Eric A. Hanushek Paul and Jean Hanna Senior Fellow

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Education

1965	B.S.	(Distinguished Graduate) U.S. Air Force Academy
1968	Ph.D.	(Economics) Massachusetts Institute of Technology Thesis: "The Education of Negroes and Whites"

Learned Societies

American Economic Association
American Education Finance Association

(Board of Directors, 2006-2009)

Association for Public Policy Analysis and Management

(Policy Council, 1981-85; vice president, 1986-87; president, 1988-89)

Econometric Society
Society of Labor Economists

(Fellow, 2006-)

American Educational Research Association

(Fellow, 2008-)

International Institute of Public Finance

Honors

Yidan Prize for Education Research, 2021
Fellow, International Academy of Education, 1997
(Board of Directors, 2002- 2008)
Fellow, Society of Labor Economists, 2006
Member, National Academy of Education, 2006
Fellow, American Educational Research Association, 2008
Fordham Prize for Excellence in Education (distinguished scholarship), 2004

Military Service

U.S. Air Force, 1965-74

Academic Experience

2000-	 Paul and Jean Hanna Senior Fellow, Hoover Institution, Stanford University Professor (by courtesy) of Education (2001-) Senior Fellow (by courtesy), Stanford Center for International Development [SCID], Stanford Institute for Economic Policy Research [SIEPR], (2003-2023) Professor (by courtesy) of Economics (2004-2007)
2020-	Member, Council of Luminaries, Yidan Foundation
2019-	Chairman, Hoover Education Success Initiative, Stanford University
2019-	Co-Director, International Comparative Educational Policy Laboratory, ifo Institute
2003-	Chairman, Executive Board, Texas Schools Project, University of Texas at Dallas
2000-	Senior Research Fellow, University of Texas at Dallas
1995-	Research Associate, National Bureau of Economic Research
2006-	Research Professor, Ifo Institute for Economic Research (University of Munich)
2013-	Research Fellow, IZA Institute of Labor Economics
2008-	Member, Management Team, Center for Analysis of Longitudinal Data in Education Research (CALDER)
2008-	Area coordinator, Economics of Education, CESifo Research Network
2017-2018	John H. Makin Visiting Scholar, American Enterprise Institute (AEI)
2013-2016	Member, Council of Academic Advisers, American Enterprise Institute
1999-2015	Member, Koret Task Force on K-12 Education, Hoover Institution, Stanford University
2006-2008	Member, Scientific Advisory Council, Ifo Institute for Economic Research
1978-2000	Professor of Economics and Political Science, University of Rochester Founding Director, W. Allen Wallis Institute of Political Economy (1991-99)

Professor of Public Policy (1992-2000) Senior Research Associate, Rochester Center for Economic Research (1984-2000; Director, 1994-99) Chairman, Department of Economics (1982-87; 1988-90; 1991-93)

1999-2000	Distinguished Visiting Fellow, Hoover Institution, Stanford University
1994	Visiting Fellow, Australian National University
1975-78	Associate Professor, Department of Economics and Institution for Social and Policy Studies, Yale University
1974	Lecturer, Virginia Polytechnic Institute (Reston Campus)
1968-73	Associate Professor of Economics, U.S. Air Force Academy (Assistant Professor, 1969-71; Instructor, 1968-69)
1970-71	Research Associate, J.F. Kennedy School of Government, Harvard University

Government Experience

2019-2023	Member, National Assessment Governing Board
2011-2013	Commissioner, Equity and Excellence Commission , U.S. Department of Education
2004-2010	Member, Board of Directors, National Board for Education Sciences Chair, 2008- 2010
2008-2010	Member, Council of Economic Advisors, California
2007	Member, Governor's Commission for a College Ready Texas, Texas
2006	Chair, NCLB Growth Model Pilot Peer Review, U.S. Department of Education
2005-2008	Member, Governor's Committee on Education Excellence, California
2002-2006	Member, Independent Review Panel, National Assessment of Title I, U.S. Department of Education
2001-05	Member, NCES Finance Technical Review Committee, U.S. Department of Education
2002	Member, Advisory Council on Education Statistics, U.S. Department of Education

1994-98	Member, Board of Economic Advisors, New York State Assembly
1994-95	Member, Technical Panel on Trends and Issues in Retirement Savings, Advisory Council on Social Security
1987-95	Consultant, U.S. Department of Education
1986-89	Consultant, U.S. Commission on Civil Rights
1987-89	Chairman, Technical Advisory Panel, Congressional Budget Office
1985-87	Member, Panel of Economic Advisers, Congressional Budget Office
1983-85	Deputy Director, Congressional Budget Office
1974	Systems Analyst, Military Airlift Command, U.S. Air Force
1973-74	Senior Economist, Cost of Living Council
1971-72	Senior Staff Economist, Council of Economic Advisers

Other Experience

2023 2015-	President, Global Education Analytics Institute Global Economic Adviser, LearnCapital
2011-15	Director, CollegeSpring (formerly SEE College Prep)
2010-15	Member, Education Reform Advisory Group, George W. Bush Institute
2010-15	Director, GreatSchools
2007-15	Member, Review Board for Broad Prize for Urban Education
2007	Member, Committee on Social Science Research Evidence on Racial Diversity in Schools , National Academy of Education
2000-01	Member, Committee on Scientific Principles of Education Research , National Academy of Sciences/National Research Council
2000	Member, Historic Preservation Commission, Town of Brighton, NY
1998-2001	Member, Panel on Data and Methods for Measuring the Effects of Changes

in Social Welfare Programs, National Academy of Sciences/National Research Council

- 1992-98 Member, Committee on National Statistics, National Academy of Sciences/National Research Council
- 1993-97 Chairman, **Panel on Retirement Income Modeling**, National Academy of Sciences/National Research Council
- 1990-94 Chairman, Panel on the Economics of Educational Reform (PEER)
- 1984-95 Consultant, The World Bank
- 1992 Chairman, Blue Ribbon Commission on Monroe County Finances, Monroe County, NY
- 1988-91 Chairman, **Panel to Evaluate Microsimulation Models for Social Welfare Programs**, National Academy of Sciences/National Research Council
- 1977-83 Consultant, Mathematica Policy Research
- 1976-78 Member, Mayor's Task Force on Education, New Haven, CT
- 1975-77 Senior Research Associate, Institute for Demographic and Economic Studies
- 1975-77 Consultant, Abt Associates
- 1972-74 Member, RFF-Academy for Contemporary Problems, Metropolitan Governance Research Committee
- 1969-73 Consultant, The Rand Corporation

Invited Lectures

Goldsmith Lecture, Australian National University, 2023

IIMA-SRK Annual Lecture, Indian Institute of Management Ahmedabad, 2020

Leaders and Luminaries Lecture, University of Texas at Dallas, 2019

City University Distinguished Lecture, City University of Hong Kong, 2018

Spring Distinguished Speaker, Crane Center, The Ohio State University, 2016

Vilfredo Pareto Lecture, Collegio Carlo Alberto, 2013

Harris Lecture, Clemson University, 2013

Waino Pihl Lecture, Wayne State University, 2012

Distinguished Scholar Lecture, Martin School of Public Policy, University of Kentucky, 2010

Giblin Lecture, University of Tasmania, 2009

Hannah Lecture, Michigan State University, 2009

Gilbert Memorial Lecture, University of Rochester, 2008

Spencer Foundation Distinguished Lecture, Association for Public Policy Analysis and Management, 2005

Sweat Lecture, Georgia State University, 2005

Birger Lecture, Tufts University, 2005

Lee Hysan Lecture, Chinese University of Hong Kong, 2004

Askwith Lecture, Harvard University, 2003

Reilly Lecture, Louisiana State University, 2002

Mullen Lecture, University of Maryland, Baltimore County, 1999

Saks Memorial Lecture, Vanderbilt University, 1996

Editorial Activities

2016-	Editorial Board, Chinese Economics of Education Review
2015-	Editorial Advisory Board, Journal of Professional Capital and Community
2013-	Co-Editor, CESifo Economic Studies
2007-	Associate Editor, Journal of Human Capital
2005-	Editorial Board, Education Finance and Policy
2000-	Editorial Board, Education Next
1982-	Editorial Board, Economics of Education Review

- 1978-2015 Advisory Editor, Social Science Research
- 2004-2010 Co-editor, *Education Policy Series*, International Academy of Education/International Institute for Educational Planning, UNESCO
- 2002-2008 Editorial Board, Fundamentals of Educational Planning, UNESCO
- 2003-2007 Associate Editor, *Economic Bulletin*
- 1995-2002 Associate Editor, *Review of Economics and Statistics*
- 1997-2001 Editorial Board, Educational Evaluation and Policy Analysis
- 1994-2001 Editorial Board, Journal of Policy Analysis and Management
- 1994-96 Editorial Board, *Socio-Economic Planning Sciences*
- 1991-97 Associate Editor, *Regional Science and Urban Economics*
- 1990-95 Editorial Board, Journal of Economic Education
- 1992-95 Advisory Board, *American Journal of Education*
- 1990-94 Co-editor, *Journal of Human Resources*
- 1987-1989 Associate Editor, *Evaluation Review*

PUBLICATIONS

Books and Monographs

Handbook of the Economics of Education, Volume 7. (co-editor with Stephen J. Machin and Ludger Woessmann). *Amsterdam: North Holland,* 2023.

Handbook of the Economics of Education, Volume 6. (co-editor with Stephen J. Machin and Ludger Woessmann). *Amsterdam: North Holland,* 2023.

Handbook of the Economics of Education, Volume 5. (co-editor with Stephen J. Machin and Ludger Woessmann). *Amsterdam: North Holland,* 2016.

The Knowledge Capital of Nations: Education and the Economics of Growth. (with Ludger Woessmann). Cambridge, MA: MIT Press, 2015, 262 pages.

Universal Basic Skills: What countries stand to gain. (with Ludger Woessmann). *Paris: OECD Publishing,* 2015, 110 pages.

Endangering Prosperity: A Global View of the American School. (with Paul E. Peterson and Ludger Woessmann). *Washington, DC: Brookings Press,* 2013, 147 pages.

Handbook of the Economics of Education, Volume 4. (co-editor with Stephen J. Machin and Ludger Woessmann). *Amsterdam: North Holland,* 2011, 708 pages.

Handbook of the Economics of Education, Volume 3. (co-editor with Stephen J. Machin and Ludger Woessmann). *Amsterdam: North Holland,* 2010, 616 pages.

Schoolhouses, Courthouses, and Statehouses: Solving the Funding-Achievement Puzzle in America's Public Schools. (with Alfred A. Lindseth). *Princeton University Press*, 2009, 432 pages.

Handbook of the Economics of Education, Volume 2. (co-editor with Finis Welch). *Amsterdam: North Holland,* 2006, 742 pages.

Handbook of the Economics of Education, Volume 1. (co-editor with Finis Welch). *Amsterdam: North Holland,* 2006, 700 pages.

Courting Failure: How School Finance Lawsuits Exploit Judges' Good Intentions and Harm our Children. (editor). *Stanford: Education Next Books,* 2006, 366 pages.

Institutional Models in Education: Legal Framework and Methodological Aspects for a New Approach to the Problem of School Governance. (co-editor with Enrico Gori, Daniele Vidoni and Charles Glenn). *Nijmegen, Netherlands: Wolf Legal Publishers,* 2006, 243 pages.

The Economics of Schooling and School Quality - Volume II: Efficiency, Competition, and Policy. (editor). *London: Edward Elgar Publishing Ltd.,* 2003.

The Economics of Schooling and School Quality - Volume I: Labor Markets, Distribution, and Growth. (editor). *London: Edward Elgar Publishing Ltd.,* 2003, 976 pages.

Assessing Policies for Retirement Income: Needs for Data, Research, and Models. (co-editor with Constance F. Citro). *Washington, DC: National Academy Press,* 1997, 256 pages.

Improving America's Schools: The Role of Incentives. (co-editor with Dale W. Jorgenson). *Washington, DC: National Academy Press,* 1996, 280 pages.

Assessing Knowledge of Retirement Behavior. (co-editor with Nancy L. Maritato). *Washington, DC: National Academy Press,* 1996, 288 pages.

Modern Political Economy: Old Topics, New Directions. (co-editor with Jeffrey S. Banks). *New York: Cambridge University Press*, 1995, 283 pages.

Making Schools Work: Improving Performance and Controlling Costs. *Washington, DC: The Brookings Institution,* 1994, 200 pages.

Educação Rural: Lições do Edurural. (with João Batista F. Gomes Neto, Ralph W. Harbison, and Raimundo Hélio Leite). *São Paulo: Editora da Universidade de São Paulo,* 1994, 236 pages.

Educational Performance of the Poor: Lessons from Rural Northeast Brazil. (with Ralph W. Harbison). *New York: Oxford University Press,* 1992, 362 pages.

Improving Information for Social Policy Decisions: The Uses of Microsimulation Modeling -Volume II: Technical Papers. (co-editor with Constance F. Citro). *Washington, DC: National Academy Press,* 1991, 368 pages.

Improving Information for Social Policy Decisions: The Uses of Microsimulation Modeling -Volume I: Review and Recommendations. (co-editor with Constance F. Citro). *Washington, DC: National Academy Press,* 1991, 360 pages.

Statistical Methods for Social Scientists. (with John E. Jackson). *New York: Academic Press,* 1977, 374 pages.

Education and Race: An Analysis of the Educational Production Process. *Lexington, MA: D.C. Heath,* 1972, 176 pages.

Articles

Some Evolving Issues in K–12 Education. In Michael J. Boskin (ed.), *American Federalism Today: Perspectives on Political and Economic Governance*, Stanford, CA: Hoover Press, 2024.

Testing. (with Annika B. Bergbauer and Ludger Woessmann). *Journal of Human Resources,* 59(2), March, 2024, 349-388.

Global Universal Basic Skills: Current Deficits and Implications for World Development. (with Sarah Gust and Ludger Woessmann). *Journal of Development Economics*, 166 (January), 2024, 103205.

Performance Information and Personnel Decisions in the Public Sector: The Case of School Principals. (with Julie Berry Cullen, Gregory Phelan, and Steven G. Rivkin). *Journal of Human Resources*, 59(1), January, 2024.

Fixing Schools Through Finance. In Stephen L. Bowen and Margaret E. Raymond (ed.), *A Nation at Risk +40,* Stanford, CA: Hoover Institution, 2023.

Employer Learning and the Dynamics of Returns to Universities: Evidence from Chinese Elite Education during University Expansion. (with Sylvie Démurger and Lei Zhang). *Economic Development and Cultural Change,* forthcoming.

Academic mobility in U.S. public schools: Evidence from nearly 3 million students. (with Wes Austin, David Figlio, and others). *Journal of Public Economics*, 228, 2023, 105016.

Incidence and Outcomes of School Finance Litigation: 1968-2021. (with Matthew Joyce-Wirtz). *Public Finance Review*, 2023.

U.S. School Finance: Resources and Outcomes. (with Danielle Victoria Handel) in Eric A. Hanushek, Stephen Machin and Ludger Woessmann (ed.). *Handbook of the Economics of Education, Vol. 7, Amsterdam: North Holland,* 2023.

The Economic Cost of the Pandemic: State by State. *Hoover Education Success Initiative,* 2023.

Long-run Trends in the U.S. SES-Achievement Gap. (with Jacob Light, Paul E. Peterson, Laura M. Talpey, and Ludger Woessmann). *Education Finance and Policy*, 17(4), 2022, 608-640.

Patience, Risk-Taking, and Human Capital Investment across Countries. (with Lavinia Kinne, Philipp Lergetporer, and Ludger Woessmann). *Economic Journal*, 132 (646), 2022, pp. 2290-2307.

The Basic Skills Gap. (with Ludger Woessmann). *Finance & Development*, 59(2), 2022, pp. 50-53.

Residential Location and Education in the United States. (with Kuzey Yilmaz). In Charles K.Y. Leung (ed.). *Handbook of Real Estate and Macroeconomics*, Edward Elgar Publishing, 2022, pp. 106-136.

The Political Economy of ILSAs in Education: The Role of Knowledge Capital in Economic Growth. (with Ludger Woessmann). *International Handbook of Comparative Large-Scale Studies in Education,* Springer, 2021.

Education and Economic Growth. (with Ludger Woessmann). Oxford Research Encyclopedia of Economics and Finance, Oxford: Oxford University Press, 2021.

Budgeting During and For Recovery. In Margaret E. Raymond (ed.), *How to Improve our Schools in the Post-COVID Era,* Stanford, CA: Hoover Institution, 2021.

Does the World Change for Teachers?. In Margaret E. Raymond (ed.), *How to Improve our Schools in the Post-COVID Era,* Stanford, CA: Hoover Institution, 2021.

Addressing Cross-national Generalizability in Educational Impact Evaluation. *International Journal of Educational Development*, 80, 2021.

United States: The Uphill Schools' Struggle. In Nuno Crato (ed.), *Improving a Country's Education: PISA 2018 Results in 10 Countries,* Cham, Switzerland: Springer, 2021, pp. 227-

247.

The Economic Impacts of Learning Losses. (with Ludger Woessmann). Organisation for Economic Co-operation and Development, 2020.

Test-Based Accountability in Distressed Times. (with Chester E. Finn Jr.). *The State Education Standard,* September 20(3), 2020, pp. 13-17.

A quantitative look at the economic impact of the European Union's educational goals. (with Ludger Woessmann). *Education Economics*, 28(3), 2020, 225-244.

Education, Knowledge Capital, and Economic Growth. (with Ludger Woessmann). In Steve Bradley and Colin Green (ed.). *Economics of Education, 2nd Edition,* London: Academic Press, 2020, pp. 171-182.

Education Production Functions. In Steve Bradley and Colin Green (ed.), *Economics of Education, 2nd Edition,* London: Academic Press, 2020, pp. 161-170.

The Unavoidable: Tomorrow's Teacher Compensation. *Hoover Education Success Initiative,* 2020.

Quality Education and Economic Development. In Brajesh Panth and Rupert Maclean (ed.), *Anticipating and Preparing for Emerging Skills and Jobs: Key Issues, Concerns, and Prospects,* Singapore: Springer, 2020, pp. 25-32.

The Evolution of Charter School Quality. (with Patrick L. Baude, Marcus Casey, Greg Phelan, and Steven G. Rivkin). *Economica*, 87(345), January 2020, pp. 158-189.

The Value of Smarter Teachers: International Evidence on Teacher Cognitive Skills and Student Performance. (with Marc Piopiunik and Simon Wiederhold). *Journal of Human Resources*, 54(4), Fall 2019, pp. 857-899.

Knowledge Capital and Economic Growth. (with Ludger Woessmann). In Rolf Becker (ed.). *Research Handbook on the Sociology of Education,* Cheltenham, UK: Edward Elgar Publishing, 2019, pp. 476-497.

Financing Schools. In John Hattie and Eric M. Anderman (ed.), *Visible Learning Guide to Student Achievement,* London: Routledge, 2019, pp. 92-97.

The Fall of Educational Productivity and Policy Paralysis. In Lindsay M. Burke and Jonathan Butcher (ed.), *The Not-So-Great Society*, Washington, DC: Heritage Foundation, 2019, pp. 45-51.

The Achievement Gap Fails to Close: Half Century of testing shows persistent divide between haves and have-nots. (with Paul E. Peterson, Laura M. Talpey, and Ludger Woessmann). *Education Next,* 19(3), Summer 2019, pp. 8-17.

Testing, Accountability and the American Economy. *ANNALS of the American Academy of Political and Social Science*, 683, May 2019, 110-128.

Do Smarter Teachers Make Smarter Students? International Evidence on Teacher Cognitive Skills and Student Performance. (with Marc Piopiunik and Simon Wiederhold). *Education Next*, 19(2), Spring 2019, pp. 57-64.

Volkswirtschaftliche Folgen von Bildungsarmut: Was ein Entwicklungsziel "Grundkompetenzen für alle" erreichen könnte. (with Ludger Woessmann). In Gudrun Quenzel and Klaus Hurrelmann (ed.). *Handbuch Bildungsarmut,* Springer VS, 2019, pp. 547-554.

Education and the Growth-Equity Trade-off. In Charles Hulten and Valerie Ramey (ed.), *Education, Skills and Technical Change: Implications for Future U.S. GDP Growth,* Chicago: University of Chicago Press, 2019, pp. 293-312.

Missouri's Economic Future Lies with School Reform. *Missouri Policy Journal,* 6, Spring 2018, pp. 23-38.

Economic Gains from Educational Reform by US States. (with Jens Ruhose and Ludger Woessmann). *Journal of Human Capital*, 11(4), Winter 2017, pp. 447-486.

Knowledge Capital and Aggregate Income Differences: Development Accounting for U.S. States. (with Jens Ruhose and Ludger Woessmann). *American Economic Journal: Macroeconomics*, 9(4), October 2017, pp. 184-224.

Defining Productivity in Education: Issues and Illustrations. (with Elizabeth Ettema). *The American Economist*, 65(2), October 2017, pp. 165-183.

Coping with Change: International Differences in the Returns to Skills. (with Guido Schwerdt, Simon Wiederhold, and Ludger Woessmann). *Economic Letters*, 153, April 2017, pp. 15-19.

General Education, Vocational Education, and Labor-Market Outcomes over the Life-Cycle. (with Guido Schwerdt, Ludger Woessmann, and Lei Zhang). *Journal of Human Resources,* 52(1), Winter 2017, pp. 49-88.

For Long Term Economic Development, Only Skills Matter. IZA World of Labor, 343, 2017.

School Resources and Student Achievement: A Review of Cross-Country Economic Research. (with Ludger Woessmann). In Monica Rosén, Kajsa Yang Hansen, and Ulrika Wolff (ed.). *Cognitive Abilities and Educational Outcomes: A Festschrift in Honour of Jan-Eric Gustafsson,* Springer, 2017, pp. 149-171.

Dynamic Effects of Teacher Turnover on the Quality of Instruction. (with Steven G. Rivkin and Jeffrey C. Schiman). *Economics of Education Review*, 55, December 2016, pp. 132-148.

Skills, Mobility, and Growth. (with Ludger Woessmann). In Alexandra Brown, David Buchholz,

Daniel Davis, and Arturo Gonzalez (ed.). *Economic Mobility: Research & Ideas on Strengthening Families, Communities & the Economy,* St. Louis, MO: Federal Reserve Bank of St. Louis and the Board of Governors of the Federal Reserve System, 2016, pp. 423-449.

Education Reform. In Scott W. Atlas, Jesús Fernández-Villaverde, Eric A. Hanushek, Edward P. Lazear, Lee Ohanian, Joshua D. Rauh, and Frank A. Wolak, *Economic Policy Challenges Facing California's Next Governor,* Stanford, CA: Hoover Institution Press, October 2018, pp. 19-23.

Will more higher education improve economic growth?. Oxford Review of Economic Policy, 32(4), Winter 2016, pp. 538-552.

Education and the Nation's Future. In George P. Shultz (ed.), *Blueprint for America*, Stanford, CA: Hoover Institution Press, 2016, pp. 89-108.

It Pays to Improve School Quality. (with Jens Ruhose and Ludger Woessmann). *Education Next*, 16(3), Summer 2016, pp. 16-24.

What Matters for Achievement: Updating Coleman on the Influence of Families and Schools. *Education Next*, 16(2), Spring 2016, pp. 22-30.

Knowledge Capital, Growth, and the East Asian Miracle. (with Ludger Woessmann). *Science*, 351(6271), January 22, 2016, pp. 344-345.

School human capital and teacher salary policies. *Journal of Professional Capital and Community*, 1(1), 2016, pp. 23-40.

The Preschool Debate: Translating Research into Policy. In Ingrid Gould Ellen, Edward L. Glaeser, Eric A. Hanushek, Matthew E. Kahn, and Aaron M. Renn, *The Next Urban Reaissance: How Public-Policy Innovation and Evaluation Can Improve Life in America's Cities,* New York: Manhattan Institute for Policy Research, 2015, pp. 25-40.

Land Use Controls, Fiscal Zoning, and the Local Provision of Education. (with Kuzey Yilmaz). *Public Finance Review*, 49(5), September 2015, pp. 559-585.

Why Standard Measures of Human Capital are Misleading. *KDI Journal of Economic Policy*, 37(2), 2015, pp. 22-39.

The Economic Impact of Educational Quality. (with Ludger Woessmann). In Pauline Dixon, Steve Humble, and Chris Counihan (ed.). *Handbook of International Development and Education,* Cheltenham, UK: Edward Elgar Publishing, 2015, pp. 6-19.

Economics of Education. In James D. Wright (ed.), *International Encyclopedia of the Social and Behavioral Sciences, 2nd Edition,* Oxford: Elsevier, April 2015, pp. 149-157.

Returns to Skills around the World: Evidence from PIAAC. (with Guido Schwerdt, Simon

Wiederhold, and Ludger Woessmann). *European Economic Review*, 73, January 2015, pp. 103-130.

Finding the Right Focus. In María de Ibarrola and D.C. Phillips (ed.), *Leaders in Educational Research*, Rotterdam: Sense Publishers, 2014, pp. 93-105.

Is Location Fate? Distributional Aspects of Schooling. In Gregory K. Ingram and Daphne A. Kenyon (ed.), *Education, Land, and Location,* Cambridge, MA: Lincoln Institute of Land Policy, 2014, pp. 25-61.

Achievement Gap. In Denis C. Phillips (ed.), *Encyclopedia of Educational Theory and Philosophy*, Los Angeles: SAGE Reference, 2014, pp, 4-7.

U.S. Students from Educated Families Lag in International Tests. (with Paul E. Peterson and Ludger Woessmann). *Education Next*, 14(4), Fall 2014, pp. 8-18.

Institutional Structures of the Education System and Student Achievement: A Review of Crosscountry Economic Research. (with Ludger Woessmann). In Rolf Strietholt, Wilfried Bos, Jan-Eric Gustafsson, and Monica Rosen (ed.). *Educational Policy Evaluation through International Comparative Assessments,* Munster, Germany: Waxman, 2014, pp. 145-175.

Borrowing Constraints, College Aid, and Intergenerational Mobility. (with Charles Ka Yui Leung and Kuzey Yilmaz). *Journal of Human Capital*, 8(1), Spring 2014, pp. 1-41.

Boosting Teacher Effectiveness. In Chester E. Finn Jr. and Richard Sousa (ed.), *What lies ahead for america's children and their schools*, Stanford, CA: Hoover Institution Press, 2014, 23-35.

School resources and educational outcomes in developing countries: A review of the literature from 1990 to 2010. (with Paul W. Glewwe, Sarah D. Humpage, and Renato Ravina). In Paul Glewwe (ed.). *Education Policy in Developing Countries,* Chicago: University of Chicago Press, 2013, pp. 13-64.

Economic Growth in Developing Countries: The Role of Human Capital. *Economics of Education Review*, 37, December 2013, pp. 204–212.

Schools and location: Tiebout, Alonso, and governmental finance policy. (with Kuzey Yilmaz). *Journal of Public Economic Theory*, 15(6), December 2013, pp. 829-855.

Does School Autonomy Make Sense Everywhere? Panel Estimates from PISA. (with Susanne Link and Ludger Woessmann). *Journal of Development Economics*, 104, September 2013, pp. 212-232.

Financing Schools. In John Hattie and Eric M. Anderman (ed.), *International Guide to Student Achievement,* New York: Routledge, 2013, pp. 134-136.

School Leaders Matter: Measuring the impact of effective principals. (with Gregory F. Branch and Steven G. Rivkin). *Education Next*, 13(1), Winter 2013, pp. 62-69.

Do Better Schools Lead to More Growth? Cognitive Skills, Economic Outcomes, and Causation . (with Ludger Woessmann). *Journal of Economic Growth*, 17(4), December 2012, pp. 267-321.

Schooling, Educational Achievement, and the Latin American Growth Puzzle . (with Ludger Woessmann). *Journal of Development Economics*, 99(2), November 2012, pp. 497-512.

The Cost of Ignorance. In Norberto Bottani and Daniele Checchi (Ed.), *La Sfida Della Valutazione,* Bolgna, IT: Società Editrice il Mulino, 2012, pp. 39-46.

Is the U.S. catching up? International and state trends in student achievement. (with Paul E. Peterson and Ludger Woessmann). *Education Next*, 12(4), Fall 2012, pp. 24-33.

The Distribution of Teacher Quality and Implications for Policy. (with Stephen G. Rivkin). *Annual Review of Economics,* 4, September 2012, pp. 131-157.

The Role of International Assessments of Cognitive Skills in the Analysis of Growth and Development. (with Ludger Woessmann), In Matthias von Davier, Eugenio Gonzalez, Irwin Kirsch, and Kentaro Yamamoto (Ed.). *The Role of International Large-Scale Assessments: Perspectives from Technology, Economy, and Educational Research,* Dordrecht, Netherlands: Springer, 2012, pp. 47-65.

Achievement growth: International and state trends in student achievement. (with Paul E. Peterson and Ludger Woessmann). *PEPG Report No. 12-03,* July 2012.

Education quality and economic growth. In Brendan Miniter (ed.), *The 4 percent solution: Unleashing the economic growth America needs,* New York: Crown Business, 2012, pp. 227-239.

A flawed analysis of unrepresentative state achievement data. *Educational Policy*, 26(3), May 2012, pp. 360-368.

Grinding the Antitesting Ax: More bias than evidence behind NRC panel's conclusions. *Education Next,* Spring 2012, pp. 49-55.

The Economic Benefit of Educational Reform in the European Union. (with Ludger Woessmann). *CESifo Economic Studies*, 58(1), March 2012, pp. 73–109.

Urban education, location, and opportunity in the United States. (with Kuzey Yilmaz). In Nancy Brooks, Kieran Donaghy, and Gerrit-Jan Knaap (ed.). *Oxford Handbook of Urban Economics and Planning,* Oxford: Oxford University Press, 2011, pp. 583-615.

Are U.S. Students Ready to Compete?. (with Paul E. Peterson, Ludger Woessmann, and

Carlos Xabel Lastra-Anadón). Education Next, 11(4), Fall 2011, pp. 51-59.

Private Schools and Residential Choices: Accessibility, Mobility, and Welfare. (with Sinan Sarpça and Kuzey Yilmaz). *B.E. Journal of Economic Analysis & Policy (Contributions)*, 11(1) article 44, 2011, pp. 1-32.

Globally Challenged: Are U.S. Students Ready to Compete?. (with Paul E. Peterson, Ludger Woessmann, and Carlos Xabel Lastra-Anadón). *PEPG Report No. 11-03,* Cambridge, MA: Program on Education Policy and Governance, Harvard University, August 2011.

How Much Do Educational Outcomes Matter in OECD Countries?. (with Ludger Woessmann). *Economic Policy*, 26(67), July 2011, pp. 427-491.

Valuing Teachers: How Much is a Good Teacher Worth?. *Education Next*, 11(3), Summer 2011, pp. 40-45.

The Economic Value of Higher Teacher Quality. *Economics of Education Review*, 30(3), June 2011, pp. 466-479.

Teaching Math to the Talented: Which Countries - and States - are Producing High-Achieving Students?. (with Paul E. Peterson and Ludger Woessmann). *Education Next*, Winter 2011, pp. 10-18.

Paying Teachers Appropriately. In Darrel Drury and Justin Baer (ed.), *The American Public School Teacher: Past, Present, and Future,* (Cambridge, MA: Harvard Education Press), 2011, pp. 109-118.

Sample Selectivity and the Validity of International Student Achievement Tests in Economic Research. (with Ludger Woessmann). *Economics Letters*, 110(2), February 2011, pp. 79-82.

The Economics of International Differences in Educational Achievement. (with Ludger Woessmann) in Eric A. Hanushek, Stephen Machin and Ludger Woessmann (ed.). *Handbook of the Economics of Education, Vol. 3, Amsterdam: North Holland,* 2011, pp. 89-200.

How well do we understand achievement gaps?. Focus, 27(2), Winter 2010, pp. 5-12.

U.S. Math Performance in Global Perspective: How Well Does Each State Do at Producing High-Achieving Students?. (with Paul E. Peterson and Ludger Woessmann). *PEPG Report No. 10–19,* Cambridge, MA: Program on Education Policy and Governance, Harvard University, November 2010.

An Evidence-Based World. In Koret Task Force, *American Education in 2030: An Assessment by Hoover Institution's Koret Task Force on K–12 Education,* Stanford, CA: Hoover Institution, 2010.

The Difference is Teacher Quality. in Karl Weber (ed.). Waiting for "Superman": How We Can

Save America's Failing Public Schools. New York: Public Affairs, 2010, pp. 81-100.

An Effective Teacher in Every Classroom: A lofty goal, but how to do it. (with Kati Haycock). *Education Next,* 10(3), Summer 2010, pp. 46-52.

The Quality and Distribution of Teachers under the No Child Left Behind Act. (with Steven G. Rivkin). *Journal of Economic Perspectives*, 24(3), Summer 2010, pp. 133-150.

Generalizations about Using Value-Added Measures of Teacher Quality. (with Steven G. Rivkin). *American Economic Review*, 100(2), May 2010, pp. 267-271.

Education and Economic Growth. (with Ludger Woessmann) in Dominic J. Brewer and Patrick J. McEwan (ed.). *Economics of Education (Amsterdam: Elsevier, 2010),* 2010, pp. 60-67.

Education Production Functions: Developed Countries Evidence. in Dominic J. Brewer and Patrick J. McEwan (ed.). *Economics of Education (Amsterdam: Elsevier),* 2010, pp. 132-136.

The High Cost of Low Educational Performance: The Long-Run Impact of Improving PISA Outcomes. (with Ludger Woessmann). *Paris: Organization for Economic Cooperation and Development,* 2010, pp. 1-55.

Does Pollution Increase School Absences?. (with Janet Currie, E. Megan Kahn, Matthew Neidell, and Steve G. Rivkin). *Review of Economics and Statistics*, 91(4), November 2009, pp. 683-694.

Teacher Deselection. In Dan Goldhaber and Jane Hannaway (ed.), *Creating a New Teaching Profession,* Washington, DC: Urban Institute Press, 2009, pp. 165-180.

School Policy: Implications of Recent Research for Human Capital Investments in South Asia and Other Developing Countries. *Education Economics*, 17(3), September 2009, pp. 291-313.

Many Schools Are Still Inadequate: Now what?. (with Alfred A. Lindseth and Michael A. Rebell). *Education Next*, 9(4), Fall 2009, pp. 49-56.

New Evidence about Brown v. Board of Education: The Complex Effects of School Racial Composition on Achievement. (with John F. Kain and Steven G. Rivkin). *Journal of Labor Economics*, 27(3), July 2009, pp. 349-383.

Harming the Best: How Schools Affect the Black-White Achievement Gap. (with Steven G. Rivkin). *Journal of Policy Analysis and Management*, 29(3), Summer 2009, pp. 366-393.

The Economic Value of Education and Cognitive Skills. In Gary Sykes, Barbara Schneider and David N. Plank (eds.), *Handbook of Education Policy Research,* New York: Routledge, 2009, pp. 39-56.

Quality-Consistent Estimates of International Schooling and Skill Gradients. (with Lei Zhang).

Journal of Human Capital, 3(2), Summer 2009, pp. 107-143.

Getting Down to Facts: School Finance and Governance in California. (with Susanna Loeb and Anthony Bryk). *Education Finance and Policy*, 3(1), Winter 2008, pp. 1-19.

The Role of Cognitive Skills in Economic Development. (with Ludger Woessmann). *Journal of Economic Literature 2008,* 46(3), 2008, pp. 607-668.

Do Students Care about School Quality? Determinants of Dropout Behavior in Developing Countries. (with Victor Lavy and Kohtaro Hitomi). *Journal of Human Capital,* 2(1), 2008, pp. 69-105.

Education Production Functions. In Steven N. Durlauf and Lawrence E. Blume (eds.), *The New Palgrave Dictionary of Economics,* Basingstoke: Palgrave Macmillan, 2008.

What Do Cost Functions Tell Us About the Cost of an Adequate Education?. (with Robert Costrell and Susanna Loeb). *Peabody Journal of Education*, 83(2), 2008, pp. 198-223.

Incentives for Efficiency and Equity in the School System. *Perspektiven der Wirtschaftspolitik,* 9 (Special Issue), 2008, pp. 5-27.

Education and Economic Growth: It's not Just Going to School but Learning That Matters. (with Dean T. Jamison, Eliot A. Jamison and Ludger Woessmann). *Education Next*, 8(2), Spring 2008, pp. 62-70.

The Effects of Education Quality on Mortality Decline and Income Growth. (with Eliot A. Jamison and Dean T. Jamison). *Economics of Education Review*, 26(2), December 2007, pp. 772-789.

The Single Salary Schedule and Other Issues of Teacher Pay. *Peabody Journal of Education*, 82(4), October 2007, pp. 574-586.

The Alchemy of 'Costing Out' an Adequate Education. In Martin R. West and Paul E. Peterson (eds.), *School Money Trials: The Legal Pursuit of Educational Adequacy,* Washington, D.C.: Brookings Institution Press, 2007, pp. 77-101.

Education Quality and Economic Growth. (with Ludger Woessmann). Washington, DC: World Bank, July 2007, 27 pages.

Some U.S. Evidence on how the Distribution of Educational Outcomes can be Changed. In Ludger Woessmann and Paul E. Peterson (ed.), *Schools and the Equal Opportunity Problem*, Cambridge, MA: MIT Press, 2007, pp. 159-190.

The Confidence Men: Selling Adequacy, Making Millions. *Education Next*, 7(3), Summer 2007, pp. 73-78.

Charter School Quality and Parental Decision Making with School Choice. (with John F. Kain, Steven G. Rivkin, and Gregory F. Branch). *Journal of Public Economics*, 91(5-6), June 2007, pp. 823-848.

Pay, Working Conditions, and Teacher Quality. (with Steven G. Rivkin). *Future of Children*, 17(1), Spring 2007, pp. 69-96.

The Economic Benefits of Improved Teacher Quality. In Nils C. Soquel and Pierre Jaccard (ed.), *Governance and Performance of Education Systems*, Dordrecht, Netherlands: Springer, 2007, pp. 107-135.

Teacher Quality. (with Steven G. Rivkin) in Eric A. Hanushek and Finis Welch (ed.). *Handbook of the Economics of Education, Volume 2, Amsterdam: North Holland,* 2006, pp. 1052-1078.

School Resources. In Eric A. Hanushek and Finis Welch (Ed.), *Handbook of the Economics of Education, Volume 2,* Amsterdam: North Holland, 2006, pp. 865-908.

Is There Hope for Expanded School Choice?. In Robert C. Enlow and Lenore T. Ealy, *Liberty and Learning: Milton Friedman's Voucher Idea at Fifty,* Washington, DC: Cato Institute, 2006, pp. 67-79.

The Complementarity of Tiebout and Alonso. (with Kuzey Yilmaz). *Journal of Housing Economics*, 16(2), August 2006, pp. 243-261.

Alternative School Policies and the Benefits of General Cognitive Skills. *Economics of Education Review*, 25(4), August 2006, pp. 447-462.

Science Violated: Spending Projections and the "Costing Out" of an Adequate Education. in Eric A. Hanushek (ed.). *Courting Failure: How School Finance Lawsuits Exploit Judges' Good Intentions and Harm Our Children,* Stanford, CA: Education Next Books, 2006, pp. 257-311.

Introduction: Good Intentions Captured – School Funding Adequacy and the Courts. in Eric A. Hanushek (ed.). *Courting Failure: How School Finance Lawsuits Exploit Judges' Good Intentions and Harm Our Children,* Stanford, CA: Education Next Books, 2006, pp. xiii-xxxii.

Early Returns from School Accountability. (with Margaret E. Raymond). in Paul E. Peterson (ed.). *Generational Change: Closing the Test Score Gap,* Lanham, MD: Rowman and Littlefield, 2006, pp. 143-166.

School Accountability and Student Performance. (with Margaret E. Raymond). *Regional Economic Development,* Federal Reserve Bank of St. Louis, 2(1), March 2006, pp. 51-61.

More Accountability or More Resources: The US Experience with NCLB. (with Margaret E. Raymond). In Enrico Gori, Daniele Vidoni, Eric A. Hanushek and Charles Glenn (ed.). *Institutional Models in Education: Legal Framework and Methodological Aspects for a New Approach to the Problem of School Governance,* (Nijmegen, Netherlands: Wolf Legal

Publishers), 2006, pg. 69-80.

Teacher Compensation. in Paul E. Peterson (ed.). *Reforming Education in Florida*, 2006, pp. 149-163.

Does Educational Tracking Affect Performance and Inequality? Differences-in-Differences Evidence across Countries. (with Ludger Woessmann). *The Economic Journal*, 116(150), March 2006, pp. C63-C76.

The Economic Value of Improving Public Schools. *Proceedings of Federal Reserve Bank of Cleveland Research Conference, November 18-19, 2004, Cleveland: Federal Reserve Bank of Cleveland, 2005, pp. 59-72.*

Pseudo-Science and a Sound Basic Education: Voodoo Statistics in New York. *Education Next*, 5(4), Fall 2005.

Economic Outcomes and School Quality. *Education Policy Series,* Volume 4. Paris: International Institute for Educational Planning and International Academy of Education}, 2005.

The Economics of School Quality. German Economic Review, 6(3), August 2005, pp. 269-286.

Why Quality Matters in Education. Finance and Development, 42(2), June 2005, pp.15-19.

Education and Training. (with Michael Mertaugth). In Nicholas Barr (ed.). *Labor Markets and Social Policy in Central and Eastern Europe: The Accession and Beyond,* Washington, DC: The World Bank, 2005, pp. 207-251.

Does School Accountability Lead to Improved Student Performance?. (with Margaret E. Raymond). *Journal of Policy Analysis and Management,* 24(2), Spring 2005, pp. 298-327.

Teachers, Schools, and Academic Achievement. (with Steven G. Rivkin and John F. Kain). *Econometrica*, 73(2), March 2005, pp. 417-458.

Why the Federal Government Should Be Involved in School Accountability. *Journal of Policy Analysis and Management,* 24(1), Winter 2005, pp. 168-172.

United States Lessons about School Accountability. *CESifo DICE Report,* 2(4), Winter 2004, pp. 27-32.

The Revolving Door. (with John F. Kain and Steven G. Rivkin). *Education Next*, 4(1), Winter 2004, pp. 77-82.

Disruption versus Tiebout Improvement: The Costs and Benefits of Switching Schools. (with John F. Kain and Steven G. Rivkin). *Journal of Public Economics*, 88(9), August 2004, pp. 1722-1746.

The Toughest Battleground: Schools. In Mark A. Wynne, Harvey Rosenblum and Robert L. Formaini (ed.), *The legacy of Milton and Rose Friedman's Free to Choose: Economic liberalism at the turn of the twenty first century,* Dallas, TX: Federal Reserve Bank of Dallas, 2004, pp. 21-35.

What If There Are No 'Best Practices'?. *Scottish Journal of Political Economy*, 51(2), May 2004, pp. 156-172.

Shopping for Evidence Against School Accountability. (with Margaret E. Raymond). In William J. Fowler, Jr. (ed.). *Developments in School Finance: 2003,* (Washington, DC: National Center for Education Statistics), 2004, pp. 119-130.

The Effect of School Accountability Systems on the Level and Distribution of Student Achievement. (with Margaret E. Raymond). *Journal of the European Economic Association*, 2(2-3), May 2004, pp. 406-415.

Why Public Schools Lose Teachers. (with John F. Kain and Steven G. Rivkin). *The Journal of Human Resources*, 39(2), Spring 2004, pp. 326-354.

How to Improve the Supply of High Quality Teachers. (with Steven G. Rivkin). *Brookings Papers on Education Policy: 2004, 2004, pp. 7-44.*

Opportunities, Race, and Urban Location: The Influence of John Kain. (with Edward L. Glaeser and John M. Quigley). *Journal of Urban Economics*, 56(1), 2004.

Economic Analysis of School Quality. *European Economy: Quality and Efficiency in Education,* Special Report No 3. Brussels: Directorate-General for Economic and Financial Affairs, European Commission, 2004, pp. 29-48.

Redistribution through Education and Other Transfer Mechanisms. (with Charles Ka Yui Leung and Kuzey Yilmaz). *Journal of Monetary Economic*, 50(8), November 2003, pp. 1719-1750.

Does Peer Ability Affect Student Achievement?. (with John F. Kain, Jacob M. Markman, and Steven G. Rivkin). *Journal of Applied Econometrics*, 18(5), October 2003, pp. 527-544.

Efficiency and Equity in Schools around the World. (with Javier A. Luque). *Economics of Education Review*, 22(5), October 2003, pp. 481-502.

High Stakes Research. (with Margaret E. Raymond). *Education Next,* 3(3), Summer 2003, pp. 48-55.

Does Public School Competition Affect Teacher Quality?. (with Steven G. Rivkin). In Caroline Minter Hoxby (ed.). *The Economics of School Choice*, Chicago: University of Chicago Press, 2003, pp. 23-47.

Lessons about the Design of State Accountability Systems. (with Margaret E. Raymond). In

Paul E. Peterson and Martin R. West (ed.). *No Child Left Behind? The Politics and Practice of Accountability,* Washington, DC: Brookings, 2003, pp. 126-151.

Improving Educational Quality: How Best to Evaluate Our Schools. (with Margaret E. Raymond). In Yolanda Kodrzycki (ed.). *Education in the 21st Century: Meeting the Challenges of a Changing World,* Boston, MA: Federal Reserve Bank of Boston, 2003, pp. 193-224.

Lost Opportunity. *Education Next*, 3(2), Spring 2003, pp. 84-87.

The Failure of Input-based Schooling Policies. *The Economic Journal*, 113, February 2003, pp. 64-98.

Inferring Program Effects for Specialized Populations: Does Special Education Raise Achievement for Students with Disabilities. (with John F. Kain and Steven G. Rivkin). *Review of Economics and Statistics*, 84(4), November 2002, pp. 584-599.

The Seeds of Growth. Education Next, 2(3), Fall 2002, pp. 10-17.

The Importance of School Quality. In Paul E. Peterson (ed.), *Our Schools and Our Future: Are We Still at Risk?*, (Stanford, CA: Hoover Institution Press), 2002, pp. 141-173.

Evidence, Politics, and the Class Size Debate. In Lawrence Mishel and Richard Rothstein (ed.), *The Class Size Debate*, Washington, DC: Economic Policy Institute, 2002, pp. 37-65.

Teacher Quality. In Lance T. Izumi and Williamson M. Evers (ed.), *Teacher Quality*, (Stanford: Hoover Institution Press), 2002, pp. 1-12.

Will Quality of Peers Doom Those Left in the Public Schools?. in Paul T. Hill (ed.). *Choice with Equity*, 2002, pp. 121-140.

Publicly Provided Education. in Alan J. Auerbach and Martin Feldstein (ed.). *Handbook of Public Economics (Amsterdam: North-Holland, 2002),* 2002, pp. 2045-2141.

Sorting out accountability systems. (with Margaret E. Raymond). In Williamson M. Evers, Herbert J. Walberg (Eds.). *School Accountability*, 2002, pp. 75-104.

The Confusing World of Educational Accountability. (with Margaret E. Raymond). *National Tax Journal*, 54(2), June 2001, pp. 365-384.

Schooling, Inequality, and the Impact of Government. (with Julie A. Somers). In Finis Welch (ed.). *The Causes and Consequences of Increasing Inequality,* Chicago: University of Chicago Press, 2001, pp. 169-199.

Black-white Achievement Differences and Governmental Interventions. *American Economic Review*, 91(2), May 2001, pp. 24-28.

Spending on Schools. In Terry Moe (ed.), *A Primer on American Education*, Stanford, CA: Hoover Institution Press, 2001, pp. 69-88.

Deconstructing RAND. Education Matters, 1(1), Spring 2001, pp. 65-70.

Economics of Education. In Paul B. Baltes and Neil J. Smelser (ed.), *International Encyclopedia of the Social and Behavioral Sciences*, vol. 6, Amsterdam: Elsevier Science, 2001, pp. 4200-4208.

Schooling, Labor Force Quality, and the Growth of Nations. (with Dennis D. Kimko). *American Economic Review*, 90(5), December 2000, pp. 1184-1208.

Smaller Classes, Lower Salaries? The Effects of Class Size on Teacher Labor Markets. (with Javier Luque). In Sabrina W.M. Laine and James G. Ward (ed.). *Using What We Know: A Review of the Research on Implementing Class-Size Reduction Initiatives for State and Local Policymakers,* Oak Brook, III.: North Central Regional Educational Laboratory, 2000, pp. 35-51.

The Evidence on Class Size. in Susan E. Mayer and Paul E. Peterson (ed.). *Earning and learning: How schools matter,* Washington, DC: Brookings Institution, 1999, pp. 131-168.

Some Findings from an Independent Investigation of the Tennessee STAR Experiment and from Other Investigations of Class Size Effects. *Educational Evaluation and Policy Analysis*, 21(2), Summer 1999, pp. 143-163.

Adjusting for Differences in the Costs of Educational Inputs. in William J. Fowler, Jr. (ed.). *Selected Papers in School Finance, 1997-1999,* 1999, pp. 17-27.

Budgets, Priorities, and Investment in Human Capital. In Marvin H. Kosters (ed.), *Financing College Tuition: Government Policies and Educational Priorities,* Washington, DC AEI Press, 1999, pp. 8-27.

Conclusions and Controversies about the Effectiveness of School Resources. *FRBNY Economic Policy Review,* 4(1), March 1998, pp. 11-28.

Understanding the 20th Century Growth in U.S. School Spending. (with Steven G. Rivkin). *Journal of Human Resources*, 31(1), Winter 1997, pp. 34-68.

Outcomes, Incentives, and Beliefs: Reflections on Analysis of the Economics of Schools. *Educational Evaluation and Policy Analysis*, 19(4), Winter 1997, pp. 301-308.

Incentives Are Key to Improved Schools. *Forum for Applied Research and Public Policy*, 12(3), 1997, pp. 62-67.

Health and Schooling: Evidence and Policy Implications for Developing Countries. (with João Batista Gomes-Neto, Raimundo Hélio Leite, and Roberto Cláudio Frota-Bezzera). *Economics*

of Education Review, 16(3), June 1997, pp. 271-282.

Assessing the Effects of School Resources on Student Performance: An Update. *Educational Evaluation and Policy Analysis*, 19(2), Summer 1997, pp. 141-164.

Applying Performance Incentives to Schools for Disadvantaged Populations. *Education and Urban Society*, 29(3), May 1997, pp. 296-316.

The Productivity Collapse in Schools. In William J. Fowler, Jr. (ed.), *Developments in School Finance, 1996,* Washington, DC: National Center for Educational Statistics, U.S. Department of Education, 1997, pp. 183-195.

Analytical Framework for Retirement Policy Decisions. (with Constance F. Citro). In Michael S. Gordon, Olivia S. Mitchell, and Marc M. Twinney (ed.). *Positioning Pensions for the Twenty-first Century,* Philadelphia: University of Pennsylvania Press, 1997, pp. 209-219.

Aggregation and the Estimated Effects of School Resources. (with Steven G. Rivkin and Lori L. Taylor). *Review of Economics and Statistics,* 78(4), December 1996, pp. 611-627.

Measuring Investment in Education. *Journal of Economic Perspectives*, 10(4), Fall 1996, pp. 9-30.

A More Complete Picture of School Resource Policies. *Review of Educational Research*, 66(3), Fall 1996, pp. 397-409.

The Identification of School Resource Effects. (with Steven G. Rivkin and Lori L. Taylor). *Education Economics*, 4(2), 1996, pp. 105-125.

School Resources and Student Performance. In Gary Burtless (ed.), *Does Money Matter? The Effect of School Resources on Student Achievement and Adult Success,* Washington, D.C.: The Brookings Institution, 1996, pp. 43-73.

Improving School Performance While Controlling Costs. in William J. Fowler, Jr. (ed.). *Developments in School Finance, 1995,* 1996, pp. 111-122.

Efficiency-Enhancing Investments in School Quality. (with João Batista Gomes Neto and Ralph W. Harbison). In Nancy Birdsall and Richard H. Sabot (ed.). *Opportunity Foregone: Education in Brazil*, Washington, DC: Inter-American Development Bank, 1996, pp. 385-424.

Rationalizing School Spending: Efficiency, Equity, and Externalities, and Their Connection to Rising Expenditure. In Victor Fuchs (ed.), *Individual and Social Responsibility: Child Care, Education, Medical Care, and Long-Term Care in America ,* University of Chicago Press/NBER, 1996, pp. 59-91.

Interpreting Recent Research on Schooling in Developing Countries. *World Bank Research Observer*, 10(2), August 1995, pp. 227-246.

Who Chooses to Teach and Why?. (with Richard Pace). *Economics of Education Review*, 14(2), June 1995, pp. 101-117.

The (Dis)Incentive to Settle Personal Injury Cases. (with Michael J. Wolkoff). *New York State Bar Journal*, 67(3), 1995, pp. 52-56.

The Quest for Equalized Mediocrity: School Finance Reform without Consideration of School Performance. In Lawrence O. Picus and James L. Wattenbarger (ed.), *Where Does the Money Go? Resource Allocation in Elementary and Secondary Schools,* Thousand Oaks, CA: Corwin Press, 1996, pp. 20-43.

Outcomes, Costs, and Incentives in Schools. In Board on Science, Technology, and Economic Policy, National Research Council, *Improving the Performance of America's Schools,* Washington, DC: National Academy Press, 1995, pp. 28-51.

The Economics of Structured Judgments Under CPLR Article 50-B. (with Michael J. Wolkoff). *Buffalo Law Review*, 43(2), 1995, pp. 563-582.

Production Functions in Education. In T. Husén and T. N. Postlethwaite (ed.), *The International Encyclopedia of Education*, Oxford: Pergamon Press, 1995, pp. 4059-4070.

A Jaundiced View of "Adequacy" in School Finance Reform. *Educational Policy*, 8(4), December 1994, pp. 460-69.

The Causes and Consequences of Grade Repetition: Evidence from Brazil. (with João Batista Gomes-Neto). *Economic Development and Cultural Change*, 43(1), October 1994, pp. 117-148.

Estimating the Effects of Proposed Legislation: The Case for Model Validation. (with Constance F. Citro). *Chance*, 7(2), 1994, pp. 31-40.

Concepts of Educational Efficiency and Effectiveness. (with Marlaine E. Lockheed). In Torsten Husén and T. Neville Postlethwaite (ed.). *International Encyclopedia of Education,* 2nd Edition, Volume 3, Oxford: Pergamon, 1994, pp. 1779-1784.

Education Production Functions. In Torsten Husén and T. Neville Postlethwaite (ed.), *International Encyclopedia of Education*, 2nd Edition, Volume 3, Oxford: Pergamon, 1994, pp. 1756-1762.

Understanding Entry into the Teaching Profession. (with Richard R. Pace). In Ronald G. Ehrenberg (ed.). *Choices and Consequences: Contemporary Policy Issues in Education,* Ithaca, NY: ILR Press, 1994, pp. 12-28.

Investimentos Autofinanciáveis em Educação. (with João Batista Gomes-Neto, Raimundo H. Leite, and Ralph W. Harbison). *Cadernos de Pesquisa,* 85, 1993, pp. 11-25.

Can Equity Be Separated from Efficiency in School Finance Debates?. In Emily P. Hoffman (ed.), *Essays on the Economics of Education*, Kalamazoo, MI: Upjohn Institute, 1993, pp. 35-73.

Improving Educational Outcomes While Controlling Costs. (with Steven G. Rivkin and Dean T. Jamison). *Carnegie-Rochester Conference Series on Public Policy 37*, December 1992, pp. 205-238.

The Trade-off Between Child Quantity and Quality. *Journal of Political Economy*, 100(1), February 1992, pp. 84-117.

When School Finance 'Reform' May Not Be Good Policy. *Harvard Journal on Legislation*, 28(2), Summer 1991, pp. 423-456.

School Performance and Educational Policy Making. In Gary Libecap (ed.), *The Education and Quality of the American Labor Force,* Greenwich, CT: JAI Press, 1991, pp. 65-94.

Concepts of Educational Efficiency and Effectiveness. (with Marlaine E. Lockheed). In Torsten Husén and T. Neville Postlethwaite (ed.). *International Encyclopedia of Education,* Supplementary Volume 2, Oxford: Pergamon, 1991.

Commercial Land Use Regulation and Local Government Finance. (with John M. Quigley). *American Economic Review*, 19(2), May 1990, pp. 176-180.

The Policy Research Markets. *Journal of Policy Analysis and Management,* 9(2), Spring 1990, pp. 147-154.

Alternative Assessments of the Performance of Schools: Measurement of State Variations in Achievement. (with Lori L. Taylor). *The Journal of Human Resources*, 25(2), Spring 1990, pp. 179-201.

Reforming Educational Reform. (with John E. Chubb). In Henry Aaron (ed.). *Setting National Priorities*, Washington, DC: The Brookings Institution, 1990, pp. 213-247.

Social Science Research and Policy: A Review Essay. *Journal of Human Resources*, Spring 1990, pp. 46-51.

The Impact of Differential Expenditures on School Performance. *Educational Researcher*, 18(4), May 1989, pp. 45-51.

Expenditures, Efficiency, and Equity in Education: The Federal Government's Role. *American Economic Review*, 79(2), May 1989, pp. 46-51.

Improving Educational Efficiency in Developing Countries: What Do We Know?. (with Marlaine E. Lockheed). *Compare*, 18(1), 1988, pp. 21-37.

Non-Labor-Supply Responses to the Income Maintenance Experiments. In Alicia H. Munnell (ed.), *Lessons from the Income Maintenance Experiments,* Boston, MA: Federal Reserve Bank of Boston and the Brookings Institution, 1987, pp. 106-121.

Formula Budgeting: The Economics and Analytics of Fiscal Policy under Rules. *Journal of Policy Analysis and Management,* 6(1), Fall 1986, pp. 3-19.

The Economics of Schooling: Production and Efficiency in Public Schools. *Journal of Economic Literature*, 49(3), September 1986, pp. 1141-1177.

Alternative Poverty Measures and the Allocation of Federal Benefits. (with Roberton Williams). in U.S. Bureau of the Census. *Conference on the Measurement of Noncash Benefits,* Proceedings, Volume I, Washington, DC: U.S. Bureau of the Census, 1986, pp. 104-125.

Life-Cycle Earning Capacity and the OJT Investment Model. (with John M. Quigley). *International Economic Review*, 26(2), June 1985, pp. 365-385.

Sources of Black-White Earnings Differences. *Social Science Research*, 11(2), June 1982, pp. 103-126.

The Determinants of Housing Demand. (with John M. Quigley). In J.V. Henderson (ed.). *Research in Urban Economics,* Vol. II. (Greenwich, CT: JAI Press), 1982, pp. 221-242.

Throwing Money at Schools. *Journal of Policy Analysis and Management*, 1(1), Autumn 1981, pp. 19-41.

Alternative Models of Earnings Determination and Labor Market Structure. *Journal of Human Resources*, 16(2), Spring 1981, pp. 238-259.

Education Policy Research-An Industry Perspective. *Economics of Education Review*, 1(2), 1981, pp. 193-224.

Consumption Aspects. (with John M. Quigley). In Katherine L. Bradbury and Anthony Downs (ed.). *Do Housing Allowances Work?*, Washington, D.C.: The Brookings Institution, 1981, pp. 185-240.

What is the Price Elasticity of Housing Demand?. (with John M. Quigley). *Review of Economics and Statistics*, 62(3), August 1980, pp. 449-454.

Conceptual and Empirical Issues in the Estimation of Educational Production Functions. *The Journal of Human Resources*, 14(3), Summer 1979, pp. 351-388.

The Dynamics of the Housing Market: A Stock Adjustment Model of Housing Consumption. (with John M. Quigley). *Journal of Urban Economics*, 6(1), January 1979, pp. 90-111.

The Dynamics of Postwar Industrial Location. (with Byung Nak Song). Review of Economics

and Statistics, 60(4), November 1978, pp. 515-522.

An Explicit Model of Intra-Metropolitan Mobility. (with John M. Quigley). *Land Economics*, 54(4), November 1978, pp. 411-429.

Implicit Investment Profiles and Intertemporal Adjustments of Relative Wages. (with John M. Quigley). *American Economic Review*, 68(1), March 1978, pp. 67-79.

Housing Market Disequilibrium and Residential Mobility. (with John M. Quigley). In Eric A. Moore and William A.V. Clark (ed.). *Population Mobility and Residential Change*, Evanston, IL: Northwestern University Press, 1978.

Ethnic Income Variations: Magnitudes and Explanations. *American Ethnic Groups*, Washington, D.C.: The Urban Institute, 1978, pp. 139-156.

The Volunteer Military and the Rest of the Iceberg. *Policy Sciences*, 8(3), September 1977, pp. 343-361.

Learning by Observing the Performance of Schools. In Robert A. Wallhaus (ed.), *New Directions for Institutional Research,* Measuring and Increasing Academic Productivity, No. 8 (San Francisco: Jossey-Bass), 1975, pp. 17-38.

The Demand for Local Public Service: An Exploratory Analysis. In John E. Jackson (ed.), *Public Needs and Private Behavior in Metropolitan Areas,* Cambridge, MA: Ballinger, 1975, pp. 121-138.

Model Specification, Use of Aggregate Data, and the Ecological Correlation Fallacy. (with John E. Jackson and John F. Kain). *Political Methodology,* Winter 1974, pp. 89-107.

Efficient Estimators for Regressing Regression Coefficients. *The American Statistician*, 28(2), May 1974, pp. 66-67.

The High Cost of Graduate Education in the Military. Public Policy, 21(4), 1973, pp. 525-552.

Regional Differences in the Structure of Earnings. *Review of Economics and Statistics*, 55(2), May 1973, pp. 204-213.

On the Value of 'Equality of Educational Opportunity' as a Guide to Public Policy. (with John F. Kain). In Frederick Mosteller and Daniel P. Moynihan (ed.). *On Equality of Educational Opportunity,* (New York: Random House), 1972, pp. 116-145.

Teacher Characteristics and Gains in Student Achievement: Estimation Using Micro-Data. *American Economic Review*, 61(2), May 1971, pp. 280-288.

The Value of Teachers in Teaching. *RM-6362-CC/RC*, Santa Monica: The Rand Corporation, 1970.

The Production of Education, Teacher Quality, and Efficiency. in U.S. Office of Education. *Do Teachers Make a Difference?*, Washington, D.C.: Government Printing Office, 1970, pp. 79-99.

Voting Behavior in the 1960 Colorado Presidential Election. (with John C. Ries, John E. Coblentz, and John F. Kain). *Rocky Mountain Social Science Journal*, 3(1), 1966, pp. 82-95.

Working Papers

Contexts of Convenience: Generalizing from Published Evaluations of School Finance Policies. (with Danielle V. Handel). *NBER Working Paper No. 31653*, National Bureau of Economic Research, September 2023.

Can Patience Account for Subnational Differences in Student Achievement? Regional Analysis with Facebook Interests. (with Lavinia Kinne, Pietro Sancassani, and Ludger Woessmann). *NBER Working Paper No. 31690,* National Bureau of Economic Research, September 2023.

Understanding Trends in Chinese Skill Premiums, 2007-2018. (with Yuan Wang and Lei Zhang). *NBER Working Paper No. 31367,* National Bureau of Economic Research, June 2023.

Does Regulating Entry Requirements Lead to More Effective Principals?. (with Wes Austin, Bengie Chen, Dan Goldhaber, Kris Holden, Cory Koedel, Helen Ladd, Jin Luo, Eric Parsons, Gregory Phelan, Steven G. Rivkin, Tim Sass, Mavzuna Tureava).

Where Do STEM Graduates Stem From? The Intergenerational Transmission of Comparative Skill Advantages. (with Babs Jacobs, Guido Schwerdt, Rolf van der Velden, Stan Vermeulen, and Simon Wiederhold). *NBER Working Paper No. 31186,* National Bureau of Economic Research, April 2023.

Employer Learning and the Dynamics of Returns to Universities: Evidence from Chinese Elite Education during University Expansion. (with Sylvie Démurger and Lei Zhang). *NBER Working Paper No. 25955*, National Bureau of Economic Research, Revised March 2023.

The Effects of Comprehensive Educator Evaluation and Pay Reform on Achievement. (with Jin Luo, Andrew Morgan, Minh Nguyen, Ben Ost, and Steven G. Rivkin, Ayman Shakeel). *NBER Working Paper No. 31073,* National Bureau of Economic Research, March 2023.

U.S. School Finance: Resources and Outcomes. (with Danielle V. Handel). *NBER Working Paper No. 30769,* National Bureau of Economic Research, December 2022.

U.S. School Finance: Resources and Outcomes. (with Danielle V. Handel). *NBER Working Paper No. 30769,* National Bureau of Economic Research, December 2022.

Global Universal Basic Skills: Current Deficits and Implications for World Development. (with Sarah Gust and Ludger Woessmann). *NBER Working Paper No. 30566*, National Bureau of Economic Research, October 2022.

The Intergenerational Transmission of Cognitive Skills: An Investigation of the Causal Impact of Families on Student Outcomes. (with Babs Jacobs, Guido Schwerdt, Rolf van der Velden, Stan Vermeulen, and Simon Wiederhold). *NBER Working Paper No. 29450,* National Bureau of Economic Research, November 2021.

The Economic Impacts of Learning Losses. (with Ludger Woessmann). *OECD Education Working Paper No. 225,* Organisation for Economic Co-operation and Development, September 2020.

Culture and Student Achievement: The Intertwined Roles of Patience and Risk-Taking. (with Lavinia Kinne, Philipp Lergetporer, and Ludger Woessmann). *NBER Working Paper No. 27484,* National Bureau of Economic Research, July 2020.

Can Greater Access to Education Be Inequitable? New Evidence from India's Right to Education Act. (with Chirantan Chatterjee and Shreekanth Mahendiran). *NBER Working Paper No. 27377,* National Bureau of Economic Research, June 2020.

Long-run Trends in the U.S. SES-Achievement Gap. (with Paul E. Peterson, Laura M. Talpey, and Ludger Woessmann). *NBER Working Paper No. 26764,* National Bureau of Economic Research, February 2020.

The Unwavering SES Achievement Gap: Trends in U.S. Student Performance. (with Paul E. Peterson, Laura M. Talpey, and Ludger Woessmann). *NBER Working Paper No. 25648,* National Bureau of Economic Research, March 2019.

Addressing Cross-National Generalizability in Educational Impact Evaluation. *NBER Working Paper No. 25460,* National Bureau of Economic Research, January 2019.

Testing. (with Annika B. Bergbauer and Ludger Woessmann). *NBER Working Paper No.* 24836 (revised), National Bureau of Economic Research, July 2018 (revised November 2019).

Imperfect Performance Information and Public Sector Personnel Decisions : The Case of School Principals. (with Julie Berry Cullen, Gregory Phelan, and Steven G. Rivkin). *NBER Working Paper No. 22881,* December 2016.

Estimating the Effect of Leaders on Public Sector Productivity: The Case of School Principals. (with Gregory F. Branch and Steven G. Rivkin). *NBER Working Paper 17803,* National Bureau of Economic Research, January 2012.

The Market for Teacher Quality. (with John F. Kain, Daniel M. O'Brien, and Steven G. Rivkin). *NBER Working Paper 11154,* National Bureau of Economic Research, February 2005.

Notes/Comments/Op-Eds

Generation Lost: The Pandemic's Lifetime Tax. Education Next, October 2023.

Patience and the North-South divide in student achievement in Italy and the US. (with Lavinia Kinne, Pietro Sancassani, Ludger Woessmann). *VoxEU*, October 11, 2023.

Student test scores are down, and it isn't just because of COVID shutdowns. *The Hill,* July 26, 2023.

U.S. School Finance: Resources and Outcomes. (with Danielle V. Handel). *Cato Research Briefs in Economic Policy,* No. 343, July 26, 2023.

Where STEM graduates stem from: The intergenerational transmission of comparative skill advantages. (with Babs Jacobs, Guido Schwerdt, Rolf van der Velden, Stan Vermeulen, and Simon Wiederhold). *VoxEU*, June 3, 2023.

A world unprepared: Missing skills for development. *VoxEU*, (With Ludger Woessmann and Sarah Gust), December 2022.

A simple and complete solution to the learning loss problem. *Policy Brief,* Stanford Institute for Economic Policy Research, Stanford University, November 2022.

Notes on Trends in the U.S. Income-Achievement Gap. (with Jacob Light, Paul E. Peterson, Laura M. Talpey, and Ludger Woessmann). June 2022.

The intergenerational transmission of cognitive skills. (with Babs Jacobs, Guido Schwerdt, Rolf van der Velden, Stan Vermeulen, and Simon Wiederhold). *VoxEU*, February 22, 2022.

Permanent Economic Damage from Learning Losses. (with Ludger Woessmann). *National Review Capital Matters,* September 2020.

The real costs of closing schools and what can be done to address them. (with Ludger Woessmann). *Teresa and Alexandre Soares dos Santos - Education Initiative,* September 29, 2020.

Students have already been saddled with economic losses from school closures. *The Hill,* September 10, 2020.

Finding the Best Teachers for Post-Pandemic Schools. Wall Street Journal, August 26, 2022.

Can greater access to education be inequitable?. (with Chirantan Chatterjee and Shreekanth Mahendiran). *Ideas for India,* August 10, 2020.

Patience, risk-taking, and international differences in student achievement. (with Lavinia Kinne, Philipp Lergetporer, Ludger Woessmann). *VoxEU*, August 2, 2020.

Unintended consequences to education for all: India's Right to Education Act. (with Chirantan Chatterjee and Shreekanth Mahendiran). *VoxEU*, July 23, 2020.

Preparing all students to succeed during COVID-19 pandemic. *Washington Times,* June 25, 2020.

Teacher Pay Raises Aren't Enough: Adding evaluation would make all the difference for improving schools. *Education Week*, November 4, 2019.

Teacher Strikes Are Not Going To Help California's Students. *Eureka*, August 21, 2019.

Budget 2019 needs to have a holistic view on where education in India needs to go. (with Chirantan Chatterjee). *The Indian Express,* July 3, 2019.

US achievement gaps hold steady in the face of substantial policy initiatives. (with Paul E. Peterson, Laura M. Talpey, and Ludger Woessmann). *VoxEU*, April 15, 2015.

The War on Poverty Remains a Stalemate. (with Paul E. Peterson). *Wall Street Journal,* March 18, 2019.

Too much self-interested choice?. Phi Delta Kappan, October 26, 2018.

Education Reform. In Scott W. Atlas, Jesús Fernández-Villaverde, Eric Hanushek, Edward P. Lazear, Lee Ohanian, Joshua D. Rauh, and Frank A. Wolak, *Economic Policy Challenges Facing California's Next Governor,* Hoover Institution, 2018, pp. 19-23.

Testing with accountability improves student achievement. (with Annika B. Bergbauer and Ludger Woessmann). *VoxEU*, September 18, 2018.

Testing with accountability improves student achievement. (with Annika B. Bergbauer and Ludger Woessmann). *VoxEU*, September 18, 2018.

Ohio can play offense with the AI revolution by investing in quality education. *Cleveland.com*, August 29, 2018.

What Do Test Scores Really Mean for the Economy?. *Education Week*, 37(34), June 4, 2018, 29.

Every State's Economic Future Lies with School Reform. *AEI Report,* American Enterprise Institute, May 2018.

The Future of Teacher Quality in California Is in Doubt--and That Also Puts California's Economic Outlook in Jeopardy. *Eureka*, August 17, 2017.

Apprenticeship Programs in a Changing Economic World. *Brookings Institution*, Brown Center Chalkboard, June 28, 2017.

Emulating Germany's Apprenticeship System Won't Make America Great Again. *The World Post,* June 23, 2017.

American Teachers Unions Oppose Innovative Schools—in Africa. *Wall Street Journal,* March 10, 2017.

Education Reform. In Scott W. Atlas, Jesús Fernández-Villaverde, Eric A. Hanushek, Edward P. Lazear, Lee Ohanian, Joshua D. Rauh, and Frank A. Wolak, *Economic Policy Challenges Facing California's Next Governor,* Stanford, CA: Hoover Institution Press, October 2018, pp. 19-23.

Student Achievement and Every State's Economic Future. *Real Clear Education*, April 29, 2016.

Linking Large-Scale Reading Assessments: Comment. *Measurement: Interdisciplinary Research and Perspectives,* 14(1), 2016, pp. 27-29.

Can Schools Be Saved? Hope and Despair. The Atlantic, December 30, 2015.

Achieving Universal Basic Skills. Real Clear Education, November 4, 2015.

Education's Double Helix. *Past as Prologue: The National Academy of Education at 50 --Members Reflect,* Washington, DC: National Academy of Education, 2015, pp. 309-312.

Time in Education: Introduction. *Economic Journal*, 125, November, pp. F394-F396.

Foreward [to Carl Bistany and Stephanie Gruner Buckley, Last Bell]. Last Bell: Breaking the gridlock in education reform, London: Profile Books, 2015, pp. xi-xiv.

Teach the World: Why the UN Sustainable Development Goals Should Focus on Education. (With Ludger Woessmann). *Foreign Affairs,* August 20, 2015.

Teach all young people universal basic skills by 2030 – it will give huge boost to GDP. (with Ludger Woessmann). *The Conversation UK,* May 18, 2015.

Universal basic skills should become the primary development goal. (with Ludger Woessmann). *VoxEU*, May 24, 2015.

Not Enough Value to Justify More of the Same. *Room for Debate, New York Times,* March 26, 2015.

An Evaluation System Linked to Retention and Reward Is Vital. *Room for Debate, New York Times,* March 2, March 2015.

The UFT's wasteful class-size push: Research says teacher quality trumps quantity. *New York Daily News,* December 14, 2014.

How Teachers Unions Use 'Common Core' to Undermine Reform. Wall Street Journal, July 1,

2014.

There Is No War On Teachers. USA Today, June 11, 2014.

More Easily Firing Bad Teachers Helps Everyone. *Room for Debate, New York Times,* June 11, 2014.

Why the U.S. Results on PISA Matter. *Education Week*, Vol. 33, Issue 15, January 8, 2014, Pp. 20-21.

The Economic Relevance of Early Childhood Development. In Jörg F. Maas, Simone C. Ehmig, Carolin Seelmann (Ed.), *Prepare for Life! Raising Awareness for Early Literacy Education,* Stiftung Lesen, Mainz, DE, 2014, pp. 249-253.

Higher Grades, Higher GDP. Hoover Digest, No. 1 (Winter), Winter 2014, pp. 75-78.

America's schools earn a 'C' on their report card. (with Paul E. Peterson). *The Daily Caller*, December 6, 2013.

Schools improve when leaders stop rationalizing mediocrity. (with Paul E. Peterson). *Washington Examiner,* December 5, 2013.

Spinning America's Report Card. (with Paul E. Peterson). *Wall Street Journal,* November 7, 2013.

Wisconsin Falters. (with Paul E. Peterson). WI Magazine, 22(3), November 2013, 26-29.

Playing in the Right League. (with Paul E. Peterson). *Huffington Post,* October 28, 2013.

A Distraction from Real Education Reform. U.S. News and World Report, October 28, 2013.

Upgrade U.S. skills or pay the price. (with Paul E. Peterson). *New York Daily News,* October 9, 2013.

Fixing our schools could fix our debt crisis, too. (with Paul E. Peterson). *FoxNews.com*, September 13, 2013.

The Vital Link of Education and Prosperity. (with Paul E. Peterson). *The Wall Street Journal,* September 11, 2013.

Rescue the future by fixing our schools. (with Mike Honda). The Hill, June 6, 2013.

Don't Get Lost - Focus on Quality. NORRAG News, 48, April 2013, pp. 22-23.

Use of value added in teacher policy measures. Focus, 29(2), Fall/Winter 2012-13, pp. 25-26.

The Education Quality Imperative. *The Politics of Growth, Stability and Reform,* London: Policy Network and Global Progress, 2013, 121-124.

Why Educators' Wages Must Be Revamped Now. *Education Week*, 32(20), February 6, 2013, pp. 28-29, 31.

Dual Education: Europe's Secret Recipe?. CESifo Forum, 13(3), Autumn 2012, pp. 29-32.

Fewer school days is the worst of budget options for California. *San Jose Mercury News*, July 20, 2012.

Education is the Key to a Healthy Economy. (with George P. Shultz). *Wall Street Journal,* May 1, 2012.

Low-Performing Teachers Have High Costs. Education Next, 12(3), Summer 2012.

Misplaced Optimism and Weighted Funding. *Education Week*, 31(26), March 28, 2012, pp. 28,36.

Teacher ratings are a vital step forward. New York Daily News, February 24, 2012.

Math Matters. Hoover Digest, No. 1, 2011.

Allowing local schools to make more decisions may work in developed countries but is questionable in developing countries. (with Susanne Link, and Ludger Woessmann). *VoxEU*, January 9, 2012.

Vocational education facilitates entry into the labour market but hurts employment at older ages. (with Ludger Woessmann and Lei Zhang). *VoxEU*, November 21, 2011.

Why Can't American Students Compete with the Rest of the World?. (with Paul E. Peterson). *Newsweek,* September 5, 2011, pp. 42-45.

Overview of the Symposium on Performance Pay for Teachers. (with Ludger Woessmann). *Economics of Education Review,* 30(3), June 2011, pp. 391-393.

Recognizing the Value of Good Teachers. Education Week, 30(27), April 6, 2011, pp. 34-35.

Education reform solves state's budget crisis. (with George P. Shultz). *San Francisco Chronicle*, April 10, 2011, p. F-6.

Saving the schools: Why more money is not the answer. New York Post, April 1, 2011.

The "War on Teachers" Is a Myth. *Hoover Digest*, No. 1, 2011.

Why Is It So Hard To Make Teachers Better?. Defining Ideas, January 30, 2011.

Viewpoints: Test evaluation put teachers on the spot. Sacramento Bee, November 12, 2010.

There is no 'War on Teachers". Wall Street Journal, October 19, 2010.

UFT wrong to fight Joel Klein's attempt to release teacher data, says leading education researcher. *New York Daily News,* October 27, 2010.

Cry Wolf! This Budget Crunch Is for Real. Education Week, 29(32), May 2010, pp. 32-40.

Total Student Load: Maybe worth a longer look, but hardly a revolution. (A review of The Secret of TSL: The revolutionary discovery that raises school performance, by William G. Ouchi). *Education Next*, 10(2), Spring 2010, pp. 84-85.

The Choice Movement and the Courts. (with Alfred A. Lindseth). *School Choice Advocate*, Foundation for Educational Choice, February 2010.

Building on No Child Left Behind. Science, 326, November 2009, pp. 802-803.

Judicial Funding Mandates Related to Education Sharply Decline. (with Alfred A. Lindseth). *State Courts Project, Federalist Society,* Fall 2009.

Poor student learning explains the Latin American growth puzzle. (with Ludger Woessmann). *VoxEU*, August 14, 2009.

An F in Effectiveness. (with Alfred A. Lindseth). *Hoover Digest,* No. 3, , pp. 43-47.

California Needs to Make Wiser Use of School Funding. (with Alfred A. Lindseth). *San Francisco Chronicle,* June 17, 2009, p. A-15.

Performance-Based Funding. (with Alfred A. Lindseth). *Education Week*, 28(33), June 10, 2009, pp. 28-30.

Performance-Based Funding. *Defining Ideas*, 1, 2009, pp. 101-105.

The Effectiveness of Court-Ordered Funding of Schools. (with Alfred A. Lindseth). *Education Outlook,* No. 6 (Washington, DC: American Enterprise Institute), May 2009.

John Forest Kain (1935-2003). In Steven N. Durlauf and Lawrence E. Blume (eds.), *The New Palgrave Dictionary of Economics,* Basingstoke: Palgrave Macmillan, 2008.

Getting down to facts: School finance and governance in California. (with Susanna Loeb and Anthony S. Bryk). *Institute for Research on Education Policy and Practice, Stanford University,* September 2007.

A numbers game: Consultants sell legislatures school studies and collect millions. Arkansas

Democrat-Gazette, June 17, 2007, Perspective, pp. 93, 98.

Is the 'Evidence-Based Approach' a Good Guide to School Finance Policy?. *Paper commissioned by Washington Learns,* March 2007.

Milton Friedman's Unfinished Business. Hoover Digest, No. 1, Winter 2007, pp. 42-49.

The Court's Gift to Spitzer. The New York Sun, November 28, 2006.

The Cost of an 'Adequate' Education. The Wall Street Journal, October 9, 2006, p. A19.

Choice, Charters, and Public School Competition. *Economic Commentary, Federal Reserve Bank of Cleveland,* March 15, 2006, March 15, 2006.

Comment [on Murnane, Willett, Bub, and McCartney]. In Gary Burtless and Janet Rothenberg Pack(ed.), *Brookings-Wharton Papers on Urban Affairs,* Washington, DC: Brookings Institution, 2006, pp. 128-131.

Remedial Math: Rather than Spend More on Schools, We Should Spend More Wisely. *The New Democrat*, 7(6), November/December 1995, pp. 25-27.

Education and the Economy: Our School Performance Matters. *Education Week*, 24(21), February 2, 2005.

Rewarding Teachers. (with Caroline M. Hoxby). *Reforming Education in Arkansas,* (Stanford: Hoover Institution Press), 2005, pp. 155-166.

Why the Federal Government Should be Involved in School Accountability. *Journal of Policy Analysis and Management*, 24(1), Winter, 2005, pp. 168-172.

Developing Value-Added Measures for Teachers and Schools. (with Caroline M. Hoxby). *Reforming Education in Arkansas,* (Stanford: Hoover Institution Press), 2005, pp. 99-104.

Our School Performance Matters. Journal of Education, 185(3), November 2004, pp. 1-6.

Learn Lessons of the Past. The Australian, August 26, 2004.

The Underrepresentation of Minority Faculty in Higher Education: Panel Discussion. *American Economic Review*, 94(2), May 2004, pp. 304-306.

It's not how much, but how you spend the money on schools. *Salt Lake Tribune,* April 18, 2004.

How to Determine Who is a Quality Teacher. (with Lewis C. Solmon, Philip Bigler, Lee S. Shulman, and Herbert J. Walberg). In Lewis C. Solmon and Tamara W. Schiff (ed.). *Talented Teachers: The Essential Force for Improving Student Achievement,* Greenwich, CT:

Information Age Publishing, 2004, pp. 49-85.

Same Amount of Money Should Yield Better Results. *San Jose Mercury News,* November 23, 2003, p. 1P, 3P.

Potential Gains and Losses in Education. World and I, September 2003, pp. 30-35.

A False Schools 'Fix'. New York Post, June 30, 2003.

An Enormous Opportunity. Arkansas Democrat-Gazette, April 1, 2003.

End Class-Size Straightjacket. Los Angeles Times, April 27, 2003, p. M2.

Comment [on Krueger and Heckman]. In Benjamin M. Friedman (ed.), *Inequality in America: What Role for Human Capital Policies?*, Cambridge, MA: MIT Press, 2003, pp. 252-269.

Public School Finance and Urban School Policy: General versus Partial Equilibrium Analysis. In William G. Gale and Janet Rothenberg Pack (ed.), *Brookings-Wharton Papers on Urban Affairs,* Washington, DC: Brookings Institution, 2003, pp. 171-176.

Teacher quality and teacher salaries. *Policy Brief,* Stanford Institute for Economic Policy Research, Stanford University, November 2002.

Introduction to the JHR's Special Issue on Designing Incentives to Promote Human Capital. (with James Heckman, Derek Nea). *The Journal of Human Resources,* 37(4), Autumn, 2002, pp. 693-695.

Comment [on Galiani and Schargrodsky]. *Economia*, 2(2), Spring 2002, April 2002, pp. 302-305.

Efficiency and Equity in Education. *NBER Reporter, National Bureau of Economic Research,* 2001, p. 15-19.

The Sequel: RAND versus RAND. Education Matters, 1(1), Spring, 2001, pp. 68-69.

Money Alone Will Not Fix Bad Schools. New York Daily News, January 23, 2001.

Teacher quality and school reform. (with Steven G. Rivkin). *Education Finance Research Consortium, The Teaching Workforce, Symposium Proceedings,* Albany: Center for Policy Research, Rockefeller College, University of Albany, 2001, pp. 81-99.

The Truth about Teacher Salaries and Student Achievement. In Williamson M. Evers, Lance T. Izumi, and Pamela A. Riley (ed.), *School Reform: The Critical Issues,* (Stanford, CA: Hoover Institution Press), 2001, pp. 174-175.

Further Evidence on the Effects of Catholic Secondary Schooling. in William G. Gale and Janet

Rothenberg Pack (ed.). *Brookings-Wharton Papers on Urban Affairs,* (Washington, DC: Brookings Institution, 2000), 2000, pp. 194-197.

Class Size Reduction: Good Politics, Bad Education Policy. *High School Magazine*, 6(4), January/February 1999, p. 44.

Review of Susan E. Mayer, What Money Can't Buy: Family Income and Children's Life Chances. *Journal of Policy Analysis and Management*, 17(2), Summer 1998, pp. 535-538.

Improving Student Achievement: Is Reducing Class Size the Answer?. *Policy Brief, Progressive Policy Institute,* June 1998.

Are Resources Important?. Journal of Negro Education, 66(3), Summer, 1997, pp. 289-303.

Review of Cohn and Johnes. Economics of Education Review, 16(3), June 1997, pp. 346-347.

Why True Reform of Schools is so Unlikely. *Jobs and Capital,* (Milken Institute for Jobs and Capital Formation), 6, Winter, 1997, pp.23-27.

Discussion [of Kain and Singleton]. *New England Economic Review,* May/June 1996, pp. 111-114.

Comment on Chapters Two, Three, and Four. in Helen Ladd (ed.). *Holding Schools Accountable: Performance-Based Reform in Education,* Washington, DC: Brookings Institution, 1996, pp. 128-136.

Making Schools Work: The Economics of School Reform. in Robert Berne (ed.). *Study on Cost-Effectiveness in Education,* (New York: New York State Board of Regents), 1996.

Moving Beyond Spending Fetishes. *Educational Leadership*, 53(3), November 1995, pp. 60-64.

Making Schools Work: Spending and Student Achievement. *Heartland Policy Study No. 68,* The Heartland Institute, September 26, 1995.

Schools Need Incentives, Not More Money. Wall Street Journal, October 5, 1994.

Education Investment and Education Reform. *Jobs and Capital,* (Milken Institute for Jobs and Capital Formation) 3 (Fall), 1994, pp. 36-38.

Making America's Schools Work: This Time Money is Not the Answer. *Brookings Review,* Fall, 1994, pp. 10-13.

Money Might Matter Somewhere: A Response to Hedges, Laine, and Greenwald. *Educational Researcher*, 23(4), May 1994, pp. 5-8.

Microsimulation Models for Social Welfare Programs: An Evaluation. (with Constance F. Citro). *Focus, Institute for Research on Poverty,* University of Wisconsin—Madison, Winter, December 1993, p. 13-21.

Comment [on Manski]. in Charles T. Clotfelter and Michael Rothschild. *Studies of Supply and Demand in Higher Education*, (Chicago: University of Chicago Press), 1993, pp. 57-60.

Revew [of McPherson and Schapiro]. *Economics of Education Review*, 12(2), 1993, pp. 187-188.

Will More Spending Fix Unequal Schools?. Detroit News, October 30, 1991.

Bringing Educational Measurement into the Age of Newton. (with C. Eugene Steuerle and Robert H. Meyer). *Policy Bites,* The Urban Institute, October 1991.

Testing Economic Knowledge. *Journal of Economic Education*, 22(3), Summer, 1991, pp. 273-75.

Walter Y. Oi: Reflections on his Career and his Legacy. *Carnegie-Rochester Conference Series on Public Policy 33,* Autumn 1990, pp. 9-12.

Schools in the 1990s: The Opportunities and Risks Facing Texas and Other States. in Gerald P. O'Driscoll, Jr. and Stephen P.A. Brown (ed.). *The Southwest Economy in the 1990s: A Different Decade,* (Boston: Kluwer Academic Publishers), , pp. 39-43.

Review of "The Green Book". *Journal of Policy Analysis and Management,* 1989 Edition, 8(4), Fall, 1989, pp. 691-694.

Overview of Federal Involvement in Education. *in National Economic Commission, Staff Papers, Background Papers, and Major Testimony,* March 1989, pp. 329-333.

American Domestic Priorities. in John Quigley and Daniel Rubinfeld (ed.). *American Domestic Priorities,* (Berkeley, CA: Univ. of California Press), 1985, pp. 154-160.

The Continuing Hope: A Rejoinder. *Journal of Policy Analysis and Management*, 1(1), Autumn 1981, pp. 53-54.

Throwing Money at Schools. Education Week, November 2, 1981.

Comment [on Apgar]. in Gregory K. Ingram (ed.). *Residential Location and Urban Housing Markets*, NBER Studies in Income and Wealth, No. 45. (NY: National Bureau of Economic Research), 1977, pp. 173-180.

Review [of Sewell and Hauser]. *Journal of Human Resources*, 11(3), Summer, 1976, pp. 420-422.

Comment [on Levin]. in Joseph T. Froomkin, Dean T. Jamison, and Roy Radner (ed.). *Education as an Industry,* (New York: National Bureau of Economic Research), 1976, pp. 191-196.

Price Data and Data Systems. (with Paul G. Clifford, Eric Hanushek, and Elaine Gilde). *Office of Economic Stabilization, Historical Working Papers on the Economic Stabilization Program,* Volume II. Washington, D.C.: Government Printing Office, 1974.

Education Quality for Economic Development. *Conferencia Internatcional Educação e Desenvolvimento Escola e Sociede,* Lisboa: Fundação Calouste Gulbenkian, September 2016, pp. 23-32.

General Testimony

"School Finance and School Outcomes", Finance Committee of the Ohio Senate, May 17, 2021

"School Finance and School Outcomes: The Role of Incentives", Texas School Finance Commission, February 22, 2018

"Ohio's Economic Future", Ohio Senate Education Committee, January 31, 2018

"Testimony on School Finance and the Courts," Washington State Senate Law and Justice Committee, May 28, 2015

"**Testimony for the House and Senate Education Committees**," Kansas Legislature, February 3, 2014

"**Struggling Schools, Principals, and Teachers**," testimony before the Legislative Finance Committee, New Mexico Legislature, July 18, 2013

"Testimony for the House Finance and Appropriations Committee," State of Ohio, December 5, 2012

"Testimony before the Senate Finance Committee," State of Ohio, December 5, 2012

"Alternate Economic Futures for the United States," U.S. Senate Committee on Health, Education, Labor and Pensions, March 8, 2012

"Testimony for the House and Senate Education Committees," Ohio Legislature, March 10, 2011

"**Improving Teacher Quality**," Senate Committee on Education, Texas Legislature, Austin, TX, July 20, 2010.

"Testimony for the Select Committee on Public School Finance Weights, Allotments & Adjustments," Texas Legislature, San Antonio, TX, May 19, 2010.

"The importance of improved data access in Texas," House Committee on Public Education, *Texas House of Representatives*, July 16, 2008

"Students First: Reforming California Schools," California Senate Education Committee, April 30, 2008

"What is Success and How do We Achieve It?" *High School Completion and Success Initiatives Counci* I [TX], February 15, 2008

"**Performance Incentives for Teachers and Administrators**,," Senate Select Committee on Education Reform & Public School Finance, *Texas State Senate*, February 27, 2006.

"School Finance Proposals: The Koret Task Force Recommendations," House Select Committee on Public School Finance, *Texas House of Representatives*, February 18, 2004

"Thinking about School Finance in Texas," Testimony before the Subcommittee on Cost Adjustments for the House Select Committee on Public School Finance, *Texas House of Representatives*, October 22, 2003. [reprinted in Chris Patterson (ed.), Putting the Sides *Together: Twelve Perspectives on Texas Public School Finance* (Texas Public Policy Foundation, December 2003)]

"Arkansas Student Accountability and Educational Accountability Act of 2003," Testimony before the Education Committee, *House of Representatives, State of Arkansas*, March 26, 2003.

"The Structure and Funding of Special Education," Testimony before The President's Commission on Excellence in Special Education, Los Angeles, California, March 21, 2002

"Should Class Size Reduction Substitute for Innovation?" Testimony before the Committee on Health, Education, Labor and Pensions, *United States Senate*, June 23, 1999 [Note also comments on "ESEA Re-authorization and Experimentation," July 8, 1999]

"The Evidence on Class Size," Subcommittee on Early Childhood, Youth, and Families, Committee on Education and the Workforce, *U.S. House of Representatives*, February 24, 1998

"Educational Reform and Current Education Initiatives," Committee on Education and the Workforce, U.S. House of Representatives, March 13, 1997

"The Federal Role in Educational Reform," Committee on the Budget, U.S. Senate, February 5, 1997

"Approaches to Reforming Vermont Schools," testimony before joint meeting of the Senate and House Education Committees, *Vermont Legislature*, January 11, 1996

"School Finance and Educational Reform," Subcommittee on Education, Arts, and Humanities, Committee on Labor and Human Resources, *U.S. Senate*, Washington, DC, July 26, 1993

"Overview of Federal Education Roles and Spending", *National Economic Commission*, Washington, DC, October 5, 1988

"Evaluation of the School Desegregation Study", *U.S. Commission on Civil Rights*, Washington, DC, February 8, 1986

"Long Run Budget Trends and Space Development Options," *National Commission on Space*, Washington, DC, September 17, 1985

"Future Budgetary Requirements for the 600-Ship Navy," Subcommittee on Seapower and Strategic and Critical Materials, Committee on Armed Services, *U.S. House of Representatives*, Washington, DC, September 6, 1985

"Space Shuttle Pricing Policy," Subcommittee on Science, Technology, and Space, Committee on Commerce, Science, and Transportation, *U.S. Senate*, Washington, DC, March 27, 1985

"Space Shuttle Pricing Policy", Subcommittee on Space Science and Applications, Committee on Science and Technology, *U.S. House of Representatives*, Washington, DC, March 5, 1985

"Financial Outlook for the Hospital Insurance Trust Fund," Subcommittee on Health, Committee on Ways and Means, *U.S. House of Representatives*, Washington, DC, September 13, 1984

"Steel Import Restrictions," Subcommittee on Trade, Committee on Ways and Means, *U.S. House of Representatives*, Washington, DC, June 20, 1984

"The Measurement of Poverty," Subcommittee on Census and Population, Committee on Post Office and Civil Service, and Subcommittee on Oversight, Committee on Ways and Means, *U.S. House of Representatives*, Washington, DC, May 15, 1984

"Targeted Jobs Tax Credit," Subcommittee on Select Revenue Measures, Committee on Ways and Means, *U.S. House of Representatives*, Washington, DC, April 10, 1984

"Financial Condition of the Highway Trust Fund," Committee on Ways and Means, *U.S. House of Representatives*, Washington, DC, February 23, 1984

Legal Testimony

School Finance

William Penn SD et al. v. Pennsylvania Department of Education et al. (Pennsylvania), 2022

Martinez et al. v. New Mexico; Yazzie et al. v. New Mexico (New Mexico), 2017

Connecticut Coalition for Justice in Education and Funding v. Rell et al. (Connecticut), 2016 Citizens for Strong Schools v. Florida (Florida), 2016 Maisto et al. v. State of New York (New York), 2015 Texas Taxpayers and Student Fairness Coalition et al. v. Scott et al. (Texas), 2013 Gannon et al. v. State of Kansas (Kansas), 2012 Lobato et al. v. State of Colorado (Colorado), 2011 Abbott v. Burke (New Jersey), 2011 McCleary v. State of Washington (Washington), 2009 Davis v. South Dakota (South Dakota), 2008 Espinoza v. State of Arizona (Arizona), 2008 Committee for Educational Equality et al. v. State of Missouri et al. (Missouri), 2007 School Districts' Alliance v. State of Washington (Washington), 2006 Montoy et al. v. State of Kansas, et al. (Kansas), 2003 Campaign for Fiscal Equity et al. v. State of New York et al. (New York), 2000 Hoke County Board of Education et al. v. State of North Carolina (North Carolina), 1999 Claremont School District, et al. v. Merrill et al. (New Hampshire), 1996 Committee for Educational Equality v. Missouri; Lee's Summit v. Missouri (Missouri), 1992 Alabama Coalition for Equity v. Hunt; Harper v. Hunt (Alabama), 1992 Tennessee Small Schools et al. v. McWherter et al. (Tennessee), 1990 Abbott v. Burke (New Jersey), 1987 Somerset County Board of Education v. Hornbeck (Maryland), 1980 Levittown v. Nyquist (New York), 1976 Serrano v. Priest (California), 1973 Other Court Testimony

Vergara et al. v. State of California et al., 2014

Jenkins et al. v. State of Missouri et al. (Kansas City, Mo.), 1997

Liddell et al. v. St. Louis et al., 1996

Court Submissions

Friedrichs v. California Teachers Association , 2016
Vergara v. California , 2014
Horne v. Flores , 2009
Valenzuela v. O'Connell [CAHSEE] , 2006
Williams v. California , 2003