

Detailed unemployment and the resilience of urban workers

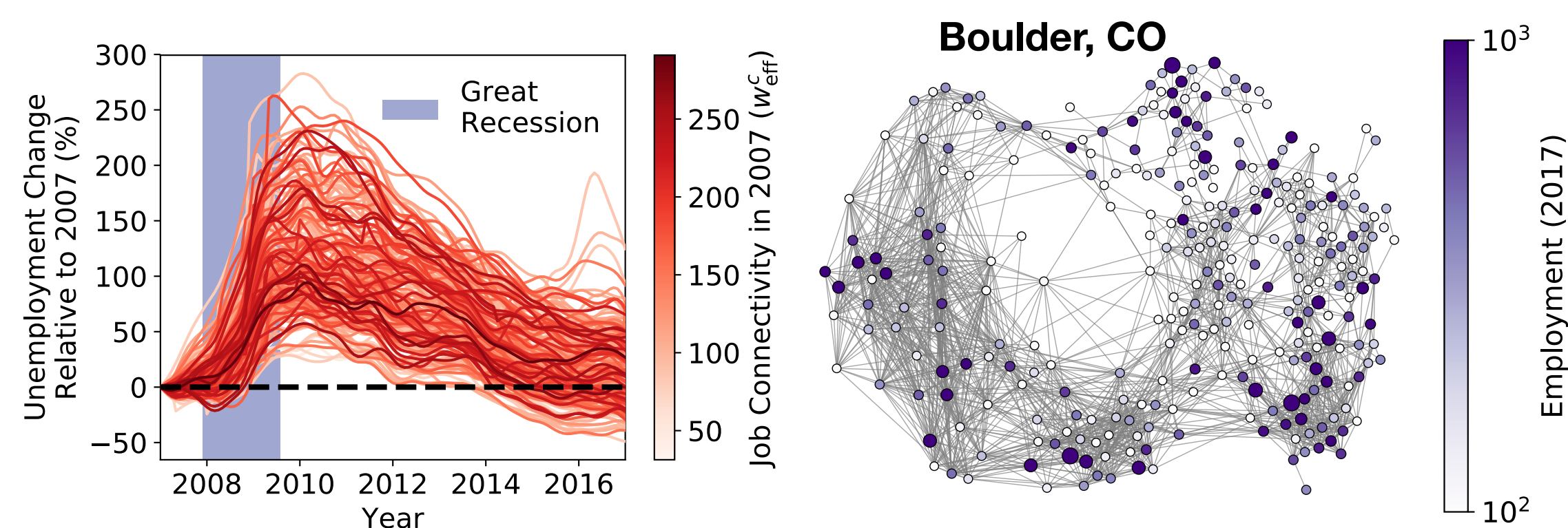
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Motivation

- Cities are the innovation centers of the US economy, but sudden labor disruptions from COVID-19 are leaving workers uncertain about their next paycheck or the stability of their job.
- Rather than subjectively characterizing “essential” workers, a worker’s skills and abilities dictate their adaptability to career disruption.

Project Description

- Model labor market resilience in cities with an ecologically-inspired employment matching process on the job network constructed from the similarity of occupations’ skill requirements.
- Key idea: workers with skills that embed them in their local labor market may find new employment more easily.
- Validate against urban unemployment in the 2020 COVID economy and after the Great Recession.



(Left) Urban labor markets with greater job connectivity experienced lower unemployment rates following the Great Recession. (Right) The job network for Boulder, CO, based on shared skill requirements.



Many US jobs have been lost in the COVID economy. Rather than judging "essentialness," skills determine worker adaptability and career mobility.



Context

- Current practice characterizes workers abstractly as educated or not, essential or not, or high-skill vs. low-skill
- Recent labor data enables improved insights through detailed occupational skill profiles representing the national US economy

Project Deliverables

- A developed framework for the skill complexity of urban labor markets in the form of an academic publication
- This funding enables the foundational work required for a multi-year research agenda around supporting workers.

Potential Impact

- Policy designed from equilibrium labor analysis may not apply during out-of-equilibrium labor disruptions
- The COVID economy represents a period of sustained out-of-equilibrium economics that requires new empirical insights into workers’ careers.
- Insights from this study will inform policy makers of:
 - Which workers are most susceptible to sustained unemployment
 - Which skills create career mobility
 - Which skills, firms, and industries might strengthen economic resilience following investment.

References and/or Acknowledgements

- Frank, Morgan R., et al. "Toward understanding the impact of artificial intelligence on labor." *Proceedings of the National Academy of Sciences* 116.14 (2019): 6531-6539.