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ABSTRACT

The Crossroads Survey, an adaptation of the macrostructural accounting techniques, was employed for purposes of testing the community development theory that services are added to communities in the same sequence. Dividing services and amenities into 2 categories (commercial and public/professional), the Crossroads Survey was conducted in Clinton County and the Tug Hill Region (a 9 town-4 county area) of New York State. Using telephone books and directories as secondary resources, surveyors conducted a "windshield survey" of 81 Clinton County and 21 Tug Hill crossroads, wherein those services visible from a car were listed. Data analysis involved ordering commercial and public/professional services via the Guttman scale, a cumulative measure of complexity, which revealed the relationship between the appearance of 1 service and that of another. Comparative analysis of the 2 areas indicated that use of the Crossroads Survey and the Guttman scale could be most valuable in the assessment of services regardless of differences in political boundaries or population factors, since a comparison of the 2 commercial scales revealed a general patterning and a rank order correlation of .77, and comparison of the 2 public/professional services scales showed a rank order correlation of .88. (JC)

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QUALITY OF RURAL LIFE:
ASSESSING THE STRUCTURE AND AVAILABILITY OF
SERVICES AND AMENITIES IN RURAL AREAS

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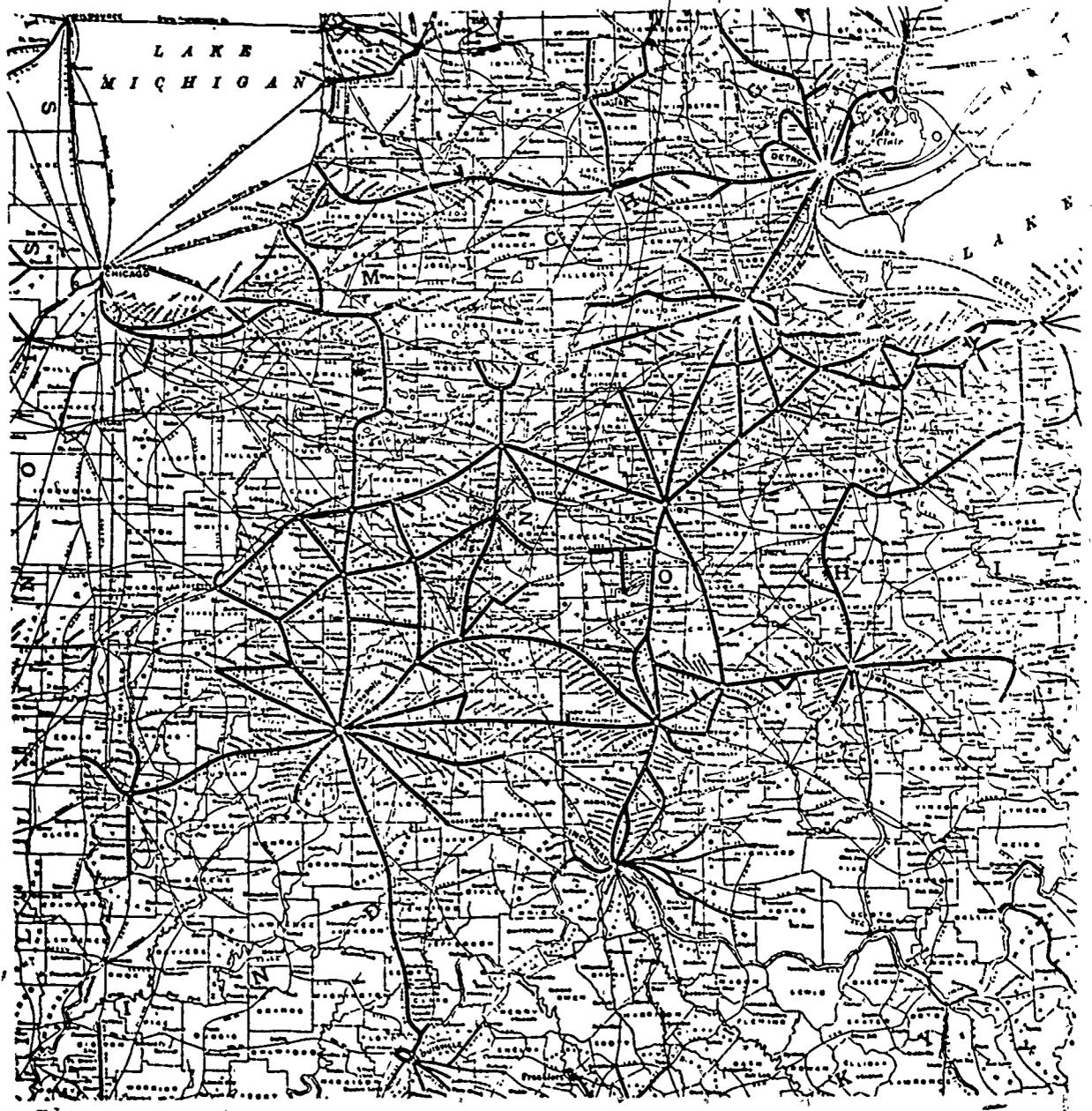
QUALITY OF RURAL LIFE:
ASSESSING THE STRUCTURE AND AVAILABILITY OF
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THE ISSUE

Community structure has been a concern of sociologists for many years, but often their studies have been expensive, lengthy, unintelligible to ordinary citizens, and without much potential for changing the situation.

The recent resurgence of interest in rural areas, in part as a result of the 1972 Rural Development Act of Congress, offers a new opportunity to apply community analysis directly to the problem of improving the quality of rural life.

Fifty years ago rural areas were not appealing places to live, or at least they didn't have the appeal of the cities, so the great exodus from the countryside began. The migration trend has only recently reversed (cf. Beale)¹ but now many of the services and much of the infrastructure that were available in even the "bad old days" have evaporated from rural areas. (see figure one) How, then, can adequate services and amenities, from doctors to laundromats to buses be made available so that rural quality of life will improve for those who live there now and hopefully encourage further emigration from metropolitan areas?



Some of the Midwestern interurban lines that operated in 1912.

Figure 1. Public transportation routes in 1912

(Source: Frank Rowsome Jr., Trolley Car Treasury
New York: Bonanza Books, 1956. p. 140)

THE PROBLEM

The service delivery problem in rural areas is that widely scattered resources are spottily available over large distances. What is needed is an efficient and economic method of assessing the availability of services in order to provide the best strategy for improving access. It must be noted here that the authors consider "services" very broadly, from such commercial enterprises as gas stations and grocery stores to transportation to health and social services. It could be argued that the provision of many of these services can be related directly to market economics, but for some facilities which society subsidizes, a method must be provided for assessing need and prescribing locations.

THE APPROACH

One way of assessing the availability of institutions or services in an area is the macrostructural accounting technique as practiced by Young and others.² This method was recently used by Young and Moore to prescribe potentially successful locations of certain institutions such as clinics.³

An adaptation of the macrostructural accounting technique called the Crossroads Survey was carried out in the Rural Development Program in Clinton County, New York during the Summer and Fall of 1974. Basically, the

specific objective of the Crossroads Survey was to determine the degree of access that rural residents have to needed services and amenities in order to develop the necessary strategies and programs to improve their quality of life. Services and amenities were divided into two major categories for the inventory and analysis:

1. Commercial Services such as:
 - a. small grocery
 - b. gas station
 - c. bar
 - d. hardware store
 - e. barber
 - f. recreation

2. Public and Professional Services such as:
 - a. church
 - b. post office
 - c. public school
 - d. doctor
 - e. lawyer
 - f. dentist
 - g. clinic

THEORY

One theory of community development is that services are added to communities in the same sequence; for instance, gas stations may be present before barber shops. This implies that all communities in a given area have the same service priorities and relative intensities of demand. Of course, overlapping functions of some services and ease of access in adjacent areas may alter the pattern in specific localities. If a large enough area, a county, for example, is inventoried, however, an overall pattern

should emerge. The theory can be tested through the use of a statistical technique called Guttman scaling.

INITIAL DATA COLLECTION

The object of the crossroads survey was to inventory in an efficient way the services available in Clinton County with regard to the localities where they exist. Two secondary resources were available -- a telephone book and the Clinton County Council of Community Services Directory. These resources, however, were neither exhaustive nor did they always distinguish among the various service localities or "crossroads" within sub-areas of the county. In order to deal with these shortcomings in the secondary sources, a "windshield survey" of 81 Clinton County crossroads was conducted. (see figure two) This survey entailed driving through each of the crossroads and listing all the services and organizations that were evident upon sight. In the larger crossroads, a windshield survey was relatively difficult and time-consuming, but the great number of slightly populated localities in Clinton County made such a survey a fairly simple matter overall. In this manner, 157 different services were identified.

Fifty of the 81 crossroads had at least one of the cataloged services; the other 31 had only houses or stop signs. The services thus identified can be grouped

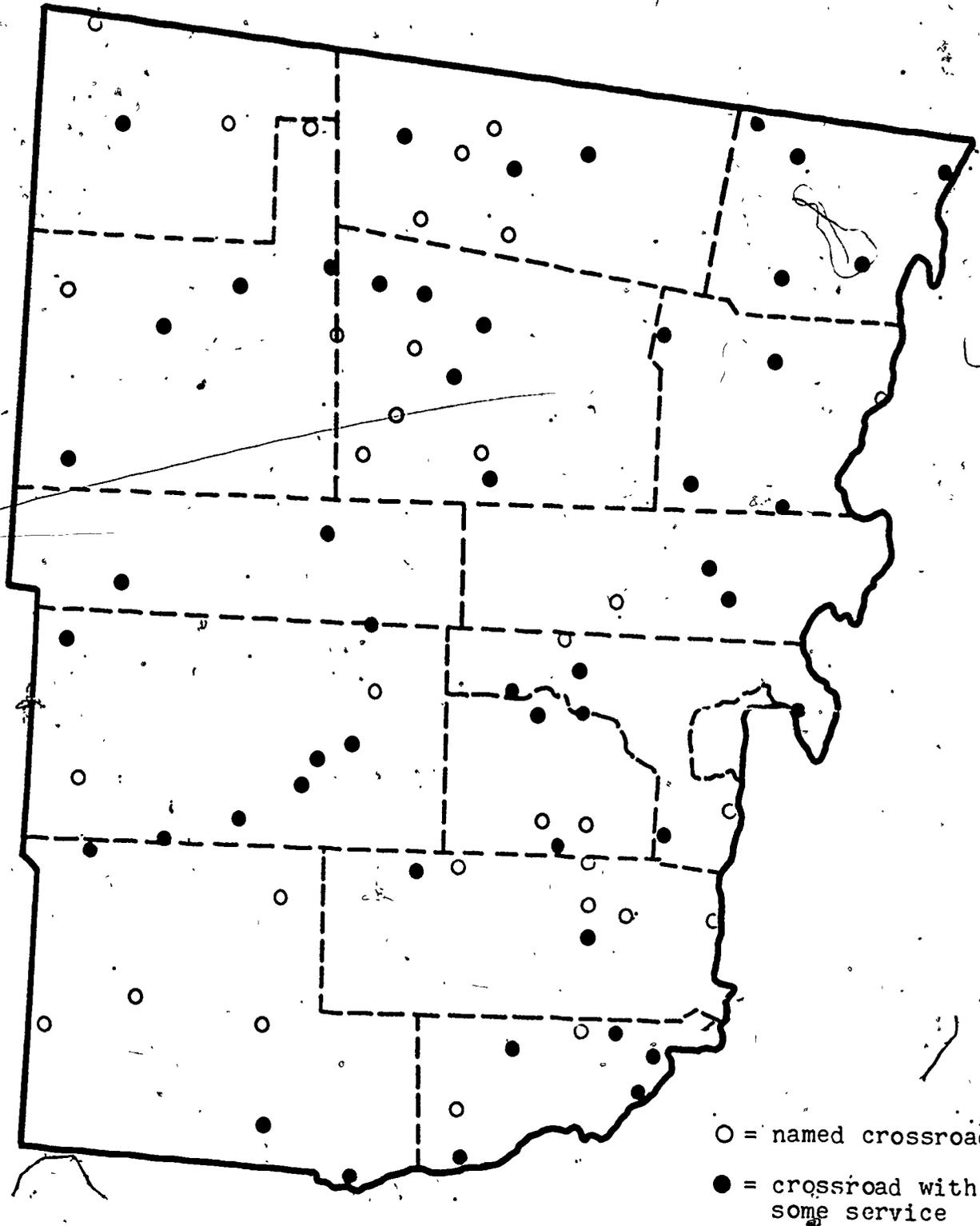


Figure 2. Crossroads in Clinton County

under four general classifications - commercial, professional, voluntary organizations and public services.

A listing of the services found with the survey is attached. (Appendix A)

Two things are evident upon examination of the items, in the list:

1. The items do not seem of equal significance when we think of improving the quality of rural life. For instance, a swimming pool construction firm or a firm that deals with granite seems less worthy of consideration in our scales than does a grocery store or a pharmacy. However, a complete catalog is desirable because it is useful to have as much information as possible to help local communities make development decisions. It also eliminates the need for researchers to make artificial decisions in choosing what items to include.
2. Some of the items can be combined. For instance, general stores and small groceries serve much the same function, as do restaurants and diners. Auto sales includes used car firms. Hobby shops range from sewing and leathercraft to rockshops and antiques. It might be that farm supply and seed stores could be logically combined. The logic of possible combinations is likely to be dependent on the investigator's first-hand knowledge of the economic behavior of area residents.

ANALYSIS

The theory discussed previously maintains that the services found in localities can be ordered, by locality, in a Guttman Scale that indicates a relatively fixed sequence of community service development. A Guttman Scale is a statistical device which is a cumulative

measure of complexity. In the commercial scale presented below, this means that any crossroad or place with a car repair establishment will also have gas service and a small grocery. The appearance of any particular service thus indicates not only its presence, but also predicts that other services farther down the scale will also be present. The scale therefore gives the present level of complexity of a crossroad or place.

In addition to the complexity of a certain place, the scale offers a historical view of the appearance of services. It shows, by comparing the most complex places with the least complex places, the order in which institutions or services appeared in the past--and can be expected to appear in the future.

The scale will show by gaps in the expected pattern where a service/institution should exist, but is absent. Its absence can be attributed either to a functional alternative which fills the same service need, or to the existence of a like facility within easy access. It can also show--by a number of scale gaps followed by the presence of a service--when an institution exists which is too far out on the scale for the crossroad to support it. In other words, the pattern of institutions which leads up to and provides a base for that service has not occurred. By examining the leading item--the last institution present in a particular crossroad--one can predict

with some assurance which service will appear next. This next service will have a reasonable chance of success since it has the institutional base to support it. An example of how a simple scale would work follows. From this scale with its array of services, a number of inferences can be made.

<u>Community</u>	<u>Gas Station</u>	<u>Grocery Store</u>	<u>Car Repair</u>	<u>Beauty Shop</u>	<u>Liquor Store</u>
A	X	O	X	X	X
B	X	X	O	X	
C	O	X	X		
D	X	X			

X = presence of service
O = absence of service

1. The feasibility of community A obtaining a grocery store should be investigated.
2. Community B may be able to support a car repair business and, if it is an expanding area, a liquor store.
3. In the same manner, community C should be able to have a gas station and possibly a beauty shop.
4. Community D might be able to support a car repair shop.

In short, the Scale can be an immediate tool for economic development by helping to ascertain the services a community could most feasibly attempt to add to its array of services.

One constraint to these recommendations is that in some communities local reasons may make the presence of

some service innovations unnecessary. For instance, a local nonprofit group might be showing movies; local conditions might rule out the profitable operation of a coin-operated laundry. It could also be that two localities are essentially a single community and consideration of their services separately is erroneous. Also, windshield surveys and secondary sources are not flawless means of compiling information.

The scales derived from the study should, therefore, be used as a guide or "tip-off" for local in-depth economic feasibility studies to be done on the indicated items, not as a 100 percent sure prediction of what services should be added. In terms of specific recommendations, the best procedure is to examine the scales for gaps and "leading edge" services. After these are established, local interviews should be conducted to see why a service is not available locally or if people thought it was feasible. If these indications are positive, a more detailed economic feasibility study could be done and then some new service established.

CONCLUSIONS

The two Guttman scales on the following pages have been derived from the data collected in the windshield survey as a preliminary indication of the feasibility of service innovations.

	Gen/Sn. Grocery	Gas Service	Car Repair	Dining	Bar	Liquor	Beauty Parlor	Lumber	Funeral Home	Insurance	Hobby	Hardware	Barber	Laundromat	Bank	Dept. Store	Construction	Pharmacy	Recreation	Large Grocery	Clothing	Plumbing & Heating	Radio-TV	Dry Cleaner	Variety	Copying	Western Union
Champlain	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Keeseeville	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rouses Point	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Peru	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dannemora	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AuSable Forks	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Chazy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ellenburg Depot	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Mooers	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ellenburg Center	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
West Chazy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Cadyville	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Beekmantown Corners	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Merrill	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Moffitsville	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Clintonville	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Clayburg	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Redford	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Mooers Forks	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Lyon Mountain	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
So. Plattsburgh	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Churubusco	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
W. Plattsburgh	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Picketts Crs.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Schuyler Falls	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sciota	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Morrisville	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Saranac	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Forest	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Altona	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Black Brook	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Coopersville	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Crowllys Crs.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ellenburg Crs.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Harkness	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Perry Mills	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Port Kent	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Riverview	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Standish	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Woods Mills	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AuSable Chasm	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Cannon Crs.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Champlain Park	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dwyers Crs.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ingraham	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ledger Crs.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Figure 3.
 Uttman Scale of Commercial Services
 in Clinton County
 Coefficient of Scalability: .69

	Church	Post Office	Fire Station	Town Office	Public School	Library	Doctor	Lawyer	Parochial School	Village Office	Dentist	USDA	Clinic	Newspaper	Optometrist
Keeseville	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rouses Point	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AuSable Forks	X	X	X	X	X	X	X	X	X	O	X	X	X	X	X
Champlain	X	X	X	O	X	X	X	X	X	X	X	X	X		
Dannemora	X	X	X	X	X	X	O	X	X	X	X				
Ellenburg Depot	X	X	X	O	O	X	X	X							
Mooers	X	X	X	O	X	X	O	X							
Chazy	X	X	X	X	X	X	X								
Peru	X	X	X	X	X	X	X				X		X		
Lyon Mountain	X	X	X	O	X	X									
West Chazy	X	X	X	O	X	X									
Altona	X	X	O	X	X										
Morrisonville	X	X	X	X	X										
Cadyville	X	X	X	O	X										
Ellenburg Center	O	X	O	X											
Churubusco	X	X	X	X											
Mooers Forks	X	X	X												
Saranac	X	X	X				X								
Ellenburg Corners	X	X			X										
AuSable Chasm	X	X													
Port Kent	X	X													
Redford	X	X													
Schuyler Falls	X	X													
Clintonville	X					X									
Black Brook	X														
Coopersville	X														
Harkness	X			X											
Jericho	X														
Peasleeville	X														
Sciota	X														
Standish	X			X											
Beekman Corners			X		X										
So. Plattsburgh			X												
Cannon Corners															
Champlain Park															
Clayburg															
Crowley Corners															
Dwyers Corners															
E. Beekmantown															
Perry Mills			X												
Picketts Corners				X											
Forest															
Hawkeye															
High Bank															
Honeymooers Corners															

Figure 4.
Guttman Scale of Public & Professional Services
in Clinton County

Coefficient of scalability: .77



By looking at the commercial scale, for instance, we might conclude that Keeseville would be able to support a copying service; Dannemora should be able to "fill-in" the gap created by an absence of a recreational facility (bowling alley, pool hall). The series of gaps for a liquor store and for gas service are also suggestions for possible innovations.

When coupled with demographic and geographic data, some service absences noted in the commercial scale are glaring; Lyon Mountain is a sizable community located about 20 miles from its nearest service center, but it has no grocery store.

In the public and professional services scale, some of the gaps indicated cannot be filled in because they are politically mandated, for example, town offices and a public school. On the other hand, the scale does show that communities like Dannemora and Mooers should be able to support a doctor and that the feasibility of a clinic in Keeseville should be investigated. It is this sort of "tip-off" which the Guttman scale technique performs best. It can predict, based on the pattern of complexity present on a number of communities what institutions or services could be expected in communities that have a given level of differentiation.

The commercial services scale correlated with the public and professional services scale at .73 which indicates

that the two complexity measures tended to corroborate one another. They also correlated with population approximately .75 to .80 which is to be expected.

Another way to view the correlation is graphically in figure five. In this drawing, the two scales are superimposed on a county map and areas of coincidence are readily apparent.

Also easily identified are those communities whose commercial services scored higher than the public and professional ones and vice-versa. These discrepancies can immediately become the focus for local discussion and planning. In fact, it is hoped that the information will be useful to local leaders such as town supervisors, county legislators, planners, and others interested in stimulating community economic development, by assisting them to meet local service needs. It might also provide at least a partial guide to investment opportunities in the county for local entrepreneurs. The data gathered in this project is available for all to use in whatever manner most useful to them.

In summary, the crossroads inventory in this case produced a large amount of useful economic and social data for a rural county at a minimum of expense:

Data collection:	60 hours
	1000 miles driving
Preparation of data for computer:	80 hours
Analysis of data:	40 hours

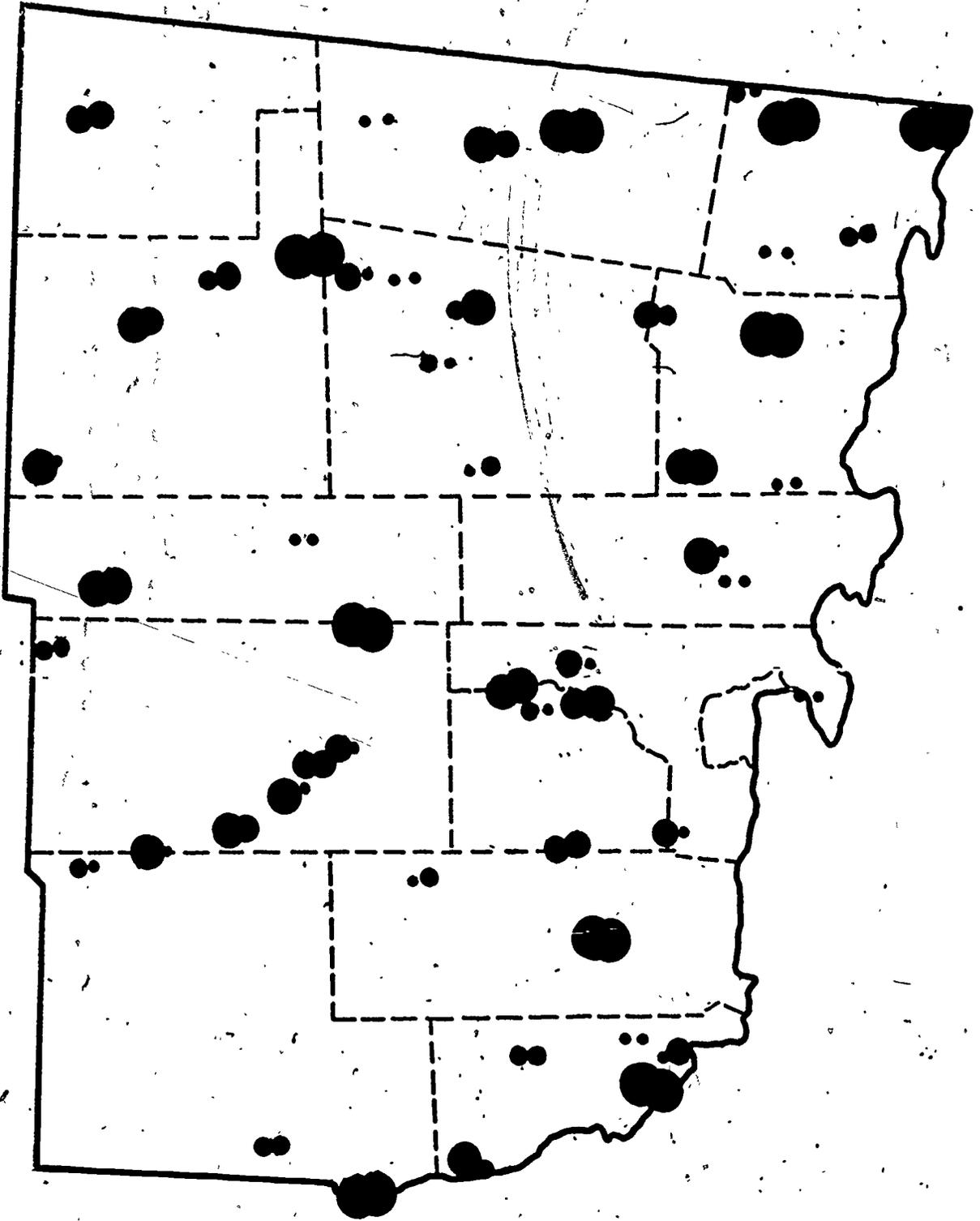


Figure 5.

Clinton County Commercial Services Scale
superimposed to the left of the
Public and Professional Services Scale.

In many cases the data collection can be performed by local volunteers which would keep the cost of such a study low. (See Appendix B for detailed instructions on how to conduct a Crossroads Survey.)

CASE II - TUG HILL REGIONAL STUDY

As a corroboration and further test of the Crossroads technique a similar study was undertaken in the nine core towns of the Tug Hill Region of New York State between Syracuse and Watertown. In this case, the initial inventory data was gathered by local planning officials and then analyzed at Cornell University.

SCALE RESULTS AND CONCLUSIONS

The Tug Hill windshield survey of nine towns with 21 crossroads of importance resulted in two complexity scales. (See figures 6 and 7) In contrast to the Clinton County scales, the data from the Tug Hill region included some places outside of the defined area of study because the nine towns in the core region are so thinly settled and have so few services.

The commercial scale shows that most specialized services come from outside the nine town region. (See map in figure 8) Lowville, Pulaski, Adams, Boonville and Camden provide most commercial services. The crossroads within the area provide services such as beauty parlors, bars, auto repairs which require a small population base. The

	Church	Town hall	School	Post Office	Fire Department	Town garage	Library	Medical doctor	Lawyer	Newspaper	Ambulance	Vet	Dentist	Optometrist	Nursing Home	Accountant	Police	Telephone Office	Clinic	Radio station	Municipal utilities	Fairgrounds	NYS Employment service	Bus depot	State police	Sheriff	USDA	Hospital
Lowville	X	X	X	X	X	X	X	X	X	X	X	X	O	X	X	X	X	O	O	X	O	X	X	X	X	X	X	X
Boonsville	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	O	X	X	X	X	X					
Camden	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
Pulaski	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	O	X	X	X					X	X			
Adams	X	X	X	X	X	O	X	X	X	X	X	X	X	X	X	X	X	X										
Sandy Creek	X	O	X	X	X	O	X	X	X	X										X		X						
Lacona	X	O	X	X	X	X	O	X																				
Martinsburg	O	X	O	X	X	X	X																					
Constableville	X	O	X	X	X	X	X																					
Williamstown	X	X	X	X	X	X																						
Florence	X	X	O	O	X	X																						
Glenfield	X	X	O	X	X																							
Lyons Falls	X	O	X	X	X			X																				
Redfield	X	O	X	X	X																							
Osceola	X	X	X																									
Barnes Corners	X	X																										
West Martinsburg	O	X																										
New Boston	X																											
Thompson Corners																												
East Martinsburg																												
North Osceola																												

Figure 7.
 Guttman Scale of Public and Professional Services
 in the Tug Hill Region
 (Coefficient of Scalability: .72)

THE TUG HILL REGION

CROSSROADS

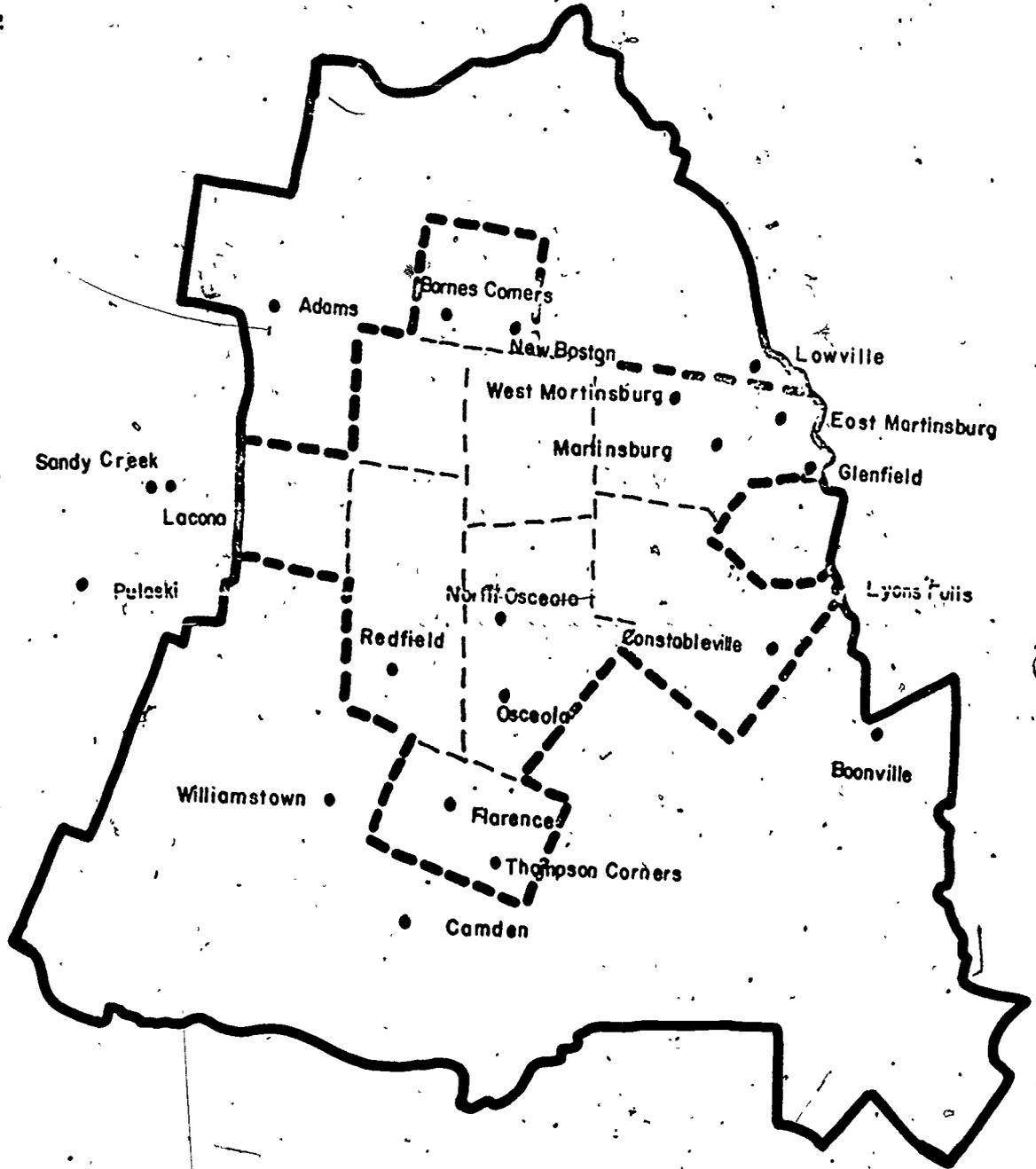


Figure 8. Map of the Tug Hill Region

services within the region generally call for a lower capital investment and can be maintained by a very small work organization, such as a family--or by one person. If not supported entirely by such a business, the owner/operator can supplement his income by a second job. The services offered outside the area, on the other hand, require a larger population base and a larger capital investment. Full time work at the service as an occupation is often required. Examples are clothing store, department store, bank and furniture store. However, since the least complex crossroads (North Osceola, East Martinsburg, Martinsburg, Thompson Corners, Florence) have access to the more complex villages of Lowville, Pulaski, Adams and Camden, these service deficiencies can be corrected.

The leading items on the commercial scale for the least complex crossroads (Florence, Thompson Corners, Martinsburg, East Martinsburg, North Osceola) are small grocery, hotel, beauty parlor, gas, bar, farm supply, auto repair. Given the observations on small population base, capital investment, and small personnel requirements, the most plausible "next" services would seem to be small grocery, gas station, bar and auto repair. However, the question of viability arises as these least complex crossroads are located relatively close to more complex places which provide the services. Easy accessibility may be why the service has not appeared in the less complex crossroads.

The public and professional scale duplicates the pattern of the commercial scale. Again most services are provided from outside the nine town area. The services provided within the area are government mandated services: Fire Department, Post Office, school, town and municipal halls. The services provided by the surrounding area, while including government mandated services, are services such as dentist, doctors, lawyers, and veterinarians which are supplied by the private economic sector. Of the 25 public and professional services found in the area surveyed, 14 out of 25 or 56 percent are government provided.

The public and professional scale offers relatively the same prospect as does the commercial scale. The leading items are lawyer, newspaper, doctor, town garage and veterinarian. Since they are private sector services rather than publicly mandated, they need a certain population base to survive. Again, the least complex crossroads (New Boston, Thompson Corners, West Martinsburg, East Martinsburg, North Osceola) have access to more complex centers from which the absent services are available. Figure nine shows the relative complexity of the communities on the two scales, commercial services to the left and public and professional services to the right.

The two scales rank the crossroads in approximately the same order. The two ranks showed a correlation of .76, indicating that a town with a high complexity on the

THE TUG HILL REGION

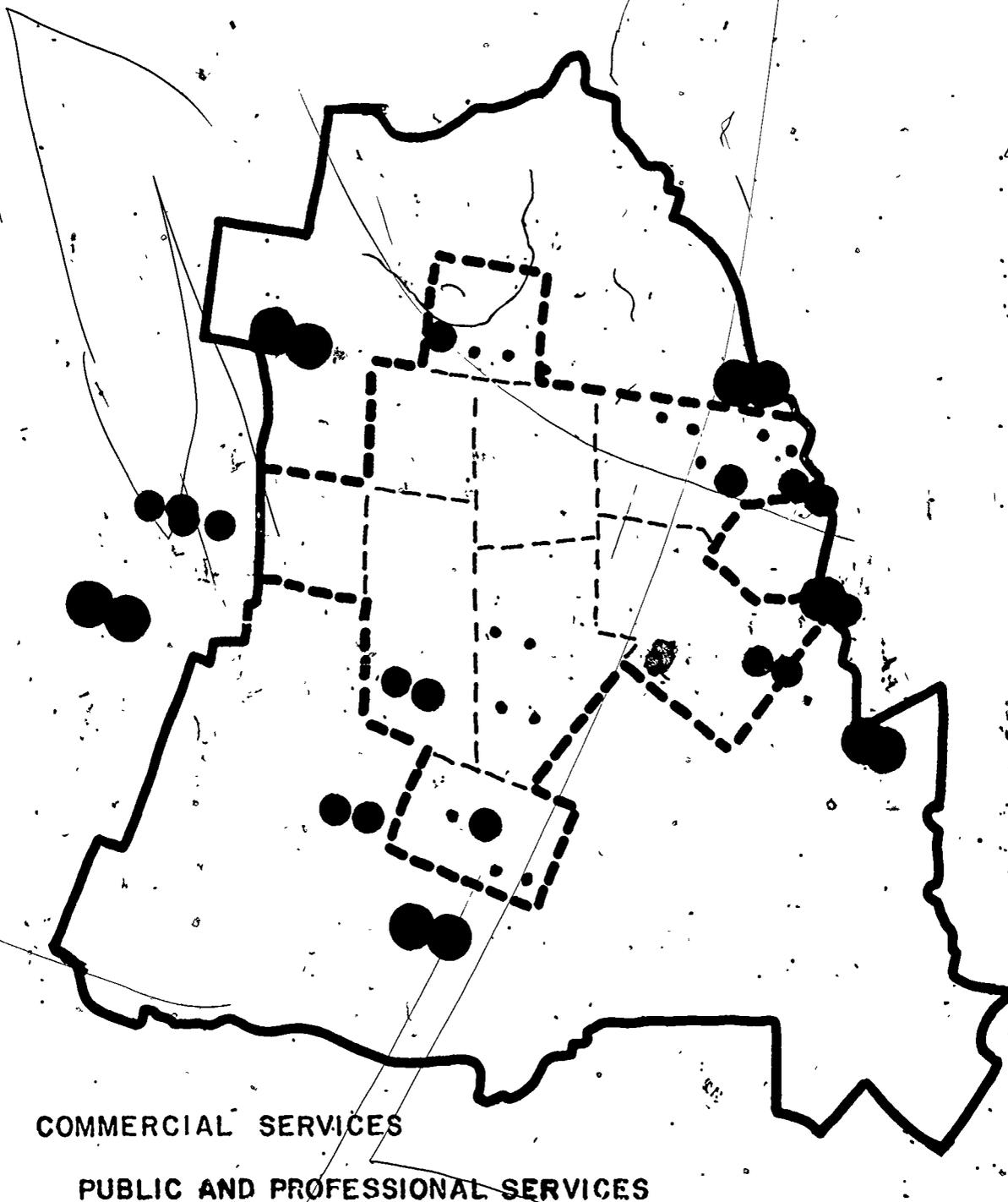


Figure 9.

Tug Hill Region Guttman scales superimposed

commercial scale also shows high complexity on the public and professional scale. A town providing an array of commercial services also offers an array of public and professional services.

A final observation on functional alternatives can be added here. In the case of the gaps in the scale several reasons could be given. A gap may appear if the service is available in another form. For example, Lyons Falls lacks a bar. The same function may be filled by a diner/restaurant with an on-premises liquor license which is present. Or, alternatively, two crossroads may be located in such close proximity that one service fills the needs for both crossroads. An example is the Sandy Creek-Lacona combination. Sandy Creek lacks a gas station; Lacona has one. Lacona lacks an auto repair and barber; Sandy Creek provides those services. Since Sandy Creek and Lacona border each other, it cannot be said Lacona lacks the services Sandy Creek provides, or vice versa.

DISCUSSION

Since the scales turned out so well in both of the areas, a certain face validity may be ascribed to the Crossroads technique. What is more, the two areas examined were quite different: one, Clinton County, is a single political unit; the nine core towns in the Tug Hill Region are parts of four different counties. The

technique, then, seems to work for assessing services regardless of political boundaries.

On a more analytic note, a comparison of the two commercial scales reveals a general patterning of the items: food and car items are at the most prevalent side of both scales, while recreation and clothing items appear at the more restricted side. Among the 24 items which were the same on both scales there was a rank order correlation of .77, not too bad a correspondence. Figure ten gives the actual ranks for each of the areas.

It does seem, then that commercial services occur in much the same patterns, not necessarily dictated by geography or population.

A similar comparative analysis for the public and professional services scales showed a correlation of .88.

<u>CLINTON COUNTY</u>	<u>RANK</u>	<u>TUG HILL</u>
church	1	church
post office	2	town hall
fire station	3	school
town hall	4	post office
public school	5	fire station
library	6	library
doctor	7	doctor
lawyer	8	lawyer
dentist	9	newspaper
USDA	10	dentist
clinic	11	optometrist
newspaper	12	clinic
optometrist	13	USDA

Figure 10.

Rank order of Commercial Services
in Clinton County and Tug Hill

<u>CLINTON COUNTY</u>	<u>RANK</u>		<u>TUG HILL</u>
small grocery	1	3	restaurant/diner
gas	2	2	gas
car repair	3	7	small grocery
diner	4	1	beauty shop
bar	5	5	bar
liquor	6	15	hobby
beauty shop	7	4	auto repair
lumber	8	14	large grocery
funeral	9	17	insurance
insurance	10	9	hardware
hobby	11	6	pharmacy
hardware	12	10	barber
barber	13	12	recreation
laundromat	14	18	lumber
bank	15	19	liquor
department store	16	23	construction
construction	17	16	funeral
pharmacy	18	11	laundromat
recreation	19	13	bank
large grocery	20	8	plumbing and heating
clothing	21	24	dry cleaner
plumbing and heating	22	20	radio TV
radio TV	23	22	department store
dry cleaner	24	21	clothing

SUMMARY

Accessibility to services in these studies has been shown to be a function of community structure -- and to a certain extent, the distance one is from a more complex or differentiated community. The argument should not be made, based on these studies, that every crossroads should have every item or service. Rather, the crossroads survey technique can point out where some service could likely be supported, but is not present. The question of the best balance between many sub-communities with few services in each versus a few highly differentiated central communities offering a large array of services is not within the scope of this study. It is a question which must be increasingly asked, though, as transportation costs increase and rural areas attempt to become more viable and "quality" places to live.

The further dimension of quality of service or even access in terms of money or appointment time is another area for further investigation. This paper offers the starting point for community analysis of access to services. Some understanding of the community structure and location of services can be obtained by using the techniques described. Each community must then examine its unique situation to discover and plan the best way to provide needed services to its citizens.

Appendix A

Crossroads Survey

Clinton County Services Inventory

Commercial

general store	variety store
gas pump	sporting goods
gas service station	office supply
insurance/realty	watch repair
recreation (bowling, pool)	motorcycles
movie theatre	tourist attraction
drive-in theatre	car wash
funeral home	radio & TV
bar	fuel oil
motel/hotel	seedsmen
hardware	Agway
restaurant	hobby
diner/coffee shop	granite
auto sales	manufacturing, packing, bottling
auto repair	boat sales
furniture	farm implements
beauty parlor	lawn & garden implements
barber shop	telephone corporation
coin-op. laundry	fast food
dry cleaner & laundry	NY State Electric & Gas
pharmacy	trucking
liquor store	dairy products
large grocery store (chain)	apples
small grocery store	construction/excavation
clothing	publishing
lumber, building materials	customs broker
bank	research
credit assn.	photographer
appliances	copying

Commercial (con't)

plumbing & heating
department store
mobile homes
trailer court
Western Union
florist
auction place
snowmobiles
general repair
nursery
salvage
taxi
janitorial
swimming pools
contractors
gifts

Voluntary Organizations

American Legion
Rotary
Knights of Columbus
Lions
Kiwanis
businessmen's assn.
Right-to-Life
sports club
golf club
civic assn.
Masons
VFW
Elks
other voluntary organizations

Professional

architects
AI Technician
lawyer
clinic
physician
dentist
optometrist

Public Services

rest home
rehabilitation
newspaper
church
fire department
Town Offices
Garage/Shed (Town, Village)
park
library
power station
town hall
youth center
parochial school
public school
school district offices
NYS Dept. of Environmental
Conservation
State Police
Correction Facility
County Offices
County Highway Dept.
Post Office
USDA
Customs
Village Offices

Appendix B

Some Suggested Steps and Hints for
Conducting a Windshield Survey

1. Check the secondary sources (telephone books, commercial directories, etc.) first to get an idea of the numbers and kinds of services in given areas. This will give you a good idea of what to expect when driving around the area.
2. Obtain a good map of the planning area, preferably one that includes the names of all crossroads that are named. At the very least, the map should include all roads, from interstate highways to unimproved earth roads.
3. Carefully plan the routes in undertaking the windshield survey. Usually, the less backtracking one does, the more localities can be covered in the allocated time, and the less gas will be consumed.
4. As you drive through a locality note the full name of the various establishments and services so that later confusions will be minimized; e.g. Sample's General Store, Barn Door Grill.
5. It is important to drive along all routes that pass through a locality, for they are where the commercial services are likely to be located. In the larger localities, one must check the parallel streets on either side of the thoroughfares. When passing through intersections, glance down to both ends of the street being crossed; churches are frequently located in residential sections. Of course, it is also possible one will turn up a beauty parlor that operates out of someone's front porch.
6. Some firms will be located outside the legal or apparent limits of a locality. It becomes a problem, then, to attach the service to a locality. The safest tactic seems to be to exactly note its setting and attach it to a locality when supplemental information has been obtained.
7. After the drive through survey has been completed, cross check this listing with the secondary sources to fill out the inventory and make it more complete.

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