A RE-EXAMINATION OF RETAIL TRADE IN THE "DISPERSED CITY" OF SOUTHERN ILLINOIS

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Whereas southern Illinois lacks an urban center of more than 20,000 persons, several of its larger cities have been said to function as a single, albeit dispersed city. Reference to this dispersed city was first made by Oliver Beimfohr (1953:100), within the context of a study focusing on the industrial potential of southern Illinois. A more detailed study by Ian Burton (1959:145), on the basis of traffic flow and population density, set the limits of the dispersed city in a four county area composed of Williamson, Perry, Franklin, and Jackson counties. This area includes an urban core of thirteen major cities ranging in population size from more than 14,000 to slightly over 1,000 inhabitants. (Fig. 1)

Earlier works have failed to formulate a concise definition of the term "dispersed city," but we may gather, especially from the study of Burton (1959:145), that it refers to a group of politically discrete cities, separated by rather large tracts of rural land, which functionally inter-act to the extent that they may be referred to as a single unit lacking a downtown shopping district. The purpose of this paper is

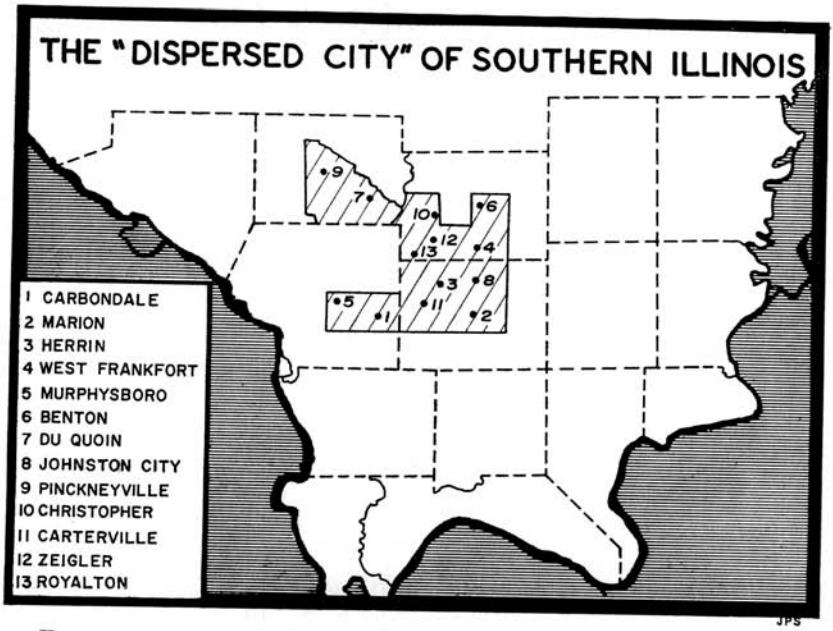


FIGURE 1.—A Re-Examination of Retail Trade in the "Dispersed City."

to analyze the retail functions of the major centers of the "dispersed city" in an effort to ascertain if inter-action among them is sufficient to warrant calling them a single unit.

Methods

Inter-action among the various centers is the key to the entire concept of the dispersed city. The best insights into this phenomenon probably could be gained from detailed field work in each of the cities involved. Limitations in time and resources placed such an investigation beyond the scope of this study.

Burton (1959:148-9) approached inter-action by analyzing the relationship between population and several types of retail sales. He assumed that a relatively high degree of association normally exists between the variables examined and proceeded to search for anamolies in the existing pattern. For example, unless inter-action is remarkably uniform, certain cities would have disproportionately large volumes of retail trade because they are able to attract business from other sections of the dispersed city; specialization of certain retail commodities would be especially likely to develop under such circumstances.

This study makes use of Burton's method, but goes beyond his and other previous works by comparing the retail patterns of the "dispersed city" to similar groups of urban units. This approach is based on the assumption that if inter-action is unique within the "dispersed city," it is probable that the associations of population with the various categories of retail trade in the "dispersed city" differ markedly from associations found in groups of cities of similar sizes.

To form a basis for comparison four sample groups of cities in Illinois were selected. Three of these (A, B, and C) consisted of thirteen cities each, and were structured to approximate as closely as possible the rank order of population of the units found in the dispersed city. Thus, the largest city in each group approximated the population of Carbondale, the biggest unit in the "dispersed city;" the second largest city in each group approached the population of Marion, the second largest city in the "dispersed unit." Sample group D consisted of thirty-five cities and was chosen at random from all Illinois cities having populations of more than 1,000. (Table I) Although the small sizes of the samples necessitate caution when using statistical analysis, a quantitative indication of the variability between population and several categories of retail trade was obtained by correlation analysis. (Table II)

Discussion

Burton (1959:147-8) pointed to a weak association between population and total retail sales of the larger units of the dispersed city and cited this as evidence of inter-action. His conclusion was based on a comparison of 1950 population figures and 1957 sales tax data; on the other hand when this author compared 1960 population statistics to 1960 sales tax data, a high positive correlation was apparent. (Fig. 2) In fact, the statistical relationship between these variables was higher

TABLE I. Population of Places in the "Dispersed City" and Sample Groups.

Dispersed City		*Group A*		*Group B*		*Group C*	
Carbondale	14,670	Centralia	13,904	Canton	13,588	Mt. Vernon	15,566
Marion	11,274	Macomb	12,135	Belvidere	11,223	LaSalle	11,897
Herrin	9,474	Cairo	9,348	Rock Falls	10,261	Paris	9,823
West Frankfort	9,027	Taylorville	8,801	Olney	8,780	Harrisburg	9,171
Murphysboro	8,673	Mt. Carmel	8,594	Effingham	8,172	Pontiac	8,435
Benton	7,223	Rochelle	7,008	Sycamore	6,961	Litchfield	7,330
DuQuoin	6,558	Fairfield	6,362	Hoopeston	6,606	Pana	6,432
Johnston City	3,891	Sandwich	3,842	Tuscola	3,875	Sullivan	3,946
Pickneyville	3,085	Dwight	3,086	Aledo	3,080	Galva	3,060
Christopher	2,854	Rushville	2,819	Farmington	2,831	Coal City	2,852
Carterville	2,643	Lewiston	2,603	Green Rock	2,677	Nashville	2,606
Zeigler	2,133	Arthur	2,120	Lacon	2,125	Leroy	2,088
Royalton	1,225	Chrisman	1,221	Coulterville	1,222	Erie	1,215

Group D

Decatur	78,004	Zeigler	2,133
Berwyn	54,244	Elmwood	1,882
Danville	41,856	Sesser	1,764
Park Ridge	32,659	Jerome	1,666
Oak Park	27,471	Winfield	1,575
Franklin Park	18,322	Atlanta	1,568
Canton	13,588	Bunker Hill	1,524
Homewood	13,371	Oswego	1,510
Edwardsville	9,996	Park City	1,408
Paris	9,823	St. Anne	1,378
Batavia	7,946	LaHarpe	1,322
Princeton	6,250	Dallas City	1,276
Phoenix	4,203	Fisher	1,155
Matteson	3,225	Vienna	1,094
Casey	2,890	Manito	1,093
Knoxville	2,560	Stonington	1,076
West Dundee	2,530	St. Francisville	1,040
Manteno	2,225		

TABLE II. Correlation coefficients of population with retail sales tax receipts.

	Categories of Retail Sales									
	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.
Dispersed City.	.99	.80	.98	.94	.88	.95	.79	.98	.93	.97
Sample groups										
A	.97	.91	.92	.82	.93	.92	.54	.95	.93	.96
B	.92	.77	.93	.91	.77	.81	.51	.86	.85	.71
C	.98	.94	.98	.89	.80	.94	.82	.89	.97	.97
D	.92	.86	.97	.92	.73	.93	.87	.71	.95	.98

Identification of categories: I—Total sales tax receipt, II—General merchandise, III—Food, IV—Drinking and eating places, V—Apparel, VI—Furniture, radio, and household goods, VII—Lumber, building, and hardware, VIII—Automotive, IX—Filling stations, X—Other.

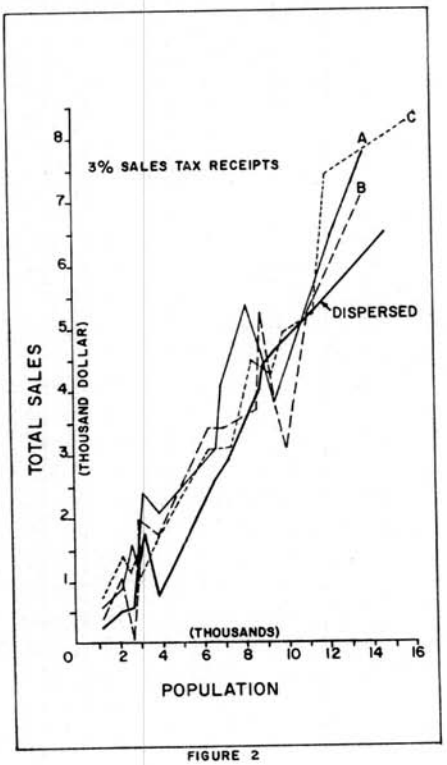
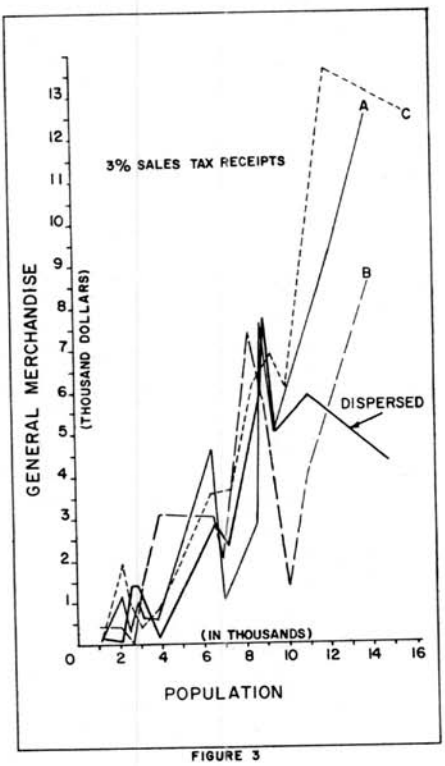


FIGURE 2



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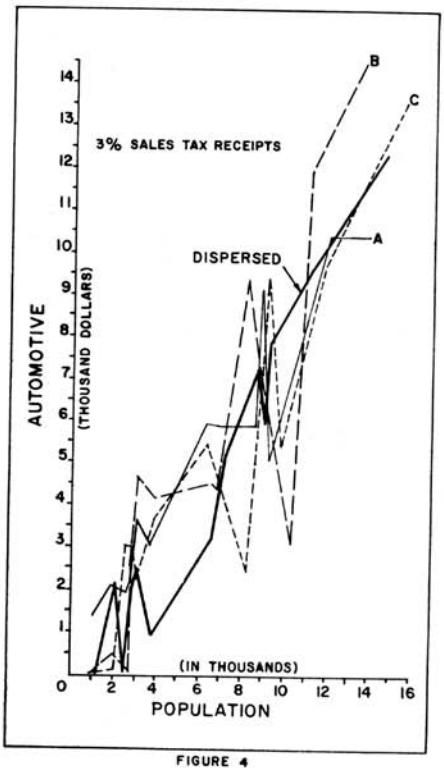

FIGURE 4

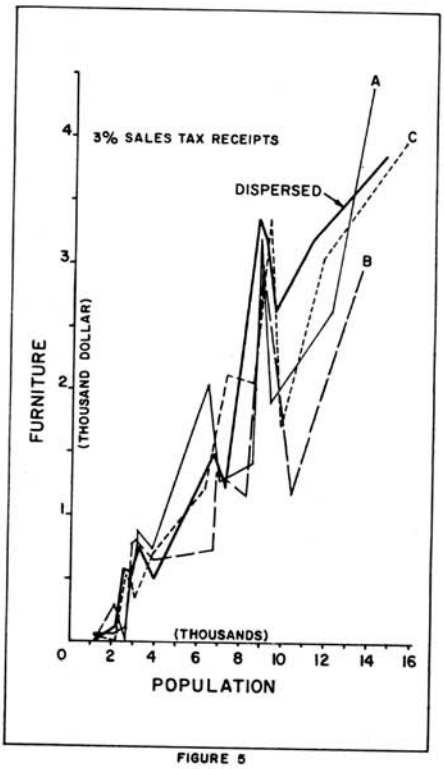

FIGURE 5

than that found in any of the sample groups.

Again using incomparable data, Burton (1959:148-9) found a relatively low degree of association between total population and two types of retail sales — general merchandise and radio, furniture, and household goods. These relationships were cited as evidence of retail specialization based upon inter-action. Yet the use of 1960 figures showed a relationship between radio, furniture, and household goods and total population which was relatively high and failed to differ significantly from the associations found in the sample groups. (Fig. 3) General merchandise also showed a relatively high degree of association with total population in the dispersed city, differing little from the relationships in the sample groups. (Fig. 4)

Examination of additional categories of retail sales which might be considered "non-convenience" goods, and therefore prone to specialization, yielded similar results. Automotive sales showed a very strong correlation with population in the study area (Fig. 5); apparel sales and lumber and building materials also were associated with population in the "dispersed city" to a higher degree than in some of the sample groups.

Summary

The above analysis has indicated that population is very closely related to retail sales in the dispersed city area. Various commodities in which retail specialization seemed likely, are also quite closely correlated with total population. Previous conclusions to the contrary must be attributed largely to the use of incomparable statistics. Furthermore, although earlier workers implied that the retail patterns of the dispersed city were unique, they failed to compare those patterns with others found outside the study area. Such a comparison has yielded little to support the concept that the retail trade patterns of the dispersed city are unique. It is therefore concluded that neither the degree of retail inter-action, nor the uniqueness of the retail trade patterns is sufficient to warrant the amalgamation of thirteen politically discrete cities of southern Illinois into a single unit, known as a "dispersed city".

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