

[Home](#) > [The Journal of Real Estate Finance and Economics](#) > [Article](#)

Sample Selection Bias and Repeat-Sales Index Estimates

Published: January 1997

Volume 14, pages 33–50 (1997) [Cite this article](#)

[Save article](#)

[View saved research](#) >



[The Journal of Real Estate Finance and Economics](#)

[Aims and scope](#) →

[Submit manuscript](#) →

[Dean H. Gatzlaff¹](#) & [Donald R. Haurin²](#)

 **710** Accesses  **213** Citations  **15** Altmetric [Explore all metrics](#) →

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.

Access this article

[Log in via an institution](#) →

Subscribe and save

Springer+

from €37.37 /Month

- Starting from 10 chapters or articles per month
- Access and download chapters and articles from more than 300k books and 2,500 journals
- Cancel anytime

[View plans](#) →

Buy Now

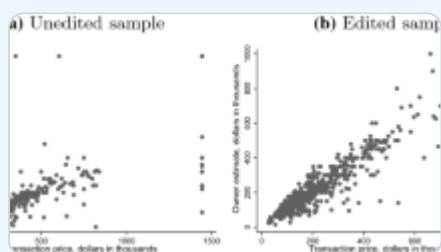
[Buy article PDF 39,95 €](#)

Price includes VAT (Poland)

Instant access to the full article PDF.

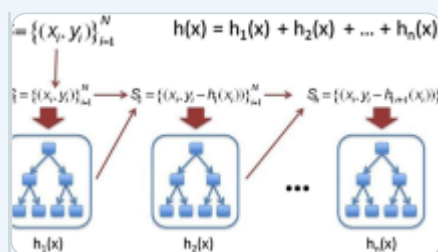
[Institutional subscriptions](#) →

Similar content being viewed by others



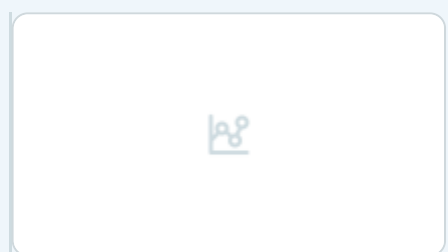
[The accuracy of homeowners' valuations in the twenty-first century.](#)

Article | 10 November 2022



[Big data analytics predicting real estate prices](#)

Article | 17 January 2020



[Hedonic pricing models and residual house price volatility.](#)

Article | 27 June 2019

Explore related subjects

Discover the latest articles, books and news in related subjects, suggested using machine learning.

[Economic Psychology](#)

[Econometrics](#)

[Market Psychology](#)

[Quantitative Psychology](#)

[Real Estate Economics](#)

[Survey Methodology](#)

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.

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

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

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

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.

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.

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.

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.

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.

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

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

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

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.

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.

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.

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

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.

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.

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

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

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.

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

Author information

Authors and Affiliations

Department of Insurance, Real Estate, and Business Law, The Florida State University, Tallahassee, FL, 32306

Dean H. Gatzlaff

Departments of Economics and Finance, The Ohio State University, 1945 N. High Street, Columbus, OH, 43210

Donald R. Haurin

Rights and permissions

[Reprints and permissions](#)

About this article

Cite this article

Gatzlaff, D.H., Haurin, D.R. Sample Selection Bias and Repeat-Sales Index Estimates. *The Journal of Real Estate Finance and Economics* 14, 33–50 (1997). <https://doi.org/10.1023/A:1007763816289>

Issue date

January 1997

DOI

<https://doi.org/10.1023/A:1007763816289>

[house price index](#)

[sample selection](#)

[housing markets](#)

Search

Search by keyword or author



Navigation

Find a journal

Publish with us

Track your research