0	20	100	0	0	0	0	0
63 AMERICAN STUDIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 ANTHROPOLOGY	50	0	0	0	0	0	0	100	0	0	0	0	0	100	0	0	0	0	67	0	0	0	0	0	0

BEST COPY AVAILABLE

56

STUDENT FLOW FROM UNDERGRADUATE MAJORS (COLUMNS) TO GRADUATE FIELD OF INTEREST (ROWS)
(CONTINUED FROM PREVIOUS PAGE)
PERCENT OF FEMALE STUDENTS
1987

UNDERGRADUATE MAJORS ARE NUMBERED TO CORRESPOND TO GRADUATE FIELDS ON LEFT

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
65 SOCIOLOGY	0	0	0	0	0	0	0	0	100	0	0	0	0	0	100	0	0	0	100	0	0	0	0	0	0
66 SOCIAL WORK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0
67 EDUC. PSYCHOLOGY	60	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	100	0	60	0	0	0	0	0	0
68 PSYCHOLOGY	71	0	0	25	0	60	0	72	38	0	0	100	50	0	29	0	13	36	73	63	0	67	75	36	0
69 SOCIAL PSYCHOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	0	75	100	0	0	0	0	0
70 COMMUNICATIONS	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0
71 JOURNALISM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72 LIBRARY SCIENCE	50	0	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0
73 OTHER SOCIAL SCIENCE	50	100	0	0	0	33	0	67	0	0	0	0	0	0	0	0	0	0	83	100	0	0	0	0	100
74 EDUCATION	67	75	0	30	0	38	0	48	38	0	29	0	0	0	0	50	0	0	52	60	0	50	0	43	100
75 EDUCATIONAL ADMIN.	46	100	0	0	0	50	100	50	100	0	0	0	0	50	0	0	0	33	23	100	0	0	0	0	0
76 PHYSICAL EDUCATION	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	50	0	0	0	50	0
77 GUIDANCE & COUNSELING	100	0	0	0	0	67	0	0	100	0	0	0	0	100	0	0	0	0	55	0	0	0	0	0	0
78 SPEECH	100	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0
79 ENGLISH	33	0	0	0	0	50	0	40	33	0	0	0	100	0	50	0	0	0	56	100	0	0	0	0	0
80 ITALIAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 FRENCH	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0
82 GERMAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0
83 RUSSIAN	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0
84 SLAVIC STUDIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 SPANISH	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0
86 FAR EASTERN LANG.	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87 NEAR EASTERN LANG.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 CLASSICAL LANGUAGE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 OTHER FOREIGN LANG.	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 LINGUISTICS	29	100	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	75	100	0	0	0	0	0
91 COMPARATIVE LIT.	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	100	0	0
92 RELIG. STUDIES/RELIG.	40	0	0	44	0	25	0	40	0	0	0	0	0	0	0	0	0	50	29	0	0	0	0	33	0
93 PHILOSOPHY	33	0	0	0	0	50	0	17	33	0	0	0	100	0	0	0	0	0	25	100	0	0	0	100	0
94 ART HISTORY	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	0	0	100	33	0	0	0	0	0	0
95 ARCHITECTURE	100	0	0	100	0	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0
96 ARCHAEOLOGY	100	0	0	50	0	67	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0
97 FINE ARTS, ART DESIGN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98 DRAMATIC ARTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99 MUSIC	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 OTHER HUMANITIES	67	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0
101 OTHER	37	0	0	27	0	50	0	50	50	0	0	0	25	0	18	33	43	15	51	83	0	50	0	44	0
102 TOTAL	36	35	34	17	11	32	42	34	19	26	18	7	29	21	11	31	13	23	52	44	29	39	54	42	26

STUDENT FLOW FROM UNDERGRADUATE MAJORS (COLUMNS) TO GRADUATE FIELD OF INTEREST (ROWS)
(CONTINUED FROM PREVIOUS PAGE)
PERCENT OF FEMALE STUDENTS

1987

UNDERGRADUATE MAJORS ARE NUMBERED TO CORRESPOND TO GRADUATE FIELDS ON LEFT

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
1 MATHEMATICS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 APPLIED MATH	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 STATISTICS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	100
4 PHYSICS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 ASTRONOMY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 GEOLOGY	0	0	0	0	0	0	0	0	0	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
7 OCEANOGRAPHY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0
8 CHEMISTRY	0	0	0	0	0	100	100	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0
9 COMPUTER SCIENCE	0	100	0	0	0	100	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
10 METALLURGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
11 OTHER PHY. SCIENCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 ENGIN., AERONAUTICAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 ENGINEERING, CHEMICAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0
14 ENGINEERING, CIVIL	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 ENGINEERING, ELECTR.	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	100
16 ENGINEERING, INDUST.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 ENGINEERING, MECHAN.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 ENGINEERING, OTHER	0	0	0	0	0	0	0	0	0	67	0	0	100	0	0	0	0	0	0	0	0	0	0	67	29
19 BIOLOGY	0	55	0	0	0	0	50	0	0	33	0	0	0	100	0	0	100	0	0	50	0	0	50	0	60
20 BIOCHEMISTRY	0	46	0	0	50	0	50	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 BIOPHYSICS	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 BOTANY	0	50	0	0	0	0	10	0	67	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	50
23 GENETICS	0	50	0	100	43	100	50	0	0	0	0	0	0	0	0	0	0	60	0	0	50	50	0	100	29
24 ZOOLOGY	0	100	0	0	0	0	100	0	0	38	0	0	0	0	100	0	0	0	0	100	0	0	0	67	33
25 ENTOMOLOGY	0	0	0	100	50	0	57	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0
26 ANATOMY	33	100	0	33	0	0	0	0	0	0	0	100	100	0	0	0	33	0	0	0	0	0	0	100	33
27 MICROBIOLOGY	0	48	0	100	50	100	100	0	0	50	0	0	0	0	0	0	0	46	0	0	0	100	0	0	80
28 PARASITOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 PHYSIOLOGY	0	0	0	46	100	0	42	0	0	50	0	67	0	100	100	0	25	0	0	88	0	0	100	67	36
30 MOLECULAR & CELL BIO.	0	39	0	17	42	25	40	0	0	100	0	0	0	100	0	0	50	0	0	100	100	0	0	0	89
31 BACTERIOLOGY	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	100
32 AGRICULTURE	0	0	0	0	0	0	28	0	0	0	0	0	0	0	100	0	50	0	0	0	0	0	0	0	0
33 MINING	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 FORESTRY	0	0	0	0	0	0	25	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
35 ENVIRONMENTAL SCIENCE	0	0	0	0	0	0	43	0	29	42	0	0	0	0	0	0	0	0	0	100	0	0	0	0	50
36 AUDIOLOGY	0	0	0	0	0	0	0	0	0	0	77	0	0	0	100	0	100	0	0	0	0	0	0	0	0
37 PHYSICAL THERAPY	100	0	0	33	0	0	0	0	0	0	0	65	100	0	0	0	71	0	0	0	0	0	0	0	80
38 OCCUPATIONAL THERAPY	0	0	0	0	0	0	0	0	0	0	0	0	85	0	0	0	0	0	0	100	0	0	0	0	0
39 NUTRITION	0	100	0	100	0	0	36	0	0	0	0	0	0	90	92	100	100	0	0	100	0	0	100	0	80
40 HOME ECONOMICS	0	0	0	0	0	0	100	0	0	0	0	0	0	100	98	0	0	0	0	100	0	0	0	0	0
41 DENTISTRY	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	50	0	0	0	0	100
42 MEDICINE	0	36	0	33	43	0	60	0	0	50	0	0	0	67	100	0	48	0	0	82	0	0	0	100	72
43 OPTOMETRY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 OSTEOPATHY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 NURSING	0	100	0	0	0	0	0	0	0	100	0	0	0	100	100	0	100	0	0	94	0	0	0	0	100
46 PATHOLOGY	0	44	0	50	0	100	50	0	0	100	0	0	0	0	0	0	67	0	0	0	25	0	0	50	60
47 PHARMACOLOGY	0	33	0	67	25	0	0	0	0	0	0	0	100	0	100	0	40	0	0	100	0	38	44	50	64
48 PHARMACY	0	100	0	0	0	0	0	0	0	0	0	0	0	0	100	0	80	0	0	0	0	0	38	0	33
49 VETERINARY MEDICINE	0	62	0	60	100	60	49	0	0	60	0	0	0	50	0	0	60	0	0	100	100	0	100	64	67
50 OTHER BIOLOGICAL SC.	0	32	0	50	40	50	23	0	50	40	100	100	0	50	0	0	25	0	0	71	0	0	0	100	50
51 PUBLIC HEALTH	0	61	0	100	0	100	50	0	0	29	0	83	67	88	100	75	70	0	0	97	0	0	17	0	83
52 HOSP/HEALTH SERVICE A	0	100	0	0	0	0	0	0	0	0	0	50	0	0	100	100	50	0	0	90	0	0	17	0	50
53 PUBLIC ADMINISTRATION	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	64	0	0	0	0	100
54 URBAN DEVELOPMENT	0	0	0	0	0	0	0	0	0	100	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0
55 GEOGRAPHY	0	0	0	0	0	0	0	0	0	75	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0
56 GOVERNMENT/POL. SCI.	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0
57 HISTORY	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0
58 INTERNATIONAL RELAT.	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0
59 LAW	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	100	0	0	0	0	0
60 INDUST. REL/PERSONNEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0
61 BUSINESS & COMMERCE	0	0	0	0	0	0	67	0	0	100	0	0	0	100	50	0	100	0	0	78	0	0	0	0	0
62 ECONOMICS	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63 AMERICAN STUDIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 ANTHROPOLOGY	100	0	0	0	0	0	0	0	0	75	0	100	100	75	0	0	0	0	0	100	100	0	0	0	0

BEST COPY AVAILABLE

STUDENT FLOW FROM UNDERGRADUATE MAJORS (COLUMNS) TO GRADUATE FIELD OF INTEREST (ROWS)
(CONTINUED FROM PREVIOUS PAGE)
PERCENT OF FEMALE STUDENTS
1987

UNDERGRADUATE MAJORS ARE NUMBERED TO CORRESPOND TO GRADUATE FIELDS ON LEFT

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
65 SOCIOLOGY	0	0	0	0	0	100	0	0	0	0	0	100	100	0	0	0	0	0	0	100	0	0	100	0	50
66 SOCIAL WORK	0	0	0	0	0	0	100	0	0	100	0	0	0	0	100	0	0	0	0	100	0	0	0	0	100
67 EDUC. PSYCHOLOGY	0	100	0	0	0	0	0	0	0	0	0	0	67	100	100	100	100	0	0	100	100	0	0	0	100
68 PSYCHOLOGY	0	29	0	60	50	67	75	0	33	71	0	80	90	100	90	67	57	0	0	94	100	50	75	0	82
69 SOCIAL PSYCHOLOGY	0	0	0	100	0	0	0	0	0	0	0	0	0	0	50	0	100	0	0	100	0	0	0	0	50
70 COMMUNICATIONS	0	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	100	0	0
71 JOURNALISM	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0
72 LIBRARY SCIENCE	0	0	0	0	0	0	0	0	0	0	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0
73 OTHER SOCIAL SCIENCE	0	0	0	0	0	0	33	0	0	100	0	100	100	0	83	0	100	0	0	100	0	0	0	0	100
74 EDUCATION	0	100	0	50	100	0	38	0	100	50	100	100	75	80	97	100	50	0	0	96	0	0	67	100	100
75 EDUCATIONAL ADMIN.	0	67	0	0	100	100	15	0	0	33	100	100	67	100	97	100	33	0	0	96	0	0	0	100	100
76 PHYSICAL EDUCATION	0	0	0	50	0	0	0	0	0	0	0	50	0	50	0	0	33	0	0	100	0	0	0	0	0
77 GUIDANCE & COUNSELING	0	0	0	0	0	0	50	0	0	100	100	0	0	0	100	0	100	0	0	100	0	0	100	0	100
78 SPEECH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	0	0	0	0	0
79 ENGLISH	100	67	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0
80 ITALIAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 FRENCH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82 GERMAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 RUSSIAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84 SLAVIC STUDIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 SPANISH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
86 FAR EASTERN LANG.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87 NEAR EASTERN LANG.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 CLASSICAL LANGUAGE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 OTHER FOREIGN LANG.	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0
90 LINGUISTICS	0	100	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0
91 COMPARATIVE LIT.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 RELIG. STUDIES/RELIG.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	50	0	0	100	0	0	0	0	75
93 PHILOSOPHY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0
94 ART HISTORY	0	0	0	0	0	0	100	0	0	0	100	0	0	0	0	0	0	0	0	0	0	100	0	0	0
95 ARCHITECTURE	0	0	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
96 ARCHAEOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
97 FINE ARTS, ART DESIGN	0	0	0	0	0	100	100	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	0	100	0
98 DRAMATIC ARTS	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	0	0	0	0	100	0	0	0	0	100
99 MUSIC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 OTHER HUMANITIES	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101 OTHER	0	13	0	0	0	0	50	0	0	33	100	0	0	100	100	0	0	0	0	93	0	0	60	0	20
102 TOTAL	31	48	0	48	42	55	37	0	24	45	78	70	80	88	96	31	52	0	0	94	73	31	42	63	61

STUDENT FLOW FROM UNDERGRADUATE MAJORS (COLUMNS) TO GRADUATE FIELD OF INTEREST (ROWS)
(CONTINUED FROM PREVIOUS PAGE)
PERCENT OF FEMALE STUDENTS

1987

UNDERGRADUATE MAJORS ARE NUMBERED TO CORRESPOND TO GRADUATE FIELDS ON LEFT

	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76
1 MATHEMATICS	0	0	0	0	0	0	100	0	0	0	0	33	0	100	0	0	0	0	0	0	0	0	0	43	0	0
2 APPLIED MATH	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 STATISTICS	0	0	0	0	0	0	0	0	0	0	20	33	0	100	50	0	0	100	0	0	0	0	0	50	0	0
4 PHYSICS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 ASTRONOMY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0
6 GEOLOGY	0	0	0	0	33	100	0	0	0	0	100	0	0	100	0	0	0	0	0	0	0	0	0	0	100	0
7 OCEANOGRAPHY	0	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	50	0	0
8 CHEMISTRY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	26	40	0	33	0	100
9 COMPUTER SCIENCE	0	0	0	0	0	0	0	60	0	100	27	60	0	50	50	0	50	26	40	0	50	0	0	0	0	0
10 METALLURGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 OTHER PHY. SCIENCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	0	0	0	0	0
12 ENGIN., AERONAUTICAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0
13 ENGINEERING, CHEMICAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 ENGINEERING, CIVIL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0
15 ENGINEERING, ELECTR.	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 ENGINEERING, INDUST.	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0
17 ENGINEERING, MECHAN.	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 ENGINEERING, OTHER	0	0	0	0	0	0	100	0	0	0	25	0	0	0	100	0	0	33	0	0	0	0	0	100	0	0
19 BIOLOGY	0	0	0	0	100	100	0	0	0	100	50	0	0	100	0	0	0	44	0	0	0	0	0	25	0	0
20 BIOCHEMISTRY	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0
21 BIOPHYSICS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 BOTANY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0
23 GENETICS	100	0	0	0	0	100	50	0	0	100	0	0	100	100	100	0	100	60	0	0	0	0	0	100	0	0
24 ZOOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	50	0	0	0	0	0	67	0	0
25 ENTOMOLOGY	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	89	0	0	0	0	0	0	0	0
26 ANATOMY	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	100
27 MICROBIOLOGY	50	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	75	0	0	0	0	0	100	0	0
28 PARASITOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 PHYSIOLOGY	0	0	0	0	0	67	0	0	0	0	25	0	0	0	0	0	0	50	0	100	0	0	0	40	0	57
30 MOLECULAR & CELL BIO.	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	40	0	100	100	0	0	0	0	0
31 BACTERIOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0
32 AGRICULTURE	100	0	0	0	0	0	0	0	0	0	33	60	0	100	0	0	0	0	100	0	0	0	0	100	0	0
33 MINING	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 FORESTRY	0	0	0	0	0	0	50	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	0
35 ENVIRONMENTAL SCIENCE	50	0	0	0	20	100	33	0	0	0	0	25	100	33	33	0	0	60	0	0	0	0	0	100	0	0
36 AUDIOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	50	0	100	0	0	0	67	0	0
37 PHYSICAL THERAPY	100	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	71	100	0	0	0	100	100	0	60
38 OCCUPATIONAL THERAPY	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	100	0	0	0	0	0	100	0	100
39 NUTRITION	100	0	0	0	0	0	100	0	0	0	0	0	0	0	100	100	0	100	100	0	0	0	0	100	0	100
40 HOME ECONOMICS	0	0	0	0	100	0	0	0	0	0	100	0	0	0	0	0	0	86	0	0	100	0	0	80	0	100
41 DENTISTRY	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	17	0	0	0	0	0	0	0	0
42 MEDICINE	0	0	0	0	0	75	100	0	0	0	0	50	0	0	100	0	0	63	33	0	0	0	0	0	0	67
43 OPTOMETRY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 OSTEOPATHY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 NURSING	100	100	0	0	0	0	0	0	0	0	0	0	0	100	75	100	0	90	0	0	0	0	100	75	0	0
46 PATHOLOGY	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	100	0	100
47 PHARMACOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	56	0	0	0	0	0	0	0	100
48 PHARMACY	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0
49 VETERINARY MEDICINE	0	0	0	0	0	100	60	0	0	0	63	17	0	100	0	0	0	63	0	0	0	0	100	100	0	0
50 OTHER BIOLOGICAL SC.	0	100	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	57	100	100	0	0	100	100	0	67
51 PUBLIC HEALTH	62	57	0	0	0	83	75	100	0	0	38	0	100	71	86	100	100	61	71	33	0	0	90	55	0	57
52 HOSP/HEALTH SERVICE A	100	37	100	100	0	50	0	0	0	0	30	0	0	0	100	0	0	58	100	0	0	0	100	67	0	100
53 PUBLIC ADMINISTRATION	75	50	36	50	0	38	29	63	44	25	38	52	0	0	63	67	100	58	50	27	100	0	45	62	0	50
54 URBAN DEVELOPMENT	0	0	0	68	67	31	40	33	0	100	67	38	0	33	71	67	0	50	100	50	100	0	57	43	0	0
55 GEOGRAPHY	0	0	0	67	31	40	25	0	0	0	20	0	50	13	33	0	0	33	0	0	100	0	100	50	0	100
56 GOVERNMENT/POL. SCI.	0	0	14	0	0	34	21	47	50	67	55	18	0	100	33	0	0	40	50	50	78	0	33	33	0	33
57 HISTORY	0	0	100	0	20	34	36	63	0	0	29	47	53	42	67	0	0	18	0	0	47	0	50	29	0	33
58 INTERNATIONAL RELAT.	0	0	0	0	17	38	30	47	0	67	39	48	0	38	50	100	0	60	100	71	57	0	50	57	0	0
59 LAW	0	0	0	0	0	54	22	40	42	0	17	25	0	0	44	100	0	62	0	0	100	0	44	100	0	0
60 INDUST. REL/PERSONNEL	0	0	0	0	0	45	14	0	100	43	45	25	0	0	67	67	0	72	75	25	0	0	50	67	0	0
61 BUSINESS & COMMERCE	0	100	0	0	100	36	40	25	0	0	40	33	0	78	50	67	0	50	0	46	50	0	29	43	0	67
62 ECONOMICS	0	0	0	0	100	29	27	53	0	0	26	34	0	25	50	0	0	83	100	75	50	0	25	89	0	0
63 AMERICAN STUDIES	0	0	100	0	0	40	50	50	0	0	0	0	58	75	0	0	0	0	0	75	100	0	33	100	0	0
64 ANTHROPOLOGY	100	0	0	100	0	50	71	83	0	0	75	0	0	63	50	0	0	59	50	100	67	0	45	80	0	100

STUDENT FLOW FROM UNDERGRADUATE MAJORS (COLUMNS) TO GRADUATE FIELD OF INTEREST (ROWS)
(CONTINUED FROM PREVIOUS PAGE)
PERCENT OF FEMALE STUDENTS
1987

UNDERGRADUATE MAJORS ARE NUMBERED TO CORRESPOND TO GRADUATE FIELDS ON LEFT

	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76
65 SOCIOLOGY	0	100	50	0	100	35	50	67	50	0	43	33	100	27	61	86	100	50	47	25	50	0	53	64	100	100
66 SOCIAL WORK	0	0	67	100	0	80	44	0	50	0	100	33	0	75	69	82	75	75	81	0	0	0	67	88	0	100
67 EDUC. PSYCHOLOGY	100	100	0	100	100	38	67	100	0	0	64	33	0	100	43	65	65	71	50	100	100	100	67	83	100	33
68 PSYCHOLOGY	67	100	100	50	67	47	46	80	67	75	49	59	40	73	71	75	58	67	65	69	74	0	73	86	100	65
69 SOCIAL PSYCHOLOGY	0	0	0	0	0	67	25	0	0	75	73	0	0	100	85	100	100	57	57	100	0	0	60	88	0	0
70 COMMUNICATIONS	0	100	100	0	0	38	44	0	0	100	42	50	0	0	67	50	0	57	50	55	66	0	40	67	0	100
71 JOURNALISM	0	0	0	0	0	71	29	50	100	100	0	0	0	100	100	0	0	50	0	69	61	100	50	0	0	0
72 LIBRARY SCIENCE	0	0	0	0	0	67	61	100	0	0	60	0	100	0	0	100	100	100	0	50	50	89	50	76	0	100
73 OTHER SOCIAL SCIENCE	0	0	100	100	50	42	45	44	0	0	62	86	0	67	69	62	0	68	20	67	40	100	52	72	0	63
74 EDUCATION	50	50	100	0	40	38	40	83	67	20	53	29	50	62	65	63	70	74	77	47	39	50	48	78	100	48
75 EDUCATIONAL ADMIN.	0	0	50	0	50	40	23	0	0	50	30	19	75	50	58	67	71	49	83	58	75	100	59	58	37	27
76 PHYSICAL EDUCATION	100	0	0	0	0	0	50	0	0	0	38	50	0	0	100	100	0	35	0	0	33	0	67	39	0	48
77 GUIDANCE & COUNSELING	0	100	50	0	50	33	46	67	25	0	43	67	0	75	58	92	71	64	59	80	75	0	62	83	0	44
78 SPEECH	0	100	0	0	0	33	100	0	0	100	100	50	0	67	67	100	100	100	0	80	0	0	0	86	0	100
79 ENGLISH	0	0	0	0	0	64	52	40	0	25	44	47	88	0	83	100	100	82	80	52	71	100	100	67	0	100
80 ITALIAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 FRENCH	0	0	0	0	0	0	50	33	0	0	100	100	100	0	0	0	0	0	0	0	0	0	100	0	0	0
82 GERMAN	0	0	0	0	0	67	0	100	0	0	0	0	0	100	0	0	0	0	0	0	100	0	0	0	0	0
83 RUSSIAN	0	0	0	0	0	59	52	50	0	0	0	100	100	0	0	0	0	0	100	0	0	0	50	100	0	0
84 SLAVIC STUDIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 SPANISH	0	0	0	0	0	33	100	67	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	50	0	0
86 FAR EASTERN LANG.	0	0	0	0	0	0	17	0	0	0	0	0	100	50	0	0	0	0	0	0	0	0	0	0	0	0
87 NEAR EASTERN LANG.	0	0	0	0	0	100	0	0	0	0	0	100	0	100	100	0	0	0	0	100	0	0	0	0	0	0
88 CLASSICAL LANGUAGE	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 OTHER FOREIGN LANG.	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	100	0
90 LINGUISTICS	0	0	100	0	100	100	67	50	0	0	0	25	0	86	75	0	0	57	0	0	60	0	0	75	0	0
91 COMPARATIVE LIT.	0	0	0	0	0	50	83	0	0	100	0	100	50	0	0	0	0	33	0	0	100	0	100	100	0	0
92 RELIG. STUDIES/RELIG.	0	0	0	100	50	30	16	25	0	0	14	38	100	17	29	40	67	32	11	29	18	0	50	30	0	20
93 PHILOSOPHY	0	0	0	0	0	27	33	0	0	0	11	0	0	50	20	0	0	31	0	0	50	0	50	25	0	0
94 ART HISTORY	0	0	0	0	0	71	70	0	0	0	0	67	0	50	0	0	0	100	0	0	100	0	0	100	0	0
95 ARCHITECTURE	0	0	0	100	0	0	50	100	0	0	0	0	0	100	0	0	0	0	0	0	100	0	0	0	0	0
96 ARCHAEOLOGY	0	0	0	0	0	0	50	0	0	0	67	50	0	60	40	0	0	100	0	0	0	0	25	100	0	0
97 FINE ARTS, ART DESIGN	0	0	0	0	0	50	33	0	0	0	0	0	0	100	100	0	0	60	0	100	0	0	0	86	0	0
98 DRAMATIC ARTS	0	0	0	0	0	100	33	0	0	0	50	0	100	100	100	0	0	100	0	50	0	0	50	67	0	100
99 MUSIC	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	33	0	0	50	0	0	67	100	0
100 OTHER HUMANITIES	0	0	0	100	0	50	70	50	0	0	0	100	0	0	100	0	0	0	0	71	100	0	100	67	0	0
101 OTHER	0	0	0	0	0	40	40	80	100	0	35	54	0	43	50	40	100	54	25	38	100	0	80	87	0	48
102 TOTAL	63	51	40	68	35	38	36	51	42	54	39	36	58	60	62	75	64	66	60	54	62	75	56	72	44	48

STUDENT FLOW FROM UNDERGRADUATE MAJORS (COLUMNS) TO GRADUATE FIELD OF INTEREST (ROWS)
(CONTINUED FROM PREVIOUS PAGE)
PERCENT OF FEMALE STUDENTS

1987

UNDERGRADUATE MAJORS ARE NUMBERED TO CORRESPOND TO GRADUATE FIELDS ON LEFT

	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102
1 MATHEMATICS	0	0	100	0	0	0	0	0	0	0	0	100	0	0	0	0	50	0	0	0	0	100	0	0	50	32
2 APPLIED MATH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
3 STATISTICS	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	100	45
4 PHYSICS	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	16
5 ASTRONOMY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
6 GEOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	31
7 OCEANOGRAPHY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
8 CHEMISTRY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	50	0	0	0	0	0	100	0	50	32
9 COMPUTER SCIENCE	0	0	17	0	0	0	0	0	0	50	0	0	0	25	100	0	0	0	50	0	33	33	25	33	25	18
10 METALLURGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
11 OTHER PHY. SCIENCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	23
12 ENGIN., AERONAUTICAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
13 ENGINEERING, CHEMICAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
14 ENGINEERING, CIVIL	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
15 ENGINEERING, ELECTR.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	11
16 ENGINEERING, INDUST.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	29
17 ENGINEERING, MECHAN.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
18 ENGINEERING, OTHER	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
19 BIOLOGY	0	0	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	100	0	48
20 BIOCHEMISTRY	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	100	25	43
21 BIOPHYSICS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	100	33
22 BOTANY	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
23 GENETICS	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	55
24 ZOOLOGY	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	40
25 ENTOMOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	30
26 ANATOMY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
27 MICROBIOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	80	53
28 PARASITOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 PHYSIOLOGY	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	46
30 MOLECULAR & CELL BIO.	0	0	100	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	0	0	0	0	0	0	17	43
31 BACTERIOLOGY	0	100	100	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
32 AGRICULTURE	0	0	100	0	0	0	100	0	0	0	0	0	0	0	100	0	50	0	0	0	100	0	0	0	33	30
33 MINING	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 FORESTRY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	29
35 ENVIRONMENTAL SCIENCE	0	0	50	0	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0	0	0	0	60
36 AUDIOLOGY	0	88	100	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	67	78
37 PHYSICAL THERAPY	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	33	64
38 OCCUPATIONAL THERAPY	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	82
39 NUTRITION	0	0	100	0	0	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	100	67	82
40 HOME ECONOMICS	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	100	92
41 DENTISTRY	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
42 MEDICINE	0	0	83	0	100	0	0	0	0	50	0	0	0	0	0	0	50	0	0	0	0	0	100	0	67	52
43 OPTOMETRY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 OSTEOPATHY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 NURSING	0	0	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	100	0	50	93
46 PATHOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
47 PHARMACOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	46
48 PHARMACY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
49 VETERINARY MEDICINE	0	0	63	0	100	100	0	0	0	0	0	100	100	0	0	0	50	0	0	0	100	0	0	100	69	63
50 OTHER BIOLOGICAL SC.	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	67	100	49
51 PUBLIC HEALTH	100	50	83	0	100	100	0	0	100	0	0	100	0	100	0	100	100	0	0	0	100	100	0	0	58	70
52 HOSP/HEALTH SERVICE A	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	60
53 PUBLIC ADMINISTRATION	0	40	64	0	100	0	100	0	100	100	0	0	0	0	0	0	0	0	0	0	50	0	60	100	40	46
54 URBAN DEVELOPMENT	0	0	60	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	0	0	0	100	49
55 GEOGRAPHY	0	0	67	0	0	0	0	0	0	100	0	0	0	0	0	0	100	0	0	50	0	0	100	0	67	34
56 GOVERNMENT/POL. SCI.	0	33	52	0	100	0	44	0	33	25	0	0	100	0	0	100	29	100	100	0	0	33	0	50	33	35
57 HISTORY	0	0	55	0	100	67	8	0	67	0	0	67	100	0	67	29	31	83	100	0	67	100	0	59	46	37
58 INTERNATIONAL RELAT.	0	100	48	0	67	71	40	0	58	75	100	50	100	0	100	0	0	0	0	0	100	0	0	50	18	43
59 LAW	0	0	91	0	0	0	100	0	100	0	100	0	0	0	0	0	38	0	0	0	0	100	0	33	100	46
60 INDUST. REL/PERSONNEL	0	100	50	0	100	100	0	0	100	0	0	0	0	0	0	100	100	0	0	0	0	0	0	0	0	51
61 BUSINESS & COMMERCE	0	33	53	0	0	0	0	0	50	0	0	0	0	100	0	0	0	100	0	0	0	0	100	50	40	38
62 ECONOMICS	0	0	0	0	100	0	67	0	0	0	0	0	0	0	100	0	20	0	0	0	0	0	50	50	47	34
63 AMERICAN STUDIES	0	0	61	0	0	0	0	0	0	0	0	0	0	0	100	0	0	75	0	0	50	100	100	100	100	57
64 ANTHROPOLOGY	0	0	65	0	67	0	100	0	100	100	100	100	50	100	100	50	33	100	0	83	100	100	50	83	50	64

BEST COPY AVAILABLE

STUDENT FLOW FROM UNDERGRADUATE MAJORS (COLUMNS) TO GRADUATE FIELD OF INTEREST (ROWS)
(CONTINUED FROM PREVIOUS PAGE)
PERCENT OF FEMALE STUDENTS

1987

UNDERGRADUATE MAJORS ARE NUMBERED TO CORRESPOND TO GRADUATE FIELDS ON LEFT

	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102
65 SOCIOLOGY	0	100	55	0	0	0	0	0	100	0	0	50	100	0	0	67	0	0	0	0	67	100	50	0	45	58
66 SOCIAL WORK	100	100	87	0	100	100	0	0	50	0	0	0	0	100	0	33	29	50	0	0	100	100	100	100	90	75
67 EDUC.-PSYCHOLOGY	86	92	58	0	100	100	0	0	75	0	0	0	0	100	0	60	45	0	0	0	100	67	77	60	75	71
68 PSYCHOLOGY	80	83	69	0	82	83	100	0	88	100	0	50	67	67	86	20	34	92	33	0	74	76	60	79	72	67
69 SOCIAL PSYCHOLOGY	0	0	100	0	0	0	0	0	100	0	0	0	0	0	0	50	100	0	0	0	0	100	100	0	40	60
70 COMMUNICATIONS	0	39	74	0	100	100	0	0	100	0	0	0	100	0	0	0	33	0	0	0	50	50	0	50	27	55
71 JOURNALISM	0	100	77	0	100	0	0	0	100	0	0	0	0	100	0	0	100	100	0	0	50	100	0	100	100	66
72 LIBRARY SCIENCE	0	100	82	0	50	100	0	0	100	0	0	0	0	100	0	50	33	0	0	0	67	80	57	17	100	69
73 OTHER SOCIAL SCIENCE	100	33	53	0	50	0	100	0	75	0	0	50	0	0	0	33	33	0	0	0	100	0	100	50	80	58
74 EDUCATION	100	69	76	0	77	60	75	0	76	100	0	43	100	50	20	21	38	80	0	0	68	47	55	82	68	68
75 EDUCATIONAL ADMIN.	50	71	72	0	82	100	100	0	50	0	0	50	100	0	33	29	7	100	0	0	58	57	50	75	37	51
76 PHYSICAL EDUCATION	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	50	46
77 GUIDANCE & COUNSELING	62	43	77	0	50	100	0	0	50	0	0	0	0	50	100	15	33	0	0	0	25	100	82	60	58	63
78 SPEECH	0	81	69	0	50	0	0	0	0	0	0	100	0	100	100	0	0	0	0	0	0	67	100	67	100	80
79 ENGLISH	0	75	61	0	80	33	50	0	50	0	0	50	100	60	73	33	30	100	0	100	89	72	80	63	47	61
80 ITALIAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 FRENCH	0	0	50	0	60	100	0	0	0	0	0	0	0	0	0	0	100	0	0	0	100	0	0	100	100	61
82 GERMAN	0	0	0	0	100	52	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	100	100	100	0	54
83 RUSSIAN	0	0	83	0	100	0	56	0	100	0	0	0	0	0	100	0	0	0	0	0	0	0	0	50	0	54
84 SLAVIC STUDIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 SPANISH	0	0	100	0	50	0	0	0	69	0	0	0	100	0	50	0	100	0	0	0	100	0	0	100	0	66
86 FAR EASTERN LANG.	0	0	75	0	0	0	100	0	0	42	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	39
87 NEAR EASTERN LANG.	0	0	0	0	50	0	100	0	0	0	39	0	0	0	0	0	50	0	0	50	0	0	0	0	0	29
88 CLASSICAL LANGUAGE	0	0	86	0	0	0	0	0	0	0	0	51	0	0	0	40	17	0	0	100	0	0	0	0	50	48
89 OTHER FOREIGN LANG.	0	0	83	0	100	100	0	0	75	0	0	50	63	0	0	0	0	100	0	0	50	100	50	60	100	66
90 LINGUISTICS	0	0	61	0	70	71	71	0	88	0	0	25	100	62	50	25	67	0	0	0	50	100	50	60	100	62
91 COMPARATIVE LIT.	0	100	70	0	93	67	80	0	80	0	100	50	100	50	81	100	0	75	0	0	0	33	50	36	100	72
92 RELIG. STUDIES/RELIG.	100	17	42	0	0	50	50	0	71	50	40	18	0	0	0	24	9	0	100	0	63	50	31	21	43	27
93 PHILOSOPHY	0	0	44	0	0	0	0	0	0	0	0	0	0	100	0	13	28	0	0	0	25	0	67	25	43	28
94 ART HISTORY	0	100	84	0	100	100	100	0	100	67	0	100	50	0	100	0	25	80	50	100	77	100	67	69	67	78
95 ARCHITECTURE	0	0	100	0	100	100	0	0	0	0	0	0	0	0	0	0	0	33	27	100	50	0	50	0	25	36
96 ARCHAEOLOGY	0	0	100	0	0	0	0	0	0	100	50	80	0	0	0	17	0	80	100	54	100	0	0	50	50	57
97 FINE ARTS, ART DESIGN	0	0	43	0	0	0	0	0	0	0	0	0	0	0	100	0	100	33	0	0	59	0	100	100	0	59
98 DRAMATIC ARTS	0	20	28	0	0	0	0	0	0	0	100	0	0	0	100	0	0	0	0	0	75	52	50	50	50	50
99 MUSIC	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	100	100	74	57	42
100 OTHER HUMANITIES	0	0	63	0	0	0	100	0	100	0	0	33	0	0	25	100	29	60	0	0	57	100	100	74	57	63
101 OTHER	100	33	68	0	75	0	0	0	50	0	0	67	50	50	100	20	38	100	0	75	60	80	50	83	50	51
102 TOTAL	71	73	63	0	70	57	54	0	70	44	49	50	69	61	71	24	27	77	27	59	68	59	46	62	53	50

APPENDIX C: SAMPLE MATRIX OUTPUT FOR BROAD MAJORS

STUDENT FLOW FROM UNDERGRADUATE MAJORS (COLUMNS) TO GRADUATE FIELD OF INTEREST (ROWS)
COUNTS OF STUDENTS
1987

UNDERGRADUATE MAJORS ARE NUMBERED TO CORRESPOND TO GRADUATE FIELDS ON LEFT

	1	2	3	4	5	6	7	8	9	10	11	ROW PCT
1 ART/HUMANITIES	15322	298	177	218	72	1871	532	118	618	423	19649	13.20
2 PHYS. SCIENCE/MATH	240	11894	1210	267	67	323	32	53	198	308	14592	9.80
3 ENGINEERING	49	1031	10652	108	33	99	6	25	33	66	12102	8.13
4 BIOLOGICAL SCIENCES	84	453	54	6304	236	161	14	299	200	47	7852	5.28
5 APPLIED BIOL/ENVIR. SCI	44	152	51	773	1751	126	7	40	30	32	3006	2.02
6 SOCIAL SCIENCES	1991	402	257	402	149	22310	610	391	1003	832	28347	19.05
7 APPLIED SOCIAL SCIENCES	1748	124	32	118	51	2499	3513	143	679	373	9280	6.23
8 HEALTH SCIENCE/SERVICE	218	384	139	2838	358	622	61	8701	595	141	14057	9.44
9 EDUCATION	3328	886	134	825	231	4832	806	979	17154	1100	30275	20.34
10 BUSINESS/PUBLIC ADMIN.	587	408	389	782	100	2971	458	1051	425	2510	9681	6.50
11 TOTAL	23611	16032	13095	12635	3048	35814	6039	11800	20935	5832	148841	
COLUMN PERCENTS	15.86	10.77	8.80	8.49	2.05	24.06	4.06	7.93	14.07	3.92		

STUDENT FLOW FROM UNDERGRADUATE MAJORS (COLUMNS) TO GRADUATE FIELD OF INTEREST (ROWS)
MEAN GREQ SCORES
1987

UNDERGRADUATE MAJORS ARE NUMBERED TO CORRESPOND TO GRADUATE FIELDS ON LEFT

	1	2	3	4	5	6	7	8	9	10	11
1 ART/HUMANITIES	512	658	672	578	552	528	483	504	477	536	516
2 PHYS. SCIENCE/MATH	640	654	686	615	599	607	551	565	606	569	652
3 ENGINEERING	581	649	684	591	564	604	580	593	507	616	677
4 BIOLOGICAL SCIENCES	567	640	668	578	560	565	509	548	499	533	578
5 APPLIED BIOL/ENVIR. SCI	563	611	653	582	546	569	517	523	544	506	561
6 SOCIAL SCIENCES	524	635	664	571	543	517	465	484	468	525	519
7 APPLIED SOCIAL SCIENCES	485	607	625	542	528	465	443	465	443	494	464
8 HEALTH SCIENCE/SERVICE	537	614	687	570	553	528	463	481	486	493	509
9 EDUCATION	474	639	602	535	504	472	441	444	445	475	462
10 BUSINESS/PUBLIC ADMIN.	508	598	640	540	534	498	456	476	449	476	500
11 TOTAL	507	649	681	572	545	508	450	480	450	496	531

54020-10244 • Y113M.7 • 209081