

# RETAIL TRADE ANALYSIS OF OREGON COUNTIES

## Sector Pull Factors: *Nonstore Retailers*

The Rural Studies Program of Oregon State University has developed this retail trade analysis to provide descriptive information on retail sales and to assist economic development in Oregon counties. This report presents “sector pull factors” that may assist county officials, business owners, and investors in assessing the strength of the existing retail business environment.

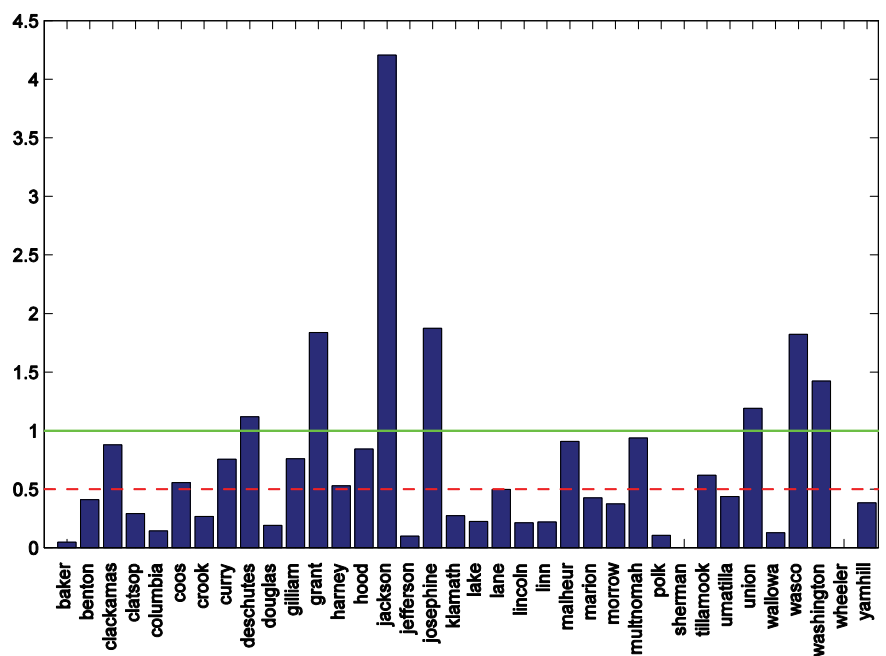
This series of tables compares pull factors for each of the 12 retail sectors across all 36 counties. This allows counties to see how their retail sales “pull” in each sector is affected by (and affects) their neighbors’ pull. The existence of a retail outlet in a county, for example, may account for a large pull factor in certain retail sectors in that county, while creating small pull factors for those sectors in neighboring counties.

### Definition of pull factor

The pull factor is the quotient of county per-capita sales and state per-capita sales (adjusted by the ratio of county per-capita income to state per-capita income). It can be used to estimate the extent to which a particular retail sector in a county draws customers from outside its boundaries. A pull factor greater than 1.0 implies that the county is pulling in customers from outside the county. A pull factor less than 1.0 implies that the county is losing customers to competing markets in other areas (Shaffer et al. 2004, p. 274).

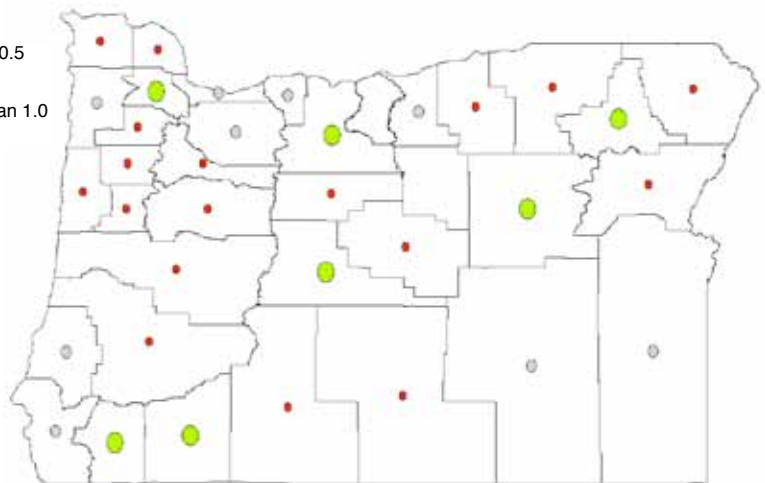
### *Pull Factors for Nonstore Retailers*

Nonstore Retailers (454) include electronic shopping, mail-order houses, vending machine operators, direct selling establishments, and fuel dealers.



#### Legend

- Less than 0.5
- 0.5 to 1.0
- Greater than 1.0



Pull factors measure sales activities and over time can reflect changes in population, inflation, and the state economy. However, they ignore consumer characteristics such as age, ethnicity, and differences in consumption patterns. Pull factors assume that tastes and preferences of county residents are the same as those of state residents.

The internet has changed the way many Americans shop. Most e-commerce is reported in the “electronic shopping and mail order houses” sector (NAICS 45411), which accounted for 4.3 percent of Oregon retail sales in 2007. In this report, these sales are included under the “nonstore retail sector” (NAICS 454).

The pull factor is a descriptive tool intended for comparative purposes. We do not attempt to identify the reasons for a particular county’s pull factors, nor to suggest how to change the current situation. For a discussion of strategies to build local retail markets, see Deller 2010.

Do you have thoughts about the patterns of each sector’s pull factors across counties? What do you see as underlying explanations for the existing pattern of pull factors? Where do you see opportunities to enhance economic development? Enter into the conversation on each sector’s pull factors by going to <http://blogs.oregonstate.edu/retailanalysis/>.

## Data description

Sector sales data were obtained from the economic census, 2002 and 2007 (U.S. Census Bureau, <http://www.census.gov/econ/census07>). Data on county population and income were obtained from the Regional Economic Accounts (Bureau of Economic Analysis, <http://bea.gov/regional>).

If a county has few store establishments in a certain sector or sectors, sector sales data are suppressed for confidentiality reasons. (If only one sector in a county is below the minimum number of store establishments, data

are suppressed for two sectors in that county and for that sector in two counties.) In such cases, we first figure out the total retail sales for all sectors with suppressed data. We then multiply the number of establishments in each of these sectors by the corresponding state average sales per establishment, in order to determine the percentage of sales to allocate to each sector. Finally, we allocate the total sales based on the calculated ratio and determine the sales value for sectors with missing data.

For example, the sales for “general merchandise stores” (NAICS code = 452) and “miscellaneous store retailers” (NAICS code = 453) in Clatsop County are suppressed because there are only 4 “general merchandise stores” in the county. We calculate the sum of retail sales in these two sectors by subtracting the sales of all other retail sectors from total retail sales in Clatsop County. Then, using the state average sales per establishment in these two sectors (452 and 453) as the weighting coefficients on the number of establishments, we allocate the two sectors’ total retail sales into the two sectors.

## References

- Deller, Steve. “An Updated Trade Analysis of Wisconsin Counties for 2009.” Staff Paper No. 550. Department of Agricultural and Applied Economics, University of Wisconsin—Madison. October 2010.
- Shaffer, Ron, Steve Deller and Dave Marcoulier. Community Economics: Linking Theory and Practice, 2nd edition. Ames, IA: Blackwell Publishing. 2004.

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