

Calculating Old North Davis Population Density

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In the recent period, I have several times asserted that Old North Davis has a population per square mile in the range of 7,000 people, which is rather higher than the official Census calculation. In making this claim, I have not supplied the technical details I think support it and why I do not agree with the Census figure.

Therefore, let me now provide that information. I preface this account with the request that people redo my measurements and calculations. There may well be errors in my work that new inspections will bring to light.

I should also explain that I performed the work reported here in the Spring of 2001. I did so in the belief that that density would one day become a serious issue in Davis. In my assessment, that day has arrived. (The proximate stimulation for the work was an April 1, 2001 front page *Sacramento Bee* story on the topic “2000 regional population density.” That report alerted me to the fact that new data were just then available. Bee reporter Dorothy Kerber was very helpful in tracking down the Davis figures.)

1. Population. The block-level populations of the nine main Old North blocks are shown on the excerpt from U. S. Census Bureau “block map” of the Old North appended to this note.

Adding up these block populations, there are 381 people. (Because of significant turn-over in occupancy, the population today may be considerably more than 381, as several people have suggested.)

2. Area. The Census Bureau reports each of these nine blocks to be .01 of a square mile.

That number and others like it for central Davis struck me over-stated. Seeking a more precise understanding, I selected one of the nine main Old North blocks and measured it. This was block number 3016 on the appended map.

I found block number 3016 to be 325 feet east to west and 480 feet north to south. This is an area of 156,000 square feet.

A square mile is 27,878,400 square feet.

Therefore, block 3016 is .00559 square miles. Dealing with a huge country, the Census Bureau appropriately used the standard “rules of rounding” and rounded block number 3016 to .01 square miles. It did the same for the other blocks, I think. In these cases, this rounding resulted in a significant under-reporting of the area’s population per square mile.

3. People Per Square Mile. Nine .0059 square mile blocks are .054 of a square mile.

A population of 381 people residing in .054 square miles is an order-of-magnitude 7,000 people per square mile.

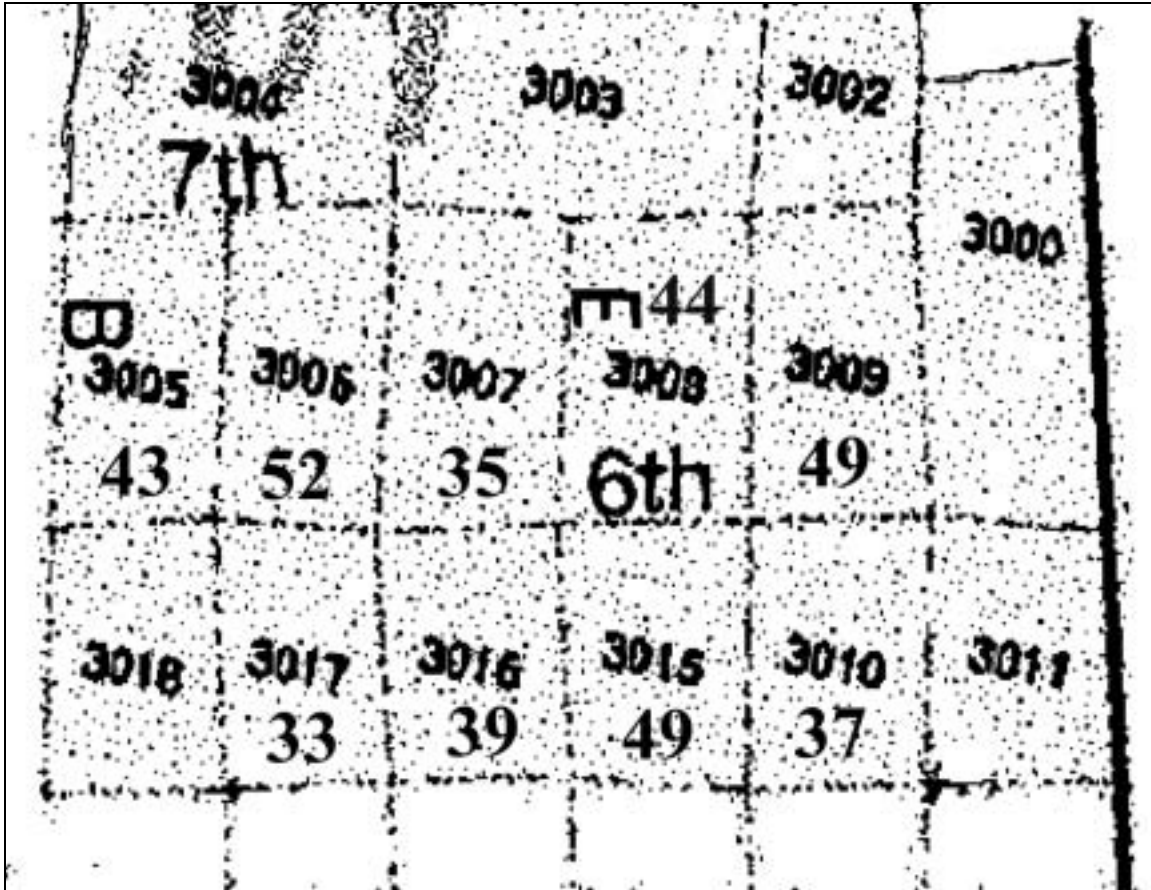
A 1998 Measure. I have been curious about population density for some years. In 1998, I calculated this measure for the Old North using a somewhat expanded specification of the area, one that included the north side of Seventh Street and all twelve southern blocks.

Using that specification, 609 people resided in .125 of a square mile. This is also about 7,000 people per square mile. (This result is reported on page 19 of my 1999 book, *Old North Davis*.)

Conclusion. It would be good to get the population density of the Old North (and of other areas) right. If what I assert here is wrong, let us know that. If what I say is substantially correct, let us deal with that reality.

Appendix:

**Old North Census Tract Block Numbers
and Number of Residents Enumerated in Each Block in the 2000 Census**



This map is an excerpt from map number 97, Census Tracts and Census Block Detail Map, published by the U. S. Department of Commerce, Economic and Statistics Administration, U. S. Census Bureau. On map 97, the above area appears within Davis California census tract 107.01. The relevant Old North block numbers are: 3005, 3006, 3007, 3008, 3009, 3017, 3016, 3015, 3010.

The number in Times Roman font within each of the blocks is the number of residents the U. S. Census Bureau reported living in that block at the time of the census in 2000. These block data were downloaded from the U.S. Census web site using the above locators.

I thank Ken C. Gebert, GIS Coordinator for the Sacramento Council of Governments, for instructing me in how to download block-level geographical data from the Census Bureau. At the Census Bureau site, those data are accessed by searching within California for County Subdivision: Davis CCD, Census Tract: 107.01, Block Group 3.

