

# HYDRAULIC FRACTURING AND PUBLIC POLICY\*

PRESENTATION TO CAMPUT 2017

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MAY 2017



# POLICY AROUND HYDRAULIC FRACTURING IN CANADA

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- Numerous reviews of hydraulic fracturing, including the Council of Canadian Academies
- Federal-provincial initiative on responsible shale development as part of EMMC
- Moratoriums in Quebec, New Brunswick, Nova Scotia, Newfoundland and Labrador, Yukon
- “Business as usual” in BC, Alberta and Saskatchewan

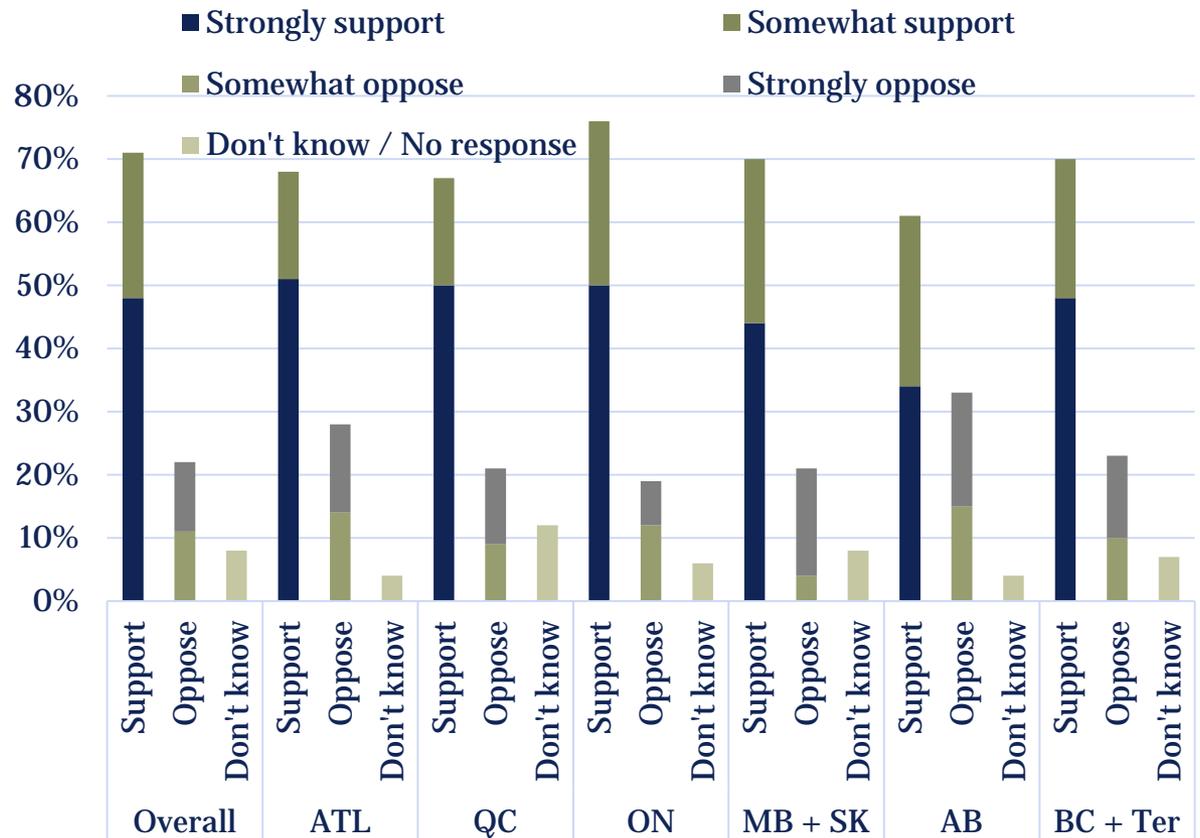
# PUBLIC SUPPORT (?)

## Poll question

The federal government recently commissioned an independent review of fracking, which found a **lack of scientific research** on fracking well leaks, the safety of fracking chemicals, and the long-term impacts of fracking.

Do you strongly support, somewhat support, somewhat oppose, or strongly oppose a national moratorium on fracking until it is scientifically proven to be safe?

Support for National Hydraulic Fracturing Moratorium



## Lethbridge College

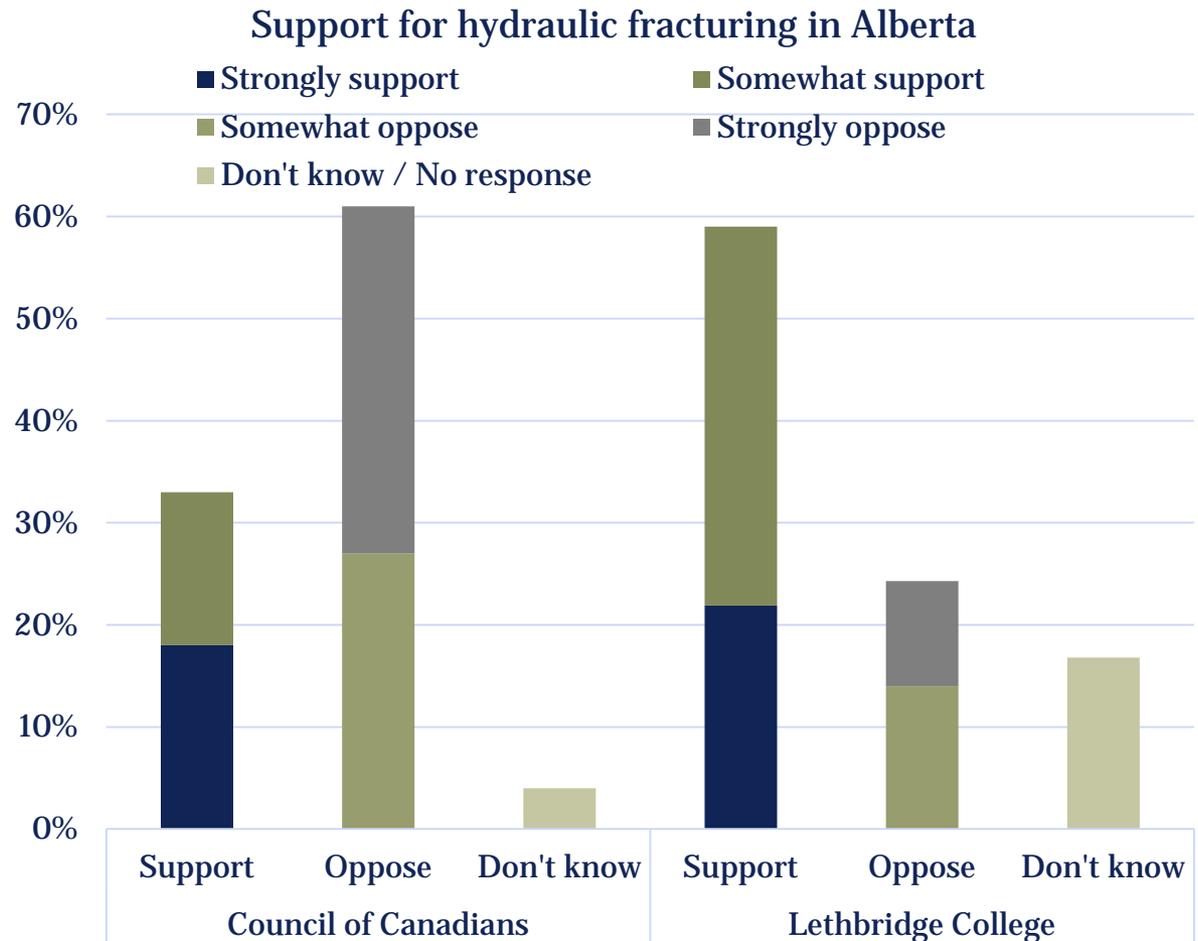
From what you know about “fracking” please tell me how much you agree or disagree with the province of Alberta continuing to allow fracking in this province. Would you say you agree/disagree?

## Council of Canadians

The federal government recently commissioned an independent review of fracking, which found a **lack of scientific research** on fracking well leaks, the safety of fracking chemicals, and the long-term impacts of fracking.

Do you support/oppose a national moratorium on fracking until it is scientifically proven to be safe?

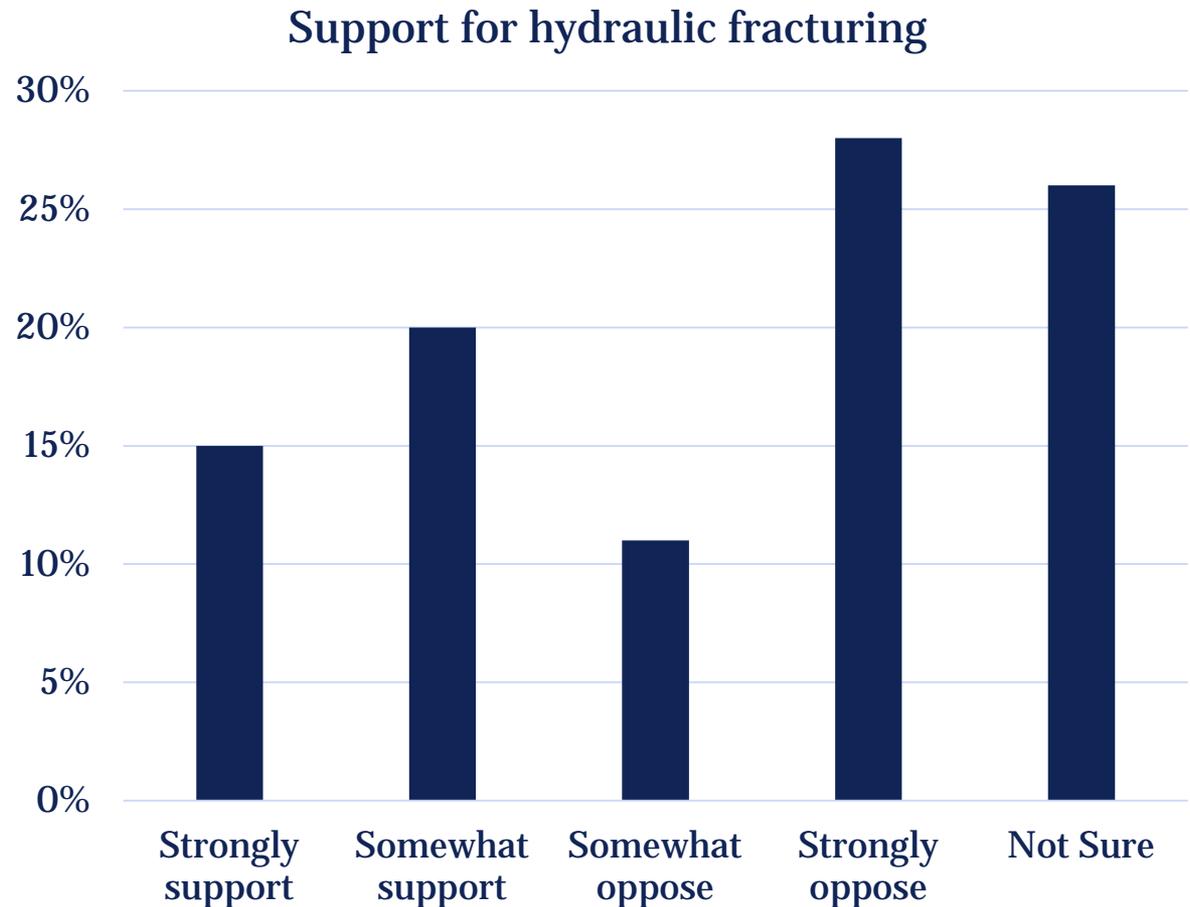
# SUPPORT IN ALBERTA



### Poll question

In general, would you say that you strongly support, somewhat support, somewhat oppose, or strongly oppose the extraction of natural gas and oil in the United States through the use of hydraulic fracturing?

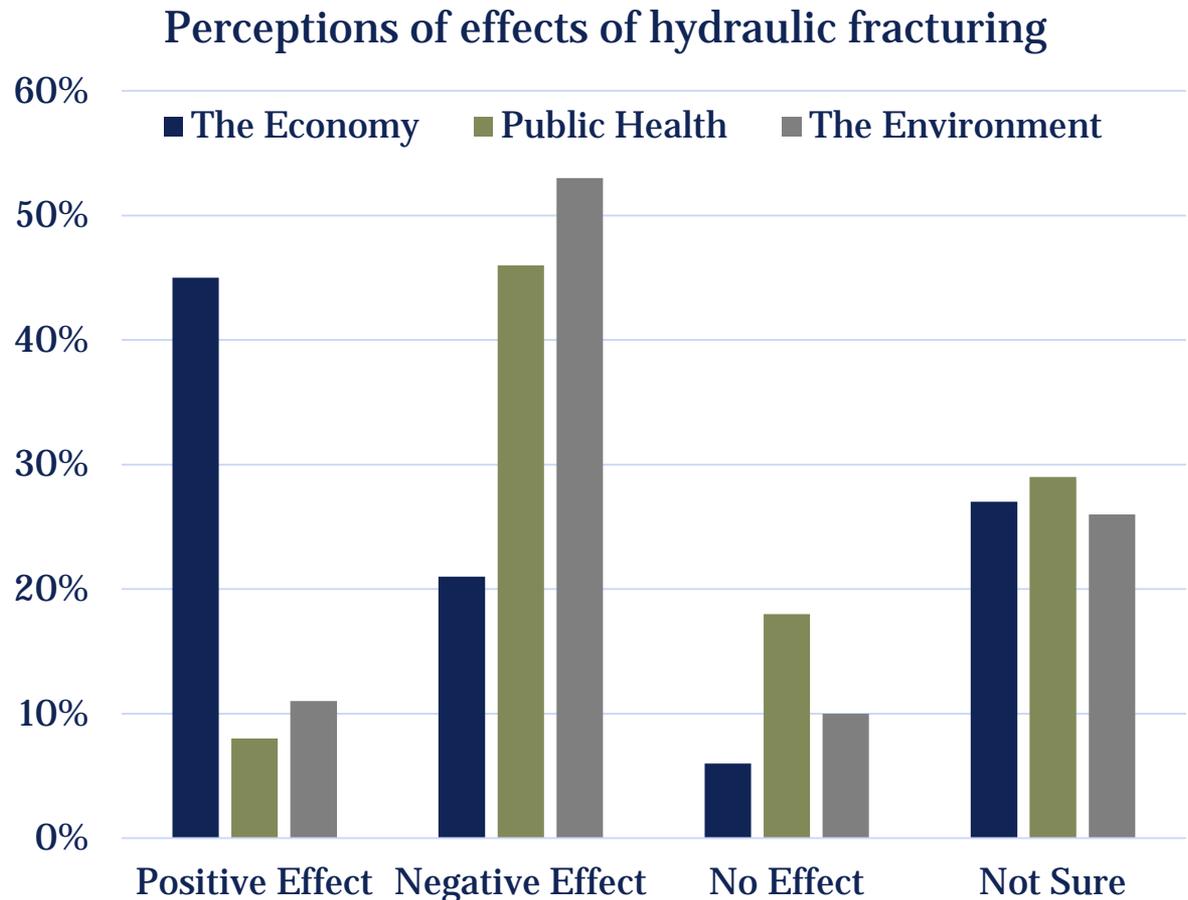
## GENERAL SUPPORT (USA)



## Poll question

For each of the aspects of life in the United States that I mention please indicate if you think the use of hydraulic fracturing is having a positive effect, negative effect, or no effect.

# PERCEPTIONS (USA)

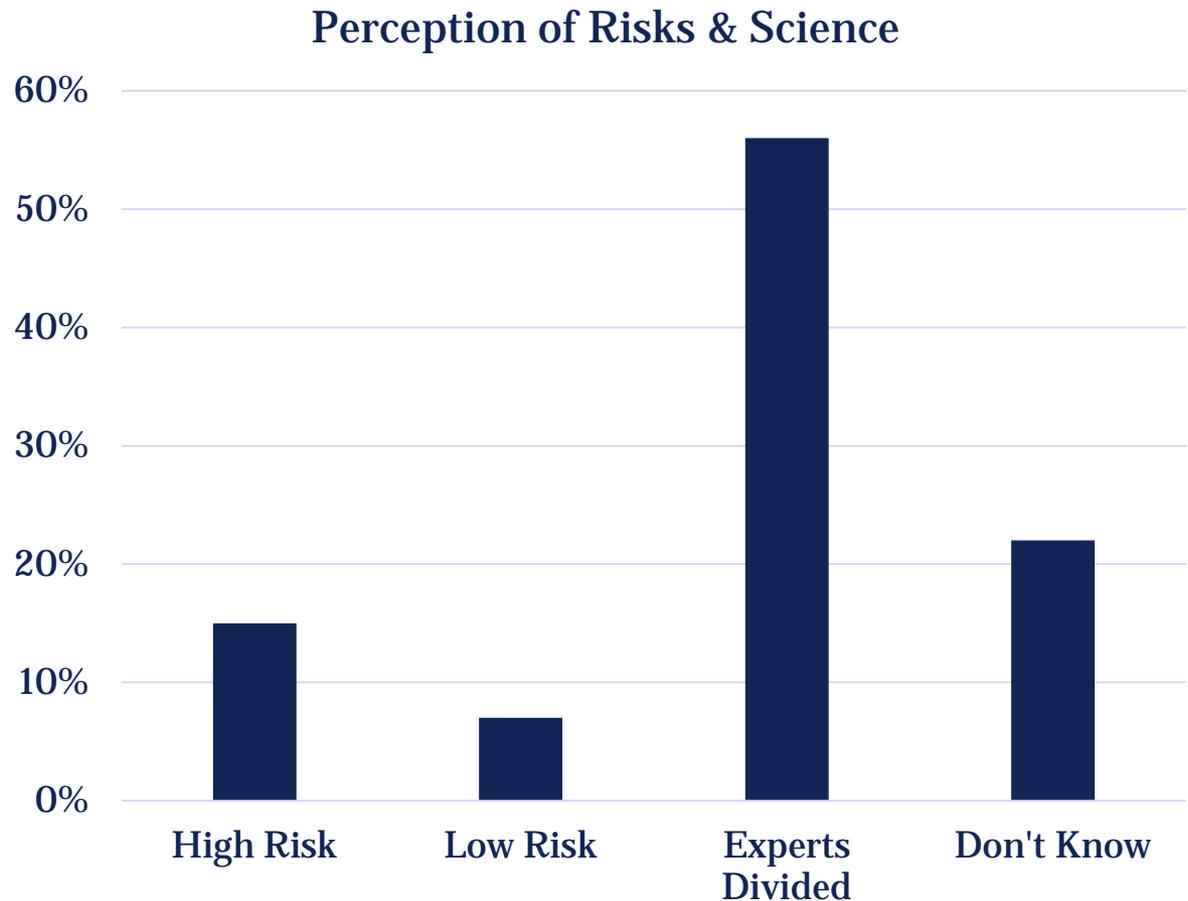


## Poll question

Now please tell me which of the following statements comes closest to your views:

- Most experts agree that the risks associated with hydraulic fracking are HIGH
- Most experts agree that the risks associated with hydraulic fracking are LOW
- Most experts are divided on whether hydraulic fracking poses any risk

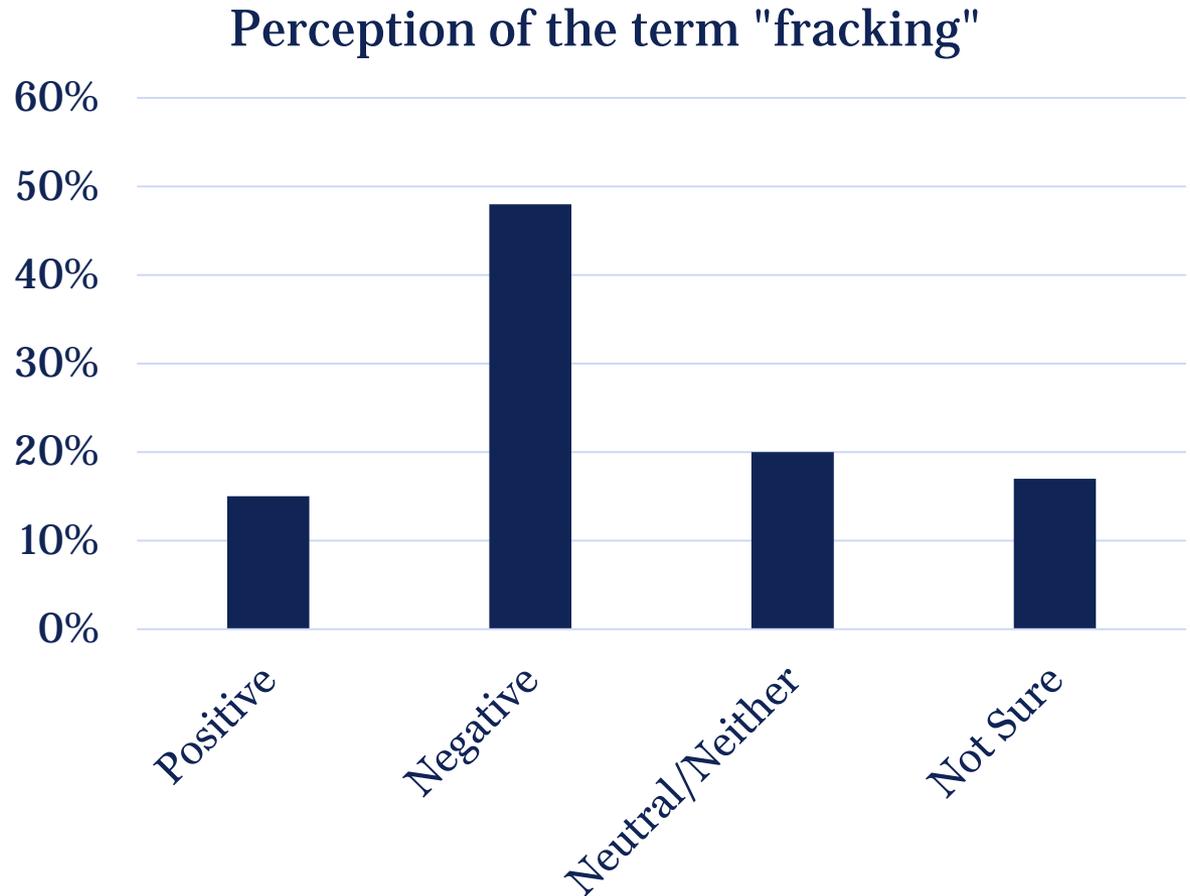
# PERCEPTIONS (USA)

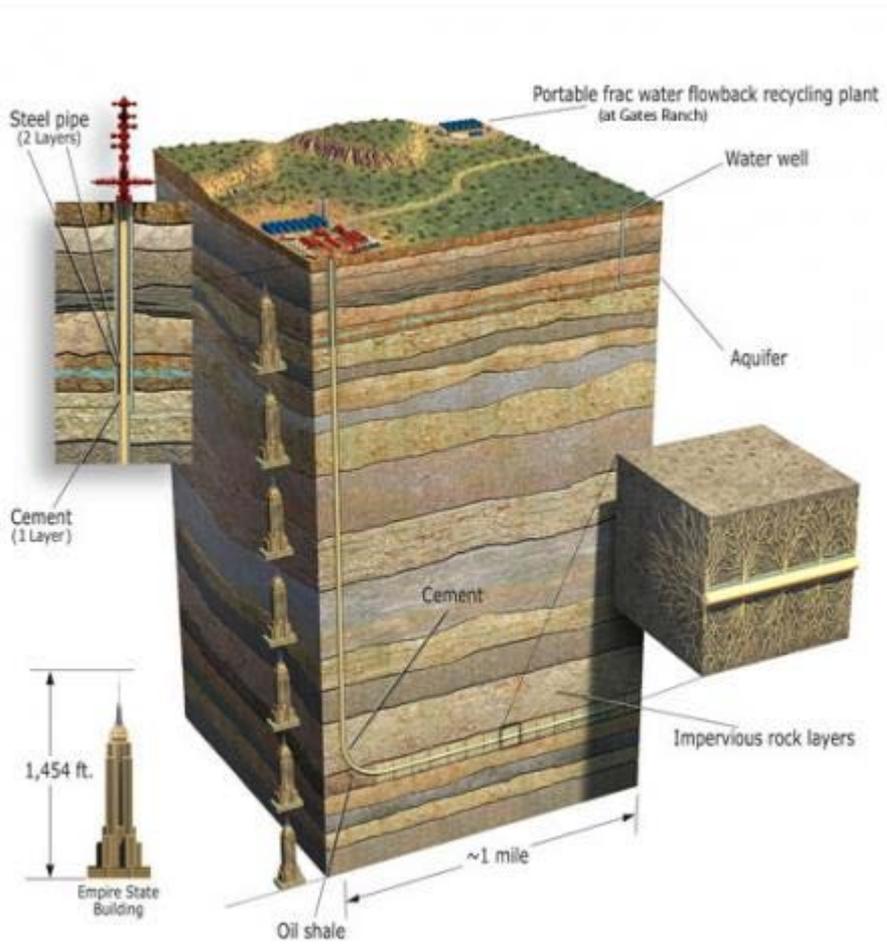


# PERCEPTIONS (USA)

## Poll question

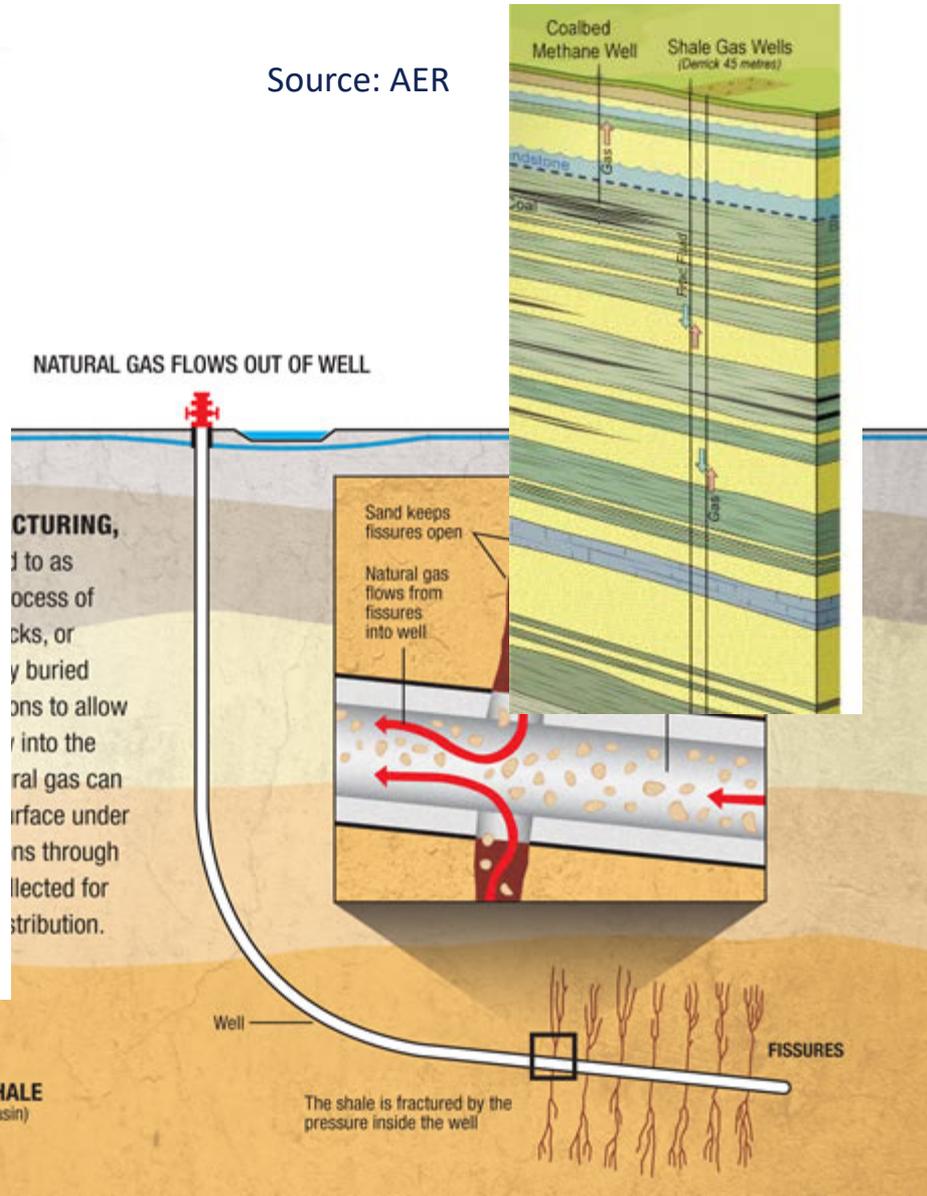
In general when you hear the word “fracking” do you consider it a positive or negative term?





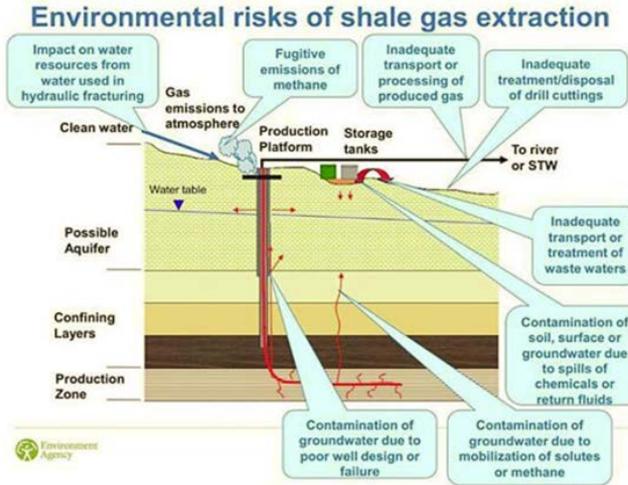
Source: FracFocus

Source: AER



Source: FracFocus

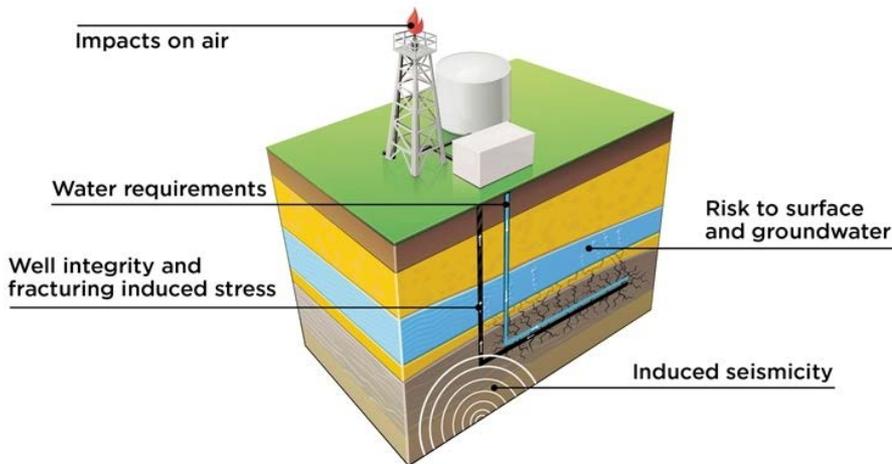
# Environmental Risks of Hydraulic Fracturing



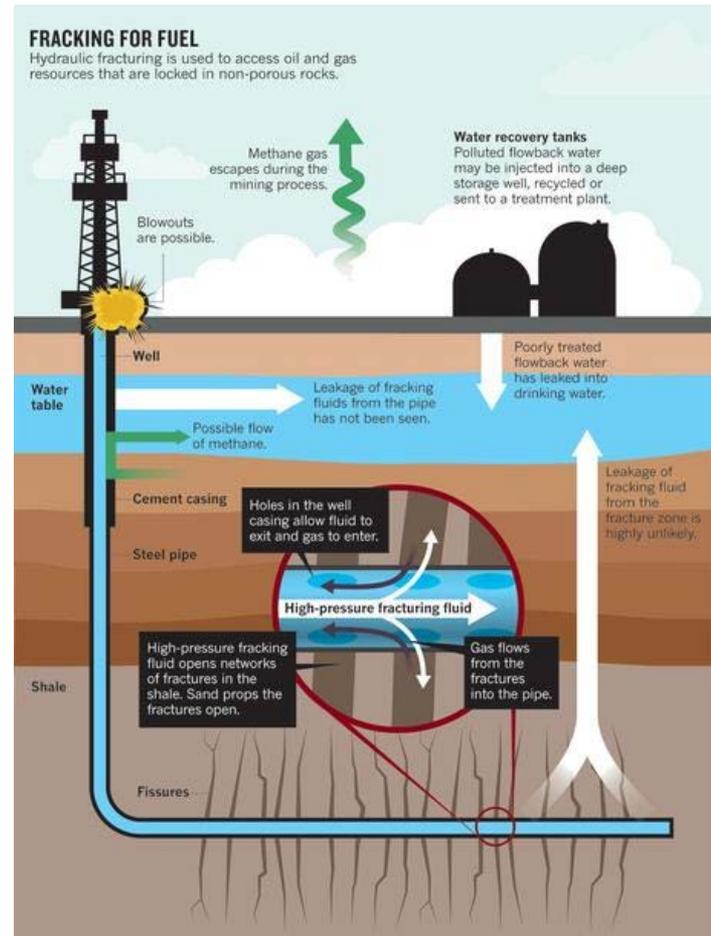
Market Realist<sup>®</sup>

Source: Environment Agency

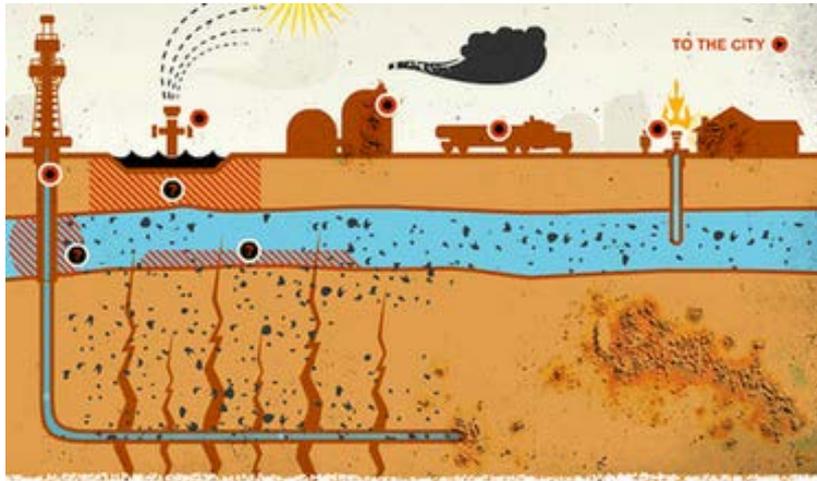
Source: Market Realist blog



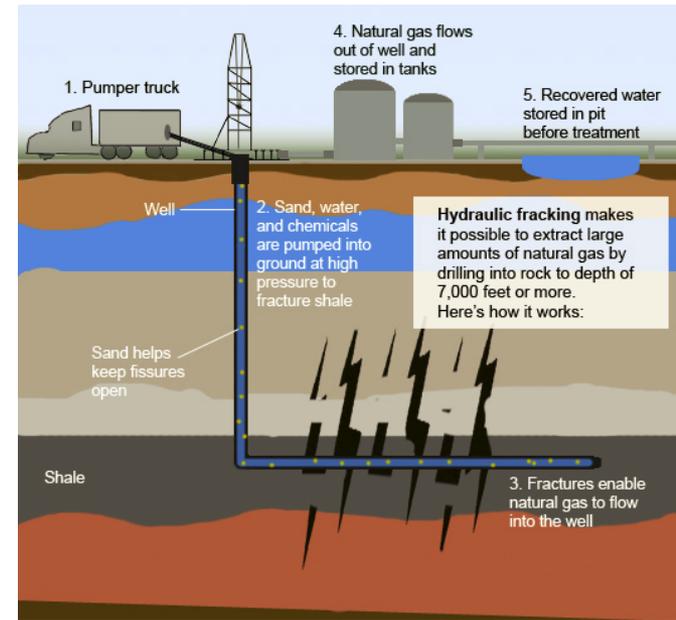
Source: Fraser Institute



Source: Teach the Earth/Montana State U.

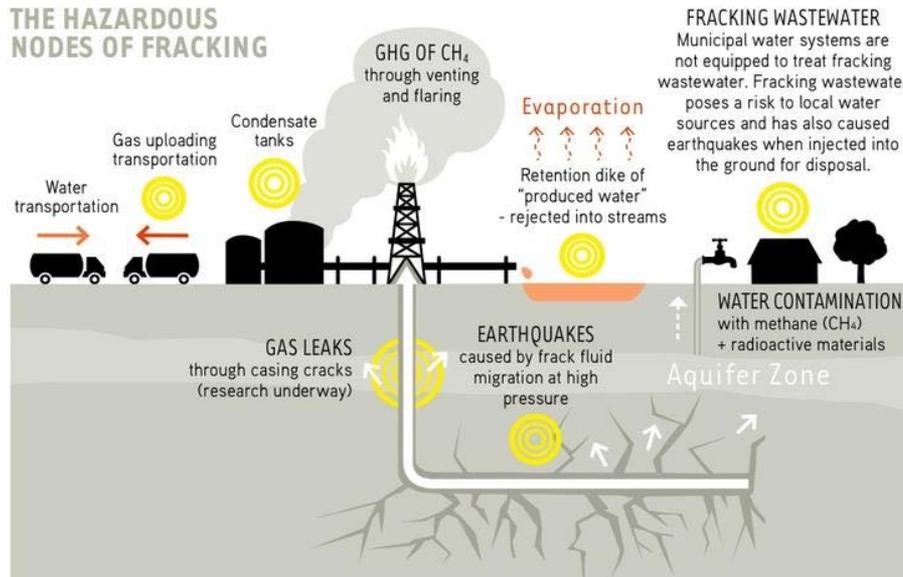


Source: 8020vision.com



Source: Medill Reports, Northwestern U.

### THE HAZARDOUS NODES OF FRACKING



Source: Railing Against Crude blog

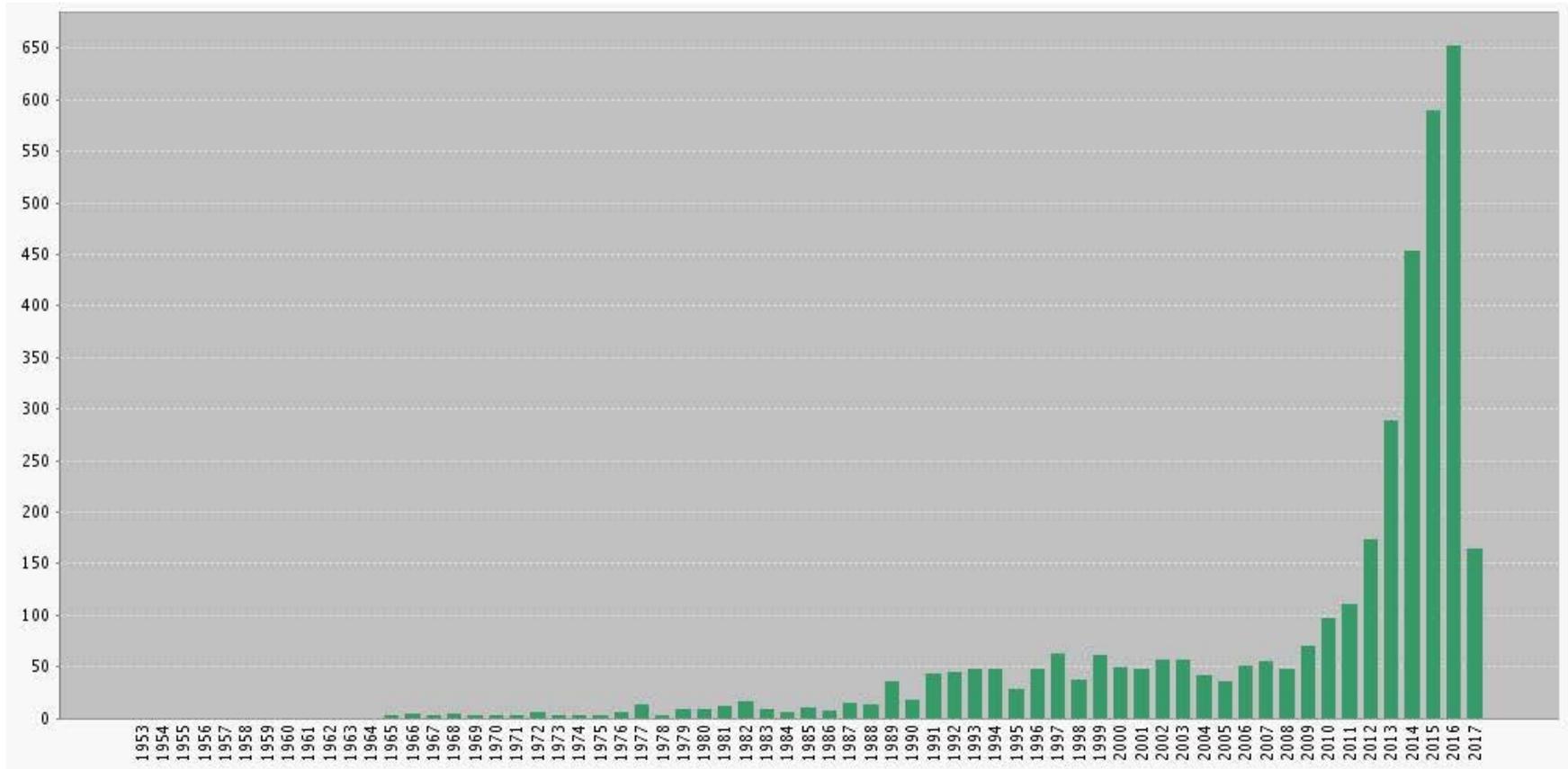
# OUR RESEARCH

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## SSHRC Knowledge Synthesis Report

- Review academic and grey literatures, and government and regulatory documents
- Identify knowledge gaps
- Identify links between academic work, policy and regulation

# ADVANCES IN KNOWLEDGE: NUMBER OF ANNUAL PUBLICATIONS



Web of Science search for “hydraulic fracturing”



# WHAT ARE THE KNOWLEDGE GAPS?

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- Lack of baseline information
- Insufficient monitoring of geological and environmental conditions
- Cumulative effects of hydraulic fracturing
- Environmental impacts: water, emissions, chemicals and contaminants
- Well integrity and fracture propagation
- Health effects
- Socioeconomic and community impacts
- Transferability of data and research
- Induced seismicity

# KEY THEMES IN OUR RESEARCH

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- More research is needed, and not just of the science of hydraulic fracturing
- Risk versus reward is unclear
- Limited linkages to science in policy and regulation
- Public trust and confidence

# THANK YOU

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