THE SPATIAL EFFICIENCY OF GRADE SCHOOL ATTENDANCE

DISTRICTS IN QUINCY, ILLINOIS

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An Abstract of a Thesis

Presented to

the Department of Geography

Western Illinois University

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In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

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by

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August 1972

ABSTRACT

In this study the grade school attendance boundaries in Quincy, Illinois, are tested for their spatial efficiency in terms of attendance totals and the distance students must travel to school.

A review of the literature concerning school attendance boundaries revealed a lack of geographic studies dealing with this particular division of space. Attendance boundaries based upon the students walking time to school were developed and compared to the actual boundaries. Another set of boundaries, based upon the capacity of the schools, was developed by applying a variation of Reilley's Law of Retail Gravitation to the schools capacities, and again compared to the actual boundaries. A third set of boundaries, called the rationalized boundaries, was then developed from a combination of the above two.

To compare the efficiency of the rationalized and actual boundaries a test was developed based upon the percentage of a school's capacity attained by each method. It was found that, although the actual boundaries had a high efficiency index, much of the efficiency was lost due to the school administration's open transfer policy. The rationalized boundaries, however, had an even higher efficiency index, and are considered to be better boundaries than the actual boundaries.