

# RACE, POVERTY, AND HYDRAULIC FRACTURING IN NORTH CAROLINA

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## WHAT'S GOING ON: BACKGROUND

Hydraulic fracturing for natural shale gas extraction is a new industry that is growing rapidly, despite the fact that little is known about its impacts on the environment and human health. Citizens in communities across the U.S. have expressed concern that hydraulic fracturing has negatively impacted their lives by polluting the air, contaminating the water, disrupting the community, and harming their health. Many communities feel disempowered to prevent hydraulic fracturing near their homes. There is concern that communities of color and low wealth may be preferentially selected for hydraulic fracturing, and these citizens may be shouldering a greater burden of harmful exposures and health impacts.

Hydraulic fracturing is not currently permitted in North Carolina, but proposed legislation in the state House of Representatives would allow the practice to begin in 2014. Lee County would be the epicenter of hydraulic fracturing activity in North Carolina, and many parcels of land have already been leased to gas companies for that express purpose.

This research study investigates whether or not leases for future hydraulic fracturing in North Carolina are disproportionately located in communities of color and less wealth.

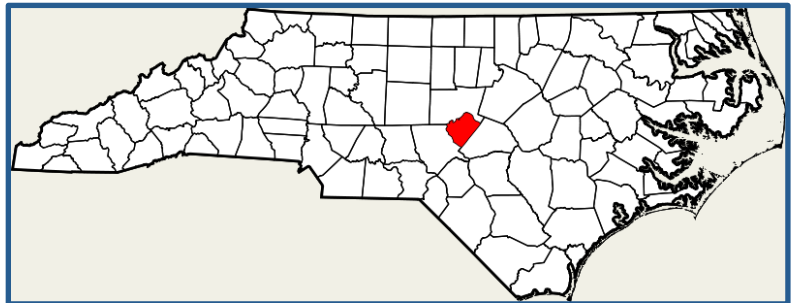
### MAJOR FINDINGS

**Communities with more than 50% people of color were 4.2 times as likely to have hydraulic fracturing leases as those with <10% people of color.**

**Communities with more than 50% people of color had an average of 50% of land leased for hydraulic**

## WHAT WE DID: RESEARCH METHODS

Researchers gathered information about the locations of leases for hydraulic fracturing in Lee County from state records. They matched the leases to US Census blocks and compared information about race to the locations and volume of hydraulic fracturing leases. A similar comparison was made between poverty and lease location for census block groups.

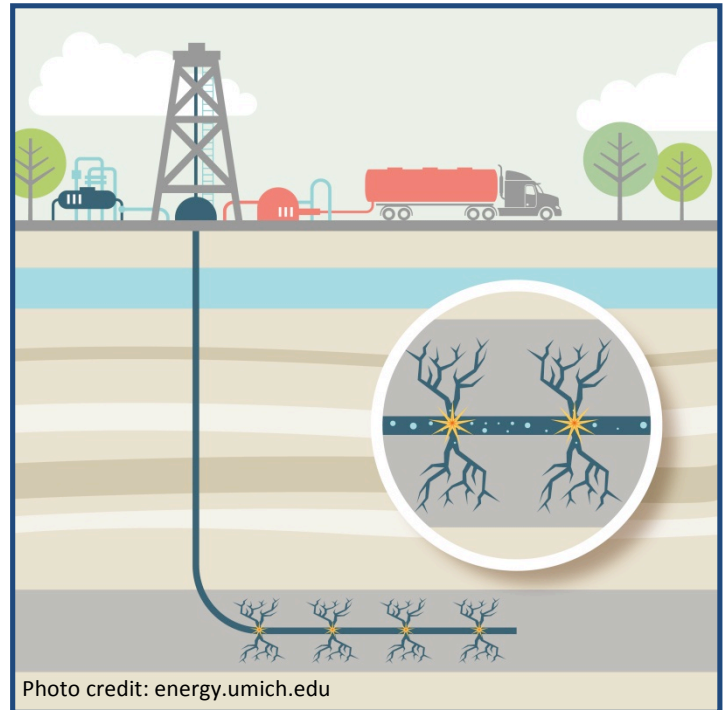


The researchers did statistical analyses of US Census data from 2007-2011 to understand whether or not communities of color and low-wealth communities are more likely to have leases for hydraulic fracturing.

## WHAT WE FOUND: RESULTS

There are currently 77 census blocks in Lee County with leases for hydraulic fracturing, 14% of which are in communities with a high proportion of people of color. In this study, communities of color are more likely to have leases for hydraulic fracturing than other communities.

- Communities with more than 50% people of color were 4.2 times as likely to have hydraulic fracturing leases as those with <10% people of color.
- Communities with more than 50% people of color had an average of 50% of land leased for hydraulic fracturing, compared to 23% of the land leased for hydraulic fracturing in communities with <10% people of color.
- Increasing the percent of people of color in a community by 10% leads to an 11% increase in the risk of having a hydraulic fracturing lease in that community.
- More than half (57%) of the census blocks with the highest proportion of land leased (greater than 75% land leased) are communities of color.



Almost one third (11) of census block groups in Lee County have land leased for hydraulic fracturing. Of those block groups with hydraulic fracturing leases, 36% are in communities with higher rates of poverty than the North Carolina rate.

- Communities with higher rates of poverty than the state average may be more likely to have hydraulic fracturing leases, but more research is needed to confirm this finding with precision.

## WHAT THE RESULTS MEAN: DISCUSSION

The findings from this study are evidence that hydraulic fracturing in Lee County, North Carolina will disproportionately affect communities of color, and may be concentrated in communities with more poverty. These results indicate that these communities will experience environmental injustice related to hydraulic fracturing.

Communities with hydraulic fracturing operations are exposed to hazardous air pollutants, toxic water contaminants, constant noise and light, social disruption, and the economic fluctuations of boom-and-bust cycles. Hydraulic fracturing may deplete property values and negatively impact agricultural production.

Preferentially selecting communities of color and low wealth for hydraulic fracturing operations puts an undue burden of exposure and adverse health outcomes on vulnerable groups, prioritizing corporate profit over the health of North



Carolínians. Those who benefit from hydraulic fracturing are very far removed from the communities of color and low wealth that will be most negatively impacted by this industry.