

Florida's Small Isolated Communities

David Lee

Northern Arizona University

According to the 1990 U.S. census, Florida has a population of 12,937,926. Three-quarters of that population, 9,639,615, reside in 754 "places," ranging in population from 635,230 in Jacksonville city (remainder) to 10 in the community of Orchid. The mean population of these communities is 12,768; the median population (4,875) is much smaller than the mean, reflecting the significant impact of the large urban communities on the mean value.

The large urban areas account for most of the state's total population; The seven largest counties, all urban, account for 55% of the total population. These large urban areas concentrate people into massive expanses of contiguous residential districts. Separated from these urban concentrations by only a few miles are satellite communities which are closely related—functionally and spatially—to the cities. For example, Tampa and St. Petersburg each has more than 200,000 residents. Nearby are 21 places with populations in the 10,000 to 100,000 range, and another 37 places of less than 10,000.

Farther removed from the urban concentrations are smaller regional centers. According to central place theory, confirmed empirically as well, there are regional centers serving predominantly agricultural areas. For example, between the major urban clusters of Orlando and Tampa/St. Petersburg, there are five towns in the 10,000 to 20,000 population bracket, and one, Lakeland, with 70,576. The population in these lower-order communities is more isolated than that of the urban centers, but still, the variety of goods and services available to such populations is fairly substantial.

Finally, at the other end of the spatial separation spectrum are the lowest-order places, small and removed from larger urban centers. According to central place theory, these small places all should be separated an equal distance from each other or from larger centers. Most of Florida's small communities (below the median population) conform in a general sense to this rule; by the criteria developed below, 342 do. However, Florida is not a homogeneous plane, and Christaller-like

hexagons are weakly developed in some areas. Thirty-two small Florida communities are separated from their nearest neighbors by a distance which implies that functional interaction is limited and that the selection of goods and services is restricted. It is with these tiny isolated communities that this paper is concerned.

Data

The U.S. census provides population numbers by race and age for places (1990 Census of Population and Housing, Places). Additionally, latitude and longitude designations are provided. Using this information, a great circle program was used to find the distance in statute miles between places. It is recognized, of course, that places are usually separated by more than the great circle distance because roads rarely conform to great circle azimuths. Nevertheless, the road distances are not available for analysis, and the great circle distances suffice as a surrogate.

The set of census places is not identical by any means with named communities which one might find on a road map. Close inspection of most any road map of the state will reveal a myriad of names and dots suggesting that communities exist at these points on the ground. That these places should be omitted from the census is beyond the scope of this paper; I only suggest that the map makers may, like cartographers of the Age of Discovery, place towns of questionable authenticity in otherwise empty spaces. The cartographer, like nature itself, abhors a vacuum.

A place is identified by this paper as isolated if it had its nearest neighboring community 10 or more miles away. Ten miles was chosen as an arbitrary measure of isolation, the implication being that communities closer than 10 miles can easily interact with each other via motor vehicles and even by foot. One might, for example, reasonably drive 10 miles for a loaf of bread or bottle of milk, but would think twice should distances be much greater. Distances beyond 10 miles sharply curtail the types of functional interactions which are routine among places found close together.

The first iteration of this project revealed 30 communities which met the defining criteria of being separated from nearest other community by 10 or more miles and being less than the median population of 4,875. A second iteration was done to accommodate another phenomenon of isolation. In two cases, two or three nearby small towns were found themselves to be isolated from other communities by 10 or more miles. I reasoned that these tiny sister communities function as a single isolated place, and therefore would meet the qualifying criteria, if their total population did not exceed 4,875. Two groups of places thus qualified, Bristol-Blountstown in the Panhandle west of Tallahassee, and Micanopy-McIntosh-Reddich south of Gainesville. This brought the total of isolated communities to 32 (Table 1; Figure 1).

Analysis

Most of the small, isolated communities are in the northern part of the state in the 35 counties north of Levy County (approximately 29° North Latitude) (Figure 1). As a group, these counties have a much lower population than the counties south of that parallel (2,412,258 to 10,525,668), and a much lower population density (102 persons per square mile to 346). This sparsity can be seen easily on population density maps (Fernald 1981, 81).

Of the five places south of Levy County, three (Islandia, North Key Largo, and Lawton) are in the Florida Keys, and owe their isolation to their island locations. Islandia is not connected to the mainland so its thirteen residents boat to the mainland. The other two are connected to their neighbors via U.S. 1. All are predominantly white communities whose economy is based on the tourism and retirement industries.

As for the northern isolated places, three apparent sets of communities seem to present groupings. One group consists of places near Gainesville, predominantly in and around the counties of Gilchrist, Dixie, and Levy. The population density of these three counties is 21 persons per square mile, well below that of the state and about a quarter that of the northern counties as a group (1990 Census of Population and Housing, Counties). These counties are low-lying, largely swampy regions (Fernald 1981, 163). The major north-south routes are farther inland,

Table 1
Demographic Characteristics of Isolated Places

Place	Total Pop	Whites	Black (% Black)	Pop > 18 (% Pop > 18)
Altha	497	489	0 (0%)	349 (70.2%)
Bell	267	266	0 (0%)	178 (66.7%)
Branford	670	590	74 (11.0%)	496 (74.0%)
Bristol -Blountstown	3341	2393	911 (27.3%)	2338 (70.0%)
Carrabelle	1200	1090	96 (8.0%)	906 (75.5%)
Cedar Key	668	661	0 (0%)	533 (79.8%)
Cross City	2041	1522	502 (24.6%)	1478 (72.4%)
Ebro	255	199	13 (5.1%)	183 (71.8%)
Everglades City	321	320	0 (0%)	246 (76.6%)
Fort White	268	168	96 (35.8%)	172 (64.2%)
Freeport	843	785	18 (2.1%)	635 (75.3%)
Greenville	950	333	613 (64.5%)	646 (68.0%)
Hawthorne	1305	606	698 (53.5%)	901 (69.0%)
Hilliard	1751	1394	351 (20.0%)	1181 (67.5%)
Horseshoe Beach	252	250	0 (0%)	168 (66.7%)
Interlachen	1160	1031	86 (7.4%)	837 (72.2%)
Islandia	13	12	1 (7.7%)	11 (84.6%)
Jasper	2099	1162	926 (44.1%)	1454 (69.3%)
Jennings	712	332	347 (48.7%)	452 (63.5%)

Table 1
Demographic Characteristics of Isolated Places

Place	Total Pop	Whites	Black (% Black)	Pop > 18 (% Pop > 18)
Layton	183	177	2 (1.1%)	155 (84.7%)
Mexico Beach	992	978	7 (0.7%)	831 (83.8%)
Micanopy- McIntosh- Reddich	1577	1085	476 (30.9%)	1208 (76.6%)
Molino	1207	909	280 (23.2%)	849 (70.3%)
Monticello	2573	1245	1322(51.4%)	1850 (71.9%)
Moore Haven	1432	978	281 (19.6%)	998 (69.7%)
N. Key Largo	1490	1444	41 (2.8%)	1399 (93.9%)
Otter Creek	136	115	21 (15.4%)	111 (81.6%)
Port St Joe	4044	2542	1480 (36.6%)	3008 (74.4%)
St Marks	307	292	10 (3.3%)	229 (74.6%)
Wewahitchka	1779	1600	171 (9.6%)	1286 (72.3%)
White Springs	704	373	325 (46.2%)	437 (62.1%)
Williston	2179	1719	407 (18.7%)	1633 (74.9%)
Total	37216	27060	9555	27158
Mean	1163	845	299	849
%		72.71%	25.67%	73.37%

and the coast itself is quite isolated. Horseshoe Beach and Cedar Key in this region are on the coast at the end of roads where no coastal routes have been constructed. (Cedar Key's isolation has been noted previously: Fillman-Richards and Richards 1978; Schaleman 1985.)

Another grouping of small, isolated places is found in Florida's Panhandle in several counties, which also collectively have a population density well below the state average. Two tiers of places are noted, those on the coast, such as Carrabelle and Port St. Joe, and those farther inland, mainly south of Interstate 10. A third concentration of isolated places is along the Georgia border in the largely agricultural land of Hamilton and Jefferson Counties.

Degrees of Isolation

Further analysis of the 32 isolated communities revealed interesting features. For each isolated community, the distances to the nearest 10 other communities were summed (Table 2, Column 1). The most isolated community by this measure was Carrabelle, which lies an aggregate of 337 miles from its 10 nearest neighbors, or an average of 33.7 miles. This great spatial isolation is only explained in part by the fact that the town is on the Gulf of Mexico and half its potential hinterland is usurped by the sea. Some other coastal communities are similarly isolated, for example Horseshoe Beach, Cedar Key, and Everglades City. However, other coastal towns, such as North Key Largo and Mexico Beach, were not greatly isolated by this measure. A t-test of the 32 communities, classified as coastal or non-coastal, revealed no statistical differences between the two sets in terms of miles to nearest neighbors. Likewise, testing the 32 places, classified north or south of Levy County, revealed that north-vs.-south differentiation produced no significant difference in terms of aggregate miles to the 10 nearby neighbors.

Population of Nearby Places

Isolation is not merely a matter of distance, however. A community which is, for example, fifteen miles from a metropolis is much less isolated than one which is fifteen miles from a tiny hamlet. Therefore the

Table 2
Measures of Isolation

Place (County)	Aggregate Miles¹	Aggregate Population²	Miles from 10,000 Persons³
Altha (Calhoun)	146.34	18143	80.66
Bell (Gilchrist)	170.49	16868	101.07
Branford (Lafayette)	212.95	28737	74.10
Bristol-Blountstown (Calhoun)	224.78	25715	87.41
Carrabelle (Franklin)	336.75	16217	207.64
Cedar Key (Levy)	277.57	12921	214.82
Cross City (Dixie)	231.33	7851	294.64
Ebro (Washington)	185.86	32588	57.03
Everglades (Collier)	317.44	112216	28.29
Freeport (Walton)	200.52	41164	48.71
Fort White (Columbia)	171.75	25035	68.60
Greenville (Madison)	303.66	149176	20.36
Hawthorne (Alachua)	167.67	95673	17.53
Hilliard (Nassau)	270.88	686893	3.94
Horseshoe Beach (Dixie)	311.69	8989	346.75
Interlachen (Putnam)	184.75	18342	100.72
Islandia (Dade)	150.66	105724	14.25
Jasper (Hamilton)	254.09	27467	92.51
Jennings (Hamilton)	289.10	29134	99.23
Layton (Monroe)	290.55	42444	68.45
Mexico Beach (Bay)	188.86	79268	23.83

Place (County)	Aggregate Miles¹	Aggregate Population²	Miles from 10,000 Persons³
Micanopy-McIntosh-Reddich (Alachua/Marrion)	144.56	142788	10.12
Molino (Escambia)	162.01	108947	14.87
Moore Haven (Glades)	230.53	46659	49.41
Monticello (Jefferson)	316.53	142465	22.22
North Key Largo (Monroe)	147.70	88700	16.65
Otter Creek (Levy)	190.69	12311	154.89
Port St Joe (Gulf)	258.62	42178	61.32
St Marks (Wakulla)	294.06	149724	19.64
Wewahitchka (Gulf)	237.91	43605	54.56
White Springs (Hamilton)	215.39	27595	78.05
Williston City (Levy)	177.06	134043	13.21
Mean	226.96	78737	79.55
¹ Aggregate great circle miles from indicated place to 10 nearest places ² Aggregate population of 10 places nearest to indicated place ³ miles between indicted place and 10 nearest places per 10,000 population of 10 nearest places [Col 1/(Col 2/10,000)]			

aggregate population of the 10 nearest communities was calculated (Table 2, Column 2). Sometimes, towns which were quite isolated in terms of distances were found nestled comfortably within large communities. Hilliard, for example, virtually a suburb of Jacksonville, has more than half a million people living in its 10 nearest towns. At the other extreme, the people of Cross City and Horseshoe Beach, both in Dixie

County, find that their 10 nearest communities contain few people, 7,851 and 8,989 respectively. No statistically significant differences could be shown when the places were tested according to region (north vs. south) or coastal location.

Population/Miles

A final metric was examined which combined the first two, the number of miles that communities lie from 10,000 other individuals living in the 10 nearest communities (Table 2, Column 3). Here again, Hilliard, because of its proximity to Jacksonville, is shown to be the least isolated by this measure, and Horseshoe Beach and Cross City, are the most and second most isolated communities in Florida. A t-test again showed no significant differences according to north/south region or to coastal/non-coastal location.

Comparison with Small, Non-Isolated Places

The 32 isolated places were compared with 342 places which are not isolated but are classified as "small" (below the median population of all places). Chi-square tests of these two groups of small places revealed that they are statistically demographically different from each other in terms of percentage black. Table 3 shows that the isolated places as a group have a higher percentage black than do the non-isolated small places, and the difference was statistically significant at the .001 level. Similarly, isolated small places were less likely than the non-isolated small places to have a high percentage of their population older than eighteen years. Probably the non-isolated places are more likely to be retirement centers, whereas the isolated places contain people in their working years. Again, a chi-square test showed a significant difference.

Conclusion

This preliminary study calls for further demographic and economic inputs so that a greater insight into these communities can be drawn. At the time of this writing, the complete socio-economic characteristics of the population were not available from the 1990 Census, so it is not possible to undertake a study of the income, education, and occupational levels

of the populations in the smaller communities in Florida. Similarly, it is not yet possible to compare the inventories of goods and services available in the small isolated places with those in the small non-isolated places. Do the isolated places provide more functions than their size would predict, or do the people there simply drive farther to obtain goods and services missing locally?

Field analysis, such as the type reported upon in earlier issues of *The Florida Geographer*, would likewise provide interesting sociological insights into the nature of Florida's small places (for example: Fillman-Richards and Richards 1978; Schaleman 1985; Schaleman 1984). One wonders, for example, are the people of Cross City and Horseshoe Beach really aware that they are the most isolated communities in the state. Are their lifestyles significantly different from those of people in small towns generally? What attracts them there? Maybe they are merely stuck in these places and lack the mobility to move elsewhere.

On the other hand, perhaps the inhabitants of Florida's small, isolated communities, who could document the attractions that such communities might offer, would contend that it is Miami, Tallahassee, and the other urban centers that are isolated, not they.

References

Fernald, Edward A. (1981). *Atlas of Florida*. (Tallahassee: The Florida State University Foundation, Inc.).

Fillman-Richards, Jeanne, and Richards, Storm. (1978). "Commercial Fishing at Cedar Key, Levy County, Florida." *The Florida Geographer* 12:22-25.

Schaleman, Harry J., Jr. (1985). "Cedar Key, Florida—A Study of Time and Place, Boom and Bust." *The Florida Geographer* 19:6-10.

Schaleman, Harry J., Jr. (1984). "Cassadaga, Just a *Medium* Place." *The Florida Geographer* 18:11-15.

1990 Census of Population and Housing, Places. P.L. 94-171 Redistricting Data. U.S. Government, Bureau of the Census. Copied from CD-ROM files.

1990 Census of Population and Housing, Counties. P.L. 94-171 Redistricting Data. U.S. Government, Bureau of the Census. Copied from CD-ROM files.

Table 3
Comparisons between Small Isolated Places
and Small Non-Isolated Places

Percentage Black	Isolated Place	Non-isolated Place
< 1%	6	165
1% - 5%	4	60
5% - 10%	5	20
10% - 30%	8	58
> 30%	9	39
Total Places	32	342
Mean % Black	25.67%	10.26%
Chi Square = 18.84		
Percentage aged 18 and older	Isolated Place	Non-isolated Place
< 70%	11	53
70% - 75%	11	68
75% - 83%	6	85
83% - 89%	3	67
> 89%	1	69
Total Places	32	342
Mean % 18+	73.37%	80.20%
Chi Square = 27.89		