

**POPULATION ESTIMATES &
PROJECTIONS**
Research Brief No. 9
MAY 2000

**Occupied versus Rented: Census &
Real Estate Occupancy Rates and
their Use in Population Estimates**

By Population Unit

THE OFFICE OF FINANCIAL MANAGEMENT'S (OFM) April 1 population estimates program develops estimates for local jurisdictions that are used for revenue allocations and program administration (RCW 43.62.020). Housing occupancy rates are an important variable in The Housing Unit estimation method that is used by OFM. This Brief identifies differences in the definition of "occupied" as used by the federal Bureau of the Census and local Real Estate Surveys. It also provides a simple procedure for adjusting the real estate survey data for use in the estimation process.

Housing Unit Estimate Method

The Housing Unit Method is used to estimate city populations. A simplified version is shown below:

$$\begin{array}{rcl} \text{Current City Housing X Occupancy Rate X Avg. Persons Per Occupied House} = & \text{Persons in Houses} & \\ & + & \\ \text{Current count of persons in nursing homes, correctional, other facilities} = & \text{Persons in Facilities} & \\ & \text{Total City Population} & \end{array}$$

- *OFM's annual population estimates are benchmarked to the most recent federal decennial census and use federal census data and definitions.*
- The 1990 federal census housing counts are updated on the basis of new constructions, demolitions and annexations.
- The 1990 federal census *measures of occupancy rates and average persons per household are updated*, when possible, on the basis of available administrative or survey data.
- *The requirement for using survey data to update census data is that the survey data be available for the last decennial census time period—1990 in this case. A comparison of the federal census and survey results identifies the differences in the two sets of data due to differences in collection, definition, and geographic coverage.*

Criteria to ensure accuracy are important. Cities and towns share a set revenue fund each year. Population increases reduce the per capita allocation to all cities. All population estimates must be as fair and as accurate as possible. Small shifts in average household size and vacancy rates in moderate to large cities have a dramatic impact on the allocations to other cities.

Real Estate and Other Vacancy Survey Data

The three important factors in the Housing Unit Method are houses, occupancy/vacancy rates, and persons per household. Real estate vacancy surveys, or other vacancy surveys that contact apartment managers, are often used to update federal census vacancy rates for local jurisdictions. While these data are valuable, the difference between these survey vacancy rates and federal census vacancy rates is not clearly understood.

Real estate vacancy surveys, in purpose and design, measure the cost and availability of apartment rentals. *They do not use random sample collection procedures. They do not provide a valid direct measure of federal census vacancies. Rental surveys fall notably short of counting federal census vacancies for two primary reasons. First, many "rented" units are not occupied by federal census definitions. Second, these*

surveys only cover apartment units that are currently on the rental market. Specific differences are outlined in Table 1.

Table 1.
Vacancy Differences in Real Estate Surveys versus the Bureau of the Census

<u>Managers Report as “Rented or Occupied” and Other Circumstances</u>	<u>How these Units are Defined by the Bureau of the Census</u>
1. Units rented for temporary use by firms for contractors, consultants, employees on the road, etc.	1. Temporary use rentals are counted vacant, not occupied by usual resident.
2. Persons moving may “overlap” rentals for a few weeks.	2. The unit the person is moving into is considered vacant.
3. Rented apartment is a commuter’s work residence as compared to home residence.	3. The unit that is not the usual residence of the commuter is counted as vacant.
4. Units under renovation are not reported as vacant by managers because they are not on the rental market.	4. Units under renovation are counted as vacant.
5. Time share units considered occupied.	5. Time share units counted vacant, no usual resident.
6. New completed apartment buildings are excluded from real estate surveys for 18 months.	6. Units in new apartment buildings are counted as vacant.
7. Apartment construction in progress is excluded in real estate or telephone vacancy surveys.	7. Apartment units under construction are counted as vacant if walls, roof, and door are in place.

Due to differences in definition—real estate surveys could contact 100 percent of the apartment buildings in an area and still obtain vacancy rates lower than the federal census.

Overall, vacancy rates from real estate survey tend to be about five percentage points lower than census vacancy rates (Figure 1). Some of the marked differences between federal census and real estate vacancy survey rates are due to a substantial number of vacant new constructions at the time of the federal census.

Survey or administrative data that reflect vacancies are evaluated for use by OFM on an individual basis. Real estate vacancy rates are usually used in developing city population estimates when there is a reasonable match between the city and survey boundaries, and when the rates show at least one-half of a percentage point change since 1990.

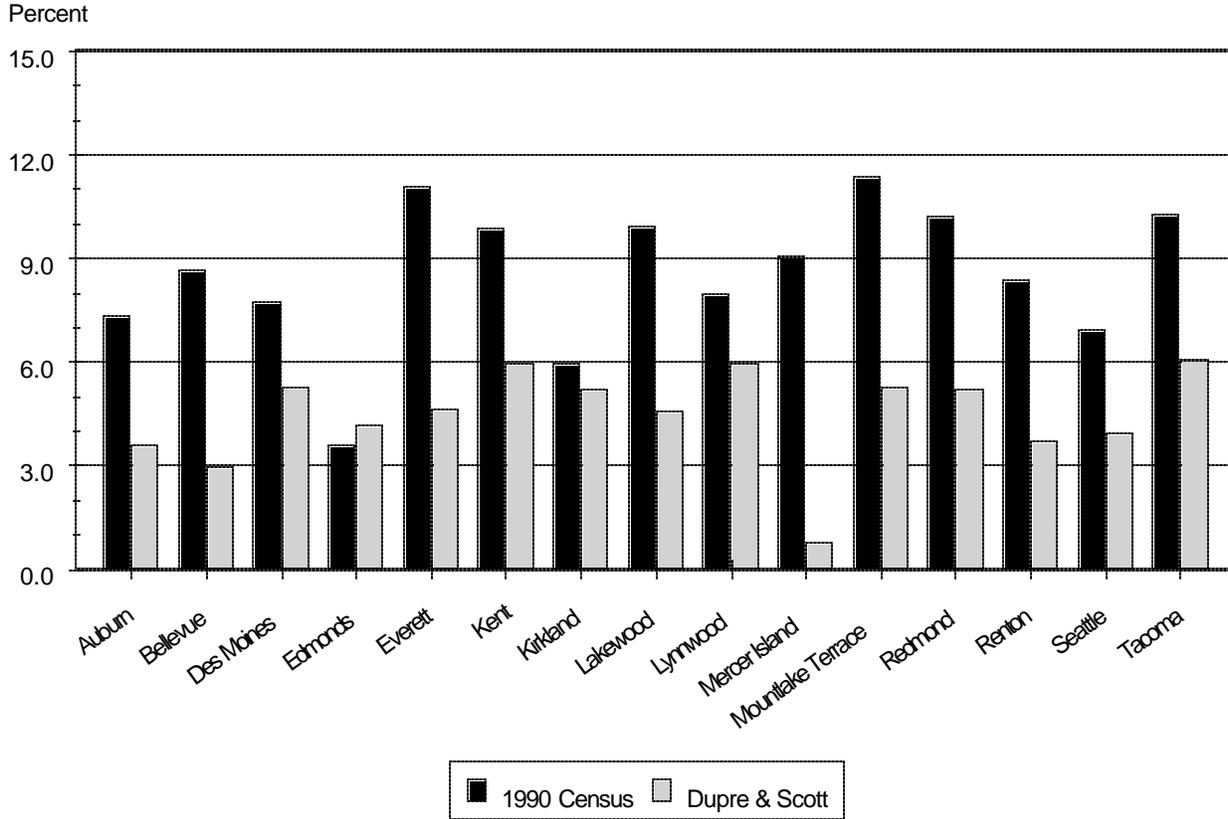
. The basic vacancy survey data adjustment procedure is:

1. Example city 1990 federal census vacancy ratio	.06500
2. Example city 1990 real estate survey vacancy ratio	.03000
3. Adjustment factor (difference) is (1) minus (2)	.03500
1. Example city 1998 real estate survey ratio	.02000
2. 1990 adjustment factor (step 3 above)	.03500
3. Adjusted 1998 real estate ratio is (1)+(2)	.05500

Adjusted vacancy ratios are converted to occupancy ratios and used in the estimation procedure.

Figure 1 shows the difference between 1990 federal census vacancy rates and Dupre & Scott real estate vacancy survey rates for several cities.

Figure 1
Comparison of 1990 Vacancy Rates for Selected Cities
5 or More Unit Structures



City	Census	Dupre & Scott	Difference
Auburn	7.33 %	3.58 %	-3.75
Bellevue	8.66 %	2.95 %	-5.71
Des Moines	7.73 %	5.28 %	-2.46
Edmonds	3.59 %	4.20 %	0.61
Everett	11.07 %	4.63 %	-6.43
Kent	9.89 %	5.97 %	-3.92
Kirkland	5.95 %	5.22 %	-0.74
Lakewood	9.95 %	4.58 %	-5.38
Lynnwood	8.00 %	5.94 %	-2.06
Mercer Island	9.07 %	0.79 %	-8.28
Mountlake Terrace	11.39 %	5.28 %	-6.11
Redmond	10.21 %	5.20 %	-5.01
Renton	8.37 %	3.74 %	-4.63
Seattle	6.94 %	3.93 %	-3.01
Tacoma	10.26 %	6.05 %	-4.21

Note: Differences computed on unrounded numbers.

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