

NATIONAL SCIENCE FOUNDATION  
**Proposal Abstract**

**Proposal:**1937061

**PI Name:**Hastings , Justine

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**Proposal Title:** Convergence Accelerator Phase I: Unlocking the Power of Data and Science to Empower American Workers  
**Institution:** National Bureau of Economic Research Inc  
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The NSF Convergence Accelerator supports team-based, multidisciplinary efforts that address challenges of national importance and show potential for deliverables in the near future.

The broader impact/ potential benefit of this Convergence Accelerator Phase I project will be to empower everyday Americans with the tools to make informed choices for a successful career, and to improve the effectiveness and impact of publicly-funded labor training programs. We have brought together a cross-sector team of leading scientists, state and county governments, and not-for-profit and private industry leaders. Together, we will unlock the power of administrative data, science, and technology to support American workers with effective reskilling programs for a changing work landscape. Our project relies on the convergence and combined strengths of computer science, economics, education, public policy, behavioral science, and applied finance. First, we will create scientifically-valid return on investment measures for publicly-funded labor training programs. This information will then be available to government and all workers through a public API and web tool. The tool, which will be launched and usable by 2022, will help government understand the returns to training programs and alternatives to higher education; empower workers to make informed decisions about their future; and incentivize training programs to add value to their enrollees' ability to find gainful employment today and in the future.

This Convergence Accelerator Phase I project will address the fact that, although tens of millions of workers may be displaced and need to reskill in the coming decades, government currently has few measures to guide training investment decisions, ensure that training delivers valuable reskilling and improved outcomes, or help workers choose programs based on return on investment for the future. To meet growing needs and successfully support American workers for the jobs of the future, labor training programs will need to be effective and efficient, delivering measurable success. Retrospective studies have used administrative data to evaluate isolated training programs. However, they cannot guide displaced workers currently seeking training, and do not incentivize program improvement. We will advance scientific knowledge and help workers prepare for careers of the future by combining administrative data with causal machine-learning and econometric methods to deliver scientifically-valid measures of labor training program success in collaboration with state and local government partners. These measures will be freely available, support pay-for-success models of procurement and program management, and be easy for policymakers to own, implement, and scale. They will empower workers with the information needed to select programs that deliver skills for gainful employment and successful careers.

This award reflects NSF's statutory mission and has been deemed worthy of support through evaluation using the Foundation's intellectual merit and broader impacts review

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