Appendix V
Two-Year College Survey

Conference Board of the Mathematical Sciences

SURVEY OF MATHEMATICS PROGRAMS
in
TWO-YEAR COLLEGES
1995

GENERAL INSTRUCTIONS

This questionnaire should be completed by the person who is directly in charge of the mathematics program or department on your campus. Do not include data for branches or campuses of your institution that are geographically or budgetarily separate.

Report on all of the courses and instructors in your college that fall under the general heading of the mathematics program or department. Include all mathematics, statistics, and computer science courses taught within the mathematics program or department. Except in Question 3, do not include courses taught in other departments, learning centers, or remedial/developmental programs separate from the mathematics program or department. 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.

If you have any questions, please contact Ann Watkins, Associate Director for Two-Year Colleges, by phone at 818-885-2781 or by email at awatkins@csun.edu.

Please return your completed questionnaire in the enclosed postage-paid envelope by November 1, 1995, to:

CBMS Survey
Attn: Michael Neuschatz
American Institute of Physics
One Physics Ellipse
College Park, MD 20740-3834

1. A. Name of your two-year college: _____

    If your two-year college is part of a larger organization, identify this organization (or its main campus): _____

    B. Your academic calendar is: ☐ Semester ☐ Trimester ☐ Quarter ☐ Other (specify): _____

    C. How is the mathematics program administered at your two-year college?

    |_| mathematics department

    |_| mathematics and computer science department

    |_| mathematics and science department or division

    |_| no department or division structure

    |_| other (specify): _____

    D. Are remedial/developmental mathematics courses administered separately from the mathematics department/program? ☐ Yes ☐ No

    E. How many mathematics majors are there at your college who intend to transfer to a four-year college or university? _____

2. **Courses Offered By Your Mathematics Department/Program in Fall 1995**

If the titles of courses listed below do not coincide exactly with those at your college, use your best judgement about where to list your courses. Use the additional spaces at the end of the table to write in the names of courses that do not fit reasonably under a listed title.

Name of Course (or equivalent)	Total number of students enrolled Fall 1995	Total number of sections Fall 1995	List the number of sections										If not offered in Fall 1995, was this course offered in 1994-1995 or is it scheduled for Spring 1996?
			with enroll-ment above 60	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 classroom equipped with computers for students	that are taught mostly by the standard lecture method	that are taught mostly by computer-aided instruc-tion	that are taught by television[b]	
1. Arithmetic/Basic Math													
2. Pre-Algebra													
3. Elementary Algebra (high school level)													
4. Intermediate Algebra (high school level)													
5. Geometry (high school level)													
6. College Algebra (level is beyond Intermediate Algebra)													
7. Trigonometry													
8. College Algebra and Trigonometry, combined													
9. Precalculus/Elementary Functions													
10. Analytic Geometry													
11. Calculus I (typically for math, physics, engineering majors)													
12. Calculus II													
13. Calculus III													

[a] Do not include full-time faculty teaching overload

[b] or another "distance" method where the instructor is not present

2. Courses Offered by Your Mathematics Department/Program in Fall 1995 (continued)

Name of Course (or equivalent)	Total number of students enrolled Fall 1995	Total number of sections Fall 1995	List the number of sections										If not offered in Fall 1995, was this course offered in 1994-1995 or is it scheduled for Spring 1996?
			with enroll-ment above 60	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 classroom equipped with computers for students	that are taught mostly by the standard lecture method	that are taught mostly by computer-aided instruc-tion	that are taught by television[b]	
14. Non-Mainstream Calculus I [c]													
15. Non-Mainstream Calculus II													
16. Differential Equations													
17. Linear Algebra													
18. Discrete Mathematics													
19. Finite Mathematics													
20. Mathematics for Liberal Arts/ Math Appreciation													
21. Mathematics for Elementary School Teachers													
22. Business Math (not a transfer course to four-year colleges)													
23. Business Math (transfer course)													
24. Non-Calculus-Based Technical Math (not a transfer course)													
25. Calculus-Based Technical Math (transfer course)													

[a] Do not include full-time faculty teaching overload.

[b] Or another "distance" method where the instructor is not present.

[c] Typically for business, biology, social science majors.

2. Courses Offered by Your Mathematics **Department/Program** in Fall **1995** (continued)

Name of Course (or equivalent)	Total number of students enrolled Fall 1995	Total number of sections Fall 1995	List the number of sections										If not offered in Fall 1995, was this course offered in 1994-1995 or is it scheduled for Spring 1996?
			with enroll-ment above 60	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 classroom equipped with computers for students	that are taught mostly by the standard lecture method	that are taught mostly by computer-aided instruc-tion	that are taught by television[b]	
26. Elementary Statistics (with or without probability)													
27. Probability (with or without statistics)													
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28. Data Processing													
29. Computers and Society													
30. Intro to Software Packages													
31. Issues in Computer Science													
32. Computer Programming I													
33. Computer Programming II													
34. Advanced Programming and Data Structures													
35. Database Management Systems													
36. Other courses:													

[a] Do not include full-time faculty teaching overload.

[b] Or another "distance" method where the instructor is not present.

3. Enrollments Outside Your Mathematics Department/Program in Fall 1995

List all mathematics/statistics/computer science enrollments at your college that are not taught in the mathematics **department/program** and so not listed in #2. If no courses are offered, enter "0". Please consult appropriate sources outside the math program such as schedules or heads of these programs to get good estimates of enrollments.

Course	Enrollment in courses given by department or division						
	Natural Sciences	Occupational Programs	Business	Social Sciences	Computer Science	Developmental Studies/ Learning Center	Other
1. Arithmetic/Pre-Algebra							
2. Elementary Algebra (high school level)							
3. Intermediate Algebra (high school level)							
4. College Algebra (level is beyond intermediate algebra)							
5. Trigonometry or Precalculus							
6. Calculus or Differential Equations							
7. Business Mathematics							
8. Statistics/Probability							
9. Computer Science and Programming							
10. Data Processing							
11. Technical Mathematics							
12. Other:							

4. Mathematics Faculty in the Mathematics Department or Program

A. Number of full-time permanent faculty members (faculty tenured or tenure-track or on the permanent staffing table), including those on leave: _____

    1. What is the expected weekly teaching load in classroom contact hours for members of your full-time permanent faculty? _____

    2. How many of these full-time permanent faculty members teach extra hours for extra pay at your college?_____at other schools? _____

        Number of these who teach at your college 1-3 hours extra weekly   _____
                                                            4-6 hours extra weekly   _____
                                                            7 or more hours extra weekly _____

B. Number of full-time temporary faculty members (such as sabbatical replacements): _____

4. Mathematics Faculty in the Mathematics Department or Program(continued)

C. Number of part-time faculty members: _____

   Number of part-time faculty members who teach six or more hours a week: _____

D. Of your part-time faculty, how many are:

Employed Full-time in					Graduate Students	Not Graduate Students and Not Employed Full-time Anywhere	Total Number of Part-time Faculty
High School	Another Two-year College	Another Department of your College	Four-year College	Industry or Other			

E. Are office hours required of part-time faculty?

   [__] Yes, with extra pay   [__] Yes, without extra pay   [__] No

F. Are part-time faculty typically paid on the same pay scale as full-time faculty members who teach extra hours for extra pay?

   [__] Yes   [__] No, part-timers paid more   [__] No, part-timers paid less

G. Of your full-time temporary and part-time faculty, how many are seeking full-time permanent employment in a two-year college? _____

5. Faculty Educational Level, by Subject Field

In each of the following tables, write the number of faculty members in each box.
Please be sure the totals match those given earlier.

A.   Full-time Permanent Faculty (including those on leave)   Total: _____

Highest Degree	Major Field of Graduate Degree				
	Mathematics	Statistics	Computer Science	Mathematics Education	Other
Doctorate					
Master's					
Bachelor's					
Less than Bachelor's					

B.   Full-time Temporary and Part-time Faculty   Total: _____

Highest Degree	Major Field of Graduate Degree				
	Mathematics	Statistics	Computer Science	Mathematics Education	Other
Doctorate					
Master's					
Bachelor's					
Less than Bachelor's					

7. **Faculty by Gender and Ethnicity/Race**

In each of the following tables, write the number of faculty members in each box.
Please be sure the totals match those given earlier.

A. **Full-time Permanent Faculty (including those on leave)**   **Total:** _____

Ethnic/Racial Status											
Asian, Pacific Islander		Black (non-Hispanic)		American Indian, Eskimo, Aleut		Mexican American, Puerto Rican or other Hispanic		White (non-Hispanic)		Status not known	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female

B. **Full-time Temporary and Part-time Faculty**   Total: _____

Ethnic/Racial Status											
Asian, Pacific Islander		Black (non-Hispanic)		American Indian, Eskimo, Aleut		Mexican American, Puerto Rican or other Hispanic		White (non-Hispanic)		Status not known	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female

8. **Faculty Age Profile**

Include **only full-time permanent faculty** (including those on leave)   Total: _____

	Age							
	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60 and over
Men								
Women								
Asian, Pacific Islander								
Black (non-Hispanic)								
American Indian, Eskimo, Aleut								
Mexican American, Puerto Rican or other Hispanic								
White (non-Hispanic)								
Status not known								

9. Faculty Employment and Mobility

A.   How many of your full-time permanent faculty members were newly appointed on a full-time permanent basis this year (1995-1996)? _____

B.   What was the main activity of these newly appointed full-time permanent faculty members during the **previous** year, 1994-1995? (Select one.)

    attending graduate school _____

    teaching in a four-year college or university _____

    teaching in another two-year college _____

    teaching in a secondary school _____

    part-time or full-time temporary employment by your college_____

    nonacademic employment _____

    unemployed _____

    status unknown _____

C.   How many of your new full-time permanent appointments had previously taught in your department either part-time or full-time? _____

D.   Please give the following for each of your new full-time permanent appointments for 1995-1996. Add more lines if necessary.

	Age	Gender	Ethnicity/ Race	Highest Educational Level
New Hire #1				
New Hire #2				
New Hire #3				

E.   How many of your faculty who were full-time permanent in the previous year (1994-1995) are no longer part of your full-time permanent faculty? _____

List the number who:

    died or retired _____

    are teaching in a four-year college or university _____

    are teaching in another two-year college _____

    are teaching in a secondary school _____

    left for a nonacademic position _____

    returned to graduate school _____

    other (specify) _____

    unknown _____

10. Professional Activities of Permanent Full-Time Faculty

    A.   Estimate the number of full-time permanent members of your mathematics department or program who **in the past year:**

        attended at least one professional meeting _____

        took an upper division or graduate mathematics course _____

        attended a minicourse or short course _____

        gave a talk at a professional meeting _____

        regularly read articles in professional journals _____

        had an expository article published _____

        had a research article published _____

        had a textbook published _____

        received a new grant from outside your college _____

        received a new grant from your college _____

    B.   Is some form of continuing education required of your full-time permanent faculty members? _____

        if so, what? _____

11. Services Available to Mathematics Faculty

    A.   Of your permanent full-time faculty members, list the number who have

        a private, fully enclosed office _____

        a two-person, fully enclosed office _____

        other office facilities, including cubicles _____

        no desk or ofiice _____

    B.   How many of your part-time faculty members have

        their own desk? _____

        a desk shared with one other person? _____

        a desk shared with more than one other person? _____

        no desk? _____

    C.   How many of your permanent full-time faculty members have

        a computer or terminal in their office? _____

        no computer or terminal in their office, but shared computers or terminals nearby? _____

        no convenient access or no access at all to computers or terminals? _____

    D.   How many of your permanent full-time faculty members have internet access available to them at the college? _____ How many use e-mail? _____

    E.   Is the teaching of permanent full-time mathematics faculty members periodically evaluated? |__| Yes |__| No

        If yes, check all that apply:

        |__| observation of classes by other faculty members or department chair

        |__| observation of classes by division head (if different from chair) or other administrator

        |__| evaluation forms completed by students

        |__| evaluation of written course material such as lesson plans, syllabus, or exams

        |__| self-evaluation such as teaching portfolios

        |__| other (specify): _____

12. Services Available to Students

A. Math Lab/Tutorial Center

Does your college operate a math lab or tutorial center? ☐ Yes ☐ No

    If so, check the services that are available to students in your math lab or tutorial center:

        ☐ computer-aided instruction

        ☐ computer software such as computer algebra systems or statistical packages

        ☐ media such as videotapes

        ☐ tutoring by students

        ☐ tutoring by paraprofessionals

        ☐ tutoring by part-time mathematics faculty

        ☐ tutoring by full-time mathematics faculty

        ☐ other (specify): _____

B. Placement

Must every student speak with an advisor before registering for his or her first mathematics course at your college?

    ☐ Yes   ☐ No   ☐ Depends on the course

May a student enroll in a math course he or she wants to take, even if he or she has not completely satisfied the recommendations/prerequisites for the course (such as having a certain placement test score or passing a prerequisite course)? ☐ Yes ☐ No ☐ Depends on the course

Does your college offer diagnostic or placement testing to students?   ☐ Yes   ☐ No

    If so, are these exams used for mandatory placement into mathematics courses?

        ☐ Yes ☐ No

C. Other Services to Mathematics Students

    Please check the services that are available to your mathematics students.

        ☐ honors sections

        ☐ mathematics club

        ☐ special mathematics programs to encourage women

        ☐ special mathematics programs to encourage minorities

        ☐ opportunities to compete in math contests

        ☐ special mathematics lectures/colloquia, not part of a math club

        ☐ advising by a member of the mathematics faculty

        ☐ other (specify): _____

9. Problems of the 90's

Below are some concerns cited by departments. Please rate each by placing a check in the box appropriate for your math program.

	Minor or no problem	Somewhat of a problem	Major Problem
Maintaining vitality of faculty			
Staffing computer science courses			
Staffing statistics courses			
Need to use part-time faculty for too many courses			
Faculty salaries too low			
Class sizes too large			
Low student motivation			
Too many students needing remediation			
Low success rate in developmental/remedial courses			
Low success rate in transfer-level courses			
Too few students who intend to transfer actually do			
Inadequate departmental support services (secretary, etc.)			
Inadequate travel funds for faculty			
Inadequate computer facilities for faculty use			
Inadequate computer facilities for student use			
Inadequate office space			
Inadequate classroom space			
Coordinating mathematics courses with high schools			
Lack of curricular flexibility because of transfer requirements			
Other (specify):			

Your name: _____

Title: _____   Academic Field: _____

Telephone: _____   e-mail: _____

How long have you been in charge of the mathematics department or program?_____

If you have found any of the above questions difficult to interpret or to answer, let us know. We welcome comments or suggestions for future surveys.

Please return the completed questionnaire by November 1, 1995 to:
CBMS Survey
American Institute of Physics
One Physics Ellipse
College Park, MD 20740-3834

Thank you for taking the time to complete this (long) survey.

Ann E Watkins
Stephen B. Rodi