

Defining Rural vs. Urban

During the 2015 session we've had more questions from the legislature about differences between rural and urban Oregon than I can remember. And that got me thinking about how we define "urban" and "rural." At first, this might seem simple. A city is urban, everything else is rural. But what about suburbs? Is a town within an otherwise rural county considered "urban?"

The federal government has three separate agencies that each define "urban" and "rural" differently.

According to the US Census Bureau, "urban" is defined as all places that are "Urbanized Areas" or "Urban Clusters." Urban Areas are incorporated areas (a city or town) that contain 50,000 or more people. An Urban Cluster is an incorporated area with more than 2,500 – but less than 50,000 – people.

For the U.S. Office of Management and Budget (OMB), "urban" is any county with a Metropolitan Statistical Area (MSA). OMB distinguishes rural and urban at the county level, so an MSA is a county with at least one Urbanized Area (defined above) of 50,000 or more people, or a county that has 15 percent or more of its population commuting to an adjacent MSA for work. Otherwise, the county is not an MSA, and is therefore "rural." OMB recently re-classified Linn County and Josephine County, respectively, from rural to "Albany MSA" and "Grants Pass MSA".

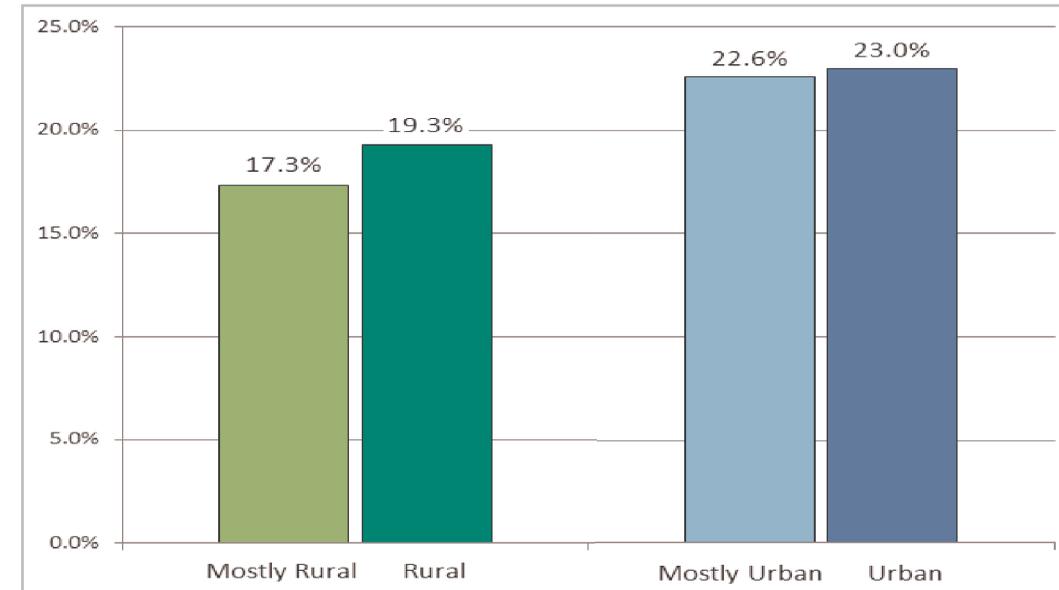
The US Department of Agriculture slices up OMB's MSAs (urban counties) into smaller pieces, and defines some areas within an MSA as a "Rural-Urban Commuting Area" (RUCA). A RUCA is a rural area within an otherwise urban area based on 30 categories of size and commuting patterns.

One of the questions we're sometimes asked is, who is more likely to be using our services – urban Oregonians or rural Oregonians? To answer this question, I applied the US Census Bureau's definition of urban/rural to all the census tracts in Oregon, and calculated the percentage of people in each tract that were living in an urban environment (an Urban Area or Urban Cluster) or in a rural one. This created four categories:

- **Urban:** 100 percent of the population in the census tract is urban;
- **Mostly Urban:** Most, but not all, of the population is urban;
- **Rural:** 100 percent of the population in the census tract is rural;
- **Mostly Rural:** Most, but not all, of the population is rural.

I then calculated the percentage of people in each tract who received SNAP in the fourth quarter of 2014 (October to December). I did this by dividing the average number of SNAP recipients by the total number of people living in the tract. The results are displayed in Figure 1.

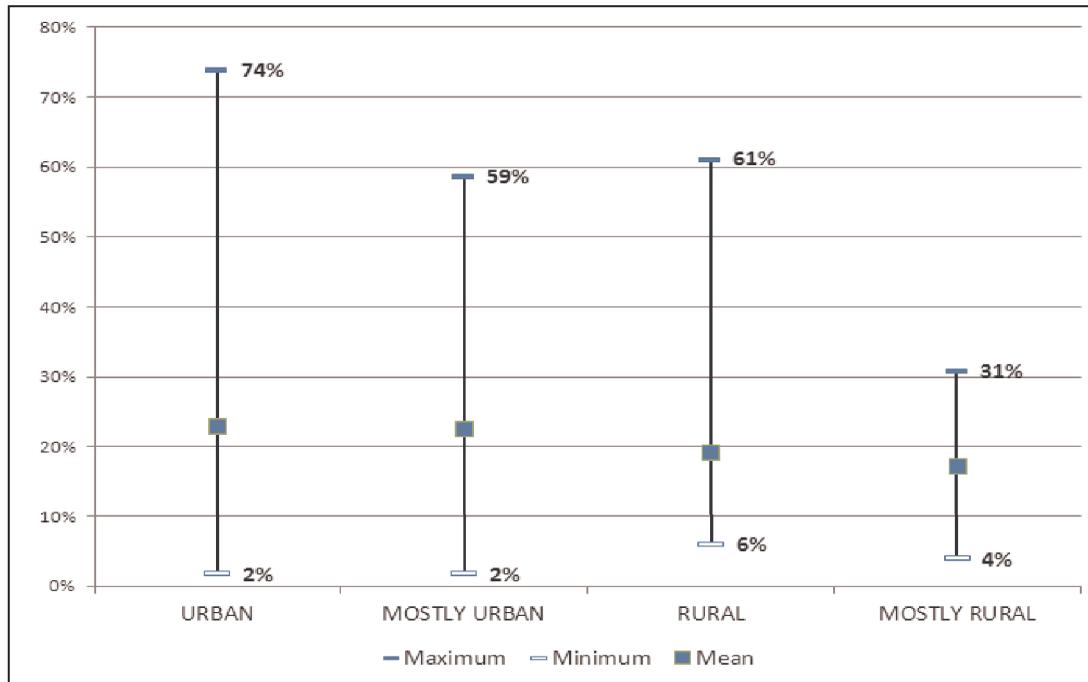
FIGURE 1: Average Percent of Population on SNAP, by Census Tract Type



As shown in Figure 1, SNAP participation appears lower in rural tracts than urban tracts. A statistical test of significance shows that this difference between census tract types is stable and persistent (between groups ANOVA, $F=6.79$, significance $p<.001$). A post-hoc test of differences (Tukey HSD) between all four groups shows no significant difference between Mostly Rural and Rural, or between Mostly Urban and Urban. However, if the combined rural tracts are compared to the combined urban tracts, the difference between them is statistically significant (t-test for unequal variances, $t=-6.17$, $p<.001$).

Differences in the pattern of SNAP participation between rural and urban areas can also be seen in Figure 2. Regardless of classification as rural or urban, there are many census tracts where SNAP participation is very low; however, where it is high, the urban tracts have a much higher percentage of the population receiving SNAP than rural tracts do. In other words, the range between high and low SNAP participation is greatest in urban places. Urban environments often have high variations in income and employment within a rather small distance. The level of variation between highest and lowest concentration is illustrated in neighborhoods in the Portland Area that are separated by a relatively short distance (see figure 3).

Figure 2: Percent of Population on SNAP by Census Tract Type: Range of Values



As shown in Figure 2, the variation in SNAP participation between census tracts categorized as “Mostly Rural” is only 27 percent, while the variation between “Urban” census tracts is 72 percent, or twice as much variation. This is likely due to the kind of communities that would be included in a “mostly rural” (but not entirely rural) place: the suburbs. Suburbs and “x-burbs” are likely to be more consistent and to contain larger numbers of residents who are in good financial shape compared to the poorest areas that are entirely urban or entirely rural.

Figure 3: Selected Census Tracts in the Portland Metro Area by SNAP Participation

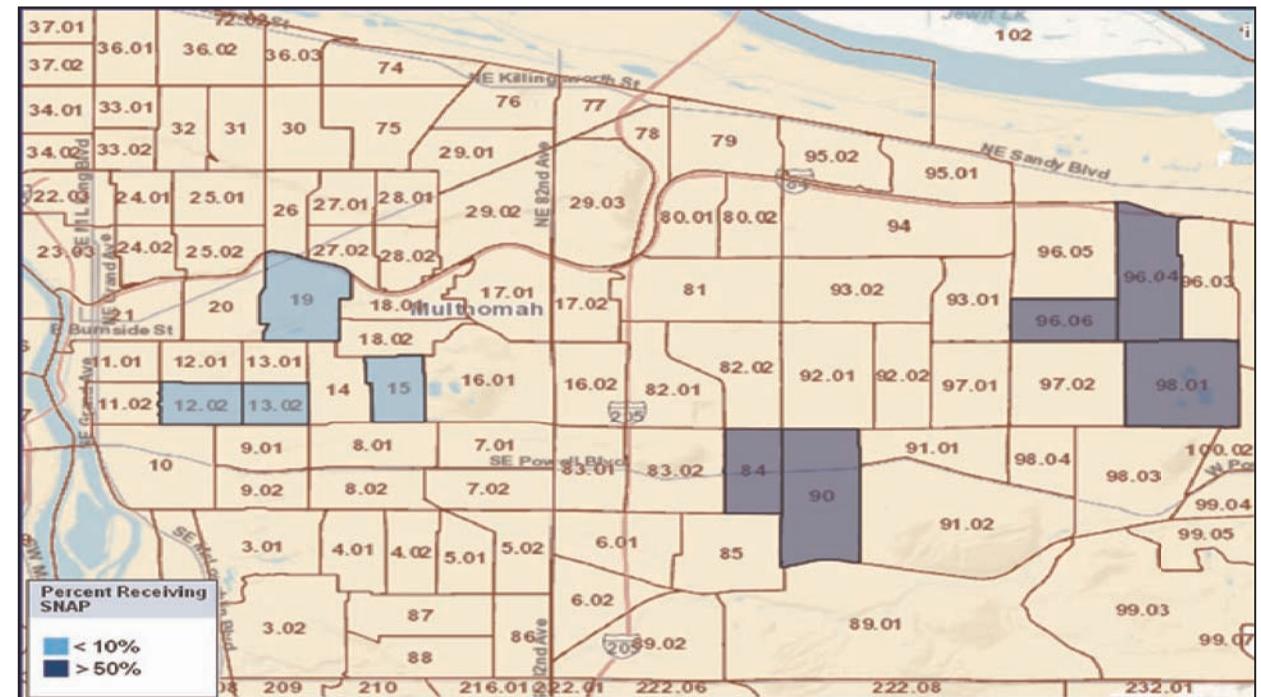


Figure 3 shows a portion of the Portland Metro area. Four of the illustrated census tracts have some of the lowest SNAP participation in the state (under 10 percent). These tracts are less than ten miles from five census tracts with some of the very highest SNAP participation (over 50 percent). This kind of disparity, so close together, is most common in urban areas, which have a high degree of economic diversity within a relatively small space.