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Dear Drs. Goldfarb and Tucker,

I am writing to express my interest in the NBER Digital Economics and AI Tutorial in Toronto on September 21, 2023. I am a fourth year PhD candidate at Yale University specializing in labor economics and household finance. During my time at Yale, I have taken the full graduate course sequences in Labor, Industrial Organization, and Public Economics, as well as multiple topics courses in empirical methods. I am advised by Joe Altonji, John Eric Humphries, and Seth Zimmerman.

This NBER tutorial is especially exciting because of the chance to interact with and learn from both accomplished researchers and other graduate students working on AI-related projects. I am also hopeful that the tutorial will highlight potentially useful datasets, research designs, and industry partnerships for projects on the labor market consequences of AI software adoption, as I have a strong interest in evaluating the impact of AI tools on skill development, labor market outcomes, and inequality.

Ongoing Research Projects

My ongoing work studies the role that public policies and new technologies play in shaping education and labor market outcomes.

In one project, I evaluate the distributional consequences of the introduction of centralized K-12 student assignment systems in large US public school districts using a mix of publicly available educational records and administrative microdata. I catalog the dates of adoption of all large-scale centralized choice systems in the US beginning in 1989, and I use a staggered difference-in-differences design to show that these assignment system changes modestly increase student sorting by race while tightening the distribution of home prices within adopting districts.

In another project, I characterize the demand for privately-provided Income Share Agreements (ISAs) for higher education funding using data on contract enrollment, earnings, and repayment collected by the loan provider. I exploit variation in the repayment rates offered to students driven entirely by rounding to identify the elasticity of student demand for these contracts, and I estimate a simple repayment plan choice model to show that students benefit from the option to take the ISA.

In a final project, I plan to estimate the insurance value and labor market consequences of enrolling in Income-Driven Repayment (IDR) plans for federal student loans using credit bureau data from California and an across-cohort research design exploiting adjustments to the generosity of federal IDR plans.

Proposed AI Research Agenda

While my existing projects do not address the impact of digital tools on the labor market, they have allowed me to develop skills in partnering with private companies and using large administrative datasets to answer policy-relevant research questions in empirical microeconomics. I hope to apply these skills in future work exploring the impact of AI on labor markets, and I am convinced that the most effective research in this space will involve collaboration between academia and industry.

Over the past few months, I have begun working with another Yale PhD candidate on a project that will explicitly address the impact of generative AI tools on the software and professional service industries. While policymakers and academics agree that the introduction of AI tools for developers and professional service workers has the potential to dramatically impact worker productivity, we have little evidence regarding how these tools will affect firms and workers in real-world settings. Instead, our existing evidence is mostly confined to one-shot laboratory experiments that do not map neatly into actual on-the-job behavior.

To address this shortcoming, we hope to exploit the waitlists for many popular AI tools (i.e. a staggered adoption design) to estimate the short- and medium-run productivity and job satisfaction effects of these new technologies for workers as well as any effects on firms' bottom lines.

I am sure that this early stage project would benefit tremendously from my involvement in the tutorial.

Warm regards,
Crossan Cooper