

Improving Health and Safety in Wyoming's Oil Fields, 2010-Present

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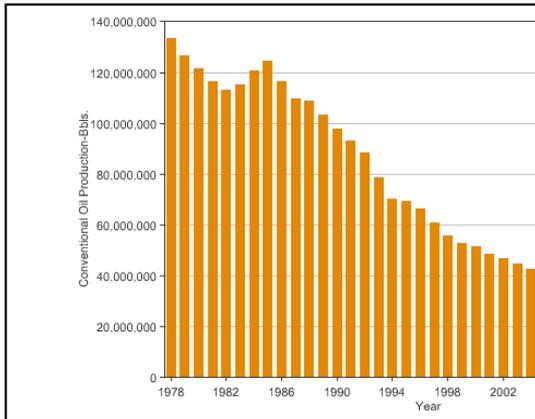
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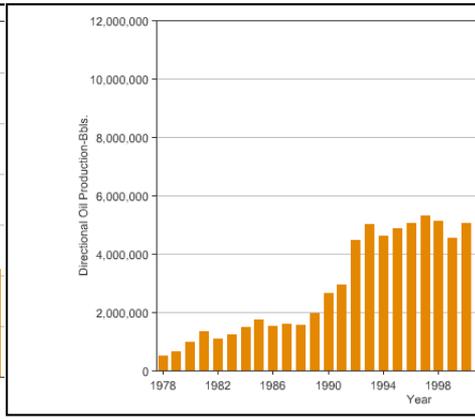
Background

57k oil wells; 22k gas wells; 28k CBM wells (Excluding expired & denied permit wells)

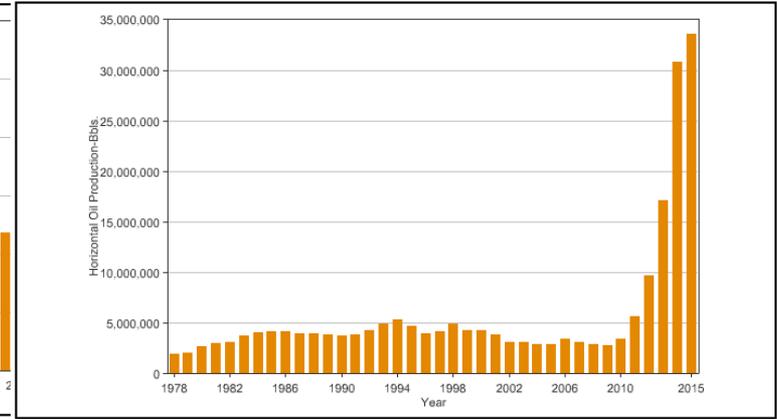
Conventional Oil



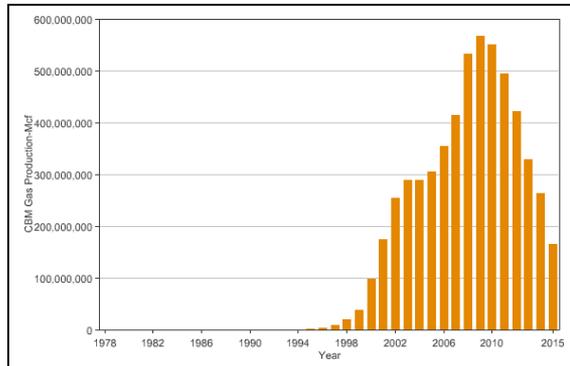
Directional Oil



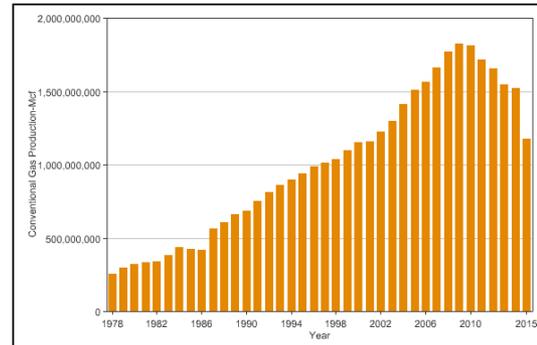
Unconventional Oil



CBM Gas

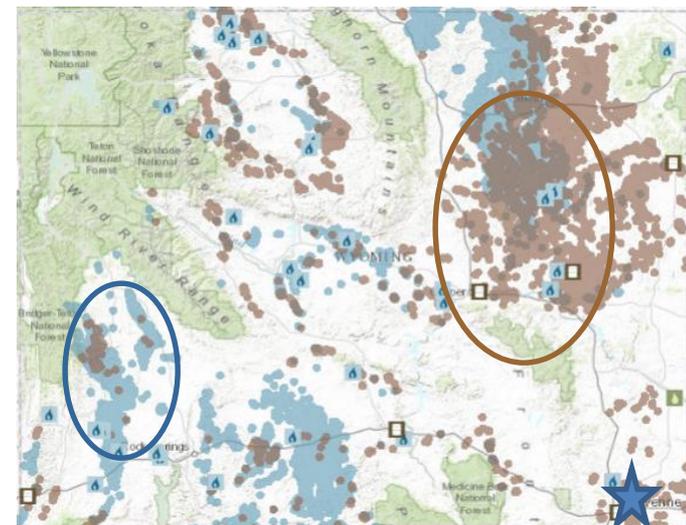


Conventional Gas



Background

- **17k employed** (2014 BLS, QCEW)
 - NAICS 211-oil & gas extraction, n= 4,544
 - NAICS 213111-drilling operations, n= 2,712
 - NAICS 213112-service companies, n= 10,001
- **2003-2014** (BLS, CFOI)
 - 69 deaths classified with oil & gas extraction industries
 - ~16% of all fatalities
 - ~85% of mining industry deaths
- **WY-OSHA Oil & Gas Rules**
 - Drilling, Well Servicing, Special Servicing, Anchor Testing



Aims

- Short-term
 - State system to identify causes of fatality & serious injury
 - Engage industry partners & leadership
 - Understand state-specific issues, variance from national trends and other industries
- Long-term
 - Reduce fatal and serious injuries
 - Provide training and education resources that target known risks
 - Incorporate health exposure/outcomes

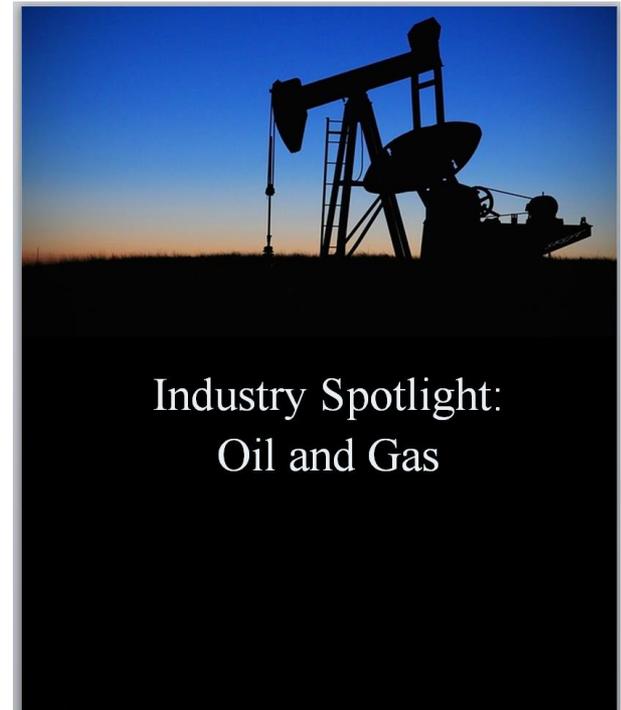


Methods: Timeline



Methods: Surveillance & Reporting

- **Fatality tracking 2012-present**
 - Multi-source (claims, OSHA, vital stats, crash reports, media, etc.)
 - Annual case narratives
- **Non-fatal injuries**
 - Workers' compensation claims (industry, nature, cause, POB, ICD, location, age, etc.)
 - Serious & minor identified with on NOI codes, hospitalization, and other indicators
 - Comparison to claims among other mining and construction industries
- **WY-OSHA citations & consultation visits**



Modeled after a Colorado report and claims analysis:
<https://www.colorado.gov/pacific/cdphe/workplace-safety-data-and-reports>

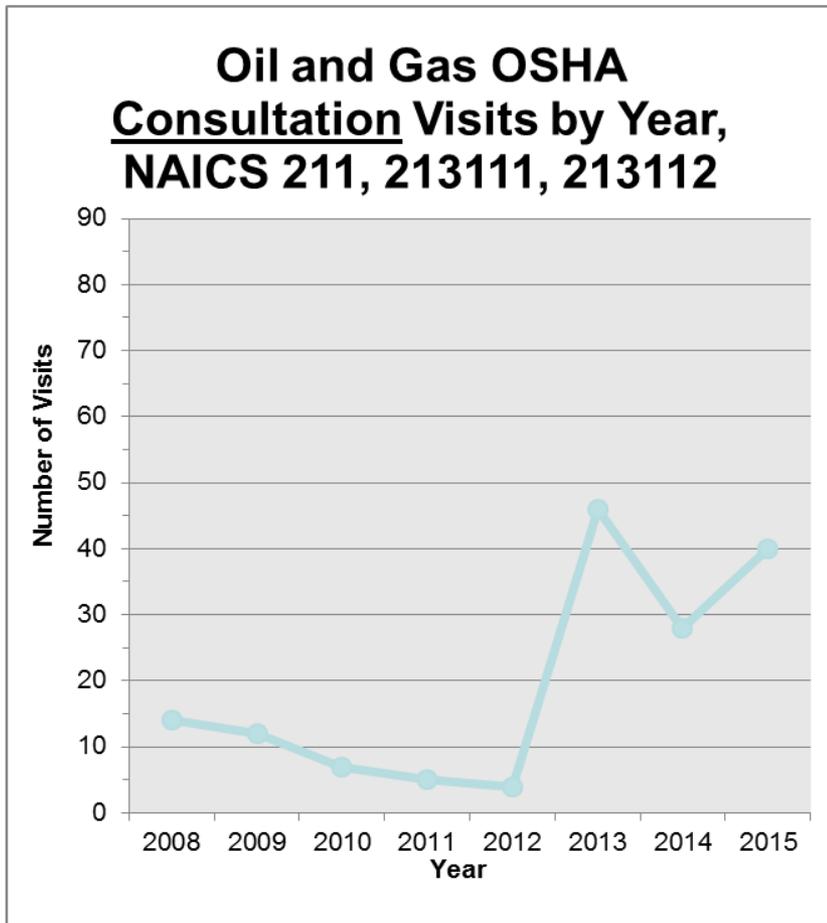
Outcomes: Wyoming Oil & Gas Industry Safety Alliance (WOGISA)

- Est. 2011
- Board of directors meets monthly
- Formal agreement with WY-OSHA Consultation
- Revenue from membership dues supports
 - Training
 - Annual Wyoming Workforce Safety & Development Summit

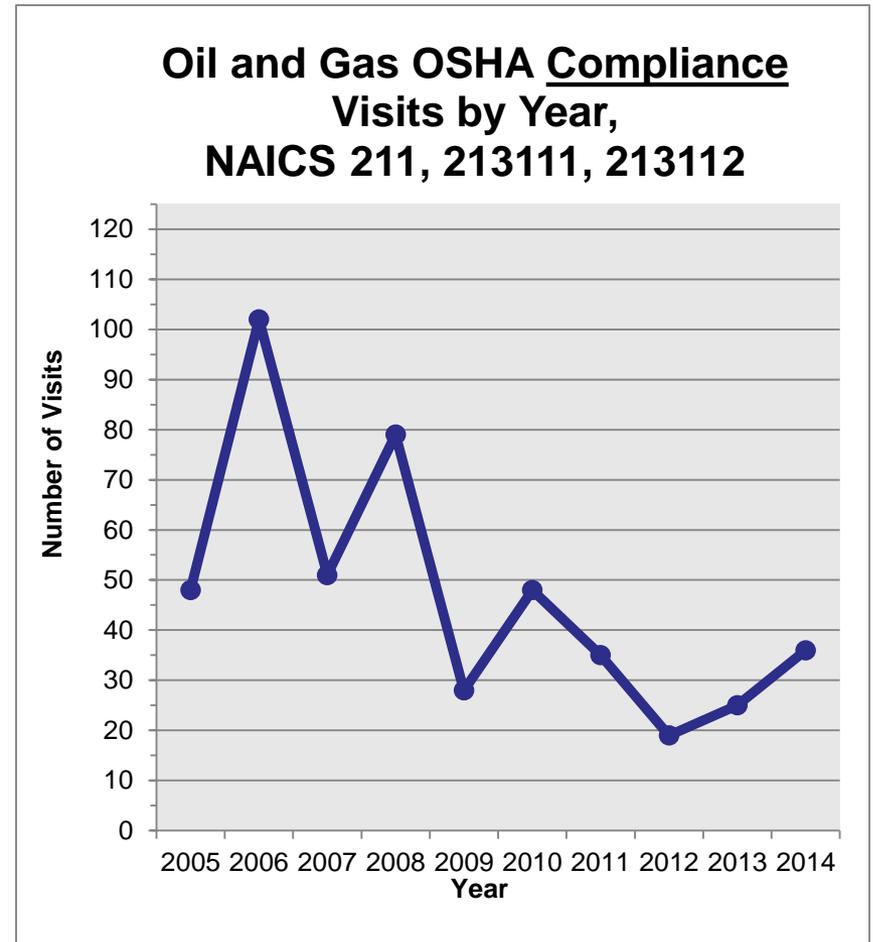


wyomingsafety.org

Prelim Outcomes: WY-OSHA



Source: WY OSHA Consultation Program, NCR and OIS databases



Source: Federal OSHA, IMIS database
www.osha.gov/pls/imis/industry.html

Prelim Outcomes: WY-OSHA

2012-14 Most frequent citations

Wyoming Companies (NAICS 211, 213111, 213112)

- Wyoming Oil & Gas Rules (Drilling & Servicing)
- Personal Protective Equipment (1910.132, 133, 138)
- Respiratory Protection (1910.134)
- Electrical (1910.303, 307, 335)



Prelim Outcomes: Work-related Fatalities

Year	Oil & gas worksite	O&G related to transportation
2012	3	Unknown
2013	3	Unknown
2014	4	6

2014 Case Narrative Examples:

- *35 year old male killed by an explosion and fire sparked during cleaning of two oil storage tanks. Improper equipment grounding was investigated. WY resident.*
- *42 year old male oil and gas worker killed in a single vehicle roll-over. Icy road conditions. Passenger. Not belted. FL resident.*



Source: WY Dept. of Workforce Services, Occupational Epidemiology, <http://wyomingworkforce.org/data/epidemiology/>

Note: Fatality totals are not consistent with the BLS Census of Fatal Occupational Injury

Strengths

& Limitations

- Central claims data
- Detailed fatality reporting
- Industry participation with regular forums for interaction
- Able to leverage state agency employer touch-points (OSHA, RM, WC)
- Political support

- Under-reporting
- Non-perfect data (admin records)
- Limited staff capacity
- Data gaps (WC exempt, employer policies)
- Reaching small employers
- Downturn of oil prices



Next Steps

- Finish claims & OSHA citation data analysis
- Finish our report
- Claims narrative analysis??
- Industry review of fatalities, multiple years
- “At work” on motor vehicle crash reports??
- Governor’s Seat Belt Coalition
 - *Strategy: Assist Wyoming Employers with Seat Belt Safety Programs & Policies*



Thank you

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