

# The Digital Reskilling Lab

### **About Us**

In the face of rapid digital transformation, the Digital Reskilling Lab is committed to closing the skills gap, ensuring workers aren't left behind in an Al-driven future. As Al increasingly substitutes tasks traditionally performed by humans, training initiatives have gained importance in equipping "at risk" workers with skills to complement new technologies or transition to new occupations.

However, the existing evidence on the effectiveness of these initiatives is scant. We are missing a clear sense of how the design and implementation of reskilling initiatives varies across firms, whether and how they actually impact people and performance, and how their effectiveness compares with external recruitment policies. This lack of evidence hampers the ability to design and implement effective programs.

The Digital Reskilling Lab aims to close the knowledge gap, developing new evidence and conceptual frameworks to support organizations that are already, or plan to, invest in significant reskilling programs. We focus on addressing three key questions. Firstly, we explore how reskilling is deployed in organizations, empowering firms to pinpoint the ideal candidates for reskilling by leveraging our deep understanding of the drivers behind reskilling, ensuring more effective and targeted initiatives. Secondly, our research delivers actionable insights on the most effective delivery methods—whether individual or cohort-based, virtual or in-person—and the optimal content mix, including technical skills, soft skills, and experiential learning. This drives firms to deploy reskilling initiatives with maximum efficiency and impact. Thirdly, we explore the effects of reskilling programs, providing clear, evidence-based assessments of reskilling's impact on both individual outcomes, such as attrition, satisfaction, and well-being, and on organizational performance, including technology adoption and team productivity. This enables firms to confidently evaluate the cost-effectiveness of reskilling versus external recruitment.

Our objective is to help inform and motivate policy at the firm, industry, and government levels and facilitate the adoption of effective strategies aimed at strengthening human capital initiatives in the workplace. To do so, we leverage frontier methods in economics applied to high-quality data that we collect ex-novo or access through over twenty exclusive partnerships with private firms and public sector organizations in various regions, including Europe, Latin America, and North America.





### **Our Work**

The Digital Reskilling Lab aims to achieve its objectives through two primary activities:

#### **Data-driven Research**

- Knowledge synthesis: Collection and synthesis of knowledge on existing reskilling programs through reviews of practitioner oriented and academic literatures, case studies, cross-industry surveys.
- **Worker insights**: Conducting in-depth surveys and interviews evaluating workers' attitudes vis-à-vis reskilling initiatives.
- **Company partnerships**: We partner with companies to analyze the impact of reskilling programs through leveraging proprietary data from within single firms.

### **Program Design and Implementation**

- **Experiment Design:** Designing and setting up experiments within firms to evaluate reskilling programs and increase effectiveness.
- Public-Private Partnerships: Collaborating with public-private partnerships that aim to match individuals with training opportunities in both the private and public sectors.

At the Digital Reskilling Lab, we rigorously protect data confidentiality through strict ethics training for our researchers at Harvard University and comprehensive Data Use Agreements (DUAs) in collaboration with our industry partners.





## **Partnerships**

#### Established collaborations:

At the Digital Reskilling Lab, we pride ourselves on our ability to establish partnerships that align the goals of both industry leaders and academic researchers. To date, we have successfully built and maintained over twenty partnerships with private firms and public sector organizations across various regions. Our seasoned approach ensures that each partnership is tailored to meet the unique objectives of all parties involved, fostering innovation and translating into impactful results in reskilling initiatives.

#### Our role:

- Evaluation of the costs and benefits of selected reskilling programs. We evaluate reskilling activities through Randomized Controlled Trials (RCTs) or similar counterfactual approaches and provide support to structure the roll-out of these programs and the data collection needed to evaluate their effects.
- 2. **Evaluation of the scalability of promising reskilling programs.** Once we identify promising approaches (i.e. effective skill acquisition relative to the cost of programs), we aim to evaluate whether they can be replicated.
- 3. **Comparison and synthesis.** Once knowledge on individual approaches is established, we compare and synthesize it in effective ways for all audiences.

#### Partner contribution:

- **Information on Reskilling Program.** We would require details on the structure and content of your existing reskilling program.
- Understanding Target Population. We would need demographic data on the
  participants in your program, including factors such as gender, age, tenure,
  position, and education. This helps us better understand the impact of your
  reskilling efforts across different segments.
- Auxiliary Data. To evaluate the program's success, we need measurements of key intermediate and final outputs. Additionally, it would be valuable to track participants' long-term career outcomes.
- **Timing and Involvement.** Information on the timing of your reskilling initiatives and the key individuals involved would ensure we consider the right factors.
- Building Counterfactuals. To rigorously assess the impact of your reskilling initiatives, we may employ methods like Randomized Controlled Trials (RCTs) or similar approaches to create counterfactual scenarios.





## **Faculty**

### Raffaella Sadun, Charles E. Wilson Professor of Business Administration

Raffaella Sadun is the Charles E. Wilson Professor of Business Administration at Harvard Business School. Her research focuses on managerial and organizational drivers of productivity and growth in corporations and the public sectors.

Sadun currently co-leads the Digital Reskilling Lab at HBS, where she studies the effectiveness of large-scale digital training investments made in private and public sector organizations. She also serves as director of the National Bureau of Economic Research Working Group in Organizational Economics, faculty co-chair of the Harvard Project on the Workforce. She is the author of articles published in journals such as "The Quarterly Journal of Economics," "American Economic Review" and "Journal of Political Economy."

Sadun served as an economic advisor to the Italian government in 2020 and 2022 and received the honor of Grande Ufficiale dell'Ordine "Al Merito della Repubblica Italiana," the highest-ranking order of the Republic awarded for "merit acquired by the nation" in 2021. In 2022 she was awarded the Prize "Fondazione de Sanctis per le Scienze Economiche." Sadun received her Ph.D. in Economics from the London School of Economics.

## Jorge Tamayo, Assistant Professor of Business Administration

Professor Tamayo teaches the Strategy course in the MBA required curriculum. He is an applied microeconomist primarily interested in industrial organization and development economics. His research focuses on theoretical modeling and structural estimation of firm decision-making and productivity. Professor Tamayo examines the market responses to settings in which firms use price discrimination (i.e. subscriptions, or membership fees) for goods and services. His research also focuses on the ways in which managers contribute to the productivity dynamics of their teams.

#### ARE YOU INTERESTED IN PARTNERING WITH US?

To get started, please fill in this short poll to give us a sense of your current reskilling activities and opportunities for collaboration.

https://hbs.qualtrics.com/jfe/form/SV\_bEPqRBBXYZX8xIY)





## **Findings**

## **Publications & working papers:**

- Reskilling in the Age of Al by Jorge Tamayo, Leila Doumi, Sagar Goel, Orsolya Kovács-Ondrejkovic and Raffaella Sadun, Harvard Business Review
- <u>Designing A Successful Reskilling Program</u> by Jorge Tamayo, Leila Doumi, Sagar Goel, Orsolya Kovács-Ondrejkovic and Raffaella Sadun, *Harvard Business Review*
- Managerial Quality and Productivity Dynamics by Adhvaryu, Achyuta, Anat Nyshadham and Jorge Tamayo, National Bureau of Economic Research
- Absenteeism, Productivity, and Relational Contracts Inside the Firm by Adhvaryu, Achyuta, Jean-François Gauthier, Anant Nyshadham, and Jorge Tamayo, Journal of the European Economic Association
- <u>The Distinct Effects of Information Technology and Communication Technology</u>
   <u>on Firm Organization</u> by Nick Bloom, Luis Garicano, Raffaella Sadun, and John Van Reenen, *Harvard Business Review*
- The New Empirical Economics of Management by Nicholas Bloom, Renata Lemos, Raffaella Sadun, Daniela Scur, and John Van Reenen, Harvard Business Review
- Management Practices Across Firms and Countries by Nicholas Bloom, Christos Genakos, Raffaella Sadun, and John Van Reenen, Harvard Business Review
- <u>Recent Advances In The Empirics of Organizational Economics</u> by Nicholas Bloom, Raffaella Sadun, and John Van Reenen, *Harvard Business Review*
- Human-Computer Interactions in Demand Forecasting and Labor Scheduling
   Decisions by Caleb Kwon, Ananth Raman, Jorge Tamayo, Harvard Business Review
- Management As A Technology? by Nicholas Bloom, Raffaella Sadun, and John Van Reenen, Harvard Business Review
- Communication Within Firms: Evidence from CEO Turnovers by Stephen Impink, Andrea Prat, and Raffaella Sadun, SSRN Electronic Journal
- How Do CEOs Make Strategy? by Mu-Jeung Yang, Michael Christensen, Nicholas Bloom, Raffaella Sadun, and Jan Rivkin, Harvard Business Review
- Measuring Collaboration in Modern Organizations by Stephen Michael Impink, Andrea Prat, and Raffaella Sadun, Harvard Business Review
- What Do CEOs Do? by Oriana Bandiera, Luigi Guiso, Andrea Prat, and Raffaella Sadun, Harvard Business Review

