

# Wage and employment fluctuations during the housing market cycle

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Many economists agree that downward nominal wage rigidities are an important cause of fluctuations in employment over a business cycle. In [“Wage flexibility and employment fluctuations: evidence from the housing sector,”](#) Jörn-Steffen Pischke analyzes the impact of the housing market cycle on wages and employment for three occupations—real estate agents, architects, and construction workers. These occupations were chosen because they are all impacted by the housing cycle and their wage is set differently.

Real estate agents are paid mostly, if not solely, on commission and, thus, have flexible wages. Agents are either self-employed or employed by brokerages under a wide range of pay arrangements, usually involving a share of the commission generated by their sales. They may receive a low base pay (subsidized by a percentage of commission revenue, usually 50 to 80 percent), receive no base pay at all (working solely for commission), or may be required to “pay for their desk” (a monthly fee to the broker in exchange for a large share, often 100 percent, of the commission revenue). Because of these arrangements, there is little impetus for brokerages to fire agents during downturns in the housing market. Such establishments can generally afford to keep agents at their low (or no) base pay. There may even be pressure on brokerages to pay higher wages during downturns, as there is the possibility that agents will quit if they earn a less-than-desirable wage for too long.

Because architects and construction workers are paid standard wages and salaries, they are more likely to be laid off because employers often shoulder a significant financial burden during downturns. These two groups were used as the control group in the study because, the author believes, their employment is more likely to be affected by the housing cycle than employment for real estate agents.

The author uses a wide range of data to examine fluctuations in the housing market, which he interprets as shocks to the labor demand for the three jobs selected, focusing on the response of employment to these fluctuations. Aggregate data at the state and year level was used for the analysis. Data on annual employment, average hourly wages, weeks worked per year, and hours worked per week were gathered from American Community Survey (ACS) data. Because the state-level ACS sample sizes can be small, leading to inexact averages, this data was complemented with Quarterly Workforce Indicators (QWI) data—state unemployment insurance system records, capturing real estate agents with nonflexible contracts and excluding self-employment. Additionally, housing sales transactions data from the National Association of Realtors and sales prices data from Federal Housing Finance Agency were included.

In order to analyze wage and employment responses to labor demand shocks, wage and employment regressions were run on both datasets (ACS and QWI) for all three occupations. The author chose to compare inverse wage setting elasticities, rather than Beta coefficients, for the three occupations to limit the impact of housing market

shocks, which affect real estate agents more directly than the other occupations. The author found that the estimates from the regression using QWI data (shown below) were more accurate than estimates using ACS data.

Estimates of employment response to labor demand shocks for real estate agents, architects and construction workers were 0.39, 0.29, and 0.50 respectively. Estimates of wage response to labor demand shocks for real estate agents, architects and construction workers were 0.17, 0.07, and 0.14, respectively. The results show that the inverse wage setting elasticities (ratio of these two estimates) for real estate agents, architects, and construction workers were 2.2, 4.3, and 3.6, respectively. Higher inverse wage setting elasticities for architects and construction workers indicate a larger employment and a smaller wage response to labor demand shocks than real estate agents.

The regression results showed that the effect of labor demand shocks on wages of real estate agents was more than the effect on wages of architects and construction workers. Employment of real estate agents responded less to labor demand shocks than employment of architects and construction workers. Except in a situation where labor demand elasticity is large, the regression results do not indicate that flexibility of wage setting would lessen the impact of demand shocks of more than 10 to 20 percent on employment fluctuations, when compared with rigid wages.