

DATA BRIEF

National Database of Undergraduate Curriculum Available

by Nancy M. Conlon

A large number of students never ventured into mathematics and computer science and life and physical sciences.

Educators and policymakers are increasingly concerned that many students graduate from American colleges and universities after having completed an undergraduate curriculum of disconnected, largely unchallenging courses. The newly developed Curriculum Assessment Service National Database is designed to facilitate analyses of course-taking behavior of undergraduate students. Transcript information for over 42,000 students from a random sample of 100 U.S. colleges and universities will provide researchers an opportunity to analyze student course-taking, student demographics, and academic characteristics for 1991 baccalaureate recipients in liberal arts and sciences.

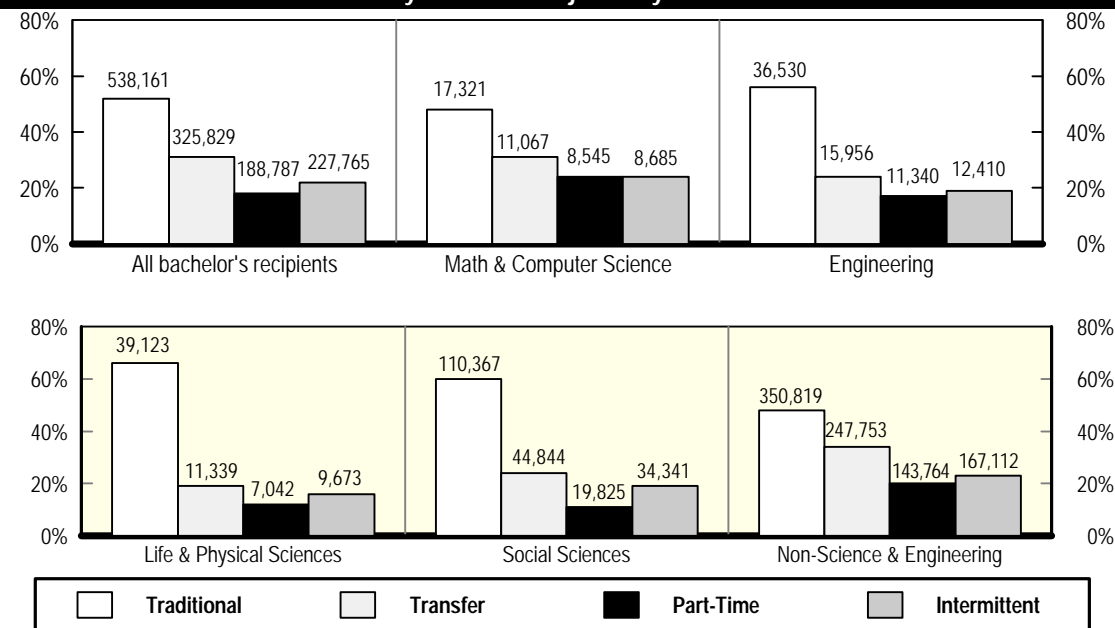
These data can answer such questions as, What are American students studying?; Are they taking or avoiding mathematics, science and engineering courses?; What kinds of

grades are they getting?; How do grades vary by course?; How many students are attending school part-time?; Are they transferring among institutions?; Are women and men studying different subjects in different ways?; and Do minority students construct their programs differently from majority students?

Attendance Patterns

Of the more than 1 million baccalaureate recipients in liberal arts and sciences in 1991, about 52 percent were "traditional" students. That is, they were granted degrees from the school where they matriculated as freshmen and had spent uninterrupted years of full-time study (chart 1). The remaining students did some or all of the following: transferred among institutions, attended part-time, or were intermittent (i.e., they spent at least one term away from their home campus). The attendance patterns of the students varied by area of study. Among the sciences, the percentage

Chart 1. Attendance patterns of baccalaureate recipients, by domain of major study: 1991



NOTE: Percents do not add to 100 because (1) dual majors are counted in more than one field of study and (2) graduates with more than one attendance pattern are counted in each relevant category of attendance pattern.

SOURCE: University of Pennsylvania, Institute for Research on Higher Education

Electronic Dissemination

SRS data are available through the World Wide Web (<http://www.nsf.gov/sbe/srs/start.htm>) and also through STIS (Science and Technology Information System), NSF's online publishing system, described in NSF 94-4, the "STIS flyer."

For a paper copy of the flyer, call 703-306-1130. For an electronic copy, send an e-mail to stisfly@nsf.gov (Internet). For NSF's Telephonic Device for the Deaf, dial 703-306-0090.

of traditional students was the highest in life and physical sciences, with 66 percent. This percentage was the lowest for mathematics and computer science, at 48 percent. The mathematics and computer science domain also had the largest share of part-time students: 24 percent.

Study Loads and Concentration

By regulation or inclination (or both), students tended to concentrate on the courses that are directly linked to their majors. Life and physical science majors had the highest percentage of students, 87 percent, taking 13 courses or more in the domain of their major. Social science classes were extremely popular with nonmajors; 94 percent of the 1991 baccalaureates who had not majored in social science took at least one course in that area. Mathematics and computer science and life and physical sciences were less popular among nonmajors. In fact, a large minority of students never ventured into these fields or into foreign language classes either.

Grades

These data permit the analyses of the differences in grade-point average (GPA) by sex, race, and ethnicity. Differences in GPA for these groups may be affected by a myriad of factors including variability by school, the

effect of course selection, precollege preparation, and part-time versus full-time status.

Researchers may want to ask such questions as, When students with certain majors received good grades, were those students getting good grades just in their major fields or everywhere?; Did nonmajors in mathematics, science, or foreign languages take courses in those subjects early enough in their careers to allow for a major?; What kinds of humanities courses did science majors take?; and When humanities majors took science, what sorts of courses did they choose?

Researchers and investigators will want to mine this new database for the wealth of information it contains about the class of '91 and to consider what that information implies about college students today.

Notes

A comprehensive report with tabulations of detailed statistics, including sex and racial categories for the variables studied, along with the complete methodology of the project is available from Susan Shaman, Institute for Research on Higher Education, University of Pennsylvania, 4200 Pine Street, Philadelphia, PA 19104 (tel. (215) 898-5897).

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The data presented here combine life with physical sciences and mathematics with computer sciences, although data for each field can be disaggregated. The degree data differ from those developed for the annual Integrated Post-Secondary Education Data Survey (IPEDS) Completions Report, produced by the Department of Education, for a variety of reasons. For more information contact Nancy Conlon at the following address:

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