

THE GEOGRAPHY OF ILLINOIS LIVESTOCK AUCTION MARKETS

An Abstract of a Thesis

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The number, distribution, and scale of Illinois livestock auction markets have been constantly changing since auctions first appeared in the early 1900s. Between 1958 and 1987, the number of auctions has decreased from 63 to 40, distribution of sale barns has become less dense, and sales through these businesses have increased over 20 million dollars.

This study examines these transformations during the 1958-1987 period and investigates four possible variables that might have been associated with changes: 1) decline in livestock available for sale; 2) regional variation in the shift from mixed crop and livestock production to cash grain farming; 3) market hierarchy adjustments to economies of scale; and 4) noneconomic characteristics of each individual location.

Temporal changes in individual auctions were derived from data extracted from the files of the Illinois Department of Animal Industries. In order to negate the effects of inflation, all monetary data were expressed in 1967 dollars.

Only one of the hypotheses proved correct. Although, in Illinois, the total sales of livestock between 1959 and 1982 declined 38 percent, sales through Illinois auction markets increased 37 percent. The regional supply of livestock was not related to the location, number, or size of

Illinois sale barns. Although substantial regional variations occurred in the switch from mixed crop and livestock production to cash grain farming, these did not result in concomitant changes in the number, location or scale of operation of Illinois auctions. Postulated economies of scale did not result in a modification of the auction market hierarchy. The percentages of total sales contributed by each decile of the auctions, rank ordered by sales volume, was virtually the same in 1958 and 1987; and the rates of growth and decline in sales at individual markets through time was little related to their size.

The failure of distance-decay functions to explain the distribution of livestock auction sales very likely resulted from the dramatic decline in transportation costs to the point where they represent only a small fraction of the cost of marketing livestock, and thus render the locations of marketing points much less critical.

Noneconomic characteristics of auctions -- such as the obsolescence of facilities, the farmer's perception of an individual auction, and, probably most important, the ability of a charismatic auction operator to attract customers -- were the most likely explanations for the dynamics of size, location, and scale of operation in the Illinois livestock auction market industry.