

Worker Mobility in Globalized Labor Markets: Causes and Consequences of Migration

By JOAN LLULL*

BARCELONA LABOR ECONOMICS SUMMER SCHOOL
BARCELONA GSE, SUMMER 2017

General References: Borjas (2014), Friedberg and Hunt (1995), Greenwood (1997), Borjas (1999), Card (2005, 2009), Hanson (2009), Kerr and Kerr (2011)

Part I: Migration Decisions and Global Consequences of Migration

I. Some Facts on International Migration Across Countries and for the U.S.

II. Modelling Migration Decisions and the Self-Selection of Migrants

References: Roy (1951), Borjas (1987), Borjas and Bratsberg (1996), Grogger and Hanson (2011)

III. Empirical Evidence on Migrant Self-Selection

References: Borjas (1987), Grogger and Hanson (2011), Chiquiar and Hanson (2005), Fernández-Huertas Moraga (2011)

IV. Some Facts about Internal Migration

V. Structural Models of Internal Migration

References: Moretti (2013), Diamond (2016), Kennan and Walker (2011), Lessem (2015), Gemici (2011), Gould (2007), Baum-Snow and Pavan (2012) Buchinsky, Gotlibovski and Lifshitz (2014), Llull and Miller (2016)

Part II: Economic Consequences of Immigration

I. Some Facts about U.S. Immigration

II. Wage Effects of Immigration: Theory

References: Borjas (1995b), Borjas (2013)

III. Empirical Evidence from Local Labor Markets

* Address: MOVE. Universitat Autònoma de Barcelona. Facultat d' Economia, Edifici B, Campus de Bellaterra, 08193, Bellaterra, Cerdanyola del Vallès, Barcelona (Spain). E-mail: joan.llull[at]movebarcelona[dot]eu. URL: <http://pareto.uab.cat/jllull>.

References: Grossman (1982), Borjas (1983), Card (1990), Altonji and Card (1991), Hunt (1992), Glitz (2012), Dustmann, Schönberg and Stuhler (2017), Peri and Yasenov (2017), Clemens and Hunt (2017)

IV. Empirical Evidence: National-Level Approach

References: Borjas, Freeman and Katz (1992, 1997), Borjas (2003), Aydemir and Borjas (2007), Llull (2017a,b), Ottaviano and Peri (2012), Borjas, Grogger and Hanson (2012), Card, Dustmann and Preston (2012), Dustmann, Frattini and Preston (2013)

V. Labor Market Adjustments and Equilibrium Effects

References: Card (2001), Borjas (2006), Aydemir and Borjas (2011), Lewis (2011), Peri and Sparber (2009), Borjas (2013), Llull (2017a)

VI. Consequences of Highly Skilled Immigration

References: Peri (2005), Borjas (2009), Hunt and Gauthier-Loiselle (2010), Kerr and Lincoln (2010), Hunt (2011), Borjas and Doran (2012, 2015a,b), Ottaviano, Peri and Wright (2013), Kerr and Kerr (2013), Gaulé and Piacentini (2013), Kato and Sparber (2013), Moser, Voena and Waldinger (2014), Orrenius and Zavodny (2015), Bound, Braga, Golden and Khanna (2015), Peri et al. (2015), Kerr et al. (2015), Hunt (2015), Doran, Gelber and Isen (2016), Llull (2017c)

VII. Other Effects of Immigration

References: Angrist and Kugler (2003), Lach (2007), Cortés (2008), Smith (2012), Borjas (2013), Hunt (2016), Llull (2017a)

VIII. Economic Assimilation of Immigrants

References: Borjas (1985, 1995a, 2015), LaLonde and Topel (1992), Lubotsky (2007)

REFERENCES

Altonji, Joseph G. and David E. Card, “The Effects of Immigration on the Labor Market Outcomes of Less-skilled Natives,” in John M. Abowd and Richard B. Freeman, eds., *Immigration, Trade and the Labor Market*, Chicago: The University of Chicago Press, 1991, chapter 7, pp. 201–234.

- Angrist, Joshua D. and Adriana Kugler**, “Protective or Counter-Productive? Labour Market Institutions and the Effect of Immigration on EU Natives,” *Economic Journal*, June 2003, *113* (448), F302–F331.
- Aydemir, Abdurrahman and George J. Borjas**, “Cross-Country Variation on the Impact of International Migration: Canada, Mexico, and the United States,” *Journal of the European Economic Association*, June 2007, *5* (4), 663–708.
- and – , “Attenuation Bias in Measuring the Wage Impact of Immigration,” *Journal of Labor Economics*, January 2011, *29* (1), 69–112.
- Baum-Snow, Nathaniel and Ronni Pavan**, “Understanding the City Size Wage Gap,” *Review of Economic Studies*, January 2012, *79* (1), 88–127.
- Borjas, George J.**, “The Substitutability of Black, Hispanic, and White Labor,” *Economic Inquiry*, January 1983, *21* (1), 93–106.
- , “Assimilation, Changes in Cohort Quality, and the Earnings of Immigrants,” *Journal of Labor Economics*, October 1985, *3* (4), 463–489.
- , “Self-Selection and the Earnings of Immigrants,” *American Economic Review*, September 1987, *77* (4), 531–553.
- , “Assimilation and Changes in Cohort Quality Revisited: What Happened to Immigrant Earnings in the 1980s?,” *Journal of Labor Economics*, April 1995, *13* (2), 201–245.
- , “The Economic Benefits from Immigration,” *Journal of Economic Perspectives*, Spring 1995, *9* (2), 3–22.
- , “The Economic Analysis of Immigration,” in Orley C. Ashenfelter and David E. Card, eds., *Handbook of Labor Economics*, Vol. 3A, Amsterdam: North-Holland Publishing Company, 1999, chapter 28, pp. 1697–1760.
- , “The Labor Demand Curve Is Downward Sloping: Reexamining the Impact of Immigration on the Labor Market,” *Quarterly Journal of Economics*, November 2003, *118* (4), 1335–1374.
- , “Native Internal Migration and the Labor Market Impact of Immigration,” *Journal of Human Resources*, Spring 2006, *41* (2), 221–258.
- , “The Impact of Foreign Students on the Earnings of Doctorates,” in Richard B. Freeman and Daniel Goroff, eds., *Science and Engineering Careers in the United States: An Analysis of Markets and Employment*, Chicago: University of Chicago Press, 2009, chapter 4, pp. 131–161.

- , “The Analytics of the Wage Effect of Immigration,” *IZA Journal of Migration*, November 2013, 2 (22), 1–25.
- , *Immigration Economics*, Cambridge: Harvard University Press, 2014.
- , “The Slowdown in the Economic Assimilation of Immigrants: Aging and Cohort Effects Revisited Again,” *Journal of Human Capital*, Winter 2015, 9 (4), 483–517.
- **and Bernt Bratsberg**, “Who Leaves? The Outmigration of the Foreign-Born,” *Review of Economics and Statistics*, February 1996, 78 (1), 165–176.
- **and Kirk B. Doran**, “The Collapse of the Soviet Union and the Productivity of American Mathematicians,” *Quarterly Journal of Economics*, April 2012, 127 (3), 1143–1203.
- **and** – , “Which Peers Matter? The Relative Impacts of Collaborators, Colleagues, and Competitors,” *Review of Economics and Statistics*, December 2015, 97 (5), 1104–1117.
- **and** – , “Cognitive Mobility: Labor Market Responses to Supply Shocks in the Space of Ideas,” *Journal of Labor Economics*, July 2015, 33 (S1, Part 2), S109–S145.
- , **Jeffrey T. Grogger**, **and Gordon H. Hanson**, “Comment: On Estimating Elasticities of Substitution,” *Journal of the European Economic Association*, February 2012, 10 (1), 198–210.
- , **Richard B. Freeman**, **and Lawrence F. Katz**, “On the Labor Market Impacts of Immigration and Trade,” in George J. Borjas and Richard B. Freeman, eds., *Immigration and the Work Force: Economic Consequences for the United States and Source Areas*, Chicago: The University of Chicago Press, 1992, chapter 7, pp. 213–244.
- , – , **and** – , “How Much Do Immigration and Trade Affect Labor Market Outcomes?,” *Brookings Papers on Economic Activity*, Spring 1997, 1997 (1), 1–67.
- Bound, John, Breno Braga, Joseph M. Golden, and Gaurav Khanna**, “Recruitment of Foreigners in the Market for Computer Scientists in the United States,” *Journal of Labor Economics*, July 2015, 33 (S1, Part 2), S187–S223.
- Buchinsky, Moshe, Chemi Gotlibovski, and Osnat Lifshitz**, “Residential Location, Work Location, and Labor Market Outcomes of Immigrants in Israel,” *Econometrica*, May 2014, 82 (3), 995–1054.
- Card, David E.**, “The Impact of the Mariel Boatlift on the Miami Labor Mar-

- ket,” *Industrial and Labor Relations Review*, January 1990, *43* (2), 245–257.
- , “Immigrant Inflows, Native Outflows, and the Local Labor Market Impacts of Higher Immigration,” *Journal of Labor Economics*, January 2001, *19* (1), 22–64.
- , “Is the New Immigration Really So Bad?,” *Economic Journal*, November 2005, *115* (507), F300–F323.
- , “Immigration and Inequality,” *American Economic Review: Papers and Proceedings*, May 2009, *99* (2), 1–21.
- , **Christian Dustmann**, and **Ian Preston**, “Immigration, Wages, and Compositional Amenities,” *Journal of the European Economic Association*, February 2012, *10* (1), 78–119.
- Chiquiar, Daniel and Gordon H. Hanson**, “International Migration, Self-Selection, and the Distribution of Wages: Evidence from Mexico and the United States,” *Journal of Political Economy*, April 2005, *113* (2), 239–281.
- Clemens, Michael A. and Jennifer Hunt**, “The Labor Market Effects of Refugee Waves: Reconciling Conflicting Results,” Center for Global Development, Working Paper 455, May 2017.
- Cortés, Patricia**, “The Effect of Low-Skilled Immigration on U.S. Prices: Evidence from CPI Data,” *Journal of Political Economy*, June 2008, *116* (3), 381–422.
- Diamond, Rebecca**, “The Determinants and Welfare Implications of US Workers’ Diverging Location Choices by Skill: 1980–2000,” *American Economic Review*, March 2016, *106* (3), 479–524.
- Doran, Kirk B., Alexander Gelber, and Adam Isen**, “The Effects of High-Skilled Immigration Policy on Firms: Evidence from Visa Lotteries,” NBER Working Paper n.20668, February 2016.
- Dustmann, Christian, Tommaso Frattini, and Ian Preston**, “The Effect of Immigration along the Distribution of Wages,” *Review of Economic Studies*, January 2013, *80* (1), 145–173.
- , **Uta Schönberg**, and **Jan Stuhler**, “The Impact of Immigration on Local Labor Markets: Evidence from the Opening of the Czech-German Border,” *Quarterly Journal of Economics*, February 2017, *132* (1), 435–483.
- Fernández-Huertas Moraga, Jesús**, “New Evidence on Emigrant Selection,” *Review of Economics and Statistics*, February 2011, *93* (1), 72–96.

- Friedberg, Rachel M. and Jennifer Hunt**, “The Impact of Immigrants on Host Country Wages, Employment and Growth,” *Journal of Economic Perspectives*, Spring 1995, 9 (2), 23–44.
- Gaulé, Patrick and Mario Piacentini**, “Chinese Graduate Students and U.S. Scientific Productivity,” *Review of Economics and Statistics*, May 2013, 95 (2), 698–701.
- Gemici, Ahu**, “Family Migration and Labor Market Outcomes,” mimeo New York University, January 2011.
- Glitz, Albrecht**, “The Labor Market Impact of Immigration: A Quasi-Experiment Exploiting Immigrant Location Rules in Germany,” *Journal of Labor Economics*, January 2012, 30 (1), 175–213.
- Gould, Eric D.**, “Cities, Workers, and Wages: A Structural Analysis of the Urban Wage Premium,” *Review of Economic Studies*, April 2007, 74 (2), 477–506.
- Greenwood, Michael J.**, “Internal Migration in Developed Countries,” in Mark R. Rosenzweig and Oded Stark, eds., *Handbook of Population and Family Economics*, Vol. 1B, Amsterdam: Elsevier Science, 1997, chapter 12, pp. 647–720.
- Grogger, Jeffrey T. and Gordon H. Hanson**, “Income maximization and the selection and sorting of international migrants,” *Journal of Development Economics*, May 2011, 95 (1), 42–57.
- Grossman, Jean B.**, “The Substitutability of Natives and Immigrants in Production,” *Review of Economics and Statistics*, November 1982, 64 (4), 596–603.
- Hanson, Gordon H.**, “The Economic Consequences of the International Migration of Labor,” *Annual Review of Economics*, September 2009, 1 (1), 179–207.
- Hunt, Jennifer**, “The Impact of the 1962 Repatriates from Algeria on the French Labor Market,” *Industrial and Labor Relations Review*, April 1992, 45 (3), 556–572.
- , “Which Immigrants Are Most Innovative and Entrepreneurial? Distinctions by Entry Visa,” *Journal of Labor Economics*, July 2011, 29 (3), 417–457.
- , “Are Immigrants the Most Skilled U.S. Computer and Engineering Workers?,” *Journal of Labor Economics*, July 2015, 33 (S1), S39–S77.
- , “The Impact of Immigration on the Educational Attainment of Natives,” *Journal of Human Resources*, Published online before print, September 2016.

- and **Marjolaine Gauthier-Loiselle**, “How Much Does Immigration Boost Innovation?,” *American Economic Journal: Macroeconomics*, April 2010, *2* (2), 31–56.
- Kato, Takao and Chad Sparber**, “Quotas and Quality: The Effect of H-1B Visa Restrictions on the Pool of Prospective Undergraduate Students from Abroad,” *Review of Economics and Statistics*, March 2013, *95* (1), 109–126.
- Kennan, John and James R. Walker**, “The Effect of Expected Income on Individual Migration Decisions,” *Econometrica*, January 2011, *79* (1), 211–251.
- Kerr, Sari Pekkala and William R. Kerr**, “Economic Impacts of Immigration: A Survey,” *Finnish Economic Papers*, Spring 2011, *24* (1), 1–32.
- and –, “Immigration and Employer Transitions for STEM Workers,” *American Economic Review: Papers and Proceedings*, May 2013, *103* (3), 193–197.
- , –, and **William F. Lincoln**, “Skilled Immigration and the Employment Structures of US Firms,” *Journal of Labor Economics*, July 2015, *33* (S1, Part 2), S147–S186.
- Kerr, William R. and William F. Lincoln**, “The Supply Side of Innovation: H-1B Visa Reforms and U.S. Ethnic Invention,” *Journal of Labor Economics*, July 2010, *28* (3), 473–508.
- Lach, Saul**, “Immigration and Prices,” *Journal of Political Economy*, August 2007, *115* (4), 548–587.
- LaLonde, Robert J. and Robert H. Topel**, “The Assimilation of Immigrants in the U.S. Labor Market,” in George J. Borjas and Richard B. Freeman, eds., *Immigration and the Work Force: Economic Consequences for the United States and Source Areas*, Chicago: The University of Chicago Press, 1992, chapter 3, pp. 67–92.
- Lessem, Rebecca H.**, “Mexico-U.S. Immigration: Effects of Wages and Border Enforcement,” mimeo, Carnegie Mellon University, October 2015.
- Lewis, Ethan G.**, “Immigration, Skill Mix, and Capital-Skill Complementarity,” *Quarterly Journal of Economics*, May 2011, *126* (2), 1029–1069.
- Llull, Joan**, “Immigration, Wages, and Education: A Labor Market Equilibrium Structural Model,” *Review of Economic Studies*, June 2017, *forthcoming*.
- , “The Effect of Immigration on Wages: Exploiting Exogenous Variation at the National Level,” *Journal of Human Resources*, Published online before print, April 2017.

- , “Selective Immigration Policies and the U.S. Labor Market,” mimeo, Universitat Autònoma de Barcelona, June 2017.
- **and Robert A. Miller**, “Internal Migration in Dual Labor Markets,” mimeo, Universitat Autònoma de Barcelona, December 2016.
- Lubotsky, Darren**, “Chutes or Ladders? A Longitudinal Analysis of Immigrant Earnings,” *Journal of Political Economy*, October 2007, *115* (5), 820–867.
- Moretti, Enrico**, “Real Wage Inequality,” *American Economic Journal: Applied Economics*, January 2013, *5* (1), 65–103.
- Moser, Petra, Alessandra Voena, and Fabian Waldinger**, “German Jewish migrants and US Invention,” *American Economic Review*, October 2014, *104* (10), 3222–3255.
- Orrenius, Pia M. and Madeline Zavodny**, “Does Immigration Affect Whether US Natives Major in Science and Engineering?,” *Journal of Labor Economics*, July 2015, *33* (S1, Part 2), S79–S108.
- Ottaviano, Gianmarco I. P. and Giovanni Peri**, “Rethinking the Effect of Immigration on Wages,” *Journal of the European Economic Association*, February 2012, *10* (1), 152–197.
- , – , **and Greg C. Wright**, “Immigration, Offshoring, and American Jobs,” *American Economic Review*, August 2013, *103* (5), 1925–1959.
- Peri, Giovanni**, “Determinants of Knowledge Flows and their Effect on Innovation,” *Review of Economics and Statistics*, May 2005, *87* (2), 308–322.
- **and Chad Sparber**, “Task Specialization, Immigration, and Wages,” *American Economic Journal: Applied Economics*, July 2009, *1* (3), 135–169.
- **and Vasil Yassenov**, “The Labor Market Effects of a Refugee Wave: Synthetic Control Method Meets the Mariel Boatlift,” mimeo, University of California-Davis, June 2017.
- , **Kevin Shih, and Chad Sparber**, “STEM Workers, H1B Visas, and Productivity in US Cities,” *Journal of Labor Economics*, July 2015, *33* (S1, Part 2), S225–S255.
- Roy, Arthur D.**, “Some Thoughts on the Distribution of Earnings,” *Oxford Economic Papers*, June 1951, *3* (2), 135–146.
- Smith, Christopher L.**, “The Impact of Low-Skilled Immigration on the Youth Labor Market,” *Journal of Labor Economics*, January 2012, *30* (1), 55–89.