Non-technical summary for 'The "Clean Energy Transition" and the Cost of Job Displacement in Energy-intensive Industries'

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What did we set out to do?

Many countries are in the process of transitioning to lower greenhouse emission economies (green transition). As they do so, some emission-intensive sectors – sectors that have higher greenhouse gas emissions – may shrink in size. One important question is what happens to workers in these sectors. Will workers be able to easily move into jobs in existing or emerging industries? Or will such movement be more challenging, potentially reflecting a mismatch between workers' skills and locations, and job opportunities?

This question has important implications for various policymakers. For example, from a central bank's point of view if there are a larger number of workers in the future who are not well matched to available jobs, this could mean that sustainable full employment – the level of employment that can be achieved without inflation picking up – is lower (all else equal). For other policymakers, there may be implications for the design of welfare payments, and active labour market and skills policies.

To better understand the implications of the green transition for workers, we compare worker outcomes after job loss in emission-intensive and other sectors across 14 OECD countries from 2000 to 2019. We explore whether outcomes differed after job loss for workers in higher- and lower-emission sectors and, if so, why? While there is no guarantee that future outcomes could look similar to past ones, our observations can still give us some important insights.

What did we learn?

Our research identified the following:

- **Higher earnings losses in emission-intensive sectors:** Workers in energy supply and heavy manufacturing industries experienced greater earnings losses in the years after losing a job compared with workers in non-energy-intensive industries.
  - This, in part, reflected a lower likelihood of these workers finding a new job and a larger fall in the number of days worked if they did find one, suggesting that a transition away from emission-intensive sectors may be associated with slightly higher structural unemployment or underemployment.
  - The earnings losses also reflected, in part, the fact that these workers had a greater likelihood of moving into a lower paying role (relative to their old job).
- **Causes of earnings losses:** Displaced workers from higher-emission sectors tended to be older and had fewer portable skills, which contributed to the larger earnings losses. They also tended to have been employed in sectors that paid particularly high wages, and so moving to other jobs led to losses in income.
- **Differences by country:** The effects of job displacement, and how they differ between emission-intensive and other sectors, vary across countries. In Australia, the gap in outcomes between emission-intensive and other sectors was smaller than in other countries, potentially suggesting that there may be smaller adjustment costs in the future for the green transition, at least on this margin.

What was our key takeaway?

Historically, earnings losses following job loss tend to be larger in emission-intensive sectors compared with other sectors, reflecting a combination of job- and worker-related factors. Our findings can help to inform policies aimed at facilitating the green transition. Our findings also suggest that the green transition may have some implications for sustainable levels of unemployment in the future, though more work is required to assess the magnitude. As outcomes in emission-intensive and other sectors are more similar in Australia than in many other countries, Australia is potentially better placed for the transition than some other countries.