EXECUTIVE SUMMARY

Local Labor Market Impacts of the Energy Transition: Prospects and Policies

by Gordon Hanson

JANUARY 2023

THE CHALLENGE

Society's transition toward more sustainable energy sources is well underway, but substantially reducing the use of fossil fuels in everyday life will profoundly disrupt the communities that currently dedicate themselves to carbon-intensive industries. In his chapter, "Local Labor Market Impacts of the Energy Transition: Prospects and Policies," author Gordon Hanson considers the potential for adverse labor market consequences from the energy transition and the suitability of existing policies to counteract them. Particularly, he discusses how to avoid repeating the painful adjustment to globalization and automation, which brought long-lasting economic distress to labor markets specialized in manufacturing.

Hanson makes three policy recommendations:

1. **Calibrate Unemployment Insurance (UI) to local economic conditions:** Job loss caused by the energy transition is likely to be highly concentrated in specific local labor markets[1] and therefore state-level triggers may be too crude to help the regions that will suffer high levels of worker displacement. Tying UI benefits to the unemployment rate in the local labor market may help to better target workers and communities most affected by transition shocks.
2. **Expand technical and vocational training:** Because the energy transition may require affected regions to develop new export bases, local workers may need to acquire skills suitable for new and unfamiliar industries. Evidence shows that active labor market programs and community colleges can be successful in helping displaced and disadvantaged workers, but bureaucratic hurdles present challenges to scaling such programs. Hanson emphasizes the need to centralize the existing system of training programs and infrastructure in order to achieve more ambitious objectives.
3. **Coordinate place-based policies:** Many states and localities have already undertaken place-based policies to recruit new capital to distressed regions, but more needs to be done to understand which place-based policies are effective and in which contexts. Hanson urges policymakers to improve incentives of business recruitment strategies to be better aligned with social objectives, and to diversify approaches to also include workforce development, financial and technical assistance to small business, infrastructure development, and financial incentives to invest in low-income areas.

REGIONAL EMPLOYMENT IN FOSSIL-FUEL-INTENSIVE INDUSTRIES AND ECONOMIC RATIONALE FOR POLICY CONCERN

Across the United States, employment in fossil fuel-intensive industries is concentrated geographically and among non-college educated workers, leaving these communities vulnerable to industry-specific shocks. For example, the energy transition may dent the export capabilities of the regions that specialize in the upstream extraction and refining of fossil fuels, while also dampening downstream consumption.

Approximately 1.7 million workers are employed in the fossil-fuel intensive industries that are most likely to be impacted by the clean energy transition. These include fossil fuel extracting and refining (729,000 workers), electric power generation (194,000 workers), and energy-intensive manufacturing (731,000 workers).

One option to address adverse labor market consequences is to relocate workers to areas of higher employment, but, as Hanson notes, non-college-educated workers are less mobile and are less likely to respond to negative labor demand shocks. In labor markets beset by large downturns, joblessness can therefore become entrenched. Without outside action of some kind, the energy transition could depress employment rates and living standards in exposed communities for an extended period of time.

LESSONS FROM THE COAL INDUSTRY'S DECLINE

Hanson recommends revisiting the lessons learned from the decline of the coal industry. During the 1983-1993 coal bust, counties with employment specialized in coal in Kentucky, Ohio, Pennsylvania, and West Virginia incurred the largest decreases in employment, total earnings, and earnings per worker, and larger increases in the uptake of government transfers. These declines also persisted for 20 years or longer.

On net, younger job-seekers ultimately left the areas in large numbers to pursue opportunities elsewhere, but their outflows took decades to fully materialize. The population that remained, which tended to have considerably less education than the groups that left, became substantially more dependent on government transfers, primarily in the form of subsidized health care. The decline of coal appears to have left behind communities that are smaller, older, sicker, and with sharply lower average earnings power

“The decline of coal appears to have left behind communities that are smaller, older, sicker, and with sharply lower average earnings power."

Hanson breaks policy options down to two categories: targeting individuals, which is accomplished through the social safety net and targeting regions, which is accomplished through place-based policies. Policies that target individuals include programs such as UI, public assistance programs (Medicaid, SNAP, TANF, SSI), social security programs, and the earned income tax credit.

Policies that target regions (local economic development policies) tend to be organized around five major areas: business retention and recruitment, workforce development, financial and technical assistance to small business, infrastructure development, and financial incentives to invest in low-income areas. Hanson describes the pros and cons of three approaches:

1. **Business retention and recruitment (building capital):** The goal of business recruitment is to catalyze investments in physical capital in a geographic region, commonly through tax incentives. Hanson cautions this approach may yield disappointing results because of an emphasis on gross, rather than net, job creation.
2. **Workforce development (improving labor):** Many workers displaced by the energy transition will need to retool their skills for new occupations. Hanson recommends supporting active labor market programs, which provide training in sector-specific skills demanded by local employers, and expanding community college programs.
3. **Financial and technical assistance to small business (raising productivity):** In the aftermath of localized economic downturns, there may be reason to subsidize services to businesses with demonstrated interest in expanding local employment. Unfortunately, Hanson notes, the effects of the approach are not well studied and warrant more research to evaluate their effectiveness.

ABOUT THE AUTHOR

Gordon Hanson

Peter Wertheim Professor in Urban Policy, Harvard Kennedy School of Government

Gordon Hanson is the Peter Wertheim Professor in Urban Policy at the Harvard Kennedy School of Government. He is also Chair of the Social and Urban Policy Area at HKS, a research associate at the National Bureau of Economic Research, and a member of the Council on Foreign Relations. He is past co-editor of the Journal of Economic Perspectives, the Review of Economics and Statistics, and the Journal of Development Economics. Hanson received his PhD in economics from MIT in 1992 and his BA in economics from Occidental College in 1986. Prior to joining Harvard in 2020, he held the Pacific Economic Cooperation Chair in International Economic Relations at UC San Diego, where he was founding director of the Center on Global Transformation. Hanson previously served on the economics faculties of the University of Michigan and the University of Texas. In his scholarship, Hanson studies the labor market consequences of globalization. He has published extensively in top economics journals, is widely cited for his research by scholars from across the social sciences and is frequently quoted in major media outlets. Hanson's current research addresses how the China trade shock has affected US local labor markets, the causes and consequences of international migration, and the origins of regional economic divides.

About the Aspen Economic Strategy Group

The Aspen Economic Strategy Group (AESG), a program of the Aspen Institute, is composed of a diverse, bipartisan group of distinguished leaders and thinkers with the goal of promoting evidence-based solutions to significant US economic challenges. Co-chaired by Henry M. Paulson, Jr. and Timothy F. Geithner, the AESG fosters the exchange of economic policy ideas and seeks to clarify the lines of debate on emerging economic issues while promoting bipartisan relationship-building among current and future generations of policy leaders in Washington.