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The *Stata Journal* publishes reviewed papers together with shorter notes or comments, regular columns, book reviews, and other material of interest to Stata users. Examples of the types of papers include 1) expository papers that link the use of Stata commands or programs to associated principles, such as those that will serve as tutorials for users first encountering a new field of statistics or a major new technique; 2) papers that go “beyond the Stata manual” in explaining key features or uses of Stata that are of interest to intermediate or advanced users of Stata; 3) papers that discuss new commands or Stata programs of interest either to a wide spectrum of users (e.g., in data management or graphics) or to some large segment of Stata users (e.g., in survey statistics, survival analysis, panel analysis, or limited dependent variable modeling); 4) papers analyzing the statistical properties of new or existing estimators and tests in Stata; 5) papers that could be of interest or usefulness to researchers, especially in fields that are of practical importance but are not often included in texts or other journals, such as the use of Stata in managing datasets, especially large datasets, with advice from hard-won experience; and 6) papers of interest to those who teach, including Stata with topics such as extended examples of techniques and interpretation of results, simulations of statistical concepts, and overviews of subject areas.

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The Stata Journal Editors' Prize 2018: Federico Belotti



1 Prize announcement

The editors of the *Stata Journal* are delighted to announce the award of the Editors' Prize for 2018 to **Federico Belotti**.

The aim of the prize is to reward contributions to the Stata community in respect of one or more outstanding papers published in the *Journal* in the previous three calendar years. For the original announcement of the prize and its precise terms of reference, see Newton and Cox (2012), which is accessible at the following website: <http://www.stata-journal.com/sjpdf.html?articlenum=gn0052>.

Federico Belotti was born in Rome in 1976 and grew up there. He received a bachelor's degree in economics in 2004 and a master's in quantitative methods in 2005 from the University of Rome Tor Vergata. After spending two years working at the Italian National Institute of Statistics, he went back to academia and was awarded a PhD in econometrics and empirical economics, also by the University of Rome Tor Vergata. His thesis was awarded the prize for the best PhD thesis in 2011 in applied statistics and demography by the Italian Statistical Society.

In 2016, Federico became an assistant professor of econometrics at the Department of Economics and Finance of the University of Rome Tor Vergata. His research interests focus on microeconomic methods with applications in health, production, and spatial

economics. Federico's more methodological econometric work has been mostly on the analysis of panel data and has appeared in the *Journal of Econometrics*. During his undergraduate studies, he discovered that learning econometrics is made much easier by coding estimators and by studying their finite sample properties via simulation. Since then, he has always given a high priority to software implementations of existing and novel econometric methods.

Outside his day job, Federico enjoys swimming, playing tennis, and listening to rock music.

The award recognizes specifically two outstanding papers by Federico (Belotti, Deb, Manning, and Norton 2015a; Belotti, Hughes, and Piano Mortari 2017a):

- `twopm`: Two-part models (*Stata Journal* 15: 3–20)
- Spatial panel-data models using Stata (*Stata Journal* 17: 139–180)

The References contain a full set of Belotti's publications in the *Stata Journal*. We should single out two further substantial papers (Belotti and Depalo 2010; Belotti et al. 2013):

- Translation from narrative text to standard codes variables with Stata (*Stata Journal* 10: 458–481)
- Stochastic frontier analysis using Stata (*Stata Journal* 13: 719–758)

We turn now to the major papers behind this award. Each combines the introduction of a major new Stata command with a thorough but accessible account of the associated theory and substantial examples based on real data. They bear witness to considerable skills in program and command design and coding in both Stata and Mata.

Belotti, Deb, Manning, and Norton (2015a) describe `twopm`, a command for fitting two-part models for mixed discrete-continuous outcomes. In the two-part model, a binary choice model is fit for the probability of observing a positive-versus-zero outcome. Then, conditional on a positive outcome, an appropriate regression model is fit for the positive outcome. The `twopm` command allows the user to leverage the capabilities of `predict` and `margins` to calculate predictions and marginal effects and their standard errors from the combined first- and second-part models.

This kind of model arises in various fields, although it is perhaps best known and most used in the economics of healthcare. The authors carefully note earlier work from meteorology, in which the two parts typically concern whether it rains and how much it rains when it does, and from the economics of food or other consumption. They also distinguish two-part models from loosely similar, but conceptually different, hurdle models and Heckman-type selection models. Their own examples cover prediction of healthcare expenditures, which are zero for many of the individuals in a sample and positive otherwise, with age and gender as predictors.

The authors make use in their work of relevant features of official Stata, including `svy` features to recognize and adjust for survey design. The syntax of `twopm` is flexible enough to allow specification of different sets of predictors or covariates in each part of the two-part model, although that is not generally recommended without substantive justification. The response or outcome may often be a logarithmic transform of the original data, which raises several questions about back-transforming. The authors address this carefully on several levels, with discussion of various possibilities.

Belotti et al. (2017a) introduce `xsmle` as a new community-contributed command for spatial analysis. This concerns quasi-maximum likelihood estimation of a wide set of both fixed- and random-effects spatial models for balanced panel data. `xsmle` allows users to handle unbalanced panels using its full compatibility with the `mi` suite of commands; to use spatial weight matrices in the form of both Stata matrices and `spmat` objects (on the latter, see Drukker et al. [2013]); to compute direct, indirect, and total marginal effects and related standard errors for linear (in variables) specifications; and to exploit a wide range of postestimation features, including the panel-data case predictors of Kelejian and Prucha (2007). Moreover, `xsmle` allows the use of `margins` to compute total marginal effects in the presence of nonlinear specifications obtained using factor variables. The paper describes the command and all of its functionalities using a variety of examples with both simulated and real data.

This is a richly detailed account explaining how a variety of spatial-temporal models may be fit and their merits and limitations explored. As with the paper on two-part models, it is a major contribution in an area posing challenging theoretical questions and where many examples are of both empirical and policy concern. The authors' main example with real data is for the 48 states of the continental United States and the District of Columbia. The response is electricity demand considered in relation to various economic, demographic, and climatological drivers in space and time. The authors' work grows out of the fast-changing fields of spatial economics and econometrics but is likely to be of long-term value to researchers in many disciplines—not only in other social sciences, but beyond, as in environmental sciences.

In sum, we salute Federico Belotti for outstanding contributions to the Stata community through his recent publications in the *Stata Journal*.

As editors, we are indebted to the awardee for biographical material and to necessarily anonymous nominators for most helpful appreciations.

H. Joseph Newton and Nicholas J. Cox
Editors, *Stata Journal*

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