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ABSTRACT

Educational institutions in major urban areas often require student residency data more precise than that provided by census, general survey, or enrollment statistics. By using zip code information furnished with student addresses, these data can be made easily accessible through computer retrieval. Miami-Dade Junior College (Florida) has found the following uses for such information: the development of population-student ratios for application to population trends; the identification of existing and future areas of student concentration in order to properly locate new institutional sites; anticipating student course and program participation to plan new programs or alter existing ones; and the projection of effect of new campus construction on enrollment at existing campuses. (J0)

ZIP Code Tabulations as a  
Tool for Long-Range Planning  
in Commuter Colleges \*

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Colleges and universities have recorded the residency of their students for many years. Originally, this was necessary for fee assessment because higher fees are charged for out-of-district and out-of-state students. Tabulations of this data have also been used to describe the characteristics of the student body. State and federal agencies have also collected enrollment data by residency to describe patterns of college attendance by geographical area as an aid to long-range planning.

For the purposes described above, recording and coding the state and county of residence for each student generally suffices. However, some institutions in major urban areas have a need for data on student residency, based on much smaller geographical units. For example, community junior colleges are designed to meet the broad post-secondary educational needs of students at a minimum cost by providing an opportunity for the student to live at home and commute to college. These institutions further seek to reduce the commuting costs to the students by placing campuses or centers as close as possible to where the students live. In the initial stages of planning, data is developed from census reports on general population and from enrollment reports

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from public schools. However, after a college has been in operation for some time, this data alone does not suffice because it can not adequately describe the students actually enrolled in the college. A means must also be found to relate student data to that derived from other sources.

Cities and towns included in student addresses may be used for plotting residency. However, in Dade County even though there are over 20 municipalities, large numbers of the population and, hence, students live in unincorporated areas. Also, the municipalities are of widely varying geographical as well as population size and density.

With the developing of the ZIP Code to facilitate mail handling and distribution, colleges as well as other organizations were motivated to include this code in mailing addresses because it is required for bulk-mailing rates. It was incidentally found that ZIP Code maps provided a means of identifying smaller and more regularly circumscribed geographical areas. With ZIP Code already included in student records and available in machineable form, it was possible to write a computer program to tabulate students by ZIP Code. Within each ZIP, further tabulations were made of the number of students by major field of study or programs, as well as other variables. Further tabulations could be made for any additional data available that is convertible to machineable form and which can be matched with student numbers.

In the present study, the ZIP Code tabulations were used to describe the students currently enrolled at Miami-Dade Junior College who reside in the area to be served by the downtown campus now in the planning stages. Tabulations of these students by program were developed to plan the course offerings required to meet the needs of these students and to prepare educational specifications for the new campus.

In addition, overlays were developed to convert census tract maps to ZIP Code areas. From these, tables of resident population by ZIP Code area were developed. The resident population for each ZIP Code area was then extended into the future by converting population projections available by census tract and traffic zone. Population-student ratios were developed for each ZIP Code area by dividing the current resident population by the number of students currently living in the area. The population-student ratios were then applied to the population projections to project the number of future students in each ZIP Code area. These tables will be used to estimate the proportion of the total enrollment which will attend existing and proposed campuses in the future. The data will also serve as a means of locating appropriate sites for future campuses by pointing up where new concentrations of students are likely to develop in the future. The impact of future campuses on the enrollment at existing campuses can also be estimated from these tables.

The variations in population-student ratios from one ZIP Code area to another pointed up the reasons why the data on resident population alone does not provide a very accurate means of projecting the distribution of the total enrollment among a number of campuses. Variations from one area to another in demographic factors such as age distribution and socio-economic level result in considerable variation in the number of students who will enroll for each 1000 people residing there.

In summary, this study produced three important contributions. First, it developed a method of plotting current student residency within a large metropolitan area. Second, it provided a basis for developing the program and course offerings for a new campus service area. And, third, it provided a means for plotting future student density.

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