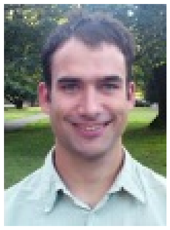
Resource booms leave regions worse off once they fade out.



Communities that enjoy well-paid jobs and low unemployment during a natural resources boom need to plan carefully for the serious economic hardships that will follow the inevitable bust. That is the key lesson from new research by **Grant Jacobsen** *and* **Dominic Parker**, *which looks at what happened to 'boomtowns' in the American West during the oil drilling boom-bust cycle of the 1970s and 1980s.*

Recent years have seen a massive upswing in oil production in some US regions through the exploitation of shale formations through new processes such as hydraulic fracturing, or 'fracking'. But what happens to these regions once oil prices fall or the oil starts to run out? In our new study, published in the June 2016 *Economic Journal*, we find that the economies of oil boomtowns fared poorly after the bust, with local incomes eventual settling at levels lower than if the boom had never occurred. The depression of incomes of the post-boom period seems largely to have been the result of local residents over-specialising in skills and capital specific to the boom times and which were not well matched with employment opportunities after the bust.

The findings are relevant to modern boomtowns, such as US communities in North Dakota, Texas and Pennsylvania near oil and gas reserves that are newly accessible with hydraulic fracturing technologies. These boomtowns have been blessed with an abundance of high-paying jobs and negligible unemployment over the past five to seven years. But what will happen to their economies when the bust comes – for example, if oil prices remain low? Will the boom ultimately prove to be an economic curse?

To shed light on this question, we studied the oil drilling boom-bust cycle during the 1970s and 1980s and the boomtowns that it created in the American West. As with the current wave of boomtowns, these earlier boomtowns absorbed surges of new entrants and wages, and job openings spiked.

Oil jack in Texas Credit: Paul Lowry (Flickr, CC-BY-2.0)

We also found a surprising pattern in the eventual outcomes: the economies of these earlier oil boomtowns fared poorly after the bust and their local incomes ultimately settled at levels lower than those that would have been experienced had the boom never occurred.

To make these inferences, we statistically tracked the annual economic conditions of oil-rich western counties from 1969 to 1998 against those of nearby rural counties that lacked oil reserves. The data comparisons show that:

- While workers and non-farm small businesses in boom counties enjoyed substantial *short-term* economic benefits, they also endured *long-term* hardships in the form of joblessness, and depressed business profits and local incomes.
- Per capita incomes in boom counties increased by more than 10 percent above pre-boom levels at the height of the boom, and employment in construction, services and the retail sector experienced impressive expansions.
- But in the longer run, after the full boom-bust-cycle had completed, income per capita was about 6 percent lower than it would have been if the boom had never occurred. Local unemployment payments – which serve as a proxy for job loss – increased immediately following the peak of the boom and did not contract back to pre-boom levels during the entire post-bust period.

These findings shed light on an old paradox in economics known as the 'natural resource curse'. The paradox is that resource endowments can be harmful to local economies under certain circumstances.

One reason for the 'curse' is that resource booms can crowd out other local industries, such as manufacturing and commercial agriculture, for example, by raising the competitive wages that must be paid to labour. Consistent with this logic, we find evidence of declining farm profits in boom counties during the boom.

But our results suggest that another factor better explains the persistent depression of incomes throughout the post-bust era. The boom induced local residents to over-specialise their investments towards boom-specific capital and skills that were later mismatched with employment opportunities in post-bust economies. This helps to explain why both labour and owners of non-farm businesses were slow to exit boomtowns after the bust, even as wages fell and profits declined.

We would like to point out, however, that the boom was not strictly a 'curse' because communities experienced economic expansions before contractions, and the aggregate effect of the boom on local communities across all years – that is, the boom, the bust and the post-bust periods – was arguably positive.

But the negative long-run effects suggest that communities should consider how they could take steps during boom periods that will allow for an easier transition to a post-bust economy. This lesson presumably applies to modern boomtowns, which are likely to experience similar hardships as they transition into their post-boom economies after the bust inevitably arrives.

This article is based on the forthcoming paper 'The Economic Aftermath of Resource Booms: Evidence from Boomtowns in the American West' in the June 2016 issue of the Economic Journal.

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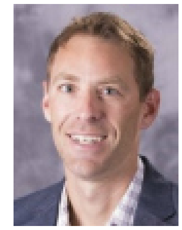
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