

## EVALUACIÓN DE IMPACTO AVANZADA: ENDOGENEIDAD EN MODELOS ECONÓMICOS COMPLEJOS

**ECON 4557**  
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### ESCUELA DE VERANO 2019

#### **Salón: Pendiente**

**Fechas:** 4 al 13 de junio. Incluye clase el sábado 8 de junio  
Lunes a viernes 8:00 a 11:30 am  
Sábado 8:00 a 11:30 am

#### **Programa sujeto a cambios**

### DESCRIPCIÓN Y OBJETIVOS

El objetivo de este curso es dar a los estudiantes la fundamentación teórica y las herramientas econométricas necesarias para realizar evaluación de impacto en entornos complejos. Por lo tanto, nos enfocaremos en el análisis de las complejidades econométricas de los modelos empíricos de Economía laboral incluyendo: endogeneidad, sesgo de selección, variables instrumentales, estimaciones estructurales versus estimaciones en forma reducida. Particular atención se brindará a la teoría de identificación y a modelos con heterogeneidad no observada. El curso hará énfasis en la conexión entre los aportes teóricos y prácticos existentes en la literatura. Se considerarán tópicos y ejemplos prácticos relevantes para el contexto de países en vías de desarrollo.

### PRERREQUISITOS

- Dado que este es un curso avanzado, asumimos que los estudiantes dominan con familiaridad conceptos de econometría aplicada y tienen habilidades en el manejo de bases de datos.
- En este curso se hará énfasis en el manejo de rutinas avanzadas de Stata, por lo que familiaridad previa con este paquete estadístico es necesaria. Estudiantes muy familiarizados con otros softwares (Matlab, R, C++, Fortran, etc) también son bienvenidos.
- Aunque las clases serán en castellano, toda la literatura y las diapositivas usadas en clase estarán en inglés. Por lo tanto, se espera que el estudiante sea capaz de leer textos técnicos avanzados en inglés.
- La evaluación se realizará en función de dos problem sets (50% cada uno)

### PROGRAMA TENTATIVO

#### 1. Background:

- Modelos econométricos:
  - A. Cameron and P. Trivedi, Microeometrics: Methods and Applications, Cambridge University Press, 2005.

- T. Amemiya, Advanced Econometrics, Harvard University Press, 1985.
- Heckman, J. (1990). “Varieties of Selection Bias,” *American Economic Review*, Papers and Proceedings.
- Roy, R. (1951). “Some Thoughts on the Distribution of Earnings,” *Oxford Economic Papers*, 3(2).
- Políticas Publicas:
  - Saltiel, F., Sarzosa, M., Urzu'a, S. (2018) “Cognitive and Socio-emotional Ability”. In Handbook on the Economics of Education, Johnes, G., Johnes, J., Agasisti, T., L'opez-Torres, L. (Eds), Edward Elgar, Northampton, MA, USA, forthcoming.
  - Urzúa, S. (2015). “Inequality and Education”. Conference on “Declining Inequality in Latin America: Are the Good Times Over?” Watson Institute, Brown University, April 2015.
  - Urzúa, S. (2016) “Skills and Inequality in Latin America ”Jobs and Development Conference, The World Bank.
  - Urzúa, S. (2017). “Capital Humano y desigualdad en Amérca Latina: El Rol de la Educacin Superior”. Conferencia “Impacto de Educación Superior en Movilidad Social”, Bogotá, Colombia.
  - Fontaine, A., Urzúa, S. (2018). “Educación con Patines ”. Ediciones El Mercurio, Santiago, Febrero 2018. <http://educacionconpatines.com>

## 2. Heterogeneidad esencial, identificación e estimación de parámetros de tratamiento.

- Card, D. (2001) “Estimating the Return to Schooling: Progress on Some Persistent Econometric Problems,” *Econometrica*, 69(5), 1127-1160.
- James J. Heckman, Edward J. Vytlacil (2007). “Econometric Evaluation of Social Programs, Part I: Causal Models, Structural Models and Econometric Policy Evaluation”. Handbook of Econometrics, Volume 6, Part B, edited by James J. Heckman and Edward E. Leamer.
- James J. Heckman, Edward J. Vytlacil (2007). “Econometric Evaluation of Social Programs, Part II: Using the Marginal Treatment Effect to Organize Alternative Econometric Estimators to Evaluate Social Programs, and to Forecast their Effects in New Environments”. Handbook of Econometrics, Volume 6, edited by James J. Heckman and Edward E. Leamer.
- Heckman, J., D. Schemier and S. Urzu'a (2008). “Testing the Correlated Random Coefficient Model”, *Journal of Econometrics*, 158(2): 177-203.
- Heckman, J., S. Urzu'a and E. Vytlacil (2006). “Understanding Instrumental Variables in Models with Essential Heterogeneity,” *Review of Economics and Statistics*, 88(3): 389-432.

## 3. Modelos Dinámicos, Heterogeneidad no Observada y las Consecuencias Generales del Capital Humano

- James J. Heckman, Edward J. Vytlacil. “Econometric Evaluation of Social Programs, Part III: Distributional Treatment Effects, Dynamic Treatment Effects, Dynamic Discrete Choice, and General Equilibrium Policy Evaluation”. Handbook of Econometrics, Volume 6, edited by James J. Heckman and Edward E. Leamer.
- Hansen, K., JJ Heckman, KJ Mullen (2004). “The effect of schooling and ability on achievement test scores”, *Journal of Econometrics* 121 (1), 39-98
- Cameron, S. and J. Heckman (1998) “Life Cycle Schooling and Dynamic Selection Bias: Models and Evidence for Five Cohorts of American Males”, *Journal of Political Economy*, 106(2): 262333.

- Cameron, S. and J. Heckman (2001) “The Dynamics of Educational Attainment for Black, Hispanic, and White Males”, *Journal of Political Economy*. 109(3): 262-73

#### 4. Implementación de modelos de selección.

- Sarzosa, M. and S. Urzúa (2016) “Implementing Factor Models for Unobserved Heterogeneity in Stata: the heterofactor command”, *Stata Journal*, Vol. 16(1).
- Sarzosa, M. (2014) “The dynamic consequences of bullying on skill accumulation”, Ph.D. Thesis, University of Maryland.
- Sarzosa, M., T. Rau and S. Urzúa (2016) “ The children of the missed pill: unintended consequences of price collusion”, manuscript.
- A. Bucarey, M. Jorquera, P. Muñoz and S. Urzúa (2014) “El Impacto de los Establecimientos Educacionales de Excelencia: El caso del Instituto Nacional de Chile”. *Estudios Públicos*, 2014.
- Kaplan, E., F. Saltiel and S. Urzúa. “Voting for Democracy: Evidence from Chiles Plebiscito”, manuscript, University of Maryland.
- Rodriguez, J., S. Urzúa and L. Reyes (2016) “Heterogeneous Economic Returns to Postsecondary Degrees: Evidence from Chile.”, *Journal of Human Resources*. (Also available: [www.nber.org/papers/w18817](http://www.nber.org/papers/w18817))
- Sarzosa, M. and S. Urzúa (2016). “Bullying among Adolescents: The Role of Cognitive and Non-cognitive Skills”. R & R at *Quantitative Economics*. See also: NBER Working Paper No. 21631.
- Prada, M. and S. Urzúa (2017). “One Size Does Not Fit All: The Role of Vocational Ability on College Attendance and Labor Market Outcomes ”. Forthcoming, *Journal of Labor Economics*. Older version available from NBER: Working Paper No. w20752.
- Urzúa, S. (2008). “Racial Labor Market Gaps: The Role of Abilities and Schooling Choices”. *Journal of Human Resources*, 43(4).
- Rucci, G., F. Saltiel and S. Urzúa (2019) “Should I Stay or Should I Go? Career Choices for Young Workers in Latin America”. R & R at *Economic Inquiry*.
- Rodriguez, J., F. Saltiel and S. Urzúa (2019) “Dynamic Treatment Effects of Job Training”, submitted manuscript, University of Maryland.

#### 5. Tópicos

- Tareas y Habilidades
  - Acemoglu, D. and D. Autor “Skills, Tasks and Technologies: Implications for Employment and Earnings”. *Handbook of Labor Economics*, Volume 4, Part B, 2011.
  - Castex, G. and E. Dechter (2014). “The Changing Roles of Education and Ability in Wage Determination.” *Journal of Labor Economics* 32 (4):685710.
  - Conti, G. , J. Heckman and S. Urzu'a (2010) “The Education Health-Gradient ”, *American Economic Review (Papers and Proceedings)*, May 2010.
  - Deming, D. (2017). “The Growing Importance of Social Skills in the Labor Market”. *The Quarterly Journal of Economics*, vol 132(4), pages 1593-1640.
  - Hamilton, B., Papageorge, N., Pande, N. “The Right Stu□? Personality and Entrepreneurship”. Manuscript. <https://nicholaswpapageorge.files.wordpress.com/2011/06/personality3.pdf>
  - Heckman, J., J. Stixrud and S. Urzúa (2006). “The Effects of Cognitive and Noncognitive Abilities on Labor Market Outcomes and Social Behavior,” *Journal of Labor Economics*, 24(3): 411-482, (July).

- Heckman, J., J. Humphries, S. Urzuá and G. Veramendi (2013) “The Effects of Educational Choices on Labor Market, Health, and Social Outcomes”, NBER working paper 19971.
- Hellerstein, J., L. Sai and S. Urzua (2019) “Have the Returns to Cognitive Ability Really Declined?” Working paper, University of Maryland.
- Levine, R. and Y. Rubinstein. 2013. “Smart and Illicit: Who Becomes an Entrepreneur and Does it Pay?” NBER working paper N. 19276.
- Lochner, L., Park, Y. and S. Youngki (2018). “Wage Dynamics and Returns to Unobserved Skill”, NBER working paper 24220.
- Prada, M. and S. Urzúa (2017) “One Size Does Not Fit All: Multiple Dimensions of Ability, College Attendance and Earnings”, *Journal of Labor Economics*.
- Saltiel, F. and S. Urzúa (2017). “The Effect of the Minimum Wage on the Prevalence of Tasks in the Economy”, working paper.
- Sarzosa, Miguel. Unobserved Heterogeneity and Labor Market Discrimination Against Homosexuals (2017). Manuscript.
- Urzúa, S. (2008). “Racial Labor Market Gaps: The Role of Abilities and Schooling Choices”. *Journal of Human Resources*.

- Desigualdad

- Saltiel, F. and S. Urzúa (2019) “Does an Increasing Minimum Wage Reduce Formal Sector Employment? Evidence from Brazil”. R & R at *Economic Development and Cultural Change*.
- Abowd, J.. and F. Kramarz (1999). The Analysis of Labor Markets Using Matched EmployerEmployee Data, *Handbook of Labor Economics*, 1999, 3, 26292710
- Abowd, J., F. Kramarz and D. Margolis (1999) High Wage Workers and High Wage Firms, *Econometrica*, 1999, 67 (2), 251333.
- Autor, D., L. Katz and M. Kearney (2008). “Trends in U.S. Wage Inequality: Revising the Revisionists”. *The Review of Economics and Statistics*, May 2008, Vol. 9.
- Alvarez, J., F. Benguria, C. Moser (2016) “Firms and the Decline in Earnings Inequality in Brazil”, *American Economic Journal: Macroeconomics, forthcoming*.
- Benguria, F., F. Saade and S. Urzua (2018) “Demand Shocks and Labor Market Dynamics: Firm Level Responses to a Commodity Boom”, NBER Working Paper No. 24560.
- D. Card, A. Cardoso, and P. Kline (2016) “Bargaining, Sorting, and the Gender Wage Gap: Quantifying the Impact of Firms on the Relative Pay of Women”. *Quarterly Journal of Economics*, 131 (May 2016), pp. 633-686.
- D. Card, A. Cardoso, J. Heining and P. Kline, “A. Firms and Labor Market Inequality: Evidence and Some Theory”. *Journal of Labor Economics, forthcoming*.
- D. Card, J. Heining and P. Kline (2013) “Workplace Heterogeneity and the Rise of West German Wage Inequality”. *Quarterly Journal of Economics*, 128 (August 2013), pp. 9671015.
- Hai, R. and J. Heckman (2016) “Inequality in Human Capital and Endogenous Credit Constraints”, NBER Working Paper N. 22999.
- Juhn, C., K. Murphy and B. Pierce (1993). “Wage Inequality and the Rice in Returns to Skill”. The *Journal of Political Economy*, Vol. 101, 1993.

## INFORMACIÓN ADICIONAL

El estudiante podrá retirar el curso, sin devolución, hasta un día hábil antes de la fecha del examen final estipulado por el Profesor. La Universidad no devolverá el dinero cancelado por concepto de matrículas de estos cursos de la Escuela de Verano.