

## Iffy Data: Gray Areas in the Margin of Error

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### **Article:**

When is a vacancy not a vacancy? That was the question raised recently when Forbes magazine released its ranking of the “emptiest cities in America,” the cities (actually the metropolitan areas) with the highest residential vacancy rates.

Based on data from the fourth quarter of last year, the Greensboro/ High Point metro area had the fourth highest vacancy rate. That put Greensboro and High Point in the same ballpark as such housing-bubblicious cities as Las Vegas, Phoenix and Orlando.

When news of the Forbes ranking came out, e-mails and phone calls shot back and forth among city officials, economic developers and reporters. Most asked the same question: Can these numbers be right? After all, the housing bubble never quite reached the Triad. Home prices here never rose as quickly as in the boom areas on the coasts. And they haven’t fallen as far since the boom became a bust.

Some noted that there was no mention of Winston-Salem. Does the Twin City have low vacancy rates? We don’t know, because the Census data cover only the 75 largest metro areas; Winston-Salem isn’t one of them.

In 2003, the federal government divided the Triad metro area, which had well over a million people, into a series of smaller pieces. Greensboro and Winston-Salem are now in separate metro areas.

So can the Forbes ranking be right about Greensboro and High Point? The answer is probably not.

The rankings were based on housing data compiled by the U.S. Census Bureau. According to those data, the Greensboro/High Point metro area had a 15 percent vacancy rate for rental housing, which was the 13th highest.

Even more surprising was the 5.9 percent homeowner-vacancy rate, which was second only to Orlando. The average of those two rankings put Greensboro/High Point in fourth place.

But Forbes omitted any mention of margins of error. The Census Bureau actually reported that Greensboro/ High Point’s homeowner-vacancy rate was 5.9 percent plus or minus 4.3 percentage points, meaning that the true rate could be anywhere from 1.6 to 10.2 percent. That’s a pretty wide range. A rate of 1.6 percent would have put Greensboro/High Point in 61st place for homeowner vacancies.

In fact, the margin of error for Greensboro/High Point’s homeowner vacancy rate was the largest among all 75 metro areas. It was in the top three in every quarter last year.

Why is this? In statistics, the fewer the observations, the less precise the results. In small metro areas like Greensboro/ High Point (the 72nd largest), the Census Bureau simply doesn’t make many survey calls.

The areas that had the largest margins of error in the Census report were all small ones. Which metro area had the smallest margin of error? New York City.

It appears that the data on which the Forbes ranking was based are simply not reliable for smaller metro areas. Perhaps the data should be reported only for the top 25.

Even if the data were reliable, they'd say less about Greensboro and High Point than you might expect. The Greensboro/ High Point metro area is made up of Guilford, Randolph and Rockingham counties. The two core cities account for a little less than half of the total population of the three-county area. The reported vacancy rates are as much a function of the rural housing situation as of urban Greensboro's.

So there's no reason to believe that Greensboro and High Point are actually among our "emptiest cities." Unfortunately, most readers of Forbes think otherwise.