



Econometric Reviews >

Volume 20, 2001 - [Issue 1](#)

111 | 11 | 0  
Views | CrossRef citations to date | Altmetric

Original Articles

# SIZE CHARACTERISTICS OF TESTS FOR SAMPLE SELECTION BIAS: A MONTE CARLO COMPARISON AND EMPIRICAL EXAMPLE

Kazumitsu Nawata & Michael McAleer

Pages 105-112 | Published online: 21 Aug 2006

🗨️ Cite this article   🔗 <https://doi.org/10.1081/ETC-100104082>

Sample our  
Mathematics & Statistics  
Journals  
>> **Sign in here** to start your access  
to the latest two volumes for 14 days

📄 Full Article

🖼️ Figures & data

📖 References

🗨️ Citations

📊 Metrics

📄 Reprints & Permissions

Read this article

🔗 Share

## Abstract

The t-test of an individual coefficient is used widely in models of qualitative choice. However, it is well known that the t-test can yield misleading results when the sample size is small. This paper provides some experimental evidence on the finite sample properties of the t-test in models with sample selection biases, through a comparison of the t-test with the likelihood ratio and Lagrange multiplier tests, which are asymptotically equivalent to the squared t-test. The finite sample problems with the t-test are shown to be alarming, and much more serious than in models such as binary choice models. An empirical example is also presented to highlight the differences in the calculated test statistics.

Keywords:

- Sample selection bias
- t-test
- Wald test
- JEL Classification: C12, C24

## ACKNOWLEDGMENTS

The authors wish to thank Richard Blundell, Colin McKenzie, Atsushi Yoshida, the editor, two anonymous referees, and seminar participants at McMaster University and Osaka University for their helpful comments and suggestions. The second author wishes to acknowledge the financial support of the Australian Research Council, the Japan Society for the Promotion of Science, and the Osaka School of International Public Policy at Osaka University.

## Related research

People also read	Recommended articles	Cited by 11
------------------	----------------------	----------------

## Information for

[Authors](#)

[R&D professionals](#)

[Editors](#)

[Librarians](#)

[Societies](#)

## Opportunities

[Reprints and e-prints](#)

[Advertising solutions](#)

[Accelerated publication](#)

[Corporate access solutions](#)

## Open access

[Overview](#)

[Open journals](#)

[Open Select](#)

[Dove Medical Press](#)

[F1000Research](#)

## Help and information

[Help and contact](#)

[Newsroom](#)

[All journals](#)

[Books](#)

## Keep up to date

Register to receive personalised research and resources by email



Sign me up



Copyright © 2025 Informa UK Limited [Privacy policy](#) [Cookies](#) [Terms & conditions](#)

[Accessibility](#)



Taylor & Francis Group  
an informa business

Registered in England & Wales No. 01072954  
5 Howick Place | London | SW1P 1WG