

# Pipeline and Hazardous Materials Safety Administration Office of Pipeline Safety



# Pipeline Safety Regulations



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

**Enforcement Procedures Part 190**

**Natural Gas Parts 191 - 192**

**Liquefied Natural Gas Part 193**

**Oil Pipelines Response Plans Part 194**

**Hazardous Liquids Part 195**

**State Grants Part 198**

**Drug Testing Part 199**

Last Revised October 1, 2016

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U.S. Department of Transportation  
Pipeline and Hazardous Materials  
Safety Administration

"To protect people and the environment by advancing the safe transportation of energy and other hazardous materials that are essential to our daily lives."



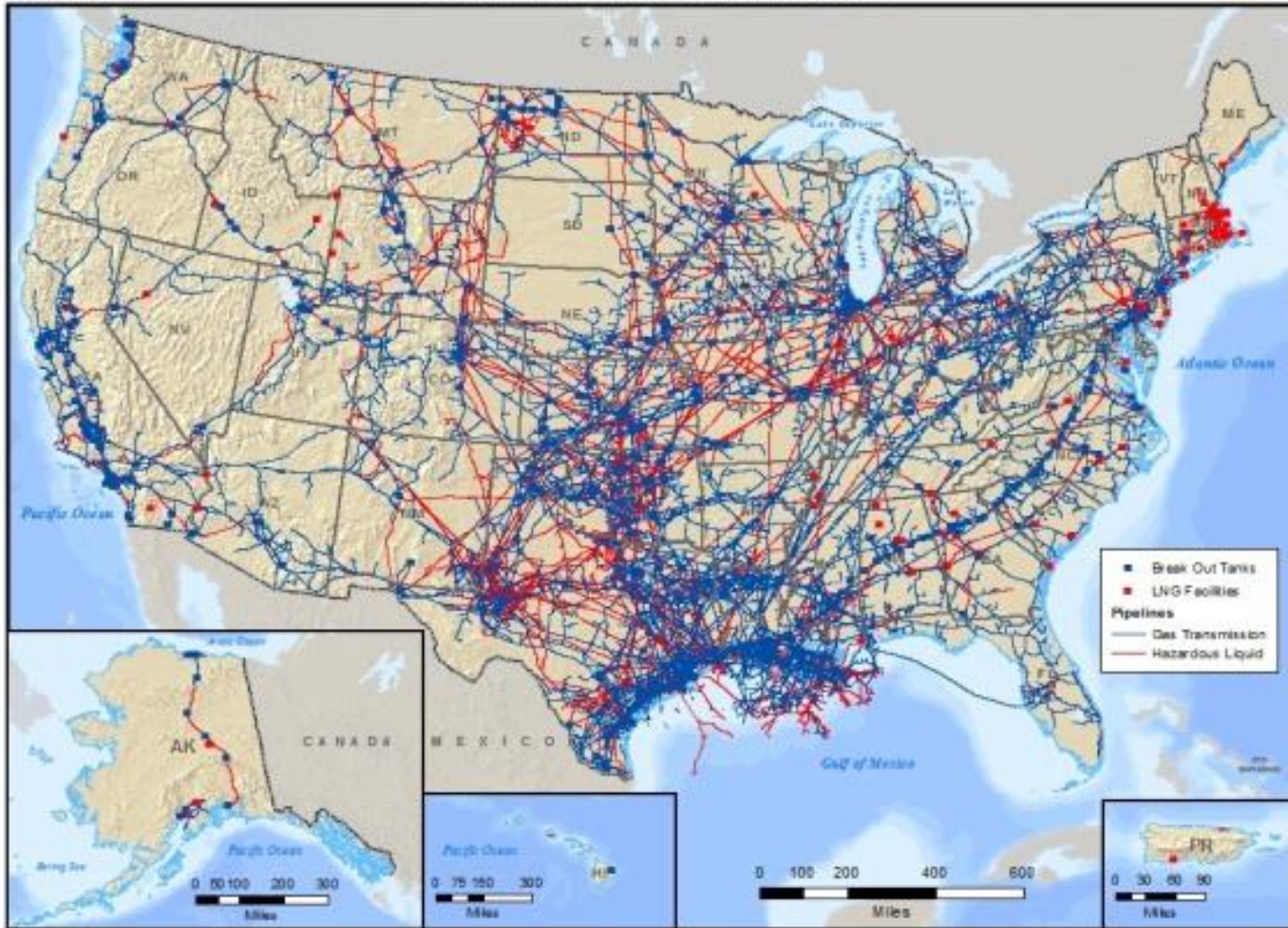
# Scope of Our Mission

<u>Pipeline Type</u>	<u>Total Miles</u>	<u>% Total Miles</u>	<u># Operators</u>
Hazardous Liquid	208,616	<8%	483
Gas Transmission	299,945	11%	1009
Gas Gathering	17,478	<1%	342
Gas Distribution	2,204,064	81%	1,263
<b>Total</b>	<b>2,730,064</b>	<b>100%</b>	

data as-of 3/27/2017



# Gas Transmission and Hazardous Liquid Pipelines in the United States National Pipeline Mapping System



U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration  
Projection: Albers Equal Area Conic  
Map created November, 2015



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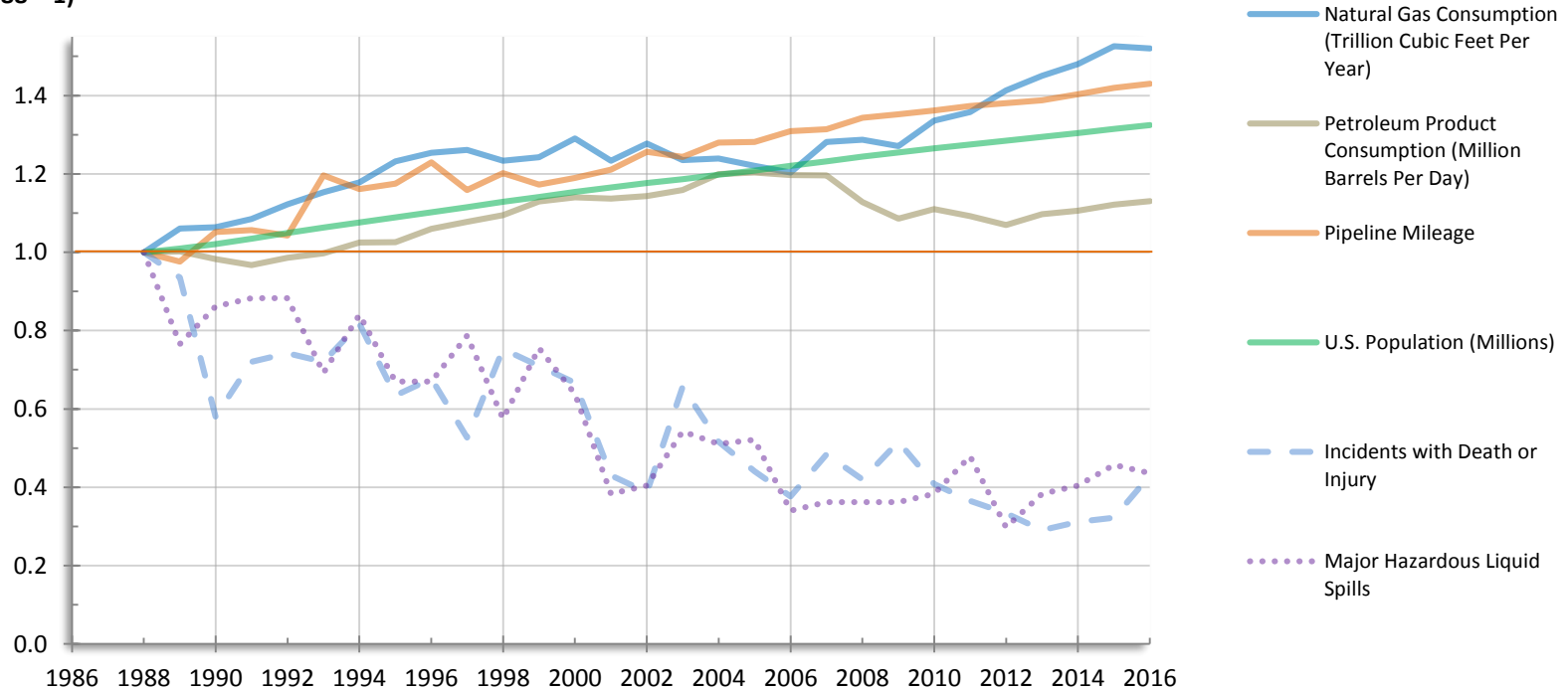
# Pipeline Safety Office Locations



# Pipeline Safety with Context Measures

## (1988 – 2016)

Index  
(1988 = 1)



Calendar Year

Data Sources: Energy Information Administration, Census Bureau, PHMSA Incident Data, PHMSA Annual Report Data



# Assessing Pipeline Risk

## Risk Ranking Index Model Algorithm

- Pipeline System Miles
- Previous Violations/Incidents
- Previous Enforcement Actions
- Facility Counts (complexity – tanks, pumps, etc.)
- Pipe Diameter
- High Consequence Areas
- New Construction
- Change of Ownership
- Type of Product Transported
- Time Since Last Inspection

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# Pipeline Safety Initiatives

811 One Call



Accident Investigation Division

National Safety Coordinator





# Safety Partners

## Industry Associations

**AGA** – American Gas Association

**AOPL** – Association of Oil Pipelines

**APGA** – American Public Gas Association

**API** – American Petroleum Institute

**INGAA** – Interstate Natural Gas Association of America

**NAPSR** – National Association of Pipeline Safety Representatives



# Safety Partners

## State and Local

### State-level Pipeline Safety Inspectors

- Trained at PHMSA's Training and Qualification Center
- Focused on Intra-State Pipelines
- Costs offset by Federal grants

## Public Utility Commissions



# Safety Management System (SMS)

Reactive → Proactive → Predictive

**01 REACTIVE**  
Develops strategies that respond to past incidents and accidents



**02 PROACTIVE**  
Actively collects data to identify and address current hazardous conditions

**03 PREDICTIVE**  
Systematically analyzes safety risk data and performs forward-looking data analytics to identify potential/future problems

