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PROJECTING AND LOCATING SCHOOL-AGE POPULATIONS
IN RURAL AREAS

An Abstract of a Thesis
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by

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ABSTRACT

In the past, school officials in rural areas have been unable to use the more common methods of projecting and locating school-age populations. The birth information necessary for input into cohort-survival equations is often economically unavailable. Without estimates of future enrollments, school districts cannot adequately plan for future educational needs. A new method for projecting enrollments was developed for use primarily in rural areas; it has been termed the "IRRCS Method."

The cohort-survival approach of the IRRCS Method utilizes only enrollment figures for data input. The cohort-group is represented by all the elementary grades (Grades One through Eight); the survival period is four years. By using this technique, estimates of future enrollments can be made rapidly and easily. Past performance of the IRRCS Method can be easily evaluated by retroactive applications of the technique to local data. The value of the IRRCS Method is enhanced by geographically locating estimated school-age populations.

Projected enrollments can be areally distributed by a step-down, or apportionment, technique. From census data, a ratio of incorporated to unincorporated populations within a county is calculated. Next, each incorporated area's share of the total population is calculated in the same manner to estimate student populations in each city. Finally, the unincorporated student population is divided equally among all houses outside of cities. Housing locations are

ABSTRACT (cont'd)

available in recent county plat books. Estimated incorporated enrollments can be depicted on a bar graph; an isoplethic map can best display the estimated unincorporated enrollments per square mile.

The IRRCS Method of projecting school-age populations in rural areas was tested in the Illinois counties of Pike and Kendall. Pike County represents a remote rural county with an historically declining school-age population. Kendall County represents a rural county experiencing growth through suburbanization from the Chicago metropolitan area; a rapid increase in the school-age population has accompanied this growth. The IRRCS Method of projecting and locating school-age populations has shown reasonable accuracy in historical tests in both counties. The results of testing and graphing those projected school-age populations indicate that this new method can be a useful geographic-demographic tool for school district planning in rural areas.