

Bibliography for CBMS2000

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Appendix I

Enrollment in Department Courses in Four-Year Colleges and Universities: Fall 1980, 1985, 1990, 1995, 2000

TABLE A.1 Enrollment (in 1000s) in Mathematics Courses: Fall 1980, 1985, 1990, 1995, and 2000. Roundoff may cause marginal totals to appear incorrect.

Courses	1980	1985	1990	1995	2000	Fall 2000 Enrollment (in 1000s)						
						Mathematics Departments				Statistics Departments		
						Univ (PhD)	Univ (MA)	Coll (BA)	Subtotal Math Depts	Univ (PhD)	Univ (MA)	Subtotal Stat Depts
Remedial												
1 Arithmetic	14	15	6	7	10	1	3	6	10			
2 Genl Math (Basic Skills)	49	31	17	13	13	3	5	5	13			
3 High School Elem Algebra	74	75	68	56	70	14	15	40	70			
4 High School Intermed Alg	104	130	170	131	117	39	34	44	117			
5 Other remedial level	(na)	(na)	(na)	15	8	1	2	6	8			
Subtotal Remedial Level	241	251	261	222	218	58	59	101	218			
Introductory (incl. pre-Calc)												
6 Coll Algebra	160	150	202	195	211	78	74	58	211			
7 Trigonometry	38	37	37	42	33	16	9	7	33			
8 Coll Alg & Trig combined	61	78	35	45	37	18	8	12	37			
9 Elem Fcnctns ¹	80	77	78	86	105	39	28	38	105			
10 Intro Math Modeling	(na)	(na)	(na)	(na)	13	4	3	6	14			
11 Math Lib Arts	63	59	53	74	86	18	31	37	86			
12 Finite Math	95	88	80	59	82	41	17	24	82			
13 Business Math	48	37	37	40	53	19	24	10	53			
14 Math Elem Sch Tchrs	44	54	62	59	68	15	23	29	68			
15 Other Intro level math	14	13	8	14	36	12	9	15	36			
Subtotal Intro Level	603	593	592	614	723	260	226	236	723			

¹ Elementary Functions, Precalculus, and Analytic Geometry.

TABLE A.1, Cont. Fall Term Mathematics Course Enrollment (in 1000s).

Courses	1980	1985	1990	1995	2000	Fall 2000 Enrollments (in 1000s)						
						Mathematics Departments				Statistics Departments		
						Univ (PhD)	Univ (MA)	Coll (BA)	Subtotal Math Depts	Univ (PhD)	Univ (MA)	Subtotal Stat Depts
Calculus Level												
16 Mainstream Calc I	*a*	*b*	201	192	192	89	43	60	192			
17 Mainstream Calc II	*a*	*b*	88	83	87	48	17	22	87			
18 Mainstream Calc III,IV	*a*	*b*	84	62	73	45	13	15	73			
19 Non-mainstrm Calc I	*c*	*d*	148	98	105	56	32	17	105			
20 Non-mainstrm Calc II	*c*	*d*	15	14	10	8	2	0	10			
21 Differential Equations	44	45	41	33	34	22	7	5	34			
22 Discrete Math	(na)	14	17	16	20	8	7	6	20			
23 Linear/Matrix Algebra	37	47	44	33	41	24	7	10	41			
24 Other Calculus level	(na)	(na)	10	9	7	4	2	1	7			
Subtotal Calculus Level	590	637	648	539	570	302	131	137	570			
Advanced Level												
25 Intro to Proofs	(na)	(na)	5	7	10	3	2	5	10			
26 Mod Alg I & II	10	13	12	13	11	3	2	6	11			
27 Nmbr Theory	1	3	4	2	4	1	1	2	4			
28 Combinatorics	1	4	3	2	3	2	0	0	3			

Note: 0 means less than 500 enrollments.

a The total enrollment in all mainstream calculus I,II,III,IV in Fall 1980 was 405,000.

b The total enrollment in all mainstream calculus I,II,III,IV in Fall 1985 was 402,000.

c The total enrollment in all non-mainstream calculus I and II in Fall 1980 was 104,000.

d The total enrollment in all non-mainstream calculus I and II in Fall 1985 was 129,000.

TABLE A.1, Cont. Fall Term Mathematics Course Enrollment (in 1000s).

Courses						Fall 2000 Enrollments (1000s)						
						Mathematics Departments				Statistics Departments		
	1980	1985	1990	1995	2000	Univ (PhD)	Univ (MA)	Coll (BA)	Subtotal Math Depts	Univ (PhD)	Univ (MA)	Subtotal Stat Depts
29 Actuarial Math	(na)	(na)	2	1	1	1	0	0	1			
30 Logic/ Foundations	4	6	2	3	2	1	1	1	2			
31 Discrete Structures	(na)	7	3	3	5	2	1	3	5			
32 Hist of Math	2	2	2	3	2	1	1	1	2			
33 Geometry	4	7	8	6	6	2	2	2	6			
34 Math for HS Teachers	1	5	4	5	7	2	3	2	7			
35 Adv Calc I, II, & Real Analysis	15	19	16	11	10	5	2	3	10			
36 Adv Math for Engr & Physics	14	10	10	8	5	3	1	1	5			
37 Adv Lin Alg	*e*	*f*	*g*	4	3	2	0	0	3			
38 Vector Analysis	*e*	*f*	*g*	3	2	1	1	0	2			
39 Adv Diff Eqns	1	4	2	3	2	2	0	1	2			
40 Partl Diff Eqns	2	5	2	1	2	1	1	1	2			
41 Num, Analysis	10	13	8	6	5	2	1	1	5			
42 Appl Math (Math Modeling)	2	4	2	4	2	1	0	0	2			
43 Complex Var	3	5	4	2	3	1	1	1	3			
44 Topology	1	2	1	1	2	1	0	1	2			
45 Senior Sem/Ind Study in Math	4	2	2	3	3	1	0	2	3			
46 Other Adv Level Courses	6	7	11	5	10	6	2	2	10			

Note: 0 means less than 500 enrollments.

e Combined Fall 1980 enrollment in Advanced Linear Algebra and Vector Analysis was 8,000.

f Combined Fall 1985 enrollment in Advanced Linear Algebra and Vector Analysis was 14,000.

g Combined Fall 1990 enrollment in Adv. Linear Algebra and Vector Analysis was 9,000.

TABLE A.1, Cont. Fall Term Mathematics Course Enrollment (in 1000s).

						Fall 2000 Enrollments (1000s)						
						Mathematics Departments				Statistics Departments		
Courses	1980	1985	1990	1995	2000	Univ (PhD)	Univ (MA)	Coll (BA)	Subtotal Math Depts	Univ (PhD)	Univ (MA)	Subtotal Stat Depts
Operations Research												
58 Intro Oper Res	*h*	*i*	4	1	1	0	1	0	1			
59 Int to Linear Programming	*h*	*i*	3	1	1	0	0	0	1			
60 Other Oper Research	*h*	*i*	1	0	0	0	0	0	0			
Subtotal Advanced Math	91	138	120	96	102	43	24	35	102			
Mathematics Total	1525	1619	1621	1471	1614	663	440	509	1614			

Note: 0 means less than 500 enrollments.

h Combined Fall 1980 enrollment in all Operations Research courses was 2,000.

i Combined Fall 1985 enrollment in all Operations Research courses was 6,000.

TABLE A.2 Enrollment (in 1000s) in Statistics Courses: Fall 1980, 1985, 1990, 1995, 2000 in Mathematics Departments and Statistics Departments. Roundoff may cause marginal totals to appear incorrect.

Statistics Courses	1980	1985	1990	1995	2000	Fall 2000 Enrollment (in 1000s)						
						Mathematics Departments				Statistics Departments		
						Univ (PhD)	Univ (MA)	Coll (BA)	Subtotal Math Depts	Univ (PhD)	Univ (MA)	Subtotal Stat Depts
Elem. Level												
1 Elem Stat. (no Calc prereq)	87	115	84	132	155	29	31	54	115	35	5	40
2 Prob.&Stat (no Calc. prereq)	17	29	33	26	17	3	2	8	13	3	1	4
3 Other elem level stat	(na)	(na)	(na)	6	17	6	1	0	8	7	2	9
Subtotal: Elem Level Stat	104	144	117	164	190	38	35	62	136	46	8	54
Upper Level												
4.Math Stat (Calc Prereq)	16	24	17	16	18	4	5	4	13	3	1	5
5 Probability (Calc Prereq)	13	15	13	10	17	4	5	4	13	3	0	4
6 Stochastic Processes	(na)	0	1	0	1	0	0	0	0	0	0	0
7 Appl Stat Analysis	8	11	10	9	6	2	1	1	3	3	0	3
8 Design & Anal of Exper	2	1	1	1	2	0	0	1	1	0	0	0
9 Regressn & Correlation	1	1	2	1	2	0	0	0	1	1	0	1
10 Biostatistics	(na)	(na)	(na)	(na)	2	0	0	0	1	1	0	1
11 Nonparamet Statistics	(na)	(na)	(na)	(na)	1	0	0	0	0	0	0	0
12 Categorical Data Anal	(na)	(na)	(na)	(na)	0	0	0	0	0	0	0	0

Note: 0 means less than 500 enrollments.

TABLE A.2, Cont. Fall Term Statistics Course Enrollment (in 1000s).

						Fall 2000 Enrollments (in 1000s)						
						Mathematics Departments				Statistics Departments		
Statistics Courses	1980	1985	1990	1995	2000	Univ (PhD)	Univ (MA)	Coll (BA)	Subtotal Math Depts	Univ (PhD)	Univ (MA)	Subtotal Stat Depts
13 Survey Design & Anal	(na)	(na)	(na)	(na)	0	0	0	0	0	0	0	0
14 Stat Sftwre & Computing	(na)	(na)	(na)	(na)	1	0	0	0	0	1	0	1
15 Data Mgmt	(na)	(na)	(na)	(na)	0	0	0	0	0	0	0	0
16 Sen Sem/ Indep Stdy in Stat	0	0	0	0	0	0	0	0	0	0	0	0
17 Other Upper Level Stat	3	1	8	7	5	0	1	0	2	3	1	4
Subtotal Upper Level Stat	43	63	52	44	45	12	12	11	35	17	3	20
Statistics Total	147	207	169	208	235	50	47	74	171	63	11	74

Note: 0 means enrollments less than 500 enrollments.

TABLE A.3 Enrollment (in 1000s) in Computer Science Courses: Fall 1980, 1985, 1990, 1995, 2000*. Roundoff may cause marginal totals to appear incorrect.

CS Courses	1980	1985	1990	1995	2000	Fall 2000 Enrollments (in 1000s)						
						Mathematics Departments				Statistics Departments		
						Univ (PhD)	Univ (MA)	Coll (BA)	Subtotal Math Depts	Univ (PhD)	Univ (MA)	Subtotal Stat Depts
Lower Level												
61 Computers & Society	(na)	69	34	14	4	0	1	3	4			
62 Intro. to Software Pkgs	(na)	(na)	28	18	25	0	10	15	25			
63 Issues in CS	(na)	(na)	1	6	6	0	1	6	6			
64 Cmptr Prog I **	154	129	33	17	23	2	7	15	23			
65 Cmptr Prog II **	32	28	8	5	6	1	3	3	6			
66 Adv Prog & Data Str	(na)	15	5	4	4	0	2	2	4			
67 Database Mgmt Systems	(na)	7	3	2	1	0	0	1	1			
68 Discrete Str for CS	(na)	12	3	2	4	1	1	2	4			
69 Other Lower Level CS Courses	[na]	90	19	7	16	0	10	6	16			
Subtotal Lower Level CS	186*	350*	134*	75*	90*	5	35	52	90*			
Middle Level												
70 Intro. to Computer Systems	16	18	2	6	4	0	1	2	4			
71 Assembly Lang Programing	(na)	24	6	2	1	0	0	1	1			
72 Intro to Cmptr Organization	12	14	2	1	3	0	1	2	3			
73 Intro to File Processing	7	10	2	0	1	0	0	1	1			
74 Other Mid-Level CS	(na)	(na)	(na)	4	9	1	4	4	9			
Subtotal Middle Level CS	35	66	12	13	18	1	7	9	17			
All Upper Level CS Courses	100*	142*	34*	12*	17*	2	6	8	16			
Total Computer Science	321*	558*	180*	100*	123*	8	46	69	123			

* For 1980 and 1985, these figures include CS enrollments in both Mathematics and in separate CS Departments. Starting in 1990, enrollments are from Mathematics Departments only.

** Refers to courses described in the report of the ACM/IEEE-CS report, ACM 1991.

Appendix II

Sampling and Estimation Procedures

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Overview

This report is divided into the following two sections: *Sampling Approach* and *Survey Design*. In sum, a stratified, simple random sample was employed in the CBMS 2000 survey and strata were based on two key variables: total institutional enrollment and highest degree level offered. Additionally, a paper-and-pencil data collection method was implemented between the months of September 2000 and February 2001 and all resulting estimates were generated in a SAS-Callable version of SUDAAN using a stratified sampling without replacement design.

Sampling Approach

A stratified, simple random sample of 600 two-year and four-year colleges and universities was employed in CBMS 2000. This involved drawing three independent samples of the four-year mathematics, four-year statistics, and two-year mathematics programs. Target sample sizes of responding programs were determined for these groups based on established variance requirements for estimates associated with two key outcome variables—total institutional enrollment and highest degree level offered (i.e., BA, MA, PhD). Finally, a compromise mix of statistically optimum Neyman allocations for the two key outcome variables was used to determine targeted program sample sizes for the 24 sampling strata that were formed within these three groups.

Target Population and Sampling Frames

The target population of the CBMS 2000 survey consisted of undergraduate mathematics and statistics programs at two-year and four-year colleges and universities in the United States. In most cases, these programs were established academic departments while others were simply fledgling departments or other types of curriculum concentrations. A total of 2,507 programs were identified as being eligible for participation in the survey. Sample selection was made from three separate frames. The first frame

consisted of 1,430 mathematics programs at four-year colleges and universities. The second frame consisted of 70 statistics programs at four-year colleges and universities. The third frame consisted of 1,007 mathematics programs at two-year colleges.

Selection of Stratification Variables

Prior to selecting the sample for the CBMS 2000 survey, the stratification variables used in the CBMS survey conducted in 1995 were examined to determine their significance in predicting specific key outcome variables in each of the programs surveyed and thus their utility for stratification in CBMS 2000. This was done because the utility of a variable for stratification in generating estimates from a stratified sample depends on its statistical correlation with important measurements made on the sample.

Stratification in the CBMS 1995 survey was accomplished as follows: Four-year college and university mathematics and statistics departments were separately divided into 20 strata based on **Control** (whether the college or university was publicly or privately funded), **Level** (the highest degree level offered—BA, MA or PhD), and **Enrollment** (total institutional enrollment for Fall 2000). Thus, the stratification used for the 1995 estimates were defined by **Curriculum** (mathematics or statistics program), **Control**, **Level**, and **Enrollment**.

Our analysis of the CBMS 1995 data showed that **Curriculum**, **Level** and **Enrollment** would be the best stratification variables for producing estimates of the CBMS 2000 target population and these key variables were used across four-year mathematics, four-year statistics, and two-year mathematics programs.¹ Table A2.1 displays the overall stratum breakdown (24 strata total) for each of the three frames. The four-year mathematics department frame was divided into 12 strata, the four-year statistics department frame was divided into five strata, and the two-year programs were divided into seven strata.

The final stratum designations for the CBMS 2000 survey (also indicated in Table A2.1) very closely follow the stratum designations that were made for the CBMS 1995 survey. The major difference in stratum designations for the CBMS 2000 survey resulted from the

¹ Level is not applicable in the two-year frame.

TABLE A2.1 Stratum Designations and Final Agreed Allocations for the CBMS 2000 Study.

Stratum	Curriculum	Level	Enrollment	Final Agreed Allocation	Sampling Rate
1	Four-Year Math	PhD	0–14,999	24	0.3158
2			15,000–24,999	23	0.3594
3			25,000–34,999	15	0.4688
4			35,000+	12	0.8000
5		MA	0–6,999	12	0.1250
6			7,000–14,999	27	0.2727
7			15,000+	14	0.3684
8		BA	0–999	18	0.0845
9			1,000–1,499	10	0.0556
10			1,500–2,499	13	0.0518
11			2,500–4,999	28	0.1290
12			5,000+	44	0.2953
13	Four-Year Statistics	PhD	0–14,999	7	0.5833
14			15,000–24,999	18	0.8571
15			25,000–34,999	11	0.9167
16			35,000+	11	0.9167
17		MA/BA	All	13	1.0000
18	Two-Year Schools	N/A	0–999	5	0.0342
19			1,000–1,999	34	0.2086
20			2,000–3,999	43	0.1536
21			4,000–7,999	92	0.4220
22			8,000–14,999	72	0.5373
23			15,000–19,999	23	0.6765
24			20,000+	31	0.9688
Total Allocation			600 programs		

decision to not stratify by each program's public or private classification, as only minimal strength in predicting key outcome variables was seen by using **Control** as a stratification variable. In addition to describing the sample strata, Table A2.1 lists final agreed allocation and the sampling rate of the 600 selected programs for the CBMS 2000 survey.

Sample Selection

Programs on each of the three sample frames were individually assigned a computer generated random number. The frames were then sorted in ascending

order by stratum and by the random number assigned. Next, the final agreed allocation of programs was selected from each stratum. As an illustrative example, Stratum 1 required 24 programs to be selected. After the four-year mathematics frame was sorted in ascending order by stratum number, random numbers were assigned to each program in this stratum, and programs within stratum were sorted by the random number. The first 24 programs on the sorted list were selected for the sample, and the rest were excluded. This process was repeated in each of the remaining strata. The final selected sample was

then sent to the CBMS 2000 study director, who attached current contact information for each of the programs on the files. The files were then sent back to the SRU to begin the data collection process.

A few additional steps were required after the sample selection of the two-year programs took place. This was due to the existence of programs in multi-campus college systems that were listed on the sample frame. A multi-campus college system was defined as a program with more than one campus in its system and eligible for participation in the survey. Two types of problems affecting the sample can arise. One arises from an overrepresentation of programs in multi-campus systems in the two-year sample if more than one of its campuses is listed on the frame. Consequently, a multi-campus system would have a greater chance of being selected for participation compared to a program having only a single entry on the frame. Without controlling for the possibility of multi-campus systems on the two-year frame, it is conceivable that one or more campuses within a multi-campus system could be present in the final study sample. This problem can be remedied by eliminating multiple system listings before choosing the sample, or by adjusting the program's weight to account for its multiplicity.

The other multi-campus system problem occurs when the system is only listed once, but no one at the system level is able to complete the questionnaire for the entire system. Since this problem occurred several times in the two-year sample for CBMS 2000, a solution was needed. Our approach was to invite the program in one randomly selected campus of the system to become the study respondent. This involved first sending the two-year sample to the director of the project, who identified the programs on the list with a single entry on the frame that were to be classified as multi-campus college systems. Thirty-six institutions were identified as being organized into two or more campuses. The 36 programs were contacted by CBMS staff to determine the manner in which the institution would prefer to complete the questionnaire. Of the 36 multi-campus institutions, 12 offered to complete the questionnaire for the entire program system (i.e., all eligible campuses). The remaining 24 multi-campus institutions needed to be sampled to select one campus from each to receive the questionnaire. Sub-sampling campuses in this way altered selection probabilities, which in turn affected the computation of sampling weights.

Sample selection occurred in the same manner as detailed previously. The 87 (total) campuses within the 24 multi-campus systems were individually assigned a computer generated random number. The campuses were then sorted in ascending order by the institution identifier and by the random number assigned. Next, the final agreed allocation of programs

was selected from each stratum. Because one campus was to be selected from each school, the first campus for each school was selected for the sample (after sorting in ascending order by the assigned random number), and the rest were discarded. The sample was then sent to the CBMS 2000 study director, who attached current contact information for each of the campuses selected. The files were then sent back to the SRU to continue the data collection process and the program sample weights appropriately modified.

The final selection probability for all selected programs in multi-campus college systems took the total number of eligible campuses into consideration; that is, for the i^{th} such program,

$$\Pi_i = f_i * 1/k_i,$$

where

f_i = the program sampling rate for the stratum in which the multi-campus system was selected;

k_i = total number of eligible campuses in the system.

For all other programs, the program selection probability was simply $\Pi_i = f_i$.

$$\text{Raw Program Weight} = 1/\Pi_i,$$

where

Π_i = selection probability of the chosen campus in a multi-campus college system.

Survey Design

This section highlights changes in the 2000 instruments, describes the data collection and analysis procedures, demonstrates how the final weights were calculated, and examines some potential measurement problems that were encountered and how we dealt with them.

Questionnaire Development

The CBMS 1995 instruments were reviewed by the SRU for over a three-month period and major changes were implemented. The most significant recommendations and changes will be highlighted here.

A general recommendation made and adopted in the CBMS 2000 instruments was to improve user-friendliness as well as to construct features that would aid in the data entry process. User-friendliness was enhanced by binding the instruments in booklet form, increasing the font in hard-to-read places, and clarifying and condensing the instructions. Data entry features were enhanced simply by sequentially numbering each question as well as each response option. Requests were made to reduce respondent burden and shorten the instruments (especially the two-year instrument), but given the short workup period no action was subsequently taken. The three instruments used in the study were entitled the Four-Year Mathematics Questionnaire, the Statistics Questionnaire, and the Two-Year Questionnaire.

Survey Implementation

Data collection occurred over a seven-month period. An advance letter was sent out to all respondents on September 1, 2000 informing them that they were selected to participate and that they would receive the CBMS 2000 questionnaire within the next couple of weeks. All questionnaires were mailed out on September 11, 2000 and a postcard was sent out on October 9, 2000 to either remind participants to respond or to thank them for their participation. A second batch of questionnaires was mailed out to all nonrespondents on October 23, 2000. The names and telephone numbers of all nonrespondents were sent to the director of the project on November 30, 2000 and were to be followed up by an appointed committee. Questionnaires were accepted until February 28, 2001.

Data Analysis

SUDAAN is a statistical package of choice when analyzing data from complex sample surveys. The advantage here is that it allows the user to compute not only estimates such as totals and ratios, but also to generate the standard errors of those estimates in accordance with the sample design. Many statistical packages will compute population estimates without much trouble, but the standard errors are based on simple random sampling; thus they produce standard errors that are inappropriate for complex designs. SUDAAN uses first-order Taylor approximation procedures in generating the standard errors, which is much more sensitive or accurate. The sample design used in this study and incorporated into SUDAAN was stratified sampling without replacement (STRWOR).

TABLE A2.2 Nonresponse Adjusted Sample Weights Used in the Four-Year Mathematics Questionnaire.

Stratum	N_h	n_h	Number of completes	Ineligible	Response rate	Program level raw weight	Program level adjusted weight
1	76	24	21	0	0.875	3.167	3.619
2	64	23	19	0	0.826	2.783	3.368
3	32	15	11	1	0.786	2.133	2.715
4	15	12	11	0	0.917	1.250	1.364
5	96	12	7	0	0.583	8.000	13.714
6	99	27	17	0	0.629	3.667	5.823
7	38	14	9	0	0.643	2.714	4.222
8	213	18	9	0	0.500	11.833	23.667
9	180	10	7	0	0.700	18.000	25.714
10	251	13	8	0	0.615	19.308	31.375
11	217	28	18	0	0.643	7.750	12.056
12	149	44	31	0	0.704	3.386	4.806
Total	1430	240	168	1	0.700	5.958	8.512

TABLE A2.3 Nonresponse Adjusted Sample Weights Used in the Statistics Questionnaire.

Stratum	N_h	n_h	Number of completes	Ineligible	Response rate	Program level raw weight	Program level adjusted weight
13	12	7	6	0	0.833	1.714	2.057
14	21	18	14	1	0.833	1.167	1.400
15	12	11	6	0	0.545	1.091	2.000
16	12	11	11	0	1.000	1.091	1.091
17	13	13	8	1	0.667	1.000	1.500
Total	70	60	45	2	0.776	1.212	1.610

For quality control purposes, all questionnaires were doubly entered by data entry personnel at the SRU and most discrepancies between the two files were settled by locating the original document. In a few cases, however, the respondents had to be contacted to clarify the discrepancy. The data cleaning process ended in April 2001 and the bulk of data analysis occurred between the months of May and August of 2001.

Sample Weights and Response Rates

For any respondent in the h^{th} stratum, the nonresponse adjusted sample weight was computed as follows:

- **Raw Weight** = N_h / n_h
- **Response Rate (RR)** = $m_h / (n_h - i_h)$
where,

N_h = the total number of programs in the h^{th} stratum

n_h = the number of programs in the selected h^{th} stratum

m_h = the number of (eligible) responding programs in the h^{th} stratum

i_h = the number of ineligible sample programs in the h^{th} stratum.

- **Adjusted weight** = **Raw Weight** * **(1/RR)**

See Tables A2.2, A2.3, and A2.4 for the weights used in the Four-Year Math, Statistics, and Two-Year samples, respectively. In addition, a question about typical teaching assignments was inadvertently left out of the two-year college questionnaire, and the survey directors were forced to e-mail each responding program asking for additional information about teaching assignments. This question required separate weights and those values appear in Table A2.5.

TABLE A2.4 Nonresponse Adjusted Sample Weights Used in the Two-Year Mathematics Questionnaire.

Stratum	N_h	n_h	Number of completes	Ineligible	Response rate	Program level raw weight	Program level adjusted weight
18	146	5	3	0	0.600	29.200	48.667
19	163	34	14	0	0.412	4.794	11.643
20	280	43	29	0	0.674	6.512	9.655
21	218	92	50	0	0.543	2.369	4.360
22	134	72	47	0	0.653	1.861	2.851
23	34	23	16	0	0.696	1.478	2.125
24	32	31	20	0	0.645	1.032	1.600
Total	1007	300	179	0	0.603	6.749	80.901

TABLE A2.5 Nonresponse Adjusted Sample Weights Used in the Two-Year Mathematics Questionnaire for Post-hoc Question.

Stratum	N_h	n_h	Number of completes	Ineligible	Response rate	Program level raw weight	Program level adjusted weight
18	146	5	2	0	0.359	29.200	81.343
19	163	34	12	0	0.359	4.794	13.355
20	280	43	25	0	0.582	6.512	11.200
21	218	92	44	0	0.478	2.370	4.955
22	134	72	41	0	0.569	1.861	3.268
23	34	23	15	0	0.652	1.479	2.267
24	32	31	19	0	0.613	1.032	1.685
Total	1007	300	158	0	0.516	6.750	118.071

Analysis Plan

To expedite analysis, protocols were developed in advance. Each protocol identified the variables involved, any mathematical transformations, the type of parameter being estimated, the procedure used to estimate the parameter, the units in which the estimate was to be reported, and any domain variables used to compartmentalize the variables. All protocols were subject to review by the project director and approved before any estimates were generated. Table A2.6 is an example of the protocol used to construct Table FY.1 on page 72 of the CBMS 1995 report. All variables and any resulting manipulations were spelled out in this fashion in an attempt to leave no room for ambiguity.

Manipulation Checks

Because of the complex nature of the questionnaire, several manipulation checks were performed on the data before analyses proceeded. Data were listed on the questionnaires in the following progression: (1) total fall enrollment; (2) total number of sections; (3) number of sections taught by distance learning; (4) result when subtracting the number of sections taught by distance learning from total number of sections; (5) number of sections taught by tenure or tenure-eligible faculty (minus distance learning); (6) number of sections taught by other full-time faculty (minus distance learning); (7) number of sections taught by part-time faculty (minus distance learning); and (8) number of sections taught by graduate teaching assistants (minus distance learning). Items were flagged if the following discrepancies occurred: **(2) thru (8) > (1); (3) thru (8) > (2); (4) thru (8) > (3); (5) thru (8) > (4)**. If the discrepancy could not be settled by reviewing the questionnaire, the respondent was called to settle it. No imputations were made for missing data. In fact, blank boxes in the questionnaires had to be viewed as indicating zero, because many respondents refused to fill in all the boxes. Hence, it was impossible to tell the difference between missing values and zeros.

To produce estimates, such as the ones generated from Table A2.6, a unit conversion was performed. Estimates, such as the percentage of enrollment in large lecture sections of Mainstream Calculus I that were taught by tenured and tenure eligible faculty, were based on the following form:

$$\frac{B16_{15} * (B16_{12} \div B16_{13})}{B16_{12}}$$

where

B16₁₅ = Number of Mainstream Calculus I with large lecture and recitation sections taught by tenured or tenure-eligible faculty;

B16₁₂ = Total Enrollment in Mainstream Calculus I with large lecture and recitation; and

B16₁₃ = Total Number of Sections in Mainstream Calculus with large lecture and recitation.

One of the challenges we faced in analyzing the data from CBMS 2000 was the need for estimation in different units than the respondents reported. For example, we were asked to estimate numbers of *students* taking certain types of classes when respondent reported numbers of *sections* for these classes. Although (to obtain the point estimates) we were able to make the conversion to number of students by strategically calculating average student enrollment in sections and multiplying these averages by the counts of sections, we were unable to produce estimate acceptable variances corresponding to those point estimates. The reason is that variance estimation in the survey analysis software package we used (SUDAAN 7.5.6) is based on the so-called Taylor Series Linearization approach, which does not readily handle units conversions like this very well, particularly when the vehicle to accomplish the conversion (average section enrollment here) is an estimate which is subject to sampling error in and of itself. The variance estimates that were subject to uncertain reliability were noted in the analysis protocol (as seen in Table A2.6). Considering the implications of the two alternative solutions that one might consider in working around this issue in the future (i.e., reporting findings in sections, or asking respondents to report in number of students), it seems that reporting findings with sections as the unit might be the least painful, given the burden already faced in the current questionnaire.

A final problem that was noted in the protocol, but could not be corrected for statistically, was the fact that some total estimates did not sum to 100. The wild-card seems to be the distance learning sections, which are included in the determination of average section sizes, but are left out when producing estimates for various courses. As distance learning becomes more of a factor in math programs, some decision will have to be made regarding their handling and treatment in future CBMS reports.

Generation of Information Products

All analyses were generated using the SAS-Callable version of SUDAAN. To ease interpretation, the SUDAAN output was exported to Excel spreadsheets and sent to the CBMS director where he transferred the estimates into the table shells for production. See Table A.2.7 for an example of the SUDAAN output which refers to the percentage of large lecture enrollments in Mainstream Calculus I as taught by tenured and tenure-eligible faculty in departments of mathematics by school type (or highest degree offered—HDO). All estimates were produced in this fashion.

KEY: 4=4-Yr Math, 2=2-Yr Math, S=Stat, N=New

TABLE A2.6 Example of Analysis Protocol: Table FY.1 (page 72).

95 REF (Row 1)	Variables Key involved	Description	Analysis		Parameter type	SUDAAN PROC ¹	Unit	Domain variable	
			Numerator	Denominator					
76/100/0	4	B16_15	No. of large sections TEN/TE faculty						
	4	B16_13	Total # of large sections						
	4	B16_12	Total Enrollment in B16_1						
	N	ASSB16_	Average section size in B16_1	B16_12	B16_13				
	N	T_B16_15	Total # of students taught by TEN/TE faculty	(B16_15*ASSB16_1)					
	N	P_B16_15	% of B16_1 estimated enrollment taught by TEN/TE faculty	(T_B16_15 /	B16_12)*100	RATIO	ratio ²	enrollment	HDO_MATH
	17/0/0	4	B16_16	No. of large sections other FT faculty					
		4	B16_13	Total # of large sections					
		4	B16_12	Total enrollment in B16_1					
		N	ASSB16_	Average section size in B16_1	(B16_12 /	B16_13)			
		N	T_B16_16	Total # of students taught by other FT faculty	(B16_16*ASSB16_1)				
		N	P_B16_16	% of B16_1 estimated enrollment taught by other FT faculty	(T_B16_16 /	B16_12)*100	RATIO	ratio ²	enrollment
5/0/0	4	B16_17	No. of large sections other PT faculty						
	4	B16_13	Total # of large sections						
	4	B16_12	Total enrollment in B16_1						
	N	ASSB16_	Average section size in B16_1	(B16_12 /	B16_13)				
	N	T_B16_17	Total # of students taught by other PT faculty	(B16_17*ASSB16_1)					
	N	P_B16_17	% of B16_1 estimated enrollment taught by other PT faculty	(T_B16_17 /	B16_12)*100	RATIO	ratio ²	enrollment	HDO_MATH
2/0/0	4	B16_18	No. of large sections GTA						
	4	B16_13	Total # of large sections						
	4	B16_12	Total enrollment in B16_1						
	N	ASSB16_	Average section size in B16_1	(B16_12 /	B16_13)				
	N	T_B16_18	Total # of students taught by GTA	(B16_18*ASSB16_1)					
	N	P_B16_18	% of B16_1 estimated enrollment taught by GTA	(T_B16_18 /	B16_12)*100	RATIO	ratio ²	enrollment	HDO_MATH
40.5/2/0	N	B16_12	estimated no. of enrollments for Ss taking in B16_1	B16_12 /	1000	DESCRIP	enrollment per 1000	HDO_MATH	
	N	ASSB16_	Average section size in B16_1	(B16_12 /	B16_13)	RATIO	ratio	HDO_MATH	

¹ Estimates weighted to produce national estimates using final adjusted weight.
² Variance estimate of uncertain reliability because of nonlinear component in ratio.
³ May not total to 100 because of distance learning.

TABLE A2.7 Example of SUDAAN Output for First Value in Table FY.1 of 1995 Report.

DESCRIPTOR	PhD	MA	BA	OVERALL
P_B16_15	58.34	67.15	77.81	61.76
RHAT	0.58	0.67	0.78	0.62
SERHAT	0.04	0.12	0.10	0.03
WXSUM	52586.32	5744.89	9291.43	67622.63
WYSUM	30678.29	3857.54	7230.02	41765.85
DEFFRHAT	0.45	0.61	0.46	0.19
NSUM	61.00	35.00	72.00	168.00
WSUM	181.25	233.71	1012.91	1427.87

Appendix III

List of Responders to the Survey

Two-Year Respondents

Abraham Baldwin Agricultural College

Science & Mathematics

Alvin Community College

Mathematics

Andrew College

Natural Science & Mathematics

Anne Arundel Community College

Mathematics

Antelope Valley College

Division Mathematics & Science

Arapahoe Community College

Mathematics

Austin Community College, Northridge Campus

Mathematics

Baltimore City Community College

Mathematics, Engineering & Computer Science

Blinn College, Brenham

Mathematics & Engineering

Borough of Manhattan Community College

Mathematics

Brevard Community College, Titusville

Math/Science/Computer Science/Business

Brookhaven College

Mathematics

Broome Community College

Mathematics

Broward Community College, Central Campus

Mathematics

Burlington County College

Science, Mathematics & Technology Division

Butler County Community College

Mathematics

Cabrillo College

Mathematics

Capital Community College

Science & Mathematics

Catawba Valley Community College

Mathematics

Cecil Community College

Mathematics

Central Community College, Columbus

Arts & Sciences

Central Piedmont Community College

Mathematics & Sciences

Central Texas College, Killeen

Mathematics

Chattanooga State Technical Community College

Mathematics

Chemeketa Community College

Mathematics/Science/Electronics

Chesapeake College

Mathematics

Chipola Junior College

Mathematics, Natural & Social Sciences

Clackamas Community College

Mathematics

Coconino Community College, Flagstaff

Mathematics

Colby Community College

Mathematics

College of San Mateo

Mathematics & Science Division

College of Southern Idaho

Mathematics, Engineering & Computer Science

College of the Redwoods

Mathematics

Columbia College

Mathematics

Columbus State Community College

Mathematics

Community College of Aurora

Mathematics

Community College of Baltimore County, Catonsville

Computer Science, Engineering & Mathematics

Community College of Philadelphia

Mathematics

Cuesta College

Mathematics Division

Cuyamaca College

Mathematics

Danville Community College

Division of Arts & Sciences

Daytona Beach Community College*Mathematics***Delgado Community College***Mathematics***Dona Ana Branch Community College,
Las Cruces***General Studies***Dutchess Community College***Mathematics, Physical & Computer
Sciences***East Los Angeles College***Mathematics***Eastfield College***Science, Mathematics & Physical Education***Edmonds Community College***Mathematics***El Camino College***Mathematics***El Paso Community College, Northwest
Center***Mathematics***Elgin Community College***Mathematics***Flathead Valley Community College***Mathematics***Florida Community College at
Jacksonville, Downtown***Mathematics***Front Range Community College,
Westminster***Mathematics, Science & Technology***Garden Community College***Science & Mathematics***Garland County Community College***Mathematics & Science Division***Glendale Community College, AZ***Mathematics***Glendale Community College, CA***Mathematics***Grand Rapids Community College***Mathematics***Green River Community College***Mathematics Division***Greenville Technical College***Mathematics***Gulf Coast Community College***Division of Mathematics***Harry S. Truman College***Mathematics***Housatonic Community College***Mathematics & Science***Inver Hills Community College***Mathematics***Isothermal Community College***Mathematics***Ivy Tech State College, East Central***Mathematics & Physical Sciences Program***Jefferson Davis Community College***Mathematics & Science Division***Johnson Community College***Mathematics***Johnson County Community College***Mathematics***Joliet Junior College***Mathematics***Jones County Junior College***Mathematics Division***Kingwood College***Mathematics***Kirkwood Community College, Cedar
Rapids***Mathematics & Science***LaGuardia Community College***Mathematics***Lake City Community College***Mathematics***Lane Community College***Mathematics Division***Lansing Community College***Mathematics & Computer Science***Lincoln Land Community College***Mathematics & Engineering Science***Lorain County Community College***Division of Science & Mathematics***Macomb Community College***Mathematics & Science***Manatee Community College***Mathematics***Manchester Community College***Mathematics***Massasoit Community College***Mathematics***Maysville Community College***Science & Related Technologies***McDowell Technical Community College***CollegeTransfer/General Education***McHenry County College***Mathematics***Metropolitan Community College, South
Omaha***Mathematics***Miami Dade Community College, Kendall
Campus***Mathematics***Middlesex Community College***Mathematics*

Middlesex County College <i>Mathematics</i>	Passaic County Community College <i>Mathematics</i>
Montgomery College, Rockville <i>Mathematics</i>	Patrick Henry Community College <i>Arts, Science & Business Technology</i>
Moraine Valley Community College <i>Mathematics & Computer Science</i>	Paul D. Camp Community College <i>Academic Programs</i>
Mountain View College <i>Mathematics</i>	Penn State Berks-Lehigh Valley College <i>Mathematics</i>
Mt. San Antonio College <i>Mathematics</i>	Penn State University, Dubois <i>Mathematics</i>
New Hampshire Community Technical College, Berlin <i>Arts & Science</i>	Penn Valley Community College <i>Mathematics & Physical Science</i>
North Central Missouri College <i>Mathematics</i>	Pensacola Junior College <i>Mathematics</i>
North Idaho College <i>Mathematics</i>	Phoenix College <i>Mathematics</i>
North Lake College <i>Mathematics, Science & Sport Science</i>	Pierce College Fort Steilacoom <i>Mathematics</i>
North Shore Community College <i>Mathematics</i>	Pima Community College, East Campus <i>Department of Math/Physics/Astronomy/Engineering</i>
Northern Essex Community College <i>Mathematics</i>	Portland Community College <i>Mathematics</i>
Northern Virginia Community College, Alexandria <i>Science & Applied Technologies</i>	Quincy College <i>Liberal Arts & Science</i>
Northwest Arkansas Community College <i>Division of Science & Mathematics</i>	Raritan Valley Community College <i>Mathematics</i>
Norwalk Community College, West Campus <i>Mathematics & Science</i>	Red Rocks Community College <i>Mathematics</i>
Oakland Community College, Highland Lake Campus <i>Mathematics</i>	Rochester Community and Technical College <i>Mathematics & Computer Science</i>
Oakton Community College <i>Mathematics</i>	Rockland Community College <i>Mathematics</i>
Ocean County College <i>Mathematics</i>	Rogue Community College, Redwood Campus <i>Mathematics</i>
Ohlone College <i>Mathematics</i>	Saddleback College <i>Mathematics</i>
Oklahoma State University, Oklahoma City <i>Mathematics</i>	Saint Louis Community College, Florissant Valley <i>Mathematics</i>
Orange Coast College <i>Mathematics</i>	Salem Community College <i>Mathematics Cluster</i>
Owensboro Community College <i>Mathematics</i>	Salt Lake Community College <i>Mathematics</i>
Paducah Community College <i>Mathematics</i>	San Diego Mesa College <i>Mathematics</i>
Paris Junior College <i>Mathematics</i>	San Joaquin Delta College <i>Science & Mathematics Division</i>
Parkland College <i>Mathematical & Computer Science</i>	San Jose City College <i>Mathematics</i>
	Sandhills Community College <i>Mathematics</i>

- Santa Ana College**
Mathematics
- Santa Barbara City College**
Mathematics
- Santa Monica College**
Mathematics
- Schoolcraft College, Livonia**
Mathematics
- Scottsdale Community College**
Mathematics
- Seattle Central Community College**
Mathematics
- Sinclair Community College**
Mathematics
- Skagit Valley College**
Mathematics
- South Seattle Community College**
Mathematics
- South Suburban College**
Mathematics & Computer Science
- South Texas Community College**
Mathematics
- Southwest Virginia Community College**
Mathematics, Science & Health Technology Division
- Southwestern College**
Mathematics & Engineering
- Southwestern Illinois College**
Mathematics
- Spring Valley Campus**
Mathematics & Science
- St. Charles County Community College**
Mathematics & Engineering
- St. Petersburg Junior College, Tarpon Springs**
Mathematics
- Suffolk County Community College, Ammerman Campus**
Mathematics
- Tacoma Community College**
Mathematics
- Tarrant County College, South**
Mathematics
- Temple College**
Mathematics
- Texarkana College**
Physical Sciences Division
- Thomas Nelson Community College**
Mathematics
- Trident Tech College**
Mathematics
- Trinity Valley Community College, Athens**
Mathematics & Science
- Tulsa Community College, Metro Campus**
Science & Mathematics
- Tunxis Community College**
Mathematics, Science & Technology
- Turtle Mountain Community College**
Mathematics
- Tyler Junior College**
Mathematics
- Utah Valley State College**
Mathematics
- Valencia Community College, Winter Park**
Mathematics
- Vernon Regional Community College**
Mathematics & Sciences
- Vincennes University**
Mathematics
- Virginia Highlands Community College**
Science & Engineering
- Volunteer State Community College**
Mathematics
- West Valley College**
Mathematics
- West Virginia Northern Community College**
Division of Science/Math/Technologies
- Whatcom Community College**
Mathematics
- William Rainey Harper College**
Mathematical Sciences
- Wright College**
Mathematics
- Four-Year Mathematics Respondents**
- Adams State College**
Mathematics & Computer Science
- Alice Lloyd College**
Natural Sciences & Mathematics
- American University**
Mathematics & Statistics
- Appalachian State University**
Mathematical Sciences
- Arizona State University**
Mathematics
- Assumption College**
Mathematics & Computer Science
- Ball State University**
Mathematical Sciences
- Beaver College**
Mathematics & Computer Science
- Boston University**
Mathematics & Statistics
- Bowling Green State University**
Mathematics & Statistics

Bradley University*Mathematics***Brandeis University***Mathematics***California State University, Sacramento***Mathematics & Statistics***California State University, Northridge***Mathematics***California State University, Chico***Mathematics & Statistics***Case Western Reserve University***Mathematics***Central Michigan University***Mathematics***Central Missouri State University***Mathematics & Computer Science***Central Washington University***Mathematics***City College of New York***Mathematics***Clarion University***Mathematics***Clark University***Mathematics & Computer Science***Clarkson University***Mathematics & Computer Science***College of New Jersey***Mathematics & Statistics***College of Wooster***Mathematical Sciences***Colorado State University***Mathematics***Concordia University***Mathematics & Computer Science***CUNY, Queens College***Mathematics***Defiance College***Mathematics***Delta State University***Mathematics***Denison University***Mathematics & Computer Science***Doane College***Mathematics***Drury University***Mathematics & Computer Science***Eastern Michigan University***Mathematics***Emporia State University***Mathematics & Computer Science***Endicott College***Arts & Sciences Division***Fairmont State College***Mathematics***Florida International University***Mathematics***Fordham University***Mathematics***Frostburg State University***Mathematics***Gallaudet University***Mathematics & Computer Science***Golden Gate University***Mathematics & Natural Sciences***Goshen College***Mathematics***Grambling State University***Mathematics & Computer Science***Hood College***Mathematics & Computer Science***Indiana University***Mathematics***Indiana University-Purdue University,
Indianapolis***Mathematics***Indiana University South Bend***Mathematics & Computer Science***Indiana Wesleyan University***Mathematics***John Brown University***Mathematics***Kentucky State University***Mathematics & Science***Lamar University***Mathematics***Liberty University***Mathematics & Computer Science***Linfield College***Mathematics***Loyola College***Mathematical Sciences***Loyola University of Chicago***Mathematics & Computer Science***Merrimack College***Mathematics***Miami University***Mathematics & Statistics***Michigan Technological University***Mathematical Sciences***Midwestern State University***Mathematics***Minot State University***Mathematics & Computer Science***Mississippi State University***Mathematics & Statistics*

- Missouri Western State College**
Computer Science, Mathematics & Physics
- Monmouth University**
Mathematics
- Montclair State University**
Mathematical Sciences
- Nazareth College**
Mathematics & Computer Science
- Neumann College**
Mathematics
- New Hampshire College**
Mathematics & Science
- New York Institute of Technology,
Central Islip Campus**
Mathematics
- New York Institute of Technology, Old
Westbury Campus**
Mathematics
- New York University**
Mathematics
- Nicholls State University**
Mathematics
- North Carolina State University**
Mathematics
- North Central College**
Mathematics
- North Georgia College & State University**
Mathematics & Computer Science
- Northeastern University**
Mathematics
- Northwestern University**
Mathematics
- Notre Dame College of Ohio**
Mathematics
- Oakland University**
Mathematics & Statistics
- Ohio State University, Columbus**
Mathematics
- Oral Roberts University**
Mathematics & Computer Science
- Oregon State University**
Mathematics
- Pacific Lutheran University**
Mathematics
- Penn State University**
Mathematics
- Pittsburg State University**
Mathematics
- Portland State University**
Mathematical Sciences
- Purdue University, West Lafayette**
Mathematics
- Rhode Island College**
Mathematics & Computer Science
- Rice University**
Mathematics
- Richard Stockton College of New Jersey**
Natural & Mathematical Sciences
- Rochester Institute of Technology**
Mathematics & Statistics
- Rocky Mountain College**
Mathematics
- Saint Michaels College**
Mathematics
- Seattle University**
Mathematics
- Shawnee State University**
Mathematical Sciences
- Simon's Rock College of Bard**
Mathematics
- Smith College**
Mathematics
- Sonoma State University**
Mathematics
- Southeastern Louisiana University**
Mathematics & Statistics
- Southern Illinois University, Carbondale**
Mathematics
- St. Thomas Aquinas College**
Natural Sciences & Mathematics
- SUNY, Buffalo**
Mathematics
- SUNY, Stony Brook**
Applied Mathematics & Statistics
- SUNY, College at Fredonia**
Mathematics & Computer Science
- SUNY, Farmingdale College of Technology**
Mathematics
- Swarthmore College**
Mathematics & Statistics
- Syracuse University**
Mathematics
- Taylor University**
Mathematics
- Texas A&M University**
Mathematics
- Texas Christian University**
Mathematics
- Thiel College**
Mathematics & Computer Science
- Trinity International University**
*Mathematics & Computer Information
Systems*
- Tufts University**
Mathematics
- University of Alabama**
Mathematics

- University of Alaska**
Mathematical Sciences
- University of Arizona**
Mathematics
- University of California, Los Angeles**
Mathematics
- University of California, Santa Barbara**
Mathematics
- University of Central Florida**
Mathematics
- University of Colorado, Boulder**
Mathematics
- University of Colorado, Denver**
Mathematics
- University of Dayton**
Mathematics
- University of Florida**
Mathematics
- University of Georgia**
Mathematics
- University of Hawaii, Hilo**
Mathematics
- University of Illinois, Chicago**
Mathematics, Statistics, & Computer Science
- University of Illinois, Urbana-Champaign**
Mathematics
- University of Iowa**
Mathematics
- University of Kentucky**
Mathematics
- University of Louisville**
Mathematics
- University of Maine, Machias**
Mathematics
- University of Maryland, Baltimore County**
Mathematics & Statistics
- University of Massachusetts, Lowell**
Mathematical Sciences
- University of Michigan, Dearborn**
Mathematics & Statistics
- University of Michigan, Flint**
Mathematics
- University of Minnesota**
School of Mathematics
- University of Missouri, Rolla**
Mathematics & Statistics
- University of Nebraska at Omaha**
Mathematics
- University of North Carolina, Charlotte**
Mathematics
- University of North Carolina, Greensboro**
Mathematical Sciences
- University of North Dakota**
Mathematics
- University of North Florida**
Mathematics & Statistics
- University of Rochester**
Mathematics
- University of Southern Mississippi**
Mathematics
- University of St. Thomas**
Mathematics
- University of Tampa**
Mathematics
- University of Tennessee, Chattanooga**
Mathematics
- University of Texas, Dallas**
Mathematical Sciences
- University of Texas, San Antonio**
Mathematics & Statistics
- University of Virginia**
Mathematics
- University of Virginia's College at Wise**
Mathematical Sciences
- University of Wisconsin, Madison**
Mathematics
- University of Wyoming**
Mathematics
- Upper Iowa University**
Science & Mathematics
- Ursinus College**
Mathematics & Computer Science
- Utah State University**
Mathematics & Statistics
- Warren Wilson College**
Mathematics & Computer Science
- Washburn University**
Mathematics & Statistics
- Washington State University**
Pure & Applied Mathematics
- Washington University**
Mathematics
- Washington University**
Systems Sciences & Mathematics
- Webster University**
Mathematics & Computer Science
- West Virginia University**
Mathematics
- Western Michigan University**
Mathematics & Statistics
- Western New England College**
Mathematics & Computer Science
- Wichita State University**
Mathematics & Statistics

Wilkes University*Mathematics & Computer Science***Four-Year Statistics Respondents****Bowling Green State University***Applied Statistics & Operations Research***Brigham Young University***Statistics***California State University, Hayward***Statistics***Carnegie Mellon University***Statistics***Colorado State University***Statistics***Cornell University***Biometrics***Florida State University***Statistics***George Mason University***Applied & Engineering Statistics***Iowa State University***Statistics***Kansas State University***Statistics***Louisiana State University***Experimental Statistics***Michigan State University***Statistics & Probability***North Dakota State University***Statistics***Ohio State University, Columbus***Statistics***Oklahoma State University***Statistics***Oregon State University***Statistics***Pennsylvania State University***Statistics***Purdue University***Statistics***St. Cloud State University***Statistics***Stanford University***Statistics***New York University, Stern School of Business***Statistics & Operations Research***Texas A&M University***Statistics***George Washington University***Statistics***University of California, Santa Barbara***Statistics & Applied Probability***University of California, Davis***Statistics***University of California, Riverside***Statistics***University of Central Florida***Statistics***University of Chicago***Statistics***University of Connecticut***Statistics***University of Florida***Statistics***University of Illinois, Urbana-Champaign***Statistics***University of Iowa***Statistics & Agricultural Science***University of Michigan***Statistics***University of Minnesota***School of Statistics***University of Missouri, Columbia***Statistics***University of North Carolina, Chapel Hill***Statistics***University of Pennsylvania***Statistics***University of Pittsburgh***Statistics***University of South Carolina, Columbia***Statistics***University of Tennessee, Knoxville***Statistics***University of Virginia***Statistics***University of Wisconsin, Madison***Statistics***University of Wyoming***Statistics***Virginia Polytechnic Institute and State University***Statistics***West Virginia University***Statistics*

Four-Year Mathematics Questionnaire

General Instructions

- As part of a random sample your department has been selected to participate in the CBMS2000 National Survey, the importance of which has been endorsed by all of our major professional societies. Please read the instructions in each section carefully and complete all of the pertinent items as indicated. Do not leave any unshaded box blank; enter a zero instead.
- Please report on undergraduate programs in the mathematical sciences (including applied mathematics, statistics, and operations research) and computer science under the direction of your department. Do not include data for other departments or for branches or campuses of your institution that are budgetarily separate from your department.
- If your college or university does not recognize tenure please check the following box..... and follow the instructions in each section about where to report your permanent full-time faculty and your other full-time faculty.
- We have classified your department as belonging to a four-year college or university. If this is not correct please contact David Lutzer, Survey Director, at the telephone number or e-mail address below.
- If you have any questions while filling out this form, please contact David Lutzer, Survey Director, by phone at 757-221-4006 or by e-mail at lutzer@math.wm.edu.

Please return your completed questionnaire in the enclosed envelope to:

**CBMS Survey
UNC Survey Research Unit
730 Airport Road, Suite 103
CB #2400, UNC-CH
Chapel Hill, NC 27599-2400**

A. General Information

PLEASE PRINT CLEARLY

A1. Name of your institution: _____

A2. Name of your department: _____

A3. We have classified your department as being part of a four-year college or university. Do you agree?

Yes..... (1) → if "yes" go to A4 (below).

No..... (2) → if "no" please call David Lutzer, Survey Director, at 757-221-4006 before proceeding any further.

A4. Is your institution public or private (*check one*)?

Public (1)

Private (2)

Other (3)

A5. Which programs leading to the following degrees does your department offer? (Check all boxes that apply.)

	None	Baccalaureate	Masters	Doctoral
Mathematics	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)
Statistics	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	<input type="checkbox"/> (7)	<input type="checkbox"/> (8)
Biostatistics	<input type="checkbox"/> (9)	<input type="checkbox"/> (10)	<input type="checkbox"/> (11)	<input type="checkbox"/> (12)
Computer Science	<input type="checkbox"/> (13)	<input type="checkbox"/> (14)	<input type="checkbox"/> (15)	<input type="checkbox"/> (16)
Other (<i>please specify below</i>)	<input type="checkbox"/> (17)	<input type="checkbox"/> (18)	<input type="checkbox"/> (19)	<input type="checkbox"/> (20)

A6. Responses to this question will be used to project total enrollment for the current academic year, 2000–2001, by the pattern of enrollment in all of your department’s courses for the previous academic year, 1999–2000.

Fall 1999 total student enrollment in your department’s undergraduate courses: (1)

Entire academic year 1999-2000 enrollment in your department’s undergraduate courses: (2)

Calculus II in Winter/Spring 2000 total enrollment: (3)

Calculus II in Winter/Spring 2000 total number of sections: (4)

A. General Information cont.

A7. Which of the following best describes your academic calendar? (*Check only one answer.*)

- Semester (1)
- Trimester (2)
- Quarter (3)
- 4-1-4 (4)
- Other (*please specify*) (5)

A8. Contact person in your department:

A9. Contact person's e-mail address:

A10. Contact person's phone number including area code:

A11. Campus mailing address:

B. Mathematics Courses (Fall 2000)

The following instructions apply throughout Sections B, C, D and E (pages 5-16). Please read them carefully before you begin filling out the tables.

- Throughout Sections B to E, count each lecture offering with separately scheduled recitation/problem sessions as one section. For certain courses, a row is provided in which to list, for the same course, all lecture sections with recitation/problem sessions separately from all sections without recitation/problem sessions. For example see B16, page 7.
- Report a section of a course as taught by a *Graduate Teaching Assistant (GTA)* only when that course is taught independently by the GTA; that is, the course is the GTA's "own" course.
- If your departmental course titles do not match some of our course titles, please use your best judgment to match them. If a given course is not taught in your department for the specified period or if it is never taught by your department, enter zero in the space provided. Please do not leave any item blank.
- If your college or university does not recognize tenure check the following box..... (1) and record sections taught by your permanent full-time faculty in Column (5) and sections taught by all other full-time faculty in Column (6).
- Full-time faculty in your department holding joint appointments with another department should be counted in Column (5) if they are tenured, tenure-eligible, or permanent within your department; otherwise, report them in Column (6) or (7) according to their budget level within your department.

Name of Course (or equivalent)	Total Enrollment Fall 2000 (2)	Total Number of Sections (3)	# from (3) taught by distance learning ^a (4)	Result when subtracting Column (3) minus Column (4) (4a)	Of the number in Column (4a), how many sections are taught by: (note: column (5)+(6)+(7)+(8)=(4a))			
					Tenured or Tenure- eligible Faculty (5)	Other Full-time Faculty (6)	Part- time Faculty (7)	Graduate Teaching Assist. ^b (8)
MATHEMATICS								
REMEDIAL LEVEL								
B1. Arithmetic/Basic Math								
B2. Pre-algebra								
B3. Elementary Algebra (high school)								
B4. Intermediate Algebra (high school)								
B5. Other remedial level courses								

^a At least half of the students in the section receive the majority of their instruction via Internet, TV, or other method where the instructor is NOT physically present.
^b Report only GTA's who teach a section independently.

Mathematics Questionnaire

B. Mathematics Courses (Fall 2000) cont.

Name of Course (or equivalent)	Total Enrollment Fall 2000 (2)	Total Number of Sections (3)	# from (3) taught by distance learning ^a (4)	Result when subtracting Column (3) minus Column (4) (4a)	Tenured or Tenure- eligible Faculty (5)	Other Full-time Faculty (6)	Part- time Faculty (7)	Graduate Teaching Assist. ^b (8)
MATHEMATICS (CONT.)								
INTRODUCTORY LEVEL, INCLUDING PRE-CALCULUS								
B6. College Algebra								
B7. Trigonometry								
B8. College Algebra & Trig.(combined)								
B9. Elementary Functions, Precalculus Mathematics, Analytic Geometry								
B10. Introduction to Mathematical Modeling								
B11. Mathematics for Liberal Arts								
B12. Finite Mathematics								
B13. Business Mathematics								
B14. Mathematics for Elementary School Teachers								
B15. All other introductory level mathematics courses								

^a At least half of the students in the section receive the majority of their instruction via Internet, TV, or other method where the instructor is NOT physically present.

^b Report only GTA's who teach a section independently.

Mathematics Questionnaire

B. Mathematics Courses (Fall 2000) cont.

Name of Course (or equivalent)	Total Enrollment Fall 2000	Total Number of Sections	# from (3) taught by distance learning ^c	Result when subtracting Column (3) minus Column (4) (4a)	Of the number in Column (4a), how many sections are taught by: {note: column (5)+(6)+(7)+(8)=(4a)}							Of the number in Column (4a), how many sections:				
					Tenured or Tenure- eligible Faculty	Other Full-time Faculty	Part- time Faculty	Graduate Teaching Assist. ^d	Use graphing calculators	Include writing components such as reports or projects	Require computer assign- ments	Assign group projects	Meet at least once a week in a setting that requires student computer use			
(1)	(2)	(3)	(4)	(4a)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)			
MATHEMATICS (CONT.)																
MAINSTREAM^a CALCULUS I:																
B16-1.Lecture with separately scheduled recit./ problem sessions ^b																
B16-2.Other sections with enrollments of 35 or less																
B16-3.Other sections with enrollments above 35																
MAINSTREAM^a CALCULUS II:																
B17-1.Lecture with separately scheduled recit./ problem sessions ^b																
B17-2.Other sections with enrollments of 35 or less																
B17-3.Other sections with enrollments above 35																

a A calculus course is mainstream if it leads to the usual upper division mathematical sciences courses.
 b Remember: A calculus class along with its recitation/problem sessions is to be counted as one section.
 c At least half of the students in the section receive the majority of their instruction via Internet, TV, or other method where the instructor is NOT physically present.
 d Report only GTA's who teach a section independently.

Mathematics Questionnaire

B. Mathematics Courses (Fall 2000) cont.

Name of Course (or equivalent)	Total Enrollment Fall 2000	Total Number of Sections	# from (3) taught by distance learning ^c	Result when subtracting Column (3) minus Column (4)	Of the number in Column (4a), how many sections are taught by: {note: column (5)+(6)+(7)+(8)=(4a)}						Of the number in Column (4a), how many sections:				
					Tenured or Tenure-eligible Faculty	Other Full-time Faculty	Part-time Faculty	Graduate Teaching Assist. ^d	Use graphing calculators	Include writing components such as reports or projects	Require computer assignments	Assign group projects	Meet at least once a week in a setting that requires student computer use		
(1)	(2)	(3)	(4)	(4a)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
MATHEMATICS (CONT.)															
MAINSTREAM^a															
CALCULUS III (AND IV, ETC):															
B18-1.Lecture with separately scheduled recit./ problem sessions ^b															
B18-2.Other sections with enrollments of 35 or less															
B18-3.Other sections with enrollments above 35															
NON-MAINSTREAM															
CALCULUS I:															
B19-1.Lecture with separately scheduled recit./ problem sessions ^b															
B19-2.Other sections with enrollments of 35 or less															
B19-3.Other sections with enrollments above 35															

^a A calculus course is mainstream if it leads to the usual upper division mathematical sciences courses.

^b Remember: A calculus class along with its recitation/problem sessions is to be counted as one section.

^c At least half of the students in the section receive the majority of their instruction via Internet, TV, or other method where the instructor is NOT physically present.

^d Report only GTA's who teach a section independently.

B. Mathematics Courses (Fall 2000) cont.

Name of Course (or equivalent)	Total Enrollment Fall 2000 (2)	Total Number of Sections (3)	# from (3) taught by distance learning ^c (4)	Result when subtracting Column (3) minus Column (4) (4a)	Tenured or Tenure- eligible Faculty (5)	Other Full-time Faculty (6)	Part- time Faculty (7)	Graduate Teaching Assist. ^d (8)
MATHEMATICS (CONT.)								
CALCULUS LEVEL								
B20. Non-mainstream ^{a, b} Calculus II (and III, etc.)								
B21. Differential Equations								
B22. Discrete Mathematics								
B23. Linear Algebra or Matrix Theory								
B24. Other calculus level courses								

^a A calculus course is mainstream if it leads to the usual upper division mathematical sciences courses.

^b Remember: A calculus class along with its recitation/problem sessions is to be counted as one section.

^c At least half of the students in the section receive the majority of their instruction via Internet, TV, or other method where the instructor is NOT physically present.

^d Report only GTA's who teach a section independently.

B. Mathematics Courses (Fall 2000) cont.

Name of Course (or equivalent) (1)	Total Enrollment Fall 2000 (2)	Total Number of Sections (3)	If not offered in Fall 2000, is it scheduled in Winter/Spring 2001? Y(es)/N(o) (4)
MATHEMATICS (CONT.)			
ADVANCED LEVEL			
B25. Introduction to Proofs			
B26. Modern Algebra I (and II)			
B27. Number Theory			
B28. Combinatorics			
B29. Actuarial Mathematics			
B30. Logic/Foundations of Mathematics			
B31. Discrete Structures			
B32. History of Mathematics			
B33. Geometry			
B34. Mathematics for Secondary School Teachers (methods, special content, etc.)			
B35. Advanced Calculus I (and II) and/or Real Analysis			

DO NOT LEAVE
ANY UNSHADED
BOX BLANK

B. Mathematics Courses (Fall 2000) cont.

Name of Course (or equivalent) (1)	Total Enrollment Fall 2000 (2)	Total Number of Sections (3)	If not offered in Fall 2000, is it scheduled in Winter/Spring 2001? Y(es)/N(o) (4)
MATHEMATICS (CONT.)			
UPPER LEVEL			
B36. Advanced Mathematics for Engineering and Physics			
B37. Advanced Linear Algebra			
B38. Vector Analysis			
B39. Advanced Differential Equations			
B40. Partial Differential Equations			
B41. Numerical Analysis			
B42. Applied Mathematics (Mathematical Modeling)			
B43. Complex Variables			
B44. Topology			
B45. Senior Seminar/Independent Study in Mathematics			
B46. All other advanced level mathematics courses			
Give the names of (up to) two examples of (B46) with the largest enrollments:			
B46-1.			
B46-2.			

C. Statistics Courses (Fall 2000)

Does your department offer any Statistics courses?

Yes..... (1) → if "yes" go to C1-1 (below).
 No..... (2) → if "no" go to D (page 14).

Name of Course (or equivalent)	Total Enrollment Fall 2000	Total Number of Sections	# from (3) taught by distance learning ^b	Result when subtracting Column (3) minus Column (4) (4a)	Of the number in Column (4a), how many sections are taught by:				Of the number in Column (4a), how many sections:				
					Tenured or Tenure- eligible Faculty	Other Full-time Faculty	Part- time Faculty	Graduate Teaching Assist. ^c	Use graphing calculators	Include writing components such as reports or projects	Require computer assign- ments	Assign group projects	Meet at least once a week in a setting that requires student computer use
(1)	(2)	(3)	(4)	(4a)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
STATISTICS													
ELEMENTARY LEVEL													
Elementary Statistics: (no calculus prerequisite)													
C1-1. Lecture with separately scheduled recit./problem sessions ^a													
C1-2. Other sections with enrollments of 35 or less													
C1-3. Other sections with enrollments above 35													
C2. Probability and Statistics (no calculus prerequisite)													
C3. Other elementary level statistics courses													
Give the names of (up to) two examples of (C3) with the largest enrollments:													
C3-1.													
C3-2.													

Report elementary statistics courses (no calculus prerequisite) in C1-1, C1-2 and C1-3 below.

DO NOT LEAVE
ANY UNSHADED
BOX BLANK

^a Remember: An elementary statistics class along with its recitation/problem sessions is to be counted as one section.
^b At least half of the students in the section receive the majority of their instruction via Internet, TV, or other method where the instructor is NOT physically present
^c Report only GTA's who teach a section independently.

C. Statistics Courses (Fall 2000) cont.

Name of Course (or equivalent) (1)	Total Enrollment Fall 2000 (2)	Total Number of Sections (3)	If not offered in Fall 2000, is it scheduled in Winter/Spring 2001? Y(es)/N(o) (4)
STATISTICS (CONT.)			
UPPER LEVEL			
C4. Mathematical Statistics (calculus prerequisite)			
C5. Probability (calculus prerequisite)			
C6. Stochastic Processes			
C7. Applied Statistical Analysis			
C8. Design and Analysis of Experiments			
C9. Regression (and Correlation)			
C10. Biostatistics			
C11. Nonparametric statistics			
C12. Categorical data analysis			
C13. Sample Survey design and analysis			
C14. Statistical software & computing			
C15. Data management			
C16. Senior Seminar/Independent Studies in Statistics			
C17. All other upper level statistics courses			

D. Operations Research Courses (Fall 2000)

Does your department offer any Operations Research courses?

Yes..... (1) → if "yes" go to D1 (below).
 No..... (2) → if "no" go to E (page 15).

Name of Course (or equivalent) (1)	Total Enrollment Fall 2000 (2)	Total Number of Sections (3)	If not offered in Fall 2000, is it scheduled in Winter/Spring 2001? Y(es)/N(o) (4)
OPERATIONS RESEARCH			
D1. Intro. to Operations Research			
D2. Intro. to Linear Programming			
D3. All other O.R. courses			

DO NOT LEAVE
ANY UNSHADED
BOX BLANK

E. Computer Science Courses (Fall 2000)

Does your department offer any Computer Science courses?

Yes..... (1) → if "yes" go to E1 (below).
 No..... (2) → if "no" go to F (page 17).

Name of Course (or equivalent)	Total Enrollment Fall 2000 (2)	Total Number of Sections (3)	# from (3) taught by distance learning ^b (4)	Result when subtracting Column (3) minus Column (4) (4a)	Tenured or Tenure- eligible Faculty (5)	Other Full-time Faculty (6)	Part- time Faculty (7)	Graduate Teaching Assist. ^c (8)
(1)								
COMPUTER SCIENCE								
LOWER LEVEL								
E1. Computers and Society								
E2. Introduction to Software Packages								
E3. Issues in Computer Science								
E4. Computer Programming I (C '101 '91) ^a								
E5. Computer Programming II (C '102 '91) ^a								
E6. Advanced Programming & Data Structures								
E7. Database Management Systems								
E8. Discrete Mathematics for CS								
E9. All other lower level CS courses								

^a Refers to courses described in Computing Curriculum 1991, Report of the ACM/IEEE-CS Joint Curriculum Task Force, ACM 1991.
^b At least half of the students in the section receive the majority of their instruction via Internet, TV, or other method where the instructor is NOT physically present.
^c Report only GTA's who teach a section independently.

E. Computer Science Courses (Fall 2000) cont.

Name of Course (or equivalent)	Total Enrollment Fall 2000	Total Number of Sections	# from (3) taught by distance learning ^a	Result when subtracting Column (3) minus Column (4)	Of the number in Column (4a), how many sections are taught by:			
					Tenured or Tenure- eligible Faculty	Other Full-time Faculty	Part- time Faculty	Graduate Teaching Assist. ^b
(1)	(2)	(3)	(4)	(4a)	(5)	(6)	(7)	(8)
COMPUTER SCIENCE								
MIDDLE LEVEL								
E10. Intro. to Computer Systems								
E11. Assembly Language Programming								
E12. Intro. to Computer Organization								
E13. Intro. to File Processing								
E14. All other middle level CS courses								
UPPER LEVEL								
E15. All upper level CS courses								

^a At least half of the students in the section receive the majority of their instruction via Internet, TV, or other method where the instructor is NOT physically present.

^b Report only GTA's who teach a section independently.

F. Faculty Profile (Fall 2000)

F1. This question investigates the educational background of your full-time and part-time faculty.

Instructions:

- In columns (1)-(4), include all departmental faculty according to tenure or tenure-eligible status, distinguishing between such faculty on leave and not on leave.
- For full-time faculty members in your department with joint appointments, report them as *Tenured* or *Tenure-eligible* if that describes their status within your department; otherwise, report them as *Other Full-time* or *Part-time* according to their budget level within your department for Fall 2000.
- Do NOT report any GTA's in **any** of the tables in this section.
- If your institution does not recognize tenure, please check the following box..... (1) and then report full-time faculty who are "permanent" in the *Tenured* column (distinguishing between those not on leave and on leave), and all other full-time faculty in the *Other Full-Time* column (without distinguishing between those not on leave and on leave), and report zero in columns 3 and 4.

HIGHEST DEGREE AND GENDER	TYPE OF APPOINTMENT							Row Totals		
	TENURED		TENURE-ELIGIBLE		OTHER FULL-TIME	PART-TIME (NOT GTAs)				
	NOT ON LEAVE (1)	ON LEAVE (2)	NOT ON LEAVE (3)	ON LEAVE (4)					(5)	(6)
WITH DOCTORATE	MALE (1)									
	FEMALE (2)									
WITHOUT DOCTORATE	MALE (3)									
	FEMALE (4)									
COLUMN TOTALS	(5)									
GRAND TOTAL										

F. Faculty Profile (Fall 2000) cont.

F2. This question investigates the ethnic and gender status of your full-time and part-time faculty.

Instructions: Same as F1 (Note: Grand Total for F2 should equal Grand Total for F1.)

ETHNIC/RACIAL STATUS AND GENDER		TYPE OF APPOINTMENT							Row Totals
		TENURED		TENURE-ELIGIBLE		OTHER FULL-TIME	PART-TIME (NOT GTAS)		
		NOT ON LEAVE (1)	ON LEAVE (2)	NOT ON LEAVE (3)	ON LEAVE (4)				
MALE (1)									
FEMALE (2)									
MALE (3)									
FEMALE (4)									
MALE (5)									
FEMALE (6)									
MALE (7)									
FEMALE (8)									
MALE (9)									
FEMALE (10)									
MALE (11)									
FEMALE (12)									
COLUMN TOTALS (13)									

GRAND TOTAL

F. Faculty Profile (Fall 2000) cont.

F3. For all faculty reported in the tenured and tenure-eligible columns of F1, report the number of faculty who belong to each of the age categories below. In case your institution does not recognize tenure, report only your permanent full-time faculty in the Tenured Faculty rows and exclude all other faculty, placing zeros in all boxes in rows (3) and (4).

Note:

- If your institution recognizes tenure then the Grand Total in F3 should equal the sum of columns (1)-(4) in F1.
- If your institution does not recognize tenure then the Grand Total in F3 should equal the sum of columns (1) and (2) in F1.

FACULTY AGE		Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 & over	Row Totals
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
TENURED FACULTY	Male (1)											
	Female (2)											
TENURE-ELIGIBLE FACULTY	Male (3)											
	Female (4)											
COLUMN TOTALS (5)												
GRAND TOTAL												

F4. For the period from 01 September 1999 through 31 August 2000, please report the number of your tenured or tenure-eligible faculty who: [if your institution does not recognize tenure, report on those who are "permanent" full-time]

Died while in full-time service..... (1)

Left full-time service due to retirement..... (2)

F. Faculty Profile (Fall 2000) cont.

F5. Does your organization offer a "transition to retirement program" in which faculty agree to retire at a fixed future date and gradually reduce their teaching assignments until that time?

Yes..... (1)

No..... (2)

G. Departmental Information (Fall 2000)

G1. For Fall 2000, what is the expected (or typical) teaching load for the tenured or tenure-eligible faculty (those reported in F3 on the previous page)? [If your institution does not recognize tenure, report on those who are "permanent full-time".]

Expected classroom contact hours per week.....

G2. Please report the number of your departmental majors who where awarded a baccalaureate degree by your institution, between 01 July 1999 and 30 June 2000 (include double majors).

Number of baccalaureate degrees awarded to majors in your department.....

G. Departmental Information (Fall 2000) cont.

G3. Of the number of degrees awarded above (G2), please report the number who majored in each of the following categories. [Be sure to report each graduating student only once. Use the "Other" category for any major that does not fit the existing categories.]

- Note: Grand Total should equal the figure given in G2.

AREA OF MAJOR	Male (1)	Female (2)	Row Totals (3)
1. MATHEMATICS (INCLUDING APPLIED)			
2. MATHEMATICS EDUCATION			
3. STATISTICS			
4. BIostatISTICS			
5. COMPUTER SCIENCE			
6. ACTUARIAL MATHEMATICS			
7. OPERATIONS RESEARCH			
8. JOINT COMPUTER SCIENCE AND MATHEMATICS			
9. JOINT MATHEMATICS AND STATISTICS			
10. OTHER TRACKS IN YOUR DEPARTMENT			
11. COLUMN TOTALS			GRAND TOTAL

I. Academic Support and Enrichment (Fall 2000)

I1. Does your department or university offer a mathematics placement test for entering freshmen?

Yes..... (1) —————▶ if “yes” go to I2 (below).

No..... (2) —————▶ if “no” go to I7 (page 24).

I2. Is the placement examination required for entering freshmen?

Yes..... (1)

No..... (2)

I3. What is the source of the placement test(s)? (Check all that apply.)

Test written by department..... (1)

Test provided by Educational Testing Service (ETS)..... (2)

Test provided by American College Testing Program (ACT)..... (3)

Test provided by Mathematical Association of America (MAA)..... (4)

Other test provided by external source..... (5)

I4. Is it required that entering freshmen discuss the results of the placement test with an advisor before registering for their first mathematics course?

Yes..... (1)

No..... (2)

I5. Does the placement examination lead to mandatory placement in the students' first mathematics course?

Yes..... (1)

No..... (2)

I. Academic Support and Enrichment (Fall 2000) cont.

I6. Does your department periodically assess the effectiveness of the mathematics placement test?

Yes..... (1)

No..... (2)

I7. Does your department or college operate a mathematics lab or tutoring center?

Yes..... (1) \longrightarrow if "yes" go to I8 (below).

No..... (2) \longrightarrow if "no" go to I9 (page 25).

I8. Please check all services available to students through your mathematics lab or center. (Check all that apply.)

Computer-aided instruction..... (1)

Computer software such as computer algebra packages or statistical packages..... (2)

Media such as video tapes..... (3)

Tutoring by students..... (4)

Tutoring by paraprofessional staff..... (5)

Tutoring by part-time mathematics faculty..... (6)

Tutoring by full-time mathematics faculty..... (7)

Internet resources..... (8)

Other lab or center services (please specify) _____ (9)

I. Academic Support and Enrichment (Fall 2000) cont.

I9. Please check the opportunities available to your undergraduate mathematics students.
(Check all that apply.)

- Honors sections of mathematics courses..... (1)
- Mathematics club..... (2)
- Special mathematics programs to encourage women..... (3)
- Special mathematics programs to encourage minorities..... (4)
- Opportunities to compete in mathematics contests..... (5)
- Special mathematics lectures/colloquium, not part of a mathematics club..... (6)
- Mathematics outreach opportunities to local K-12 schools..... (7)
- Opportunities to participate in undergraduate research in mathematics (8)
- Independent studies opportunities in mathematics..... (9)
- Assigned faculty advisors in mathematics..... (10)
- Other (please specify) _____ (11)

J. Pre-service Education of Elementary and Middle School Teachers (Fall 2000)

J1. Does your institution offer a program or major leading to certification as a teacher in some or all grades K-8?

Yes..... (1) \longrightarrow if "yes" go to J2 (below).

No..... (2) \longrightarrow if "no" go to K1 (page 27).

J2. Do members of your department serve on a committee that determines what mathematics courses are part of that certification program?

Yes..... (1)

No..... (2)

J. Pre-service Education of Elementary and Middle School Teachers (Fall 2000) cont.

J3. Does your department offer a mathematics course or course sequence, designed specifically for pre-service K-8 teachers?

Yes..... (1)

No..... (2)

J4. Are special sections of some of your regular mathematics courses (those not in J3) designated for pre-service K-8 teachers?

Yes..... (1)

No..... (2)

J5. Because states have different certification requirements for teachers at different levels and because the K-8 grades are grouped together differently by different states, the next questions ask separately about students preparing to teach in early grades (1-3) and later grades (including 5 and 6).

Including general education requirements, how many courses are pre-service teachers required to take in your department:

For early grade certification (grades 1-3)..... (1)

For later grade certification (including grades 5 and 6)..... (2)

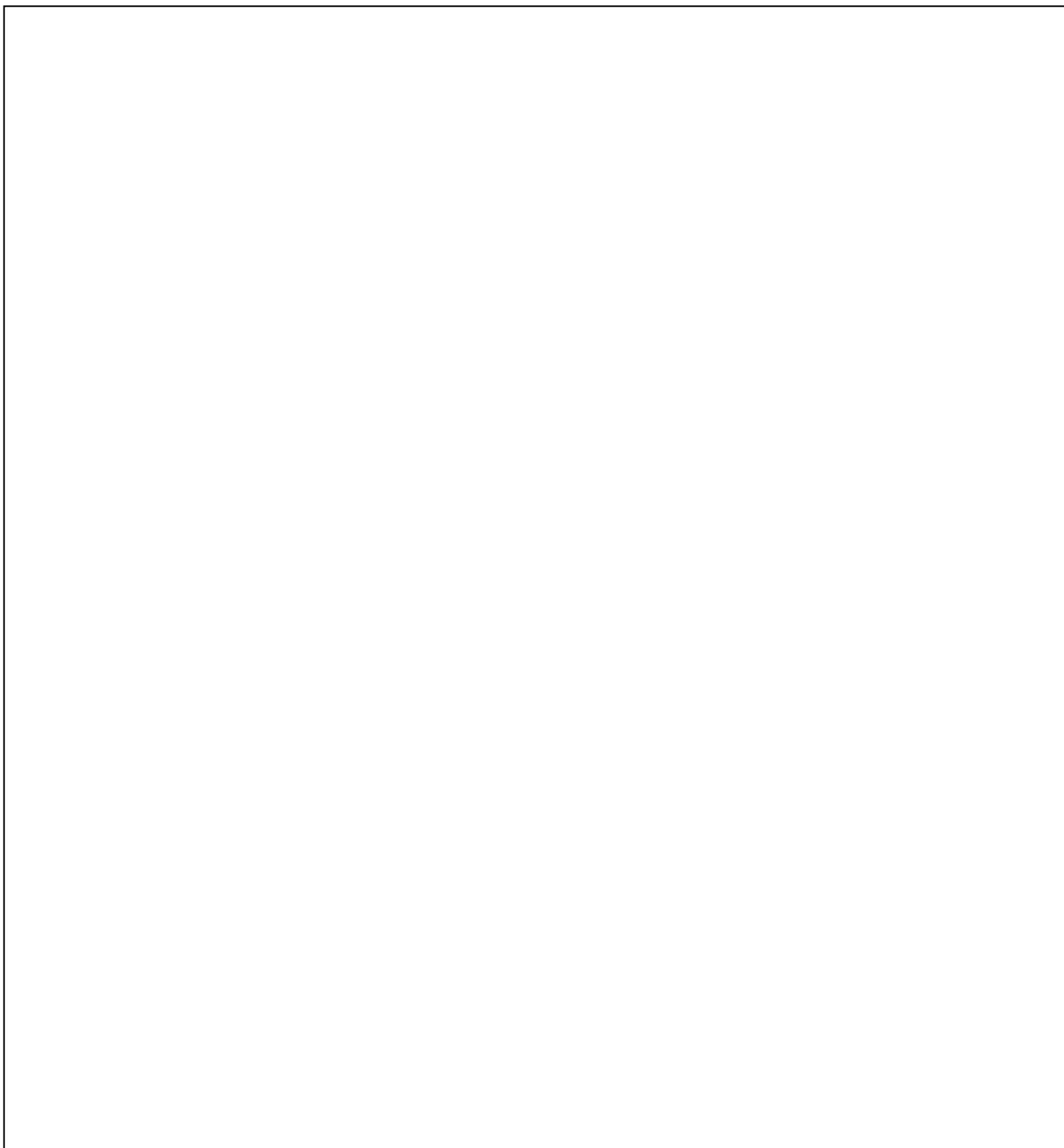
J6. In your judgement, which three of the following courses in your department are most likely to be taken by K-8 pre-service teachers? (Note: A total of 6 boxes should be checked, 3 in each column.)

	<u>For Early Grade Certification</u>	<u>For Later Grade Certification</u>
A multiple-term course designed for elementary education students.....	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
A single-term course designed for elementary education students.....	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)
College algebra.....	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)
Elementary functions, pre-calculus, analytic geometry.....	<input type="checkbox"/> (7)	<input type="checkbox"/> (8)
Introduction to mathematical modelling.....	<input type="checkbox"/> (9)	<input type="checkbox"/> (10)
Mathematics for liberal arts.....	<input type="checkbox"/> (11)	<input type="checkbox"/> (12)
Finite mathematics.....	<input type="checkbox"/> (13)	<input type="checkbox"/> (14)
Mathematics history.....	<input type="checkbox"/> (15)	<input type="checkbox"/> (16)
Calculus.....	<input type="checkbox"/> (17)	<input type="checkbox"/> (18)
Geometry.....	<input type="checkbox"/> (19)	<input type="checkbox"/> (20)
Statistics.....	<input type="checkbox"/> (21)	<input type="checkbox"/> (22)

K. Comments and Suggestions

K1. Amount of time required to complete this questionnaire was _____ (hours).

K2. Suggestions for changes to the questionnaire (for CBMS2005):



Two-Year Mathematics Questionnaire

Mathematics Questionnaire : Two-year Colleges

General Instructions

- As part of a random sample your department has been selected to participate in the CBMS2000 National Survey, the importance of which has been endorsed by all of our major professional societies. Please read the instructions in each section carefully and complete all of the pertinent items as indicated. Do not leave any unshaded box blank; enter a zero instead.
- If your college does not have a departmental or divisional structure, consider the group of all mathematics instructors to be the "mathematics department" for the purpose of this survey.
- Because some campuses are part of a multi-campus two-year college, special instructions may apply. Please consult the third paragraph of the cover letter mailed with this questionnaire. If that letter asked you to report on the entire multi-campus system to which you may belong, please check the following box..... and report data for the entire system. If you were not asked to report on your entire multi-campus system, then do not include data for branches or campuses of your college that are geographically or budgetarily separate from yours.
- This questionnaire should be completed by the person who is directly in charge of the mathematics program or department on your campus.
- Report on all of your courses and instructors that fall under the general heading of the mathematics program or department. Include all mathematics, statistics, and computer science courses taught within your mathematics program or department.
- We have classified your department as belonging to a two-year college, or to a college or campus within a two-year system, or to a two-year branch of a university system. If this is not correct, please contact Stephen Rodi at the e-mail or telephone number given below.
- If you have any questions, please contact Stephen Rodi, Associate Director for Two-Year Colleges, by e-mail at rodi@tenet.edu or by phone at 512-223-3301.

Please return your completed questionnaire in the enclosed envelope to:

**CBMS Survey
UNC Survey Research Unit
730 Airport Road, Suite 103
CB #2400, UNC-CH
Chapel Hill, NC 27599-2400**

A. General Information

PLEASE PRINT CLEARLY

A1. Name of campus: _____

A2. Name of your department: _____

A3. Mailing address of the multi-campus organization to which your campus belongs (if any):

A4. We have classified your department as belonging to a two-year college, or to a college or campus within a two-year college system, or to a two-year branch of a university system. Do you agree?

Yes..... (1) → if "yes" go to A5 (below).

No..... (2) → if "no" please contact Stephen Rodi, Survey Associate Director, by e-mail (rodi@tenet.edu) or by phone at 512-223-3301 before proceeding any further.

A5. Is your institution public or private (*check one*):

Public (1) Private (2) Other (3)

A6. What is the structural unit that directly administers the mathematics program on your campus? (Check only one of the following boxes.)

	at my campus	that is part of multi-campus organization (in A3)
Mathematics Department.....	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
Mathematics and Computer Science Department.....	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)
Mathematics and Science Department or Division.....	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)
Other Department or Division Structure.....	<input type="checkbox"/> (7)	<input type="checkbox"/> (8)
None of the above.....		<input type="checkbox"/> (9)

A7. To help us project enrollment for the current academic year (2000–2001), please give the following enrollment figures for the previous academic year (1999–2000).

Fall 1999 total student enrollment in your mathematics program: (1)

Entire academic year 1999-2000 enrollment in your mathematics program: (2)

Calculus II in Winter/Spring 2000 total enrollment: (3)

Calculus II in Winter/Spring 2000 total number of sections: (4)

A. General Information (cont.)

A8. Which of the following best describes your academic calendar? (*Check only one answer.*)

- Semester (1)
- Trimester (2)
- Quarter (3)
- 4-1-4 (4)
- Other (*please specify*) (5)

A9. Are any of the developmental/remedial mathematics courses at your college administered separately from the mathematics department/program?

Yes..... (1)

No..... (2)

A10. Contact person in your department:

A11. Contact person's e-mail address:

A12. Contact person's phone number including area code:

A13. Campus mailing address:

B. Mathematics Faculty in the Mathematics Department/Program (Fall 2000)

- If you are part of a multi-campus college, please consult the third bullet on page 2 before proceeding.
 - Underlined faculty categories defined in this section will be used in later sections.
- B1. For Fall 2000, what is the **total number of your full-time mathematics faculty**, both permanent and temporary, including those on leave or sabbatical?
- Number of full-time mathematics faculty.....
- B2. Of the number in B1, how many are tenured, or tenure-eligible, or on your permanent staffing table (including faculty who are on leave or sabbatical)? We will refer to these as “**permanent full-time faculty**.”
- Number tenured, tenure-eligible, or on permanent staffing table.....
- B3. Give the number of “**other full-time faculty**” by computing B1 minus B2.
- B4. Of the **permanent full-time faculty** reported in B2, how many teach extra hours for extra pay at your campus, or within your organization, or at other schools?
- B4-a) Number of **permanent full-time faculty** in B2 who teach extra hours for extra pay at your campus or within your organization..... (1)
- B4-b) Number of faculty in B2 who teach extra hours for extra pay at other schools..... (2)
- B5. Of the **permanent full-time faculty** reported in B4-a (who teach extra hours for extra pay on your campus or in your organization), how many extra hours per week do they teach?
- B5-a) Number who teach 1-3 hours extra weekly..... (1)
- B5-b) Number who teach 4-6 hours extra weekly..... (2)
- B5-c) Number who teach 7 or more hours extra weekly..... (3)

B. Mathematics Faculty in the Mathematics Department/Program (Fall 2000) cont.

- B6. For Fall 2000, what is the number of your **part-time mathematics faculty**? (Note: none of these where reported above.)
- B6-a) Number **part-time mathematics faculty paid by your college**..... (1)
 - B6-b) Number of **part-time faculty paid by a third party**, such as a school district paying faculty to teach dual enrollment courses..... (2)
 - B6-c) Add (B6-a) + (B6-b) to get **total part-time faculty**..... (3)
- B7. How many **part-time faculty** in (B6-a) (those paid by your college) teach six or more hours per week? Number in (B6-a) teaching six or more hours/week.....
- B8. Of the **part-time faculty** reported in (B6-a) (those paid by your college), give the number who are:
- Employed full-time in high school..... (1)
 - Employed full-time in another two-year college..... (2)
 - Employed full-time in another department of your campus or your larger organization..... (3)
 - Employed full-time in a four-year college..... (4)
 - Employed full-time in industry or other..... (5)
 - Graduate students..... (6)
 - Not graduate students and not employed full-time anywhere..... (7)

B. Mathematics Faculty in the Mathematics Department/Program (Fall 2000) cont.

B9. Are office hours required by college policy for the **part-time faculty** reported in Question B6-a on page 6 (those paid by your college)?

Yes..... (1)

No..... (2)

B10. Are the **part-time faculty** reported in Question B6-a (those paid by your college) typically paid on the same pay scale as **full-time faculty** members who teach extra hours for extra pay (and who were reported in Question B4-a on page 5)?

Yes..... (1)

No, part-timers paid more..... (2)

No, part-timers paid less..... (3)

C. Mathematics Courses (Fall 2000)

- The following instructions apply throughout **Section C** (pages 8-13). Read them carefully before you begin filling out the tables.
- If you are part of a multi-campus college, please consult the third bullet on page 2 before proceeding.
 - In this section, do **not** include courses taught in other departments, learning centers, or developmental/remedial programs separate from your mathematics program or department.
 - Read the row and column labels carefully. If the titles of courses listed below do not coincide exactly with yours, use your best judgment about where to list your courses. List each course only **once**. Note that the **part-time faculty** in Column (5) are those reported in B6-c on page 6 (part-time faculty paid by third parties as well as those paid by your college). Column (5) should **not** include any of your full-time faculty who teach an overload section.
 - When completing an item, if that course is not taught at your campus during fall term, or if it is never taught at your campus, enter a zero in the space provided. Do not leave blanks.
 - Use the additional spaces after C28 and C37 to write in the names of courses that do not fit reasonably under any listed title.

LIST THE NUMBER OF SECTIONS FROM COLUMN (3)												
Name of Course (or equivalent)	Total number of students enrolled Fall 2000	Total number of sections Fall 2000	with enrollment above 35	taught by part-time faculty ^a	using graphing calculators	that include a writing component such as reports or projects	that require computer assignments	that assign group projects	that meet at least once a week in a setting that requires student computer use	that are taught mostly by the standard lecture method	that are taught by distance learning ^b	If not offered in Fall 2000, was this course either offered in 1999-2000 or scheduled for Winter/Spring 2001? Y(es)/N(o)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C1. Arithmetic/Basic Math												
C2. Pre-Algebra												
C3. Elementary Algebra (high school level)												
C4. Intermediate Algebra (high school level)												
C5. Geometry (high school level)												

^a Do **not** include full-time mathematics faculty teaching an overload section in this column. Include only part-time faculty, reported in B6-c, including those paid by a third party such as a school district.
^b At least half of the students in the section receive the majority of their instruction via Internet, TV, computer, programmed instruction or other method where the instructor is **NOT** physically present.

Mathematics Questionnaire : Two-year Colleges

C. Mathematics Courses (Fall 2000) cont.

LIST THE NUMBER OF SECTIONS FROM COLUMN (3)												
Name of Course (or equivalent)	Total number of students enrolled Fall 2000	Total number of sections Fall 2000	with enrollment above 35	taught by part-time faculty ^a	using graphing calculators	that include a writing component such as reports or projects	that require computer assignments	that assign group projects	that meet at least once a week in a setting that requires student computer use	that are taught mostly by the standard lecture method	that are taught by distance learning ^b	If not offered in Fall 2000, was this course either offered in 1999-2000 or scheduled for Winter/Spring 2001? Y(es)/N(o) (13)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C6. College Algebra (level beyond Intermediate Algebra)												
C7. Trigonometry												
C8. College Algebra and Trigonometry, combined												
C9. Introduction to Math Modelling												
C10. Precalculus/Elementary Functions/Analytic Geometry												

DO NOT LEAVE ANY UNSHADED BOX BLANK

^a Do **not** include full-time mathematics faculty teaching an overload section in this column. Include only part-time faculty, reported in B6-c, including those paid by a third party such as a school district.
^b At least half of the students in the section receive the majority of their instruction via Internet, TV, computer, programmed instruction or other method where the instructor is NOT physically present.

Mathematics Questionnaire : Two-year Colleges

C. Mathematics Courses (Fall 2000) cont.

Name of Course (or equivalent)	Total number of students enrolled Fall 2000	Total number of sections Fall 2000	LIST THE NUMBER OF SECTIONS FROM COLUMN (3)										If not offered in Fall 2000, was this course either offered in 1999- 2000 or scheduled for Winter/Spring 2001? Y(es)/N(o) (13)
			with enroll- ment above 35	taught by part- time faculty ^a	using graphing calcula- tors	that include a writing component such as reports or projects	that require computer assign- ments	that assign group projects	that meet at least once a week in a setting that requires student computer use	that are taught mostly by the standard lecture method	that are taught by distance learning ^b		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
C11. Calculus I (typically for math, physics, engineering majors)													
C12. Calculus II (typically for math, physics, engineering majors)													
C13. Calculus III													
C14. Non-Mainstream Calculus I ^c													
C15. Non-Mainstream Calculus II ^c													
C16. Differential Equations													
C17. Linear Algebra													
C18. Discrete Mathematics													

^a Do not include full-time mathematics faculty teaching an overload section in this column. Include only part-time faculty, reported in B6-c, including those paid by a third party such as a school district.
^b At least half of the students in the section receive the majority of their instruction via Internet, TV, computer, programmed instruction or other method where the instructor is NOT physically present.
^c Typically for business, life sciences, and social science majors.

C. Mathematics Courses (Fall 2000) cont.

Name of Course (or equivalent)	Total number of students enrolled Fall 2000	Total number of sections Fall 2000	LIST THE NUMBER OF SECTIONS FROM COLUMN (3)										If not offered in Fall 2000, was this course either offered in 1999- 2000 or scheduled for Winter/Spring 2001? Y(es)/N(o) (13)
			with enroll- ment above 35	taught by part- time faculty ^a	using graphing calcula- tors	that include a writing component such as reports or projects	that require computer assign- ments	that assign group projects	that meet at least once a week in a setting that requires student computer use	that are taught mostly by the standard lecture method	that are taught by distance learning ^b		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
C19. Elementary Statistics (with or without probability) ^c													
C20. Probability (with or without statistics) ^c													
C21. Finite Mathematics													
C22. Mathematics for Liberal Arts/ Math Appreciation													
C23. Mathematics for Elementary School Teachers													

^a Do **not** include full-time mathematics faculty teaching an overload section in this column. Include only part-time faculty, reported in B6-c, including those paid by a third party such as a school district.

^b At least half of the students in the section receive the majority of their instruction via Internet, TV, computer, programmed instruction or other method where the instructor is NOT physically present.

^c Do **not** count the same course in both lines C19 and C20.

Mathematics Questionnaire : Two-year Colleges

C. Mathematics Courses (Fall 2000) cont.

LIST THE NUMBER OF SECTIONS FROM COLUMN (3)																									
Name of Course (or equivalent)	(1)	Total number of students enrolled Fall 2000	(2)	Total number of sections Fall 2000	(3)	with enrollment above 35	(4)	taught by part-time faculty ^a	(5)	using graphing calculators	(6)	that include a writing component such as reports or projects	(7)	that require computer assignments	(8)	that assign group projects	(9)	that meet at least once a week in a setting that requires student computer use	(10)	that are taught mostly by the standard lecture method	(11)	that are taught by distance learning ^b	(12)	If not offered in Fall 2000, was this course either offered in 1999-2000 or scheduled for Winter/Spring 2001? Y(es)/N(o)	(13)
C24. Business Math (not a transfer course to four-year colleges)																									
C25. Business Math (transfer course)																									
C26. Non-Calculus-Based Technical Math (not a transfer course)																									
C27. Calculus-Based Technical Math (transfer course)																									
C28. Other Mathematics Courses																									

Give the titles of (up to) two examples of (C28) with the largest enrollments:

C28-1.

C28-2.

^a Do **not** include full-time mathematics faculty teaching an overload section in this column. Include only part-time faculty, reported in B6-c, including those paid by a third party such as a school district.

^b At least half of the students in the section receive the majority of their instruction via Internet, TV, computer, programmed instruction or other method where the instructor is NOT physically present.

C. Mathematics Courses (Fall 2000) cont.

LIST THE NUMBER OF SECTIONS FROM COLUMN (3)												
Name of Course (or equivalent)	Total number of students enrolled Fall 2000 (2)	Total number of sections Fall 2000 (3)	with enrollment above 35 (4)	taught by part-time faculty ^a (5)	using graphing calculators (6)	that include a writing component such as reports or projects (7)	that require computer assignments (8)	that assign group projects (9)	that meet at least once a week in a setting that requires student computer use (10)	that are taught mostly by the standard lecture method (11)	that are taught by distance learning ^b (12)	If not offered in Fall 2000, was this course either offered in 1999-2000 or scheduled for Winter/Spring 2001? Y(es)/N(o) (13)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
C29. Computers and Society												
C30. Introduction to Software Packages ^c												
C31. Issues in Computer Science												
C32. Computer Programming I (C 101 '91) ^d												
C33. Computer Programming II (C 102 '91) ^d												
C34. Advanced Programming & Data Structures												
C35. Database Management Systems												
C36. Discrete Math for CS												
C37. Other CS courses												

Give the titles of (up to) two examples of (C37) with the largest enrollments:

C37-1.

C37-2.

^a Do **not** include full-time mathematics faculty teaching an overload section in this column. Include only part-time faculty, reported in B6-c, including those paid by a third party such as a school district.
^b At least half of the students in the section receive the majority of their instruction via Internet, TV, computer, programmed instructions or other method where the instructor is **NOT** physically present.
^c Word processing, spreadsheets, internet tools, etc.
^d Refers to courses described in Computing Curriculum 1991, Report of the ACM/IEEE-CS Joint Curriculum Task Force, ACM 1991.

D. Faculty Educational Level, by Subject Field (Fall 2000)

D1. For the **permanent full-time faculty** (including those on leave) reported in Question B2 (page 5), complete the following table showing the area of each faculty member's highest earned degree. The Grand Total for this table should equal the number reported in Question B2 (page 5).

- If you are part of a multi-campus college, please consult the third bullet on page 2 before proceeding.

HIGHEST DEGREE	MAJOR FIELD OF HIGHEST DEGREE					ROW TOTALS
	MATHEMATICS (1)	STATISTICS (2)	COMPUTER SCIENCE (3)	MATHEMATICS EDUCATION (4)	OTHER (5)	
DOCTORATE (1)						(6)
MASTERS (2)						
BACHELORS (3)						
LESS THAN BACHELORS (4)						
COLUMN TOTALS (5)						
						GRAND TOTAL

D. Faculty Educational Level, by Subject Field (Fall 2000) cont.

D2. For the **part-time faculty** reported in Question B6-c on page 6 (including those paid by your college and those paid by a third party), complete the following table showing the area of each faculty member's highest earned degree. The Grand Total for this table should equal the number reported in Question B6-c (page 6).

- If you are part of a multi-campus college, please consult the third bullet on page 2 before proceeding.

HIGHEST DEGREE	MAJOR FIELD OF HIGHEST DEGREE					
	MATHEMATICS (1)	STATISTICS (2)	COMPUTER SCIENCE (3)	MATHEMATICS EDUCATION (4)	OTHER (5)	ROW TOTALS (6)
DOCTORATE (1)						
MASTERS (2)						
BACHELORS (3)						
LESS THAN BACHELORS (4)						
COLUMN TOTALS (5)						
	GRAND TOTAL					

E. Faculty by Gender and Ethnicity/Race (Fall 2000)

Instructions:

- If you are part of a multi-campus college, please consult the third bullet on page 2 before proceeding.
- For the **permanent full-time faculty** including those on leave reported in Question B2 on page 5, and for the **part-time faculty** reported in Question B6-a on page 6 (those paid by your college) complete the following table giving data about gender and ethnicity/race.
- The total of Column (1) should equal the figure given in Question B2 (page 5). The total of Column (2) should equal the figure reported in B6-a (page 6).

ETHNIC/RACIAL STATUS AND GENDER		PERMANENT FULL-TIME FACULTY FROM B2 (1)	PART-TIME FACULTY FROM B6-A (2)
AMERICAN INDIAN, ESKIMO, ALEUT	MALE (1)		
	FEMALE (2)		
ASIAN, PACIFIC ISLANDER	MALE (3)		
	FEMALE (4)		
BLACK OR AFRICAN AMERICAN (NON-HISPANIC)	MALE (5)		
	FEMALE (6)		
MEXICAN AMERICAN, PUERTO RICAN, OR OTHER HISPANIC	MALE (7)		
	FEMALE (8)		
WHITE (NON-HISPANIC)	MALE (9)		
	FEMALE (10)		
STATUS NOT KNOWN OR OTHER	MALE (11)		
	FEMALE (12)		
COLUMN TOTALS (13)			

F. Faculty Age Profile (Fall 2000)

Complete the following table showing the number of faculty who belong in each of the age categories below.

- Consider **only permanent full-time faculty** (including those on leave) as reported in Question B2 on page 5.
- If you are part of a multi-campus college, please consult the third bullet on page 2 before proceeding.
- Report on all American Indian, Eskimo, Aleut, Asian, Pacific Islander, Black or African American (non-Hispanic), Mexican American, Puerto Rican or other Hispanic in Row (3) of the table.
- The sum of all the numbers reported in Rows (1) and (2) should equal the number reported in Question B2 on page 5.

FACULTY AGE	Under 30 (1)	30-34 (2)	35-39 (3)	40-44 (4)	45-49 (5)	50-54 (6)	55-59 (7)	60-64 (8)	65-69 (9)	70 & over (10)	Row Totals (11)
MEN (1)											
WOMEN (2)											
ETHNIC/RACIAL MINORITY ^a (3)											
WHITE (NON-HISPANIC) (4)											
STATUS UNKNOWN (5)											
COLUMN TOTALS (6)											

^aSee instructions above for row 3.

**GRAND
TOTAL**

G. Faculty Employment and Mobility (Fall 2000)

- If you are part of a multi-campus college, please consult the third bullet on page 2 before proceeding.

G1. How many of the **full-time permanent faculty** members in Question B2 (page 5) were newly appointed on a full-time permanent basis this year (2000-2001)?

Number of faculty newly appointed on a full-time permanent basis.....

if “zero” —————▶ go to G5 (page 19).

if “1 or more” —————▶ go to G2 (below).

G2. Of the faculty members listed in Question G1, how many had the following as their main activity in 1999-2000? Report only **one** main activity per person. Note: The total in G2 should equal the value given in G1.

Attending graduate school..... (1)

Teaching in a four-year college or university..... (2)

Teaching in another two-year college..... (3)

Teaching in a secondary school..... (4)

Part-time or full-time temporary employment
by your college (5)

Nonacademic employment..... (6)

Unemployed..... (7)

Status Unknown..... (8)

G3. How many of the faculty reported in Question G1 had previously taught at your campus or in your larger organization either part-time or full-time?

G. Faculty Employment and Mobility (Fall 2000) cont.

G4. For each **full-time permanent faculty** member reported in Question G1 (page 18), give the following data. Add more lines at the bottom of the table if necessary. For each new hire complete an entire row.

	Age (1)	Gender (2)	Ethnicity/Race (3)	Highest Degree Earned (Bachelors, Masters or Doctorate) (4)
New Hire #1 (1)				
New Hire #2 (2)				
New Hire #3 (3)				
New Hire #4 (4)				

G5. How many of your faculty who were **permanent full-time faculty** in the previous year (1999-2000) are no longer part of your **permanent full-time faculty**?

G6. Give the number of **permanent full-time faculty** (reported in Question G5) who:

- Died while in full-time service..... (1)
- Left full-time service due to retirement..... (2)
- Left to teach at a four-year college or university..... (3)
- Left to teach at another two-year college..... (4)
- Left to teach at a secondary school..... (5)
- Left for a nonacademic position..... (6)
- Left to return to graduate school..... (7)
- Other (specify)..... (8)
- Unknown..... (9)

G. Faculty Employment and Mobility (Fall 2000) cont.

G7. Does your organization offer a “transition to retirement program” in which **permanent full-time faculty** agree to retire at a fixed future date and gradually reduce their teaching assignments until that time?

Yes..... (1)

No..... (2)

H. Professional Activities of Permanent Full-Time Faculty (Fall 2000)

- If you are part of a multi-campus college, please consult the third bullet on page 2 before proceeding.

H1. Is some form of continuing education or professional development required of your **permanent full-time faculty** reported in Question B2 (page 5)?

Yes..... (1) \longrightarrow if “yes” go to H2 (below).

No..... (2) \longrightarrow if “no” go to I (page 21).

H2. Estimate the number of **permanent full-time faculty** reported in Question B2 (page 5) who fulfill the requirement in H1 by:

Activities provided by your institution at one of its locations..... (1)

Participation in professional association meetings and minicourses or other professional association activities..... (2)

Publishing expository or research articles or textbooks..... (3)

Continuing graduate education..... (4)

Unknown..... (5)

I. Resources Available to Mathematics Faculty (Fall 2000)

- If you are part of a multi-campus college, please consult the third bullet on page 2 before proceeding.

I1. How many of your **permanent full-time mathematics faculty** members (reported in Question B2 on page 5) have:

- A computer in their campus office?..... (1)
- No computer in their campus office, but shared computers nearby?..... (2)
- No convenient access, or no access at all, to a computer at your college?..... (3)

I2. How many of your **permanent full-time mathematics faculty** members (reported in Question B2 on page 5) have Internet access:

- In their office?..... (1)
- Not in their office, but at school?..... (2)
- No convenient access, or no access at all, to the Internet at your college?... (3)

I3. How many of the **part-time mathematics faculty** members paid by your college (reported in Question B6-a on page 6) have campus office space that contains:

- Their own individual desk?..... (1)
- A desk shared with one other person?..... (2)
- A desk shared with more than one other person?..... (3)

I4. How many of the **part-time faculty** members paid by your college (reported in Question B6-a on page 6) have no campus office space at all?...

- Note: The sum of all entries in I3 and I4 should equal the number reported in B6-a on page 6.

I. Resources Available to Mathematics Faculty (Fall 2000) cont.

15. For which mathematics faculty do you periodically evaluate teaching? Check all that apply.

I5-1. We evaluate teaching of **permanent full-time faculty** (reported in B2 on page 5)

I5-2. We evaluate teaching of **part-time faculty** paid by our college (reported in B6-a on page 6).....

If you checked either I5-1 or I5-2, then —————▶ go to I6 (below).

If you did **not** check either I5-1 or I5-2, then —————▶ go to J (below).

16. Check all evaluation methods that are used for **part-time faculty** paid by your college (Question B6-a on page 6) or for **permanent full-time faculty** (Question B2 on page 5). (Check all that apply.)

	Part-time Faculty in B6-a	Full-time Faculty in B2
Observation of classes by other faculty members or department chair	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
Observation of classes by division head (if different from chair) or other administrator.....	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)
Evaluation forms completed by students.....	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)
Evaluation of written course material such as lesson plans, syllabi, or exams	<input type="checkbox"/> (7)	<input type="checkbox"/> (8)
Self-evaluation such as teaching portfolios.....	<input type="checkbox"/> (9)	<input type="checkbox"/> (10)
Other (specify): _____	<input type="checkbox"/> (11)	<input type="checkbox"/> (12)

J. Academic Support and Enrichment Opportunities for Students (Fall 2000)

- If you are part of a multi-campus college, please consult the third bullet on page 2 before proceeding.

J1. Does your department or college offer a mathematics placement program for entering students?

Yes..... (1) —————▶ if “yes” go to J2 (page 23).

No..... (2) —————▶ if “no” go to J7 (page 24).

J. Academic Support and Enrichment Opportunities for Students (Fall 2000) cont.

J2. What is the source of the placement test(s)? (Check all that apply.)

- Test written by department..... (1)
- Test provided by Educational Testing Service (ETS)..... (2)
- Test provided by American College Testing Program (ACT)..... (3)
- Test provided by Mathematical Association of America (MAA)..... (4)
- Other test provided by external source..... (5)

J3. Is the placement examination usually required for first time enrollees?

- Yes..... (1) \longrightarrow if "yes" go to J4 (below).
- No..... (2) \longrightarrow if "no" go to J7 (page 24).

J4. Is it required that first time enrollees discuss the results of the placement test with an advisor before registering for their first mathematics course?

- Yes..... (1)
- No..... (2)

J5. Does the placement examination lead to mandatory placement in the student's first mathematics course?

- Yes..... (1)
- No..... (2)

J. Academic Support and Enrichment Opportunities for Students (Fall 2000) cont.

J6. Does your department periodically assess the effectiveness of the mathematics placement test?

Yes..... (1)

No..... (2)

J7. Does your department or college operate a mathematics lab or tutoring center?

Yes..... (1) —————▶ if “yes” go to J8 (below).

No..... (2) —————▶ if “no” go to J9 (page 25).

J8. Check all services available to students through your lab or center.
(Check all that apply.)

Computer-aided instruction..... (1)

Computer software such as computer algebra packages or statistical packages..... (2)

Media such as video tapes..... (3)

Tutoring by students..... (4)

Tutoring by paraprofessional staff..... (5)

Tutoring by part-time mathematics faculty..... (6)

Tutoring by full-time mathematics faculty..... (7)

Internet resources..... (8)

Other lab or center services
(please specify) _____ (9)

J. Academic Support and Enrichment Opportunities for Students (Fall 2000) cont.

J9. Check the opportunities in the following list available to your mathematics students.
(Check all that apply.)

- Honors sections of mathematics program courses..... (1)
- Mathematics club..... (2)
- Special mathematics programs to encourage women..... (3)
- Special mathematics programs to encourage minorities..... (4)
- Opportunities to compete in mathematics contests..... (5)
- Special mathematics lectures/colloquium, not part of a mathematics club..... (6)
- Mathematics outreach opportunities to local K-12 schools..... (7)
- Opportunities to participate in undergraduate research in mathematics..... (8)
- Independent studies opportunities in mathematics..... (9)
- Assigned faculty advisors in mathematics..... (10)
- Other (please specify) _____ (11)

K. Dual Enrollments (Fall 2000)

- If you are part of a multi-campus college, please consult the third bullet on page 2 before proceeding.

K1. How many sections does your department offer on a high school campus that grant dual credit (high school and college) in the following courses?

	SPRING 2000 (= LAST TERM)	FALL 2000 (= CURRENT TERM)
College Algebra.....	<input type="text"/> (1)	<input type="text"/> (2)
Precalculus/Elementary Functions, Analytic Geometry.....	<input type="text"/> (3)	<input type="text"/> (4)
Introduction to Mathematical Modeling.....	<input type="text"/> (5)	<input type="text"/> (6)
Calculus I.....	<input type="text"/> (7)	<input type="text"/> (8)
Statistics.....	<input type="text"/> (9)	<input type="text"/> (10)

K. Dual Enrollments (Fall 2000) cont.

K2. Did you report any sections in K1 on page 25?

Yes..... (1) → if "yes" go to K3 (below).

No..... (2) → if "no" go to L1 (page 27).

K3. For the dual enrollment courses in Question K1 (page 25), which of the following are the responsibility of your department? (Check only **one box per row**.)

	NEVER	SOMETIMES	ALWAYS
Choice of textbook.....	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)
Design of syllabus.....	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)
Design of final examination.....	<input type="checkbox"/> (7)	<input type="checkbox"/> (8)	<input type="checkbox"/> (9)
Choice of instructor.....	<input type="checkbox"/> (10)	<input type="checkbox"/> (11)	<input type="checkbox"/> (12)

K4. If you have a regular teaching evaluation program for part-time faculty paid by your college, complete this Question K4. If you do not have such a teaching evaluation program skip to Question K5 (below).

Are the instructors of the dual-credit course sections reported in Question K1 included in the regular teaching evaluation program conducted by your department, campus, or larger organization?

Yes..... (1)

No..... (2)

K5. Do the instructors of the dual-credit course sections reported in Question K1 have to meet the same mathematics degree and/or graduate hours requirements as the part-time faculty who are paid by your college (reported in Question B6-a)?

Yes..... (1)

No..... (2)

L. Pre-service Education of Elementary School Teachers (Fall 2000)

- If you are part of a multi-campus college, please consult the third bullet on page 2 before proceeding.

L1. Does your department have a faculty member assigned to coordinate mathematics program courses for pre-service elementary teachers?

Yes..... (1)

No..... (2)

L2. Other than the courses reported in the table of courses on line C23 of page 11, do you designate any sections of your other mathematics program courses as “especially designed for pre-service elementary teachers”?

Yes..... (1)

No..... (2)

M. Issues of Current Professional Concern (Fall 2000)

M1. Below are some problems cited by mathematics departments in the U.S. Please read each item carefully and check the box in each row that best reflects your view. (Check only **one box per row.**)

	NOT A PROBLEM FOR US	MINOR PROBLEM FOR US	MODERATE PROBLEM FOR US	MAJOR PROBLEM FOR US
MAINTAINING VITALITY OF FACULTY.....	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)
DUAL CREDIT (HIGH SCHOOL & COLLEGE) COURSES.....	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	<input type="checkbox"/> (7)	<input type="checkbox"/> (8)
STAFFING STATISTICS COURSES.....	<input type="checkbox"/> (9)	<input type="checkbox"/> (10)	<input type="checkbox"/> (11)	<input type="checkbox"/> (12)
STAFFING COMPUTER SCIENCE COURSES.....	<input type="checkbox"/> (13)	<input type="checkbox"/> (14)	<input type="checkbox"/> (15)	<input type="checkbox"/> (16)
NEED TO USE PART-TIME FACULTY FOR TOO MANY COURSES.....	<input type="checkbox"/> (17)	<input type="checkbox"/> (18)	<input type="checkbox"/> (19)	<input type="checkbox"/> (20)
FACULTY SALARIES TOO LOW.....	<input type="checkbox"/> (21)	<input type="checkbox"/> (22)	<input type="checkbox"/> (23)	<input type="checkbox"/> (24)
CLASS SIZES TOO LARGE.....	<input type="checkbox"/> (25)	<input type="checkbox"/> (26)	<input type="checkbox"/> (27)	<input type="checkbox"/> (28)
LOW STUDENT MOTIVATION.....	<input type="checkbox"/> (29)	<input type="checkbox"/> (30)	<input type="checkbox"/> (31)	<input type="checkbox"/> (32)
TOO MANY STUDENTS NEEDING REMEDIATION.....	<input type="checkbox"/> (33)	<input type="checkbox"/> (34)	<input type="checkbox"/> (35)	<input type="checkbox"/> (36)
LOW SUCCESS RATE IN DEVELOPMENTAL/ REMEDIAL COURSES.....	<input type="checkbox"/> (37)	<input type="checkbox"/> (38)	<input type="checkbox"/> (39)	<input type="checkbox"/> (40)
LOW SUCCESS RATE IN TRANSFER-LEVEL COURSES.....	<input type="checkbox"/> (41)	<input type="checkbox"/> (42)	<input type="checkbox"/> (43)	<input type="checkbox"/> (44)

Mathematics Questionnaire: Two-Year Colleges

M. Issues of Current Professional Concern (Fall 2000) cont.

M1. Continued

	NOT A PROBLEM FOR US	MINOR PROBLEM FOR US	MODERATE PROBLEM FOR US	MAJOR PROBLEM FOR US
TOO FEW STUDENTS WHO INTEND TO TRANSFER ACTUALLY DO TRANSFER.....	<input type="checkbox"/> (45)	<input type="checkbox"/> (46)	<input type="checkbox"/> (47)	<input type="checkbox"/> (48)
INADEQUATE DEPARTMENTAL RESOURCES.....	<input type="checkbox"/> (49)	<input type="checkbox"/> (50)	<input type="checkbox"/> (51)	<input type="checkbox"/> (52)
INADEQUATE TRAVEL FUNDS FOR FACULTY.....	<input type="checkbox"/> (53)	<input type="checkbox"/> (54)	<input type="checkbox"/> (55)	<input type="checkbox"/> (56)
INADEQUATE COMPUTER FACILITIES FOR FACULTY USE.....	<input type="checkbox"/> (57)	<input type="checkbox"/> (58)	<input type="checkbox"/> (59)	<input type="checkbox"/> (60)
INADEQUATE COMPUTER FACILITIES FOR STUDENT USE.....	<input type="checkbox"/> (61)	<input type="checkbox"/> (62)	<input type="checkbox"/> (63)	<input type="checkbox"/> (64)
OUTSOURCING INSTRUCTION TO COMMERCIAL COMPANIES.....	<input type="checkbox"/> (65)	<input type="checkbox"/> (66)	<input type="checkbox"/> (67)	<input type="checkbox"/> (68)
INADEQUATE CLASSROOM SPACE.....	<input type="checkbox"/> (69)	<input type="checkbox"/> (70)	<input type="checkbox"/> (71)	<input type="checkbox"/> (72)
COORDINATING MATHEMATICS COURSES WITH HIGH SCHOOLS	<input type="checkbox"/> (73)	<input type="checkbox"/> (74)	<input type="checkbox"/> (75)	<input type="checkbox"/> (76)
LACK OF CURRICULAR FLEXIBILITY BECAUSE OF TRANSFER REQUIREMENTS	<input type="checkbox"/> (77)	<input type="checkbox"/> (78)	<input type="checkbox"/> (79)	<input type="checkbox"/> (80)
USE OF DISTANCE EDUCATION ^a	<input type="checkbox"/> (81)	<input type="checkbox"/> (82)	<input type="checkbox"/> (83)	<input type="checkbox"/> (84)

OTHER (PLEASE SPECIFY): _____

^a At least half of the students in the section receive the majority of their instruction via Internet, TV, computer, programmed instruction or other method where the instructor is *NOT* physically present.

0. Comments and Suggestions

- O1. Amount of time required to complete this questionnaire: _____ (hours)
- O2. If you have found some question(s) difficult to interpret or answer, please let us know. We welcome comments or suggestions to improve future surveys (e.g., CBMS2005).

Four-Year Statistics Questionnaire

General Instructions

- As part of a random sample your department has been selected to participate in the CBMS2000 National Survey, the importance of which has been endorsed by all of our major professional societies. Please read the instructions in each section carefully and complete all of the pertinent items as indicated. Do not leave any unshaded box blank; enter a zero instead.
- Please report on undergraduate programs in statistics and computer science *under the direction of your department*. Do not include data for other departments or for branches or campuses of your institution that are budgetarily separate from your department.
- If your college or university does not recognize tenure please check the following box..... and follow the instructions in each section about where to report your permanent full-time faculty and your other full-time faculty.
- We have classified your department as belonging to a four-year college or university. If this is not correct please contact David Lutzer, Survey Director, at the telephone number or e-mail address below.
- If you have any questions while filling out this form, please contact David Lutzer, Survey Director, by phone at 757-221-4006 or by e-mail at lutzer@math.wm.edu.

Please return your completed questionnaire in the enclosed envelope to:

**CBMS Survey
UNC Survey Research Unit
730 Airport Road, Suite 103
CB #2400, UNC-CH
Chapel Hill, NC 27599-2400**

A. General Information

PLEASE PRINT CLEARLY

A1. Name of your institution: _____

A2. Name of your department: _____

A3. We have classified your department as being part of a four-year college or university. Do you agree?

Yes..... (1) → if "yes" go to A4 (below).

No..... (2) → if "no" please call David Lutzer, Survey Director, at 757-221-4006 before proceeding any further.

A4. Is your institution public or private (*check one*)?

Public (1)

Private (2)

Other (3)

A5. Which programs leading to the following degrees does your department offer? (Check all boxes that apply.)

	None	Baccalaureate	Masters	Doctoral
Mathematics	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)
Statistics	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	<input type="checkbox"/> (7)	<input type="checkbox"/> (8)
Biostatistics	<input type="checkbox"/> (9)	<input type="checkbox"/> (10)	<input type="checkbox"/> (11)	<input type="checkbox"/> (12)
Computer Science	<input type="checkbox"/> (13)	<input type="checkbox"/> (14)	<input type="checkbox"/> (15)	<input type="checkbox"/> (16)
Other (<i>please specify below</i>)	<input type="checkbox"/> (17)	<input type="checkbox"/> (18)	<input type="checkbox"/> (19)	<input type="checkbox"/> (20)

A6. Responses to this question will be used to project total enrollment for the current academic year, 2000–2001, by the pattern of enrollment in all of your department’s courses for the previous academic year, 1999–2000.

Fall 1999 total student enrollment in your department’s undergraduate courses: (1)

Entire academic year 1999-2000 enrollment in your department’s undergraduate courses: (2)

A. General Information cont.

A7. Which of the following best describes your academic calendar? (*Check only one answer.*)

- Semester (1)
- Trimester (2)
- Quarter (3)
- 4-1-4 (4)
- Other (*please specify*) (5)

A8. Contact person in your department:

A9. Contact person's e-mail address:

A10. Contact person's phone number including area code:

A11. Campus mailing address:

B. Statistics Courses (Fall 2000)

Instructions:

The following instructions apply throughout Sections B and C (pages 6-9). Please read them carefully before you begin filling out the tables.

- Throughout Questions B and C, count each lecture offering with separately scheduled recitation/problem sessions as one section. For certain courses, a row is provided in which to list, for the same course, all lecture sections with recitation/problem sessions separately from all sections without recitation/problem sessions. For example see B1, page 6.
- Report a section of a course as taught by a *Graduate Teaching Assistant (GTA)* only when that course is taught independently by the GTA; that is, the course is the GTA's "own" course.
- If your departmental course titles do not match some of our course titles, please use your best judgment to match them. If a given course is not taught in your department for the specified period or if it is never taught by your department, enter zero in the space provided. Please do not leave any unshaded item blank.
- If your college or university does not recognize tenure check the following box. ⁽¹⁾ and record sections taught by your permanent full-time faculty in Column (5) and sections taught by all other full-time faculty in Column (6).
- Full-time faculty in your department holding joint appointments with another department should be counted in Column (5) if they are tenured, tenure-eligible or permanent within your department; otherwise, report them in Column (6) or (7) according to their budget level within your department.

Statistics Questionnaire

B. Statistics Courses (Fall 2000) cont.

Name of Course (or equivalent)	Total Enrollment Fall 2000	Total Number of Sections	# from (3) taught by distance learning ^b	Result when subtracting Column (3) minus Column (4)	Of the number in Column (4a), how many sections are taught by: {note: column (5)+(6)+(7)+(8)=(4a)}						Of the number in Column (4a), how many sections:					
					Tenured or Tenure-eligible Faculty	Other Full-time Faculty	Part-time Faculty	Graduate Teaching Assist. ^c	Use graphing calculators	Include writing components such as reports or projects	Require computer assignments	Assign group projects	Meet at least once a week in a setting that requires student computer use			
(1)	(2)	(3)	(4)	(4a)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)			
STATISTICS																
ELEMENTARY LEVEL																
Report elementary statistics courses (no calculus prerequisite) in B1-1, B1-2 and B1-3 below.																
Elementary Statistics: (no calculus prerequisite)																
B1-1. Lecture with separately scheduled recit./problem sessions ^a																
B1-2. Other sections with enrollments of 35 or less																
B1-3. Other sections with enrollments above 35																
B2. Probability and Statistics (no calculus prerequisite)																
B3. Statistical Literacy/Statistics and Society																
B4. Statistics for pre-service elementary or middle grades teachers																
B5. Statistics for pre-service high school teachers																
B6. All other elementary level statistics courses																
Give the names of (up to) two examples of (B6) with the largest enrollments:																
B6-1.																
B6-2.																

^a Remember: An elementary statistics class along with its recitation/problem sessions is to be counted as one section.
^b At least half of the students in the section receive the majority of their instruction via Internet, TV, or other method where the instructor is NOT physically present.
^c Report only GTA's who teach a section independently.

B. Statistics Courses (Fall 2000) cont.

Name of Course (or equivalent) (1)	Total Enrollment Fall 2000 (2)	Total Number of Sections (3)	If not offered in Fall 2000, is it scheduled in Winter/Spring 2001? Y(es)/N(o) (4)
STATISTICS (CONT.)			
UPPER LEVEL			
B7. Mathematical Statistics (calculus prerequisite)			
B8. Probability (calculus prerequisite)			
B9. Stochastic Processes			
B10. Applied Statistical Analysis			
B11. Design and Analysis of Experiments			
B12. Regression (and Correlation)			
B13. Biostatistics			
B14. Nonparametric statistics			
B15. Categorical data analysis			
B16. Sample Survey design and analysis			
B17. Statistical software & computing			
B18. Data management			
B19. Senior Seminar/Independent Studies in Statistics			
B20. All other upper level statistics courses			
Give the names of (up to) two examples of (B20) with the largest enrollments:			
B20-1.			
B20-2.			

DO NOT LEAVE
ANY UNSHADED
BOX BLANK

C. Computer Science Courses (Fall 2000)

Does your department offer any Computer Science courses?

Yes..... (1) \longrightarrow if "yes" go to C1 (below).
 No..... (2) \longrightarrow if "no" go to D (page 10).

Name of Course (or equivalent)	Total Enrollment Fall 2000 (2)	Total Number of Sections (3)	# from (3) taught by distance learning ^b (4)	Result when subtracting Column (3) minus Column (4) (4a)	Tenured or Tenure- eligible Faculty (5)	Other Full-time Faculty (6)	Part- time Faculty (7)	Graduate Teaching Assist. ^c (8)
(1)	(2)	(3)	(4)	(4a)	(5)	(6)	(7)	(8)
COMPUTER SCIENCE								
LOWER LEVEL								
C1. Computers and Society								
C2. Introduction to Software Packages								
C3. Issues in Computer Science								
C4. Computer Programming I (C 101 '91) ^a								
C5. Computer Programming II (C 102 '91) ^a								
C6. Advanced Programming & Data Structures								
C7. Database Management Systems								
C8. Discrete Mathematics for CS								
C9. All other lower level CS courses								

DO NOT LEAVE
ANY UNSHADED
BOX BLANK

^a Refers to courses described in Computing Curriculum 1991, Report of the ACM/IEEE-CS Joint Curriculum Task Force, ACM 1991.
^b At least half of the students in the section receive the majority of their instruction via Internet, TV, or other method where the instructor is NOT physically present.
^c Report only GTA's who teach a section independently.

C. Computer Science Courses (Fall 2000) cont.

Name of Course (or equivalent)	Total Enrollment Fall 2000	Total Number of Sections	# from (3) taught by distance learning ^a	Result when subtracting Column (3) minus Column (4)	Of the number in Column (4a), how many sections are taught by:			
					Tenured or Tenure- eligible Faculty	Other Full-time Faculty	Part- time Faculty	Graduate Teaching Assist. ^b
(1)	(2)	(3)	(4)	(4a)	(5)	(6)	(7)	(8)
COMPUTER SCIENCE								
MIDDLE LEVEL								
C10. Intro. to Computer Systems								
C11. Assembly Language Programming								
C12. Intro. to Computer Organization								
C13. Intro. to File Processing								
C14. All other middle level CS courses								
UPPER LEVEL								
C15. All upper level CS courses								

^a At least half of the students in the section receive the majority of their instruction via Internet, TV, or other method where the instructor is NOT physically present.

^b Report only GTA's who teach a section independently.

D. Statistics Enrollments Outside Statistics Department (Fall 2000)

Officers of the American Statistical Association have asked that a question about statistics enrollments outside of statistics departments be included in this survey. It is likely that answering the following question will require data beyond what is normally available to statistics department chairs, and we hope that you will invest the extra time needed for an accurate response.

Instructions:

- List the enrollments in undergraduate statistics courses taught outside of the statistics department or program.
- Include only courses that are substantially statistics in content, regardless of title (please be as objective as possible).
- If you know that such courses do exist but cannot find a reasonable enrollment number to report, simply place a check mark in the appropriate box.

DEPARTMENT OR DIVISION OFFERING COURSES IN FALL 2000							
COURSES	SCIENCE (1)	SOCIAL SCIENCE (2)	ENGINEERING (3)	BUSINESS (4)	EDUCATION (5)	OTHER (6)	Row Totals (7)
D1. Introductory Statistics							
D2. Statistical Methods							
D3. COLUMN TOTALS							

DO NOT LEAVE
ANY UNSHADED BOX BLANK

E. Impact of New Program in AP Statistics on Undergraduate Courses (Fall 2000)

To help us gauge the impact of the new program in AP Statistics on undergraduate courses in statistics, please answer the following questions:

E1. For Fall of 2000, how many students have been given credit for an introductory statistics course as a result of their score on the AP Statistics Examination?

Number of students given credit for AP Statistics Examination score.....

E2. Has your department introduced any new courses or course options as a result of the AP Statistics program?

Yes..... (1)

No..... (2)

E3. Does your department offer an undergraduate statistics major?

Yes..... (1) → if "yes" go to E4 (below).

No..... (2) → if "no" go to F (page 12).

E4. Has the number of your undergraduate majors in statistics increased since the 1997 inception of the AP Statistics program?

Yes..... (1)

No..... (2)

F. Faculty Profile (Fall 2000)

F1. This question investigates the educational background of your full-time and part-time faculty.

Instructions:

- In columns (1)-(4), include all departmental faculty according to tenure or tenure-eligible status, distinguishing between such faculty on leave and not on leave.
- For full-time faculty members in your department with joint appointments, report them as *Tenured* or *Tenure-eligible* if that describes their status within your department; otherwise, report them as *Other Full-time* or *Part-time* according to their budget level within your department for Fall 2000.
- Do NOT report any GTA's in **any** of the tables in Section F.
- If your institution does not recognize tenure, please check the following box (1) and then report full-time faculty who are "permanent" in the *Tenured* column (distinguishing between those not on leave and on leave), and all other full-time faculty in the *Other Full-Time* column (without distinguishing between those not on leave and on leave), and report zero in columns 3 and 4.

HIGHEST DEGREE AND GENDER	TYPE OF APPOINTMENT							Row Totals
	TENURED		TENURE-ELIGIBLE		OTHER FULL-TIME	PART-TIME (NOT GTAS)	Row Totals	
	NOT ON LEAVE (1)	ON LEAVE (2)	NOT ON LEAVE (3)	ON LEAVE (4)				
WITH DOCTORATE	MALE (1)							
	FEMALE (2)							
WITHOUT DOCTORATE	MALE (3)							
	FEMALE (4)							
COLUMN TOTALS (5)								
								GRAND TOTAL

DO NOT LEAVE ANY UNSHADED BOX BLANK

F. Faculty Profile (Fall 2000) cont.

F2. This question investigates the ethnic and gender status of your full-time and part-time faculty.

Instructions: Same as F1 (Note: Grand Total for F2 should equal Grand Total for F1.)

ETHNIC/RACIAL STATUS AND GENDER		TYPE OF APPOINTMENT							Row Totals
		TENURED		TENURE-ELIGIBLE		OTHER FULL-TIME	PART-TIME (NOT GTAS)		
		NOT ON LEAVE (1)	ON LEAVE (2)	NOT ON LEAVE (3)	ON LEAVE (4)			(5)	
MALE (1)									
FEMALE (2)									
MALE (3)									
FEMALE (4)									
MALE (5)									
FEMALE (6)									
MALE (7)									
FEMALE (8)									
MALE (9)									
FEMALE (10)									
MALE (11)									
FEMALE (12)									
COLUMN TOTALS (13)									

GRAND TOTAL

F. Faculty Profile (Fall 2000) cont.

F3. For all faculty reported in the tenured and tenure-eligible columns of F1, report the number of faculty who belong to each of the age categories below. In case your institution does not recognize tenure, report your Permanent Full-Time faculty in the Tenured Faculty rows and exclude all other faculty, and report zeros in rows (3) and (4).

Note:

- If your institution recognizes tenure then the Grand Total in F3 should equal the sum of columns (1)-(4) in F1.
- If your institution does not recognize tenure then the Grand Total in F3 should equal the sum of columns (1) and (2) in F1.

FACULTY AGE		Under 30 (1)	30-34 (2)	35-39 (3)	40-44 (4)	45-49 (5)	50-54 (6)	55-59 (7)	60-64 (8)	65-69 (9)	70 & over (10)	Row Totals (11)
TENURED FACULTY	Male (1)											
	Female (2)											
TENURE-ELIGIBLE FACULTY	Male (3)											
	Female (4)											
COLUMN TOTALS (5)												
GRAND Total												

F4. For the period from 01 September 1999 through 31 August 2000, please report the number of your tenured or tenure-eligible faculty who: [if your institution does not recognize tenure, report on those who are "permanent" full-time]

Died while in full-time service..... (1)

Left full-time service due to retirement..... (2)

F. Faculty Profile (Fall 2000) cont.

F5. Does your organization offer a "transition to retirement program" in which faculty agree to retire at a fixed future date and gradually reduce their teaching assignments until that time?

Yes..... (1)

No..... (2)

G. Departmental Information (Fall 2000)

G1. For Fall 2000, what is the expected (or typical) teaching load for the tenured or tenure-eligible faculty (those reported in F3 on the previous page)? [If your institution does not recognize tenure, report on those who are "permanent full-time".]

Expected classroom contact hours per week.....

G2. Does your department offer an undergraduate major?

Yes..... (1) \longrightarrow if "yes" go to G3 (below).

No..... (2) \longrightarrow if "no" go to H1 (page 17).

G3. Please report the number of your departmental majors who where awarded a baccalaureate degree by your institution, between 01 July 1999 and 30 June 2000 (include double majors).

Number of baccalaureate degrees awarded to majors in your department.....

G. Departmental Information (Fall 2000) cont.

G4. Of the number of degrees awarded above (G3), please report the number who majored in each of the following categories. [Be sure to report each graduating student only once. Use the "Other" category for any major that does not fit the existing categories.]

- Note: Grand Total should equal the figure given in G3.

AREA OF MAJOR	Male (1)	Female (2)	Row Totals (3)
1. STATISTICS			
2. BIostatISTICS			
3. ACTUARIAL SCIENCE			
4. JOINT COMPUTER SCIENCE AND STATISTICS			
5. JOINT MATHEMATICS AND STATISTICS			
6. STATISTICS EDUCATION			
7. OTHER TRACKS IN YOUR DEPARTMENT			
8. COLUMN TOTALS			GRAND TOTAL

I. Academic Support and Enrichment (Fall 2000)

I1. Does your department or university offer a statistics placement test for entering freshmen?

Yes..... (1) → if "yes" go to I2 (below).

No..... (2) → if "no" go to I7 (page 19).

I2. Is the placement examination required for entering freshmen?

Yes..... (1)

No..... (2)

I3. What is the source of the placement test(s)? (Check all that apply.)

Test written by department..... (1)

Test provided by Educational Testing Service (ETS)..... (2)

Test provided by American College Testing Program (ACT)..... (3)

Test provided by Mathematical Association of America (MAA)..... (4)

Other test provided by external source..... (5)
 (please specify) _____

I4. Is it required that entering freshmen discuss the results of the placement test with an advisor before registering for their first statistics course?

Yes..... (1)

No..... (2)

I5. Does the placement examination lead to mandatory placement in the students' first statistics course?

Yes..... (1)

No..... (2)

I. Academic Support and Enrichment (Fall 2000) cont.

I6. Does your department periodically assess the effectiveness of the statistics placement test?

Yes..... (1)

No..... (2)

I7. Does your college operate a statistics tutoring center?

Yes..... (1) → if "yes" go to I8 (below).

No..... (2) → if "no" go to I9 (page 20).

I8. Please check all services available to students through your statistics tutoring center. (Check all that apply.)

Computer-aided instruction..... (1)

Computer software such as computer algebra packages or statistical packages..... (2)

Media such as video tapes..... (3)

Tutoring by students..... (4)

Tutoring by paraprofessional staff..... (5)

Tutoring by part-time statistics faculty..... (6)

Tutoring by full-time statistics faculty..... (7)

Internet resources..... (8)

Other lab or center services (please specify) _____ (9)

I. Academic Support and Enrichment (Fall 2000) cont.

I9. Please check the opportunities available to your undergraduate statistics students.
(Check all that apply.)

- Honors sections of statistics courses..... (1)
- Statistics club..... (2)
- Special statistics programs to encourage women..... (3)
- Special statistics programs to encourage minorities..... (4)
- Opportunities to compete in statistics contests..... (5)
- Special statistics lectures/colloquium, not part of a statistics club..... (6)
- Statistics outreach opportunities to local K-12 schools..... (7)
- Opportunities to participate in undergraduate research in statistics..... (8)
- Independent studies opportunities in statistics..... (9)
- Assigned faculty advisors in statistics..... (10)

J. Pre-service Education of Elementary and Middle School Teachers (Fall 2000)

J1. Does your institution offer a program or major leading to certification as a teacher in some or all grades K-8?

- Yes..... (1) → if "yes" go to J2 (below).
- No..... (2) → if "no" go to K1 (page 22).

J2. Do members of your department serve on a committee that determines what statistics courses are part of that certification program?

- Yes..... (1)
- No..... (2)

J. Pre-service Education of Elementary and Middle School Teachers (Fall 2000) (cont.)

J3. Does your department offer a statistics course or course sequence, designed specifically for pre-service K-8 teachers?

Yes..... (1)

No..... (2)

J4. Are special sections of some of your regular statistics courses (those not in J3) designated for pre-service K-8 teachers?

Yes..... (1)

No..... (2)

J5. Because states have different certification requirements for teachers at different levels and because the K-8 grades are grouped together differently in different states, the next questions ask separately about students preparing to teach in early grades (1-3) and later grades (including 5 and 6).

Including general education requirements, how many courses are pre-service teachers required to take in your department:

For early grade certification (grades 1-3)..... (1)

For later grade certification (including grades 5 and 6)..... (2)

J6. In your judgement, which three of the following courses in your department are most likely to be taken by K-8 pre-service teachers? (Note: A total of 6 boxes should be checked, 3 in each column.)

	<u>For Early Grade Certification</u>	<u>For Later Grade Certification</u>
A multiple-term course designed for elementary education students.....	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
A single-term course designed for elementary education students.....	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)
Introductory statistics/elementary statistics (in line B1).....	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)
Probability and statistics (in line B2).....	<input type="checkbox"/> (7)	<input type="checkbox"/> (8)
Statistical literacy/statistics and society (in line B3).....	<input type="checkbox"/> (9)	<input type="checkbox"/> (10)

K. Comments and Suggestions

K1. Amount of time required to complete this questionnaire was _____ (hours).

K2. Suggestions for changes to the questionnaire (for CBMS2005):

Appendix VII

Tables of Standard Errors

STANDARD ERROR TABLE 1.1 Standard error figures for Chapter 1 Tables SE.1, SE.2, SE.3, SE.4, SF.6, SF.7, SF.8, SF.9, SF.10, SF.11, SF.12, and SF.13, showing table entries: Fall 2000.

	Four-Year	SE	Two-Year	SE	TABLE SE.2	Four-Year	SE	Two-Year	SE
TABLE SE.1									
Mathematics	1614	55	1273	38	Semester	1329	47	981	17
Statistics	245	14	74	5	Four-1-four	75	42	0	0
CS	124	20	39	11	Trimester	21	13	2	1
Total	1984	63	1386	42	Quarter	53	15	66	16
					Other	12	11	4	2
TABLE SE.4	Bachelors	SE	TABLE SF.6	Number	SE	TABLE SE.3	See E.2 & TYR.4		
See E.1	Degrees		See F.1, F.2 & F.3			TABLE SF.7	See TYR.20		
Mathematics	10759	992	T&TE, M & S	16342	637	TABLE SF.8	See F.2 & F.3		
Math Education	4991	1334	OFT, M & S	3687	251	TABLE SF.9	See F.4 & TYR.32		
Statistics	502	68	TYC Perm FT	6960	218	TABLE SF.10	See F.5		
Actuarial	425	90	TYC Temp FT	961	231	TABLE SF.11	See F.6		
OR	43	21	Total, Perm Fac.	23302	673	TABLE SF.12	See F.7		
Math & CS	876	250	Total, Temp Fac.	4648	341	TABLE SF.13	See F.1, F.2, F.3 & TYR.17		
Math & Stat	196	101							
Other	1507	469							
Total	19299	2053							
Total, women	9017	1257							

STANDARD ERROR TABLE 1.2 Standard error (SE) figures for Chapter 1 Table SE.5 (percentage availability of certain upper division courses): Fall 2000.

Table SE.5	All Math depts 2000-01		PhD Math		MA Math		BA Math		All Stat depts 2000-01		PhD Stat		MA Stat	
	SE		SE		SE		SE		SE		SE		SE	
Upper level Math														
Modern Algebra	71	5	87	4	88	6	63	7						
Real Analysis	56	5	90	3	77	8	45	7						
Geometry	56	5	75	5	88	4	46	7						
Topology	22	4	61	5	32	8	13	5						
Number theory	33	4	63	5	57	9	23	5						
Combinatorics	18	3	48	5	24	8	11	4						
Applied Math/Mod	24	3	51	6	51	8	13	4						
Intro to OR	13	3	14	4	26	8	10	3						
Foundations/Logic	16	4	23	4	31	6	12	5						
Math sec tchrs	42	5	39	5	64	8	37	7						
Math senior sem/Indep study	58	5	57	5	62	9	58	7						
Upper level Stat														
Math Statistics	52	5	53	5	72	9	47	7	90	2	93	2	75	10
Probability	40	5	57	6	63	9	31	6	75	4	81	4	50	12
Stochastic proc	6	1	29	5	9	4	1	0.6	46	5	54	6	13	8
Appl stat analysis	13	2	27	5	42	9	4	1	72	4	74	4	63	11
Exp design	10	2	21	5	20	5	5	3	74	4	76	4	63	11
Regression & Correl	9	2	22	5	24	8	3	2	82	4	86	4	63	11
Biostatistics	5	2	7	3	2	2	5	3	20	4	19	4	25	10
Nonparamet Stat	4	1	14	4	7	4	1	0.7	45	5	43	5	50	12
Categ data analysis	1	0.5	9	3	2	1.5	0	0	39	5	44	5	13	8
Sample survey design	3	1	10	3	11	4	0	0	52	5	50	5	63	11
Stat software & computing	5	1	21	5	13	7	1	0.6	48	5	45	6	63	11
Data management	1	0.4	4	2	2	1.6	0	0	13	3	16	4	0	0
Stat senior sem/Indep study	5	1	15	4	14	5	2	1	34	5	36	5	25	10

STANDARD ERROR TABLE 1.3 Standard error (SE) figures for Chapter 1 Tables SF.14, SF.15, and SF.16: Fall 2000.

Table SF.14	Asian	Black	Hispanic	White	Unknown	
Math PT men	2	2	2	53	1	--
SE	0.6	0.4	1.5	3	0.6	--
Math PT women	1	1	1	37	1	--
SE	0.4	0.4	0.6	2	0.3	--
Stat PT men	17	0	2	48	0	--
SE	3	0	1	4	0	--
Stat PT women	6	0	2	27	0	--
SE	1	0	1	4	0	--
Table SF.15	PhD Math	MA Math	BA Math	All Math	All Stat	All TYC
Died & Retired	174	165	123	462	16	163
SE	19	36	36	58	3	23
Table SF.16	<6 hrs	6 hrs	7 to 8 hrs	9 to 11 hrs	12 hrs	>12 hrs
Math PhD	14	56	17	6	6	2
SE	4	6	4	3	3	2
Math MA	2	0	6	44	46	2
SE	1.6	0	3	9	9	2
Math BA	0	1	3	23	63	10
SE	0	1	3	6	7	4
Stat PhD	34	63	2	0	0	0
SE	6	6	1	0	0	0
Stat MA	14	57	0	0	29	0
SE	9	12	0	0	12	0

STANDARD ERROR TABLE 2.1 Standard error (SE) figures for Chapter 2 Tables PSE.1, PSE.2, PSE.3, PSE.4, PSE.5, and PSE.6: Fall 2000.

	Table PSE.1		Table PSE.2					
	Certif program	SE	Committee	SE	Special seq	SE	Special sections	SE
Math PhD	72	5	63	6	79	5	11	4
Math MA	87	9	74	9	92	4	13	5
Math BA	85	9	68	7	73	6	4	2
All Math Depts	84	4	69	5	77	5	7	2
Stat PhD	58	5	0	0	4	2	0	0
Stat MA	63	11	0	0	0	0	0	0
All Stat Depts	58	5	0	0	0	0	0	0
Table PSE.3								
Two-year Colleges	Coordinator	SE	Special seq	SE	Special sections	SE	--	--
	22	3	49	7	15	7	--	--
Table PSE.4								
# Req'd Courses	Early grades	SE	Later grades	SE	Type of Dept	Avg #, early grades	Avg #, later grades	
0 Req	8	3	7	3	PhD Math	2.2	2.5	
1 Req	17	5	12	4	SE-PhD	0.2	0.3	
2 Req	45	6	42	5	MA Math	3.3	4.1	
3 Req	14	4	12	4	SE-MA	0.5	0.9	
4 Req	11	4	10	4	BA Math	2.3	2.8	
5 or more	6	3	18	4	SE-BA	0.3	0.3	
					All Math Depts	2.4	3.0	
					SE-All Math	0.2	0.3	
Table PSE.5 All Math Depts								
Table PSE.6 Stat Depts								
Most frequent	Early grades	SE	Later grades	SE	Early Grades	SE		
Multi-term	48	6	46	6	Multi-term	5	4	
Single term	32	5	27	5	Single term	26	6	
College algebra	42	5	34	5	Elem statistics	63	6	
Pre-calculus	14	4	21	5	Prob & Stat	16	4	
Math modeling	4	2	5	3	Stat Literacy	33	6	
Math/Lib Arts	39	6	33	5	Later Grades			
Finite Math	20	5	20	5	Multi-term	5	4	
Math history	5	2	9	3	Single term	21	6	
Calculus	17	5	29	6	Elem statistics	68	6	
Geometry	8	2	17	4	Prob & Stat	8	1	
Elem statistics	28	5	28	5	Stat Literacy	29	6	

STANDARD ERROR TABLE 2.2 Standard error (SE) figures for Chapter 2 Tables AR.7, AR.8, AR.9, and AR.10: Fall 2000.

Table AR.7	Placement Tests	SE	Required	SE	Table AR.8	Discuss	SE	Mandatory	SE	Assess tests	SE
TYC	98	1	98	1	TYC	79	7	67	7	85	3
PhD Math	81	5	56	6	PhD Math	54	6	43	6	91	4
MA Math	83	7	58	8	MA Math	60	7	57	10	98	2
BA Math	66	7	45	7	BA Math	62	8	46	9	83	7
All Math	70	5	49	5	All Math	60	5	47	6	87	5
PhD Stat	11	3	2	0.6	PhD Stat	53	15	34	17	0	0
MA Stat	0	0	0	0	MA Stat	0	0	0	0	0	0
All Stat	9	2	2	0.5	All Stat	53	15	34	17	0	0
Table AR.9	TYC	SE	Math PhD	SE	Math - MA	SE	Math BA	SE	All Math	SE	
Department	99	0.6	100	0	100	0	100	0	100	0	
ETS	30	7	6	3	5	3	2	1	3	1	
ACT	34	3	14	5	21	8	12	6	14	5	
MAA	3	2	21	5	39	10	18	7	23	5	
Other	26	3	13	4	18	5	5	2	9	2	
Table AR.10	Math	SE	Stat	SE	TYC	SE					
PhD	90	3	61	5	--	--					
MA	95	3	50	12	--	--					
BA	88	5	--	--	--	--					
All	89	3	59	5	98	1					

STANDARD ERROR TABLE 2.3 Standard error (SE) figures for Chapter 2 Tables AR.11 and AR.12: Fall 2000.

Table AR.11	All Math Depts	SE	All Stat Depts	SE	TYCs	SE	Table AR.12	TYCs	SE	All Math Depts	SE	All Stat Depts	SE
CAI	38	6	36	6	68	2	Honors	20	3	29	4	46	5
Software	62	6	63	6	69	2	Club	14	2	61	5	25	4
Media	24	4	17	5	74	7	Womens' Programs	4	1	9	2	2	1.5
Student tutors	99	0.4	93	3	96	1	Minority Programs	4	1	7	1	2	1
Paraprofess tutors	35	5	37	6	68	7	Contests	28	3	63	5	28	4
PT faculty tutors	18	4	11	4	48	7	Colloquia	9	2	54	5	41	5
FT faculty tutors	16	3	3	0.8	42	7	Outreach	20	3	47	5	7	3
Internet	33	5	23	5	53	3	Undergrad Res Oppor	4	1	59	5	58	5
							Indep study	25	3	60	4	67	4
							Advisors in Dept	33	7	82	4	71	5

STANDARD ERROR TABLE 2.4 Standard error (SE) figures for Chapter 2 Table DL.13: Fall 2000.

Table DL.13	% of sctns	SE		% of sctns	SE
Arithmetic	0.7	0.2	Elem statistics	5.7	1.2
Pre-algebra	1.3	0.4	Probability	2	1.3
Elem algebra (HS level)	1.4	0.3	Finite mathematics	2.6	2
Intermedi alg (HS level)	1.4	0.3	Math/liberal arts	5.1	1
Geometry (HS level)	4.9	2	Math elem school teachers	1.3	0.8
College algebra	6.6	1.7	Business math (NT)	4.9	2.1
Trigonometry	0.7	0.3	Business math (T)	0	0
Coll algebra & trig	2.9	1.7	Technical math	0	0
Intro math mod	0.9	0.8	Other math courses	4.7	1.9
Precalculus	1.5	0.6	Computers and society	0	0
Mainstream Calculus I	1.5	0.5	Introduction to software	6.4	4
Mainstream Calculus II	2.4	1.2	Issues in CS	0	0
Mainstream Calculus III	1	0.6	Computer prog I	0	0
Non-mnstrm Calculus I	3	1.5	Computer prog II	3.1	2.5
Non-mnstrm Calculus II	19.4	16	Adv prog & data str	0	0
Diff eqns	1.5	1.2	Database mgmt	6.3	3.7
Linear algebra	3.7	2.3	Discrete math for CS	0	0
Discrete math	0	0	Other CS	2.8	0.9

STANDARD ERROR TABLE 2.5 Standard error (SE) figures for Chapter 2 Tables DL.14 and DL.15: Fall 2000.

Table DL.14	All Math Depts % of Sections	SE		All Math Depts % of Sections	SE
Arithmetic	0	0	Non-mainstrm Calculus I	0.8	0.5
General math	0	0	Non-mainstrm Calculus II	0	0
Elem alg (HS level)	0.9	9.6	Differential equations	0.3	0.3
Intermed alg (HS level)	2	0.9	Discrete mathematics	0	0
Other remedial	1.4	1.2	Linear/Matrix algebra	0	0
Introductory level			Other Calc level courses	0	0
College alg	1.3	0.4	Statistics Courses		
Trigonometry	3.2	2.3	Elem statistics	1.6	0.6
College alg & trig	0.1	0	Prob & Stat	0	0
Elem functions	0.4	0.2	Other elem stat	0	0
Intro to math mod	0	0			
Math/lib arts	1.2	0.9	Computers & society	0	0
Finite math	2.4	1.5	Intro to software pkgs	4.5	3.2
Business math	0	0	Issues in CS	0	0
Math for elem teachers	1	0.6	Computer prog I	0.6	0.5
Other introductory	0.6	0.4	Computer prog II	1.7	1.4
Calculus Level			Adv prog & data str	6.6	4.7
Mainstream Calculus I	0.3	0.2	Database mgmt	17.2	12
Mainstream Calculus II	0.5	0.2	Discrete math for CS	0	0
Mainstream Calculus III, IV	1.1	0.5	Other lower level CS	4.7	2.7
Table DL.15					
Statistics Departments	All Stat depts	SE			
Elementary Level Courses					
Elementary statistics	0.3	0.2			
Probability & Statistics	0	0			
Statistics literacy	3.3	2.3			
Stat/elem teachers	0	0			
Other elem level stat	0	0			

STANDARD ERROR TABLE 2.6 Standard error (SE) figures for Chapter 2 Tables DEN.16, DEN.17, and DEN.18 (concerning dual enrollment): Fall 2000.

Table DEN.16	Spr 2000	Fall 2000	# Sections	Table DEN.17	Never	Sometimes	Always
College Algebra	522	924	6619	Textbook	10	12	79
SE	133	211	454	SE	4	5	6
Precalculus	510	362	1991	Syllabus	8	11	82
SE	169	117	191	SE	3	4	5
Intro Math Model	10	0	329	Final Exam	15	28	57
SE	9	0	159	SE	5	6	7
Calculus I ¹	347	440	3026 ¹	Instructor	19	20	61
SE	69	82	137 ¹	SE	6	6	7
Elementary Statistics	179	190	2794				
SE	45	48	193				
Table DEN.18	Percent	SE					
Degree Requirments	92	4					
Teaching Eval	67	7					

¹ The number of calculus I sections is the sum of mainstream and non-mainstream Calculus I courses in Table TYR.10, and the SE figure is estimated from the separate SE figures given in the Standard Error Table for TYR.10.

STANDARD ERROR TABLE 2.7 Standard error (SE) figures for Chapter 2 Tables ST.19 and ST.20: Fall 2000.

Table ST.19	PhD Stat or Biostat Dept	SE	MA Stat or Biostat Dept	SE	Other	SE				
Math PhD	50	6	9	2	41	--				
Math MA	30	6	12	9	58	--				
Math BA	16	3	11	3	73	--				
Stat PhD	83	2	8	1	9	--				
Stat MA	67	7	17	2	16	--				
Table ST.20	PhD Math Dept	SE	MA Math Dept	SE	BA Math Dept	SE	PhD Stat Dept	SE	MA Stat Dept	SE
Stat PhD	50	4	36	7	12	2	82	2	56	9
Stat MA only	6	1	6	2	7	2	5	1	15	2
Biostat PhD	2	1	2	1	0	0	1	0.4	6	3
Biostat MA only	0	0	0	0	1	1	1	0.3	2	1.3
Math PhD	22	4	28	4	31	4	6	1	10	5
Math MA only	6	2	12	3	18	3	0	0.4	2	1.3
Math Ed PhD	1	0.4	3	1	10	3	0	0.3	0	0
Math Ed MA	1	0.5	1	0.6	8	4	0	0	0	0
CS PhD	0	0.2	0	0	1	0.4	0	0	0	0
CS MA only	0	0	1	0.5	0	0.4	0	0	0	0
Soc Sci PhD	0	0	0	0	2	1.5	1	0.7	2	1.5
Soc Sci MA only	0	0	0	0	0	0	0	0	0	0
Education PhD	0	0	0	0	0	0	0	0.8	0	0
Ed MA only	0	0	0	0	1	0.5	0	0	0	0
Other PhD	6	3	7	5	2	1	1	0.3	2	1.3
Other MA only	2	1	1	1	2	1.3	0	0.1	2	1.7

STANDARD ERROR TABLE 3.1 Standard error (SE) for Chapter 3 Table E.1 (Bachelors degrees): Fall 2000.

Table E.1	Univ (PhD)	Univ (MA)	Coll (BA)	Total Math Depts	Univ (PhD)	Univ (MA)	Total Stat Depts	Total Math & Stat Depts
Math Men	2851	1340	3742	7933				7933
SE - Math Men	273	144	524	603				603
Math Women	1703	886	3142	5731				5731
SE - Math Women	159	119	591	618				618
Total Math Degrees	4554	2226	6884	13664				13664
SE - Total Math	413	221	995	1088				1088
Math Ed Men	274	562	1187	2023				2023
SE - Math Ed Men	68	144	478	504				504
Math Ed Women	414	928	1626	2968				2968
SE - Math Ed Women	102	228	820	855				855
Total Math Ed Degrees	688	1490	2813	4991				4991
SE - Total Math Ed	167	331	1286	1334				1334
Stat Men	36	43	24	103	161	62	223	326
SE - Stat Men	17	17	15	28	22	26	34	44
Stat Women	48	65	34	147	139	32	171	318
SE - Stat Women	15	38	34	46	17	9	19	50
Total Stat Degrees	84	108	58	250	300	94	394	644
SE - Total Stat	30	51	25	64	36	33	49	81
CS Men	146	1189	1172	2507				2507
SE - CS Men	75	416	324	530				530
CS Women	41	322	445	808				808
SE - CS Women	18	134	143	195				195
Total CS Degrees	187	1511	1617	3315				3315
SE - Total CS	92	525	453	696				696
Total Degrees Men	3307	3134	6125	12566	161	62	223	12789
SE - Total Deg Men	279	494	870	1019	22	26	34	1020
Total Degrees Women	2206	2201	5247	9654	139	32	171	9825
SE - Total Deg Women	163	313	1239	1276	17	9	19	1276
Total All Degrees	5513	5335	11372	22220	300	94	394	22614
SE - Tot All Degrees	415	729	2037	2165	36	34	50	2166

STANDARD ERROR TABLE 3.2 Standard errors (SE) for Chapter 2 Table E.2 (enrollment in 1000s): Fall 2000.

Table E.2	Mathematics Departments				Statistics Departments		
	Univ (PhD)	Univ (MA)	Coll (BA)	Total Math Depts	Univ (PhD)	Univ (MA)	Total Stat Depts
Faculty Number	6702	5002	7303	19007	875	146	1021
SE	289	288	610	688	34	9	36
Remedial Math	59	59	101	219			
SE	11	11	21	26			
Introductory Math	258	227	238	723			
SE	20	17	20	33			
Calculus level	302	131	137	570			
SE	16	15	12	25			
Advanced Math	43	24	35	102			
SE	2	2	6	7			
Total Mathematics	662	441	511	1614			
SE	32	26	39	55			
Elementary Stat	38	35	63	136	46	8	54
SE	6	6	9	12	2	2	3
Upper level Stat	12	12	11	35	17	3	20
SE	2	3	1	3	1	1	2
Total Statistics	50	47	74	171	63	11	74
SE	7	7	9	14	3	2	3
Lower CS	5	33	52	90	0	1	1
SE	1	11	12	16	0	0.4	0.4
Middle CS	1	7	9	17			
SE	0.3	2	3	3			
Upper CS	2	6	8	16			
SE	1	2	2	3			
Total CS courses	8	46	69	123	0	1	1
SE	3	15	14	20			
Total all courses	720	534	654	1908	63	12	75
SE	33	34	46	62	3	2	3

STANDARD ERROR TABLE 3.3 Standard error (SE) figures for Chapter 3 Table E.10 (Number of Sections): Fall 2000.

Table E.10	Number of sections: Fall 2000						
	Mathematics Departments				Statistics Departments		
	Univ (Phd)	Univ (MA)	Coll (BA)	Total Math Depts	Univ (PhD)	Univ (MA)	Total Stat Depts
Remedial Math	1493	1772	4388	7653			
SE	281	333	992	1081			
Introductory Math	5032	6506	8987	20525			
SE	420	496	712	924			
Calculus Level	6768	4551	6438	17757			
SE	362	484	505	770			
Advanced Math	2392	1936	3415	7743			
SE	138	142	426	458			
Total Math Courses	15685	14765	23228	53678			
SE	826	881	1576	1884			
Elementary Stat	827	1064	2372	4263	786	123	909
SE	148	163	315	378	57	22	61
Upper Level Stat	580	638	728	1946	476	122	598
SE	81	89	84	146	34	20	39
Total Stat Courses	1407	1702	3100	6209	1262	245	1507
SE	213	217	346	454	62	33	70
Lower Level CS	92	1553	2557	4202	4	12	16
SE	30	552	495	710	2	7	8
Middle Level CS	24	465	590	1079	0	2	2
SE	11	132	153	179	0	1	1
Upper Level CS	98	527	868	1493	0	8	8
SE	45	148	272	311	0	5	5
Total CS courses	214	2545	4015	6774	4	22	26
SE	81	749	72	168	2	13	13
Total all courses	17306	19012	30343	66661	1266	267	1533
SE	930	1315	2027	2367	63	37	73

STANDARD ERROR TABLE 3.4 Standard error (SE) figures for Chapter 3
 Table E.11 (Average section size): Fall 2000.

Table E.11	Average Section size Fall 2000					
	Mathematics Depts			Statistics Depts		All Depts
	Univ (PhD)	Univ (MA)	Coll (BA)	Univ (PhD)	Univ (MA)	
Remedial Math	39	33	23			29
SE	3	1	2			2
Introductory Math	51	35	26			35
SE	3	1	1			1
Calculus Level	45	29	21			32
SE	2	1	1			1
Advanced Mathematics	18	12	10			13
SE	1	1	1			1
Elementary Statistics	46	33	27	58	65	37
SE	4	2	1	4	10	1
Advanced Statistics	21	19	15	36	25	22
SE	3	2	1	3	3	1
Lower Level CS	50	21	20	13	58	22
SE	5	3	2	0	0	1
Middle Level CS	39	16	16		90	22
SE	9	2	2		0	1
Upper Level CS	21	12	10		30	11
SE	5	3	2		0	2

STANDARD ERROR TABLE 3.5 Standard error (SE) figures for Chapter 3 Table E.12 (Percentage of sections taught by various kinds of faculty): Fall 2000.

Table E.12	Percentage of Mathematics sections taught by				No. of Math scsns	Percentage of Statistics sections taught by				No. of Stat scsns	Percentage of CS sections taught by				No. of CS scsns			
	T/TE	OFT	PT	GTAs		Ukn	T/TE	OFT	PT		GTAs	Ukn	T/TE	OFT		PT	GTAs	Ukn
Math PhD	42	16	17	21	4	15685	63	9	11	14	3	1407	59	17	6	3	15	214
SE	1	2	2	1	0.6	826	3	3	2	3	0.4	213	8	7	2	1	8	81
Math MA	48	19	22	5	6	14765	72	9	11	1	7	1702	47	11	35	0	7	2545
SE	3	2	2	1	1	881	4	4	2	0.5	3	217	9	2	8	0	0	749
Math BA	60	13	21	0	6	23228	59	13	22	0	6	3100	56	18	15	0	11	4015
SE	2	2	2	0.1	1	1576	6	3	5	0	2	346	7	4	5	0	4	774
Total Math Depts	52	15	20	7	6	53678	63	11	17	4	5	6209	53	15	22	0	10	6774
SE	1	1	1	0.5	0.8	1884	3	2	3	0.9	1	454	6	3	5	0	4	1045
Stat PhD							53	8	14	20	5	1262						
SE							3	1	3	2	1	62						
Stat MA							71	9	5	4	12	245						
SE							7	1	1	2	6	33						
Total Stat Depts							56	8	12	18	6	1507						
SE							3	1	3	2	2	70						

STANDARD ERROR TABLE 4.1 Standard error (SE) for Chapter 4 Table F.1 (number of tenured, tenure-eligible (TE), other full-time (OFT) and part-time (PT) faculty in Mathematics and Statistics Departments by gender): Fall 2000.

Table F.1	Univ (PhD)				Univ (MA)				Coll (BA)				Total
	Ten'd	TE	OFT	PT	Ten'd	TE	OFT	PT	Ten'd	TE	OFT	PT	
Math Depts													
Doctoral	4693	803	685	408	2847	848	186	349	3792	1292	497	622	17022
SE	211	57	80	61	209	105	41	77	355	168	128	104	576
Doctoral Women	346	177	166	87	544	250	34	103	761	496	137	144	3245
SE	31	22	26	15	63	56	14	30	105	95	42	45	204
Non-doctoral	25	0	497	868	223	14	883	2088	755	179	788	2826	9146
SE	9	0	76	140	62	13	122	340	238	85	130	403	658
Non-doctoral Women	13	0	288	438	62	0	567	824	316	35	481	1257	4281
SE	7	0	50	75	25	0	93	123	162	26	94	207	351
Total Math	4718	803	1182	1276	3070	862	1069	2437	4547	1471	1285	3448	26168
SE	212	57	116	158	223	104	125	381	453	202	188	444	880
Total Math Women	359	177	454	525	606	250	601	927	1077	531	618	1401	7526
SE	32	22	60	79	69	56	93	131	198	96	98	216	387
Stat Depts													
Doctoral	612	138	105	60	87	21	9	12					1044
SE	26	9	15	8	5	3	2	3					35
Doctoral Women	49	47	34	15	12	5	0	3					165
SE	5	5	5	3	2	1	0	1					9
Non-doctoral	0	0	20	15	11	2	17	3					68
SE	0	0	4	4	5	1	4	2					6
Non-doctoral Women	0	0	14	10	5	2	11	0					42
SE	0	0	2	3	3	1	4	0					6
Total Stat	612	138	125	75	98	23	26	15					1112
SE	26	9	15	9	5	3	5	4					37
Total Stat Women	49	47	48	25	17	7	11	3					207
SE	5	5	6	4	4	1	4	1					11

STANDARD ERROR TABLE 4.2 Standard error (SE) figures for Chapter 4 Table F.2 (number of tenured, tenure-eligible (TE), other full-time (OFT), and part-time (PT) faculty in Mathematics Departments by gender and type of school): Fall 2000.

Table F.2	Univ (PhD)				Univ (MA)				Coll (BA)				Total				
	Ten'd	TE	OFT	PT	Ten'd	TE	OFT	PT	Ten'd	TE	OFT	PT	Ten'd	TE	OFT	PT	Total
Men	4359	626	728	751	2464	612	468	1510	3470	940	667	2047	10293	2178	1863	4308	18642
SE	199	47	69	102	192	71	74	273	311	172	138	312	396	191	170	413	661
Women	359	177	454	525	606	250	601	927	1077	531	618	1401	2042	958	1673	2853	7526
SE	32	22	60	79	69	56	93	130	198	96	98	216	208	113	148	258	387
Total	4718	803	1182	1276	3070	862	1069	2437	4547	1471	1285	3448	12335	3136	3536	7161	26168
SE	212	57	116	158	223	104	125	381	453	202	188	444	519	234	250	583	880

STANDARD ERROR TABLE 4.3 Standard error (SE) figures for Chapter 4 Table F.3 (Number of tenured, tenure-eligible (TE), other full-time (OFT), and part-time (PT) faculty in Statistics Departments by gender and type of school): Fall 2000.

Table F.3	Univ (PhD)				Univ (MA)				Total				Total
	Ten'd	TE	OFT	PT	Ten'd	TE	OFT	PT	Ten'd	TE	OFT	PT	
Men	563	91	77	50	81	16	15	12	644	107	92	62	905
SE	24	8	10	7	5	2	3	4	25	8	11	8	32
Women	49	47	48	25	17	7	11	3	66	54	59	28	207
SE	5	5	6	4	4	1	4	1	7	6	7	4	11
Total	612	138	125	75	98	23	26	15	710	161	151	90	1112
SE	26	9	15	9	5	3	5	4	27	10	15	10	37

STANDARD ERROR TABLE 4.4 Standard error (SE) figures for certain faculty age percentages from Chapter 4 Tables F.4 and F.5 for Mathematics and Statistics Departments, respectively: Fall 2000.

	<30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	>69	Avg. age
Table F.4: Math Depts											
Total Univ (PhD)	1	6	11	12	16	15	16	14	6	2	50
SE	0.2	0.6	0.8	0.7	0.8	0.9	1	0.6	0.5	0.3	0.3
Total Univ (MA)	2	7	13	16	13	13	18	13	3	2	49.1
SE	0.5	1.4	1.9	1.8	1.6	1.2	2.2	1.2	0.7	0.7	0.7
Total Coll (BA)	3	12	11	12	14	15	19	10	2	1	47.9
SE	0.9	2.4	1.8	1.9	1.9	1.9	2.2	1.7	0.9	0.6	0.6
Total All Math	2	9	12	13	14	15	18	12	4	2	49
SE	0.4	1	0.9	0.9	0.9	0.9	1.1	0.7	0.4	0.3	0.3
Table F.5: Stat Depts											
Total Univ (PhD)	4	11	9	14	16	13	15	11	4	3	48.2
SE	0.6	0.9	0.9	1.2	1.1	0.9	1	0.8	0.6	0.5	0.4
Total Univ (MA)	3	6	11	12	17	22	19	9	0	1	48.7
SE	1.1	1	2.1	4.3	3.6	2.8	4	1.6	0	0.8	0.7
Total All Stat	4	10	10	13	16	14	16	10	3	3	48.2
SE	0.5	0.8	0.8	1.2	1	0.9	1	0.7	0.5	0.5	0.3

STANDARD ERROR TABLE 4.5 Standard error (SE) figures for Chapter 4 Tables F.6 and F.7 (percentage of gender and racial/ethnic groups among full-time faculty in Mathematics and Statistics Departments): Fall 2000.

Tables F.6 & F.7		Percentage of full-time faculty				
		Asian	Black	Hispanic	White	Not known
Math PhD Depts	Full-time men	13	1	1	69	1
	SE	0.9	0.1	0.2	1.3	0.4
	Full-time women	1	0	0	13	0
	SE	0.2	0	0	0.9	0
Math MA Depts	Full-time men	8	1	4	58	1
	SE	1.2	0.3	2	3.4	0.4
	Full-time women	2	1	2	24	0
	SE	0.6	0.3	1.4	2.2	0
Math BA Depts	Full-time men	5	3	1	60	1
	SE	1.1	1	0.3	2.5	0.3
	Full-time women	2	0	0	27	0
	SE	0.6	0	0	1.9	0
All Math Depts	Full-time men	9	1.5	2	63	1
	SE	0.6	0.4	0.5	1.4	0.2
	Full-time women	2	0	1	21	0
	SE	0.3	0	0.4	1	0
Stat PhD Depts	Full-time men	17	0	0	63	4
	SE	1.3	0	0	1.5	1.2
	Full-time women	4	0	0	12	0
	SE	0.4	0	0	0.7	0
Stat MA Depts	Full-time men	7	1	3	66	0
	SE	2.5	0.6	1.4	5.1	0
	Full-time women	3	0	0	20	0
	SE	0.8	0	0	2.7	0
All Stat Depts	Full-time men	15	0	1	63	3
	SE	1.1	0	0.2	1.4	1
	Full-time women	3	0	0	13	0
	SE	0.4	0	0	0.7	0.2

STANDARD ERROR TABLE 4.6 Standard error (SE) table for Chapter 4 Table F.8 (percentage of gender and racial/ethnic groups among part-time faculty in Mathematics Departments and Statistics Departments by school type): Fall 2000.

Table F.8		Percentage of part-time faculty				
		Asian	Black	Hispanic	White	Not known
Math PhD Depts	Part-time men	3	2	1	51	2
	SE	0.6	0.5	0.4	2.9	1
	Part-time women	2	1	1	37	1
	SE	0.5	0.6	0.6	3.3	0.7
Math MA Depts	Part-time men	4	2	3	52	2
	SE	1.6	0.9	1.2	2.9	0.9
	Part-time women	1	0	3	32	1
	SE	0.5	0.2	1.6	2.7	0.5
Math BA Depts	Part-time men	1	1	1	54	2
	SE	0.2	0.5	0.7	4.8	0.9
	Part-time women	1	1	0	39	0
	SE	0.7	0.8	0	4.2	0.3
All Math Depts	All part-time men	2	2	2	53	2
	SE	0.6	0.4	0.5	2.5	0.6
	All part-time women	1	1	1	36	1
	SE	0.4	0.4	0.5	2.4	0.3
Stat PhD Depts	Part-time men	18	0	0	45	0
	SE	3.1	0	0	5	0
	Part-time women	7	0	2	28	0
	SE	1.6	0	1.1	4.4	0
Stat MA Depts	Part-time men	10	0	10	60	0
	SE	4.6	0	4.6	6.2	0
	Part-time women	0	0	0	20	0
	SE	0	0	0	8.1	0
All Stat Depts	All part-time men	17	0	2	48	0
	SE	2.6	0	1	4.2	0
	All part-time women	6	0	2	27	0
	SE	1.3	0	0.9	4	0

STANDARD ERROR TABLE 6.1 Standard error (SE) figures for Chapter 6 Tables TYR.3, TYR.5, and TYR.8 in Chapter 6: Fall 2000.

Course number	Type of course	TYR.3 Enrollment (1000s)	SE	TYR.5 %	SE	TYR.8 Average section size	SE
1	Arithmetic & Basic mathematics	122	11.1	56	7.1	22.2	0.6
2	Pre-algebra	87	9.4	41	7.1	22.5	0.8
3	Elementary algebra (HS level)	292	15.9	78	6.9	24.3	0.5
4	Intermediate algebra (HS level)	255	12.7	90	2.4	26.1	0.7
5	Geometry (HS level)	7	2.4	14	2	21	0.9
6	College algebra (above Intrmed alg)	173	11.2	83	2.9	25.5	0.8
7	Trigonometry	30	2.4	66	7.1	23	1
8	College algebra & trig (combined)	16	3.4	32	6.9	26.7	1.6
9	Intro to mathematical modeling	7	3.7	12	6.6	20.2	2.2
10	Precalc/ Elem fnctns/ Analyt geom	48	4.4	65	7.1	23.5	0.9
11	Mainstream calculus I	53	3.6	94	1.2	22.5	0.8
12	Mainstream calculus II	20	1.9	88	6.6	20.4	0.7
13	Mainstream calculus III	11	0.9	67	7	15.3	0.7
14	Non-mainstream calculus I	16	1.5	40	3.3	21.6	1
15	Non-mainstream calculus II	1	0.4	6	1.7	20.3	3.8
16	Differential equations	5	1	59	7	16.1	1.2
17	Linear algebra	3	0.4	39	7	17.6	1.4
18	Discrete mathematics	3	0.7	19	2.3	20.4	1.9
19	Elem statistics (with or w/o Probability)	71	5.1	83	6.7	25.2	0.7
20	Probability (with or w/o Statistics)	3	1.1	4	1.3	22.1	0.9
21	Finite mathematics	19	2.6	32	3.3	22.8	0.9
22	Mathematics for liberal arts	43	4.3	50	3.3	24.3	0.7
23	Math for elementary school teachers	18	2.5	49	7.1	20.9	0.9
24	Business math (not transf)	8	1.3	14	2.4	19.7	1
25	Business math (transferable)	7	1.7	19	6.7	22.1	1.1
26	Technical math (non-calculus)	13	1.5	36	3.4	16.5	1
27	Technical math (calculus-based)	2	0.5	9	1.8	17.8	1.7
28	Other mathematics courses	14	2	--	--	18.8	0.9
29	Computers and society	2	1.2	--	--	20.6	0.3
30	Introduction to software packages	16	6.4	--	--	20.3	1.3
31	Issues in Computer Science	1	1	--	--	30.6	0.7
32	Computer programming I	6	1.5	--	--	20.6	0.9
33	Computer programming II	2	0.5	--	--	18.1	1.7
34	Adv programming & data structures	1	0.3	--	--	21.4	4.2
35	Database management systems	1	0.4	--	--	12.9	2.4
36	Discrete mathematics for CS	0	0	--	--	15.1	2.3
37	Other Computer Science courses	10	5.5	--	--	17.7	4.6
	Total	1386	42.2	--	--	--	--

Note: 0 in Column 1 means less than 500 enrollments.

STANDARD ERROR TABLE 6.2 Standard error (SE) figures for Chapter 6 Table TYR.9: Fall 2000.

Table TYR.9		Number of sections	SE Number of sections	Percentage of sections taught by part-time faculty	SE % by part-time
Course number ¹	Type of course				
1-5	Remedial	29,891	1,382	58	1.4
6-10	Precalculus	10,822	497	33	3.1
11-13	Mainstream calculus	3,942	248	15	1.7
14-15	Non-mainstream calculus	784	78	25	2.6
16-18	Advanced level	625	82	12	2.9
19-20	Statistics	2,937	198	34	2.7
21-25	Service courses	3,905	248	39	2.5
26-27	Technical mathematics	816	87	43	5.1
28	Other mathematics	695	--	41	--
29-37	Computer science	2,077	722	39	4.1
1-37	All courses	56,495	1,899	46	1.2

¹ For names of specific courses see Table TYR.3.

STANDARD ERROR TABLE 6.3 Standard errors (SE) for Chapter 6 Table TYR.10, showing percentage of sections using different instructional methods [SE figures in brackets]: Fall 2000.

Table TYR.10		Percentage of sections taught using							Number of sections
		graphing calculator	writing component	computer assignments	group projects	weekly computer lab	standard lecture method	distance learning	
Course number	Type of course								
1	Arithmetic	3 [1.2]	5 [1.4]	12 [2.8]	11 [2.2]	19 [3.7]	69 [4.2]	0.7 [0.2]	5,425 [510]
2	Pre-algebra	5 [3.1]	10 [2.6]	12 [3.9]	14 [2.7]	17 [4.5]	84 [3.1]	1.5 [0.4]	3,561 [398]
3	Elementary algebra	20 [3.5]	12 [2.4]	12 [2.2]	14 [2.0]	14 [2.4]	78 [2.6]	1.3 [0.2]	111 [645]
4	Intermed algebra (HS)	31 [3.5]	13 [2.1]	8 [1.5]	16 [2.2]	8 [1.5]	79 [2.6]	1.8 [0.2]	9,378 [448]
5	Geometry (HS)	32 [19.3]	4 [2.1]	3 [1.5]	6 [2.8]	2 [1.3]	86 [4.2]	4.9 [2.1]	354 [110]
6	College algebra	74 [3.8]	21 [4.2]	11 [2.1]	16 [2.4]	5 [1.8]	83 [2.9]	6.7 [1.8]	6,619 [454]
7	Trigonometry	67 [5.7]	12 [5.2]	4 [1.6]	10 [2.1]	3 [1.6]	89 [2.5]	0.8 [0.4]	1,291 [106]
8	College algebra & trig	86 [5.3]	15 [4.4]	11 [4.1]	15 [4.4]	1 [0.7]	75 [9.7]	2.8 [1.7]	592 [106]
9	Intro math modeling	87 [7.9]	73 [17.7]	24 [18.6]	86 [10.3]	26 [17.6]	79 [18.3]	0.9 [0.8]	329 [159]
10	Precalculus ¹	83 [4.1]	22 [3.8]	16 [3.4]	20 [3.5]	8 [2.7]	86 [3.3]	1.6 [0.7]	1,991 [191]
11	Mnstrm calculus I	78 [5.6]	31 [4.5]	35 [3.5]	27 [3.3]	17 [3.3]	79 [5.6]	1.6 [0.5]	2,298 [117]
12	Mnstrm calculus II	74 [5.8]	25 [2.9]	37 [4.5]	25 [3.8]	16 [3.1]	80 [6.0]	2.4 [1.2]	957 [82]
13	Mnstrm calculus III	69 [7.4]	21 [3.8]	35 [5.2]	23 [4.0]	15 [3.8]	74 [7.8]	1.1 [0.7]	686 [77]
14	Non-mstrm calculus I	72 [3.9]	20 [4.0]	15 [4.2]	20 [3.9]	6 [2.4]	77 [4.0]	3.1 [1.6]	728 [71]
15	Non-mstrm calculus II	73 [9.8]	39 [14.5]	24 [15.4]	8 [4.7]	19 [15.6]	68 [15.3]	19. [15.]	57 [17]
16	Differential equations	52 [12.6]	14 [5.0]	26 [7.3]	17 [5.9]	11 [3.7]	65 [15.3]	1.5 [1.3]	290 [70]
17	Linear algebra	69 [6.8]	29 [6.9]	40 [6.8]	24 [6.7]	19 [6.5]	83 [4.6]	3.7 [2.3]	177 [22]
18	Discrete mathematics	47 [9.8]	40 [10.7]	23 [7.4]	30 [11.8]	8 [4.4]	53 [10.3]	0 [0]	157 [31]
19	Elementary statistics	59 [4.4]	50 [4.6]	46 [4.5]	35 [4.2]	28 [4.2]	79 [3.1]	5.8 [1.2]	279 [193]
20	Probability	56 [17]	55 [14]	59 [16]	4 [3.4]	48 [18.3]	87 [6]	2 [1.4]	144 [52]
21	Finite mathematics	61 [6.6]	17 [4.2]	8 [2.4]	18 [4.1]	3 [1.4]	79 [5.8]	0.4 [0.3]	750 [98]
22	Math for liberal arts	20 [4.1]	41 [4.9]	15 [3.6]	32 [4.5]	5 [3]	79 [4]	5.5 [1.1]	1,668 [163]
23	Math for elem tchrs	28 [5.8]	66 [7.4]	21 [5.1]	58 [7.2]	2 [1.2]	65 [7.4]	1.4 [0.9]	810 [105]
24	Business math ²	8 [5.1]	8 [3.8]	17 [6.1]	10 [4.8]	12 [5.8]	75 [8.6]	4.9 [2.1]	379 [65]
25	Business math ³	44 [12]	6 [3.6]	3 [1.6]	4 [2.2]	1 [0.5]	86 [4.4]	0 [0]	298 [74]
26	Tech math (non-calc)	36 [6.3]	16 [5.1]	13 [4.6]	13 [4.5]	6 [3.1]	82 [5.1]	0 [0]	717 [81]
27	Tech math (calculus)	49 [13.3]	9 [4.7]	12 [5.1]	9 [4.7]	7 [3.8]	93 [4.6]	0 [0]	100 [25]
28	Data processing	31 [6.8]	30 [7.2]	20 [4.6]	23 [6.3]	12 [4.2]	76 [6.2]	3.8 [1.9]	695 [89]
29	Computers & society	0 [0]	90 [7.3]	93 [5.4]	17 [11.1]	87 [8.6]	82 [13.2]	0 [0]	105 [57]
30	Intro to software	0 [0]	62 [17.7]	99 [5.5]	43 [22.5]	99 [6]	19 [12.5]	6.5 [4]	771 [325]
31	Issues in CS	0 [0]	6 [7.1]	100 [0]	100 [0]	100 [0]	100 [0]	0 [0]	47 [42]
32	Cmptr programming I	0 [0]	27 [9.7]	97 [2.7]	17 [8]	87 [5.1]	60 [15.1]	0 [0]	285 [74]
33	Cmptr programming II	0 [0]	43 [15.3]	86 [8.8]	12 [6.2]	57 [12]	77 [10.5]	3.3 [2.7]	87 [24]
34	Adv prgm & data str	0 [0]	47 [15.6]	100 [0]	5 [4.5]	59 [14.7]	76 [10.8]	0 [0]	52 [15]
35	Database mgmt	0 [0]	0 [0]	56 [26.1]	11 [8.5]	53 [25.8]	15 [1.2]	6.3 [3.7]	69 [35]
36	Discrete math for CS	66 [17.2]	33 [21.3]	21 [15.6]	33 [21.3]	21 [15.6]	100 [0]	0 [0]	13 [5]
37	Other CS courses	0 [0]	2 [1.5]	98 [1.9]	1 [1]	92 [7.2]	71 [4.3]	3.1 [1.1]	648 [461]
All courses		37 [2.1]	19 [2]	18 [1.6]	18 [1.7]	15 [1.6]	78 [1.8]	2.5 [0.3]	56,495 [1899]

¹ Precalculus, Elementary functions, and Analytic geometry.² Not transferable for credit toward a bachelors degree.³ Transferable for credit toward a bachelors degree.

STANDARD ERROR TABLE 6.4 Standard error (SE) figures for Chapter 6 Tables TRY.6, TYR.7, TYR.14, TYR.15, and TYR.16: Fall 2000.

Table TYR.6	Pct	SE	TYR.14	Percent	TYR.15	Enroll	SE
MS Calc I	94	2	Students	96	Arithmetic	43	8
Diff Eqn	59	7	SE	1	HS Alg	27	7
Linear Alg	39	7	FT Fac	42	HS Inter Alg	10	4
Discrete Math	19	2	SE	7	Coll Alg	1	1
Elem Stat	83	7	Paraprof	68	Trig/Precalc	0	0
Finite Math	32	3	SE	7	Calc/DE	0	0
Lib Arts Math	50	3	PT Fac	48	Bus Math	18	3
Math/ Elem Sch Tchrs	49	7	SE	7	Stat & Prob	7	1
Tech Math (non-Calc)	36	3			Tech Math	5	1
Tech Math (Calc)	9	2			Other	7	3
					Total	118	17
TYR.7	Avg Sect	SE	TYR.16	Enroll	SE		
Remedial	24.5	0.4	Nat Sci	0	0		
Precalc	24.8	0.6	Occ Prog	7	2		
Calculus	20.8	0.5	Business	24	3		
Statistics	25.2	0.6	Soc Sci	1	0.2		
CS	18.8	2	Learning Ctr	14	5		
All	23.7	0.4	CS	3	3		
Remed>35	10.4	1.3	Other	67	16		
Precalc>35	13.6	2.5					
Calculus>35	9	1.3					
Stat>35	13.2	1.7					
CS>35	4	2.6					
All>35	10.3	1.2					

STANDARD ERROR TABLE 7.1 Standard error (SE) for various TYR tables from Chapter 7 showing table entry and SE: Fall 2000.

	Full-Time Faculty	SE (FT)	Part-Time Faculty	SE(PT)
TYR.17				
Number of Faculty	6960	218	14887	601
TYR.20 & TYR.22				
Doctorate - Percentage	16	1.3	6	0.5
MA - Percentage	81	1.1	70	2.6
BA - Percentage	3	1.1	24	2.7
TYR.24 & TYR.25				
Men - Percentage	51	1.4	57	1.6
Women - Percentage	49	1.4	43	1.6
TYR.26, TYR.29, & TYR.30				
Minorities - Percentage of All Faculty	13	1.2	13	1.3
Minorities - Percentage of Faculty Age <40	20	2.3	--	--
TYR.27, TYR.28, & TYR.31				
Asian - Percentage	4	0.4	4	0.5
Black - Percentage	5	0.6	6	0.9
Amer. Indian - Percentage	1	0.6	0	0
Hispanic - Percentage	3	0.6	3	0.7
White - Percentage	85	1.4	82	2.1
Unknown - Percentage	2	0.5	5	1.3
TYR.36				
Degrees of New Hires				
Doctorate - Percentage	13	4.5	--	--
MA - Percentage	66	12.3	--	--
BA - Percentage	19	14.3	--	--
Unknown - Percentage	2		--	--
TYR.37				
Ethnicity of New Hires				
Asian - Percentage	7	3	--	--
Black - Percentage	1	0.6	--	--
Hispanic - Percentage	5	2.8	--	--
White - Percentage	86	4.5	--	--
Other - Percentage	1		--	--

STANDARD ERROR TABLE 7.4 Standard error (SE) figures for Chapter 7 Tables TYR.39, TYR.40, TYR.43, TYR.44, and TYR.48: Fall 2000.

Table TYR.39	Number	Table TYR.40	Pct	Table TYR.43	For FT	For PT	Table TYR.48	Own Campus	Multi- campus
Died or Ret	163	Own Desk	12	Other Fac	64	60	Math Dept	33	10
SE	23	SE	2	SE	4	7	SE	3	6
FYC	17	Share with 1	5	Div Head	52	28	Math & CS	4	0
SE	10	SE	1	SE	7	7	SE	1	0
Other TYC	43	Share with >1	51	Students	90	87	Math & Sci	34	2
SE	12	SE	5	SE	6	7	SE	7	1
HS	0	No Desk	31	Written	48	40	Other	14	1
SE	0	SE	4	SE	7	7	SE	3	1
Nonacad	14			Self	46	24			
SE	5			SE	7	7			
Grad Sch	10	Table TYR.44	Pct						
SE	9	Employer	36						
Other	60	SE	4						
SE	18	Prof Org	31						
Ukn	94	SE	3						
SE	67	Papers	3						
Total	401	SE	0.5						
SE	81	Grad Ed	8						
		SE	1						

STANDARD ERROR TABLE 7.5 Standard error (SE) figures for Chapter 7 Tables TYR.45 and TYR.46: Fall 2000.

Tables TYR.45 & TYR.46							
Issue	Minor or Not	Somewhat	Major	Issue	Minor or Not	Somewhat	Major
Remediation	7	30	62	Class size	65	25	10
SE	2	3	3	SE	8	7	7
Motivation	17	37	47	Fac vitality	72	18	9
SE	3	7	7	SE	8	3	7
Success rate	31	47	22	CS staffing	72	9	18
SE	7	7	3	SE	12	2	8
Salaries	27	36	36	HS coordination	72	22	6
SE	4	7	7	SE	11	7	2
Too many PT	38	23	39	Transfer rate	88	11	2
SE	9	3	7	SE	11	2	0.6
Student cmprts	76	21	3	Curric flexibility	85	14	1
SE	8	7	1	SE	10	3	0.6
Faculty cmprts	90	7	2	Stat staffing	81	17	2
SE	4	2	1	SE	8	7	1
Travel funds	59	26	15	Dual enrollment	77	14	8
SE	10	7	3	SE	11	7	2
Dept sppt	78	17	5	Outsourcing	98	1	1
SE	10	3	2	SE	10	0.7	0.4
Trans. courses	63	30	8	Distance Ed	82	8	10
SE	10	7	2	SE	8	2	7
Classrooms	51	32	17				
SE	8	7	3				