

RETURN INNOVATION

The Knowledge Spillovers of the British Migration to the US, 1870–1940^{*}

DAVIDE M. COLUCCIA[†]

GAIA DOSSI[‡]

This Version: October, 2023 – Click [here](#) to download the latest version

Abstract

How does innovation diffuse across countries? In this paper, we document that out-migration promotes the diffusion of innovation from the country of destination to the country of origin of migrants. Between 1870 and 1940, nearly four million British immigrants settled in the United States. We construct a novel individual-level dataset linking British immigrants in the US to the UK census, and we digitize the universe of UK patents over 1853–1899. Using a new shift-share instrument for bilateral migration and a triple-differences design, we document that migration ties contribute to technology diffusion from the US to the UK. Through high-dimensional text analysis, we find that emigrants promote technology transfer, but they also nurture the production of original innovation. Physical return migration is an important driver of this “return innovation” effect. However, we find that the interactions between the emigrants and their communities of origin promote technology diffusion, even absent physical return. Additionally, we show that migration ties further facilitate innovation diffusion by fostering cross-border market integration.

Keywords: Age of Mass Migration, Information, Innovation, Out-migration.

JEL Classification: F22, N73, N74, O15, O31, O33.

^{*}We are extremely grateful to Mara Squicciarini for her continued guidance and support. For insightful comments and discussions, we also thank Jan Bakker, Enrico Berkes, Maristella Botticini, Carola Frydman, Simon Görlach, Walker Hanlon, Leander Heldring, Matteo Leombroni, Nicola Limodio, Paolo Masella, Filippo Mezzanotti, Joel Mokyr, Alessandro Nuvolari, Laura Ogliari, Sebastian Ottinger, Eleonora Patacchini, Marta Prato, Nancy Qian, Joshua Rosenbloom, Paola Sapienza, Carlo Schwartz, Marco Tabellini, Edoardo Teso, and John Van Reenen. We thank audiences at the EHA (Pittsburgh), EHS (Cambridge), and ES (Berlin) conferences, at the 10th CEPR Economic History Symposium, and seminar participants at Bocconi, Milan, Northwestern, Cologne, and Uppsala. Antonin Bergeaud, Enrico Berkes, and Walker Hanlon kindly shared data with us. We are grateful to Bocconi, Fondazione Invernizzi, LSE, MapTiler AG, and POID for financial support. Davide Coluccia thanks the Department of Economics at Northwestern University for hospitality. All errors are our own.

[†]Department of Economics, Northwestern University. Email: davide.coluccia@northwestern.edu. Website: dcoluccia.github.io. Corresponding author.

[‡]Department of Economics, LSE. Email: g.g.dossi@lse.ac.uk. Website: sites.google.com/view/gaiadossi.

