LUKE N. TAYLOR

LONDON SCHOOL OF ECONOMICS & POLITICAL SCIENCE **Department of Economics**

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GENDER: M **CITIZENSHIP**: British

PRE-DOCTORAL STUDIES:

2013-2014 MRes Economics, London School of Economics (Distinction)
2012-2013 MSc Econometrics and Mathematical Economics, London School of Economics (Distinction)
2009-2012 BSc Economics and Econometrics, University of Bristol (1st Class)

DOCTORAL STUDIES: PhD Economics, London School of Economics

DATES: 2014 - present

THESIS TITLE: "Measurement Error in Nonparametric Models"

EXPECTED COMPLETION DATE: June 2017

REFERENCES:

Peter M. Robinson (Advisor)
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DESIRED TEACHING AND RESEARCH:

Primary Fields: Econometric Theory

Secondary Fields: Applied Econometrics, Statistics

TEACHING EXPERIENCE:

2016	Teaching Assistant to Christopher Dougherty Intermediate Econometrics (Summer School)
2016	Teaching Assistant to Taisuke Otsu and Marcia Schafgans Introduction to Econometrics (Summer School)
2015	Teaching Assistant to Steve Pischke Assistant Lecturer to Marcia Schafgans Principles of Econometrics (Undergraduate)
2015, 2014	Teaching Assistant to Christopher Dougherty Introduction to Econometrics (Summer School)
2014, 2013	Assistant Lecturer and Teaching Assistant to Marcia Schafgans Principles of Econometrics (Undergraduate)

RELEVANT POSITIONS HELD:

2016	Econometrics Consultant for APC International
2014-2015	Research Assistant to Peter M. Robinson

LANGUAGES:

English - Native

HONORS, SCHOLARSHIPS AND FELLOWSHIPS:

2016, 2015	London School of Economics Class Teacher Award
2016, 2015, 2014	Nominated for LSESU Teaching Excellence Award
2013	ESRC 4-year Studentship
2011	Philip Geoffrey Powesland Prize – showing the most promise in Economics at the University of Bristol
2010	Alumni Academic Achievement Award – the best first year student in the Faculty of Social Sciences and Law at the University of Bristol

COMPLETED PAPERS:

Job Market Paper:

"Nonparametric Significance Testing in Measurement Error Models"

This paper develops a nonparametric significance test for regression models with measurement error in the regressors. To the best of our knowledge, this is the first test of its kind. We use a 'semi-smoothing' testing approach using nonparametric deconvolution estimators and show that our test is able to overcome the slow rates of convergence associated with such estimators. In particular, our test is able to detect local alternatives at the root-n rate. We derive the asymptotic distribution of the test under both i.i.d. and weakly dependent data, as well as providing bootstrap procedures for both data types. We also highlight the finite sample performance of the test through a Monte Carlo study.
Finally, we discuss two empirical applications. The first considers the effect of cognitive ability on a range of socio-economic variables: income, life satisfaction, health and risk aversion. The second uses time series data - and a novel approach to estimate the measurement error without repeated measurements - to investigate whether future inflation expectations are able to stimulate current consumption. This is an important policy question when nominal interest rates approach the zero lower bound.

Other Papers:

"Adaptive Estimation in Multiple Time Series with Independent Components" (with P. M. Robinson) – Forthcoming in *Journal of Time Series Analysis.*

Multivariate time series of finite, but possibly high, dimension are considered. The innovations vector has elements that have unknown, nonparametric, and possibly differing, distributions, resulting in a semiparametric model. Gaussian pseudo-maximum likelihood parameter estimates are √n-consistent but asymptotically inefficient. Adaptive estimates in the univariate case exist and are asymptotically efficient, however they face a curse of dimensionality when extended to multivariate models. Similarly to independent component analysis, we model the innovations vector as a linear transformation of independent, but possibly non-identically distributed, random variables. We employ series estimation, and achieve asymptotic efficiency after one Newton-type step from a √n-consistent estimate. A Monte Carlo study is included.

"Estimation of Nonseparable Models with Censored Dependent Variables and Endogenous Regressors" (with T. Otsu) – Forthcoming in *Econometric Reviews.*

This paper develops a nonparametric estimator for the local average response of a censored dependent variable to endogenous regressors in a nonseparable model. The unobservable error term is not restricted to be scalar nor is the nonseparable function restricted to be monotone in the unobservables. We formalise the identification argument in Altonji, Ichimura and Otsu (2012), construct a nonparametric estimator, characterise its asymptotic property, and conduct a Monte Carlo investigation to study its small sample properties. Identification is constructive and is achieved through a control function approach. We show that the estimator is consistent and asymptotically normally distributed, as well as having good finite sample properties.

"Specification Testing for Errors-in-Variables Models" (with T. Otsu) – Submitted.

This paper proposes a specification test for regression models with errors-in-variables by comparing the distance between the parametric and nonparametric fits based on deconvolution techniques. In contrast to the method of Hall and Ma (2007), our test allows general nonlinear regression models and employs the smoothing approach. The other existing method, by Song (2008), is shown to possess trivial power under certain alternatives. We establish the asymptotic properties of our test and develop a bootstrap method to approximate critical values. We conduct a Monte Carlo study and apply the test to the assess the specification of Engel curves in the US.

Research in Progress:

"Estimating Fair Wages in the NCAA Football Labour Market" (with M. Cartledge).

This paper considers whether the wage cap for college football players, implied by the value of their scholarship, reflects fairly their contribution to overall revenue. Specifically, using play-by-play data, we determine the optimal use of each player and derive their marginal product under such use. To this end, we first relate revenue generated by the football program to their win rate and construct a semi-parametric production function for the team's wins. This function is then estimated using a partially linear fixed effects model. Finally, we maximize this function with respect to the team's decisions to derive the optimal strategy and hence their marginal product.

CONFERENCE PRESENTATIONS:

2016	European Winter Meeting of the Econometric Society, Edinburgh; Econometric Study Group Conference, Bristol; Royal Economic Society Annual Conference, Brighton; LSE Econometrics Work in Progress Seminar.
2015	European Winter Meeting of the Econometric Society, Milan; LSE Econometrics Work in Progress Seminar.
2014	LSE Econometrics Work in Progress Seminar.

PROFESSIONAL ACTIVITIES:

Referee for Journal of Business and Economic Statistics.