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Sample Selection Bias and Repeat-Sales Index Estimates

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Abstract

Analysis of variations in house values among localities requires reliable house value indices. Gatzlaff and Haurin (1994) indicate that traditional hedonic house value index estimates, using only information from a sample of sold homes to estimate value movements for the entire housing stock, may be subject to substantial bias. This article extends previous work by adapting the censored sample procedure to the repeat-sales index estimation model. Using data from Dade County, Florida, a house value index constructed from a sample of homes selling more than once, rather than all houses in a locality, is found to be biased. The bias is shown to be highly correlated with changes in economic conditions.

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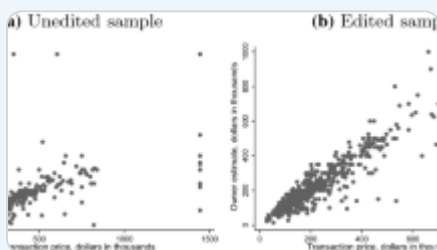
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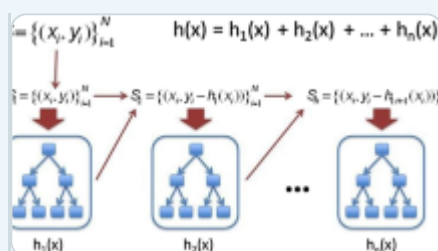
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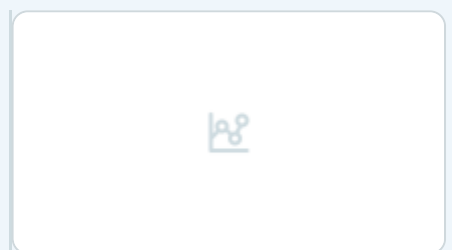
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References

Bailey, M. J., R. F. Muth, and H. O. Nourse. "A Regression Method for Real Estate Price Index Construction." *Journal of the American Statistical Association* 58(304) (1963), 933-942.

[Google Scholar](#)

Case, B., and J. Quigley. "The Dynamics of Real Estate Prices," *Review of Economics and Statistics* 73(3) (1991), 50-58.

[Google Scholar](#)

Case, B., H. P. Ollakowski, and S. Wachter. "On Choosing Among House Price Index Methodologies," *AREUEA Journal* 19(3) (Fall 1991), 286-307.

[Google Scholar](#)

Case, K., and R. Shiller. "The Efficiency of the Market for Single-Family Homes," *American Economic Review* 79(1) (March 1989), 125-37.

[Google Scholar](#)

Dhrymes, P. J. "Limited Dependent Variables." In Z. Griliches and M. Intriligator (eds.), *Handbook of Econometrics*. Amsterdam: Elsevier Science Publishers, 1986.

Eller, T. J. *Household Wealth and Asset Ownership*: 1991. U. S. Bureau of the Census, Current Population Reports. Washington: U.S. Government Printing Office, P70-34, 1994.

[Google Scholar](#)

Fishe, R. P., R. P. Trost, and P. Lurie. "Labor Force Earnings and College Choice of Young Women: An Examination of Selectivity Bias and Comparative Advantage," *Economics of Education Review* 1 (1981), 169-191.

[Google Scholar](#)

Gatzlaff, D., and D. Haurin. "Sample Selection and Biases in Local House Value Indices." Working paper, The Ohio State University, 1994.

Gatzlaff, D., and D. Ling. "Measuring Changes in Local House Prices: An Empirical Investigation of Alternative Methodologies," *Journal of Urban Economics* 35(2) (1994), 221-244.

[Google Scholar](#)

Goodman, A., and T. Thibodeau. "Heteroskedasticity in Repeat-Sale House Price Equations." Working paper, Wayne State University, 1995.

Greene, W. "Sample Selection Bias as a Specification Error: Comment," *Econometrica* 49(3) (May 1981), 795-798.

[Google Scholar](#)

Hartzell, D., R. Pittman, and D. Downs. "An Updated Look at the Size of the U.S. Real Estate Market Portfolio," *Journal of Real Estate Research* 9(2) (Spring 1994),

197-212.

[Google Scholar](#)

Haurin, D., and P. Hendershott. "House Price Indexes: Issues and Results," *AREUEA Journal* 19(3) (Fall 1991), 259-269.

[Google Scholar](#)

Heckman, J. "Shadow Prices, Market Wages, and Labor Supply," *Econometrica* 42 (1974), 679-694.

[Google Scholar](#)

Heckman, J. "Sample Selection Bias as a Specification Error," *Econometrica* 47 (1979), 153-161.

[Google Scholar](#)

Hendershott, P., and T. Thibodeau. "The Relationship between Median and Constant Quality House Prices: Implications for Setting FHA Loan Limits," *AREUEA Journal* 18(3) (Fall 1990), 323-334.

[Google Scholar](#)

Hosios, A. J., and J. E. Pesando. "Measuring Prices in Resale Housing Markets in Canada: Evidence and Implications," *Journal of Housing Economics* 1(1) (1991), 1-15.

[Google Scholar](#)

Ihlanfeldt, K. R., and J. Martinez-Vazquez. "Alternative Value Estimates of Owner-Occupied Housing: Evidence on Sample Selection Bias and Systematic Errors," *Journal Of Urban Economics* 20(3) (November 1986), 357-369.

[Google Scholar](#)

Lancaster, T., and A. Chesher. "Stock and Flow Sampling," *Economics Letters* 8 (1981), 63-65.

[Google Scholar](#)

Lee, Lung-Fei, and G. S. Maddala. "Sequential Selection Rules and Selectivity in Discrete Choice Econometric Models," *Econometric Methods and Applications II*. 1985, pp. 311-329.

Maddala, G.S. *Limited Dependent and Qualitative Variables in Econometrics*. Cambridge: Cambridge University Press, 1985.

[Google Scholar](#)

Mankiw, G., and D. Weil. "The Baby Boom, the Baby Bust, and the Housing Market," *Regional Science and Urban Economics* 19(2) (May 1989), 235-258.

[Google Scholar](#)

Poirier, D. J. "Partial Observability in Bivariate Probit Models," *Journal of Econometrics* 12 (1980), 209-219.

[Google Scholar](#)

Rosen, S. "Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition," *Journal of Political Economy* 82(1) (1974), 34-55.

[Google Scholar](#)

Tallis, G. M. "The Moment Generating Function of the Truncated Multi-Normal Distribution," *Journal of the Royal Statistical Society. (Series B)* 23 (1961), 223-229.

[Google Scholar](#)

Tunali, I. “A Common Structure for Models of Double Selection.” Working paper, University of Wisconsin-Madison, 1983.

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