Maestría en Economía

Economía de la Educación
Programa

Profesora
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Descripción general del curso

El objetivo de este curso es estudiar la evidencia empírica más reciente sobre economía de la educación, con aplicaciones al contexto de America Latina. Algunos ejemplos de las temáticas a desarrollar son la estimación de los retornos a la educación, la importancia de insumos educativos tales como maestros y tamaño de clases, el rol de los incentivos docentes y los sistemas de control de escuelas, educación en la primera infancia, efectos de pares, entre otros.

Requisitos

Los alumnos que deseen tomar el curso deberán tener conocimientos generales de econometría y conocer las principales metodologías utilizadas en evaluación de políticas públicas. Además, se requiere un buen nivel de lectura en inglés.

Evaluación

Cada semana (excepto la primera), uno o dos grupos de alumnos será(n) responsable de preparar una presentación basada en alguno de los trabajos empíricos correspondientes a la temática de las semanas anteriores. Para ello, los alumnos deberán formar grupos de hasta 3 integrantes, y elegir uno de los papers marcados con asteriscos. El resto de los alumnos deben haber leído previamente el trabajo que se presentará cada semana y se espera que contribuyan a la discusión y provean comentarios. La evaluación final estará basada en las presentaciones grupales, una evaluación final y la participación en clase.

Temario y Bibliografía

El curso no sigue un libro de texto específico. Quienes deseen profundizar en temas específicos pueden consultar la serie de *Handbooks*:

Hanushek, E. and F. Welch (2006). *Handbook of the Economics of Education*, Vol. 1, Elsevier, North-Holland.

Hanushek, E. and F. Welch (2006). *Handbook of the Economics of Education*, Vol. 2, Elsevier, North-Holland.

Hanushek, E., S. Machin and L. Woessmann (2011). *Handbook of the Economics of Education*, Vol. 3, Elsevier, North-Holland.

Hanushek, E., S. Machin and L. Woessmann (2011). *Handbook of the Economics of Education*, Vol. 4, Elsevier, North-Holland.

Hanushek, E., S. Machin and L. Woessmann (2016). *Handbook of the Economics of Education*, Vol. 5, Elsevier, North-Holland.

Hanushek, E., S. Machin and L. Woessmann (2023). *Handbook of the Economics of Education*, Vol. 6, Elsevier, North-Holland.

Para consultas generales sobre econometría y estimación de efectos causales, pueden consultar:

- Angrist, J. and J. S. Pischke. (2008) *Mostly Harmless Econometrics: An Empiricists's Companion*. Princeton University Press.

- Gertler, P., S. Martinez, P. Premand, L. Rawlings, and C. Vermeersch (2011). *Evaluación de Impacto en la Práctica*. Washington DC: The World Bank.

A continuación se detallan los papers empíricos que se discutirán durante las clases:

Teorías de la Demanda de Educación. Modelo de Capital Humano y Modelo de Señalización. Retornos a la Educación.

Principales:

Angrist, J. and A. Krueger (1991). "Does compulsory school attendance affect schooling and earnings?". *Quarterly Journal of Economics*, 106(4): 979-1015.

Becker G.S (1964). Human Capital: A theoretical and empirical analysis with special reference to education. Columbia University Press, NY.

Ehrenberg, R. and R. Smith (2000). *Modern Labor Economics: Theory and Public Policy*, 7th Edition Ch. 9, New York: Addison-Wesley.

Spence, M. (1973). "Job Market Signaling", *Quarterly Journal of Economics*, 87(3): 355-74.

Complementarios:

Abramitzky R. and V. Lavy (2014). "How Responsive is Investment in Schooling to Changes in Redistributive Policies and in Returns?", *Econometrica*, 82(4): 1241-1272.

Adrogué, C. (2006). "Desempleo y Retornos a la Educación Superior en la Argentina (1974-2002)". Anales de la XLI Asociación Argentina de Economía Política, Salta, Argentina.

Alzua, M.L. and L. Gasparini (2015). "Educational Reform and Labor Market Outcomes: the Case of Argentina's Ley Federal de Educacion". *Journal of Applied Economics*, 18(1): 21-43.

Arteaga, C. (2018). "The effect of human capital on earnings: Evidence from a reform at Colombia's top university", *Journal of Public Economics*, 157: 212-225.

Ashenfelter, O. and A. Kruger (1994). "Estimates of the Economic Return to Schooling from a New Sample of Twins", *American Economic Review*, 84(5): 1157-1173.

Carneiro, P. and J.J. Heckman (2002). "The Evidence on Credit Constraints in Post- Secondary Schooling", *Economic Journal*, 112: 705-734.

Cornwell, C. D. Mustard, and D. Sridhar (2006). "The Enrollment Effects of Merit-Based Financial Aid: Evidence from Georgia's HOPE Program", *Journal of Labor Economics*, 24(4).

**Dinkelman and Martínez (2014). "Investing in schooling in Chile: The role of information about financial aid for higher education". *The Review of Economics and Statistics*, 96(2): 244?257.

Duflo E. (2001). "Schooling and labor market consequences of school construction in Indonesia : Evidence from an unusual policy experiment", *American Economic Review*, 91.

Edo, M., M. Marchionni, and S. Garganta (2017). "Conditional Cash Transfer Programs and Enforcement of Compulsory Education Laws. The case of Asignación Universal por Hijo in Argentina", *Education Policy Analysis Archives*, 25(76).

Fack, G. and J. Grenet (2015). "Improving College Access and Success for Low-Income Students: Evidence from a Large Need-Based Grant Program", *American Economic Journal: Applied Economics*, 7(2): 1-32..

Jensen (2010). "The (Perceived) Returns to Education and the Demand for Schooling", *The Quarterly Journal of Economics*, 125 (2): 515-548.

Jensen (2012). "Do Labor Market Opportunities Affect Young Women's Work and Family Decisions? Experimental Evidence from India", *The Quarterly Journal of Economics*, 127 (2): 753-792.

** López, C. (2022). "Tripping at the Finish Line Experimental Evidence on the Road of Misperceptions on Secondary School Completion", Caracas: CAF.

Maurin E. and T. Xenogiani (2007). "Demand for Education and Labor Market Outcomes: Lessons from the Abolition of Compulsory Conscription in France", *Journal of Human Resources*, 42(4).

**Peter, F. and Zambre, V. (2017). "Intended college enrollment and educational inequality: Do students lack information?", *Economics of Education Review* 60:125?141.

Saavedra, J. and S. García (2012). "Impacts of Conditional Cash Transfer Programs on Educational Outcomes in Developing Countries", RAND Working Paper Series.

Schady, N. and D. Filmer (2008). "Getting Girls into School: Evidence from a Scholarship Program in Cambodia". *Economic Development and Cultural Change*, 56: 581-617.

Educación temprana, modelo de formación de habilidades.

Principales:

Almond D. and J. Currie (2011). "Human Capital Development before Age Five", in Ashenfelter and Card (eds.), *Handbook of Labor Economics*, vol. 4B, ch. 15, Elsevier, North Holland.

Chetty, R., J. Friedman, N. Hilger, E. Saez, D. Whitmore Schanzenbach, and D. Yagan (2011). "How Does Your Kindergarten Classroom Affect Your Earnings? Evidence From Project STAR", *The Quarterly Journal of Economics* 126: 1593-1660.

Complementarios:

Almond D., J. Currie and V. Duque (2018). "Childhood Circumstances and Adult Outcomes: Act II',' *Journal of Economic Literature* 56(4): 1360-144.

** Araujo, M., Dormal, M., Grantham-McGregor, S., Lazarte, F., Rubio-Codina, M., and Schady, N. (2021). "Home visiting at scale and child development", *Journal of Public Economics Plus 2* 100003.

Baker, M., J. Gruber, and K. Milligan (2008). "Universal Childcare, Maternal Labour Supply, and Family Well-Being", *Journal of Political Economy* 116(4): 709-745.

Berlinski, S. and S. Galiani (2007). "The effect of a large expansion of pre-primary school facilities on preschool attendance and maternal employment". *Labour Economics* 14: 665-680.

Berlinski, S., S. Galiani, and M. Manacorda (2008). "Giving children a better start: Preschool attendance and school-age profiles", *Journal of Public Economics*, 92(5-6): 1416-1440.

Berlinski, S., S. Galiani, and P. Gertler (2009). "The effect of pre-primary education on primary school performance", *Journal of Public Economics* 93(1-2): 219-234.

Bharadwaj, P., K. V. Loken, C. Neilson (2013). "Early Life Health Interventions and Academic Achievement", *American Economic Review*, 103(5): 1862-91.

Black, S., P. Devereux, and K. Salvanes (2008). "Too young to leave the nest: The Effects of school starting age", *The Review of Economics and Statistics*, 93(2): 455-467.

Cascio, E. (2009). "Do Investments in Universal Early Education Pay Off? Long-term Effects of Introducing Kindergartens into Public Schools", NBER Working Paper 14951.

Cornelissen, T., Dustmann, C., Raute, A., and Schonberg, U. (2018). "Who Benefits from Universal Childcare? Estimating Marginal Returns to Early Childcare Attendance", *Journal of Political Economy*, in press.

Cruces, G., Gluzmann, P., Lopez Calva, L. F. (2012). "Economic Crises, Maternal and Infant Mortality, Low Birth Weight and Enrollment Rates: Evidence from Argentina's Downturns", *World Development* 40(2): 303-314.

Cunha F. and J. Heckman (2007). "The Technology of Skill Formation", *American Economic Review (Papers and Proceedings)*, 97(2): 31-47.

Currie, J. (2001). "Early Childhood Intervention Programs: What Do We Know?" *Journal of Economic Perspectives*, 15(2): 213-238.

Currie, J., E. Garces, and D. Thomas (2002). "Longer Term Effects of Head Start", *American Economic Review* 92(4): 999-1012

Dustmann, C. and U. Schonberg (2012). "Expansions in Maternity Leave Coverage and Children's Long-Term Outcomes", *American Economic Journal: Applied Economics* 4(3): 190-224.

Grenet, J. (2010)."Academic performance, Educational Trajectories and the Persistence of Date of Birth Effects. Evidence from France", Paris School of Economics Working Paper.

Haeck, C., Lefebvre, P., and Merrigan, P. (2015). "Canadian evidence on ten years of universal preschool policies: The good and the bad", *Labour Economics*, 36, 137?157.

Havnes, T. and M. Mogstad (2011). "No Child Left Behind: Universal Child Care and Children's Long-Run Outcomes", *American Economic Journal: Economic Policy*, 3(2): 97-129.

Heckman, J. and G. Karapakula (2019). "Intergenerational and Intragenerational Externalities of the Perry Preschool Project", NBER Working Paper No. 25889.

Heckman, J., L. Malofeeva, R. Pinto and P. Savelyev (2013). "Understanding the Mechanisms Through Which an Influential Early Childhood Program Boosted Adult Outcomes", *American Economic Review*, 103(6): 2052-86.

Heckman, J., S. Moon, R. Pinto, P. Savelyev, and A. Yavitz (2010). "Analyzing social experiments as implemented: A reexamination of the evidence from the High Scope Perry Preschool Program", *Quantitative Economics*, 1(1): 1-46.

** Hojman, A. and López Boo, F. (2022). "Public childcare benefits children and mothers: Evidence from a nationwide experiment in a developing country", *Journal of Public Economics* 212 104686.

Recursos escolares. Tamaño de clases.

Principales:

Angrist, J. and V. Lavy (1999). "Using Maimonides' rule to estimate the effect of class size on student achievement", *Quarterly Journal of Economics*, 114: 535-575.

Glewwe, P., E. Hanushek, S. Humpage and R. Ravina (2011). "School Resources and Educational Outcomes in Developing Countries: A Review of the Literature from 1990 to 2010", NBER Working Paper 17554.

Krueger, A. (1999) "Experimental Estimates of Education Production Functions", *Quarterly Journal of Economics*, 114(2): 497-532.

Complementarios:

Altindag, Tore, D., Filiz, E., and Tekin, E. (2021). "Is Online Education Working?". NBER Working Paper No. 29113.

** Bellei, C. (2009). "Does lengthening the school day increase students' academic achievement? Results from a natural experiment in Chile", *Economics of Education Review* 28: 629?640.

Duflo E. (2001). "Schooling and labor market consequences of school construction in Indonesia: Evidence from an unusual policy experiment", *American Economic Review*, 91.

Finn, J., and C. Achilles (1990). "Answers and Questions about Class Size: A Statewide Experiment", *American Educational Research Journal*, 28: 557?577.

Folger, J., and C. Breda (1989). "Evidence from Project STAR about Class Size and Student Achievement", *Peabody Journal of Education*, 67: 17?33.

**Fredriksson, P., Öckert, B., and Oosterbeek, H. (2012). "Long-Term Effects of Class Size", *The Quarterly Journal of Economics*, 128(1): 249-285.

Glewwe, P., and M. Kremer (2006). "Schools, Teachers, and Education Outcomes in Developing Countries", in Hanushek, E., and Welch, D. (eds.), *Handbook of the Economics of Education* vol. 2, chap. 16.

Hanushek, E.A. (2003). "The Failure of Input-Based Resource Policies", *The Economic Journal* 113(485): F64-F98.

Hanushek, E. (2006). "School Resources". In Hanushek and Welch (eds.): *Handbook of the Economics of Education*, Vol. 2, Elsevier, North-Holland.

Jaume, D. and A. Willén (2017). "The Long-run Effects of Teacher Strikes: Evidence from Argentina", CEDLAS Working Paper 217.

Muralidharan, K., Singh, A., and Ganimian, A. (2019). "Disrupting Education? Experimental Evidence on Technology-Aided Instruction in India", *American Economic Review*, 109(4): 1426-1460.

Urquiola, M. (2006). "Identifying class size effects in developing countries: Evidence from rural Bolivia", *Review of Economics and Statistics*, 88: 171-177.

Urquiola, M. and E. Verhoogen. (2009). "Class size caps, sorting, and the regression discontinuity design", *American Economic Review*, 99(1): 179-215.

Incentivos en educación. Esquemas de incentivos docentes y de monitoreo de escuelas (*accountability systems*).

Principales:

Muralidharan K. and V. Sundararaman (2009). "Teacher Performance Pay: Experimental Evidence from India", *Journal of Political Economy*, 119(1): 39-77.

Reback R., J. Rockoff and H. Schwartz (2014). "Under pressure: job security, resource allocation and productivity in schools under NCLB", *American Economic Journal: Economic Policy*, 6(3): 207-241.

Rouse C., J. Hannaway, D. Goldhaber and D. Figlio (2013). "Feeling the Florida heat? How low-performing schools respond to voucher and accountability pressure", *American Economic Journal: Economic Policy* 5(2): 251-81.

Complementarios:

** Angrist, J. and Lavy, V. (2009). "The Effects of High Stakes High School Achievement Awards: Evidence from a Randomized Trial", *American Economic Review* 99:4, 1384?1414.

Banerjee, A., and E. Duflo (2006). "Adressing Absence". *Journal of Economic Perspectives*, 20(1): 117-132.

Booher-Jennings, J. (2005). "Below the Bubble: "Educational Triage" and the Texas Accountability System", *American Educational Research Journal* 42(2): 231?68.

Chaudhury, N., J. Hammer, M. Kremer, K. Muraldhiran, and H. Rogers (2006). "Missing in Action: Teacher and Health Worker Absence in Developing Countries", *Journal of Economic Perspectives* 20(1): 91-116.

Cilliers, J., Mbiti, I. and Zeitlin, A. (2019). "Can Public Rankings Improve School Performance? Evidence from a Nationwide Reform in Tanzania", *The Journal of Human Resources*, 56:3.

Dee, T. S., Dobbie, W., Jacob, B. A., and Rockoff, J. (2016). "The causes and consequences of test score manipulation: Evidence from the New York Regents examinations", NBER Working Paper 22165.

Duflo, E., R. Hanna, and S. Ryan (2012). "Incentives Work: Getting Teachers to Come to School". *American Economic Review*, 102(4): 1241-78.

Fryer, R., S. Levitt, J. List and S. Sadoff (2012). "Enhancing the efficacy of teacher incentives through loss aversion: a field experiment", NBER Working Paper 18237.

Figlio, D. (2006). "Testing, Crime, and Punishment", *Journal of Public Economics* 90: 837?51.

Figlio D. and C. Rouse (2006). "Do Accountability and Voucher Threats Improve Low- Performing Schools?", *Journal of Public Economics* 90(1-2): 239-255.

Figlio, D. and J. Winicki (2005). "Food for Thought? The Effects of School Accountability Plans on School Nutrition", *Journal of Public Economics* 89(2?3): 381?94.

Figlio, D., and L. Getzler (2006). "Accountability, Ability, and Disability: Gaming the System?" En Gronberg y Jansen (eds.): Advances in Applied Microeconomics, Vol. 14. Bingley: Emerald Group Publishing Limited.

Fryer, R. (2013). "Teacher Incentives and Student Achievement: Evidence from New York City Public Schools", *Journal of Labor Economics* 31(2): 373-407.

Glewwe, P., N. Ilias, and M. Kremer (2010). "Teacher Incentives", *American Economic Journal: Applied Economics*, 2(3): 205-27.

Haney, W. (2000). "The Myth of the Texas Miracle in Education", *Education Policy Analysis Archives* 8(41).

Herrman y Rockoff (2012). "Worker Absence and Productivity: Evidence from Teaching", *Journal of Labor Economics*, 30(4).

Jacob, B. (2013). "The Effect of Employment Protection on Teacher Effort", *Journal of Labor Economics*, 31(4): 727-761.

Jacob, B. y S. D. Levitt (2003). "Rotten Apples: An Investigation of the Prevalence and Predictors of Teacher Cheating", *Quarterly Journal of Economics* 118(3): 843-77.

Krueger, A. y P. Zhu (2004). "Another Look at the New York City School Voucher Experiment", *American Behavioral Scientist*, 47(5), pp. 658-98.

Lavy, V. (2009). "Performance Pay and Teachers? Effort, Productivity, and Grading Ethics", *American Economic Review* 99(5): 1979-2011.

Lavy, V. (2015). "Teachers' Pay for Performance in the Long-Run: Effects on Students' Educational and Labor Market Outcomes in Adulthood", NBER Working Paper 20983.

**Levitt, S., List, J., Neckermann, S., and Sadoff, S. (2014). " The Behavioralist Goes to School: Leveraging Behavioral Economics to Improve Educational Performance", *American Economic Journal: Economic Policy* 8(4): 183?219.

Reback, R. (2008). "Teaching to the Rating: School Accountability and the Distribution of Student Achievement", *Journal of Public Economics* 92(5-6): 1394-1415.

Efectos de Pares. Segregación Escolar. Sistemas de *Tracking*.

Principales:

Duflo, E., P. Dupas, and M. Kremer (2011). "Peer Effects, Teacher Incentives, and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya", *American Economic Review* 101(5): 1739-1774.

Sacerdote, B. (2011). "Peer Effects in Education: How Might They Work, How Big Are They, and How Much do we Know Thus Far?", in E. Hanushek, S. Machin, L. Woessmann (eds.) *Handbooks of Economics of Education*, vol. 3, chapter 4, Elsevier, North-Holland.

Complementarios:

Ammermueller, A. and J. S. Pischke (2009). "Peer Effects in European Primary Schools: Evidence from PIRLS", *Journal of Labor Economics* 27: 315-348.

Arcidiácono, M., G. Cruces, L. Gasparini, D. Jaume, M. Serio, and E. Vázquez (2014). "La Segregación Escolar Público-Privado en América Latina", CEDLAS Working Papers 0167.

Avvisati, F., M. Gurgand, N. Guyon, and E. Maurin (2014). "Getting Parents Involved: A Field Experiment in Deprived Schools", *Review of Economic Studies*, 81(1): 57-83.

Bohlmark A., H. Holmlund and M. Lindahl (2015). "School choice and segregation: Evidence from Sweden", IFAU Working Paper 8.

Card, D. and L. Giuliano(2016). "Can Tracking Raise the Test Scores of High-Ability Minority Students?", *American Economic Review* 106(10): 2783-2816.

Carrell, B., B. Sacerdote, J. West (2013). "From Natural Variation to Optimal Policy? The Importance of Endogenous Peer Group Formation", *Econometrica*, 81(3): 855 - 882.

**Chetty, R., N. Hendren, and L. Katz (2016). "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment", *American Economic Review*, 106(4): 855-902.

Figlio, D. and M. Page (2002). "School Choice and the Distributional Effects of Ability Tracking: Does Separation Increase Inequality?", *Journal of Urban Economics*, 51 (3): 497-514.

Hanushek, E. A. and L. Woessmann (2006). "Does educational tracking affect performance and inequality? Differences-in-differences evidence across countries", *Economic Journal*, 116(510): C63-C76.

**Imberman, S., Kugler, A., and Sacerdote, B. (2012). "Katrina's Children: Evidence on the Structure of Peer Effects from Hurricane Evacuees", *American Economic Review*, 102(5): 2048-82.

**Lavy, V., and Schlosser, A. (2011). "Mechanisms and impacts of gender peer effects at school". *American Economic Journal: Applied Economics* 3: 1?33.

Ly, T. and A. Riegert (2013). "Persistent Classmates: How Familiarity with Peers Protects from Disruptive School Transitions", PSE Working Paper 2013-21.

Manski, C. (2000). "Economic Analysis of Social Interactions", *Journal of Economic Perspectives*. 14:3: 115-136.

Marchionni, M., F. Pinto, and E. Vazquez (2013). "Determinantes de la desigualdad en el desempeño educativo en la Argentina", Anales de la Asociación Argentina de Economía Política, XLVIII Reunión Anual, Rosario, Argentina, pp. 1-34.

Miguel, E. and M. Kremer (2003). "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities", *Econometrica*, 72(1): 159-217

Rivkin, S. and F. Welch (2006). "Has School Desegregation Improved Academic and Economic Outcomes for Blacks?", in E. Hanushek, F. Welch (eds.) *Handbooks of Economics of Education*, Vol. 2, chapter 17, Elsevier, North-Holland.

Sacerdote, B. (2001). "Peer Effects with Random Assignment: Results for Dartmouth Roommates", *Quarterly Journal of Economics*, 116(2): 681-704.

Intervención pública en educación. Sistemas de vouchers. Créditos contingentes.

Principales:

Chapman, B. (2006). "Income Contingent Loans for Higher Education: International Reforms". In Hanushek and Welch (eds.): *Handbook of the Economics of Education*, Vol. 2, Elsevier, North-Holland.

Hsieh C. and M. Urquiola (2006). "The effects of generalized school choice on achievement and stratification: Evidence from Chile's school voucher program", *Journal of Public Economics* 90: 1477-1503.

Complementarios:

Angrist J., E. Bettinger, E. Bloom, E. King and M. Kremer (2002). "Vouchers for Private Schooling in Colombia: Evidence from a Randomized Natural Experiment", *American Economic Review* 92: 1535-58.

Carneiro, P. and J.J. Heckman (2002). "The Evidence on Credit Constraints in Post- Secondary Schooling", *Economic Journal*, 112: 705-734.

Chapman, B., and C. Ryan (2002). "Income contingent financing of student higher education charges: Assessing the Australian innovation", *The Welsh Journal of Education* ,11(1), 64?81.

Chapman, B., and C. Ryan (2005). "The access implications of income contingent charges for higher education: Lessons from Australia", *Economics of Education Review* 24 (5), 491?512.

Doneschi, A., V. Novas, y C. Velázquez (2014). "Impuesto al Grauado en Uruguay: Reformulación del Fondo de Solidaridad", *Páginas de Educación*, 7(1): 57-100.

Gasparini, L., V. Alaimo, F. Cuenin, M. Rabassa, y G. Vuletin (2000). "El impacto distributivo del gasto público en sectores sociales en la provincia de Buenos Aires. Un análisis en base a la encuesta de desarrollo social", Cuadernos de Economía 50, Ministerio de Economía de la provincia de Buenos Aires.

Guardarucci, I., J. Puig y L. Salinardi. (2012). "Incidencia del gasto público en educación: nueva evidencia para la provincia de Buenos Aires en base a la Encuesta Anual de Hogares", CEDLAS Working Papers 0139.

Hastings, and J. Weinstein (2008). "Information, School Choice, and Academic Achievement: Evidence from Two Experiments", *The Quarterly Journal of Economics*, 123(4): 1373-1414.

Krieg, J. M. (2008). "Are Students Left Behind? The Distributional Effects of No Child Left Behind", *Education, Finance and Policy* 3(2): 250?81.

Mitra, A. (2015). "Public Spending in Higher Education in India: A Benefit Incidence Analysis", *Higher Education for the Future*, 2(1): 71-91.

Rothstein J. and C.E. Rouse (2011). "Constrained after college: Student loans and early- career occupational choices", *Journal of Public Economics*, 95: 149-163.