In December 2018 the Yale Research Initiative on Innovation and Scale (Y-RISE) brought together its network of research affiliates for the initiative’s inaugural conference. The 8-day conference was split into four sessions, one for each of Y-RISE’s thematic networks on challenges of scaling: Political Economy Effects; Spillovers, Network and General Equilibrium Effects; Macro, Growth, and Welfare Effects; and Evidence Aggregation and External Validity. Y-RISE Research Affiliates and invited guests presented cutting-edge research related to scaling policy interventions and discussed potential topics for future research on scaling.

Speakers and Presentations
62 Y-RISE affiliates and invited speakers participated in the conference. Participants included applied development economists and subject-matter experts in political economy, macroeconomics, and econometrics. Following is a summary of the discussions of each session. A full list of Y-RISE Inaugural Conference speakers and presentations can be found online at www.yrise.yale.edu.

Political Economy Effects of Policy Interventions

Convened by Frederico Finan (UC-Berkeley) and Gerard Padró i Miquel (Yale)

Network convener, Gerard Padró i Miquel, began the political economy session providing classifications of political economy complexities related to scaling policy interventions, which can lead to inconsistent results with the motivating pilot-scale study. In each of the following cases, necessary adjustments for fine-tuning the policies can take a long time to implement and can be costly.

1. **Policy design** - The influence of numerous political stakeholders can result in a policy designed differently than the pilot-scale intervention.
2. **Implementation** - Even when policies are replicated in the same manner, poor implementation, i.e. due to capacity constraints or corruption, can affect outcomes at scale.
3. **Consequences** - Unintended consequences of policies, like politicians claiming credit for initiatives, can impact success of policy scale-up.

Presentations brought to light that sometimes, only when implementing at large-scale, do political actors react. However, demand from policy makers will be critical to developing political economy research questions related to scale and buy-in from the start will be crucial to sustainable effects at scale.

The group also discussed the difficulty of repeating experiments in the political economy space, for example, when researching the election, behavior, and effects of national-level politicians. But, political economy effects can often be measured by creative research designs. For example, while national-level politicians present few experiments, the multiplicity of state and local governments creates opportunities for experiments. Each of the many Brazilian municipal elections constituted a type of experiment for Eliana La Ferrara and coauthors, who argued that, to help win reelection, mayors reduced enforcement of the conditionality of a conditional cash transfer (Brollo et al., 2018).
Spillovers, Network, and General Equilibrium Effects of Policy Interventions
Convened by Ahmed Mushfiq Mobarak (Yale) and Mark Rosenzweig (Yale)

Because many innovations (i.e. financial, technological) and goods (i.e. water provision, infrastructure) are network-based, implementing at large scale may induce systemic changes that affect product prices and aggregate consumption behavior. For example, the provision of debit cards to beneficiaries of a large social assistance program in Mexico motivated corner stores to adopt point-of-sale terminals to accept card payments. This, in turn, led wealthier consumers to consume more from corner stores and less from major supermarkets (Higgins, 2018).

Emily Breza and Y-RISE Faculty Director A. Mushfiq Mobarak presented on the influence of social norms on individual behavior and the implications for policy design. For agricultural day-laborers in India, norms that sanctioned fellow workers for accepting wages below the prevailing rate led people to forego work and give up a substantial amount of weekly earnings (Breza et al., 2018). Mobarak showed that in Bangladesh, a household’s decision to adopt hygienic latrines depended on both price and the adoption decisions of neighbors. Policymakers can design subsidy programs that account for these social spillover effects, for example by either concentrating or dispersing subsidies, or targeting poorer households (Guiteras et al., 2019).

One area of interest to Y-RISE is the use of social networks to achieve policy goals. Benjamin Golub and Mohammad Akbarpour presented research on how to optimally target entry points in networks and in what scenarios it can be more cost-effective to simply select “a few more” people to disseminate information (Galeotti et al., 2018; Akbarpour et al., 2018). Lori Beaman showed that in Malawi, theory-driven network-based targeting increased the diffusion of a new agricultural technology and out-performed traditional government extension services (Beaman et al., 2018).

A consensus from participants of this session was the need for further research on the implications of network theory for development policy. Notably, collecting outcome data on large scale interventions could provide a source for further research on the use of social networks in addition to traditional theories of development.

Macro, Growth, and Welfare Effects of Policy Interventions
Convened by Joseph Kaboski (Notre Dame) and David Lagakos (UC- San Diego)

The Macro, Growth, and Welfare Effects Network discussed how macroeconomic models can utilize results from experiments to provide insight into aggregate impacts of programs at scale and inform the design of new research and policies. Convener David Lagakos outlined the benefits of macroeconomics research for the development community, as follows:

1. Macroeconomic theory can help predict the effects large-scale interventions may have on the broader economy;
2. provide information on the drivers and distribution of the welfare effects of policy interventions;
3. and reveal outcomes that could stimulate new research and policies.

Affiliate Robin Burgess combined economic modelling with experimental data from an asset transfer program in Bangladesh to show that “big push” policies are needed to tackle persistent poverty. Melanie Morten used macro models to show that workers in the United States could have gained more in terms of welfare from lowering trade costs with Mexico rather than expanding the barrier on the border between 2007 and 2010 (Allen et al., 2018). Adam Szeidl discussed his ongoing work
with Jing Cai where they are using experimental results to model the welfare gains from a program providing loans to SMEs in China. And, Paul Niehaus shared promising preliminary results from an unconditional cash transfer program in Kenya.

Evidence Aggregation and External Validity
Convened by Aprajit Mahajan (UC-Berkeley) and Edward Vytlacil (Yale)

The Evidence Aggregation and External Validity Network discussed methods to generalize evidence of programs based on data from only a few contexts. Participants presented innovations in statistical approaches to meta-analyses and theoretical models to understand how programs will perform in different contexts, thereby informing policy design at scale.

Michael Kremer discussed meta-analyses pertaining to deworming, a recognized simple and cost-effective policy intervention. His analysis showed that mass deworming programs have a positive impact on child health outcomes, but the challenge is determining contexts where the program can be most cost-effective, which depends on the base prevalence of worms. A few presenters, including Rachael Meager, presented work on Bayesian Hierarchical Modelling, a promising tool to assess the external validity of programs. Other presenters, like Alexander Torgovitsky, presented econometric innovations to identify treatment effects in quantitative studies. Michael Ghechter showed his work on how to combine models with existing data from multiple studies to make predictions on how policies will perform in other contexts (Dehejia et al., 2018).

Participants agreed that meta-analysis and structural modelling using existing data are critical for determining external validity. Insights can help policymakers decide the best policy interventions to test and the locations where an intervention will have the most impact.

Next Steps for Y-RISE
The Y-RISE inaugural conference was successful in building a consensus that research on scaling policy interventions is critical for developing and implementing programs that work at scale in order to provide benefits to as many people as possible in cost-effective manners. Discussions sessions during the conference led to the following “next steps” Y-RISE will pursue to advance our work in developing the science of scaling.

Develop a Data Repository
To contribute to future research on scaling, Y-RISE should curate a repository of publicly available data from pilot-scale studies. Macro-theorists could then use this data to simulate the effects of the program at large scale. Econometricians could use the data to conduct meta-analyses to determine generalizability of program implementation and outcomes, and to optimally design experiments.

Identify Promising Interventions
In order for Y-RISE to develop an evidence base on the complexities of scaling and provide our affiliates with research opportunities, Y-RISE must first identify programs to support in scaling. Y-RISE staff should compile a list of promising, evidence-based, interventions with potential to scale. This will require co-creating research and implementation plans alongside implementing partners. Robert Jensen (Yale) and Michael Kremer (Harvard), who convene the fifth Y-RISE network Policy Implementation and Institutional Capacity, will lead this effort.

The Y-RISE Networks will reconvene in June 2019.
References


