



References

Chapter 1

- Aaronson, S., M. Daly, W. Wascher, and D. Wilcox. 2019. *Okun Revisited: Who Benefits Most from a Strong Economy?* Finance and Economics Discussion Series 2019-072. Washington: Board of Governors of the Federal Reserve System. <https://doi.org/10.17016/FEDS.2019.072>.
- Aaronson, S., F. Galbis-Reig, T. Cajner, C. Smith, B. Fallick, and W. Wascher. 2014. "Labor Force Participation: Recent Developments and Future Prospects." *Brookings Papers on Economic Activity* 2: 197–275. <https://muse.jhu.edu/pub/11/article/577366/pdf>.
- Ashenfelter, O., Card, D., Farber, H., and Ransom, M. 2022. "Monopsony in the Labor Market: New Empirical Results and New Public Policies." *Journal of Human Resources* 57. <https://doi.org/10.3368/jhr.monopsony.special-issue-2022-introduction>.
- Autor, D., A. Dube, and A. McGrew. 2023. *The Unexpected Compression: Competition at Work in the Low Wage Labor Market*. NBER Working Paper 31010. Cambridge, MA: National Bureau for Economic Research. <https://www.nber.org/papers/w31010>.
- Baker, D., and J. Bernstein. 2013. *Getting Back to Full Employment: A Better Bargain for Working People*. Washington: Center for Economic Policy Research. https://cepr.net/documents/Getting-Back-to-Full-Employment_20131118.pdf.
- Barlevy, G. J. Faberman, B. Hobijn, and A. Şahin. 2023. *The Shifting Reasons for Beveridge-Curve Shifts*. NBER Working Paper 31783. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w31783>.
- Barnichon, R., and A. Shapiro. 2022. "What's the Best Measure of Economic Slack?" *Federal Reserve Bank of San Francisco Economic Letter*, no. 4. <https://www.frbsf.org/wp-content/uploads/sites/4/el2022-04.pdf>.
- Barrero, J., N. Bloom, S. Davis, B. Meyer, and E. Mihaylov. 2022. *The Shift to Remote Work Lessens Wage-Growth Pressures*. NBER Working Paper 30197. Cambridge, MA: National Bureau of Economic Research. <https://www.nber.org/papers/w30197>.
- Benigno, P., and G. Eggertsson. 2023. *It's Baaack: The Surge in Inflation in the 2020s and the Return of the Non-Linear Phillips Curve*. NBER Working Paper 31197.

- Cambridge, MA: National Bureau of Economic Research. <https://www.nber.org/papers/w31197>.
- Berger, D., K. Herkenhoff, and S. Mongey. 2022. "Labor Market Power." *American Economic Review* 112, no. 4: 1147–93. <https://doi.org/10.1257/aer.20191521>.
- Bernstein, J. 2012. "Raise the Economy's Speed Limit." *New York Times*, December 5. https://www.nytimes.com/2012/12/06/opinion/a-slow-growth-rate-is-the-real-threat.html?_r=0.
- Bernstein, J., and K. Bentele. 2019. "The Increasing Benefits and Diminished Costs of Running a High-Pressure Labor Market." Center on Budget and Policy Priorities. <https://www.cbpp.org/sites/default/files/atoms/files/5-15-19fe.pdf>.
- Bjelland, M., B. Fallick, J. Haltiwanger, and E. McEntarfer. 2011. "Employer-to-Employer Flows in the United States: Estimates Using Linked Employer-Employee Data." *Journal of Business and Economic Statistics* 29, no. 4: 493–505. <https://ideas.repec.org/a/bs/jnlbes/v29i4y2011p493-505.html>.
- Blanchard, O., A. Domash, and L. Summers. 2022. "Bad News for the Fed from the Beveridge Space." Peterson Institute for International Economics, Policy Brief 22–7. <http://dx.doi.org/10.2139/ssrn.4174601>.
- BLS (U.S. Bureau of Labor Statistics). 2024. "Annual Work Stoppages Involving 1,000 or More Workers, 1947–Present." <https://www.bls.gov/web/wkstp/annual-listing.htm>.
- Bok, B., C. Nekarda, N. Petrosky-Nadeau, and R. Crump. 2023. *Estimating Natural Rates of Unemployment: A Primer*. Working Paper 2023–25. San Francisco: Federal Reserve Bank of San Francisco. <https://doi.org/10.24148/wp2023-25>.
- Bosler, C., and N. Petrosky-Nadeau. 2016. "Job-to-Job Transitions in an Evolving Labor Market." *Federal Reserve Board of San Francisco Economic Letter*, no. 34. <https://www.frbsf.org/wp-content/uploads/el2016-34.pdf>.
- Burdett, K., and D. Mortensen. 1998. "Wage Differentials, Employer Size, and Unemployment." *International Economic Review* 39, no. 2: 257–73. <https://www.jstor.org/stable/2527292>.
- Cajner, T., J. Coglianese, and J. Montes. 2021. *The Long-Lived Cyclicity of the Labor Force Participation Rate*. Finance and Economics Discussion Series 2017-047. Washington: Board of Governors of the Federal Reserve System. <https://doi.org/10.17016/FEDS.2021.047>.
- Cajner, T., T. Radler, D. Ratner, and I. Vidangos. 2017. *Racial Gaps in Labor Market Outcomes in the Last Four Decades and over the Business Cycle*. Finance and Economics Discussion Series 2017-01. Washington: Board of Governors of the Federal Reserve System. <https://doi.org/10.17016/FEDS.2017.071>.
- Card, D., A. Cardoso, J. Heining, and P. Kline. 2018. "Firms and Labor Market Inequality: Evidence and Some Theory." *Journal of Labor Economics* 36, no. S1. <https://doi.org/10.1086/694153>.

- CEA (Council of Economic Advisers). 2014. “The Labor Force Participation Rate Since 2007: Causes and Policy Implications.” https://obamawhitehouse.archives.gov/sites/default/files/docs/labor_force_participation_report.pdf.
- . 2016a. *Economic Report of the President*. Washington: U.S. Government Publishing Office. <https://www.whitehouse.gov/wp-content/uploads/2021/07/2016-ERP.pdf>.
- . 2016b. “Labor Market Monopsony: Trends, Consequences, and Policy Responses.” https://obamawhitehouse.archives.gov/sites/default/files/page/files/20161025_monopsony_labor_mrkt_cea.pdf.
- . 2021. “The Pandemic’s Effect on Measured Wage Growth.” <https://www.whitehouse.gov/cea/written-materials/2021/04/19/the-pandemics-effect-on-measured-wage-growth/>.
- . 2022. *Economic Report of the President*. Washington: U.S. Government Publishing Office. <https://www.whitehouse.gov/wp-content/uploads/2022/04/ERP-2022.pdf>.
- . 2023a. “Disinflation Explanation: Supply, Demand, and Their Interaction.” <https://www.whitehouse.gov/cea/written-materials/2023/11/30/disinflation-explanation-supply-demand-and-their-interaction>.
- . 2023b. *Economic Report of the President*. Washington: U.S. Government Publishing Office. <https://www.whitehouse.gov/wp-content/uploads/2023/03/ERP-2023.pdf>.
- . 2023c. “Did Stabilization Funds Help Mothers Get Back to Work After the COVID-19 Recession?” Working Paper. <https://www.whitehouse.gov/wp-content/uploads/2023/11/Child-Care-Stabilization.pdf>.
- Charles, K., and J. Guryan. 2008. “Prejudice and Wages: An Empirical Assessment of Becker’s *The Economics of Discrimination*.” *Journal of Political Economy* 116, no. 5: 773–809. <https://doi.org/10.1086/593073>.
- Crump, R., S. Eusepi, M. Giannoni, and A. Şahin. 2019. *A Unified Approach to Measuring U**. NBER Working Paper 25930. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w25930>.
- Crump, R., C. Nekarda, and N. Petrosky-Nadeau. 2020. *Unemployment Rate Benchmarks*. Finance and Economics Discussion Series 2020-072. Washington: Board of Governors of the Federal Reserve System. <https://doi.org/10.17016/FEDS.2020.072>.
- Cumming, C. 2021. “The Importance of Anti-Discrimination Enforcement for a Fair and Equitable U.S. Labor Market and Broadly Shared Economic Growth.” Washington Center for Equitable Growth. <https://equitablegrowth.org/wp-content/uploads/2022/01/122121-anti-discrimination-enf-ib.pdf>.
- Daly, M., and B. Hobijn. 2017. “Composition and Aggregate Real Wage Growth.” *American Economic Review* 107, no. 5: 349–52. <https://doi.org/10.1257/aer.p20171075>.

- Daly, M., B. Hobijn, A. Şahin, and R. Valletta. 2011. "A Rising Natural Rate of Unemployment: Permanent or Transitory?" Working Paper, Tinbergen Institute. <https://www.frbsf.org/wp-content/uploads/wp11-05bk.pdf>.
- Davis, S., J. Faberman, and J. Haltiwanger. 2013. "The Establishment-Level Behavior of Vacancies and Hiring." *Quarterly Journal of Economics* 128, no. 2: 581–622. <https://doi.org/10.1093/qje/qjt002>.
- DiNardo, J., N. Fortin, and T. Lemieux. 1996. "Labor Market Institutions and the Distribution of Wages, 1973–1992: A Semiparametric Approach." *Econometrica* 64, no.5: 1001–44. <https://doi.org/10.2307/2171954>.
- Elsby, M., R. Michaels, and D. Ratner. 2015. "The Beveridge Curve: A Survey." *Journal of Economic Literature* 53, no. 3: 571–630. <https://doi.org/10.1257/jel.53.3.571>.
- Faccini, R., and L. Melosi. 2023. *Job-to-Job Mobility and Inflation*. Chicago Fed Working Paper 2023-03. Chicago: Federal Reserve Bank of Chicago. <https://www.chicagofed.org/publications/working-papers/2023/2023-03>.
- Figura, A., and C. Waller. 2022. "What Does the Beveridge Curve Tell Us About the Likelihood of a Soft Landing?" FEDS Notes. Board of Governors of the Federal Reserve System. <https://doi.org/10.17016/2380-7172.3190>.
- Fleischman, C., and J. Roberts. 2011. "From Many Series, One Cycle: Improved Estimates of the Business Cycle from a Multivariate Unobserved Components Model." FEDS Working Paper 2011-46. Board of Governors of the Federal Reserve System. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1957379.
- Furman, J., and W. Powell. 2021. "What Is the Best Measure of Labor Market Tightness?" Peterson Institute for International Economics, Realtime Economics. <https://www.piie.com/blogs/realtime-economic-issues-watch/what-best-measure-labor-market-tightness>.
- Galbraith, J. 2001. "The Surrender of Economic Policy." *American Prospect*, December 19. <https://prospect.org/economy/surrender-economic-policy/>.
- Ganong, P., and D. Shoag. 2017. "Why Has Regional Income Convergence in the U.S. Declined?" *Journal of Urban Economics* 102: 76–90. <https://doi.org/10.1016/j.jue.2017.07.002>.
- Gittleman, M. 2022. "The 'Great Resignation' in Perspective." U.S. Bureau of Labor Statistics, *Monthly Labor Review*. <https://doi.org/10.21916/mlr.2022.20>.
- Haltiwanger, J., H. Hyatt, L. Khan, and E. McEntarfer. 2018. "Cyclical Job Ladders by Firm Size and Firm Wage." *American Economic Journal: Macroeconomics* 10, no. 2: 52–85. <https://doi.org/10.1257/mac.20150245>.
- Hansen, S., P. Lambert, N. Bloom, S. Davis, R. Sadun, and B. Taska. 2023. *Remote Work Across Jobs, Companies, and Space*. NBER Working Paper 31007. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w31007>.
- Hazell, J., J. Herreño, E. Nakamura, and J. Steinsson. 2022. "The Slope of the Phillips Curve: Evidence from U.S. States." *Quarterly Journal of Economics* 137, no. 3: 1299–344. <https://doi.org/10.1093/qje/qjac010>.

- Historical Register: Containing and Impartial Relation of All Transactions, Foreign and Domestick* 16. 1731. London: Sun Fire Office.
- Hobjin, B., and A. Şahin. 2021. *Maximum Employment and the Participation Cycle*. NBER Working Paper 29222. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w29222>.
- Hornstein, A., M. Kudlyak, and F. Lange. 2014. “Measuring Resource Utilization in the Labor Market.” *Economic Quarterly* 100, no. 1: 1–21. https://www.richmondfed.org/-/media/RichmondFedOrg/publications/research/economic_quarterly/2014/q1/pdf/hornstein.pdf.
- Karahan, F., R. Michaels, B. Pugsley, A. Şahin, and R. Schuh. 2017. “Do Job-to-Job Transitions Drive Wage Fluctuations over the Business Cycle?” *American Economic Review* 107, no. 5: 353–57. <https://doi.org/10.1257/aer.p20171076>.
- Kline, P., E. Rose, and C. Walters. 2022. “Systemic Discrimination Among Large U.S. Employers.” *Quarterly Journal of Economics* 137, no. 4: 1963–2036. <https://doi.org/10.1093/qje/qjac024>.
- Kudlyak, M. 2017. “Measuring Labor Utilization: The Non-Employment Index.” *Federal Reserve Bank of San Francisco, Economic Letter*, no. 8. <https://www.frbsf.org/wp-content/uploads/sites/4/el2017-08.pdf>.
- Kurtulus, F. 2015. “The Impact of Affirmative Action on the Employment of Minorities and Women: A Longitudinal Analysis Using Three Decades of EEO-1 Filings.” *Journal of Policy Analysis and Management* 35, no. 1: 34–66. <https://doi.org/10.1002/pam.21881>.
- Lang, K., and J. Lehmann. 2012. “Racial Discrimination in the Labor Market: Theory and Empirics.” *Journal of Economic Literature* 50, no. 4: 959–1006. <https://doi.org/10.1257/jel.50.4.959>.
- Manning, A. 2003. *Monopsony in Motion: Imperfect Competition in Labor Markets*. Princeton, NJ: Princeton University Press. <https://press.princeton.edu/books/paperback/9780691123288/monopsony-in-motion>.
- . 2021. “Monopsony in Labor Markets: A Review.” *ILR Review* 74, no. 1: 3–26. <https://doi.org/10.1177/0019793920922499>.
- McLeay, M., and S. Tenreyro. 2019. *Optimal Inflation and the Identification of the Phillips Curve*. NBER Working Paper 25892. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w25892>.
- Miller, C., and E. Tedeschi. 2019. “Single Mothers Are Surging Into the Work Force.” *New York Times*, May 29. <https://www.nytimes.com/2019/05/29/upshot/single-mothers-surge-employment.html>.
- Moscarini, G., and F. Postel-Vinay. 2017. “The Relative Power of Employment-to-Employment Reallocation and Unemployment Exits in Predicting Wage Growth.” *American Economic Review* 107, no. 5: 364–68. <https://doi.org/10.1257/aer.p20171078>.

- Mukoyama, T. 2014. “The Cyclicalities of Job-To-Job Transitions and Its Implications for Aggregate Productivity.” *Journal of Economic Dynamics and Control* 39: 1–17. <https://doi.org/10.1016/j.jedc.2013.12.004>.
- Paul, M., W. Darity, and D. Hamilton. 2018. “The Federal Job Guarantee: A Policy to Achieve Permanent Full Employment.” Center on Budget and Policy Priorities, Policy Futures. <https://www.cbpp.org/research/the-federal-job-guarantee-a-policy-to-achieve-permanent-full-employment>.
- Pissarides, C. 2000. *Equilibrium Unemployment Theory*, 2nd ed. Cambridge, MA: MIT Press. <https://mitpress.mit.edu/9780262533980/equilibrium-unemployment-theory/>.
- Powell, J. 2018. “Speech by Chairman Powell on Monetary Policy in a Changing Economy.” Board of Governors of the Federal Reserve System. <https://www.federalreserve.gov/newsevents/speech/powell20180824a.htm>.
- Reifschneider, D., W. Wascher, and D. Wilcox. 2015. *Aggregate Supply in the United States: Recent Developments and Implications for the Conduct of Monetary Policy*. Finance and Economics Discussion Series 2013-77. Washington: Board of Governors of the Federal Reserve System. <https://doi.org/10.17016/FEDS.2013.77>.
- Sanchez Cumming, C. 2021. “The Importance of Anti-Discrimination Enforcement for a Fair and Equitable U.S. Labor Market and Broadly Shared Economic Growth.” Washington Center for Equitable Growth. <https://equitablegrowth.org/wp-content/uploads/2022/01/122121-anti-discrimination-enf-ib.pdf>.
- Shroyer, A., and V. Gaitán. 2019. “Four Reasons Why Employers Should Care About Housing.” Urban Institute, Housing Matters. <https://housingmatters.urban.org/articles/four-reasons-why-employers-should-care-about-housing>.
- Solon, G., R. Barsky, and J. Parker. 1994. “Measuring the Cyclicalities of Real Wages: How Important is Composition Bias.” *Quarterly Journal of Economics* 109, no. 1: 1–25. <https://doi.org/10.2307/2118426>.
- Spriggs, W. 2015. “The Case of Women: Why the Fed Isn’t Close to Achieving Full Employment and Shouldn’t Be Discussing Raising Interest Rates.” Seattle Medium. <https://seattlemedium.com/the-case-of-women-why-the-fed-isnt-close-to-achieving-full-employment-and-shouldnt-be-discussing-raising-interest-rates>.
- . 2017. “Testimony Prepared for U.S. House of Representatives on a Mandate for Full Employment.” 115th Congress, First Session. <https://www.congress.gov/115/meeting/house/105846/witnesses/HHRG-115-BA20-Wstate-SpriggsW-20170404.pdf>.
- Staiger, D., J. Stock, and M. Watson. 1997. “The NAIRU, Unemployment and Monetary Policy.” *Journal of Economic Perspectives* 11, no. 1: 33–49. <https://www.aeaweb.org/articles?id=10.1257/jep.11.1.33>.
- Stansbury, A., and L. Summers. 2020. *The Declining Worker Power Hypothesis: An Explanation for the Recent Evolution of the American Economy*. NBER

- Working Paper 27193. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w27193>.
- Tomaskovic-Devey, D., C. Zimmer, K. Stainback, C. Robinson, T. Taylor, and T. McTague. 2006. "Documenting Desegregation: Segregation in American Workplaces by Race, Ethnicity, and Sex, 1966–2023." *American Sociological Review* 71, no. 4: 565–88. <https://doi.org/10.1177/000312240607100403>.
- Topel, R., and M. Ward. 1992. "Job Mobility and the Careers of Young Men." *Quarterly Journal of Economics* 107, no. 2: 439–79. <https://www.jstor.org/stable/2118478>.
- U.S. Census Bureau. 2017. "Job-to-Job (J2J) Flows 101." https://lehd.ces.census.gov/doc/j2j_101.pdf.
- U.S. Department of the Treasury. 2022. "The State of Labor Market Competition." <https://home.treasury.gov/system/files/136/State-of-Labor-Market-Competition-2022.pdf>.
- Wolfers, J. 2019. "Okun Revisited: Who Benefits Most from a Strong Economy? Comment." *Brookings Papers on Economic Activity*, Spring, 385–97. <https://par.nsf.gov/servlets/purl/10440910>.
- Yeh, C., C. Macaluso, and B. Hershbein. 2022. "Monopsony in the U.S. Labor Market." *American Economic Review* 112, no. 7: 2099–138. <https://doi.org/10.1257/aer.20200025>.
- Yellen, J. 2014. "Speech by Chair Yellen on Labor Market Dynamics and Monetary Policy." Board of Governors of the Federal Reserve System. <https://www.federalreserve.gov/newsevents/speech/yellen20140822a.htm>.
- . 2016. "Speech by Chair Yellen on Macroeconomic Research After the Crisis." Board of Governors of the Federal Reserve System. <https://www.federalreserve.gov/newsevents/speech/yellen20161014a.htm>.

Chapter 2

- Ajello, A., M. Cavallo, G. Favara, W. Peterman, J. Schindler, and N. Sinha. 2023. "A New Index to Measure U.S. Financial Conditions." Board of Governors of the Federal Reserve System, FEDS Notes. <https://www.federalreserve.gov/econres/notes/feds-notes/a-new-index-to-measure-us-financial-conditions-20230630.html>.
- Aksoy, C., J. Barrero, N. Bloom, S. Davis, M. Dolls, and P. Zarate. 2022. *Working from Home Around the World*. NBER Working Paper 30466. <https://doi.org/10.3386/w30446>.
- Asdourian, E., G. Nabors, L. Stojanovic, and L. Sheiner. 2024. "Hutchins Center Fiscal Impact Measure." <https://www.brookings.edu/articles/hutchins-center-fiscal-impact-measure/>.
- Barrero, J., N. Bloom, and S. Davis. 2023. "The Evolution of Work from Home." *Journal of Economic Perspectives*, September 3. <https://www.aeaweb.org/articles?id=10.1257/jep.37.4.23>.

- Blau, F., and L. Kahn. 2013. *Female Labor Supply: Why Is the U.S. Falling Behind?* NBER Working Paper 18702. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w18702>.
- BLS (U.S. Bureau of Labor Statistics). 2024. “Job Openings and Labor Turnover Survey.” <https://www.bls.gov/jlt/>.
- Campbell, J., and R. Shiller. 2001. *Valuation Ratios and the Long-Run Stock Market Outlook: An Update*. NBER Working Paper 8221. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w8221>.
- CDC (U.S. Centers for Disease Control and Prevention). No date. “COVID-19 Update for the United States.” <https://covid.cdc.gov/covid-data-tracker/>.
- CEA (Council of Economic Advisers). 2015. *Economic Report of the President*. Washington: U.S. Government Publishing Office. <https://www.whitehouse.gov/wp-content/uploads/2021/07/2015-ERP.pdf>.
- . 2023a. *Did Stabilization Funds Help Mothers Get Back to Work After the COVID-19 Recession?* Working Paper. <https://www.whitehouse.gov/wp-content/uploads/2023/11/Child-Care-Stabilization.pdf>.
- . 2023b. “Disinflation Explanation: Supply, Demand, and their Interaction.” <https://www.whitehouse.gov/cea/written-materials/2023/11/30/disinflation-explanation-supply-demand-and-their-interaction/>.
- Cheremukhin, A., and P. Restrepo-Echavarria. 2024. *The Dual Beveridge Curve*. Federal Reserve Bank of Saint Louis, Working Paper 2022-021. <https://www.dallasfed.org/research/papers/2022/wp2221>.
- Conference Board. 2024. “U.S. Leading Indicators.” <https://www.conference-board.org/topics/us-leading-indicators>.
- Congressional Budget Office. No date. “Budget and Economic Data.” <https://www.cbo.gov/data/budget-economic-data>.
- D’Amico, S., D. Kim, and M. Wei. 2018. “Tips from TIPS: The Informational Content of Treasury Inflation-Protected Security Prices.” *Journal of Financial and Quantitative Analysis* 53, no. 1: 395–436. <https://www.jstor.org/stable/26591911>.
- Elsby, M., R. Michaels, and D. Ratner. 2015. “The Beveridge Curve: A Survey.” *Journal of Economic Literature* 53, no. 3: 571–630. <https://doi.org/10.1257/jel.53.3.571>.
- Federal Reserve. 2023a. “Federal Reserve Issues: FOMC Statement.” Board of Governors of the Federal Reserve System. <https://www.federalreserve.gov/monetarypolicy/fomcpresconf20231213.htm>.
- . 2023b. “Enhanced Financial Accounts.” Board of Governors of the Federal Reserve System. <https://www.federalreserve.gov/releases/efa/efa-hedge-funds.htm>.
- Federal Reserve, Federal Open Market Committee. 2023. “Summary of Economic Projections.” December 13. <https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20231213.pdf>.

- Federal Reserve Bank of Atlanta. 2024. “Wage Growth Tracker.” Center for Human Capital Studies, Data & Tools. <https://www.atlantafed.org/chcs/wage-growth-tracker>.
- Figura, A., and C. Waller. 2022. “What Does the Beveridge Curve Tell Us About the Likelihood of a Soft Landing?” FEDS Notes. <https://doi.org/10.17016/2380-7172.3190>.
- Hartman, M. 2022. “Why Republican Consumers Are Glum and Democrats Upbeat.” Marketplace. <https://www.marketplace.org/2022/08/31/why-republican-consumers-are-glum-and-democrats-upbeat/>.
- Herbstman, J., and S. Brave. 2023. “Persistently Pessimistic: Consumer and Small Business Sentiment After the Covid Recession.” Federal Reserve Bank of Chicago, Chicago Fed Letter 490. <https://www.chicagofed.org/publications/chicago-fed-letter/2023/490>.
- Hirsch, P. 2012. “Consumer Confidence vs. Consumer Sentiment.” Marketplace. <https://www.marketplace.org/2012/08/28/consumer-confidence-vs-consumer-sentiment/>.
- Kim, D., and J. Wright. 2005. *An Arbitrage-Free Three-Factor Term Structure Model and the Recent Behavior of Long-Term Yields and Distant-Horizon Forward Rates*. Finance and Economics Discussion Series 2005-33. Washington: Board of Governors of the Federal Reserve System. <https://doi.org/10.2139/ssrn.813267>.
- Mas, A., and A. Pallais. 2017. “Valuing Alternative Work Arrangements.” *American Economic Review* 107, no. 12: 3722–59. <https://doi.org/10.1257/aer.20161500>.
- Mongey, S., and J. Horwich. 2023. “Are Job Vacancies Still as Plentiful as They Appear? Implications for the ‘Soft Landing.’” Federal Reserve Bank of Minneapolis. <https://www.minneapolisfed.org/article/2023/are-job-vacancies-still-as-plentiful-as-they-appear-implications-for-the-soft-landing>.
- Moscarini, G., and F. Postel-Vinay. 2017. “The Relative Power of Employment-to-Employment Reallocation and Unemployment Exits in Predicting Wage Growth.” *American Economic Review* 107, no. 5: 364–68. <https://doi.org/10.1257/aer.p20171078>.
- Okun, A. 1962. “Potential GNP: Its Measurement and Significance.” American Statistical Association, *Proceedings of the Business and Economic Statistics Section*, 89–104.
- O’Kane, C. 2023. “Photo of Connecticut McDonald’s \$18 Big Mac Meal Sparks Debate Online.” CBS News. <https://www.cbsnews.com/news/mcdonalds-prices-big-mac-sparks-expensive-menu-darien-connecticut-debate-online/>.
- Social Security Administration. 2023a. “Social Security Program Data.” <https://www.ssa.gov/OACT/HistEst/Population/2023/Population2023.html>.
- . 2023b. “Table V.A2: Immigration Assumptions, Calendar Years 1940–2100.” 2023 OASDI Trustees Report. <https://www.ssa.gov/OACT/TR/2023/lr5a2.html>.

- U.S. Census Bureau. No date. “Quarterly Survey of Plant Capacity Utilization (QPC).” <https://www.census.gov/programs-surveys/qpc.html>.
- White House. 2022. “Fact Sheet: CHIPS and Science Act Will Lower Costs, Create Jobs, Strengthen Supply Chains, and Counter China.” <https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/09/fact-sheet-chips-and-science-act-will-lower-costs-create-jobs-strengthen-supply-chains-and-counter-china/>.
- . No date. “Investing in America: cleanenergy.gov.” <https://www.whitehouse.gov/cleanenergy/>.
- Yellen, J. 2015. “Inflation Dynamics and Monetary Policy.” Transcript of Philip Gamble Memorial Lecture, University of Massachusetts Amherst. <https://www.federalreserve.gov/newsevents/speech/yellen20150924a.htm>.

Chapter 3

- AARP. 2020. “Caregiving in the United States.” <https://www.aarp.org/content/dam/aarp/ppi/2020/05/full-report-caregiving-in-the-united-states.doi.10.26419-2Fppi.00103.001.pdf>.
- ACS (American Cancer Society). 2023. “Cancer Facts & Figures 2023.” <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2023/2023-cancer-facts-and-figures.pdf>.
- Alpert, A., W. Evans, E. Lieber, and D. Powell. 2022. *Origins of the Opioid Crisis and Its Enduring Impacts*. NBER Working Paper 26500. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w26500>.
- Alpert, A., D. Powell, and R. Pacula. 2018. “Supply-Side Drug Policy in the Presence of Substitutes: Evidence from the Introduction of Abuse-Deterrent Opioids.” *American Economic Journal: Economic Policy* 10, no. 4: 1–35. <https://doi.org/10.1257/pol.20170082>.
- Alvarez, P. 2022. “What Does the Global Decline of the Fertility Rate Look Like?” World Economic Forum. <https://www.weforum.org/agenda/2022/06/global-decline-of-fertility-rates-visualised/>.
- Aragão, C., K. Parker, S. Greenwood, C. Baronavski, and J. Mandapat. 2023. “The Modern American Family.” Pew Research Center. <https://www.pewresearch.org/social-trends/2023/09/14/the-modern-american-family/>.
- Arenberg, S., S. Neller, and S. Stripling. 2020. “The Impact of Youth Medicaid Eligibility on Adult Incarceration.” Forthcoming, *American Economic Journal: Applied Economics*. <https://www.aeaweb.org/articles?id=10.1257/app.20200785>.
- Arias, E., K. Kochanek, J. Xu, and B. Tejada-Vera. 2023. “Provisional Life Expectancy Estimates for 2022.” Centers for Disease Control and Prevention: National Vital Statistics System. <https://www.cdc.gov/nchs/data/vsrr/vsrr031.pdf>.

- Arteaga, C., and V. Barone. 2023. "A Manufactured Tragedy: The Origins and Deep Ripples of the Opioid Epidemic." Working paper. https://viquibarone.github.io/baronevictoria/Opioids_ArteagaBarone.pdf.
- Ash, E., W. Carrington, R. Heller, and G. Hwang. 2023. "Exploring the Effects of Medicaid During Childhood on the Economy and the Budget." Working paper, Congressional Budget Office. <https://www.cbo.gov/system/files/2023-10/59231-Medicaid.pdf>.
- Azoulay, P., B. Jones, J. Kim, and J. Miranda. 2022. "Immigration and Entrepreneurship in the United States." *American Economic Review* 4, no. 1: 71–88. <https://doi.org/10.1257/aeri.20200588>.
- Bailey, M. 2006. "More Power to the Pill: The Impact of Contraceptive Freedom on Women's Life Cycle Labor Supply." *Quarterly Journal of Economics*. <https://doi.org/10.1093/qje/121.1.289>.
- Bailey, M., and B. Hershbein. 2018. "U.S. Fertility Rates and Childbearing in American Economic History, 1800–2010." In *The Oxford Handbook of American Economic History*, 1: 75–100, ed. L. Cain, P. Fishback, and P. Rhode. New York: Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780190882617.013.21>.
- Bailey, M., B. Hershbein, and A. Miller. 2012. "The Opt-In Revolution? Contraception and the Gender Gap in Wages." *American Economic Journal: Applied Economics* 4, no. 3: 225–54. <https://doi.org/10.1257/app.4.3.225>.
- Basso, G., and G. Peri. 2020. "Internal Mobility: The Greater Responsiveness of Foreign-Born to Economic Conditions." *Journal of Economic Perspectives* 34, no. 3: 77–98. <https://doi.org/10.1257/jep.34.3.77>.
- Becker, G. 1960. "An Economic Analysis of Fertility." In *Demographics and Economic Change in Developed Countries*, 209–40. New York: Columbia University Press. <http://www.nber.org/chapters/c2387>.
- Bhatia, A., N. Krieger, and S. Subramanian. 2019. "Learning from History About Reducing Infant Mortality: Contrasting the Centrality of Structural Interventions to Early-20th-Century Successes in the United States to Their Neglect in Current Global Initiatives." *Milbank Quarterly* 97, no. 1: 285–345. <https://doi.org/10.1111/1468-0009.12376>.
- Blau, F., and C. Mackie. 2017. *The Economic and Fiscal Consequences of Immigration*. Washington: National Academies Press. <https://doi.org/10.17226/23550>.
- BLS (U.S. Bureau of Labor Statistics). 2021. "Employment Projections: 2020–2030." https://www.bls.gov/news.release/archives/ecopro_09082021.pdf.
- . 2022. "Over 16 Million Worked in Health Care and Social Assistance in 2021." <https://www.bls.gov/opub/ted/2022/over-16-million-women-worked-in-health-care-and-social-assistance-in-2021.htm>.
- . 2023a. "Nonfarm Business Sector: Labor Productivity (Output per Hour) for All Workers [OPHNFB]." <https://fred.stlouisfed.org/series/ophnfb>.

- . 2023b. “Unpaid Eldercare in the United States: News Release.” <https://www.bls.gov/news.release/elcare.htm>.
- . 2023c. “Employment Projections: 2022–2032 Summary.” <https://www.bls.gov/news.release/ecopro.nr0.htm>.
- Boonstra, H. 2014. “What Is Behind the Declines in Teen Pregnancy Rates?” *Guttmacher Policy Review* 17, no. 3. <https://www.guttmacher.org/gpr/2014/09/what-behind-declines-teen-pregnancy-rates>.
- Borjas, G. 2003. “The Labor Demand Curve Is Downward Sloping: Reexamining the Impact of Immigration on the Labor Market.” *Quarterly Journal of Economics* 118, no. 4: 1335–74. <http://www.jstor.org/stable/25053941>.
- Brainerd, E. 2014. “Can Government Policies Reverse Undesirable Declines in Fertility?” *IZA World of Labor* 23. <https://doi.org/10.15185/izawol.23>.
- Bronstein, J., M. Wingate, and A. Brisendine. 2018. “Why Is the U.S. Preterm Birth Rate So Much Higher Than the Rates in Canada, Great Britain, and Western Europe?” *International Journal of Health Services* 48, no. 40: 622–40. <https://doi.org/10.1177/0020731418786360>.
- Brown, A. 2021. “Growing Share of Childless Adults in U.S. Don’t Expect to Ever Have Children.” Pew Research Center. <https://www.pewresearch.org/short-reads/2021/11/19/growing-share-of-childless-adults-in-u-s-dont-expect-to-ever-have-children/>.
- Brown, D., A. Kowalski, and I. Lurie. 2020. “Long-Term Impacts of Childhood Medicaid Expansions on Outcomes in Adulthood.” *Review of Economic Studies* 87, no. 2: 792–821. <https://doi.org/10.1093/restud/rdz039>.
- Buntin, M., S. Freed, P. Lai, K. Lou, and L. Keohane. 2022. “Trends in and Factors Contributing to the Slowdown in Medicare Spending Growth, 2007–2018.” *JAMA Health Forum* 3, no. 12. <https://doi.org/10.1001/jamahealthforum.2022.4475>.
- Butcher, K., and D. Card. 1991. “Immigration and Wages: Evidence from the 1980’s.” *American Economic Review* 81, no. 2: 292–96. <http://www.jstor.org/stable/2006872>.
- Campbell, F., G. Conti, J. Heckman, S. Moon, R. Pinto, E. Pungello, and Y. Pan. 2014. “Early Childhood Investments Substantially Boost Adult Health.” *Science* 284:1478–85. <https://doi.org/10.1126/science.1248429>.
- Card, D. 2009. “Immigration and Inequality.” *American Economic Review* 99, no. 2: 1–21. <https://pubs.aeaweb.org/doi/pdf/10.1257/aer.99.2.1>.
- Carvalho, C., A. Ferrero, and F. Nechio. 2017. “Demographic Transition and Low U.S. Interest Rates.” Federal Reserve Bank of San Francisco, FRBSF Economic Letter 2017–27. <https://www.frbfsf.org/wp-content/uploads/sites/4/el2017-27.pdf>.
- Case, A., and A. Deaton. 2015. “Rising Morbidity and Mortality in Midlife Among White Non-Hispanic Americans in the 21st Century.” *Proceedings of the National*

Academy of Sciences 112, no. 49: 15078–83. <https://doi.org/10.1073/pnas.1518393112>.

- CBO (Congressional Budget Office). 2019. “CBO’s Projections of Demographic and Economic Trends.” In *The 2019 Long-Term Budget Outlook*. https://www.cbo.gov/system/files?file=2019-06/55331-Appendix_A.pdf.
- . 2022. “The Demographic Outlook: 2022 to 2052.” <https://www.cbo.gov/publication/57975>.
- . 2023a. “The Demographic Outlook: 2023 to 2053.” <https://www.cbo.gov/publication/58612>.
- . 2023b. “The 2023 Long-Term Budget Outlook.” <https://www.cbo.gov/publication/59331>.
- . 2023c. “CBO’s Projections of Federal Health Care Spending.” <https://www.cbo.gov/system/files/2023-03/58997-Whitehouse.pdf>.
- . 2024. “The Demographic Outlook: 2024 to 2054.” <https://www.cbo.gov/publication/59697>.
- CBPP (Center on Budget and Policy Priorities). 2020. “Policy Basics: Introduction to Medicaid.” <https://www.cbpp.org/research/policy-basics-introduction-to-medicaid>.
- CDC (Centers for Disease Control and Prevention). 1999. “Achievements in Public Health, 1900–1999: Healthier Mothers and Babies.” <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm4838a2.htm>.
- . 2014. “Smoking and Cardiovascular Disease.” https://www.cdc.gov/tobacco/sgr/50th-anniversary/pdfs/fs_smoking_cvd_508.pdf.
- . 2019a. “What Is Assisted Reproductive Technology?” <https://www.cdc.gov/art/whatis.html>.
- . 2019b. “QuickStats: Percentage of Deaths from External Causes, by Age Group—United States, 2017.” *Morbidity Mortal Weekly Report* 68: 710. <http://dx.doi.org/10.15585/mmwr.mm6832a7>.
- . 2022. “State-Specific Assisted Reproductive Technology Surveillance.” <https://www.cdc.gov/art/state-specific-surveillance/2020/index.html>.
- . 2023a. “Summary of Initial Findings from CDC-Funded Firearm Injury Prevention Research.” <https://www.cdc.gov/violenceprevention/firearms/firearm-research-findings.html>.
- . 2023b. “COVID Data Tracker: Trends in United States COVID-19 Hospitalizations, Deaths, Emergency Department (ED) Visits, and Test Positivity by Geographic Area.” <https://stacks.cdc.gov/view/cdc/137422>.
- . 2023c. “Respiratory Syncytial Virus Infection (RSV): RSV Surveillance & Research.” <https://www.cdc.gov/rsv/research/index.html>.
- . No date. “CDC WONDER.” <https://wonder.cdc.gov>.

- CEA (Council of Economic Advisers). 2016. “The Economic Record of the Obama Administration: Reforming the Health Care System.” https://obamawhitehouse.archives.gov/sites/default/files/page/files/20161213_cea_record_health_care_reform.pdf.
- . 2023a. “Did Stabilization Funds Help Mothers Get Back to Work After the COVID-19 Recession?” Working Paper. <https://www.whitehouse.gov/wp-content/uploads/2023/11/Child-Care-Stabilization.pdf>.
- . 2023b. “The Labor Supply Rebound from the Pandemic.” <https://www.whitehouse.gov/cea/written-materials/2023/04/17/the-labor-supply-rebound-from-the-pandemic/>.
- . 2023c. “The Anti-Poverty and Income-Boosting Impacts of the Enhanced CTC.” <https://www.whitehouse.gov/cea/written-materials/2023/11/20/the-anti-poverty-and-income-boosting-impacts-of-the-enhanced-ctc/>.
- Census (U.S. Census Bureau). 2018. “Methodology, Assumptions, and Inputs for the 2017 National Population Projections.” <https://www2.census.gov/programs-surveys/popproj/technical-documentation/methodology/methodstatement17.pdf>.
- . 2023a. “Methodology, Assumptions, and Inputs for the 2023 National Population Projections.” <https://www2.census.gov/programs-surveys/popproj/technical-documentation/methodology/methodstatement23.pdf>.
- . 2023b. “2023 National Population Projections.” <https://www.census.gov/data/tables/2023/demo/popproj/2023-summary-tables.html>.
- Chambers, G., S. Dyer, F. Zegers-Hochschild, J. de Mouzon, O. Ishihara, M. Banker, R. Mansour, M. Kupka, and G. Adamson. 2021. “International Committee for Monitoring Assisted Reproductive Technologies World Report: Assisted Reproductive Technology, 2014.” *Human Reproduction* 36, no. 11: 2921–34. <https://doi.org/10.1093/humrep/deab198>.
- Chen, A., E. Oster, and H. Williams. 2016. “Why Is Infant Mortality Higher in the United States Than in Europe?” *American Economic Journal: Economic Policy* 9, no.2: 89–124. <https://doi.org/10.1257/pol.20140224>.
- Chidambaram, P., and A. Burns. 2023. “How Many People Use Medicaid Long-Term Services and Supports and How Much Does Medicaid Spend on Those People?” KFF. <https://www.kff.org/medicaid/issue-brief/how-many-people-use-medicaid-long-term-services-and-supports-and-how-much-does-medicaid-spend-on-those-people/>.
- CMS (Centers for Medicare & Medicaid Services). 2023a. “National Health Expenditure Data.” <https://www.cms.gov/oact/tr/2023>.
- . 2023b. “2023 Medicare Trustee Report.” <https://www.cms.gov/research-statistics-data-and-systemsstatistics-trends-and-reportsreportstrustfund-trusteesreports/2021-2022>.
- Coe, N., G. Goda, and C. Van Houtven. 2023. “Family Spillovers and Long-Term Care Insurance.” *Journal of Health Economics* 90: 102781. <https://doi.org/10.1016/j.jhealeco.2023.102781>.

- Cohodes, S., D. Grossman, S. Kleiner, and M. Lovenheim. 2016. "The Effect of Child Health Insurance Access on Schooling: Evidence from Public Insurance Expansions." *Journal of Human Resources* 51, no. 3: 727–59. <https://doi.org/10.3368/jhr.51.3.1014-6688r1>.
- Cortés, P. 2023. *Immigration, Household Production, and Native Women's Labor Market Outcomes: A Survey of a Global Phenomenon*. NBER Working Paper 31234. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w31234>.
- Cunha, F., and J. Heckman. 2007. "The Technology of Skill Formation." *American Economic Review* 97, no. 2: 31–47. <https://doi.org/10.1257/aer.97.2.31>.
- Currie, J., and J. Gruber. 1996. "Health Insurance Eligibility, Utilization of Medical Care, and Child Health." *Quarterly Journal of Economics* 111, no. 2: 431–66. <https://doi.org/10.2307/2946684>.
- Currie, J., A. Li, and M. Schnell. 2023. "The Effects of Competition on Physician Prescribing." Working paper. https://static1.squarespace.com/static/572372e7c2ea51b309e9991a/t/64aeceef4539e40f84b240d3/1689177840601/CLS_062123.pdf.
- Cutler, D., A. Deaton, and A. Lleras-Muney. 2006. "The Determinants of Mortality." *Journal of Economic Perspectives* 20, no. 3: 97–120. <https://doi.org/10.1257/jep.20.3.97>.
- Cutler, D., K. Ghosh, K. Messer, T. Raghunathan, S. Stewart, and A. Rosen. 2019. "Explaining the Slowdown in Medical Spending Growth among the Elderly, 1999–2012." *Health Affairs* 38, no. 2: 222–29. <https://doi.org/10.1377/hlthaff.2018.05372>.
- Cutler, D., and E. Glaeser. 2021. "When Innovation Goes Wrong: Technological Regress and the Opioid Epidemic." *Journal of Economic Perspectives* 35, no. 4: 171–96. <https://doi.org/10.1257/jep.35.4.171>.
- Cutler, D., E. Glaeser, and A. Rosen. 2009. "Is the U.S. Population Behaving Healthier?" In *Social Security Policy in a Changing Environment*, 423–42, ed. J. Brown, J. Liebman, and D. Wise. Chicago: University of Chicago Press. <https://doi.org/10.7208/chicago/9780226076508.003.0013>.
- Cutler, D., and G. Miller. 2005. "The Role of Public Health Improvements in Health Advances: The Twentieth-Century United States." *Demography* 42, no. 1: 1–22. <https://www.jstor.org/stable/1515174>.
- Deaton, A. 2014. *The Great Escape: Health, Wealth, and the Origins of Inequality*. Princeton, NJ: Princeton University Press. <https://press.princeton.edu/books/hardcover/9780691153544/the-great-escape>.
- DeCicca, P., and L. McLeod. 2008. "Cigarette Taxes and Older Adult Smoking: Evidence from Recent Large Tax Increases." *Journal of Health Economics* 27, no. 4: 918–29. <https://doi.org/10.1016/j.jhealeco.2007.11.005>.

- Deming, D. 2009. “Early Childhood Intervention and Life-Cycle Skill Development: Evidence from Head Start.” *American Economic Journal: Applied Economics* 1: 111–34. <https://doi.org/10.1257/app.1.3.111>.
- Dench, D., M. Pineda-Torres, and C. Myers. 2023. *The Effects of the Dobbs Decision on Fertility*. IZA Discussion Paper 16608. Bonn: Institute of Labor Economics. <https://docs.iza.org/dp16608.pdf>.
- Dieppe, A. 2020. “The Broad-Based Productivity Slowdown, in Seven Charts.” World Bank Blogs. <https://blogs.worldbank.org/developmenttalk/broad-based-productivity-slowdown-seven-charts>.
- DOE (U.S. Department of Energy). 2022. “The Inflation Reduction Act Drives Significant Emissions Reductions and Positions America to Reach Our Climate Goals.” https://www.energy.gov/sites/default/files/2022-08/8.18%20InflationReductionAct_Factsheet_Final.pdf.
- Duncan, G., and K. Magnuson. 2013. “Investing in Preschool Programs.” *Journal of Economic Perspectives* 27: 109–32. <https://doi.org/10.1257/jep.27.2.109>.
- Dynan, K., W. Edelberg, and M. Palumbo. 2009. “The Effects of Population Aging on the Relationship among Aggregate Consumption, Saving, and Income.” *American Economic Review* 99, no. 2: 380–86. <https://doi.org/10.1257/aer.99.2.380>.
- Edelberg, W., and T. Watson. 2023. “Immigration Impact Index.” Brookings Institution. <https://www.brookings.edu/articles/immigration-impact-index/>.
- Edwards, E. 2023. “Abortion Bans Could Drive Away Young Doctors, New Survey Finds.” NBC News. <https://www.nbcnews.com/health/health-news/states-abortion-bans-young-doctors-survey-rcna84899>.
- Ely, M., and A. Driscoll. 2023. “Infant Mortality in the United States, 2021: Data from the Period Linked Birth/Infant Death File.” Centers for Disease Control and Prevention, National Vital Statistics System. <https://www.cdc.gov/nchs/data/nvsr/nvsr72/nvsr72-11.pdf>.
- EPA (U.S. Environmental Protection Agency) 2007. “Achievements in Stratospheric Ozone Protection Progress Report.” https://www.epa.gov/sites/default/files/2015-07/documents/achievements_in_stratospheric_ozone_protection.pdf.
- . 2022. “Sulfur Dioxide Trends.” <https://www.epa.gov/air-trends/sulfur-dioxide-trends>.
- Erbabian, M., V. Osorio, and M. Paulson. 2022. “Measuring Fertility in the United States.” Penn Wharton Budget Model. <https://budgetmodel.wharton.upenn.edu/issues/2022/7/8/measuring-fertility-in-the-united-states>.
- Evans, W., M. Farrelly, and E. Montgomery. 1996. *Do Workplace Smoking Bans Reduce Smoking?* NBER Working Paper 5567. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w5567>.
- Fleming-Dutra, K., J. Jones, L. Roper, M. Prill, I. Ortega-Sanchez, D. Moulia, M. Wallace, M. Godfrey, K. Broder, N. Tepper, O. Brooks, P. Sánchez, C. Kotton, B. Mahon, S. Long, and M. McMorrow. 2023. “Use of the Pfizer Respiratory

- Syncytial Virus Vaccine During Pregnancy for the Prevention of Respiratory Syncytial Virus–Associated Lower Respiratory Tract Disease in Infants: Recommendations of the Advisory Committee on Immunization Practices—United States, 2023.” Centers for Disease Control and Prevention, *MMWR Morbidity Mortality Weekly Report* 72: 1115–22. <https://www.cdc.gov/mmwr/volumes/72/wr/mm7241e1.htm>.
- Foster, A. 2015. “Consumer Expenditures Vary by Age.” Bureau of Labor Statistics: Beyond the Numbers. <https://www.bls.gov/opub/btn/volume-4/consumer-expenditures-vary-by-age.htm>.
- Foster, D. 2021. *The Turnaway Study: Ten Years, a Thousand Women, and the Consequences of Having—or Being Denied—an Abortion*. New York: Simon & Schuster. <https://www.simonandschuster.com/books/The-Turnaway-Study/Diana-Greene-Foster/9781982141578>.
- Foster, D., M. Biggs, L. Ralph, C. Gerdtz, S. Roberts, and M. Glymour. 2018. “Socioeconomic Outcomes of Women Who Receive and Women Who Are Denied Wanted Abortions in the United States.” *American Journal of Public Health* 112, no. 9: 1290–96. <https://doi.org/10.2105/ajph.2017.304247>.
- Funk, C., A. Tyson, B. Kennedy, and G. Pasquini. 2023. “Americans’ Largely Positive Views of Childhood Vaccines Hold Steady.” Pew Research Center. https://www.pewresearch.org/science/wp-content/uploads/sites/16/2023/05/PS_2023.05.16_vaccines_REPORT.pdf.
- Gagnon, E., B. Johannsen, and J. López-Salido. 2021. “Understanding the New Normal: The Role of Demographics.” *IMF Economic Review* 69, no. 2: 357–90. <https://doi.org/10.1057/s41308-021-00138-4>.
- GAO (U.S. Government Accountability Office). 2013. “Prescription Drugs Comparison of DOD and VA Direct Purchase Prices.” <https://www.gao.gov/assets/gao-13-358.pdf>.
- Gapminder. 2022. “Child Mortality Rate, Under Age 5.” <https://www.gapminder.org/data/documentation/gd005/>.
- Giltner, A., A. Evans, C. Cicco, S. Leach, and W. Rowe. 2022. “Fentanyl Analog Trends in Washington, D.C., Observed in Needle-Exchange Syringes.” *Forensic Science International* 338: 111393. <https://doi.org/10.1016/j.forsciint.2022.111393>.
- Goldin, C. 2004. *From the Valley to the Summit: The Quiet Revolution That Transformed Women’s Work*. NBER Working Paper 10335. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w10335>.
- Goldin, C., and L. Katz. 2002. “The Power of the Pill: Oral Contraceptives and Women’s Career and Marriage Decisions.” *Journal of Political Economy* 110, no. 4: 730–70. <https://doi.org/10.1086/340778>.
- Goldin, J., I. Lurie, and J. McCubbin. 2021. “Health Insurance and Mortality: Experimental Evidence from Taxpayer Outreach.” *Quarterly Journal of Economics* 136, no. 1: 1–49. <https://doi.org/10.1093/qje/qjaa029>.

- Goldin, C., and J. Mitchell. 2017. “The New Life Cycle of Women’s Employment: Disappearing Humps, Sagging Middles, Expanding Tops.” *Journal of Economic Perspectives* 31, no. 1: 161–82. <https://doi.org/10.1257/jep.31.1.161>.
- Goodman-Bacon, A. 2018. “Public Insurance and Mortality: Evidence from Medicaid Implementation.” *Journal of Political Economy* 126, no. 1: 216–62. <https://doi.org/10.1086/695528>.
- . 2021. “The Long-Run Effects of Childhood Insurance Coverage: Medicaid Implementation, Adult Health, and Labor Market Outcomes.” *American Economic Review* 111, no. 8: 2550–93. <https://doi.org/10.1257/aer.20171671>.
- Grabowski, D. 2021. “The Future of Long-Term Care Requires Investment in Both Facility- and Home-Based Services.” *Nature Aging* 1: 10–11. <https://doi.org/10.1038/s43587-020-00018-y>.
- Gray-Lobe, G., P. Pathak, C.R. Walters. “The Long-Term Effects of Universal Preschool in Boston.” 2022. *Quarterly Journal of Economics* 138, no. 1: 363–411. <https://doi.org/10.1093/qje/qjac036>.
- Guldi, M. 2008. “Fertility Effects of Abortion and Birth Control Pill Access for Minors.” *Demography* 45, no. 4: 817–27. <https://www.jstor.org/stable/25651477>.
- Guth, M., R. Garfield, and R. Rudowitz. 2020. “The Effects of Medicaid Expansion Under the ACA: Studies from January 2014 to January 2020.” Kaiser Family Foundation. <https://www.kff.org/report-section/the-effects-of-medicaid-expansion-under-the-aca-updated-findings-from-a-literature-review-report/>.
- Hales, C., J. Servais, C. Martin, and D. Kohen. 2019. “Prescription Drug Use Among Adults Aged 40–79 in the United States and Canada.” NCHS Daily Brief 347. <https://www.cdc.gov/nchs/data/databriefs/db347-h.pdf>.
- Hamilton, B., J. Martin, and E. Osterman. 2023. “VSRR 028: Births: Provisional Data for 2022.” <https://doi.org/10.15620/cdc:127052>.
- Hamilton, B., J. Martin, and S. Ventura. 2009. “Births: Preliminary Data for 2007.” *National Vital Statistics Reports* 57, no 12. https://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_12.pdf.
- Hanushek, E., and L. Wößmann. 2010. “Education and Economic Growth.” In *Economics of Education*, 60–67, ed. D. Brewer and P. McEwan. New York: Academic Press. <https://shop.elsevier.com/books/economics-of-education/brewer/978-0-08-096530-7>.
- Hendren, N., and B. Sprung-Keyser. 2020. “A Unified Welfare Analysis of Government Policies*.” *Quarterly Journal of Economics* 135, no. 3: 1209–1318. <https://doi.org/10.1093/qje/qjaa006>.
- Herbst, C. 2022. “Child Care in the United States: Markets, Policy, and Evidence.” *Journal of Policy Analysis and Management* 42, no. 1: 255–304. <https://doi.org/10.1002/pam.22436>.

- Heuveline, P. 2023. “The COVID-19 Pandemic and the Expansion of the Mortality Gap between the United States and Its European Peers.” *Plos One* 18, no. 3. <https://doi.org/10.1371/journal.pone.0283153>.
- HHS (U.S. Department of Health and Human Services). 2021. “Confronting Health Misinformation.” <https://www.hhs.gov/sites/default/files/surgeon-general-misinformation-advisory.pdf>.
- . 2022. “New HHS Report Shows National Uninsured Rate Reached All-Time Low in 2022.” <https://www.hhs.gov/about/news/2022/08/02/new-hhs-report-shows-national-uninsured-rate-reached-all-time-low-in-2022.html>.
- . 2023a. “Fact Sheet: End of the COVID-19 Public Health Emergency.” <https://www.hhs.gov/about/news/2023/05/09/fact-sheet-end-of-the-covid-19-public-health-emergency.html>.
- . 2023b. “The Biden-Harris Administration Takes Critical Action to Make Naloxone More Accessible and Prevent Fatal Overdoses from Opioids Like Fentanyl.” <https://www.hhs.gov/about/news/2023/03/29/biden-harris-administration-takes-critical-action-make-naloxone-more-accessible-prevent-fatal-overdoses-opioids-fentanyl.html>.
- . 2023c. “Biden Harris Administration Invests More Than \$80 Million to Help Rural Communities Respond to Fentanyl and Other Opioid Overdose Risks.” Health Resources and Services Administration. <https://www.hrsa.gov/about/news/press-releases/rcorps-2023-awards>.
- . 2023d. “National Uninsured Rate Reaches an All-Time Low in Early 2023.” <https://www.aspe.hhs.gov/reports/national-uninsured-rate-reaches-all-time-low-early-2023>.
- Hill, A. 2021. “‘I Had Second Thoughts’: The Gen Z-ers Choosing Not to Have Children.” *Guardian*, April 23. <https://www.theguardian.com/society/2021/apr/23/i-had-second-thoughts-the-gen-z-ers-choosing-not-to-have-children>.
- Hock, H. 2007. “The Pill and the College Attainment of American Women and Men.” Working paper, Florida State University. https://coss.fsu.edu/econpapers/wpaper/wp2007_10_01.pdf.
- Honoré, B., and A. Lleras-Muney. 2006. “Bounds in Competing Risks Models and the War on Cancer.” *Econometrica* 74, no. 6: 1675–98. <https://doi.org/10.1111/j.1468-0262.2006.00722.x>.
- Hooper, K. 2023. “What Role Can Immigration Play in Addressing Current and Future Labor?” Migration Policy Institute. <https://www.migrationpolicy.org/research/immigration-addressing-labor-shortages>.
- Howard, J., and T. Sneed. 2023. “Texas Woman Denied an Abortion tells Senators She ‘Nearly Died on their Watch.’” CNN. <https://www.cnn.com/2023/04/26/health/abortion-hearing-texas-senators-amanda-zurawski/index.html>.
- Hoyert, D., and A. Miniño. 2023. “Maternal Mortality Rates in the United States, 2021.” Centers for Disease Control and Prevention, National Center for Health

- Statistics. <https://www.cdc.gov/nchs/data/hestat/maternal-mortality/2021/maternal-mortality-rates-2021.pdf>.
- Hunt, J., and M. Gauthier-Loiselle. 2010. "How Much Does Immigration Boost Innovation?" *American Economic Journal: Macroeconomics* 2, no. 2: 31–56. <https://doi.org/10.1257/mac.2.2.31>.
- IRS (U.S. Internal Revenue Service). 2024. "Affordable Care Act Tax Provisions." <https://www.irs.gov/affordable-care-act/affordable-care-act-tax-provisions>.
- Johnson, R., and C. Jackson. 2019. "Reducing Inequality through Dynamic Complementarity: Evidence from Head Start and Public School Spending." *American Economic Journal: Economic Policy* 11, no. 4: 310–49. <https://doi.org/10.1257/pol.20180510>.
- Jones, C. 2019. "Paul Romer: Ideas, Nonrivalry, and Endogenous Growth." *Scandinavian Journal of Economics* 121, no. 3: 859–83. <https://doi.org/10.1111/sjoe.12370>.
- . 2022. "The End of Economic Growth? Unintended Consequences of a Declining Population." *American Economic Review* 112, no. 11: 3489–527. <https://doi.org/10.1257/aer.20201605>.
- Jones, C., and P. Romer. 2010. "The New Kaldor Facts: Ideas, Institutions, Population, and Human Capital." *American Economic Journal: Macroeconomics* 2, no. 1: 224–45. <https://doi.org/10.1257/mac.2.1.224>.
- Joseph, K., A. Boutin, S. Lisonkova, G. Muraca, N. Razaz, S. John, A. Mehrabadi, Y. Sabr, C. Ananth, and E. Schisterman. 2021. "Maternal Mortality in the United States: Recent Trends, Current Status, and Future Considerations." *Obstetrics Gynecology* 137, no. 5: 763–71. <https://doi.org/10.1097/AOG.0000000000004361>.
- Karahan, F., B. Pugsley, and A. Şahin. 2019. *Demographic Origins of the Startup Deficit*. NBER Working Paper 25874. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w25874>.
- Kearney, M., P. Levine, and L. Pardue. 2022. "The Puzzle of Falling U.S. Birth Rates since the Great Recession." *Journal of Economic Perspectives* 36, no. 1: 151–76. <https://www.econ.umd.edu/sites/www.econ.umd.edu/files/pubs/jep.36.1.151.pdf>.
- Kennedy-Moulton, K., S. Miller, P. Persson, M. Rossin-Slater, L. Wherry, and G. Aldana. 2023. *Maternal and Infant Health Inequality: New Evidence from Linked Administrative Data*. NBER Working Paper 30693. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w30693>.
- KFF (Kaiser Family Foundation). 2024. "Medicaid Postpartum Coverage Extension Tracker." <https://www.kff.org/medicaid/issue-brief/medicaid-postpartum-coverage-extension-tracker/>.
- Kolata, G. 2022. "'Sobering' Study Shows Challenges of Egg Freezing." *New York Times*. <https://www.nytimes.com/2022/09/23/health/egg-freezing-age-pregnancy.html>.

- Kuruc, K., S. Vyas, M. Budolfson, M. Geruso, and D. Spears. 2023. "Population Decline: Too Slow for the Urgency of Climate Solutions." University of Texas at Austin, Population Wellbeing Initiative. https://sites.utexas.edu/pwi/files/2023/11/Vienna_authors.pdf.
- Lancet*. 2022. "Managing the Opioid Crisis in North America and Beyond." Vol. 399, no. 10324: 495. [https://doi.org/10.1016/s0140-6736\(22\)00200-8](https://doi.org/10.1016/s0140-6736(22)00200-8).
- Lawrence, W., N. Freedman, J. McGee-Avila, A. González, Y. Chen, M. Emerson, G. Gee, E. Haozous, A. Haque, M. Inoue-Choi, S. Jackson, B. Lord, A. Nápoles, E. Pérez-Stable, J. Vo, F. Williams, and M. Shiels. 2023. "Trends in Mortality from Poisonings, Firearms, and All Other Injuries by Intent in the U.S., 1999–2020." *JAMA Internal Medicine* 183, no. 8: 849–56. <https://doi.org/10.1001/jamainternmed.2023.2509>.
- Lazzari, E., E. Gray, and G. Chambers. 2021. "The Contribution of Assisted Reproductive Technology to Fertility Rates and Parity Transition: An Analysis of Australian Data." *Demographic Research* 45: 1081–96. <https://doi.org/10.4054/demres.2021.45.35>.
- Lee, K. 2007. "Infant Mortality Decline in the Late 19th and Early 20th Centuries: The Role of Market Milk." *Perspectives in Biology and Medicine* 50, no. 4: 585–602. <https://doi.org/10.1353/pbm.2007.0051>.
- Lee, R., and R. Edwards. 2002. "The Fiscal Effects of Population Aging in the U.S.: Assessing the Uncertainties." *Tax Policy and the Economy* 16: 141–80. <https://www.nber.org/books-and-chapters/tax-policy-and-economy-volume-16/fiscal-effects-population-aging-us-assessing-uncertainties>.
- Lindo, J., and M. Pineda-Torres. 2020. *New Evidence on the Effects of Mandatory Waiting Periods for Abortion*. NBER Working Paper 26228. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w26228>.
- Lister, R., W. Drake, B. Scott, and C. Graves. 2019. "Black Maternal Mortality: The Elephant in the Room." *World Journal of Gynecology & Women's Health* 3, no. 1. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7384760/>.
- Livingston, G., and D. Cohn. 2010. "The New Demography of American Motherhood." Pew Research Center, Social & Demographic Trends Project. <https://www.pewresearch.org/social-trends/2010/05/06/the-new-demography-of-american-motherhood/>.
- Maestas, N., K. Mullen, and D. Powell. 2016. "The Effect of Population Aging on Economic Growth, The Labor Force and Productivity." Working Paper, RAND Labor & Population. https://www.rand.org/content/dam/rand/pubs/working_papers/WR1000/WR1063-1/RAND_WR1063-1.pdf.
- Manchester, M., and A. Leshner. 2019. "The Effectiveness of Medication-Based Treatment for Opioid Use Disorder." In *Medications for Opioid Use Disorder Save Lives*, ed. M. Manchester and A. Leshner. Washington: National Academies Press. <https://doi.org/10.17226/25310>.

- McCann, A., and A. Walker. 2023. “Dozens of Abortion Clinics Have Closed Since *Roe v. Wade* Was Overturned.” *New York Times*. <https://www.nytimes.com/interactive/2023/06/22/us/abortion-clinics-dobbs-roe-wade.html>.
- Mehta, L., T. Beckie, H. DeVon, C. Grines, H. Krumholz, M. Johnson, K. Lindley, V. Vaccarino, T. Wang, K. Watson, and N. Wenger. 2016. “Acute Myocardial Infarction in Women.” *Circulation*, vol. 133, no. 9. <https://www.ahajournals.org/doi/10.1161/CIR.0000000000000351>.
- Miller, S., N. Johnson, and L. Wherry. 2019. *Medicaid and Mortality: New Evidence from Linked Survey and Administrative Data*. NBER Working Paper 26081. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w26081>.
- Miller, S., and L. Wherry. 2019. “The Long-Term Effects of Early Life Medicaid Coverage.” *Journal of Human Resources* 54, no. 3: 785–824. <https://doi.org/10.3368/jhr.54.3.0816.8173r1>.
- Miller, S., L. Wherry, and D. Foster. 2023. “The Economic Consequences of Being Denied an Abortion.” *American Economic Journal: Economic Policy* 15, no. 1: 394–437. <https://doi.org/10.1257/pol.20210159>.
- Modigliani, F., and R. Brumberg. 1954. “Utility Analysis and the Consumption Function.” In *The Collected Papers of Franco Modigliani*, ed. F. Modigliani. Cambridge, MA: MIT Press. <https://doi.org/10.7551/mitpress/1923.001.0001>.
- Morrissey, T. 2017. “Child Care and Parent Labor Force Participation: A Review of the Research Literature.” *Review of Economics of the Household* 15, no. 1: 1–24. <https://doi.org/10.1007/s11150-016-9331-3>.
- Mulcahy, A., C. Whaley, M. Gizaw, D. Schwam, N. Edenfield, and A. Becerra-Ornelas. 2022. “International Prescription Drug Price Comparisons: Current Empirical Estimates and Comparisons with Previous Studies.” Health and Human Services Department, Office of the Assistant Secretary for Planning and Evaluation. <https://aspe.hhs.gov/reports/international-prescription-drug-price-comparisons>.
- Myers, C. 2017. “The Power of Abortion Policy: Reexamining the Effects of Young Women’s Access to Reproductive Control.” *Journal of Political Economy* 125, no. 6: 2178–2224. <https://doi.org/10.1086/694293>.
- Myers, C., L. Bennett, F. Vale, and A. Nieto. 2023. “Abortion Access Dashboard.” <https://experience.arcgis.com/experience/6e360741bfd84db79d5db774a1147815>.
- Nash, E., and I. Guarnieri. 2022. “13 States Have Abortion Trigger Bans—Here’s What Happens When *Roe* Is Overturned.” Guttmacher Institute. <https://www.guttmacher.org/article/2022/06/13-states-have-abortion-trigger-bans-heres-what-happens-when-roe-overturned>.
- NHEA (National Health Expenditure Data). 2023. “National Health Expenditure Data.” <https://www.cms.gov/data-research/statistics-trends-and-reports/national-health-expenditure-data>.

- OECD (Organization for Economic Cooperation and Development). 2021. “Health at a Glance 2021: OECD Indicators.” <https://doi.org/10.1787/7a7afb35-en>.
- Osterman, P. 2017. *Who Will Care for Us? Long-Term Care and the Long-Term Workforce*. New York: Russell Sage Foundation. <https://www.russellsage.org/publications/who-will-care-us-0>.
- Ottaviano, G., and G. Peri. 2012. “Rethinking the Effect of Immigration on Wages.” *Journal of the European Economic Association* 10, no. 1: 152–97. <https://doi.org/10.1111/j.1542-4774.2011.01052.x>.
- Parker, K., and R. Minkin. 2023. “Public Has Mixed Views on the Modern American Family.” Pew Research Center. <https://www.pewresearch.org/social-trends/2023/09/14/public-has-mixed-views-on-the-modern-american-family/>.
- Peri, G. 2012. “The Effect of Immigration on Productivity: Evidence from U.S. States.” *Review of Economics and Statistics* 94, no. 1: 348–58. https://doi.org/10.1162/REST_a_00137.
- Peri, G., and C. Sparber. 2009. “Task Specialization, Immigration, and Wages.” *American Economic Journal: Applied Economics*, 1 no. 3: 135–69. <https://doi.org/10.1257/app.1.3.135>.
- Peters, M. 2022. “Market Size and Spatial Growth—Evidence from Germany’s Post-War Population Expulsions.” *Econometrica* 90, no. 5: 2357–96. <https://doi.org/10.3982/ecta18002>.
- PHI (Paraprofessional Healthcare Institute). 2022. “Direct Care Workers in the United States.” <https://www.phinational.org/wp-content/uploads/2022/08/DCW-in-the-United-States-2022-PHI.pdf>.
- Picchi, A. 2022. “It Now Costs \$310,000 to Raise a Child: ‘Something Has to Give.’” CBS News. <https://www.cbsnews.com/news/raising-a-child-costs-310000/>.
- Prato, M. 2022. “The Global Race for Talent: Brain Drain, Knowledge, Transfer, and Growth.” Working Paper, World Bank. <https://thedocs.worldbank.org/en/doc/35e299dda0bce4645403a3418356b405-0050022023/original/prato-global-race-talent-november2022.pdf>.
- PWI (Population Wellbeing Initiative, University of Texas at Austin). 2023. “Projections of Long-Term Population Decline for the United States: Causes, Consequences, and Responses to Sustained Low Birth Rates.” PWI Policy Discussion Paper. https://sites.utexas.edu/pwi/us_long-term_population_decline/.
- Reinhard, S., S. Caldera, A. Houser, and R. Choula. 2023. “Valuing the Invaluable: 2023 Update.” AARP Public Policy Initiative. <https://doi.org/10.26419/ppi.00082.006>.
- Ritchie, H. 2023. “The U.N. Has Made Population Projections for More Than 50 Years—How Accurate Have They Been?” OurWorldInData.org. <https://ourworldindata.org/population-projections>.

- Romer, P. 2018. “Prize Lecture: On the Possibility of Progress.” Nobel Prize in Economics. <https://www.nobelprize.org/prizes/economic-sciences/2018/romer/lecture/>.
- Sabelhaus, J. 2023. “Will Population Aging Push Us Over a Fiscal Cliff?” Aspen Institute Economic Strategy Group. <https://www.economicstrategygroup.org/publication/population-aging-fiscal-cliff/>.
- Sabo, S., and S. Johnson. 2022. “Pandemic Disrupted Historical Mortality Patterns, Caused Largest Jump in Deaths in 100 Years.” U.S. Census Bureau. <https://www.census.gov/library/stories/2022/03/united-states-deaths-spiked-as-covid-19-continued.html>.
- Schmitz, H., and M. Westphal. 2017. “Informal Care and Long-Term Labor Market Outcomes.” *Journal of Health Economics* 56: 1–18. <https://doi.org/10.1016/j.jhealeco.2017.09.002>.
- Schnell, M. 2022. “Physician Behavior in the Presence of a Secondary Market: The Case of Prescription Opioids.” Working paper. https://static1.squarespace.com/static/572372e7c2ea51b309e9991a/t/62a361101fa2c47a22943335/1654874393320/Schnell_06102022.pdf.
- Schwandt, H., J. Currie, M. Bär, J. Banks, P. Bertoli, A. Bütikofer, S. Cattán, B. Chao, C. Costa, L. González, V. Grembi, K. Huttunen, R. Karadakic, L. Kraftman, S. Krutikova, S. Lombardi, P. Redler, C. Riumallo-Herl, A. Rodríguez-González, K. Salvanes, P. Santana, J. Thuilliez, E. Doorslaer, T. Ourti, J. Winter, B. Wouterse, and A. Wuppermann. 2021. “Inequality in Mortality between Black and White Americans by Age, Place, and Cause and in Comparison to Europe, 1990 to 2018.” *Proceedings of the National Academy of Sciences of the United States of America* 118, no. 40. <https://doi.org/10.1073/pnas.2104684118>.
- Sellers, F., and F. Nirappil. 2022. “Confusion Post-Roe Spurs Deals, Denials for Some Lifesaving Pregnancy Care.” *Washington Post*. <https://www.washingtonpost.com/health/2022/07/16/abortion-miscarriage-ectopic-pregnancy-care/>.
- Sheiner, L. 2018. *The Long-Term Impact of Aging on the Federal Budget*. Hutchins Center Working Paper 40. Washington: Brookings Institution. <https://www.brookings.edu/wp-content/uploads/2018/01/wp405.pdf>.
- Shen, K. 2023. “Who Benefits from Public Financing of Home-Based Long Term Care? Evidence from Medicaid.” Working Paper, SSRN. <http://dx.doi.org/10.2139/ssrn.4523279>.
- Shepard, K., R. Rouben, and C. Kitchener. 2022. “1 in 3 American Women Have Already Lost Abortion Access; More Restrictive Laws Are Coming.” *Washington Post*. <https://www.washingtonpost.com/nation/2022/08/22/more-trigger-bans-loom-1-3-women-lose-most-abortion-access-post-roe/>.
- Smith, D., and B. Bradshaw. 2006. “Variation in Life Expectancy During the Twentieth Century in the United States.” *Demography* 43: 647–57. <https://doi.org/10.1353/dem.2006.0039>.

- Smith, S., J. Newhouse, and G. Cuckler. 2022. *Health Care Spending Growth Has Slowed: Will the Bend in the Curve Continue?* NBER Working Paper 30782. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w30782>.
- Smock, P., and C. Schwartz. 2020. “The Demography of Families: A Review of Patterns and Change.” *Journal of Marriage and Family* 82, no. 1: 9–34. <https://doi.org/10.1111/jomf.12612>.
- Sobotka, T., V. Skirbekk, and D. Philipov. 2011. “Economic Recession and Fertility in the Developed World.” *Population and Development Review* 37, no. 2: 267–306. <https://doi.org/10.1111/j.1728-4457.2011.00411.x>.
- Soni, A., L. Wherry, and K. Simon. 2020. “How Have ACA Insurance Expansions Affected Health Outcomes? Findings from the Literature.” *Health Affairs* 39, no. 3: 371–78. <https://doi.org/10.1377/hlthaff.2019.01436>.
- Spears, D. 2023. “The World’s Population May Peak in Your Lifetime; What Happens Next?” *New York Times*. <https://www.nytimes.com/interactive/2023/09/18/opinion/human-population-global-growth.html>.
- Spears, D., S. Vyas, G. Weston, and M. Geruso. 2023. “Long-Term Population Projections: Scenarios of Low or Rebounding Fertility.” Working Paper, SSRN. <https://dx.doi.org/10.2139/ssrn.4534047>.
- SSA (U.S. Social Security Administration). 2023a. “National Average Wage Index.” <https://www.ssa.gov/oact/cola/AWI.html>.
- . 2023b. “2023 OASDI Trustees Report.” https://www.ssa.gov/OACT/TR/2023/VI_G2_OASDHI_GDP.html.
- . 2023c. “The 2023 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds.” <https://www.ssa.gov/oact/TR/2023/tr2023.pdf>.
- Steuerle, C., A. Carasso, and L. Cohen. 2004. “How Progressive Is Social Security and Why?” Urban Institute. 2004. <https://www.urban.org/sites/default/files/publication/57666/311016-how-progressive-is-social-security-and-why-.pdf>.
- Steuerle, C., and K. Smith. 2023. “Social Security & Medicare Lifetime Benefits and Taxes: 2022.” Urban Institute and Brookings Institution, Tax Policy Center. <https://www.taxpolicycenter.org/publications/social-security-medicare-lifetime-benefits-and-taxes-2022/full>.
- Syversen, C. 2017. “Challenges to Mismeasurement Explanations for the U.S. Productivity Slowdown.” *Journal of Economic Perspectives* 31, no. 2: 165–86. <https://doi.org/10.1257/jep.31.2.165>.
- Turner, N., K. Danesh, and K. Moran. 2020. “The Evolution of Infant Mortality Inequality in the United States, 1960–2016.” *Science Advances* 6, no. 29. <https://doi.org/10.1126/sciadv.aba5908>.

- U.N. DESA (United Nations, Department of Economic and Social Affairs, Population Division). 2012. “2012 Revision.” <https://population.un.org/wpp/Download/Archive/Standard/>.
- . 2022a. *World Population Prospects 2022*. <https://population.un.org/wpp/>.
- . 2022b. *Methodology Report: World Population Prospects 2022*. https://population.un.org/wpp/Publications/Files/WPP2022_Methodology.pdf.
- . 2023. “India Overtakes China as the World’s Most Populous Country.” Policy Brief 153. <https://www.un.org/development/desa/dpad/publication/un-desa-policy-brief-no-153-india-overtakes-china-as-the-worlds-most-populous-country>.
- U.S. Department of the Treasury. 2023. “General Explanations of the Administration’s Fiscal Year 2024 Revenue Proposals.” <https://home.treasury.gov/system/files/131/General-Explanations-FY2024.pdf>.
- Valero, A. 2021. *Education and Economic Growth*. CEP Discussion Paper 1764. London: Centre for Economic Performance. <https://files.eric.ed.gov/fulltext/ED614082.pdf>.
- Vespa, J., L. Medina, and D. Armstrong. 2020. “Demographic Turning Points for the United States: Population Projections for 2020 to 2060.” U.S. Census Bureau. <https://www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1144.pdf>.
- WeCount. 2023. “#WeCount Report April 2022 to June 2023.” Society of Family Planning. https://societyfp.org/wp-content/uploads/2023/10/WeCountReport_10.16.23.pdf.
- White, C., J. Cubanski, and T. Neuman. 2014. “How Much of the Medicare Spending Slowdown Can be Explained? Insights and Analysis from 2014.” Issue Brief, Kaiser Family Foundation. <https://files.kff.org/attachment/issue-brief-how-much-of-the-medicare-spending-slowdown-can-be-explained-insights-and-analysis-from-2014>.
- White House. 2021. “Fact Sheet: Vice President Kamala Harris Announces Call to Action to Reduce Maternal Mortality and Morbidity.” <https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/07/fact-sheet-vice-president-kamala-harris-announces-call-to-action-to-reduce-maternal-mortality-and-morbidity/>.
- . 2022a. “Fact Sheet: The Biden Administration’s Historic Investments to Create Opportunity and Build Wealth in Rural America.” <https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/01/fact-sheet-the-biden-administrations-historic-investments-to-create-opportunity-and-build-wealth-in-rural-america/>.
- . 2022b. “National Drug Control Strategy.” <https://www.whitehouse.gov/wp-content/uploads/2022/04/National-Drug-Control-2022Strategy.pdf>.
- . 2022c. “Fact Sheet: President Biden to Sign Executive Order Protecting Access to Reproductive Health Care Services.” <https://www.whitehouse.gov/>

briefing-room/statements-releases/2022/07/08/
fact-sheet-president-biden-to-sign-executive-order-protecting-access-to-repro-
ductive-health-care-services/.

- . 2022d. “White House Blueprint for Addressing the Maternal Health Crisis.” <https://www.whitehouse.gov/wp-content/uploads/2022/06/Maternal-Health-Blueprint.pdf>.
- . 2023a. “Fact Sheet: Biden-Harris Administration Announces Most Sweeping Set of Executive Actions to Improve Care in History.” <https://www.whitehouse.gov/briefing-room/statements-releases/2023/04/18/fact-sheet-biden-harris-administration-announces-most-sweeping-set-of-executive-actions-to-improve-care-in-history/>.
- . 2023b. “ICYMI: Biden-Harris Administration Announces \$450M to Support President Biden’s Unity Agenda Efforts to Beat the Overdose Epidemic & Save Lives.” <https://www.whitehouse.gov/ondcp/briefing-room/2023/09/01/icymi-biden-%E2%81%A0harris-administration-announces-450m-to-support-president-bidens-unity-agenda-efforts-to-beat-the-overdose-epidemic-save-lives>.
- . 2023c. “The President and First Lady’s Cancer Moonshot.” <https://www.whitehouse.gov/cancermoonshot/>.
- . 2023d. “Fact Sheet: President Joe Biden to Announce First-Ever White House Initiative on Women’s Health Research, an Effort led by First Lady Jill Biden and the White House Gender Policy Council.” <https://www.whitehouse.gov/briefing-room/statements-releases/2023/11/13/fact-sheet-president-joe-biden-to-announce-first-ever-white-house-initiative-on-womens-health-research-an-effort-led-by-first-lady-jill-biden-and-the-white-house-gender-policy-council/>.
- . 2023e. “Remarks as Prepared for Delivery by First Lady Jill Biden on a Press Call Announcing White House Initiative on Women’s Health Research.” <https://www.whitehouse.gov/briefing-room/speeches-remarks/2023/11/13/remarks-as-prepared-for-delivery-by-first-lady-jill-biden-on-a-press-call-announcing-white-house-initiative-on-womens-health-research/>.
- . 2023f. “Fact Sheet: One Year In, President Biden’s Inflation Reduction Act Is Driving Historic Climate Action and Investing in America to Create Good Paying Jobs and Reduce Costs.” <https://www.whitehouse.gov/briefing-room/statements-releases/2023/08/16/fact-sheet-one-year-in-president-bidens-inflation-reduction-act-is-driving-historic-climate-action-and-investing-in-america-to-create-good-paying-jobs-and-reduce-costs/>.
- . 2023g. “Fact Sheet: President Biden Issues Executive Order on Strengthening Access to Contraception.” <https://www.whitehouse.gov/briefing-room/statements-releases/2023/06/23/fact-sheet-president-biden-issues-executive-order-on-strengthening-access-to-contraception/>.

- Woodcock, A., G. Carter, J. Baayd, D. Turok, J. Turk, J. Sanders, M. Pangasa, L. Gawron, and J. Kaiser. 2023. "Effects of the Dobbs v Jackson Women's Health Organization Decision on Obstetrics and Gynecology Graduating Residents' Practice Plans." *Obstetrics & Gynecology* 142, no. 5: 1105–11. <https://doi.org/10.1097/AOG.0000000000005383>.
- Xu, J., S. Murphy, K. Kochanek, and E. Arias. 2022. "Mortality in the United States, 2021." Centers for Disease Control and Prevention, National Center for Health Statistics. <https://www.cdc.gov/nchs/products/databriefs/db456.htm>.

Chapter 4

- Aaronson, D., D. Hartley, and B. Mazumder. 2021. "The Effects of the 1930s HOLC 'Redlining' Maps." *American Economic Journal: Economic Policy* 13, no. 4: 355–92. <https://doi.org/10.1257/pol.20190414>.
- Aldern, C. and G. Colburn. 2022. *Homelessness Is a Housing Problem: How Structural Factors Explain U.S. Patterns*. Berkeley: University of California Press. <https://homelessnesshousingproblem.com/>.
- Avenancio-Leon, C., and T. Howard. 2022. "The Assessment Gap: Racial Inequalities in Properly Taxation." *Quarterly Journal of Economics* 137, no. 3: 1383–1434. <https://doi.org/10.1093/qje/qjac009>.
- Barber, J. 2019. "Berkeley Zoning Has Served for Many Decades to Separate the Poor from the Rich and Whites from People of Color." *Berkeleyside*. <https://www.berkeleyside.org/2019/03/12/berkeley-zoning-has-served-for-many-decades-to-separate-the-poor-from-the-rich-and-whites-from-people-of-color>.
- Baum-Snow, N. 2023. "Constraints on City and Neighborhood Growth: The Central Role of Housing Supply." *Journal of Economic Perspective* 37, no. 2: 53–74. <https://doi.org/10.1257/jep.37.2.53>.
- Baum-Snow, N., and J. Marion. 2009. "The Effects of Low-Income Housing Tax Credit Developments on Neighborhoods." *Journal of Public Economics* 93: nos. 5–6: 654–66. <https://doi.org/10.1016/j.jpubeco.2009.01.001>.
- Bayer, P., F. Ferreira, and S. Ross. 2016. "The Vulnerability of Minority Homeowners in the Housing Boom and Bust." *American Economic Journal: Economic Policy* 8, no. 1: 1–27. <http://dx.doi.org/10.1257/pol.20140074>.
- Been, V., I. Ellen, and K. O'Regan. 2023. "Supply Skepticism Revisited." NYU Law and Economics Research Paper. <https://ssrn.com/abstract=4629628>.
- Been, V., I. Ellen, A. Schwartz, L. Stiefel, and M. Weinstein. 2011. "Does Losing Your Home Mean Losing Your School? Effects of Foreclosures on the School Mobility of Children." *Regional Science and Urban Economics* 41: 407–14. <https://nyuscholars.nyu.edu/en/publications/does-losing-your-home-mean-losing-your-school-effects-of-foreclos>.

- Benioff Homelessness and Housing Initiative. 2023. “Executive Summary of the California Statewide Study of People Experiencing Homelessness.” University of California, San Francisco. https://homelessness.ucsf.edu/sites/default/files/2023-06/CASPEH_Executive_Summary_62023.pdf.
- Berkeley Economic Review*. 2019. “Baby Boomers and the Future of Homeownership in the United States.” <https://econreview.berkeley.edu/baby-boomers-and-the-future-of-homeownership-in-the-united-states/>.
- Brasuell, J. 2021. “Charlotte’s New, Controversial Comprehensive Plan to End Single-Family Zoning.” Planetizen. <https://www.planetizen.com/news/2021/06/113893-charlottes-new-controversial-comprehensive-plan-end-single-family-zoning>.
- . 2023. “Vermont Latest State to Preempt Single-Family Zoning.” Planetizen. <https://www.planetizen.com/news/2023/06/123767-vermont-latest-state-preempt-single-family-zoning>.
- Bronin, S. 2023. “Zoning by a Thousand Cuts.” *50 Pepperdine Law Review* 719. <https://dx.doi.org/10.2139/ssrn.3792544>.
- Bui, Q., M. Chaban, and J. White. 2016. “40 Percent of the Buildings in Manhattan Could Not Be Built Today.” *New York Times*, May 20. <https://www.nytimes.com/interactive/2016/05/19/upshot/forty-percent-of-manhattans-buildings-could-not-be-built-today.html>.
- Byrne, T., E. Munley, J. Fargo, A. Montgomery, and D. Culhane. 2016. “New Perspectives on Community-Level Determinants of Homelessness.” *Journal of Urban Affairs* 35, no. 5: 607–25. <https://doi.org/10.1111/j.1467-9906.2012.00643>.
- Calanog, V., T. Metcalfe, and K. Fagan. 2023. “The Outlook for the Housing Market.” *Moody’s Analytics*, Quarterly Analysis. <https://cre.moodyanalytics.com/insights/research/q42022-the-outlook-for-the-housing-market/>.
- California Department of Housing and Community Development. 2023. “Regional Housing Needs Allocation (RHNA).” <https://www.hcd.ca.gov/planning-and-community-development/regional-housing-needs-allocation>.
- Card, D., J. Rothstein, and M. Yi. 2023. *Location, Location, Location*. NBER Working Paper 31587. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w31587>.
- Carroll, D., and R. Cohen-Kristiansen. 2021. “Evaluating Homeownership as the Solution to Wealth Inequality.” Federal Reserve Bank of Cleveland, “Economic Commentary.” <https://www.clevelandfed.org/publications/economic-commentary/2021/ec-202122-evaluating-homeownership-as-the-solution-to-wealth-inequality>.
- CBRE (Coldwell Banker Richard Ellis). 2022. “2022 U.S. Construction Cost Trends.” <https://www.cbre.com/insights/books/2022-us-construction-cost-trends#:~:text=CBRE%27s%20new%20Construction%20Cost%20Index,material%20costs%20continue%20to%20rise>.

- CEA (Council of Economic Advisers). 2021. "Exclusionary Zoning: Its Effect on Racial Discrimination in the Housing Market." <https://www.whitehouse.gov/cea/written-materials/2021/06/17/exclusionary-zoning-its-effect-on-racial-discrimination-in-the-housing-market/>.
- . 2023a. "An Update on Housing Inflation in the Consumer Price Index." <https://www.whitehouse.gov/cea/written-materials/2023/04/27/update-on-housing-inflation-in-cpi/>.
- . 2023b. "The Anti-Poverty and Income-Boosting Impacts of the Enhanced CTC." <https://www.whitehouse.gov/cea/written-materials/2023/11/20/the-anti-poverty-and-income-boosting-impacts-of-the-enhanced-ctc/>.
- CFPB (Consumer Financial Protection Bureau). 2021. "Manufactured Housing Finance: New Insights from the Home Mortgage Disclosure Act Data." https://files.consumerfinance.gov/f/documents/cfpb_manufactured-housing-finance-new-insights-hmda_report_2021-05.pdf.
- Chester, M., et al. 2015. "Parking Infrastructure: A Constraint on or Opportunity for Urban Redevelopment? A Study of Los Angeles County Parking Supply and Growth." <https://www.tandfonline.com/doi/full/10.1080/01944363.2015.1092879>.
- Chetty, R., and N. Hendren. 2018. "The Impacts of Neighborhoods on Intergenerational Mobility I: Childhood Exposure Effects." *Quarterly Journal of Economics* 133, no. 3: 1107–62. <https://doi.org/10.1093/qje/qjy007>.
- Chetty, R., N. Hendren, and L. Katz. 2016. "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment." *American Economic Review* 106, no. 4: 855–902. <https://doi.org/10.1257/aer.20150572>.
- Choi, J., J. Zhu, and L. Goodman. 2018. "Is Homeownership Inherited? A Tale of Three Millennials." Urban Institute. <https://www.urban.org/urban-wire/homeownership-inherited-tale-three-millennials>.
- Chyn, E., and L. Katz. 2021. "Neighborhoods Matter: Assessing the Evidence for Place Effects." *Journal of Economic Perspectives* 35, no. 4: 197–222. <https://doi.org/10.1257/jep.35.4.197>.
- Code of Federal Regulations. 2023. "Title 24: Housing and Urban Development." <https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX>.
- Collinson, R., J. Humphries, N. Mader, D. Reed, D. Tannenbaum, and W. Dijk. 2023. *Eviction and Poverty in American Cities*. NBER Working Paper 30382. Cambridge, MA: National Bureau of Economic Research. <https://www.nber.org/papers/w30382>.
- Commonwealth of Massachusetts. 2023. "Multi-Family Zoning Requirement for MBTA Communities." Executive Office of Housing and Livable Communities. <https://www.mass.gov/info-details/multi-family-zoning-requirement-for-mbta-communities>.

- Center on Budget and Policy Priorities. 2017. “United States Housing Choice Vouchers Fact Sheet.” https://www.cbpp.org/sites/default/files/atoms/files/3-10-14hou-factsheets_us.pdf.
- Cornelissen, S., and L. Pack. 2023. “Immigrants’ Access to Homeownership in the United States: A Review of Barriers, Discrimination, and Opportunities.” Joint Center for Housing Studies at Harvard University. https://www.jchs.harvard.edu/sites/default/files/research/files/harvard_jchs_immigrant_homeownership_cornelissen_pack_2023.pdf.
- Cromwell, M. 2022. “Housing Costs a Big Burden on Renters in Largest U.S. Counties.” U.S. Census Bureau, America Counts. <https://www.census.gov/library/stories/2022/12/housing-costs-burden.html>.
- CRS (Congressional Research Service). 2021. “An Overview of the HOME Investment Partnerships Program.” <https://sgp.fas.org/crs/misc/R40118.pdf>.
- Crump, S., T. Mattos, J. Schuetz, and L. Schuster. 2020. “Fixing Greater Boston’s Housing Crisis Starts with Legalizing Apartments Near Transit.” Brookings Institution. <https://www.brookings.edu/articles/fixing-greater-bostons-housing-crisis-starts-with-legalizing-apartments-near-transit/>.
- DBRS Morningstar. 2023. “DBRS Morningstar CMBS Monthly Highlights—June Remittance: Delinquency and Special Servicing Rates Move Higher on Continued Office Underperformance.” <https://www.dbrsmorningstar.com/research/417134>.
- Derenoncourt, E., C. Kim, M. Kuhn, and M. Schularick. 2023. “Wealth of Two Nations: The U.S. Racial Wealth Gap, 1860–2020.” *Quarterly Journal of Economics*. <https://doi.org/10.1093/qje/qjad044>.
- Desegregate Connecticut. No date. “FAQS.” <https://www.desegregatect.org/faqs>.
- Diamond, R., A. Guren, and R. Tan. 2020. *The Effect of Foreclosures on Homeowners, Tenants, and Landlords*. NBER Working Paper 27358. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w27358>.
- Diamond, R., and T. McQuade. 2019. “Who Wants Affordable Housing in Their Backyard? An Equilibrium Analysis of Low-Income Property Development.” *Journal of Political Economy* 3: 1063–1117. <https://doi.org/10.1086/701354>.
- Diamond, R., T. McQuade, and F. Qian. 2018. *The Effects of Rent Control Expansion on Tenants, Landlords, and Inequality: Evidence from San Francisco*. NBER Working Paper 24181. Cambridge, MA: National Bureau of Economic Research. https://www.nber.org/system/files/working_papers/w24181/w24181.pdf.
- Dietrich, E. 2023. “Homeowner Group Files Court Challenge Against Pro-Construction Housing Laws.” *Montana Free Press*. <https://montanafreepress.org/2023/12/15/homeowner-group-files-court-challenge-against-pro-construction-housing-laws/>.
- DiSalvo, R., and J. Yu. 2023. “Housing Affordability and School Quality in the United States.” *Journal of Housing Economics* 60. <https://doi.org/10.1016/j.jhe.2023.101933>.

- DOT (U.S. Department of Transportation). 2023. “Reconnecting Communities and Neighborhoods Grant Program.” <https://www.transportation.gov/grants/rcnprogram>.
- Eriksen, M., and S. Rosenthal. 2010. “Crowd Out Effects of Place-Based Subsidized Rental Housing: New Evidence from the LIHTC Program.” *Journal of Public Economics* 94, nos. 11–12: 953–66. <https://doi.org/10.1016/j.jpubeco.2010.07.002>.
- Fang, L., N. Stewart, and J. Tyndall. 2023. “Homeowner Politics and Housing Supply.” *Journal of Urban Economics* 138. <https://doi.org/10.1016/j.jue.2023.103608>.
- FHFA (Federal Housing Finance Agency). 2022. “Duty to Serve Underserved Markets Plan.” <https://sf.freddiemac.com/docs/pdf/marketing-materials/freddie-mac-underserved-markets-plan.pdf>.
- Fischel, W. 2001. *The Homevoter Hypothesis: How Home Values Influence Local Government Taxation, School Finance, and Land-Use Policies*. Cambridge, MA: Harvard University Press. <https://www.hup.harvard.edu/catalog.php?isbn=9780674015951>.
- . 2004. “An Economic History of Zoning and a Cure for Its Exclusionary Effects.” *Urban Studies* 41. <https://doi.org/10.1080/0042098032000165271>.
- Flint, A. 2022. “The State of Local Zoning: Reforming a Century-Old Approach to Land Use.” Lincoln Institute of Land Policy. <https://www.lincolninstitute.org/publications/articles/2022-12-state-local-zoning-reform>.
- Frank, T. 2021. “End to Single-Family Zoning in Berkeley Forces Us to Reflect on Our Past.” Sierra Club, San Francisco Bay, blog. <https://www.sierraclub.org/san-francisco-bay/blog/2021/06/end-single-family-zoning-berkeley-forces-us-reflect-our-past>.
- Francke, M., and M. Korevaar. 2022. “Baby Booms and Asset Booms: Demographic Change and the Housing Market.” Working paper, SSRN. <https://dx.doi.org/10.2139/ssrn.3368036>.
- Freddie Mac. 2022. “Could More Inclusive Zoning for Manufactured Homes Help Address the Current Housing Supply Gap?” Single-Family Division. <https://sf.freddiemac.com/articles/insights/could-more-inclusive-zoning-for-manufactured-homes-help-address-the-current-housing-supply-gap>.
- . No date. “Manufactured Housing.” Single-Family Division. <https://sf.freddiemac.com/working-with-us/affordable-lending/duty-to-serve/manufactured-housing>.
- Freedman, M., and E. Owens. 2011. “Low-Income Housing Development and Crime.” *Journal of Urban Economics* 70, nos. 2–3: 115–31. <https://doi.org/10.1016/j.jue.2011.04.001>.
- FTA (Federal Transit Administration). 2023. “Areas of Persistent Poverty Program.” <https://www.transit.dot.gov/grant-programs/areas-persistent-poverty-program>.

- Furth, S., and N. Gray. 2019. "Do Minimum-Lot-Size Regulation Limit Housing Supply in Texas?" Mercatus Center at George Mason University. <https://www.mercatus.org/publications/urban-economics/do-minimum-lot-size-regulations-limit-housing-supply-texas>.
- Furth, S., and M. Webster. 2022. "Single-Family Zoning and Race: Evidence from the Twin Cities." Working paper, Mercatus Center at George Mason University. <https://www.mercatus.org/research/working-papers/single-family-zoning-and-race-evidence-twin-cities>.
- Gabbe, C., G. Pierce, and G. Clowers. 2020. "Parking Policy: The Effects of Residential Minimum Parking Requirements in Seattle." *Land Use Policy* 91: 104053. <https://doi.org/10.1016/j.landusepol.2019.104053>.
- Ganong, P., and D. Shoag. 2017. "Why Has Regional Income Convergence in the U.S. Declined?" *Journal of Urban Economics* 102: 76–90. <https://doi.org/10.1016/j.jue.2017.07.002>.
- Garcia, D. 2019. "Making It Pencil: The Math Behind Housing Development." UC Berkeley Turner Center for Housing Innovation. https://turnercenter.berkeley.edu/wp-content/uploads/pdfs/Making_It_Pencil_The_Math_Behind_Housing_Development.pdf.
- Garcia, D., et al. 2022. "Unlocking the Potential of Missing Middle Housing." Turner Center at UC Berkeley. <https://turnercenter.berkeley.edu/wp-content/uploads/2022/12/Missing-Middle-Brief-December-2022.pdf>.
- Gensheimer, S., M. Eisenberg, D. Hindman, A. Wu, and C. Pollack. 2022. "Examining Health Care Access and Health of Children Living in Homes Subsidized by the Low-Income Housing Tax Credit." *Health Affairs* 41, no. 6: 883–92. <https://doi.org/10.1377/hlthaff.2021.01806>.
- Gerardi, K., L. Lambie-Hanson, and P. Willien. 2021. "Racial Differences in Mortgage Refinancing, Distress, and Housing Wealth Accumulation during COVID-19." Federal Reserve Bank of Boston, "Current Policy Perspectives." <https://www.bostonfed.org/publications/current-policy-perspectives/2021/racial-differences-in-mortgage-refinancing-distress-and-housing-wealth-accumulation-during-covid-19.aspx>.
- Glaeser, E., J. Gyourko, and R. Saks. 2005. "Why Have Housing Prices Gone Up?" *American Economic Review* 95, no. 2: 329–33. <https://doi.org/10.1257/000282805774669961>.
- Gong, Y., and Y. Yao. 2022. "Demographic Changes and the Housing Market." *Regional Science and Urban Economics* 95. <https://www.sciencedirect.com/science/article/abs/pii/S0166046221000946>
- Goodman, L., J. Choi, and J. Zhu. 2023. "The 'Real' Homeownership Gap between Today's Young Adults and Past Generations Is Much Larger Than You Think." Urban Institute, *Urban Wire*. <https://www.urban.org/urban-wire/real-homeownership-gap-between-todays-young-adults-and-past-generations-much-larger-you>.

- Goodman, L., and B. Ganesh. 2018. "Challenges to Obtaining Manufactured Home Financing." Urban Institute. https://www.urban.org/sites/default/files/publication/98687/challenges_to_obtaining_manufactured_home_financing_0.pdf.
- Goolsbee, A., and C. Syverson. *The Strange and Awful Path of Productivity in the U.S. Construction Sector*. NBER Working Paper 30845. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w30845>.
- Gould Ellen, I. 2018. "What Do We Know About Housing Choice Vouchers?" NYU Furman Center. https://furmancenter.org/files/fact-sheets/HousingChoiceVouchers_ige.pdf.
- Gould Ellen, I., J. De la Roca, and J. Steil. 2015. "Black and Latino Segregation and Socioeconomic Outcomes." NYU Furman Center Research Brief. <https://furmancenter.org/research/publication/black-and-latino-segregation-and-socioeconomic-outcomes>.
- Grabar, H. 2018. "Minneapolis Confronts Its History of Housing Segregation." *Slate*, December 7. <https://slate.com/business/2018/12/minneapolis-single-family-zoning-housing-racism.html>.
- Graetz, N., C. Gershenson, P. Hepburn, S. Porter, D. Sandler, and M. Desmond. 2023. "A Comprehensive Demographic Profile of the U.S. Evicted Population." 2023. *Proceedings of the National Academy of Sciences* 120, no. 41: e2305860120. <https://www.pnas.org/doi/10.1073/pnas.2305860120>.
- Gray, M. 2022. *Arbitrary Lines: How Zoning Broke the American City and How to Fix It*. Washington: Island Press. <https://www.theatlantic.com/ideas/archive/2022/10/california-accessory-dwelling-units-legalization-yimby/671648/>.
- Greenaway-McGrevy, R. 2023. *Can Zoning Reform Reduce Housing Costs? Evidence from Rents in Auckland*. Economic Policy Centre Working Paper 016. Auckland: University of Auckland Business School. <https://cdn.auckland.ac.nz/assets/business/about/our-research/research-institutes-and-centres/Economic-Policy-Centre--EPC-/WP016.pdf>.
- Greene, S., and J. González-Hermoso. 2019. "How Communities Are Rethinking Zoning to Improve Housing Affordability and Access to Opportunity." Urban Institute, *Urban Wire*. <https://www.urban.org/urban-wire/how-communities-are-rethinking-zoning-improve-housing-affordability-and-access-opportunity>.
- Gries, J. 1922. "A Zoning Primer by the Advisory Committee on Zoning." U.S. Department of Commerce. <https://www.govinfo.gov/content/pkg/GOVPUB-C13-cf208d8ed0dda43ed677acd6cad8be81/pdf/GOVPUB-C13-cf208d8ed0dda43ed677acd6cad8be81.pdf>.
- Gupta, A., C. Martinez, and S. Van Nieuwerburgh. 2023. *Converting Brown Offices to Green Apartments*. NBER Working Paper 31530. Cambridge, MA: National Bureau of Economic Research. <http://www.nber.org/papers/w31530>.
- Gutman, A. 2023. "WA House Passes Bill Banning Single-Family Zoning." *Seattle Times*, March 7. <https://www.seattletimes.com/seattle-news/politics/wa-house-passes-bill-banning-single-family-zoning/>.

- Gyourko, J., J. Hartley, and J. Krimmel. 2019. *The Local Residential Land Use Regulatory Environment Across U.S. Housing Markets: Evidence from a New Wharton Index*. NBER Working Paper 26573. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w26573>.
- Gyourko, J., and S. McCulloch. 2023. *Minimum Lot Size Restrictions: Impacts on Urban Form and House Price at the Border*. NBER Working Paper 31710. Cambridge, MA: National Bureau of Economic Research. <https://www.nber.org/papers/w31710>.
- Gyourko, J., and R. Molloy. 2015. "Regulation and Housing Supply." In *Handbook of Regional and Urban Economics*, ed. G. Duranton, J. Vernon Henderson, and W. Strange. Oxford: Elsevier. <https://www.sciencedirect.com/science/article/abs/pii/B9780444595317000193>.
- Hermann, A., S. Wedeen, W. Airgood-Obrycki, and C. Herbert. 2023. "The Geography of Renter Financial Distress and Housing Insecurity During the Pandemic." Joint Center for Housing Studies of Harvard University. <https://www.jchs.harvard.edu/research-areas/working-papers/geography-renter-financial-distress-and-housing-insecurity-during>.
- Hilber, C., and F. Robert-Nicoud. 2014. "On the Origins of Land Use Regulations: Theory and Evidence from U.S. Metro Areas." *Journal of Urban Economics* 75, no. 1. <https://www.sciencedirect.com/science/article/abs/pii/S0094119012000666>.
- Howells, R. 2022. "The History of Zoning Laws in America." *Politically Speaking*, February 8. <https://medium.com/politically-speaking/the-history-of-zoning-laws-in-america-9babd157bc29>.
- Hoyt, H., and J. Schuetz. 2020. "Flexible Zoning and Streamlined Procedures Can Make Housing More Affordable." <https://www.jchs.harvard.edu/blog/flexible-zoning-and-streamlined-procedures-can-make-housing-more-affordable>.
- Hsieh, C., and E. Moretti. 2019. "Housing Constraints and Spatial Misallocation." *American Economic Journal: Macroeconomics* 11, no. 2: 1–39. <https://doi.org/10.1257/mac.20170388>.
- HUD (U.S. Department of Housing and Urban Development). 2021. "Tenants in LIHTC Units as of December 31, 2021." <https://www.huduser.gov/portal/Datasets/lihtc/2021-LIHTC-Tenant-Tables.pdf>.
- . 2022. "CDBG Activity Expenditure Reports." Community Development Block Grant Programs. https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Ffiles.hudexchange.info%2Fresources%2Fdocuments%2FCDBG_Expend_NatlAll.xlsx&wdOrigin=BROWSELINK.
- . 2023a. "HUD Announces New Proposed 'Affirmatively Furthering Fair Housing' Rule, Taking a Major Step Towards Rooting Out Long-Standing Inequities in Housing and Fostering Inclusive Communities." https://www.hud.gov/press/press_releases_media_advisories/HUD_No_23_013.

- . 2023b. “Pathways to Removing Obstacles to Housing (PRO Housing).” https://www.hud.gov/program_offices/comm_planning/pro_housing.
- . 2023c. “HOME Program Funding, Commitments, and Disbursements.” Office of Community Planning and Development. https://files.hudexchange.info/reports/published/HOME_Prod_Natl_20230831.pdf.
- . 2023d. “Housing Choice Vouchers Fact Sheet.” https://www.hud.gov/topics/housing_choice_voucher_program_section_8.
- . 2023e. “Low-Income Housing Tax Credit (LIHTC): Property-Level Data.” Office of Policy Development and Research. <https://www.huduser.gov/portal/datasets/lihtc/property.html>.
- . 2023f. “The Office of Manufactured Housing Programs.” https://www.hud.gov/program_offices/housing/mhs.
- . 2023g. “HUD Takes Action to Highlight and Research Land Use and Zoning Reforms.” https://www.hud.gov/press/press_releases_media_advisories/hud_no_23_072.
- . 2023h. “Notice CPD-2023-10.” <https://www.hud.gov/sites/dfiles/OCHCO/documents/2023-10cpdn.pdf>.
- . 2023i. “Tenant-Based Rental Assistance.” https://www.hud.gov/sites/dfiles/CFO/documents/2024_CJ_Program_Template_-_TBRA.pdf.
- . 2023j. “FY 2023 Increasing the Supply of Affordable Housing through Off-Site Construction and Pro-Housing Reforms Research Grant Program Pre and Full Application NOFO.” https://www.hud.gov/program_offices/spm/gmomgmt/grantsinfo/fundingopps/fy2023_increasing.
- . 2024a. “HUD 2024 Congressional Justifications.” <https://www.hud.gov/sites/dfiles/CFO/documents/2024-HUD-Congressional-Justifications.pdf>.
- . 2024b. “Mandatory Affordable Housing Programs.” https://www.hud.gov/sites/dfiles/CFO/documents/2024_Mandatory_Affordable_Housing_Programs.pdf.
- Ihlanfeldt, K. 2019. “The Deconcentration of Minority Students Attending Bad Schools: The Role of Housing Affordability within School Attendance Zones Containing Good Schools.” *Journal of Housing Economics* 43: 83–101. <https://www.sciencedirect.com/science/article/abs/pii/S1051137718300718>.
- Internal Revenue Service. 2022. “Section 42, Low-Income Housing Credit Average Income Test Regulations.” 87 *FR* 61489. <https://www.federalregister.gov/documents/2022/10/12/2022-22070/section-42-low-income-housing-credit-average-income-test-regulations>.
- Joint Center for Housing Studies. 2023. “The State of the Nation’s Housing 2023.” https://www.jchs.harvard.edu/sites/default/files/reports/files/Harvard_JCHS_The_State_of_the_Nations_Housing_2023.pdf.
- JPMorgan Chase. 2022. “Cap Rates, Explained.” <https://www.jpmorgan.com/insights/real-estate/commercial-term-lending/cap-rates-explained>.

- Kahlenberg, R. 2023. *Excluded: How Snob Zoning, NIMBYism, and Class Bias Build the Walls We Don't See*. New York: PublicAffairs. <https://www.hachettebookgroup.com/titles/richard-d-kahlenberg/excluded/9781541701465/?lens=publicaffairs>.
- Kaufmann, J. 2023. "Downtown Chicago Is a Downer for Drivers." Axios Chicago. <https://www.axios.com/local/chicago/2023/04/21/chicago-downtown-parking>.
- Khater, S., L. Kiefer, and V. Yanamandra. 2021. "Housing Supply: A Growing Deficit." 2021. Freddie Mac, Research Note. <https://www.freddiemac.com/research/insight/20210507-housing-supply>.
- Khouri, A. 2022. "California Bans Mandated Parking Near Transit to Fight High Housing Prices, Climate Change." *Los Angeles Times*, September 23. <https://www.latimes.com/california/story/2022-09-23/newsom-bill-banning-parking-requirement-transit-housing-climate-change>.
- Kiefer, L., A. Atreya, and V. Yanamandra. 2018. "Why Is Adulting Getting Harder? Young Adults and Household Formation." Freddie Mac, Insight. <https://www.freddiemac.com/research/insight/20180316-adulting>.
- Kimura, D. 2022. "Steady LIHTC Pricing Expected for First Half of 2022." *Affordable Housing Finance*, March 7. https://www.housingfinance.com/finance/steady-lihtc-pricing-expected-for-first-half-of-2022_o.
- La Cava, G. 2016. "Housing Prices, Mortgage Interest Rates and the Rising Share of Capital Income in the United States." BIS Working Paper 572. Bank for International Settlements. <https://ssrn.com/abstract=2814142>.
- Landis, J., and V. Reina. 2021. "Do Restrictive Land Use Regulations Make Housing More Expensive Everywhere?" *Economic Development Quarterly* 35, no. 4: 305–24. <https://doi.org/10.1177/08912424211043500>.
- Layton, D. 2023. "Manufactured Housing Is a Good Source of Unsubsidized Affordable Housing—Except When It's Not: High-Level and Specific Policy Recommendations (Part 3)." NYU Furman Center, *The Stoop*. <https://furmancenter.org/thestoop/entry/manufactured-housing-is-a-good-source-of-unsubsidized-affordable-housing-except-when-its-not-high-level-and-specific-policy-recommendations-part-3>.
- Lee, Y., P. Kemp, and V. Reina. 2022. "Divers of Housing (Un)affordability in the Advanced Economies: A Review and New Evidence." *Housing Studies* 37, no. 10: 1739–52. <https://doi.org/10.1080/02673037.2022.2123623>.
- Leung, J. 2018. "Decarbonizing U.S. Buildings." Center for Climate and Energy Solutions. <https://www.c2es.org/wp-content/uploads/2018/06/innovation-buildings-background-brief-07-18.pdf>.
- Loh, T., C. Coes, and B. Buthe. 2020. "Separate and Unequal: Persistent Residential Segregation Is Sustaining Racial and Economic Injustice in the U.S." Brookings. <https://www.brookings.edu/articles/trend-1-separate-and-unequal-neighborhoods-are-sustaining-racial-and-economic-injustice-in-the-us/>.

- Mangin, J. 2014. "The New Exclusionary Zoning." *Stanford Law & Policy Review* 25. https://law.stanford.edu/wp-content/uploads/2018/03/mangin_25_stan_1_poly_rev_91.pdf.
- Martin, C. 2022. "The Inflation Reduction Act Will Reduce Household Energy Insecurity—but It Could Do More." Metropolitan Policy Program at Brookings. <https://www.brookings.edu/articles/the-inflation-reduction-act-will-reduce-household-energy-insecurity-but-it-could-do-more/>.
- Merchant, C. 2016. "A Zoning Change in Fairfax Will Allow More Density." *Greater Greater Washington*, June 29. <https://ggwash.org/view/41968/a-zoning-change-in-fairfax-will-allow-more-density>.
- Mischke, J., et al. 2023. "Empty Spaces and Hybrid Places: The Pandemic's Lasting Impact on Real Estate." McKinsey Global Institute. <https://www.mckinsey.com/mgi/our-research/empty-spaces-and-hybrid-places/>.
- Moretti, E. 2012. *The New Geography of Jobs*. New York: Liveright / Houghton Mifflin Harcourt. https://books.google.com/books/about/The_New_Geography_of_Jobs.html?id=br0S54w0u_sC.
- Nguyen, M. 2015. "The Intersection of Immigration and Housing Policies: Implications for the U.S. Housing Market and Economy," *Housing Policy Debate* 25: 796–98. <https://doi.org/10.1080/10511482.2015.1043084>.
- Office of Policy Development and Research. 2023. *Policy & Practice*. U.S. Department of Housing and Urban Development. <https://www.huduser.gov/Portal/Policy-and-Practice.html>.
- Ortalo-Magne, F., and A. Prat. 2014. "On the Political Economy of Urban Growth: Homeownership versus Affordability." *American Economic Journal: Microeconomics* 6, no. 1: 410–42. <https://www.jstor.org/stable/43189657>.
- Parking Reform Network. No date. "Mandates Map." <https://parkingreform.org/resources/mandates-map/>.
- Parrott, J., and M. Zandi. 2021. "Overcoming the Nation's Daunting Housing Supply Shortage." Urban Institute. https://www.urban.org/sites/default/files/publication/103940/overcoming-the-nations-daunting-housing-supply-shortage_0.pdf.
- Peri, G. 2012. "The Effect of Immigration on Productivity: Evidence from U.S. States." *Review of Economics and Statistics* 94, no. 1: 348–58. <http://www.jstor.org/stable/41349180>.
- Pilkauskas, N., K. Micheltore, and N. Kovski. 2023. *The 2021 Child Tax Credit, the Living Arrangements and Housing Affordability of Families with Low Incomes*. NBER Working Paper 31339. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w31339>.
- Poon, L. 2017. "Buffalo Becomes First City to Bid Minimum Parking Goodbye." Bloomberg. <https://www.bloomberg.com/news/articles/2017-01-09/buffalo-is-the-first-to-abandon-minimum-parking-requirements-citywide>.

- RCN Capital. No date. "Multifamily and Commercial Real Estate Loan Ratios." <https://rncapital.com/blog/multifamily-and-commercial-real-estate-loan-ratios>.
- Reid, C., D. Bocian, W. Li, and R. Quercia. 2016. "Revisiting the Subprime Crisis: The Dual Mortgage Market and Mortgage Defaults by Race and Ethnicity." *Journal of Urban Affairs*. <https://www.tandfonline.com/doi/full/10.1080/07352166.2016.1255529?scroll=top&needAccess=true>.
- Reina, V., and C. Aiken. 2022. "Moving to Opportunity, or Aging in Place? The Changing Profile of Low-Income and Subsidized Households and Where They Live." *Urban Affairs Review* 58, no. 2: 454–92. <https://doi.org/10.1177/1078087420969895>.
- Resseger, M. 2022. "The Impact of Land Use Regulation on Racial Segregation: Evidence from Massachusetts Zoning Borders." Working paper, Mercatus Center at George Mason University. <https://www.mercatus.org/research/working-papers/impact-land-use-regulation-racial-segregation-evidence-massachusetts-zoning>.
- Rigsby, E. 2016. "Understanding Exclusionary Zoning and Its Impact on Concentrated Poverty." Century Foundation. <https://tcf.org/content/facts/understanding-exclusionary-zoning-impact-concentrated-poverty/?agreed=1>.
- Rothstein, R. 2014. "The Making of Ferguson: Public Policies at the Root of its Troubles." Economic Policy Institute. <https://files.epi.org/2014/making-of-ferguson-final.pdf>.
- . 2017. *The Color of Law: A Forgotten History of How Our Government Segregated America*. New York: Liveright. <https://www.epi.org/publication/the-color-of-law-a-forgotten-history-of-how-our-government-segregated-america/>.
- Rothwell, J. 2012. "Housing Costs, Zoning, and Access to High Scoring School." Metropolitan Policy Program at Brookings. <https://www.brookings.edu/articles/housing-costs-zoning-and-access-to-high-scoring-schools/>.
- Ruggles, S., S. Flood, S. Sobek, D. Backman, A. Chen, G. Cooper, S. Richards, R. Rogers, and M. Schouweiler. 2023. IPUMS USA: Version 14.0. Data set, Minneapolis. <https://doi.org/10.18128/D010.V14.0>.
- Shanahan, M., A. Austin, C. Durrance, S. Martin, J. Mercer, D. Runyan, and C. Runyan. 2022. "The Association of Low-Income Housing Tax Credit Units and Reports of Child Abuse and Neglect." *American Journal of Preventive Medicine* 62, no. 5: 727–34. <https://doi.org/10.1016/j.amepre.2021.11.020>.
- Shoup, D. 2014. "The High Cost of Minimum Parking Requirements." *Parking Issues and Policies* 5: 87–113. <https://www.emerald.com/insight/content/doi/10.1108/S2044-99412014000005011/full/html>.
- Skelton, G. 2021. "Don't Be Fooled: California's New Housing Laws Make Significant Changes to Zoning." *Los Angeles Times*. <https://www.latimes.com/california/story/2021-09-22/skelton-sb9-housing-single-family-zoning>.

- SMPDC (Southern Maine Planning and Development Commission). 2023. “Housing Legislation LD 2003.” <https://smpdc.org/ld2003>.
- Song, J. 2021. “The Effects of Residential Zoning in U.S. Housing Markets.” SSRN. <https://dx.doi.org/10.2139/ssrn.3996483>.
- Sorens, J. 2023. “Abolish Parking Minimums. Yes, All of Them.” American Institute for Economic Research, *Daily Economy*. <http://www.aier.org/article/abolish-parking-minimums-yes-all-of-them/>.
- Sorokin, O. 2023. “Office Vacancy Rates in 2022.” National Association of Realtors, *Economists’ Outlook*. <https://www.nar.realtor/blogs/economists-outlook/office-vacancy-rates-in-2022>.
- Stacy, C., C. Davis, Y. Freemark, L. Lo, G. MacDonald, V. Zheng, and R. Pendall. 2023. “Land-Use Reforms and Housing Costs: Does Allowing for Increased Density Lead to Greater Affordability?” Urban Institute. <https://www.urban.org/research/publication/land-use-reforms-and-housing-costs>.
- State of Montana Governor’s Office. 2023. “Governor Gianforte Announces Bold, Transformational Pro-Housing Zoning Reform.” https://news.mt.gov/Governors-Office/Governor_Gianforte_Announces_Bold_Transformational_Pro-Housing_Zoning_Reform.
- Supreme Court of the United States. 1926. *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365. <https://supreme.justia.com/cases/federal/us/272/365/>.
- Tax Policy Center. No date. “Briefing Book.” <https://www.taxpolicycenter.org/briefing-book/what-low-income-housing-tax-credit-and-how-does-it-work>.
- Taylor, L. 2018. “Housing and Health: An Overview of the Literature.” *Health Affairs*. <https://www.healthaffairs.org/doi/10.1377/hpb20180313.396577/>.
- Tiebout, C. 1956. “A Pure Theory of Local Expenditures.” *Journal of Political Economy* 64. <https://www.journals.uchicago.edu/doi/10.1086/257839>.
- Twinam, T. 2018. “The Long-Run Impact of Zoning: Institutional Hysteresis and Durable Capital in Seattle, 1920–2015.” *Regional Science and Urban Economics* 73: 155–69. <https://doi.org/10.1016/j.regsciurbeco.2018.08.004>.
- Urban Institute. 2016. “The Cost of Affordable Housing: Does It Pencil Out?” <https://apps.urban.org/features/cost-of-affordable-housing/>.
- U.S. Census Bureau. 2023. “Homeownership Rate in the United States [RHORUSQ156N].” FRED, Federal Reserve Bank of Saint Louis. <https://fred.stlouisfed.org/series/RHORUSQ156N>.
- USDA (U.S. Department of Agriculture). 2024. “2024 USDA Explanatory Notes, Rural Housing Service.” <https://www.usda.gov/sites/default/files/documents/32-2024-RHS.pdf>.
- U.S. Department of the Interior. 2020. “Annual Report on the Economic Impact of the Federal Historic Tax Credits for Fiscal Year 2020.” National Park Service,

- Technical Preservation Services. <https://www.nps.gov/subjects/taxincentives/upload/report-2020-economic-impact.pdf>.
- . 2021. “Annual Report on the Economic Impact of the Federal Historic Tax Credits for Fiscal Year 2021.” National Park Service, Technical Preservation Services. <https://www.nps.gov/subjects/taxincentives/upload/report-2021-economic-impact.pdf>.
- . 2022. “Federal Tax Incentives for Rehabilitating Historic Buildings: Annual Report for Fiscal Year 2022.” National Park Service, Technical Preservation Services. <https://www.nps.gov/subjects/taxincentives/upload/report-2022-annual.pdf>.
- U.S. Department of the Treasury. 2023a. “General Explanations of the Administration’s Fiscal Year 2024 Revenue Proposals.” <https://home.treasury.gov/system/files/131/General-Explanations-FY2024.pdf>.
- . 2023b. “Tax Expenditures FY2024 Update.” <https://home.treasury.gov/system/files/131/Tax-Expenditures-FY2024-update.pdf>.
- Voith, R., J. Liu, S. Zielenbach, A. Jakabovics, B. An, S. Rodnyansky, A. Orlando, and R. Bostic. 2022. “Effects of Concentrated LIHTC Development on Surrounding House Prices.” *Journal of Housing Economics* 56: 101838. <https://doi.org/10.1016/j.jhe.2022.101838>.
- Wamsley, L. 2024. “From Austin to Anchorage, U.S. Cities Opt to Ditch Their Off-Street Parking Minimums.” NPR. <https://www.npr.org/2024/01/02/1221366173/u-s-cities-drop-parking-space-minimums-development>.
- WGI. 2021. “Parking Structure Cost Outlook for 2021.” <https://publications.wginc.com/parking-structure-construction-cost-outlook-2021>.
- White House. 2022. “President Biden Announces New Actions to Ease the Burden of Housing Costs.” <https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/16/president-biden-announces-new-actions-to-ease-the-burden-of-housing-costs/>.
- . 2023a. “Biden-Harris Administration Announces Actions to Lower Housing Costs and Boost Supply.” <https://www.whitehouse.gov/briefing-room/statements-releases/2023/07/27/biden-harris-administration-announces-actions-to-lower-housing-costs-and-boost-supply/>.
- . 2023b. “Fact Sheet: Biden-Harris Administration Takes Action to Create More Affordable Housing by Converting Commercial Properties to Residential Use.” <https://www.whitehouse.gov/briefing-room/statements-releases/2023/10/27/fact-sheet-biden-harris-administration-takes-action-to-create-more-affordable-housing-by-converting-commercial-properties-to-residential-use/>.
- . 2023c. “Fact Sheet: President Biden’s Budget Lowers Housing Costs and Expands Access to Affordable Rent and Home Ownership.” <https://www.whitehouse.gov/omb/briefing-room/2023/03/09/>

fact-sheet-president-bidens-budget-lowers-housing-costs-and-expands-access-to-affordable-rent-and-home-ownership/.

———. 2023d. “White House Announces New Actions on Homeownership.” <https://www.whitehouse.gov/briefing-room/statements-releases/2023/10/16/white-house-announces-new-actions-on-homeownership/>.

Wolff, E. 2022. *Heterogenous Rates of Return on Homes and Other Real Estate: Do the Rich Do Better? Do Black Households Do Worse?* NBER Working Paper 30543. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w30543>.

Chapter 5

Abbott, T., R. McGuckin, P. Herrick, and L. Norfolk. 1989. “Measuring the Trade Balance in Advanced Technology Products.” Working paper, Center for Economic Studies. <https://www2.census.gov/ces/wp/1989/CES-WP-89-01.pdf>.

Aiyar, S., J. Chen, C. Ebeke, R. Garcia-Saltos, T. Gudmundsson, A. Ilyina, A. Kangur, T. Kunaratskul, S. Rodriguez, M. Ruta, T. Schulze, G. Soderberg, and J. Trevino. 2023. “Gеоeconomic Fragmentation and the Future of Multilateralism.” <https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2023/01/11/Geo-Economic-Fragmentation-and-the-Future-of-Multilateralism-527266>.

Aiyar, S., and A. Ilyina. 2023. “Charting Globalization’s Turn to Slowbalization After Financial Crisis.” <https://www.imf.org/en/Blogs/Articles/2023/02/08/charting-globalizations-turn-to-slowbalization-after-global-financial-crisis>.

Alfaro, L., and D. Chor. 2023. *Global Supply Chains: The Looming “Great Reallocation.”* NBER Working Paper 31661. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w31661>.

Amiti, M., M. Dai, R. Feenstra, and J. Romalis. 2020. “How Did China’s WTO Entry Affect U.S. Prices?” *Journal of International Economics* 126. <https://doi.org/10.1016/j.jinteco.2020.103339>.

Antràs, P., T. Fort, and F. Tintelnot. 2017. “The Margins of Global Sourcing: Theory and Evidence from U.S. Firms.” *American Economic Review* 107, no. 9: 2514–64. <https://doi.org/10.1257/aer.20141685>.

Autor, D., D. Dorn, and G. Hanson. 2013. “The China Syndrome: Local Labor Market Effects of Import Competition in the United States.” *American Economic Review* 103, no. 6: 2121–68. <http://dx.doi.org/10.1257/aer.103.6.2121>.

———. 2021. *On the Persistence of the China Shock*. NBER Working Paper 29401. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w29401>.

Baccini, L., I. Osgood, and S. Weymouth. 2019. “The Service Economy: U.S. Trade Coalitions in an Era of Deindustrialization.” *Review of International Organizations* 14: 261–96. <https://doi.org/10.1007/s11558-019-09349-x>.

- Bai, L., and S. Stumpner. 2019. “Estimating U.S. Consumer Gains from Chinese Imports.” *American Economic Review: Insights* 1, no. 2: 209–24. <https://doi.org/10.1257/aeri.20180358>.
- Baker, D. 2014. “The Trade Deficit: The Biggest Obstacle to Full Employment.” Center on Budget and Policy Priorities. <https://www.cbpp.org/sites/default/files/atoms/files/4-2-14fe-baker.pdf>.
- Baldwin, R. 2016. *The Great Convergence: Information Technology and the New Globalization*. Cambridge, MA: Harvard University Press. <https://doi.org/10.2307/j.ctv24w655w>.
- . 2022. “The Peak Globalization Myth, Part 4: Services Trade Did Not Peak.” CEPR-VoxEU. <https://cepr.org/voxeu/columns/peak-globalisation-myth-part-4-services-trade-did-not-peak>.
- Baldwin, R., and R. Freeman. 2022. “Risks and Global Supply Chains: What We Know and What We Need to Know.” *Annual Review of Economics* 14: 153–80. <https://doi.org/10.1146/annurev-economics-051420-113737>.
- Baldwin, R., R. Freeman, and A. Theodorakopoulos. 2023. “Hidden Exposure: Measuring U.S. Supply Chain Reliance.” *Brookings Papers on Economic Activity*, Fall. https://www.brookings.edu/wp-content/uploads/2023/09/2_Baldwin-et-al_unembargoed.pdf.
- Baldwin, R., and J. López-González. 2014. “Supply-Chain Trade: A Portrait of Global Patterns and Several Testable Hypotheses.” *World Economy* 38, no. 11: 1682–721. <https://doi.org/10.1111/twec.12189>.
- BEA (U.S. Bureau of Economic Analysis). 2018. “A Guide to BEA’s Services Surveys.” <https://www.bea.gov/system/files/2018-04/surveysu.pdf>.
- . 2023a. “U.S. International Economic Accounts: Concepts and Methods.” <https://www.bea.gov/system/files/2023-06/iea-concepts-methods-2023.pdf>.
- . 2023b. “Table 6.1. U.S. International Financial Transactions for Direct Investment.” <https://www.bea.gov/data/intl-trade-investment/international-transactions>.
- . 2023c. “Table 6.2: U.S. International Financial Transactions for Direct Investment by Country and Industry.” <https://www.bea.gov/data/intl-trade-investment/international-transactions>.
- . 2023d. “New Foreign Direct Investment in the United States, 2022.” News release. <https://www.bea.gov/news/2023/new-foreign-direct-investment-united-states-2022>.
- Bermel, L., J. Chen, B. Deese, M. Delgado, L. English, Y. Garcia, T. Houser, A. Khan, J. Larsen, N. Stewart, and H. Tavarez. 2023. “The Clean Investment Monitor: Tracking Decarbonization Technology in the United States.” Rhodium Group. https://assets-global.website-files.com/64e31ae6c5fd44b10ff405a7/6500f1718b8bc3b49a69d333_The%20Clean%20Investment%20Monitor_Tracking%20Decarbonization%20in%20the%20US.pdf.

- Bernanke, B. 2005. “Remarks by Governor Ben S. Bernanke at the Sandridge Lecture, Virginia Association of Economists, Richmond, Virginia, on the Global Saving Glut and the U.S. Current Account Deficit.” <https://www.federalreserve.gov/boarddocs/speeches/2005/200503102/>.
- Bernstein, J. 2023. “Remarks by Chair Jared Bernstein at the Economic Policy Institute.” Transcript of speech at Economic Policy Institute, Washington, September 28. <https://www.whitehouse.gov/cea/written-materials/2023/09/28/remarks-by-chair-jared-bernstein-at-the-economic-policy-institute-washington-d-c/>.
- Bertaut, C., B. von Beschwitz, and S. Curcuru. 2023. “‘The International Role of the U.S. Dollar,’ Post-COVID Edition.” <https://www.federalreserve.gov/econres/notes/feds-notes/the-international-role-of-the-us-dollar-post-covid-edition-20230623.html>.
- BIS (Bank for International Settlements). 2017. “BIS 87th Annual Report.” https://www.bis.org/publ/arpdf/ar2017e_ec.pdf.
- Blomström, M., A. Kokko, and J. Mucchielli. 2003. “The Economics of Foreign Direct Investment Incentives.” In *Foreign Direct Investment on the Real and Financial Sector of Industrial Counties*, 37–60. https://doi.org/10.1007/978-3-540-24736-4_3.
- Bloom, N., K. Handley, A. Kurmann, and P. Luck. 2019. “The Impact of Chinese Trade on U.S. Employment: The Good, The Bad, and The Debatable.” Meeting Papers 1433. Society for Economic Dynamics. https://red-files-public.s3.amazonaws.com/meetpapers/2019/paper_1433.pdf.
- Bloomberg. 2023. “China Is Having a Hard Time Wooing Foreign Investors Back.” November 7. <https://www.bloomberg.com/news/articles/2023-11-08/china-is-having-a-hard-time-wooing-foreign-investors-back>.
- BLS (U.S. Bureau of Labor Statistics). 2023a. “All Employees, Manufacturing [MANEMP].” <https://fred.stlouisfed.org/series/MANEMP>.
- . 2023b. “All Employees, Total Nonfarm [PAYEMS].” <https://fred.stlouisfed.org/series/PAYEMS>.
- Bonadio, B., Z. Huo, A. Levchenko, and N. Pandalai-Nayar. 2020. *Global Supply Chains in the Pandemic*. NBER Working Paper 27224. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w27224>.
- Boushey, H. 2023. “The Economics of Public Investment Crowding in Private Investment.” White House Briefing Room Blog. <https://www.whitehouse.gov/briefing-room/blog/2023/08/16/the-economics-of-public-investment-crowding-in-private-investment/>.
- Brainard, L. 2001. “Trade Policy in the 1990s.” Brookings Institution. <https://www.brookings.edu/articles/trade-policy-in-the-1990s/>.
- Branstetter, L. 2006. “Is Foreign Direct Investment a Channel of Knowledge Spillovers? Evidence from Japan’s FDI in the United States.” *Journal of International Economics* 68, no. 2: 325–44. <https://doi.org/10.1016/j.jinteco.2005.06.006>.

- Broda, C., and D. Weinstein. 2006. "Globalization and the Gains from Variety." *Quarterly Journal of Economics* 121, no. 2: 541–85. <https://doi.org/10.1162/qjec.2006.121.2.541>.
- Caballero, R., E. Farhi, and P. Gourinchas. 2017. "The Safe Assets Shortage Conundrum." *Journal of Economic Perspectives* 31, no 3: 29–46. <https://doi.org/10.1257/jep.31.3.29>.
- Caliendo, L., M. Dvorkin, and F. Parro. 2019. "Trade and Labor Market Dynamics: General Equilibrium Analysis of the China Trade Shock." *Econometrica* 87, no. 3: 741–835. <https://doi.org/10.3982/ECTA13758>.
- CEA (Council of Economic Advisers). 2015a. "The Economic Benefits of U.S. Trade." https://obamawhitehouse.archives.gov/sites/default/files/docs/cea_trade_report_final_non-embargoed_v2.pdf.
- . 2015b. *Economic Report of the President*. Washington: U.S. Government Publishing Office. <https://www.whitehouse.gov/wp-content/uploads/2021/07/2015-ERP.pdf>.
- . 2022. *Economic Report of the President*. Washington: U.S. Government Publishing Office. <https://www.whitehouse.gov/wp-content/uploads/2022/04/ERP-2022.pdf>.
- . 2023a. *Economic Report of the President*. Washington: U.S. Government Publishing Office. <https://www.whitehouse.gov/wp-content/uploads/2023/03/erp-2023.pdf>.
- . 2023b. "Issue Brief: Supply Chain Resilience." <https://www.whitehouse.gov/cea/written-materials/2023/11/30/issue-brief-supply-chain-resilience/>.
- Cheng, S. 2023. "China Lifts Ban on Group Tours to U.S. and Other Countries, in Boost to Global Travel Industry." *Wall Street Journal*, August 10. <https://www.wsj.com/articles/china-lifts-ban-on-group-tours-to-u-s-and-other-countries-in-boost-to-global-travel-industry-1b467c78>.
- Clean Investment Monitor. 2024. Rhodium Group & MIT's Center for Energy and Environmental Policy Research. <https://www.cleaninvestmentmonitor.org/>.
- Constantinescu, C., A. Mattoo, and M. Ruta. 2018. "The Global Trade Slowdown: Cyclical or Structural?" *World Bank Economic Review* 34, no. 1: 121–42. <https://doi.org/10.1093/wber/lhx027>.
- Dahlman, A., and M. Lovely. 2023. "U.S.-Led Effort to Diversify Indo-Pacific Supply Chains Away from China Runs Counter to Trends." Peterson Institute for International Economics, Realtime Economics. <https://www.piie.com/blogs/realtime-economics/us-led-effort-diversify-indo-pacific-supply-chains-away-china-runs-counter>.
- De Chaisemartin, C., and Z. Lei. 2023. "More Robust Estimators for Instrumental-Variable Panel Designs, with an Application to the Effect of Imports from China on U.S. Employment." Working paper, Social Science Research Network. <https://dx.doi.org/10.2139/ssrn.3802200>.

- Devadas, S., and N. Loayza. 2018. “When Is a Current Account Deficit Bad?” Research and Policy Briefs, World Bank. <https://openknowledge.worldbank.org/server/api/core/bitstreams/8edf9fe5-f97b-55d9-aa21-2a52c8d513bc/content>.
- Economist*. 2021. “Globalisation Has Faltered.” January 29. <https://www.economist.com/briefing/2019/01/24/globalisation-has-faltered>.
- Fajgelbaum, P., and A. Khandelwal. 2016. “Measuring the Unequal Gains from Trade.” *Quarterly Journal of Economics* 131: no. 3: 1113–80. <https://doi.org/10.1093/qje/qjw013>.
- Feenstra, R., and G. Hanson. 1997. “Foreign Direct Investment and Relative Wages: Evidence from Mexico’s Maquiladoras.” *Journal of International Economics* 42, nos. 3–4: 371–93. [https://doi.org/10.1016/S0022-1996\(96\)01475-4](https://doi.org/10.1016/S0022-1996(96)01475-4).
- Fernandes, A., H. Kee, and D. Winkler. 2020. “Determinants of Global Value Chain Participation: Cross-Country Evidence.” *World Bank Economic Review* 36, no. 2: 329–60. <https://doi.org/10.1093/wber/lhab017>.
- Foley, C., J. Hines, and D. Wessel. 2021. “Multinational Activity in the Modern World.” In *Global Goliaths: Multinational Corporations in the 21st Century Economy*, ed. C. Foley, J. Hines, and D. Wessel, 1–32. Washington: Brookings Institution Press. https://repository.law.umich.edu/cgi/viewcontent.cgi?article=1427&context=book_chapters.
- Fort, T. 2017. “Technology and Production Fragmentation: Domestic versus Foreign Sourcing.” *Review of Economic Studies* 84, no. 2: 650–87. <https://doi.org/10.1093/restud/rdw057>.
- . 2023. “The Changing Firm and Country Boundaries of U.S. Manufacturers in Global Value Chains.” *American Economic Association* 37, no. 3: 31–58. <https://doi.org/10.1257/jep.37.3.31>.
- Fort, T., J. Pierce, and P. Schott. 2018. “New Perspectives on the Decline of U.S. Manufacturing Employment.” *Journal of Economic Perspectives* 32, no. 2: 47–72. <https://www.aeaweb.org/articles?id=10.1257/jep.32.2.47>.
- Freund, C., A. Mattoo, A. Mulabdic, and M. Ruta. 2023. “Natural Disasters and the Reshaping of Global Value Chains.” *IMF Economic Review* 70, no. 3: 590–623. <https://doi.org/10.1057/s41308-022-00164-w>.
- Galle, S., A. Rodríguez-Clare, and M. Yi. 2023. “Slicing the Pie: Quantifying the Aggregate and Distributional Effects of Trade.” *Review of Economic Studies* 90, no. 1: 331–75. <https://doi.org/10.1093/restud/rdac020>.
- Galle, S., and L. Lorentzen. 2021. “The Unequal Effects of Trade and Automation across Local Labor Markets.” SSRN. <https://dx.doi.org/10.2139/ssrn.3800962>.
- Ganapati, S., and W. Wong. 2023. *How Far Goods Travel: Global Transport and Supply Chains from 1965–2020*. NBER Working Paper 31167. Cambridge, MA: National Bureau for Economic Research. <https://www.nber.org/papers/w31167>.

- Georgiadis, P., M. O'Dwyer, I. Smith, S. Morris. 2023. "Business Travel Recovery Stalls as Companies Seek to Cut Costs and Emissions." *Financial Times*. <https://www.ft.com/content/ea564d48-6dfd-4c7f-b28b-c2028bbc2fe8>.
- Ghosh, A., and U. Ramakrishnan. 2024. "Current Account Deficits." International Monetary Fund, Back to Basics. <https://www.imf.org/en/Publications/fandd/issues/Series/Back-to-Basics/Current-Account-Deficits>.
- Goldberg, P., and T. Reed. 2023. *Is the Global Economy Deglobalizing? And If So, Why? And What Is Next?* NBER Working Paper 31115. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w31115>.
- Grossman, G., and E. Rossi-Hansberg. 2008. "Trading Tasks: A Simple Theory of Offshoring." *American Economic Review* 98, no. 5: 1978–97. <https://doi.org/10.1257/aer.98.5.1978>.
- Hale, G., B. Hobijn, F. Nechio, and D. Wilson. 2019. "How Much Do We Spend on Imports?" Federal Reserve Bank of San Francisco, Economic Letters. <https://www.frbssf.org/economic-research/publications/economic-letter/2019/january/how-much-do-we-spend-on-imports/>.
- Hale, G., and M. Xu. 2016. *FDI Effects on the Labor Markets of Host Countries*. Federal Reserve Bank of San Francisco, Working Paper 2016-25. <https://doi.org/10.24148/wp2016-25>.
- Hancock, T. 2023. "U.S. Trade Data Overstates Decoupling from China, Report Says." Bloomberg, October 12. <https://www.bloomberg.com/news/articles/2023-10-12/us-trade-data-overstates-decoupling-from-china-gavekal-says>.
- Handley, K., F. Kamal, and W. Ouyang. 2021. "A Long View of Employment Growth and Firm Dynamics in the United States: Importers vs. Exporters vs. Non-Traders." Working Paper, Center for Economic Studies. <https://www2.census.gov/ces/wp/2021/CES-WP-21-38.pdf>.
- Higgins, M., and T. Klitgaard. 2021. "How Much Have Consumers Spent on Imports During the Pandemic?" Federal Reserve Bank of New York, Liberty Street Economics. <https://libertystreeteconomics.newyorkfed.org/2021/10/how-much-have-consumers-spent-on-imports-during-the-pandemic/>.
- Hummels, D., J. Ishii, and K. Yi. 2001. "The Nature and Growth of Vertical Specialization in World Trade." *Journal of International Economics* 54, no. 1: 75–96. [https://doi.org/10.1016/s0022-1996\(00\)00093-3](https://doi.org/10.1016/s0022-1996(00)00093-3).
- Iakovou, E., and C. White. 2020. "How to Build More Secure, Resilient, Next-Gen U.S. Supply Chains." Brookings Institution. <https://www.brookings.edu/articles/how-to-build-more-secure-resilient-next-gen-u-s-supply-chains/>.
- IMF (International Monetary Fund). 2019. "The Drivers of Bilateral Trade and the Spillovers from Tariffs." In *World Economic Outlook*, April. <https://www.elibrary.imf.org/display/book/9781484397480/ch004.xml>.
- . 2022. "Global Trade and Value Chains during the Pandemic." In *World Economic Outlook*, April. <https://www.elibrary.imf.org/display/book/9781616359423/CH004.xml>.

- . 2023. “Global Financial Stability Report.” <https://www.imf.org/en/Publications/GFSR/Issues/2023/10/10/global-financial-stability-report-october-2023?cid=pr-com-AM2023-GF-SREA2023002>.
- International Energy Agency. 2022. “Global Supply Chains of EV Batteries.” <https://iea.blob.core.windows.net/assets/4eb8c252-76b1-4710-8f5e-867e751c8dda/Global-SupplyChainsOfEVBatteries.pdf>.
- Jakubik, A., and V. Stolzenburg. 2020. “The ‘China Shock’ Revisited: Insights from Value Added Trade Flows.” *Journal of Economic Geography* 21, no. 1: 67–95. <https://doi.org/10.1093/jeg/lbaa029>.
- Jaravel, X., and E. Sager. 2019. *What Are the Price Effects of Trade? Evidence from the U.S. and Implications for Quantitative Trade Models*. CEP Discussion Paper 1642. London: Centre for Economic Performance. <https://cep.lse.ac.uk/pubs/download/dp1642.pdf>.
- Jørgensen, P. 2023. “The Global Savings Glut and the Housing Boom.” *Journal of Economic Dynamics and Control* 146. <https://doi.org/10.1016/j.jedc.2022.104563>.
- Kamal, F., J. McCloskey, W. Ouyang. 2022. “Multinational Firms in the U.S. Economy: Insights from Newly Integrated Microdata.” Working Paper, U.S. Census Bureau. <https://www2.census.gov/ces/wp/2022/CES-WP-22-39.pdf>.
- Keller, W., and S. Yeaple. 2009. “Multinational Enterprises, International Trade, and Productivity Growth: Firm Level Evidence from the United States.” *Review of Economics and Statistics* 91, no. 4: 821–31. <https://doi.org/10.1162/rest.91.4.821>.
- Klein, M., and M. Pettis. 2020. *Trade Wars Are Class Wars: How Rising Inequality Distorts the Global Economy and Threatens International Peace*. New Haven, CT: Yale University Press. <https://www.jstor.org/stable/j.ctv10sm96m>.
- Knight, M., and F. Scacciavillani. 1998. “Current Accounts: What Is Their Relevance for Economic Policymaking?” Working Paper, International Monetary Fund. <https://www.imf.org/external/pubs/ft/wp/wp9871.pdf>.
- Lincicome, S., and A. Anand. 2023. “The ‘China Shock’ Demystified: Its Origins, Effects, and Lessons for Today.” CATO Institute, Defending Globalization: Economics. <https://www.cato.org/publications/china-shock>.
- Lipsey, R. 2000. “Foreign Direct Investment and the Operations of Multinational Firms.” National Bureau of Economic Research, Reporter. <https://www.nber.org/reporter/winter-2000/1/foreign-direct-investment-and-operations-multinational-firms>.
- Loungani, P., and A. Razin. 2001. “How Beneficial Is Foreign Direct Investment for Developing Countries?” *Finance and Development* 38, no. 2. <https://www.imf.org/external/pubs/ft/fandd/2001/06/loungani.htm>.

- McBride, J., and A. Chatzky. 2019. “The U.S. Trade Deficit: How Much Does It Matter?” Council on Foreign Relations. <https://www.cfr.org/backgrounder/us-trade-deficit-how-much-does-it-matter>.
- Mehdi, A., and T. Moorenhout. 2023. “The IRA and the U.S. Battery Supply Chain: One Year On.” Center on Global Energy Policy at Columbia University School of International and Public Affairs. <https://www.energypolicy.columbia.edu/publications/the-ira-and-the-us-battery-supply-chain-one-year-on/>.
- Melitz, M., and D. Trefler. 2012. “Gains from Trade When Firms Matter.” *Journal of Economic Perspectives* 26, no. 2: 91–118. <http://dx.doi.org/10.1257/jep.26.2.91>.
- Miroudot, S. 2022. “Resilience in Services Value Chains.” Council on Economic Policies Blog. <https://www.cepweb.org/resilience-in-services-value-chains/>.
- Nathan, A., G. Galbraith, and J. Grimberg. 2022. “(De)Globalization Ahead?” Goldman Sachs Global Macro Research Newsletter. <https://www.goldmansachs.com/intelligence/pages/top-of-mind/de-globalization-ahead/report.pdf>.
- Obstfeld, M., and K. Rogoff. 1996. *Foundations of International Macroeconomics*. Cambridge, MA: MIT Press. <https://mitpress.mit.edu/9780262150477/foundations-of-international-macroeconomics/>.
- OECD (Organization for Economic Cooperation and Development). 2018. “Multinational Enterprises and Global Value Chains.” https://www.oecd-ilibrary.org/industry-and-services/multinational-enterprises-and-global-value-chains_194ddb63-en.jsessionid=YO7EGol9Lb2iPwdaAYF_-ZXVzkslnGe1ksbgX1AF.ip-10-240-5-163.
- . 2021. “Guide to OECD’s Trade in Value Added Indicators.” <https://www.oecd-ilibrary.org/docserver/58aa22b1-en.pdf?expires=1707515380&id=id&accname=ocid49017102b&checksum=FA3625888B88ACB19AB5EBDB5E292537>.
- . 2022. “International Trade During the COVID-19 Pandemic: Big Shifts and Uncertainty.” <https://www.oecd.org/coronavirus/policy-responses/international-trade-during-the-covid-19-pandemic-big-shifts-and-uncertainty-d1131663/>.
- . 2023a. “Foreign Direct Investment Statistics: Data, Analysis and Forecasts.” <https://www.oecd.org/investment/statistics.htm>.
- . 2023b. “FDI in Figures.” <https://www.oecd.org/daf/inv/FDI-in-Figures-October-2023.pdf>.
- . 2023c. “Trade in Value Added.” <https://www.oecd.org/sti/ind/measuring-trade-in-value-added.htm>.
- . 2024. “Foreign Direct Investment (FDI).” https://www.oecd-ilibrary.org/finance-and-investment/foreign-direct-investment-fdi/indicator-group/english_9a523b18-en.
- Parilla, J., and M. Muro. 2017. “U.S. Metros Most Exposed to a Trump Trade Shock.” Brookings Institution. <https://www.brookings.edu/articles/u-s-metros-most-dependent-on-trade/>.

- Peterson, K. 2011. “Boeing Says Learned from Outsourcing Issues with 787.” Reuters, January 20. <https://www.reuters.com/article/boeing-idUSN1916381720110120/>.
- Pettis, M. 2017. “Why a Savings Glut Does Not Increase Savings.” Carnegie Endowment for International Peace. <https://carnegieendowment.org/chinafinancialmarkets/69838>.
- Pierce, J., P. Schott, and C. Tello-Trillo. 2023. *Trade Liberalization and Labor-Market Gains: Evidence from U.S. Matched Employer-Employee Data*. Working Paper CES-22-42. Suitland, MD: Center for Economic Studies. https://sompks4.github.io/public/newlehd_114.pdf.
- Qiang, C., Y. Liu, and V. Steenbergen. 2021. “Multinational Corporations Shape Global Value Chain Development.” In *An Investment Perspective on Global Value Chains*, ed. C. Qiang, Y. Liu, and V. Steenbergen, 62–107. Washington: World Bank. https://elibrary.worldbank.org/doi/abs/10.1596/978-1-4648-1683-3_ch2.
- Qiu, H., H. Shin, and L. Zhang. 2023. “Mapping the Realignment of Global Value Chains.” Working Paper, Bank for International Settlements. <https://www.bis.org/publ/bisbull78.pdf>.
- Ramondo, N., V. Rappoport, and K. Ruhl. 2016. “Intrafirm Trade and Vertical Fragmentation in U.S. Multinational Corporations.” *Journal of International Economics* 98: 51–59. <https://doi.org/10.1016/j.jinteco.2015.08.002>.
- Ricardo, D. 1817. *On the Principles of Political Economy, and Taxation*. Cambridge: Cambridge University Press. <https://www.cambridge.org/core/books/on-the-principles-of-political-economy-and-taxation/5C17BF2152379956950601EFE05AE14F>.
- Rodrik, D. 2011. *The Globalization Paradox: Democracy and the Future of the World Economy*. New York: W. W. Norton. <https://drodrik.scholar.harvard.edu/publications/globalization-paradox-democracy-and-future-world-economy>.
- Romei, V. 2023. “Global Trade Falls at Fastest Pace Since Pandemic.” *Financial Times*. <https://www.ft.com/content/36982601-b799-4166-9e6b-39533efbdfdf?emailId=7ca6f95a-051d-4797-bfd5-6a835f9a1c1d&segmentId=2785c52b-1c00-edaa-29be-7452cf90b5a2>.
- Russ, K., J. Shambaugh, and J. Furman. 2017. “U.S. Tariffs Are an Arbitrary and Regressive Tax.” Centre for Economic Policy Research, VoxEU Column. <https://cepr.org/voxeu/columns/us-tariffs-are-arbitrary-and-regressive-tax>.
- Santacreu, A., and J. LaBelle. 2022. “Global Supply Chain Disruptions and Inflation during the COVID-19 Pandemic.” *Federal Reserve Bank of Saint Louis Review* 104, no. 2: 78–91. <https://doi.org/10.20955/r.104.78-91>.
- Sari, D., D. Raess, and D. Kucera. 2016. “Do PTAs Including Labor Provisions Reduce Collective Labor Rights Violations? The Role of Labor Cooperation Provisions.” Working paper, Swiss Network for International Studies. https://www.peio.me/wp-content/uploads/2016/12/PEIO10_paper_63.pdf.

- Shenhar, A., V. Holzmann, B. Melamed, and Y. Zhao. 2016. “The Challenge of Innovation in Highly Complex Projects: What Can We Learn from Boeing’s Dreamliner Experience?” *Project Management Journal* 47: 62–78. <https://journals.sagepub.com/doi/10.1002/pmj.21579>.
- Shih, W. 2020. “Global Supply Chains in a Post-Pandemic World.” *Harvard Business Review*. <https://hbr.org/2020/09/global-supply-chains-in-a-post-pandemic-world>.
- Tabova, A. 2020. “What Happened to Foreign Direct Investment in the United States?” Federal Reserve Board, FEDS Notes. <https://www.federalreserve.gov/econres/notes/feds-notes/what-happened-to-foreign-direct-investment-in-the-united-states-20200213.html>.
- Timmer, M., B. Los, R. Stehrer, and G. de Vries. 2016. *An Anatomy of the Global Trade Slowdown Based on the WIOD 2016 Release*. GGDC Research Memorandum GD-162. Groningen, Netherlands: Groningen Growth and Development Center. <https://ideas.repec.org/p/gro/rugggd/gd-162.html>.
- Tracy, B. 2022. “Critical Minerals in Electric Vehicle Batteries.” Congressional Research Service. <https://crsreports.congress.gov/product/pdf/R/R47227>.
- UNCTAD (United Nations Conference on Trade and Development). 2023. “World Investment Report 2023.” https://unctad.org/system/files/official-document/wir2023_en.pdf.
- U.S. Census Bureau. 2012. “Trade Term: End-Use.” <https://www.census.gov/newsroom/blogs/global-reach/2012/03/end-use-trade-term-of-the-month-2.html>.
- . 2022. “U.S. Goods Trade: Imports and Exports by Related-Parties, 2022.” https://www.census.gov/foreign-trade/Press-Release/related_party/rp22.pdf.
- . 2023. “Monthly U.S. International Trade in Goods and Services, December 2023.” <https://www.census.gov/foreign-trade/current/index.html>.
- U.S. Department of Commerce. 2022. “Ministerial Statement for Pillar III of the Indo-Pacific Economic Framework for Prosperity.” <https://www.commerce.gov/sites/default/files/2022-09/Pillar-III-Ministerial-Statement.pdf>.
- . 2023a. “Fact Sheet: Substantial Conclusion of Negotiations on Groundbreaking IPEF Clean Economy Agreement.” <https://www.commerce.gov/sites/default/files/2023-11/US-Factsheet-SF-Pillar-III.pdf>.
- . 2023b. “Fact Sheet: Substantial Conclusion of Negotiations of an Innovative IPEF Fair Economy Agreement.” <https://www.commerce.gov/sites/default/files/2023-11/US-Factsheet-SF-Pillar-IV.pdf>.
- . 2023c. “U.S.-EU Joint Statement of the Trade and Technology Council.” <https://www.commerce.gov/news/press-releases/2023/05/us-eu-joint-statement-trade-and-technology-council>.
- U.S. Department of Energy. 2023. “Department of Energy Celebrates Two Years of President Biden’s Historic Investment in America’s Clean Energy Future.” <https://www.energy.gov/articles/>

department-energy-celebrates-two-years-president-bidens-historic-investment-americas-clean.

U.S. Department of Labor. 2023. “USMCA Cases.” <https://www.dol.gov/agencies/ilab/our-work/trade/labor-rights-usmca-cases>.

U.S. Department of State. No date. “Minerals Security Partnership.” <https://www.state.gov/minerals-security-partnership/>.

U.S. Department of the Treasury. 2023. “Economy Statement by Eric Van Nostrand, Acting Assistant Secretary for Economic Policy, for the Treasury Borrowing Advisory Committee July 31, 2023.” <https://home.treasury.gov/news/press-releases/jy1661>.

U.S. Small Business Administration. 2023a. “Report with Eight Deliverables for Project to Support Small Business Administration (SBA) to Identify the Total Addressable Market of Small Business Exporters.” <https://www.sba.gov/sites/default/files/2023-02/SBA%20Total%20Addressable%20Market%20Study%20FINAL-508%20%281%29.pdf>.

———. 2023b. “SBA Research Sheds Light on Small Business Exporters.” <https://www.sba.gov/article/2023/mar/14/sba-research-sheds-new-light-small-business-exporters>.

USTR (Office of the U.S. Trade Representative). 2021. “U.S.-EU Trade and Technology Council Inaugural Joint Statement.” <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2021/september/us-eu-trade-and-technology-council-inaugural-joint-statement>.

———. 2022a. “Countries & Regions.” <https://ustr.gov/countries-regions>.

———. 2022b. “Fact Sheet: 2021 President’s Trade Agenda and 2020 Annual Report.” <https://ustr.gov/sites/default/files/files/reports/2021/2021%20Trade%20Agenda/2021%20Trade%20Report%20Fact%20Sheet.pdf>.

———. 2022c. “United States and Kenya Announce the Launch of the U.S.-Kenya Strategic Trade and Investment Partnership.” <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2022/july/united-states-and-kenya-announce-launch-us-kenya-strategic-trade-and-investment-partnership>.

———. 2022d. “2022 Biennial Report on the Implementation of the African Growth and Opportunity Act.” <https://ustr.gov/sites/default/files/files/reports/2022/2022AGOAImplementationReport.pdf>.

———. 2023a. “Chapter 31, Annex A: Facility-Specific Rapid-Response Labor Mechanism.” <https://ustr.gov/issue-areas/enforcement/dispute-settlement-proceedings/fta-dispute-settlement/usmca/chapter-31-annex-facility-specific-rapid-response-labor-mechanism>.

———. 2023b. “2023 Trade Policy Agenda and 2022 Annual Report of the President of the United States on the Trade Agreements Program.” [https://ustr.gov/sites/default/files/2023-02/2023%20Trade%20Policy%20Agenda%20and%202022%20Annual%20Report%20FINAL%20\(1\).pdf](https://ustr.gov/sites/default/files/2023-02/2023%20Trade%20Policy%20Agenda%20and%202022%20Annual%20Report%20FINAL%20(1).pdf).

- . 2023c. “Agreement Between the American Institute in Taiwan and the Taipei Economic and Cultural Representative Office in the United States Regarding Trade Between the United States of America and Taiwan.” <https://ustr.gov/sites/default/files/2023-05/AIT-TECRO%20Trade%20Agreement%20May%202023.pdf>.
- . 2023d. “United States and Taiwan Hold Second Negotiating Round for the U.S.-Taiwan Initiative on 21st-Century Trade.” <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2023/august/united-states-and-taiwan-hold-second-negotiating-round-us-taiwan-initiative-21st-century-trade-1>.
- . 2023e. “U.S.-Kenya Strategic Trade and Investment Partnership Summary of Texts Proposed by the U.S. Side.” <https://ustr.gov/sites/default/files/2023-05/U.S.-Kenya%20STIP%20Chapter%20Summaries%20May%202023.pdf>.
- . 2023f. “United States and Japan Sign Critical Minerals Agreement.” <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2023/march/united-states-and-japan-sign-critical-minerals-agreement>.
- . No date—a. “Indo-Pacific Economic Framework for Prosperity.” <https://ustr.gov/ipef>.
- . No date—b. “Ministerial Text for Trade Pillar of the Indo-Pacific Economic Framework for Prosperity.” [https://ustr.gov/sites/default/files/2022-09/IPEF%20Pillar%201%20Ministerial%20Text%20\(Trade%20Pillar\)_FOR%20PUBLIC%20RELEASE%20\(1\).pdf](https://ustr.gov/sites/default/files/2022-09/IPEF%20Pillar%201%20Ministerial%20Text%20(Trade%20Pillar)_FOR%20PUBLIC%20RELEASE%20(1).pdf).
- . No date—c. “African Growth and Opportunity Act (AGOA).” <https://ustr.gov/issue-areas/trade-development/preference-programs/african-growth-and-opportunity-act-agoa>.
- Van Nostrand, E., and M. Ashenfarb. 2023. “The Inflation Reduction Act: A Place-Based Analysis.” <https://home.treasury.gov/news/featured-stories/the-inflation-reduction-act-a-place-based-analysis>.
- Wang, Z., S. Wei, X. Yu, and K. Zhu. 2018. *Re-examining the Effects of Trading with China on Local Labor Markets: A Supply Chain Perspective*. NBER Working Paper 24886. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w24886>.
- White House. 2021a. “U.S.-EU Trade and Technology Council Inaugural Joint Statement.” <https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/29/u-s-eu-trade-and-technology-council-inaugural-joint-statement/>.
- . 2021b. “Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth.” <https://www.whitehouse.gov/wp-content/uploads/2021/06/100-day-supply-chain-review-report.pdf>.
- . 2023a. “Australia–United States Climate, Critical Minerals and Clean Energy Transformation Compact.” <https://www.whitehouse.gov/briefing-room/statements-releases/2023/05/20/>

australia-united-states-climate-critical-minerals-and-clean-energy-transformation-compact/.

- . 2023b. “Fact Sheet: President Joseph R. Biden and General Secretary Nguyen Phu Trong Announce the U.S.-Vietnam Comprehensive Strategic Partnership.” <https://www.whitehouse.gov/briefing-room/statements-releases/2023/09/10/fact-sheet-president-joseph-r-biden-and-general-secretary-nguyen-phu-trong-announce-the-u-s-vietnam-comprehensive-strategic-partnership/>.
- World Bank. 2020. *World Development Report 2020: Trading for Development in the Age of Global Value Chains*. Washington: World Bank. <https://doi.org/10.1596/978-1-4648-1457-0>.
- WTO (World Trade Organization). 2021. “Global Value Chain Development Report 2021.” https://www.wto.org/english/res_e/booksp_e/00_gvc_dev_report_2021_e.pdf.
- . 2022. “Trade in Value Added and Global Value Chains: Country Profiles Explanatory Notes.” https://www.wto.org/english/res_e/statis_e/miwi_e/Explanatory_Notes_e.pdf.
- . 2023a. “World Trade Report.” https://www.wto.org/english/res_e/booksp_e/wtr23_e/wtr23_e.pdf.
- . 2023b. “Evolution of Trade Under the WTO: Handy Statistics.” https://www.wto.org/english/res_e/statis_e/trade_evolution_e/evolution_trade_wto_e.htm.
- Yang, L., Y. Zhu, and F. Ren. 2023. “Does Government Investment Push up Manufacturing Labor Costs? Evidence from China.” *Humanities and Social Sciences Communications* 10, no. 1. <https://doi.org/10.1057/s41599-023-02180-1>.
- Zumbrun, J. 2023. “Is Globalization in Decline? A New Number Contradicts the Consensus.” *Wall Street Journal*, November 3. https://www.wsj.com/economy/global/is-globalization-in-decline-a-new-number-contradicts-the-consensus-60df8ecf?mod=djemRTE_h.

Chapter 6

- Acemoglu, D. 2002. “Directed Technical Change.” *Review of Economic Studies* 69, no. 4: 781–809. <https://doi.org/10.1111/1467-937X.00226>.
- Acemoglu, D., P. Aghion, L. Bursztyn, and D. Hemous. 2012. “The Environment and Directed Technical Change.” *American Economic Review* 102, no. 1: 131–66. <https://doi.org/10.1257/aer.102.1.131>.
- Acemoglu, D., U. Akcigit, D. Hanley, and W. Kerr. 2016. “Transition to Clean Technology.” *Journal of Political Economy* 124, no. 1: 52–104. <https://doi.org/10.1086/684511>.
- Acemoglu, D., and D. Autor. 2011. “Chapter 12: Skills, Tasks and Technologies—Implications for Employment and Earnings.” In *Handbook of Labor Economics*, 4B,

- ed. O. Ashenfelter and D. Card. Amsterdam: Elsevier Science. <https://www.sciencedirect.com/science/article/abs/pii/S0169721811024105>.
- Amsden, A. 1992. *Asia's Next Giant: South Korea and Late Industrialization*. Oxford: Oxford University Press. <https://doi.org/10.1093/0195076036.001.0001>.
- Arkolakis, C, and C. Walsh. 2023. *Clean Growth*. NBER Working Paper 31615. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w31615>.
- Armitage, S., N. Bakhtian, and A. Jaffe. 2023. *Innovation Market Failures and the Design of New Climate Policy Instruments*. NBER Working Paper 31622. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w31622>.
- Arrow, K. 1962. "The Economic Implications of Learning by Doing." *Review of Economic Studies* 29, no. 3: 155–73. <https://doi.org/10.2307/2295952>.
- Autor, D., D. Dorn, and G. Hanson. 2013. "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." *American Economic Review* 103, no. 6: 2121–68. <https://doi.org/10.1257/aer.103.6.2121>.
- Autor, D., F. Levy, and R. Murnane. 2003. "The Skill Content of Recent Technological Change: An Empirical Exploration." *Quarterly Journal of Economics* 118, no. 4: 1279–333. <https://doi.org/10.1162/003355303322552801>.
- Bachas, N., O. Kim, and C. Yannelis. 2021. "Loan Guarantees and Credit Supply." *Journal of Financial Economics* 139: 872–94. <https://www.sciencedirect.com/science/article/abs/pii/S0304405X20302361>.
- Baumol, W., and W. Oates. 1988. *The Theory of Environmental Policy*. Cambridge: Cambridge University Press. <https://books.google.com/books?hl=en&lr=&id=32-r0N8I9BgC&oi=fnd&pg=PR7&dq=baumol+and+oates+1988&ots=P3N0jyJZwI&sig=sZmDIJUPsVMTaFFUm6PqZVRqKHA>.
- Berkes, E., K. Manysheva, and M. Mestieri. 2022. "Global Innovation Spillovers and Productivity: Evidence from 100 Years of World Patent Data." Working paper, Federal Reserve Bank of Chicago. <https://rhg.com/research/emerging-climate-technology-ira/>.
- Berndt, E., R. Glennerster, M. Kremer, J. Lee, R. Levine, G. Weizsäcker, and H. Williams. 2006. "Advance Market Commitments for Vaccines against Neglected Diseases: Estimating Costs and Effectiveness." *Health Economics* 16, no. 5: 491–511. <https://doi.org/10.1002/hec.1176>.
- Beuse, M., B. Steffen, M. Dirksmeier, and T. Schmidt. 2021. "Comparing CO2 Emissions Impacts of Electricity Storage Across Applications and Energy Systems." *Joule* 5, no. 6: 1501–20. <https://doi.org/10.1016/j.joule.2021.04.010>.
- Bloom, N., M. Schankerman, and J. Van Reenen. 2013. "Identifying Technology Spillovers and Product Market Rivalry." *Econometrica* 81, no. 4: 1347–93. <https://doi.org/10.3982/ECTA9466>.

- Boushey, H. 2023. "The Economics of Public Investment Crowding in Private Investment." White House Blog. <https://www.whitehouse.gov/briefing-room/blog/2023/08/16/the-economics-of-public-investment-crowding-in-private-investment/>
- Boyd, M. 2023. "The Potential of Agrivoltaics for the U.S. Solar Industry, Farmers, and Communities." U.S. Department of Energy Solar Energy Technologies Office Blog. <https://www.energy.gov/eere/solar/articles/potential-agrivoltaics-us-solar-industry-farmers-and-communities>.
- Brooks, L., and Z. Liscow. 2023. "Infrastructure Costs." *American Economic Journal: Applied Economics* 15, no. 2: 1–30. <https://doi.org/10.1257/app.20200398>.
- Burke, M., S. Hsiang, and E. Miguel. 2015. "Global Non-Linear Effect of Temperature on Economic Production." *Nature* 527, no. 7577: 235–39. <https://doi.org/10.1038/nature15725>.
- Burlig, F., J. Bushnell, D. Rapson, and C. Wolfram. 2021. "Low Energy: Estimating Electric Vehicle Electricity Use." *AEA Papers and Proceedings* 111: 430–35. <https://doi.org/10.1257/pandp.20211088>.
- Bryce, R. 2023. "Renewable Rejection Database." <https://robertbryce.com/renewable-rejection-database/>.
- California Legislature. 2023. "An Act Making Appropriations for the Support of the Government of the State of California and for Several Public Purposes in Accordance with the Provisions of Section 12 of Article IV of the Constitution of the State of California, Relating to the State Budget, to Take Effect Immediately, Budget Bill, Senate Bill No. 101, 2023." https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202320240SB101.
- Carleton, T., A. Jina, M. Delgado, M. Greenstone, T. Houser, S. Hsiang, A. Hultgren, R. Kopp, K. McCusker, I. Nath, J. Rising, A. Rode, H. Kwon Seo, A. Viaene, J. Yuan, and A. Zhang. 2022. "Valuing the Global Mortality Consequences of Climate Change Accounting for Adaptation Costs and Benefits." *Quarterly Journal of Economics* 137, no. 4: 2037–105. <https://doi.org/10.1093/qje/qjac020>.
- Casey, G., W. Jeon, and C. Traeger. 2023. *The Macroeconomics of Clean Energy Subsidies*. CESifo Working Paper 10828. <https://www.cesifo.org/en/publications/2023/working-paper/macroeconomics-clean-energy-subsidies>.
- CEA (Council of Economic Advisers). 2021. "Innovation, Investment, and Inclusion: Accelerating the Energy Transition and Creating Good Jobs." <https://www.whitehouse.gov/wp-content/uploads/2021/04/Innovation-Investment-and-Inclusion-CEA-April-23-2021-1.pdf>.
- _____. 2023a. "Chapter 9: Opportunities for Better Managing Weather Risk in the Changing Climate." In *Economic Report of the President*. Washington: U.S. Government Publishing Office. <https://www.whitehouse.gov/wp-content/uploads/2023/03/erp-2023.pdf>.

- . 2023b. “The Economics of Demand-Side Support for the Department of Energy’s Clean Hydrogen Hubs.” <https://www.whitehouse.gov/cea/written-materials/2023/07/05/the-economics-of-demand-side-support-for-the-department-of-energys-clean-hydrogen-hubs/>.
- Chang, R. 2023. “Renewable Energy Is the Key to Building a More Resilient and Reliable Electricity Grid.” Center for American Progress. <https://www.americanprogress.org/article/renewable-energy-is-the-key-to-building-a-more-resilient-and-reliable-electricity-grid/>.
- Choi, J., and A. Levchenko. 2021. *The Long-Term Effects of Industrial Policy*. NBER Working Paper 29263. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w29263>.
- Cole, C., M. Droste, C. Knittel, S. Li, and J. Stock. 2023. “Policies for Electrifying the Light-Duty Vehicle Fleet in the United States.” *AEA Papers and Proceedings* 113: 316–22. <https://doi.org/10.1257/pandp.20231063>.
- Colmer, J., E. Lyubich, and J. Voorheis. 2023. “Nice Work If You Can Get It? The Distribution of Employment and Earnings During the Early Years of the Clean Energy Transition.” Working paper. https://drive.google.com/file/d/1-gBN7KjQpvVOBmasULONRs_xsl-ISBd4/view?usp=sharing.
- Cotterman, T., E. Fuchs, and K. Whitefoot. 2022. “The Transition to Electrified Vehicles: Evaluating the Labor Demand of Manufacturing Conventional versus Battery Electric Vehicle Powertrains.” Working paper, Carnegie Mellon University. <https://dx.doi.org/10.2139/ssrn.4128130>.
- Cox, S., L. Beshilas, and E. Hotchkiss. 2019. “Renewable Energy to Support Energy Security.” National Renewable Energy Lab. <https://www.nrel.gov/docs/fy20osti/74617.pdf>.
- CRFB (Committee for a Responsible Federal Budget). 2013. “The Tax Break-Down: Intangible Drilling Costs” <https://www.crfb.org/blogs/tax-break-down-intangible-drilling-costs>.
- CRS (Congressional Research Service). 2012. “Loan Guarantees for Clean Energy Technologies: Goals, Concerns, and Policy Options.” <https://crsreports.congress.gov/product/pdf/R/R42152>.
- . 2018. “Renewable Energy R&D Funding History: A Comparison with Funding for Nuclear Energy, Fossil Energy, Energy Efficiency, and Electric Systems R&D.” <https://crsreports.congress.gov/product/pdf/RS/RS22858/17>.
- . 2020. “The Renewable Electricity Production Tax Credit: In Brief.” <https://sgp.fas.org/crs/misc/R43453.pdf>.
- . 2021. “Oil and Gas Tax Preferences: In Brief.” <https://crsreports.congress.gov/product/pdf/IF/IF11528>.
- CTVC. 2023. “Insights: CTVC by Sightline Climate.” <https://www.ctvc.co/tag/insights/>.

- Curtis, E., L. O’Kane, and R. Park. 2023. *Workers and the Green-Energy Transition: Evidence from 300 Million Job Transitions*. NBER Working Paper 31539. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w31539>.
- Davis, L. 2023. “Electric Vehicles in Multi-Vehicle Households.” *Applied Economics Letters* 30, no. 14: 1909–12. <https://doi.org/10.1080/13504851.2022.2083563>.
- Denholm, P., M. Hand, M. Jackson, and S. Ong. 2009. “Land Use Requirements of Modern Wind Power Plants in the United States.” National Renewable Energy Lab, Technical Report TP-6A2-45834. <https://www.nrel.gov/docs/fy09osti/45834.pdf>.
- Devine, W. 1982. *An Historical Perspective on the Value of Electricity in American Manufacturing*. Technical Report ORAU/IEA-82-8(M). Oak Ridge: Institute for Energy Analysis, Oak Ridge Associated Universities. <https://doi.org/10.2172/6774921>.
- Dimanchev, E., S. Fleten, D. MacKenzie, and M. Korpås. 2023. “Accelerating Electric Vehicle Charging Investments: A Real Options Approach to Policy Design.” *Energy Policy* 181. <https://doi.org/10.1016/j.enpol.2023.113703>.
- DOE (U.S. Department of Energy). 2022a. “Wind Energy: Supply Chain Deep Dive Assessment.” <https://www.energy.gov/sites/default/files/2022-02/Wind%20Supply%20Chain%20Report%20-%20Final%202.25.22.pdf>.
- . 2022b. “DOE Optimizes Structure to Implement \$62 Billion in Clean Energy Investments from Bipartisan Infrastructure Law.” <https://www.energy.gov/articles/doe-optimizes-structure-implement-62-billion-clean-energy-investments-bipartisan>.
- . 2023a. “United States Energy and Employment Report 2023.” <https://www.energy.gov/sites/default/files/2023-06/2023%20USEER%20REPORT-v2.pdf>.
- . 2023b. “Biden-Harris Administration Announces \$15.5 Billion to Support a Strong and Just Transition to Electric Vehicles, Retooling Existing Plants, and Rehiring Existing Workers.” Press release.
- . 2023c. “Pathways to Commercial Liftoff: Clean Hydrogen.” <https://liftoff.energy.gov/>.
- . 2023d. “National Transmission Needs Study.”
- . 2023e. “Building a Bridge to Bankability.” https://www.energy.gov/sites/default/files/2023-05/DOE-LPO22-PPTv03_LPO-Overview_May2023.pdf.
- Duranton, G., and D. Puga. 2004. “Chapter 48: Micro-Foundations of Urban Agglomeration Economies.” In *Handbook of Regional and Urban Economics*, no. 4: 2063–2117. [https://doi.org/10.1016/s1574-0080\(04\)80005-1](https://doi.org/10.1016/s1574-0080(04)80005-1).
- EIA (U.S. Energy Information Administration). 2012. “Today in Energy.” <https://www.eia.gov/todayinenergy/detail.php?id=7590>.

- . 2023a. “Electricity Monthly Update: December 2022.” <https://www.eia.gov/electricity/monthly/update/archive/february2023/>.
- . 2023b. “Energy and the Environment Explained Where Greenhouse Gases Come From.” <https://www.eia.gov/energyexplained/energy-and-the-environment/where-greenhouse-gases-come-from.php>.
- . 2024a. “Solar and Wind to Lead Growth of U.S. Power Generation for the Next Two Years.” <https://www.eia.gov/todayinenergy/detail.php?id=61242>.
- . 2024b. “U.S. Battery Storage Capacity Expected to Nearly Double in 2024.” <https://www.eia.gov/todayinenergy/detail.php?id=61202>.
- Erickson, P., and P. Achakulwisut. 2021. “How Subsidies Aided the U.S. Shale Oil and Gas Boom.” Stockholm Environmental Institute. <https://www.sei.org/publications/subsidies-shale-oil-and-gas/>.
- Erickson, P., A. Down, M. Lazarus, and D. Koplow. 2017. “Effect of Subsidies to Fossil Fuel Companies on United States Crude Oil Production.” *Nature Energy* 2, no. 11: 891–98.
- Esposito, D. 2021. “Meta-Analysis of Clean Energy Policy Models.” Energy Innovation Policy & Technology LLC. <https://energyinnovation.org/wp-content/uploads/2021/09/Studies-Agree-80-Percent-Clean-Electricity-by-2030-Would-Save-Lives-and-Create-Jobs-at-Minimal-Cost.pdf>.
- European Environment Agency. 2023. “Total Net Greenhouse Gas Emission Trends and Projections in Europe.” <https://www.eea.europa.eu/en/analysis/indicators/total-greenhouse-gas-emission-trends?activeAccordion=546a7c35-9188-4d23-94ee-005d97c26f2b>.
- Fontana, S., and R. Nanda. 2023. “Innovating to Net Zero: Can Venture Capital and Start-Ups Play a Meaningful Role?” In *Entrepreneurship and Innovation Policy and the Economy, Volume 2*, ed. B. Jones, and J. Lerner. Chicago: University of Chicago Press. <https://doi.org/10.1086/723236>.
- Friedlingstein, P., M. O’Sullivan, M. Jones, R. Andrew, J. Hauck, A. Olsen, G. Peters, et al. 2020. “Global Carbon Budget 2020.” *Earth System Science Data* 12, no. 4: 3269–340. <https://doi.org/10.5194/essd-12-3269-2020>.
- Friedlingstein, P., M. O’Sullivan, M. Jones, R. Andrew, D. Bakker, J. Hauck, P. Landschützer, et al. 2023. “Global Carbon Budget 2023.” *Earth System Science Data* 15: 5301–69. <https://doi.org/10.5194/essd-15-5301-2023>.
- Gallagher, K., and L. Anadon. 2022. “Database on U.S. Department of Energy (DOE) Budgets for Energy Research, Development, & Demonstration (1978-2023R).” Harvard Kennedy School. <https://www.belfercenter.org/publication/database-us-department-energy-doe-budgets-energy-research-development-demonstration-1>.
- Ghosh, S., and R. Nanda. 2010. *Venture Capital Investment in the Clean Energy Sector*. Working Paper 11-020, Harvard Business School. https://www.hbs.edu/ris/Publication%20Files/11-020_0a1b5d16-c966-4403-888f-96d03bbab461.pdf.

- Glennerster, R., and M. Kremer. 2000. "A Better Way to Spur Medical Research and Development." *Regulation* 23: 34. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=235870.
- Global Trade Funding. No date. "Offtake Agreements, Project Finance Document Critical for Loan Approval." <https://globaltradefunding.com/project-finance/project-finance-documents/offtake-agreements/>.
- Golding, G., and L. Kilian. 2022. "Don't Look to Oil Companies to Lower High Retail Gasoline Prices." Federal Reserve Bank of Dallas. <https://www.dallasfed.org/research/economics/2022/0510>.
- Greenspon, J., and D. Raimi. 2022. *Matching Geographies and Job Skills in the Energy Transition*. RFF WP 22-25. Washington: Resources for the Future. https://media.rff.org/documents/WP_22-25_PnkcURf.pdf.
- Gropman, A. 1996. "Mobilizing U.S. Industry in World War II: Myth and Reality." Institute for National Strategic Studies. <https://apps.dtic.mil/sti/tr/pdf/ADA316780.pdf>.
- Gross, D., and B. Sampat. 2023a. "America, Jump-Started: World War II R&D and the Takeoff of the US Innovation System." *American Economic Review* 113, no. 12: 3323–56. <https://doi.org/10.1257/aer.20221365>.
- . 2023b. "The World War II Crisis Innovation Model: What Was It, and Where Does It Apply?" *Research Policy* 52, no. 9: 104845. <https://doi.org/10.1016/j.respol.2023.104845>.
- Gross, S. 2020. "Renewables, Land Use, and Local Opposition in the United States." Brookings Institution. <https://www.brookings.edu/articles/renewables-land-use-and-local-opposition-in-the-united-states/>.
- Guarnieri, M. 2012. "Looking Back to Electric Cars." <https://ieeexplore.ieee.org/xpl/conhome/6480931/proceeding>.
- Hanson, G. 2023. "Local Labor Market Impacts of the Energy Transition: Prospects and Policies." In *Economic Policy in a More Uncertain World*, 155–99. Washington: Aspen Economic Strategy Group. <https://www.economicstrategygroup.org/wp-content/uploads/2022/12/Hanson-chapter.pdf>.
- Hart, D. 2020. "The Impact of China's Production Surge on Innovation in the Global Solar Photovoltaics Industry." Information Technology & Innovation Foundation. <https://itif.org/publications/2020/10/05/impact-chinas-production-surge-innovation-global-solar-photovoltaics/>.
- Hassler, J., P. Krusell, C. Olovsson, and M. Reiter. 2020. "On the Effectiveness of Climate Policies." Working paper, Institute for International Economic Studies at Stockholm University.
- Heintz, J. 2010. "The Impact of Public Capital on the US Private Economy: New Evidence and Analysis." *International Review of Applied Economics* 24, no. 5: 619–32. <https://doi.org/10.1080/02692170903426104>.

- Herrendorf, B., R. Rogerson, and A. Valentinyi. 2014. "Chapter 6: Growth and Structural Transformation." In *Handbook of Economic Growth*, ed. P. Aghion and S. Durlauf, 855–941. Amsterdam: Elsevier Science. <https://www.sciencedirect.com/science/article/abs/pii/B9780444535405000069>.
- Hittinger, E., and I. Azevedo. 2015. "Bulk Energy Storage Increases United States Electricity System Emissions." *Environmental Science & Technology* 49, no. 5: 3203–10. <https://doi.org/10.1021/es505027p>.
- Hottenrott, H., E. Lins, and E. Lutz. 2018. "Public Subsidies and New Ventures' Use of Bank Loans." *Economics of Innovation and New Technology* 27, no. 8: 786–808. <https://doi.org/10.1080/10438599.2017.1408200>.
- Howell, S. 2017. "Financing Innovation: Evidence from R&D Grants." *American Economic Review* 107, no. 4: 1136–64. <https://doi.org/10.1257/aer.20150808>.
- Hsiang, S., M. Burke, and E. Miguel. 2013. "Quantifying the Influence of Climate on Human Conflict." *Science* 341, no. 6151: 1235367. <https://doi.org/10.1126/science.1235367>.
- Hsiang, S., S. Greenhill, J. Martinich, M. Grasso, R. Schuster, L. Barrage, D. Diaz, et al. 2023. "Ch. 19: Economics." In *Fifth National Climate Assessment*, ed. A. Crimmins, C. Avery, D. Easterling, K. Kunkel, B. Stewart, and T. Maycock. Washington: U.S. Global Change Research Program. <https://doi.org/10.7930/NCA5.2023.CH19>.
- Hyman, B. 2022. "Can Displaced Labor Be Retrained? Evidence from Quasi-Random Assignment to Trade Adjustment Assistance." Working Paper, U.S. Census Bureau, Center for Economic Studies. <https://www2.census.gov/ces/wp/2022/CES-WP-22-05.pdf>.
- IEA (International Energy Agency). 2021a. "Net Zero by 2050: A Roadmap for the Global Energy Sector." https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroBy2050-ARoadmapfortheGlobalEnergySector_CORR.pdf.
- . 2021b. "The Role of Critical Minerals in Clean Energy Transitions." In *World Energy Outlook*. <https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions>.
- . 2021c. "The Cost of Capital in Clean Energy Transitions." <https://www.iea.org/articles/the-cost-of-capital-in-clean-energy-transitions>.
- . 2022. "World Energy Employment." <https://iea.blob.core.windows.net/assets/a0432c97-14af-4fc7-b3bf-c409fb7e4ab8/WorldEnergyEmployment.pdf>.
- . 2023a. *World Energy Outlook*. Paris: IEA. <https://www.iea.org/reports/world-energy-outlook-2023>.
- . 2023b. "A Renewed Pathway to Net Zero Emissions." <https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-0c-goal-in-reach/a-renewed-pathway-to-net-zero-emissions>.

- . 2023c. “Solar PV: Overview.” <https://www.iea.org/energy-system/renewables/solar-pv>.
- . 2023d. “Energy Technology RD&D Budgets Data Explorer.” <https://www.iea.org/data-and-statistics/data-tools/energy-technology-rdd-budgets-data-explorer>.
- Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization. 2023. “Revitalizing Energy Communities: Two-Year Report to the President.” <https://energycommunities.gov/wp-content/uploads/2023/04/IWG-Two-Year-Report-to-the-President.pdf>.
- International Renewable Energy Agency. 2023. “Renewable Power Generation Costs in 2022.” Report. <https://energycommunities.gov/wp-content/uploads/2023/04/IWG-Two-Year-Report-to-the-President.pdf>.
- IREC (Interstate Renewable Energy Council). 2022. “National Solar Jobs Census 2021.” <https://irecusa.org/wp-content/uploads/2022/07/National-Solar-Jobs-Census-2021.pdf>.
- . 2023. “Cultivating a Diverse and Skilled Talent Pipeline for the Equitable Transition.” <https://irecusa.org/wp-content/uploads/2023/02/Alliance-Report-2.23-Interactive-compressed.pdf>.
- IRENA (International Renewable Energy Agency). 2019. “Utility-Scale Batteries: Innovation Landscape Brief.” https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Sep/IRENA_Utility-scale-batteries_2019.pdf.
- . 2023. “Renewable Capacity Statistics 2023.” https://mc-cd8320d4-36a1-40ac-83cc-3389-cdn-endpoint.azureedge.net/-/media/Files/IRENA/Agency/Publication/2023/Mar/IRENA_RE_Capacity_Statistics_2023.pdf?rev=d2949151ee6a4625b65c82881403c2a7.
- Jaworski, T. 2017. “World War II and the Industrialization of the American South.” *Journal of Economic History* 77, no. 4: 1048–82. <https://doi.org/10.1017/S0022050717000791>.
- Jenkins, J., J. Farbes, R. Jones, N. Patankar, and G. Schivley. 2022. “Electricity Transmission Is Key to Unlock the Full Potential of the Inflation Reduction Act.” Rapid Energy Policy Evaluation and Analysis Toolkit Project, PowerPoint presentation. https://repeatproject.org/docs/REPEAT_IRA_Transmission_2022-09-22.pdf.
- Johnston, B. 1970. “Agriculture and Structural Transformation in Developing Countries: A Survey of Research.” *Journal of Economic Literature* 8, no. 2: 369–404. <https://www.jstor.org/stable/2720471>.
- Juhász, R., N. Lane, and D. Rodrik. 2023. “The New Economics of Industrial Policy.” National Bureau of Economic Research. https://drodrik.scholar.harvard.edu/sites/scholar.harvard.edu/files/dani-rodrik/files/the_new_economics_of_ip_080123.pdf.
- Katz, L., J. Roth, R. Hendra, and K. Schaberg. 2022. “Why Do Sectoral Employment Programs Work? Lessons from WorkAdvance.” *Journal of Labor Economics* 40, no. S1: S249–91. <https://doi.org/10.1086/717932>.

- Kotchen, M. 2021. “The Producer Benefits of Implicit Fossil Fuel Subsidies in the United States.” *Proceedings of the National Academy of Sciences* 118, no. 14: e20119691 <https://www.pnas.org/doi/10.1073/pnas.2011969118>.
- Kremer, M., J. Levin, and C. Snyder. 2020. “Advance Market Commitments: Insights from Theory and Experience.” *AEA Papers and Proceedings* 110: 269–73. <https://pubs.aeaweb.org/doi/pdfplus/10.1257/pandp.20201017>.
- Kriegler, E., N. Bauer, A. Popp, F. Humpenöder, M. Leimbach, J. Strefler, L. Baumstark, et al. 2017. “Fossil-Fueled Development (SSP5): An Energy and Resource-Intensive Scenario for the 21st Century.” *Global Environmental Change* 42: 297–315. <https://doi.org/10.1016/j.gloenvcha.2016.05.015>.
- Lane, N. 2022. “Manufacturing Revolutions: Industrial Policy and Industrialization in South Korea.” University of Oxford, Department of Economics. <http://dx.doi.org/10.2139/ssrn.3890311>.
- Larsen, K., H. Pitt, M. Mobir, S. Movalia, A. Rivera, E. Rutkowski, and T. Houser. 2023. “Global Emerging Climate Technology Diffusion and the Inflation Reduction Act.” Rhodium Group. <https://rhg.com/research/emerging-climate-technology-ira/>.
- Lazard. 2023. “Levelized Cost of Energy Analysis +.” PowerPoint presentation. <https://www.lazard.com/media/20zoovyg/lazards-lcoeplus-april-2023.pdf>.
- Lelieveld, J., K. Klingmüller, A. Pozzer, R. Burnett, A. Haines, and V. Ramanathan. 2019. “Effects of Fossil Fuel and Total Anthropogenic Emission Removal on Public Health and Climate.” *Proceedings of the National Academy of Sciences* 116, no. 15: 7192–97. <https://doi.org/10.1073/pnas.1819989116>.
- Lerner, J., and R. Nanda. 2020. “Venture Capital’s Role in Financing Innovation: What We Know and How Much We Still Need to Learn.” *Journal of Economic Perspectives* 34, no. 3: 237–61. <https://doi.org/10.1257/jep.34.3.237>.
- Lewis, J., and R. Wiser. 2007. “Fostering a Renewable Energy Technology Industry: An International Comparison of Wind Industry Policy Support Mechanisms.” *Energy Policy* 35, no. 3: 1844–57. <https://doi.org/10.1016/j.enpol.2006.06.005>.
- Lewis, W. 1954. “Economic Development with Unlimited Supplies of Labour.” *Manchester School* 22, no. 2: 139–91. <https://doi.org/10.1111/j.1467-9957.1954.tb00021.x>.
- Li, S., L. Tong, J. Xing, and Y. Zhou. 2017. “The Market for Electric Vehicles: Indirect Network Effects and Policy Design.” *Journal of the Association of Environmental and Resource Economists* 4, no. 1: 89–133. <http://dx.doi.org/10.1086/689702>.
- Lim, J., M. Aklın, and M. Frank. 2023. “Location Is a Major Barrier for Transferring U.S. Fossil Fuel Employment to Green Jobs.” *Nature Communications* 14: 5711. <https://doi.org/10.1038/s41467-023-41133-9>.
- Louie, E., and J. Pearce. 2016. “Retraining Investment for U.S. Transition from Coal to Solar Photovoltaic Employment.” *Energy Economics* 57: 295–302. <https://doi.org/10.1016/j.eneco.2016.05.016>.

- Lucas, R. 1988. "On the Mechanics of Economic Development." *Journal of Monetary Economics* 22, no. 1: 3–42. [https://doi.org/10.1016/0304-3932\(88\)90168-7](https://doi.org/10.1016/0304-3932(88)90168-7).
- Lucking, B., N. Bloom, and J. Van Reenen. 2020. "Have R&D Spillovers Declined in the 21st Century?" *Fiscal Studies* 40, no. 4: 561–90. <https://doi.org/10.1111/1475-5890.12195>.
- Manpower Group. 2022. "The United States' 2022 Talent Shortage." https://go.manpowergroup.com/hubfs/Talent%20Shortage%202022/MPG_2022_TS_Infographic-US.pdf.
- Marvel, K., W. Su, R. Delgado, S. Aarons, A. Chatterjee, M. Garcia, Z. Hausfather, et al. 2023. "Ch. 2: Climate Trends." In *Fifth National Climate Assessment*, ed. A. Crimmins, C. Avery, D. Easterling, K. Kunkel, B. Stewart, and T. Maycock. Washington: U.S. Global Change Research Program. <https://doi.org/10.7930/NCA5.2023.CH2>.
- McMillan, M., and D. Rodrik. 2011. *Globalization, Structural Change and Productivity Growth*. NBER Working Paper 17143. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w17143>.
- Meckling, J., N. Kelsey, E. Biber, and J. Zysman. 2015. "Winning Coalitions for Climate Policy." *Science* 349, no. 6253: 1170–71. <https://doi.org/10.1126/science.aab1336>.
- Meckling, J., and J. Nahm. 2021. "Strategic State Capacity: How States Counter Opposition to Climate Policy." *Comparative Political Studies* 55, no. 3: 493–523. <https://doi.org/10.1177/00104140211024308>.
- Mendell, R., M. Einberger, and K. Siegner. 2022. "FERC Could Slash Inflation and Double Renewables with These Grid Upgrades." Rocky Mountain Institute. <https://rmi.org/ferc-could-slash-inflation-and-double-renewables-grid-upgrades/>.
- Meng, K. 2023. *Estimating Path Dependence in Energy Transitions*. NBER Working Paper 22536. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w22536>.
- Nahm, J. 2021. *Collaborative Advantage: Forging Green Industries in the New Global Economy*. Oxford: Oxford University Press. <https://global.oup.com/academic/product/collaborative-advantage-9780197555361>.
- Nanda, R., and M. Rhodes-Kropf. 2016. "Financing Risk and Innovation." *Management Science* 63, no. 4: 901–18. <https://doi.org/10.1287/mnsc.2015.2350>.
- Nanda, R., K. Younge, and L. Fleming. 2015. "Innovation and Entrepreneurship in Renewable Energy." In *The Changing Frontier: Rethinking Science and Innovation Policy*, ed. A. Jaffe and B. Jones, 199–232. Chicago: University of Chicago Press. <https://www.nber.org/system/files/chapters/c13048/c13048.pdf>.
- Narich, C., M. Kammen, T. Stark, B. Powers, J. Budiman, P. Szinaï, and X. Hidalgo-Gonzalez. 2021. "The Role of Storage in the Path to Net Zero." Accenture and University of California-Berkeley Renewable and Appropriate Energies Lab. <https://www.accenture.com/content/dam/accenture/final/a-com-migration/r3-3/pdf/pdf-144/accenture-path-to-net-zero-pov.pdf>.

- National Academies of Sciences, Engineering, and Medicine. 2021. *Accelerating Decarbonization of the U.S. Energy System*. Washington: National Academies Press. <https://doi.org/10.17226/25932>.
- National Renewable Energy Lab. 2023. “Annual Technology Baseline: Utility-Scale Battery Storage.” https://atb.nrel.gov/electricity/2023/utility-scale_battery_storage.
- National Research Council. 2001. *Energy Research at DOE: Was It Worth It? Energy Efficiency and Fossil Energy Research 1978 to 2000*. Washington: National Academies Press. <https://doi.org/10.17226/10165>.
- Nature Conservancy. 2023. “Power of Place National Executive Summary.” https://www.nature.org/content/dam/tnc/nature/en/documents/FINAL_TNC_Power_of_Place_National_Executive_Summary_5_2_2023.pdf?itid=lk_inline_enhanced-template.
- NCEI (National Centers for Environmental Information). 2024. “Billion-Dollar Weather and Climate Disasters.” <https://www.ncei.noaa.gov/access/billions/overview/>.
- Nelson, R., and S. Winter. 1985. *An Evolutionary Theory of Economic Change*. Cambridge, MA: Harvard University Press. <https://www.hup.harvard.edu/books/9780674272286>.
- Nemet, G. 2019. *How Solar Energy Became Cheap: A Model for Low-Carbon Innovation*. Oxford: Routledge. https://www.routledge.com/How-Solar-Energy-Became-Cheap-A-Model-for-Low-Carbon-Innovation/Nemet/p/book/9780367136598?utm_source=cjaffiliates&utm_medium=affiliate&cjevent=ced8fe67678411ee8168008b0a82b82a.
- Nemet, G., and D. Kammen. 2007. “U.S. Energy Research and Development: Declining Investment, Increasing Need, and the Feasibility of Expansion.” *Energy Policy* 35, no. 1: 746–55. <https://doi.org/10.1016/j.enpol.2005.12.012>.
- Nemet, G., V. Zipperer, and M. Kraus. 2018. “The Valley of Death, the Technology Pork Barrel, and Public Support for Large Demonstration Projects.” *Energy Policy* 119: 154–67. <https://doi.org/10.1016/j.enpol.2018.04.008>.
- NOAA (National Oceanic and Atmospheric Administration). 2024. “Billion-Dollar Weather and Climate Disasters.” <https://www.ncei.noaa.gov/access/billions/overview>.
- Noailly, J., L. Nowzohour, and M. van den Heuvel. 2022. *Does Environmental Policy Uncertainty Hinder Investments Towards a Low-Carbon Economy?* NBER Working Paper 30361. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w30361>.
- NREL (National Renewable Energy Laboratory). 2023. “Utility-Scale Battery Storage.” https://atb.nrel.gov/electricity/2023/utility-scale_battery_storage.
- Nurkse, R. 1952. “Some International Aspects of the Problem of Economic Development.” *American Economic Review* 42, no. 2: 571–83. <https://www.jstor.org/stable/1910629>.

- NYC Department of Buildings. 2023. “Solar Electric Generating Systems Tax Abatement Program.” <https://nyc-business.nyc.gov/nycbusiness/description/solar-electric-generating-systems-tax-abatement-program>.
- OEC (Observatory of Economic Complexity). 2021. “South Korea.” <https://oec.world/en/profile/country/kor>.
- OCED (Office of Clean Energy Demonstrations). 2023. “OCED Funding Opportunity Announcements.” <https://oced-exchange.energy.gov/Default.aspx#Foald3c3d8e7f-1839-45fc-8735-c0caf87408ef>.
- OECD (Organization for Economic Cooperation and Development). 2023. “Greenhouse Gas Emissions.” https://stats.oecd.org/Index.aspx?DataSetCode=air_ghg.
- OMB (U.S. Office of Management and Budget). 2023. “Budget Exposure to Increased Costs and Lost Revenue Due to Climate Change: A Preliminary Assessment and Proposed Framework for Future Assessments.” White Paper. https://www.whitehouse.gov/wp-content/uploads/2023/03/climate_budget_exposure_fy2024.pdf.
- Pasqualetti, M., R. Righter, and P. Gipe. 2004. “History of Wind Energy.” In *Encyclopedia of Energy*, ed. C. Cleveland, 419–33. Cambridge: Academic Press. https://www.researchgate.net/publication/265594973_History_of_Wind_Energy.
- Pimm, A., E. Barbour, T. Cockerill, and J. Palczewski. 2019. “Evaluating the Regional Potential for Emissions Reduction Using Energy Storage.” In *Proceedings of 2019 Offshore Energy and Storage Summit*, 1–6. <https://ieeexplore.ieee.org/document/8867357>.
- Pirani, S. 2018. *Burning Up: A Global History of Fossil Fuel Consumption*. London: Pluto Press. <https://www.jstor.org/stable/j.ctv4ncp7q.14?typeAccessWorkflow=login&seq=10>.
- Pollin, R., and B. Callaci. 2016. “The Economics of Just Transition: A Framework for Supporting Fossil-Fuel-Dependent Workers and Communities in the United States.” Working paper, *Labor Studies Journal*. <https://peri.umass.edu/publication/item/762-the-economics-of-just-transition-a-framework-for-supporting-fossil-fuel-dependent-workers-and-communities-in-the-united-states>.
- Quinn, R. 2013. “Rethinking Antibiotic Research and Development: World War II and the Penicillin Collaborative.” *American Journal of Public Health* 103, no. 3: 426–34. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3673487/>.
- Raimi, D., E. Grubert, J. Higdon, G. Metcalf, S. Pesek, and D. Singh. 2023. “The Fiscal Implications of the U.S. Transition Away from Fossil Fuels.” *Review of Environmental Economics and Policy* 17, no. 2: 295–315. <https://doi.org/10.1086/725250>.
- Ranis, G., and J. Fei. 1961. “A Theory of Economic Development.” *American Economic Review* 51, no. 4: 533–65. <https://www.jstor.org/stable/1812785>.

- Rao, V. 1952. “Investment, Income and the Multiplier in an Under-Developed Economy.” *Indian Economic Review* 1, no. 1: 55–67. <https://doi.org/10.1177/0019466220080205>.
- Rapson, D., and E. Muehlegger. 2023. *The Economics of Electric Vehicles*. NBER Working Paper 29093. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w29093>.
- Riofrancos, T., A. Kendall, K. Dayemo, M. Haugen, K. McDonald, B. Hassan, M. Slatery, and X. Lillehei. 2023. “Achieving Zero Emissions with More Mobility and Less Mining.” Climate and Community Project. <https://www.climateandcommunity.org/more-mobility-less-mining>.
- RMI. 2022. “FERC Could Slash Inflation and Double Renewables with These Grid Upgrades.” <https://rmi.org/ferc-could-slash-inflation-and-double-renewables-grid-upgrades/>.
- Rodrik, D. 2014. “Green Industrial Policy.” *Oxford Review of Economic Policy* 30, no. 3: 469–91. <https://doi.org/10.1093/oxrep/gru025>.
- Romer, P. 1990. “Endogenous Technological Change.” *Journal of Political Economy* 98, no. 5: S71–102. <https://www.jstor.org/stable/2937632>.
- Sandalow, D., M. Meidan, P. Andrews-Speed, A. Hove, S. Qiu, and E. Downie. 2022. “Guide to Chinese Climate Policy 2022.” Oxford Institute of Energy Studies, chap. 21: “Clean Energy R&D.” <https://chineseclimatepolicy.oxfordenergy.org/book-content/domestic-policies/clean-energy-rd/>.
- Sankaran, V., H. Parmar, and K. Collison. 2021. “Just & Reasonable? Transmission Upgrades Charged to Interconnecting Generators Are Delivering System-Wide Benefits.” American Council on Renewable Energy. https://acore.org/wp-content/uploads/2021/10/Just_and_Reasonable.pdf.
- Schlenker, W., and M. Roberts. 2009. “Nonlinear Temperature Effects Indicate Severe Damages to U.S. Crop Yields under Climate Change.” *Proceedings of the National Academy of Sciences* 106, no. 37: 15594–98. <https://doi.org/10.1073/pnas.0906865106>.
- UNFCCC (United Nations Framework Convention on Climate Change). 2023. “2023 Voluntary Supplement to the U.S. Fifth Biennial Report.” https://unfccc.int/sites/default/files/resource/US_BR_Voluntary_Supplement_2023.pdf.
- . 2024a. “The Paris Agreement.” <https://unfccc.int/process-and-meetings/the-paris-agreement>.
- . 2024b. “What Is the Kyoto Protocol?” https://unfccc.int/kyoto_protocol.
- U.S. Congress. 2004. “H.R.4520: American Jobs Creation Act of 2004.” <https://www.congress.gov/bill/108th-congress/house-bill/4520>.
- U.S. Department of the Treasury. 2023. “New U.S. Department of the Treasury Analysis: Inflation Reduction Act Driving Clean Energy Investment to Underserved Communities, Communities at the Forefront of Fossil Fuel Production.” <https://home.treasury.gov/news/press-releases/jy1931>.

- Van den Heuvel, M., and D. Popp. 2022. *The Role of Venture Capital and Governments in Clean Energy: Lessons from the First Cleantech Bubble*. NBER Working Paper 29919. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w29919>.
- Van de Ven, D., I. Capellan-Peréz, I. Arto, I. Cazcarro, C. de Castro, P. Patel, and M. Gonzalez-Eguino. 2021. “The Potential Land Requirements and Related Land Use Change Emissions of Solar Energy.” *Scientific Reports* 11. <https://doi.org/10.1038/s41598-021-82042-5>.
- Vanatta, M., M. Craig, B. Rathod, J. Florez, I. Bromley-Dulfano, and D. Smith. 2022. “The Costs of Replacing Coal Plant Jobs with Local Instead of Distant Wind and Solar Jobs across the United States.” *iScience* 25, no. 8. <https://doi.org/10.1016/j.isci.2022.104817>.
- Van Zalk, J., and P. Behrens. 2018. “The Spatial Extent of Renewable and Non-Renewable Power Generation: A Review and Meta-Analysis of Power Densities and Their Application in the U.S.” *Energy Policy* 123: 83–91. <https://www.sciencedirect.com/science/article/pii/S0301421518305512>.
- Victor, D. 2009. “The Politics of Fossil-Fuel Subsidies.” Working paper, Global Studies Initiative. <https://dx.doi.org/10.2139/ssrn.1520984>.
- Way, R., M. Ives, P. Mealy, and J. Farmer. 2022. “Empirically Grounded Technology Forecasts and the Energy Transition.” *Joule* 6, no. 9: 2057–82. <https://doi.org/10.1016/j.joule.2022.08.009>.
- Weber, J. 2020. “How Should We Think about Environmental Policy and Jobs? An Analogy with Trade Policy and an Illustration from U.S. Coal Mining.” *Review of Environmental Economics and Policy* 14, no. 1. <https://doi.org/10.1093/reep/rez016>.
- White House. 2022. “Federal Budget Exposure to Climate Risk.” https://www.whitehouse.gov/wp-content/uploads/2022/04/ap_21_climate_risk_fy2023.pdf.
- Zacarias, M., and J. Nakano. 2023. “Exploring the Hydrogen Midstream: Distribution and Delivery.” Center for Strategic and International Studies. <https://www.csis.org/analysis/exploring-hydrogen-midstream-distribution-and-delivery>.

Chapter 7

- Abada, I., and X. Lambin. 2023. “Artificial Intelligence: Can Seemingly Collusive Outcomes Be Avoided?” *Management Science* 69, no. 9: 5042–65. <https://doi.org/10.1287/mnsc.2022.4623>.
- Abbott, R., and B. Bogenschneider. 2018. “Should Robots Pay Taxes? Tax Policy in the Age of Automation.” *Harvard Law & Policy Review* 12. https://heinonline.org/HOL/Page?handle=hein.journals/harlpolrv12&div=10&g_sent=1&casa_token=&collection=journals.
- Acemoglu, D. 2021. *Harms of AI*. NBER Working Paper 29247. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w29247>.

- Acemoglu, D., G. Anderson, D. Beede, C. Buffington, E. Childress, E. Dinlersoz, L. Foster, N. Goldschlag, J. Haltiwanger, Z. Kroff, P. Restrepo, and N. Zolas. 2022. *Automation and the Workforce: A Firm-Level View from the 2019 Annual Business Survey*. NBER Working Paper 30659. Cambridge, MA: National Bureau of Economic Research. https://www.nber.org/system/files/working_papers/w30659/w30659.pdf.
- Acemoglu, D., D. Autor, J. Hazell, and P. Restrepo. 2020. *AI and Jobs: Evidence from Online Vacancies*. NBER Working Paper 28257. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w28257>.
- Acemoglu, D., S. Johnson, and J. Robinson. 2005. "Chapter 6: Institutions as a Fundamental Cause of Long-Run Growth." In *Handbook of Economic Growth 1*: 385–472. [https://doi.org/10.1016/S1574-0684\(05\)01006-3](https://doi.org/10.1016/S1574-0684(05)01006-3).
- Acemoglu, D., A. Manera, and P. Restrepo. 2020. *Does the U.S. Tax Code Favor Automation?* NBER Working Paper 27052. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w27052>.
- Acemoglu, D. and Pischke, J. 1998. "Why Do Firms Train? Theory and Evidence." *Quarterly Journal of Economics* 113, no. 1: 79–119. <https://doi.org/10.1162/003355398555531>.
- Acemoglu, D., and P. Restrepo. 2018. "The Race between Man and Machine: Implications of Technology for Growth, Factor Shares, and Employment." *American Economic Review* 108, no. 6: 1488–542. <https://doi.org/10.1257/aer.20160696>.
- . 2019. "Automation and New Tasks: How Technology Displaces and Reinstates Labor." *Journal of Economic Perspectives* 33, no. 2: 3–30. <https://doi.org/10.1257/jep.33.2.3>.
- . 2020. "Robots and Jobs: Evidence from U.S. Labor Markets." *Journal of Political Economy* 128, no. 6: 2188–244. <https://doi.org/10.1086/705716>.
- Aghion, P., N. Bloom, R. Blundell, R. Griffith, and P. Howitt. 2005. "Competition and Innovation: An Inverted-U Relationship." *Quarterly Journal of Economics* 120, no. 2: 701–28. <https://doi.org/10.1093/qje/120.2.701>.
- Aghion, P., and P. Bolton. 1992. "An Incomplete Contracts Approach to Financial Contracting." *Review of Economic Studies* 59, no. 3: 473–94. <https://doi.org/10.2307/2297860>.
- Aghion, P., and P. Howitt. 1992. "A Model of Growth Through Creative Destruction." *Econometrica* 60, no. 2: 323–51. <https://doi.org/10.2307/2951599>.
- Aghion, P., P. Howitt, and G. Violante. 2002. "General Purpose Technology and Wage Inequality." *Journal of Economic Growth* 7, no. 4: 315–45. <https://doi.org/10.1023/A:1020875717066>.
- Agrawal, A., J. Gans, and A. Goldfarb. 2018. *Prediction Machines: The Simple Economics of Artificial Intelligence*. Brighton, MA: Harvard Business Review Press. <https://www.predictionmachines.ai/pre-order>.

- . 2022. *Power and Prediction: The Disruptive Economics of Artificial Intelligence*. Brighton, MA: Harvard Business Review Press. <https://www.predictionmachines.ai/power-prediction>.
- Akcigit, U., J. Grigsby, T. Nicholas, and S. Stantcheva. 2021. “Taxation and Innovation in the Twentieth Century.” *Quarterly Journal of Economics* 137, no. 1: 329–85. <https://doi.org/10.1093/qje/qjab022>.
- Akerman, A., I. Gaarder, and M. Mogstad. 2015. “The Skill Complementarity of Broad-band Internet.” *Quarterly Journal of Economics* 130, no. 4: 1781–1824. <https://doi.org/10.1093/qje/qjv028>.
- Alchian, A. 1965. “Some Economics of Property Rights.” *Il Politico* 30, no. 4: 816–29. <https://www.jstor.org/stable/43206327>.
- Amershi, S., M. Cakmak, W. Knox, and T. Kulesza. 2014. “Power to the People: The Role of Humans in Interactive Machine Learning.” *AI Magazine* 35, no. 4: 105–20. <https://doi.org/10.1609/aimag.v35i4.2513>.
- Anthropic. 2024. “Anthropic-SDK-Python.” Code commit. <https://github.com/anthropics/anthropic-sdk-python>.
- Appel, G., J. Neelbauer, and D. Schweidel. 2023. “Generative AI Has an Intellectual Problem.” *Harvard Business Review*. <https://hbr.org/2023/04/generative-ai-has-an-intellectual-property-problem>.
- Arena F., and G. Pau. 2019. “An Overview of Vehicular Communications.” *Future Internet* 11, no. 2: 27. <https://doi.org/10.3390/fi11020027>.
- Armstrong, S., K. Sotala, and S. Ó hÉigeartaigh. 2014. “The Errors, Insights and Lessons of Famous AI Predictions—and What They Mean for the Future.” *Journal of Experimental & Theoretical Artificial Intelligence* 26, no. 3: 317–42. <https://doi.org/10.1080/0952813X.2014.895105>.
- Arrow, K. 1962. “The Economic Implications of Learning by Doing.” *Review of Economic Studies* 29, no. 3: 155–73. <https://doi.org/10.2307/2295952>.
- Athey, S., K. Bryan, and J. Gans. 2020. “The Allocation of Decision Authority to Human and Artificial Intelligence.” *AEA Papers and Proceedings* 110: 80–84. <https://doi.org/10.1257/pandp.20201034>.
- Athey, S., and F. Scott Morton. 2022. “Platform Annexation.” *Antitrust Law Journal* 84, no. 3. <https://www.americanbar.org/content/dam/aba/publications/antitrust/journal/84/3/platform-annexation.pdf>.
- Authors Guild v. Google, Inc.* 2015. U.S. Court of Appeals for the Second Circuit, No. 13-4829-cv. <https://law.justia.com/cases/federal/appellate-courts/ca2/13-4829/13-4829-2015-10-16.html>.
- Autor, D. 2015. “Why Are There So Many Jobs? The History and Future of Workplace Automation.” *Journal of Economic Perspectives* 29, no. 3: 3–30. <https://doi.org/10.1257/jep.29.3.3>.
- Autor, D., C. Chin, A. M. Salomons, and B. Seegmiller. 2022. *New Frontiers: The Origins and Content of New Work, 1940–2018*. NBER Working Paper 30389.

- Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w30389>.
- Autor, D., and D. Dorn. 2013. "The Growth of Low-Skill Service Jobs and the Polarization of the U.S. Labor Market." *American Economic Review* 103, no. 5: 1553–97. <https://doi.org/10.1257/aer.103.5.1553>.
- Autor, D., D. Dorn, and G. Hanson. 2013. "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." *American Economic Review* 103, no. 6: 2121–68. <https://doi.org/10.1257/aer.103.6.2121>.
- . 2021. *On the Persistence of the China Shock*. NBER Working Paper 29401. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w29401>.
- Autor, D., C. Goldin, and L. Katz. 2020. *Extending the Race Between Education and Technology*. NBER Working Paper 26705. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w26705>.
- Autor, D., F. Levy, and R. Murnane. 2003. "The Skill Content of Recent Technological Change: An Empirical Exploration." *Quarterly Journal of Economics* 118, no. 4: 1279–1333. <https://doi.org/10.1162/003355303322552801>.
- Babina, T., A. Fedyk, A. He, and J. Hodson. 2024. "Artificial Intelligence, Firm Growth, and Product Innovation." *Journal of Financial Economics* 151, no. 103745. <https://doi.org/10.1016/j.jfineco.2023.103745>.
- Bambauer, D., and M. Surdeanu. 2023. *Authorbots*. Arizona Legal Studies Discussion Paper 23-13. Tucson: Arizona Legal Studies Research Paper Series. <https://ssrn.com/abstract=4443714>.
- Bárány, Z., and C. Siegel. 2018. "Job Polarization and Structural Change." *American Economic Journal: Macroeconomics* 10, no. 1: 57–89. <https://www.aeaweb.org/articles?id=10.1257/mac.20150258>.
- Barocas, S., and A. Selbst. 2016. "Big Data's Disparate Impact." *California Law Review* 104, no. 3: 671–732. <https://www.jstor.org/stable/24758720>.
- Bartholomew, J. 2023. "Q&A: Uncovering the Labor Exploitation That Powers AI." *Columbia Journalism Review*, Tow Center. https://www.cjr.org/tow_center/qa-uncovering-the-labor-exploitation-that-powers-ai.php.
- Bartlett, R., A. Morse, R. Stanton, and N. Wallace. 2022. "Consumer-Lending Discrimination in the FinTech Era." *Journal of Financial Economics* 143, no. 1: 30–56. <https://doi.org/10.1016/j.jfineco.2021.05.047>.
- Barzel, Y., and D. Allen. 2023. *Economic Analysis of Property Rights*. New York: Cambridge University Press. <https://www.cambridge.org/core/books/economic-analysis-of-property-rights/6D5E9A3AA67284FD9A12379CA3028D50>.
- Beauchêne, D. 2019. "Is Ambiguity Aversion Bad for Innovation?" *Journal of Economic Theory* 183: 1154–76. <https://doi.org/10.1016/j.jet.2019.07.015>.
- Becker, G., and K. Murphy. 1994. "Chapter XI: The Division of Labor, Coordination Costs, and Knowledge." In *Human Capital: A Theoretical and Empirical*

Analysis with Special Reference to Education, 3rd Edition. Chicago: University of Chicago Press. <https://www.nber.org/books-and-chapters/human-capital-theoretical-and-empirical-analysis-special-reference-education-third-edition>.

- Bell, A., and G. Parchomovsky. 2005. "A Theory of Property." *Cornell Law Review* 90, no. 3: 531–616. <https://scholarship.law.cornell.edu/clr/vol90/iss3/1>.
- Bernheim, B., and M. Whinston. 1990. "Multimarket Contact and Collusive Behavior." *RAND Journal of Economics* 21, no. 1: 1–26. <https://www.jstor.org/stable/2555490>.
- Bessen, J., M. Goos, A. Salomons, and W. van den Berge. 2023. "What Happens to Workers at Firms That Automate?" *Review of Economics and Statistics*, 1–45. https://doi.org/10.1162/rest_a_01284.
- Biggs, R. 1983. "The Impact of the Interstate Highway System on Nonmetropolitan Development, 1950–75." In *Beyond the Urban Fringe: Land Use Issues in Nonmetropolitan America*, ed. R. Platt and G. Macinko, 83–105. Minneapolis: University of Minnesota Press. <https://books.google.com/books?hl=en&lr=&id=Nm0l8ogefv0C&oi=fnd&pg=PA83&dq=interstate+highway+system+migration&ots=jTrCdS1jud&sig=KpyxVj-EBIhO4MGC9XppYQ2nEew>.
- Bischoff, K., and S. Reardon. 2013. "Residential Segregation by Income, 1970–2009." Working paper, US2010 Project. <https://cepa.stanford.edu/content/residential-segregation-income-1970-2009>.
- Billard, A., and D. Kragic. 2019. "Trends and Challenges in Robot Manipulation." *Science*. <https://www.science.org/doi/full/10.1126/science.aat8414>.
- Bloom, N., C. Jones, J. Van Reenen, and M. Webb. 2020. "Are Ideas Getting Harder to Find?" *American Economic Review* 110, no. 4: 1104–44. <https://doi.org/10.1257/aer.20180338>.
- Bloom, N., J. Van Reenen, and H. Williams. 2019. "A Toolkit of Policies to Promote Innovation." *Journal of Economic Perspectives* 33, no. 3: 163–84. <https://doi.org/10.1257/jep.33.3.163>.
- BLS (U.S. Bureau of Labor Statistics). 2023. "Fastest Growing Occupations: Occupational Outlook Handbook." <https://www.bls.gov/ooh/fastest-growing.htm>.
- Boldrin, M., and D. Levine. 2013. "The Case Against Patents." *Journal of Economic Perspectives* 27, no. 1: 3–22. <https://doi.org/10.1257/jep.27.1.3>.
- Bolton, P., and M. Dewatripont. 1994. "The Firm as a Communication Network." *Quarterly Journal of Economics* 109, no. 4: 809–39. <https://doi.org/10.2307/2118349>.
- Bommasani, R., D. Hudson, E. Adeli, R. Altman, S. Arora, S. von Arx, M. Bernstein, J. Bohg, A. Bosselut, E. Brunskill, E. Brynjolfsson, S. Buch, D. Card, R. Castellon, N. Chatterji, A. Chen, K. Creel, J. Quincy Davis, D. Demszky, C. Donahue, M. Doumbouya, E. Durmus, S. Ermon, J. Etchemendy, K. Ethayarajh, L. Fei-Fei, C. Finn, T. Gale, L. Gillespie, K. Goel, N. Goodman, S. Grossman, N. Guha, T. Hashimoto, P. Henderson, J. Hewitt, D. Ho, J. Hong, K.

- Hsu, J. Huang, T. Icard, S. Jain, D. Jurafsky, P. Kalluri, S. Karamcheti, G. Keeling, F. Khani, O. Khattab, P. Wei Koh, M. Krass, R. Krishna, R. Kudithipudi, A. Kumar, F. Ladhak, M. Lee, T. Lee, J. Leskovec, I. Levent, X.L. Li, X. Li, T. Ma, A. Malik, C. Manning, S. Mirchandani, E. Mitchell, Z. Munyikwa, S. Nair, A. Narayan, D. Narayanan, B. Newman, A. Nie, J. Niebles, H. Nilforoshan, J. Nyarko, G. Ogut, L. Orr, I. Papadimitriou, J. Sung Park, C. Piech, E. Portelance, C. Potts, A. Raghunathan, R. Reich, H. Ren, F. Rong, Y. Roohani, C. Ruiz, J. Ryan, C. Ré, D. Sadigh, S. Sagawa, K. Santhanam, A. Shih, K. Srinivasan, A. Tamkin, R. Taori, A. Thomas, F. Tramèr, R. Wang, W. Wang, B. Wu, J. Wu, Y. Wu, S. Xie, M. Yasunaga, J. You, M. Zaharia, M. Zhang, T. Zhang, X. Zhang, Y. Zhang, L. Zheng, K. Zhou, and P. Liang. 2021. *On the Opportunities and Risks of Foundation Models*. ArXiv Preprint ArXiv:1802.04865. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.2108.07258>.
- Bonvillian, W. 2018. "DARPA and Its ARPA-E and IARPA Clones: A Unique Innovation Organization Model." *Industrial and Corporate Change* 27, no. 5: 897–914. <https://doi.org/10.1093/icc/dty026>.
- Booth, A., and M. Chatterji. 1998. "Unions and Efficient Training." *Economic Journal* 108, no. 447: 328–43. <https://doi.org/10.1111/1468-0297.00290>.
- Boudreau, K., L. Jeppesen, and M. Miric. 2022. "Profiting from Digital Innovation: Patents, Copyright and Performance." *Research Policy* 51, no. 5. <https://doi.org/10.1016/j.respol.2022.104477>.
- Braghieri, L., R. Levy, and A. Makarin. 2022. "Social Media and Mental Health." *American Economic Review* 112, no. 11: 3660–93. <https://doi.org/10.1257/aer.20211218>.
- Brau, R., and C. Carraro. 1999. "Voluntary Approaches, Market Structure and Competition." Fondazione eni Enrico Mattei. FEEM Working Paper 53–99 <https://doi.org/10.2139/ssrn.200614>.
- Bresnahan, T., and M. Trajtenberg. 1995. "General Purpose Technologies 'Engines of Growth'?" *Journal of Econometrics* 65, no. 1: 83–108. [https://doi.org/10.1016/0304-4076\(94\)01598-T](https://doi.org/10.1016/0304-4076(94)01598-T).
- Brodsky, J. 2016. "Autonomous Vehicle Regulation." *Berkeley Technology Law Journal* 21, no. 2: 851–78. <https://www.jstor.org/stable/26377774>.
- Brooks, F. 1996. *The Mythical Man-Month*. Boston: Addison-Wesley Professional. <https://web.eecs.umich.edu/~weimerw/2018-481/readings/mythical-man-month.pdf>.
- Broussard, W. 2009. "The Promise and Peril of Collective Licensing." *Journal of Intellectual Property Law* 17, no. 1: 21–34. <https://heinonline.org/HOL/P?h=hein.journals/intpl17&i=23>.
- Brown, N. 2023. "Bots Behaving Badly: A Products Liability Approach to the Chatbot-Generated Defamation." *Journal of Free Speech* 3, no. 2: 389–424. <https://heinonline.org/HOL/P?h=hein.journals/jfslp3&i=389>.

- Brown, I. 2020. "Interoperability as a Tool for Competition Regulation." <https://econpapers.repec.org/paper/osflawarx/fbvxd.htm>.
- Brown, J., C. Coile, and S. Weisbenner. 2010. "The Effects of Inheritance Receipt on Retirement." *Review of Economics and Statistics* 92, no. 2: 425–34. <https://doi.org/10.1162/rest.2010.11182>.
- Brown, T., B. Mann, N. Ryder, M. Subbiah, J. Kaplan, P. Dhariwal, A. Neelakantan, P. Shyam, G. Sastry, A. Askell, S. Agarwal, A. Herbert-Voss, G. Krueger, T. Henighan, R. Child, A. Ramesh, D. Ziegler, J. Wu, C. Winter, C. Hesse, M. Chen, E. Sigler, M. Litwin, S. Gray, B. Chess, J. Clark, C. Berner, S. McCandish, A. Radford, I. Sutskever, and D. Amodei. 2020. "Language Models Are Few-Shot Learners." In *Proceedings of the 34th International Conference on Neural Information Processing Systems*, 1877–1901. NIPS'20. Red Hook, NY: Curran Associates. <https://dl.acm.org/doi/abs/10.5555/3495724.3495883>.
- Brozen, Y. 1957. "The Economics of Automation." *American Economic Review* 47, no. 2: 339–50. <https://www.jstor.org/stable/1831605>.
- Brynjolfsson, E., X. Hui, and M. Liu. 2019. "Does Machine Translation Affect International Trade? Evidence from a Large Digital Platform." *Management Science* 65, no. 12: 5449–60. <https://doi.org/10.1287/mnsc.2019.3388>.
- Brynjolfsson, E., D. Li, and L. Raymond. 2023. *Generative AI at Work*. NBER Working Paper 31161. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w31161>.
- Brynjolfsson, E., T. Mitchell, and D. Rock. 2018. "What Can Machines Learn and What Does It Mean for Occupations and the Economy?" *AEA Papers and Proceedings* 108: 43–47. <https://www.aeaweb.org/articles?id=10.1257/pandp.20181019>.
- Brynjolfsson, E., D. Rock, and C. Syverson. 2021. "The Productivity J-Curve: How Intangibles Complement General Purpose Technologies." *American Economic Journal: Macroeconomics* 13, no. 1: 333–72. <https://doi.org/10.1257/mac.20180386>.
- Burnell, R., W. Schellaert, J. Burden, T. Ullman, F. Martínez-Plumed, J. Tenenbaum, D. Rutar, L. Cheke, J. Sohl-Dickstein, M. Mitchell, D. Kiela, M. Shanahan, E. Voorhees, A. Cohn, J. Leibo, and J. Hernández-Orallo. 2023. "Rethink Reporting of Evaluation Results in AI." *Science* 380, no. 6641: 136–38. <https://doi.org/10.1126/science.adf6369>.
- Buolamwini, J., and T. Gebru. 2018. "Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification." *Proceedings of the First Conference on Fairness, Accountability, and Transparency*, PMLR 81: 77–91. <https://proceedings.mlr.press/v81/buolamwini18a.html>.
- Byström, K., and K. Järvelin. 1995. "Task Complexity Affects Information Seeking and Use." *Information Processing & Management* 31, no. 2: 191–213. [https://doi.org/10.1016/0306-4573\(95\)80035-R](https://doi.org/10.1016/0306-4573(95)80035-R).
- Calabresi, G., and A. Melamed. 1972. "Property Rights, Liability Rules, and Inalienability: One View of the Cathedral." *Harvard Law Review* 85, no. 6: 1130–303.

- https://heinonline.org/HOL/Page?handle=hein.journals/hlr85&div=8&g_sent=1&casa_token=&collection=journals.
- Calvano, E., G. Calzolari, V. Denicolò, and S. Pastorello. 2020. “Artificial Intelligence, Algorithmic Pricing, and Collusion.” *American Economic Review* 110, no. 10: 3267–97. <https://doi.org/10.1257/aer.20190623>.
- Census (U.S. Bureau of the Census). 2023. “CPS Historical Time Series Tables: Table A-1. Years of School Completed by People 25 Years and Over, by Age and Sex: Selected Years 1940–2022.” <https://www.census.gov/data/tables/time-series/demo/educational-attainment/cps-historical-time-series.html>.
- Chattergoon, B., and W. Kerr. 2021. *Winner Takes All? Tech Clusters, Population Centers, and the Spatial Transformation of U.S. Invention*. NBER Working Paper 29456. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w29456>.
- Chen, L., M. Zaharia, and J. Zou. 2023. *How Is ChatGPT’s Behavior Changing Over Time?* ArXiv Preprint ArXiv: 2307.09009. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.2307.09009>.
- Chen, L., Z. Jin, S. Eyuboglu, C. Ré, M. Zaharia, and J. Zou. 2022. “HAPI: A Large-Scale Longitudinal Dataset of Commercial ML API Predictions.” *Advances in Neural Information Processing Systems* 35. https://proceedings.neurips.cc/paper_files/paper/2022/hash/9bcd0bdb2777fe8c729b682f07e993f1-Abstract-Datasets_and_Benchmarks.html.
- Cherney, M. 2021. “Buzz Off, Bees. Pollination Robots Are Here.” *Wall Street Journal*, July 7. https://www.wsj.com/articles/buzz-off-bees-pollination-robots-are-here-11625673660?reflink=desktopwebshare_permalink.
- Chetty, R. 2008. “Moral Hazard versus Liquidity and Optimal Unemployment Insurance.” *Journal of Political Economy* 116, no. 2: 173–234. <https://doi.org/10.1086/588585>.
- Chesterman, S. 2021. “Through a Glass, Darkly: Artificial Intelligence and the Problem of Opacity.” *American Journal of Comparative Law* 69, no. 2: 271–94. <https://doi.org/10.1093/ajcl/avab012>.
- Chialastri, A. 2012. “Automation in Aviation.” *INTECH Open Access*. <https://pdfs.semanticscholar.org/8232/21400579c2d309f84b33667cf3a7b4772d04.pdf>.
- Christensen, P., and C. Timmins. 2023. “The Damages and Distortions from Discrimination in the Rental Housing Market.” *Quarterly Journal of Economics* 138, no. 4: 2505–57. <https://doi.org/10.1093/qje/qjad029>.
- Chui, M., E. Hazan, R. Roberts, A. Singla, K. Smaje, A. Sukharevsky, L. Yee, and R. Zimmel. 2023. “The Economic Potential of Generative AI: The Next Productivity Frontier.” McKinsey & Company. <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-economic-potential-of-generative-ai-the-next-productivity-frontier>.
- Coase, R. 1960. “The Problem of Social Cost.” *Journal of Law and Economics* 56, no. 4: 837–77. <https://doi.org/10.1086/674872>.

- CEA (Council of Economic Advisers). 2022. *Economic Report of the President*. Washington: U.S. Government Publishing Office. <https://www.whitehouse.gov/wp-content/uploads/2022/04/ERP-2022.pdf>.
- . 2023. *Economic Report of the President*. Washington: U.S. Government Publishing Office. <https://www.whitehouse.gov/wp-content/uploads/2023/03/ERP-2023.pdf>.
- Costanza-Chock, S., I. Raji, and J. Buolamwini. 2022. “Who Audits the Auditors? Recommendations from a Field Scan of the Algorithmic Auditing Ecosystem.” In *Proceedings of the 2022 ACM Conference on Fairness, Accountability, and Transparency*, 1571–83. New York: Association for Computing Machinery. <https://doi.org/10.1145/3531146.3533213>.
- Costinot, A. 2009. “On the Origins of Comparative Advantage.” *Journal of International Economics* 77, no. 2: 255–64. <https://doi.org/10.1016/j.jinteco.2009.01.007>.
- Cowen, T. 2017. “Why Hasn’t Economic Progress Lowered Work Hours More?” *Social Philosophy & Policy* 34, no. 2: 190–212. <https://doi.org/10.1017/S0265052517000267>.
- CRS (Congressional Research Service). 2023a. “Generative Artificial Intelligence and Copyright Law.” <https://crsreports.congress.gov/product/pdf/LSB/LSB10922>.
- . 2023b. “Trade Adjustment Assistance for Workers: Background and Current Status.” <https://crsreports.congress.gov/product/pdf/R/R47200>.
- . 2024. “Section 230: An Overview.” <https://crsreports.congress.gov/product/pdf/R/R46751>.
- Dally, W., S. Keckler, and D. Kirk. 2021. “Evolution of the Graphics Processing Unit (GPU).” *IEEE Micro* 41, no. 6: 42–51. <https://doi.org/10.1109/MM.2021.3113475>.
- Dalvi, M., and J. Refalo. 2008. “An Economic Analysis of Libel Law.” *Eastern Economic Journal* 34, no. 1: 74–91. <http://www.jstor.org/stable/20642394>.
- Dastin, J. 2018. “Insight: Amazon Scraps Secret AI Recruiting Tool That Showed Bias against Women.” Reuters. <https://www.reuters.com/article/amazoncom-jobs-automation/rpt-insight-amazon-scraps-secret-ai-recruiting-tool-that-showed-bias-against-women-idINL2N1WP1RO/>.
- David, P. 1990. “The Dynamo and the Computer: An Historical Perspective on the Modern Productivity Paradox.” *American Economic Review* 80, no. 2: 355–61. <https://www.jstor.org/stable/2006600>.
- Davis, S., and T. von Wachter. 2011. *Recessions and the Cost of Job Loss*. NBER Working Paper 17638. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w17638>.
- DeVries, T., and G. Taylor. 2018. *Learning Confidence for Out-of-Distribution Detection in Neural Networks*. ArXiv Preprint ArXiv:1802.04865. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.1802.04865>.

- Diamantis, M., R. Cochran, and M. Dam. 2023. "AI and the Law." In *Technology Ethics*, edited by G. Robson, and J. Tsou., 242–49. New York: Routledge. <https://doi.org/10.4324/9781003189466>.
- Diamond, P., and E. Saez. 2011. "The Case for a Progressive Tax: From Basic Research to Policy Recommendations." *Journal of Economic Perspectives* 25, no. 4: 165–90. <https://doi.org/10.1257/jep.25.4.165>.
- DiNardo, J., and J. Pischke. 1997. "The Returns to Computer Use Revisited: Have Pencils Changed the Wage Structure Too?" *Quarterly Journal of Economics* 112, no. 1: 291–303. <http://www.jstor.org/stable/2951283>.
- DOL (U.S. Department of Labor). 2023a. "Employer and Occupation Sections." <https://www.dol.gov/agencies/eta/ui-modernization/improve-applications/employer-occupation>.
- . 2023b. "U.S. Department of Labor Announces Proposed Rulemaking to Modernize Registered Apprenticeship Regulations." <https://www.dol.gov/newsroom/releases/eta/eta20231214-0>.
- . 2023c. "Reemployment Services and Eligibility Assessment Grants." <https://www.dol.gov/agencies/eta/american-job-centers/RESEA>.
- Dong, X., Z. Yu, W. Cao, Y. Shi and Q. Ma, 2020. "A Survey on Ensemble Learning." *Frontiers of Computer Science* 14: 241–58. <https://doi.org/10.1007/s11704-019-8208-z>.
- Dornis, T. 2020. "Artificial Intelligence and Innovation: The End of Patent Law as We Know It." *Yale Journal of Law & Technology* 23: 97–159. <https://dx.doi.org/10.2139/ssrn.3668137>.
- Du Boff, R. 1967. "The Introduction of Electric Power in American Manufacturing." *Economic History Review* 20, no. 3: 509–18. <https://doi.org/10.2307/2593069>.
- Eschner, K. 2017. "Three Ways the Interstate System Changed America." *Smithsonian Magazine*, June. <https://www.smithsonianmag.com/smart-news/three-ways-interstate-system-changed-america-180963815/>.
- Edwards, B. 2023. "AI-Generated Books Force Amazon to Cap E-Book Publications to 3 Per Day." *Ars Technica*. <https://arstechnica.com/information-technology/2023/09/ai-generated-books-force-amazon-to-cap-ebook-publications-to-3-per-day/>.
- Ellingrud, K., S. Sanghvi, G. Dandona, A. Madgavkar, M. Chui, O. White, and P. Hasebe. 2023. "Generative AI and the Future of Work in America." McKinsey Global Institute. <https://www.mckinsey.com/mgi/our-research/generative-ai-and-the-future-of-work-in-america>.
- Eloundou, T., S. Manning, P. Mishkin, and D. Rock. 2023. *GPTs Are GPTs: An Early Look at the Labor Market Impact Potential of Large Language Models*. ArXiv Preprint ArXiv:2303.10130. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.2303.10130>.

- Engler, A. 2021. "Enrollment Algorithms Are Contributing to the Crises of Higher Education." Brookings Institution, AI Governance. <https://www.brookings.edu/articles/enrollment-algorithms-are-contributing-to-the-crises-of-higher-education/>.
- European Parliament Committee on Legal Affairs. 2017. "Draft Report with Recommendations to the Commission on Civil Law Rules on Robotics." https://www.europarl.europa.eu/doceo/document/JURI-PR-582443_EN.pdf.
- Fama, E., and M. Jensen. 1983. "Separation of Ownership and Control." *Journal of Law & Economics* 26, no. 2: 301–25. <https://doi.org/10.2139/ssrn.94034>.
- Fan, W., J. Liu, S. Zhu, and P. Pardalos. 2020. "Investigating the Impacting Factors for the Healthcare Professionals to Adopt Artificial Intelligence-Based Medical Diagnosis Support System (AIMDSS)." *Annals of Operations Research* 294, no. 2: 567–92. <https://doi.org/10.1007/s10479-018-2818-y>.
- Farre-Mensa, J., D. Hegde, and A. Ljungqvist. 2019. "What Is a Patent Worth? Evidence from the U.S. Patent 'Lottery'?" *Journal of Finance* 75, no. 2: 639–82. <https://doi.org/10.1111/jofi.12867>.
- Farrell, J., and P. Klemperer. 2007. "Chapter 31 Coordination and Lock-In: Competition with Switching Costs and Network Effects." *Handbook of Industrial Organization* 3: 1967–2072. [https://doi.org/10.1016/S1573-448X\(06\)03031-7](https://doi.org/10.1016/S1573-448X(06)03031-7).
- Felten, E., M. Raj, and R. Seamans. 2021. "Occupational, Industry, and Geographic Exposure to Artificial Intelligence: A Novel Dataset and Its Potential Uses." *Strategic Management Journal* 42, no. 12: 2195–2217. <https://doi.org/10.1002/smj.3286>.
- Fisher, J., and C. Houseworth. 2013. "Occupation Inflation in the Current Population Survey." *Journal of Economic and Social Measurement* 38, no. 3: 243–61. <https://content.iospress.com/articles/journal-of-economic-and-social-measurement/jem00377>.
- Florida, R., and C. Mellander. 2015. "Segregated City: The Geography of Economic Segregation in America's Metros." Martin Prosperity Institute. <https://urn.kb.se/resolve?urn=urn:nbn:se:hj:diva-28303>.
- Foster, A., and M. Rosenzweig. 2010. "Microeconomics of Technology Adoption." *Annual Review of Economics* 2, no. 1: 395–424. <https://doi.org/10.1146/annurev.economics.102308.124433>.
- Frank, R. 2008. "Context Is More Important Than Keynes Realized." In *Revisiting Keynes: Economic Possibilities for Our Grandchildren*, ed. L. Pecchi, and G. Piga, 143–50. Cambridge, MA: MIT Press. <https://andrewmbailey.com/money/readings/pecchi.pdf>.
- Freeman, R. 2008. "Why Do We Work More Than Keynes Expected?" In *Revisiting Keynes: Economic Possibilities for Our Grandchildren*, ed. L. Pecchi and G. Piga, 135–42. Cambridge, MA: MIT Press. https://dash.harvard.edu/bitstream/handle/1/34310002/Why-Do-We-Work-More-Keynes-Expected_MS-for-Pecchi-Piga-VOL-4-07_0.pdf.

- Frey, C., and M. Osborne. 2017. “The Future of Employment: How Susceptible Are Jobs to Computerisation?” *Technological Forecasting and Social Change* 114: 254–80. <https://doi.org/10.1016/j.techfore.2016.08.019>.
- Frischmann, B. A. Marciano, and G. Ramello. 2019. “Retrospectives: Tragedy of the Commons after 50 Years.” *Journal of Economic Perspectives* 33, no. 4: 211–28. <https://doi.org/10.1257/jep.33.4.211>.
- FTC (U.S. Federal Trade Commission). 2023. “Generative AI Raises Competition Concerns.” <https://www.ftc.gov/policy/advocacy-research/tech-at-ftc/2023/06/generative-ai-raises-competition-concerns>.
- Furman, J., and R. Seamans. 2019. “AI and the Economy.” *Innovation Policy and the Economy* 19: 161–91. <https://doi.org/10.1086/699936>.
- GAO (U.S. Government Accountability Office). 2018. “Personal Information, Private Companies.” <https://www.gao.gov/blog/2018/05/01/personal-information-private-companies>.
- Ganguli, D., L. Lovitt, J. Kernion, A. Askell, Y. Bai, S. Kadavath, B. Mann, E. Perez, N. Schiefer, K. Ndousse, A. Jones, S. Bowman, A. Chen, T. Conerly, N. DasSarma, D. Drain, N. Elhage, S. El-Showk, S. Fort, Z. Hatfield-Dodds, T. Henighan, D. Hernandez, T. Hume, J. Jacobson, S. Johnston, S. Kravec, C. Olsson, S. Ringer, E. Tran-Johnson, D. Amodei, T. Brown, N. Joseph, S. McCandlish, C. Olah, J. Kaplan, and J. Clark. 2022. *Red Teaming Language Models to Reduce Harms: Methods, Scaling Behaviors, and Lessons Learned*. ArXiv Preprint ArXiv:2209.07858. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.2209.07858>.
- Garbarino, E., and S. Maxwell. 2010. “Consumer Response to Norm-Breaking Pricing Events in E-Commerce.” *Journal of Business Research* 63, nos. 9–10: 1066–72. <https://doi.org/10.1016/j.jbusres.2008.12.010>.
- Garicano, L. 2000. “Hierarchies and the Organization of Knowledge in Production.” *Journal of Political Economy* 108, no. 5: 874–904. <https://doi.org/10.1086/317671>.
- Gaulé, P. 2018. “Patents and the Success of Venture-Capital-Backed Startups: Using Examiner Assignment to Estimate Causal Effects.” *Journal of Industrial Economics* 66, no. 2: 350–76. <https://doi.org/10.1111/joie.12168>.
- Gautier, A., A. Ittoo, and P. Van Cleynenbreugel. 2020. “AI Algorithms, Price Discrimination and Collusion: A Technological, Economic, and Legal Perspective.” *European Journal of Law and Economics* 50: 405–35. <https://link.springer.com/article/10.1007/s10657-020-09662-6>.
- Gifford, D. 2018. “Technological Triggers to Tort Revolutions: Steam Locomotives, Autonomous Vehicles, and Accident Compensation.” *Journal of Tort Law* 11, no. 1: 71–143. <https://doi.org/10.1515/jtl-2017-0029>.
- Gless, S., E. Silverman, and T. Weigend. 2016. “If Robots Cause Harm, Who Is to Blame? Self-Driving Cars and Criminal Liability.” *New Criminal Law Review* 19, no. 3: 412–36. <https://doi.org/10.1525/nclr.2016.19.3.412>.

- Goldin, C., and L. Katz. 2007. *The Race Between Education and Technology: The Evolution of U.S. Educational Wage Differentials, 1890 to 2005*. NBER Working Paper 12984. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w12984>.
- Goldman Sachs. 2023. "AI May Start to Boost U.S. GDP in 2027." <https://www.goldmansachs.com/intelligence/pages/ai-may-start-to-boost-us-gdp-in-2027.html>.
- Golosov, M., M. Graber, M. Mogstad, and D. Novgorodsky. 2021. *How Americans Respond to Idiosyncratic and Exogenous Changes in Household Wealth and Unearned Income*. NBER Working Paper 29000. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w29000>.
- Gordon, W. 1982. "Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and Its Predecessors." *J. Copyright Society USA* 30: 253. <https://www.jstor.org/stable/pdf/1122296.pdf>.
- Green, F., S. Machin, and D. Wilkinson. 1999. "Trade Unions and Training Practices in British Workplaces." *ILR Review* 52, no. 2. <https://journals.sagepub.com/doi/10.1177/001979399905200202>.
- Gregory, R., O. Henfridsson, E. Kaganer, and H. Kyriakou. 2021. "The Role of Artificial Intelligence and Data Network Effects for Creating User Value." *Academy of Management Review* 46, no. 3: 534–51. <https://doi.org/10.5465/amr.2019.0178>.
- Grossman, S., and O. Hart. 1986. "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration." *Journal of Political Economy* 94, no. 4: 691–719. <https://doi.org/10.1086/261404>.
- Gruber, J., S. Johnson, and E. Moretti. 2023. "Place-Based Productivity and Costs in Science." *Entrepreneurship and Innovation Policy and the Economy* 2, no. 1. <https://doi.org/10.1086/723239>.
- Guerreiro, J., S. Rebelo, and P. Teles. 2022. "Should Robots Be Taxed?" *Review of Economic Studies* 89, no. 1: 279–311. <https://doi.org/10.1093/restud/rdab019>.
- Guszcza, J., I. Rahwan, W. Bible, M. Cebrian, and V. Katyal. 2018. "Why We Need to Audit Algorithms." *Harvard Business Review*. <https://hbr.org/2018/11/why-we-need-to-audit-algorithms>.
- Hall, B., and B. Khan. 2003. *Adoption of New Technology*. NBER Working Paper 9730. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w9730>.
- Haller, P., and D. Heuermann. 2020. "Opportunities and Competition in Thick Labor Markets: Evidence from Plant Closures." *Journal of Regional Science* 60, no. 2: 273–95. <https://doi.org/10.1111/jors.12460>.
- Hart, O. 2009. "Hold-Up, Asset Ownership, and Reference Points." *Quarterly Journal of Economics* 124, no. 1: 267–300. <https://www.jstor.org/stable/40506229>.
- Haucap, J., and C. Wey. 2004. "Unionisation Structures and Innovation Incentives." *Economic Journal* 114, no. 494: C149–65. <https://doi.org/10.1111/j.0013-0133.2004.00203.x>.

- Heathcote, J., K. Storesletten, and G. Violante. 2010. "The Macroeconomic Implications of Rising Wage Inequality in the United States." *Journal of Political Economy* 118, no. 4: 681–722. <https://doi.org/10.1086/656632>.
- Heaven, W. 2023. "The Open-Source AI Boom Is Built on Big Tech's Handouts; How Long Will It Last?" *MIT Technology Review*. <https://www.technologyreview.com/2023/05/12/1072950/open-source-ai-google-openai-eleuther-meta/>.
- Herrmann, T., and S. Pfeiffer. 2023. "Keeping the Organization in the Loop: A Socio-Technical Extension of Human-Centered Artificial Intelligence." *AI & Society* 38: 1523–42. <https://doi.org/10.1007/s00146-022-01391-5>.
- Hestness, J., S. Narang, N. Aredalani, G. Damos, H. Jun, H. Kianinejad, M. Patwary, Y. Yang, and Y. Zhou. 2017. *Deep Learning Scaling Is Predictable, Empirically*. ArXiv Preprint ArXiv:1712.00409. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.1712.00409>.
- Hirsch, B. 2004. *What Do Unions Do for Economic Performance*. IZA Discussion Paper 892. Bonn: IZA Institute of Labor Economics. <https://dx.doi.org/10.2139/ssrn.459581>.
- Hitsuwari, J., Y. Ueda, W. Yun, and M. Nomura, 2023. "Does Human–AI Collaboration Lead to More Creative Art? Aesthetic Evaluation of Human-Made and AI-Generated Haiku Poetry." *Computers in Human Behavior* 139: 107502. <https://doi.org/10.1016/j.chb.2022.107502>.
- Honoré, A. 1961. "Ownership." In *Oxford Essays in Jurisprudence*, ed. A. Guest, 106–46. Oxford: Oxford University Press. <http://fs2.american.edu/dfagel/www/OwnershipSmaller.pdf>.
- Horton, A. 2023. "Scarlett Johansson Takes Legal Action Against Use of Image for AI." *Guardian*. <https://www.theguardian.com/film/2023/nov/01/scarlett-johansson-artificial-intelligence-ad>.
- Hutson, M. 2021. "The Opacity of Artificial Intelligence Makes it Hard to Tell when Decision-Making is Biased." *IEEE Spectrum* 58, no. 2: 40–45. <https://ieeexplore.ieee.org/abstract/document/9340114>.
- Hyman, B. 2022. "Can Displaced Labor Be Retrained? Evidence from Quasi-Random Assignment to Trade Adjustment Assistance." Discussion Paper, U.S. Census Bureau, Center for Economic Studies. <https://www2.census.gov/ces/wp/2022/CES-WP-22-05.pdf>.
- Johnson, J., and D. Sokol. 2020. "Understanding AI Collusion and Compliance." Working paper, Cambridge Handbook of Compliance. <https://ssrn.com/abstract=3413882>.
- Jones, C. 2022. "The Past and Future of Economic Growth: A Semi-Endogenous Perspective." *Annual Review of Economics* 14: 125–52. <https://doi.org/10.1146/annurev-economics-080521-012458>.
- Kaddour, J., J. Harris, M. Mozes, H. Bradley, R. Raileanu, and R. McHardy. 2023. *Challenges and Applications of Large Language Models*. ArXiv Preprint ArXiv:2307.10169. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.2307.10169>.

- Kadrey et al. v. Meta Platforms, Inc. 2023. U.S. District Court for the Northern District of California. <https://dockets.justia.com/docket/california/candce/3:2023cv03417/415175>.
- Kahveci, Z. 2023. "Attribution Problem of Generative AI: A View from U.S. Copyright Law." *Journal of Intellectual Property Law & Practice* 18, no. 11: 796–807. <https://doi.org/10.1093/jiplp/jpad076>.
- Kaplan, J., S. McCandlish, T. Henighan, T. Brown, B. Chess, R. Child, S. Gray, A. Radford, J. Wu, and D. Amodei. 2020. *Scaling Laws for Neural Language Models*. ArXiv Preprint ArXiv:2001.08361. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.2001.08361>.
- Kapoor, S., and A. Narayanan. 2023. "Leakage and the Reproducibility Crisis in Machine-Learning-Based Science." *Patterns* 4, no. 9: 100804. <https://doi.org/10.1016/j.patter.2023.100804>.
- Katz, M., and C. Shapiro. 1986. "Technology Adoption in the Presence of Network Externalities." *Journal of Political Economy* 94, no. 4. <https://www.journals.uchicago.edu/doi/abs/10.1086/261409>.
- Kennan, J., and R. Wilson. 1993. "Bargaining with Private Information." *Journal of Economic Literature* 31, no. 1: 45–104. <https://www.jstor.org/stable/2728150>.
- Keynes, J. 1930. "Economic Possibilities for Our Grandchildren." In *Essays in Persuasion*, 321–32. New York: Harcourt Brace. https://doi.org/10.1007/978-1-349-59072-8_25.
- King, T., N. Aggarwal, M. Taddeo, and L. Floridi. 2020. "Artificial Intelligence Crime: An Interdisciplinary Analysis of Foreseeable Threats and Solutions." *Science and Engineering Ethics* 26: 89–120. <https://doi.org/10.1007/s11948-018-00081-0>.
- Kleinberg, J., J. Ludwig, S. Mullainathan, and C. Sunstein. 2018. "Discrimination in the Age of Algorithms." *Journal of Legal Analysis* 10: 113–74. <https://doi.org/10.1093/jla/laz001>.
- Knepper, M. 2020. "From the Fringe to the Fore: Labor Unions and Employee Compensation." *Review of Economics and Statistics* 102, no. 1: 98–112. https://doi.org/10.1162/rest_a_00803.
- Knight, F. 1921. *Risk, Uncertainty and Profit*. Cambridge, MA: Riverside Press Cambridge. <https://fraser.stlouisfed.org/files/docs/publications/books/risk/riskuncertaintyprofit.pdf>.
- Kochan, T., B. Armstrong, J. Shah, E. Castilla, B. Likis, and M. Mangelsdorf. 2023. "Bringing Worker Voice into Generative AI." *IWER Research*. <https://mitsloan.mit.edu/centers-initiatives/institute-work-and-employment-research/bringing-worker-voice-generative-ai>.
- Kochhar, R. 2023. "Which U.S. Workers Are Exposed to AI in Their Jobs?" Pew Research Center, Social and Demographic Trends Project. <https://www.pewresearch.org/social-trends/2023/07/26/which-u-s-workers-are-more-exposed-to-ai-on-their-jobs/>.

- Korinek, A., and J. Stiglitz. 2019. “Artificial Intelligence and Its Implications for Income Distribution and Unemployment.” In *The Economics of Artificial Intelligence: An Agenda*, 349–90. Chicago: University of Chicago Press. <https://www.nber.org/system/files/chapters/c14018/c14018.pdf>.
- Kortum, S. 1997. “Research, Patenting, and Technological Change.” *Econometrica* 65, no. 6: 1389–1419. <https://doi.org/10.2307/2171741>.
- Krugman, P. 1981. “Intraindustry Specialization and the Gains from Trade.” *Journal of Political Economy* 89, no. 5: 959–73. <https://www.journals.uchicago.edu/doi/abs/10.1086/261015>.
- Kumar, A., A. Raghunathan, R. Jones, T. Ma, and P. Liang. 2022. *Fine-Tuning can Distort Pretrained Features and Underperform Out-of-Distribution*. ArXiv Preprint ArXiv:2202.10054. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.2202.10054>.
- Kuramanji, M., P. Triantafillou, J. Hayes, and E. Triantafillou. 2023. *Towards Unbounded Machine Unlearning*. ArXiv Preprint ArXiv:2302.09880. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.2302.09880>.
- Lambrecht, A., and C. Tucker. 2019. “Algorithmic Bias? An Empirical Study of Apparent Gender-Based Discrimination in the Display of STEM Career Ads.” *Management Science* 65, no. 7: 2966–81. <https://pubsonline.informs.org/doi/10.1287/mnsc.2018.3093>.
- Landes, W., and R. Posner. 1987. *The Economic Structure of Tort Law*. Cambridge, MA: Harvard University Press. <https://chicagounbound.uchicago.edu/books/226/>.
- Lang, K., and A. Spitzer. 2020. “Race Discrimination: An Economic Perspective.” *Journal of Economic Perspectives* 34, no. 2: 68–89. <https://doi.org/10.1257/jep.34.2.68>.
- Leffer, L. 2023. “When It Comes to AI Models, Bigger Isn’t Always Better.” *Scientific American*. <https://www.scientificamerican.com/article/when-it-comes-to-ai-models-bigger-isnt-always-better/>.
- Lewis-Kraus, G. 2014. “The Fasinatng . . . Fascinating History of Autocorrect.” *Wired*, July 22. <https://www.wired.com/2014/07/history-of-autocorrect/>.
- Levitt, T. 2004. “Marketing Myopia.” *Harvard Business Review*. <https://hbr.org/2004/07/marketing-myopia>.
- Lin, J. 2011. “Technological Adaptation, Cities, and New Work.” *Review of Economics and Statistics* 93, no. 2: 554–74. https://doi.org/10.1162/REST_a_00079.
- Ling, C., X. Zhao, J. Lu, C. Deng, C. Zheng, J. Wang, T. Chowdhury, Y. Li, H. Cui, X. Zhang, T. Zhao, A. Panalkar, W. Cheng, H. Wang, Y. Liu, Z. Chen, H. Chen, C. White, Q. Gu, J. Pei, and L. Zhao. 2023. *Domain Specialization as the Key to Make Large Language Models Disruptive: A Comprehensive Survey*. ArXiv Preprint ArXiv:2305.18703. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.2305.18703>.

- Llorca, D., V. Charisi, R. Hamon, I. Sánchez, and E. Gómez. 2023. "Liability Regimes in the Age of AI: A Use-Case-Driven Analysis of the Burden of Proof." *Journal of Artificial Intelligence Research* 76: 613–44. <https://doi.org/10.1613/jair.1.14565>.
- Luca, M. 2015. "Chapter 12: User-Generated Content and Social Media." In *Handbook of Media Economics* 1: 563–92. <https://doi.org/10.1016/B978-0-444-63685-0.00012-7>.
- Mankiw, N., D. Romer, and D. Weil. 1992. "A Contribution to the Empirics of Economic Growth." *Quarterly Journal of Economics* 107: 407–37. <https://doi.org/10.2307/2118477>.
- Mas-Colell, A., M. Whinston, and J. Green. 1995. *Microeconomic Theory*. Oxford: Oxford University Press. <https://global.oup.com/academic/product/microeconomic-theory-9780195073409?cc=us&lang=en&>.
- Maslej, N., L. Fattorini, E. Brynjolfsson, J. Etchemendy, K. Ligett, T. Lyons, J. Manyika, H. Ngo, J. Niebles, V. Parli, Y. Shoham, R. Wald, J. Clark, and R. Perrault. 2023. *The AI Index 2023 Annual Report*. AI Index Steering Committee, Institute for Human-Centered AI. Stanford, CA: Stanford University. https://aiindex.stanford.edu/wp-content/uploads/2023/04/HAI_AI-Index-Report_2023.pdf.
- McElheran, K., J. Li, E. Brynjolfsson, Z. Kroff, E. Dinlersoz, L. Foster, and N. Zolas. 2023. *AI Adoption in America: Who, What, and Where*. NBER Working Paper 31788. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w31788>.
- McKelvey, R., and T. Page. 1999. "Taking the Coase Theorem Seriously." *Economics and Philosophy* 15, no. 2: 235–47. <https://doi.org/10.1017/S0266267100003990>.
- McNicholas, C., M. Poydock, J. Wolfe, B. Zipperer, G. Lafer, and L. Loustaunau. 2019. "Unlawful: U.S. Employers Are Charged with Violating Federal Law in 41.5% of All Union Election Campaigns." Economic Policy Institute. <https://www.epi.org/publication/unlawful-employer-opposition-to-union-election-campaigns/>.
- Medema, S. 2020. "The Coase Theorem at Sixty." *Journal of Economic Literature* 58, no. 4: 1045–128. <https://doi.org/10.1257/jel.20191060>.
- Merrill, T., and H. Smith. 2011. "Making Coasean Property More Coasean." *Journal of Law and Economics* 54, no. S4: S77–S104. <https://doi.org/10.1086/661946>.
- Min, B., H. Ross, E. Sulem, A. Veyseh, T. Nguyen, O. Sainz, E. Agirre, I. Heintz, and D. Roth. 2023. "Recent Advances in Natural Language Processing via Large Pre-trained Language Models: A Survey." *ACM Computing Surveys* 56, no. 2: 1–40. <https://doi.org/10.1145/3605943>.
- Miric, M., N. Jia, and K. Huang. 2022. "Using Supervised Machine Learning for Large-Scale Classification in Management Research: The Case for Identifying Artificial Intelligence Patents." *Strategic Management Journal* 44, no. 2: 491–519. <https://doi.org/10.1002/smj.3441>.
- Mishel, L., H. Shierholz, and J. Schmitt. 2013. "Don't Blame the Robots: Assessing the Job Polarization Explanation of Growing Wage Inequality." Working paper,

- Economic Policy Institute, Center for Economic and Policy Research. <https://files.epi.org/2013/technology-inequality-dont-blame-the-robots.pdf>.
- Mishra, S., R. Koopman, G. De Prato, A. Rao, I. Osorio-Rodarte, J. Kim, N. Spatafora, K. Strier, and A. Zaccaria. 2023. "AI Specialization for Pathways of Economic Diversification." *Scientific Reports* 13: 19475. <https://doi.org/10.1038/s41598-023-45723-x>.
- Mökander, J., J. Morley, M. Taddeo, and L. Floridi. 2021. "Ethics-Based Auditing of Automated Decision-Making Systems: Nature, Scope, and Limitations." *Science and Engineering Ethics* 27, no. 44. <https://doi.org/10.1007/s11948-021-00319-4>.
- Mookherjee, D., and I. Png, 1992. "Monitoring vis-a-vis Investigation in Enforcement of Law." *American Economic Review*, 556–65. <https://www.jstor.org/stable/2117321>.
- Mokyr, J. 2008. "The Institutional Origins of the Industrial Revolution." Working paper, Northwestern University. <https://faculty.wcas.northwestern.edu/jmokyr/Institutional-Origins-4.PDF>.
- Mokyr, J., C. Vickers, and N. Ziebarth. 2015. "The History of Technological Anxiety and the Future of Economic Growth: Is This Time Different?" *Journal of Economic Perspectives* 29, no. 3: 31–50. <https://doi.org/10.1257/jep.29.3.31>.
- Moresi, S., and M. Schwartz. 2021. "Vertical Mergers with Input Substitution: Double Marginalization, Foreclosure, and Welfare." *Economic Letters* 202. <https://doi.org/10.1016/j.econlet.2021.109818>.
- Mosqueira-Rey, E., E. Hernández-Pereira, D. Alonso-Ríos, J. Bobes-Bascarán, and A. Fernández-Leal. 2022. "Human-in-the-Loop Machine Learning: A State of the Art." *Artificial Intelligence Review* 56: 3005–54. <https://doi.org/10.1007/s10462-022-10246-w>.
- Muennighoff, N., A. Rush, B. Barak, T. Le Scao, A. Piktus, N. Tazi, S. Pyysalo, T. Wolf, and C. Raffel. 2023. *Scaling Data-Constrained Language Models*. ArXiv Preprint ArXiv:2305.16264. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.2305.16264>.
- NAIAC (National Artificial Intelligence Advisory Committee). 2023. "National AI Advisory Committee." <https://ai.gov/naiac/>.
- Naik, R., V. Chandrasekaran, M. Yuksekgonul, H. Palangi, and B. Nushi. 2023. "Diversity of Thought Improves Reasoning Abilities of Large Language Models." <https://doi.org/10.48550/arXiv.2310.07088>.
- Najibi, A. 2020. "Racial Discrimination in Face Recognition Technology." Harvard University, Science in the News. <https://sitn.hms.harvard.edu/flash/2020/racial-discrimination-in-face-recognition-technology/>.
- Narechania, T. 2022. "Machine Learning as Natural Monopoly." *Iowa Law Review* 7, no. 4: 1543–1614. https://ilr.law.uiowa.edu/sites/ilr.law.uiowa.edu/files/2023-02/A4_Narechania.pdf.

- Narechania, T., and G. Sitaraman. 2023. "An Antimonopoly Approach to Governing Artificial Intelligence." Vanderbilt Policy Accelerator for Political Economy & Regulation. <https://cdn.vanderbilt.edu/vu-URL/wp-content/uploads/sites/412/2023/10/06212048/Narechania-Sitaraman-Antimonopoly-AI-2023.10.6.pdf.pdf>.
- Neel, S., and P. Chang. 2023. *Privacy Issues in Large Language Models: A Survey*. ArXiv Preprint ArXiv:2312.06717. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.2312.06717>.
- Nekoei, A., and A. Weber. 2017. "Does Extending Unemployment Benefits Improve Job Quality?" *American Economic Review* 107, no. 2: 527–61. <https://doi.org/10.1257/aer.20150528>.
- Netanel, N. 2011. "Making Sense of Fair Use." *Lewis & Clark Law Review* 15, no. 3: 715–71. <https://heinonline.org/HOL/P?h=hein.journals/lewclr15&i=731>.
- Newell, A. 1983. "Chapter 1: Intellectual Issues in the History of Artificial Intelligence." In *Artificial Intelligence: Critical Concepts, Volume 1*, ed. R. Chrisley and S. Begeer, 25–70. Abingdon, U.K.: Taylor & Francis. apps.dtic.mil/sti/citations/ADA125318.
- Noy, S., and W. Zhang. 2023. "Experimental Evidence on the Productivity Effects of Generative Artificial Intelligence." Working paper, Social Science Research Network. <https://dx.doi.org/10.2139/ssrn.4375283>.
- Nunan, D., and M. Di Domenico. 2022. "Value Creation in an Algorithmic World: Towards an Ethics of Dynamic Pricing." *Journal of Business Research* 150: 451–60. <https://doi.org/10.1016/j.jbusres.2022.06.032>.
- NIST (National Institute of Standards and Technology). 2023. "NIST Seeks Collaborators for Consortium Supporting Artificial Intelligence Safety." <https://www.nist.gov/news-events/news/2023/11/nist-seeks-collaborators-consortium-supporting-artificial-intelligence>.
- Obermeyer, Z., B. Powers, C. Vogeli, and S. Mullainathan. 2019. "Dissecting Racial Bias in an Algorithm Used to Manage the Health of Populations." *Science* 366, no. 6464: 447–53. <https://www.science.org/doi/10.1126/science.aax2342>.
- Ohlin, B., and E. Heckscher. 1991. *Heckscher-Olin Trade Theory*. Cambridge, MA: MIT Press. <https://mitpress.mit.edu/9780262082013/heckscher-ohlin-trade-theory/>.
- OMB (U.S. Office of Management and Budget). 2023a. "Guidance on Accounting for Competition Effects When Developing and Analyzing Regulatory Actions." <https://www.whitehouse.gov/wp-content/uploads/2023/10/RegulatoryCompetitionGuidance.pdf>.
- . 2023b. "OMB Releases Implementation Guidance Following President Biden's Executive Order on Artificial Intelligence." <https://www.whitehouse.gov/omb/briefing-room/2023/11/01/omb-releases-implementation-guidance-following-president-bidens-executive-order-on-artificial-intelligence/>.

- O*NET Online. No date. Database sponsored by U.S. Department of Labor. <https://www.onetonline.org/>.
- OpenAI. 2024. “OpenAI-Python.” Code commit. <https://github.com/openai/openai-python>.
- Ordover, J., G. Saloner, and S. Salop. 1990. “Equilibrium Vertical Foreclosure.” *American Economic Review* 80, no. 1: 127–42. <https://www.jstor.org/stable/2006738>.
- Oremus, W., and E. Izadi. 2024. “AI’s Future Could Hinge on One Thorny Legal Question.” *Washington Post*. <https://www.washingtonpost.com/technology/2024/01/04/nyt-ai-copyright-lawsuit-fair-use/>.
- Ostrom, E. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press. <https://www.cambridge.org/core/books/governing-the-commons/A8BB63BC4A1433A50A3FB92EDBBB97D5>.
- Ottaviani, M., and A. Wickelgren. 2011. “Ex Ante or Ex Post Competition Policy? A Progress Report.” *International Journal of Industrial Organization* 29, no. 3: 356–59. <https://doi.org/10.1016/j.ijindorg.2011.02.004>.
- Ouyang, L., J. Wu, X. Jiang, D. Almeida, C. Wainwright, P. Mishkin, C. Zhang, S. Agarwal, K. Slama, A. Ray, J. Schulman, J. Hilton, F. Kelton, L. Miller, M. Simens, A. Askell, P. Welinder, P. Christiano, J. Leike, and R. Lowe. 2022. “Training Language Models to Follow Instructions with Human Feedback.” *Advances in Neural Information Processing Systems* 35: 27730–44. https://proceedings.neurips.cc/paper_files/paper/2022/hash/b1efde-53be364a73914f58805a001731-Abstract-Conference.html.
- Parente, S., and E. Prescott. 1994. “Barriers to Technology Adoption and Development.” *Journal of Political Economy* 102, no. 2: 298–321. <https://doi.org/10.1086/261933>.
- Peng, S., E. Kalliamvakou, P. Cihon, and M. Demirer. 2023. *The Impact of AI on Developer Productivity: Evidence from GitHub Copilot*. ArXiv Preprint ArXiv:2302.06590. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.2302.06590>.
- Perrigo, B. 2023. “Exclusive: OpenAI Used Kenyan Workers on Less Than \$2 Per Hour to Make ChatGPT Less Toxic.” *Time*, January 18. <https://time.com/6247678/openai-chatgpt-kenya-workers/>.
- Perault, M. 2023. “Section 230 Won’t Protect ChatGPT.” *Journal of Free Speech Law* 3: 363–73. <https://heinonline.org/HOL/P?h=hein.journals/jfspl3&i=363>.
- Peterson, N., M. Mumford, W. Borman, P. Jeanneret, and E. Fleishman. 1995. “Development of Prototype Occupational Information Network (O*NET) Content Model.” O*Net: Occupational Information Network. https://www.onetcenter.org/dl_files/Prototype_Vol1.pdf.
- Philippon, T. 2022. *Additive Growth*. NBER Working Paper 29950. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w29950>.

- Pizzinelli, C., A. Pantoni, M. Mendes Tavares, M. Cazzaniga, and L. Li. 2023. "Labor Market Exposure to AI: Cross-Country Differences and Distributional Implications." https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4612697.
- Post, C., E. De Lia, N. DiTomaso, T. Tirpak, and R. Borwankar. 2009. "Capitalizing on Thought Diversity for Innovation." *Research-Technology Management* 52: 14–25. <https://doi.org/10.1080/08956308.2009.11657596>.
- Price, D. 2019. "Goodbye, Operator." Federal Reserve Bank of Richmond, Econ Focus. https://www.richmondfed.org/publications/research/econ_focus/2019/q4/economic_history.
- Quartz. 2017. "Bill Gates: The Robot That Takes Your Job Should Pay Taxes." <https://qz.com/911968/bill-gates-the-robot-that-takes-your-job-should-pay-taxes>.
- Raji, I., T. Gebru, M. Mitchell, J. Buolamwini, J. Lee, and E. Denton. 2020a. "Saving Face: Investigating the Ethical Concerns of Facial Recognition Auditing." *Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society*: 145–51. <https://doi.org/10.1145/3375627.3375820>.
- Raji, I., A. Smart, R. White, M. Mitchell, T. Gebru, B. Hutchinson, J. Smith-Loud, D. Theron, and P. Barnes. 2020b. "Closing the AI Accountability Gap: Defining an End-to-End Framework for Internal Algorithmic Auditing." In *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency*, 33–44. FAT* '20. New York: Association for Computing Machinery. <https://doi.org/10.1145/3351095.3372873>.
- Rees, T. 2023. "AI Could Enable Humans to Work 4 Days a Week, Says Nobel Prize-Winning Economist." *Time*. <https://time.com/6268804/artificial-intelligence-pissarides-productivity/>.
- Ricardo, D. 1817. *On The Principles of Political Economy and Taxation*. Kitchener, Canada: Batoche Books. <https://socialsciences.mcmaster.ca/econ/ugcm/31l3/ricardo/Principles.pdf>.
- Roosen, J., and D. Hennessy. 2003. "Tests for the Role of Risk Aversion on Input Use." *American Journal of Agricultural Economics* 85, no. 1: 30–43. <https://doi.org/10.1111/1467-8276.00101>.
- Roser, M., H. Richie, and E. Mathieu. 2023. "Technological Change." *Our World in Data*. <https://ourworldindata.org/technological-change?ref=bitcoinalpha.nl>.
- Roziere, B., M. Lachaux, L. Chanussot, and G. Lample. 2020. "Unsupervised Translation of Programming Languages." *Advances in Neural Information Processing Systems* 33: 20601–11. <https://proceedings.neurips.cc/paper/2020/hash/ed23fbf-18c2cd35f8c7f8de44f85c08d-Abstract.html>.
- Ryman-Tubb, N., P. Krause, and W. Garn. 2018. "How Artificial Intelligence and Machine Learning Research Impacts Payment Card Fraud Detection: A Survey and Industry Benchmark." *Engineering Applications of Artificial Intelligence* 76: 130–57. <https://doi.org/10.1016/j.engappai.2018.07.008>.

- Saez, E., and S. Stantcheva. 2018. “A Simpler Theory of Optimal Capital Taxation.” *Journal of Public Economics* 162: 120–42. <https://doi.org/10.1016/j.jpubeco.2017.10.004>.
- Sag, M. 2023. “Fairness and Fair Use in Generative AI.” *Fordham Law Review*. <https://ssrn.com/abstract=4654875>.
- SAG-AFTRA (Screen Actors Guild–American Federation of Television and Radio Artists). 2023. “TV/Theatrical Contracts 2023: Summary of Tentative Agreement.” https://www.sagaftra.org/files/sa_documents/TV-Theatrical_23_Summary_Agreement_Final.pdf.
- Sampat, B., and H. Williams. 2019. “How Do Patents Affect Follow-On Innovation? Evidence from the Human Genome.” *American Economic Review* 109, no. 1: 203–36. <https://doi.org/10.1257/aer.20151398>.
- Samuelson, P. 2023. “Generative AI Meets Copyright.” *Science* 381, no. 6654: 158–61. <https://doi.org/10.1126/science.adi0656>.
- Schaeffer, R., B. Miranda, and S. Koyejo. 2023. “Are Emergent Abilities of Large Language Models a Mirage?” *Advances in Neural Information Processing Systems* 36. https://proceedings.neurips.cc/paper_files/paper/2023/hash/adc98a266f45005c403b8311ca7e8bd7-Abstract-Conference.html.
- Schmieder, J., T. von Wachter, and S. Bender. 2012. “The Effects of Extended Unemployment Insurance Over the Business Cycle: Evidence from Regression Discontinuity Estimates Over 20 Years.” *Quarterly Journal of Economics* 127, no. 2: 701–52. <https://doi.org/10.1093/qje/qjs010>.
- Schneider, P., W. Walters, A. Plowright, N. Sieroka, J. Listgarten, R. Goodnow Jr., J. Fisher, J. Jansen, J. Duca, T. Rush, M. Zentgraf, J. Hill, E. Krutoholow, M. Kohler, J. Blaney, K. Funatsu, C. Luebkeermann, and G. Schneider. 2020. “Rethinking Drug Design in the Artificial Intelligence Era.” *Nature Reviews Drug Discovery* 19: 353–64. <https://doi.org/10.1038/s41573-019-0050-3>.
- Scotchmer, S. 1991. “Standing on the Shoulders of Giants: Cumulative Research and the Patent Law.” *Journal of Economic Perspectives* 5, no. 1: 29–41. <https://doi.org/10.1257/jep.5.1.29>.
- Setty, R. 2023. “Getty Images Sues Stability AI Over Art Generator IP Violations.” Bloomberg Law. <https://news.bloomberglaw.com/ip-law/getty-images-sues-stability-ai-over-art-generator-ip-violations>.
- Shan, S., W. Ding, J. Passananti, S. Wu, H. Zheng, and B. Zhao. 2023. *Prompt-Specific Poisoning Attacks on Text-to-Image Generative Models*. ArXiv Preprint ArXiv:2310.13828. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.2310.13828>.
- Sharifani, K., and M. Amini. 2023. “Machine Learning and Deep Learning: A Review of Methods and Applications.” *World Information Technology and Engineering Journal* 10, no. 7: 3897–904. <https://ssrn.com/abstract=4458723>.

- Sharkey, C. 2022. “Products Liability in the Digital Age: Online Platforms as ‘Cheapest Cost Avoiders.’” *Hastings Law Journal* 73: 1327–51. <https://heinonline.org/HOL/P?h=hein.journals/hastlj73&i=1329>.
- Shavell, S. 2004. *Foundations of Economic Analysis of Law*. Cambridge, MA: Harvard University Press. <https://www.jstor.org/stable/j.ctv1m0kjr4>.
- Sintchenko, V., and E. Coiera. 2003. “Which Clinical Decisions Benefit from Automation? A Task Complexity Approach.” *International Journal of Medical Informatics* 70, nos. 2–3: 309–16. [https://doi.org/10.1016/S1386-5056\(03\)00040-6](https://doi.org/10.1016/S1386-5056(03)00040-6).
- Smith, A. 1776. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Oxford: Oxford University Press. <https://doi.org/10.1093/oseo/instance.00043218>.
- Smith, H. 2012. “Property as the Law of Things.” *Harvard Law Review* 125, no. 7: 1691–1726. <https://www.jstor.org/stable/23214445>.
- Sobel, B. 2017. “Artificial Intelligence’s Fair Use Crisis.” *Columbia Journal of Law & the Arts* 41, no. 1: 45–98. <https://doi.org/10.7916/jla.v41i1.2036>.
- Solow, R. 1956. “A Contribution to the Theory of Economic Growth.” *Quarterly Journal of Economics* 70, no. 1: 65–94. <https://doi.org/10.2307/1884513>.
- Sorscher, B., R. Geirhos, S. Shekhar, S. Ganguli, and A. Morcos. 2022. “Beyond Neural Scaling Laws: Beating Power Law Scaling via Data Pruning.” *Advances in Neural Information Processing Systems* 35: 19523–36. https://proceedings.neurips.cc/paper_files/paper/2022/file/7b75da9b61eda40fa35453ee5d077df6-Paper-Conference.pdf.
- Svanberg, M., W. Li, M. Fleming, B. Goehring, and N. Thompson, 2024. “Beyond AI Exposure: Which Tasks Are Cost-Effective to Automate with Computer Vision?” SSRN 4700751. https://futuretech-site.s3.us-east-2.amazonaws.com/2024-01-18+Beyond_AI_Exposure.pdf.
- Taddy, M. 2019. “The Technological Elements of Artificial Intelligence.” In *The Economics of Artificial Intelligence: An Agenda*, ed. A. Agrawal, J. Gans, and A. Goldfarb, 61–89. Chicago: University of Chicago Press. <https://www.nber.org/papers/w24301>.
- Taub, D., and H. Levitt. 2023. “JPMorgan’s Dimon Predicts 3.5-Day Work Week for Next Generation Thanks to AI.” Bloomberg. <https://www.bloomberg.com/news/articles/2023-10-02/dimon-sees-ai-giving-a-3-1-2-day-workweek-to-the-next-generation>.
- Thaler v. Perlmutter. 2023. U.S. District Court for the District of Columbia. https://ecf.dcd.uscourts.gov/cgi-bin/show_public_doc?2022cv1564-24.
- Thaler v. Vidal. 2022. U.S. District Court for the Eastern District of Virginia. https://cafc.uscourts.gov/opinions-orders/21-2347.OPINION.8-5-2022_1988142.pdf.
- Thompson, P. 2010. “Chapter 10: Learning by Doing.” In *Handbook of the Economics of Innovation* 1, ed. B. Hall and N. Rosenberg, 429–76. Amsterdam: Elsevier. [https://doi.org/10.1016/S0169-7218\(10\)01010-5](https://doi.org/10.1016/S0169-7218(10)01010-5).

- Thuemmel, U. 2022. "Optimal Taxation of Robots." *Journal of the European Economic Association* 21, no. 3: 1154–90. <https://doi.org/10.1093/jeea/jvac062>.
- Tirole, J. 1988. *The Theory of Industrial Organization*. Cambridge, MA: MIT Press. <https://mitpress.mit.edu/9780262200714/the-theory-of-industrial-organization/>.
- . 2023. "Competition and the Industrial Challenge for the Digital Age." *Annual Review of Economics* 15: 573–605. <https://www.annualreviews.org/doi/10.1146/annurev-economics-090622-024222>.
- U.S. Department of the Treasury. 2023. "Labor Unions and the Middle Class." <https://home.treasury.gov/system/files/136/Labor-Unions-And-The-Middle-Class.pdf>.
- Vaswani, A., N. Shazeer, N. Parmar, J. Uszkoreit, L. Jones, A. Gomez, L. Kaiser, and I. Polosukhin. 2017. "Attention Is All You Need." *Advances in Neural Information Processing Systems*. <https://doi.org/10.48550/arXiv.1706.03762>.
- Verhoef, P., T. Broekhuizen, Y. Bart, A. Bhattacharya, J. Dong, N. Fabian, and M. Haenlein. 2021. "Digital Transformation: A Multidisciplinary Reflection and Research Agenda." *Journal of Business Research* 122: 889–901. <https://doi.org/10.1016/j.jbusres.2019.09.022>.
- Vipra, J., and A. Korinek. 2023. "Market Concentration Implications of Foundation Models: The Invisible Hand of ChatGPT." Working paper, Brookings Center on Regulation and Markets. <https://www.brookings.edu/wp-content/uploads/2023/09/Market-concentration-implications-of-foundation-models-FINAL-1.pdf>.
- Volokh, E. 2023. "Large Libel Models? Liability for AI Output." *Journal of Free Speech* 3: 489–558. <https://heinonline.org/HOL/P?h=hein.journals/jfsp13&i=489>.
- Webb, G., and Z. Zheng. 2004. "Multistrategy Ensemble Learning: Reducing Error by Combining Ensemble Learning Techniques." *IEEE Transactions on Knowledge and Data Engineering* 16: 980–91. <https://ieeexplore.ieee.org/abstract/document/1318582>.
- Weisz, J., M. Muller, S. Ross, F. Martinez, S. Houde, M. Agarwal, K. Talamadupula, and J. Richards. 2022. *Better Together? An Evaluation of AI-Supported Code Translation*. 27th International Conference on Intelligent User Interfaces, 369–91. New York: Association for Computing Machinery. <https://doi.org/10.1145/3490099.3511157>.
- Werden, G. 2001. "Network Effects and Conditions of Entry: Lessons from the Microsoft Case." *Antitrust Law Journal* 69, no. 1: 87–112. https://heinonline.org/HOL/Page?collection=journals&handle=hein.journals/antil69&id=99&men_tab=srchresults.
- WGAW (Writers Guild of America West). 2023. "Summary of the 2023 WGA MBA." <https://www.wga.org/contracts/contracts/mba/summary-of-the-2023-wga-mba>.
- Whalley, A. 2011. "Optimal R&D Investment for a Risk-Averse Entrepreneur." *Journal of Economic Dynamics and Control* 35, no. 4: 413–29. <https://doi.org/10.1016/j.jedc.2009.11.009>.

- White House. 2022. "Blueprint for an AI Bill of Rights: Making Automated Systems Work for the American People." <https://www.whitehouse.gov/wp-content/uploads/2022/10/Blueprint-for-an-AI-Bill-of-Rights.pdf>.
- . 2023a. "Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence." <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/10/30/executive-order-on-the-safe-secure-and-trustworthy-development-and-use-of-artificial-intelligence/>.
- . 2023b. "Biden-Harris Administration Secures Voluntary Commitments from Eight Additional Intelligence Companies to Manage the Risks Posed by AI." <https://www.whitehouse.gov/briefing-room/statements-releases/2023/09/12/fact-sheet-biden-harris-administration-secures-voluntary-commitments-from-eight-additional-artificial-intelligence-companies-to-manage-the-risks-posed-by-ai>.
- . 2023c. "Biden-Harris Administration Roadmap to Support Good Jobs." <https://www.whitehouse.gov/briefing-room/statements-releases/2023/05/16/biden-harris-administration-roadmap-to-support-good-jobs/>.
- Williamson, O. 1971. "The Vertical Integration of Production: Market Failure Considerations." *American Economic Review* 61, no. 2: 112–23. <http://dx.doi.org/10.1179/102452907X166845>.
- Xiong, W., J. Droppo, X. Huang, F. Seide, M. Seltzer, A. Stolcke, D. Yu, and G. Zweig. 2016. *Achieving Human Parity in Conversational Speech Recognition*. Microsoft Research Technical Report MSR-TR-2016-71. Redmond, WA: Microsoft Research. <https://doi.org/10.48550/arXiv.1610.05256>.
- Xu, Y., C. Shieh, P. van Esch, and I. Ling. 2020. "AI Customer Service: Task Complexity, Problem-Solving Ability, and Usage Intention." *Australian Marketing Journal* 28, no. 4: 189–99. <https://doi.org/10.1016/j.ausmj.2020.03.005>.
- Zeira, J. 1998. "Workers, Machines, and Economic Growth." *Quarterly Journal of Economics* 113, no. 4: 1091–117. <https://doi.org/10.1162/003355398555847>.
- Zhai, X., A. Kolesnikov, N. Houlsby, and L. Beyer. 2022. "Scaling Vision Transformers." *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*: 12104–113. <https://doi.org/10.48550/arXiv.2106.04560>.
- Zhang, N., Y. Yao, B. Tian, P. Wang, S. Deng, M. Wang, Z. Xi, S. Mao, J. Zhang, Y. Ni, S. Cheng, Z. Xu, X. Xu, J. Gu, Y. Jiang, P. Xie, F. Huang, L. Liang, Z. Zhang, X. Zhu, J. Zhou, and H. Chen. 2024. *A Comprehensive Study of Knowledge Editing for Large Language Models*. ArXiv Preprint ArXiv:2401.01286. Ithaca, NY: Cornell University. <https://doi.org/10.48550/arXiv.2401.01286>.
- Zhou, H., X. Wang, W. Au, H. Kang, and C. Chen. 2022. "Intelligent Robots for Fruit Harvesting: Recent Developments and Future Challenges." *Precision Agriculture* 23: 1856–907. <https://doi.org/10.1007/s11119-022-09913-3>.
- Zilibotti, F. 2007. "Economic Possibilities for Our Grandchildren 75 Years After: A Global Perspective." In *Revisiting Keynes: Economic Possibilities for Our*

Grandchildren, ed. L. Pecchi, and G. Piga, 27–39. Scholarship Online. Cambridge, MA: MIT Press. <https://doi.org/10.7551/mitpress/9780262162494.003.0003>.

- Zirar, A., S. Ali, and N. Islam, 2023. “Worker and Workplace Artificial Intelligence (AI) Coexistence: Emerging Themes and Research Agenda.” *Technovation* 124: 102747. <https://doi.org/10.1016/j.technovation.2023.102747>.
- Zolas, N., Z. Kroff, E. Brynjolfsson, K. McElheran, D. Beede, C. Buffington, N. Goldschlag, L. Foster, and E. Dinlersoz. 2020. “Advanced Technologies Adoption and Use by U.S. Firms: Evidence from the Annual Business Survey.” *NBER Working Paper 28290*. Cambridge, MA: National Bureau for Economic Research. <https://doi.org/10.3386/w28290>.

