

Who Needs a Fracking Education?

The Educational Response to Biased Technological Change

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Abstract

We explore the educational response to fracking, a recent technological breakthrough in the oil and gas industry, taking advantage of the timing of its diffusion and spatial variation in shale reserves. We show that fracking has significantly increased demand for less-educated male labor and high school dropout rates of male teens, both overall and relative to females. Our estimates imply that, absent fracking, the male-female gap in teen dropout rates in affected states would have narrowed by nearly 40% between 2000 and 2013 instead of by only a tenth. Fracking did not reduce the return to high school for men by enough to plausibly explain the full effects, suggesting the importance of a rising opportunity cost of enrollment for the findings. Other explanations, like changes in school inputs or family income, receive less empirical support.

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