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Best Practices for Rural Market Studies

Rural Market Studies

Several important differences between rural and urban market studies include market area definitions, evaluation of comparables, and consideration of demand. On the surface, it seems like defining a rural market area might be purely a matter of opinion, but well-established analytic tools are available to assist market analysts. Evaluating comparables, understanding how the proposal would fit into the market, and understanding what the demand calculations really mean are more a matter of experience.

Defining Market Areas

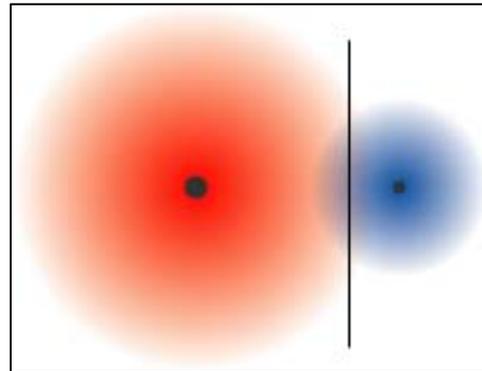
Market area definitions in rural areas should include consideration of the “gravity model.” The gravity model is an established concept in the field of urban planning (see for instance, *Urban Planning Analysis: Methods and Models* by Kruekenberg and Silvers). The basic concepts of the gravity model as it relates to housing market studies in rural areas are as follows: “Pull” is from the town; each town has some pull; pull is proportional to population; pull is inversely proportional to distance. It is critical to keep in mind that the gravity model is only one criterion used to establish a rural market area, and that it is not applicable to urban areas.

An Example Using the Gravity Model

Here is a basic example of the gravity model using only two towns. The red town has a population of 10, while the blue town has a population of 4. We calculate the boundary by dividing the population of the blue town by the total population. Thus $\frac{4}{(4+10)} = \frac{4}{14} = 29\%$ of the distance from

the blue town.

This process is repeated for all the towns around the town the subject is in.

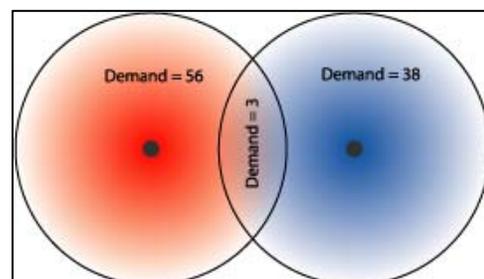


Avoiding Overlap

Market areas for adjacent towns, in general, should not overlap. People who live somewhere between two towns can only move to a new apartment in *one town or the other*. If numerous market studies are completed with overlapping market areas, the effect will be to overstate aggregate demand. It is commonly argued that people will come from great distances to live in the subject property. Management companies may even have evidence that this has happened at other properties they manage. The gravity model does **not** say that no households from beyond the boundary of the market area will move into the subject. What it says is that *on balance* people beyond the boundary are *more likely* to move to the other town, given equal choices. Conversely, households within the boundary are more likely to be attracted to the subject town (although some of them will probably move away). The boundary line is the drawn where the “pull” from each town is equal.

Overlap Example A: Far Apart Towns

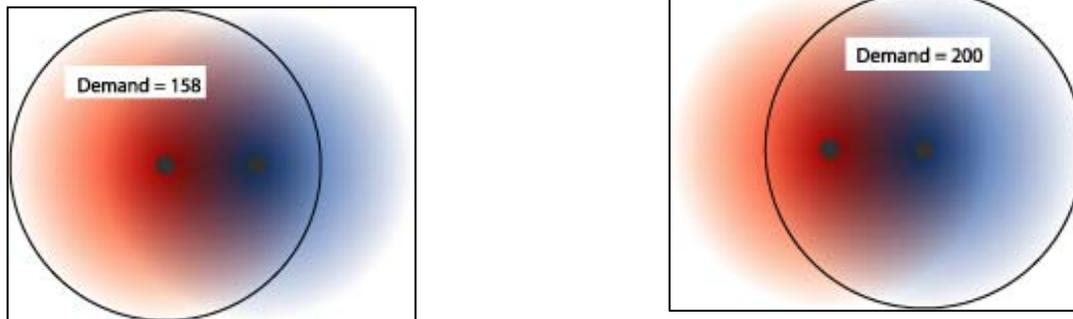
If the gravity model is not used when calculating demand then the demand for the red town is 56 while the demand for the blue town is 38. Since the market areas overlap, the demand for three units that are shared by the two towns are counted in



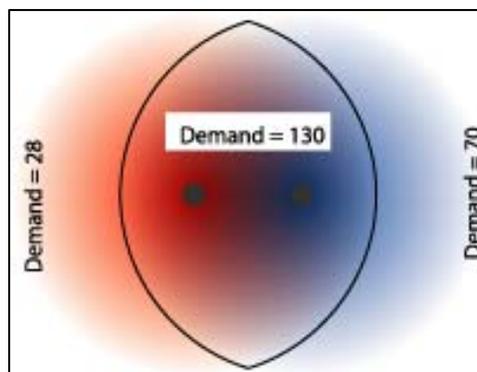
each town. $56 + 38 = 94$. Since the correct total demand is only 91, demand has been overstated ($94/91 = 103\%$).

Overlap Example B: Nearby Towns

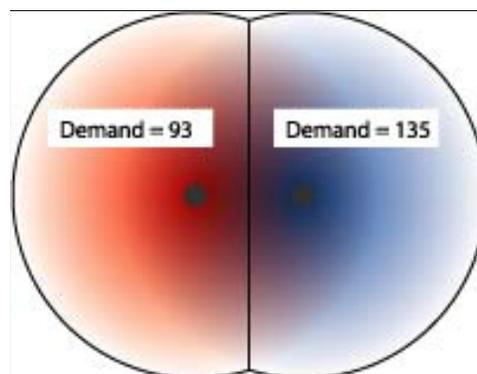
For this example the two towns have the same population, but the blue town, for whatever reason has a greater demand. If the gravity model is not used then the demand for the red town is 158 while the demand for the blue town is 200.



Without the gravity model, we would erroneously conclude that there was a demand for $(158 + 200 =)$ 358 units. But there is a very large area which contains households who could be drawn to either town:



The gravity model would divide up the demand by placing a line half way between the towns (because they have equal populations) as follows:

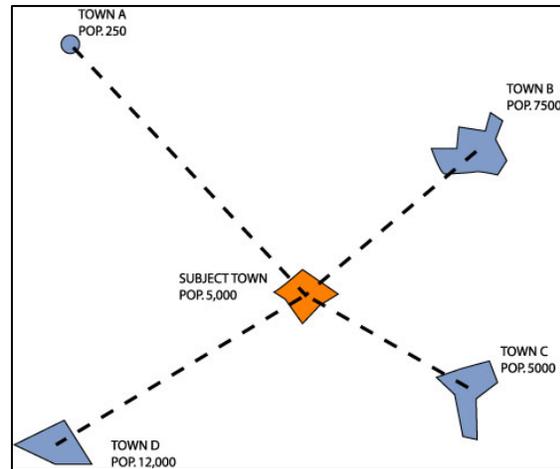


Therefore the total demand for the combined area, exclusive of overlap, is $(93 + 135 =)$ 228. The error here is much greater — $358 / 228 = 157$ percent. Frequently a market analyst performs a study for only one of the two towns. Considering just the red town, the demand without the gravity model had been calculated as 158 while it is really only 93. Thus, demand is overstated by about 70 percent. When repeated for each overlapping

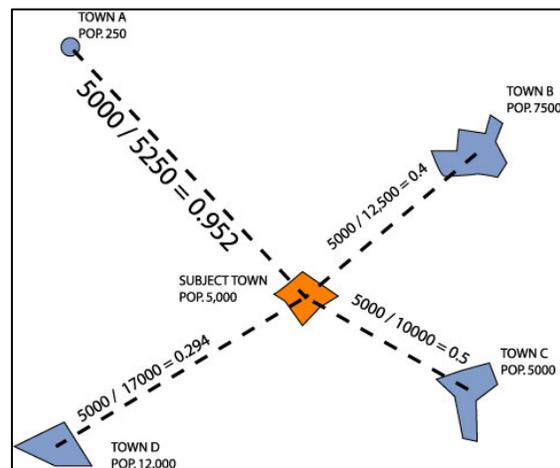
area, the demand shown in a study might be presented as several times the actual demand. Therefore, when designing a market area for a rural area, one should never try to account for every person who might *possibly* move to the subject.

A More Realistic Example:

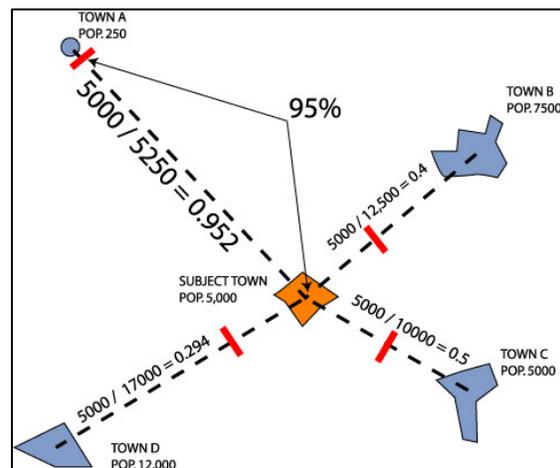
Here is an example of how the gravity model might be applied in a typical rural setting. There is a subject town, shown in red, and four other towns nearby, shown in blue.



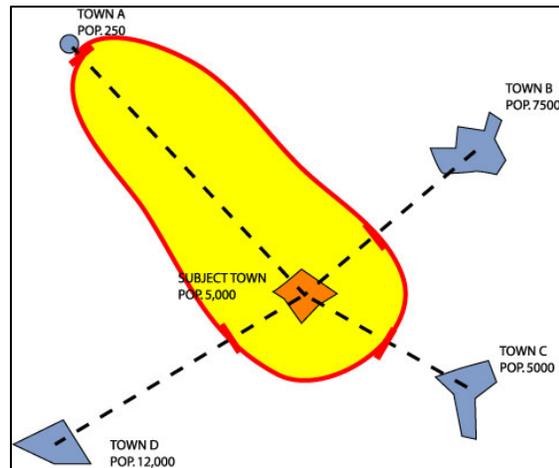
The math is performed exactly as described in the previous simple examples. The following illustration shows the details:



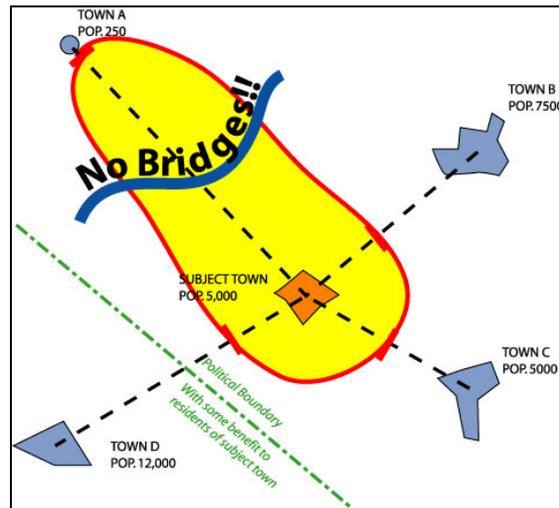
The next step is to draw in lines at the distance ratios calculated above. The distance is measured with a ruler and multiplied by the ratio:



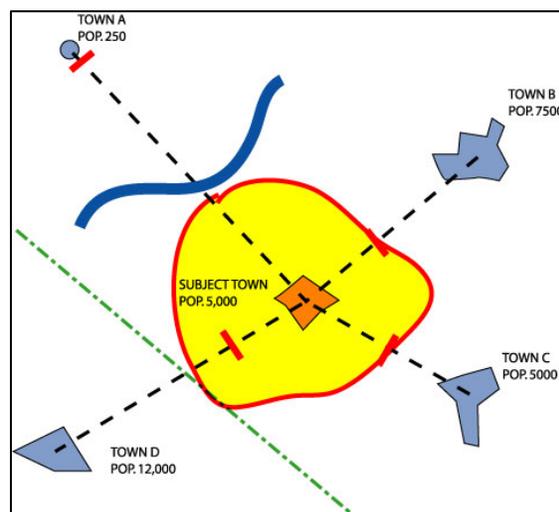
Here, a basic market area is shown, drawn using *only* the gravity model as a guide. In the real world there are frequently other constraints.



Here two real world constraints are illustrated: a geographic boundary that blocks movement (in this case a river with no bridge), and a political boundary that is a meaningful boundary to prospective tenants. Not all political boundaries will form market area boundaries — only those where people who live on either side would generally avoid seeking housing on the other side.



If the gravity model is adjusted to account for these factors it might look like this. The final step is the pragmatic step of adjusting the boundaries of the market area to fit the boundaries of the census geography (or whatever geography will be used to collect data).



The final market area is shown to the right. Setting a realistic market area is a good first step in conducting a market study in a rural area. Another necessary step is finding comparables.

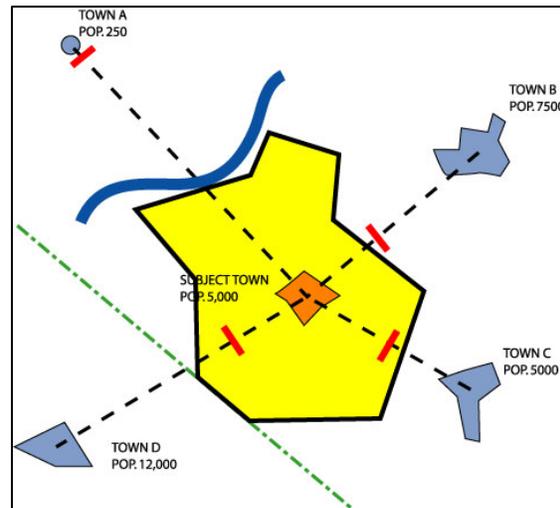
Rural Comparables

Selection

The best situation is when several existing apartments very similar in nature to the proposed subject can be found in the market area (see the NCAHMA best practice paper on Comparables). Sometimes in a rural area there are no existing properties that are very similar. In this case the analyst has two choices:

- S/he can use what comps exist inside the market area and extrapolate from them to the subject, OR
- S/he can use comps outside the market area and interpolate from them.

Using either, or both, methods requires judgment. The first method takes into account the market area and the prospective tenants in it. To use the second method effectively, the areas where the comps are chosen must be very similar in nature to the subject area. The towns should be similar in size and in nearby area. This is one example of where “art” comes into play.



Value Vs. Affordability

New tax credit apartments usually have good value, because the tax credits allow the developer to put more amenities into the property, or to hold down the rents, or some combination of the two. Those two things mean “good value.” The prospective tenant is getting more for his money than what a conventional property could provide. However, *good deals are not always affordable*. The subject may be the best housing value, but still have relatively high rents for the market. The perception of rent level is more important than the absolute rent. If the “low income” apartments have the highest rents in town, the analyst should determine if it will make sense for lower-income people to pay the highest rents, regardless of value.

Impact

Adding a large portion of total demand to any market will have an impact. Adding a large portion of demand to a small rural market will have a big impact. A lesson learned in the Section 515 program was to not build more than about one-third of the demand in one phase and then wait for that phase to rent up— this is the so-called “Build and Fill” policy. Calculating capture and penetration rates can help evaluate impact.

Severity of Need Vs. Quantity of Need

Many times when interviews are conducted, people in a town will tell an analyst that there is a critical shortage of [elderly, three-bedroom, etc] apartments. But everything seems to be pointing towards low demand. It is important to not confuse a *critical demand* for several units with a high demand.

Being Wrong Forever

Too many units in a small town is a problem that cannot easily be rectified, especially if growth is low. In a city, a property can compete with all the other properties in the area to get a share of the market. If you are wrong and a low growth rural area is overbuilt, you are wrong forever. The NCAHMA penetration rate can help with this evaluation.

