



Public Awareness and Engagement

Public Meeting
June 12, 2019

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Pipeline and Hazardous Materials Safety Administration



PHMSA's Mission

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



Secretary Chao's Goals

1. Safety
2. Infrastructure (both building and refurbishing)
3. Innovation (technology and automation)
4. Accountability



“Safety Must Always Be #1.”

- Secretary Chao



Public Awareness and Engagement Meeting

Purpose:

- Update on overall public outreach;
- Current challenges and gaps;
- Role of RP1162
- Role of PHMSA's Community Liaisons
- Public awareness and engagement methods
- Stakeholder Engagement Working Group



Pipeline Safety

Effective public education and engagement is critical in helping to fulfill our safety mission.



Pipeline Safety

A Shared Responsibility



Gas Transmission and Hazardous Liquid Pipelines

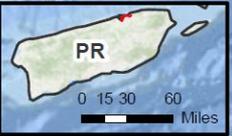
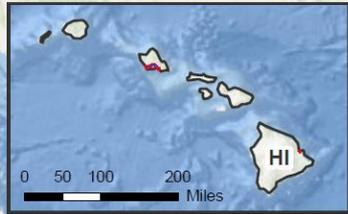
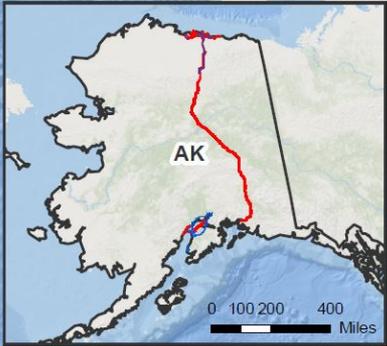
Pipeline data as of 02/22/2018

Map created March 2018
Projection: Albers Equal Area, NAD 83

Statistics

NPMS Pipelines

- Gas Transmission
- Hazardous Liquid



Regulated Pipeline Facilities

OPS and States

Pipeline Facilities by System Type				
System Type		Miles	% Miles	# Operators
Hazardous Liquid	CY 2017	215,817 8,118 Tanks	8%	531
Gas Transmission	CY 2018	301,147	11%	1,045
Gas Gathering	CY 2018	17,556	1%	344
Gas Distribution	CY 2018	2,234,258	80%	1,283
Total Miles		2,769,048	<i>Data accurate as of March 27, 2019</i>	

Liquefied Natural Gas CY 2018	157 Plants, 228 Tanks, 86 Operators Plants – 27 Interstate and 130 Intrastate
Underground Natural Gas Storage CY 2018	397 Facilities, 451 Reservoirs 17,281 Wells, 124 Operators Facilities – 221 Interstate and 176 Intrastate



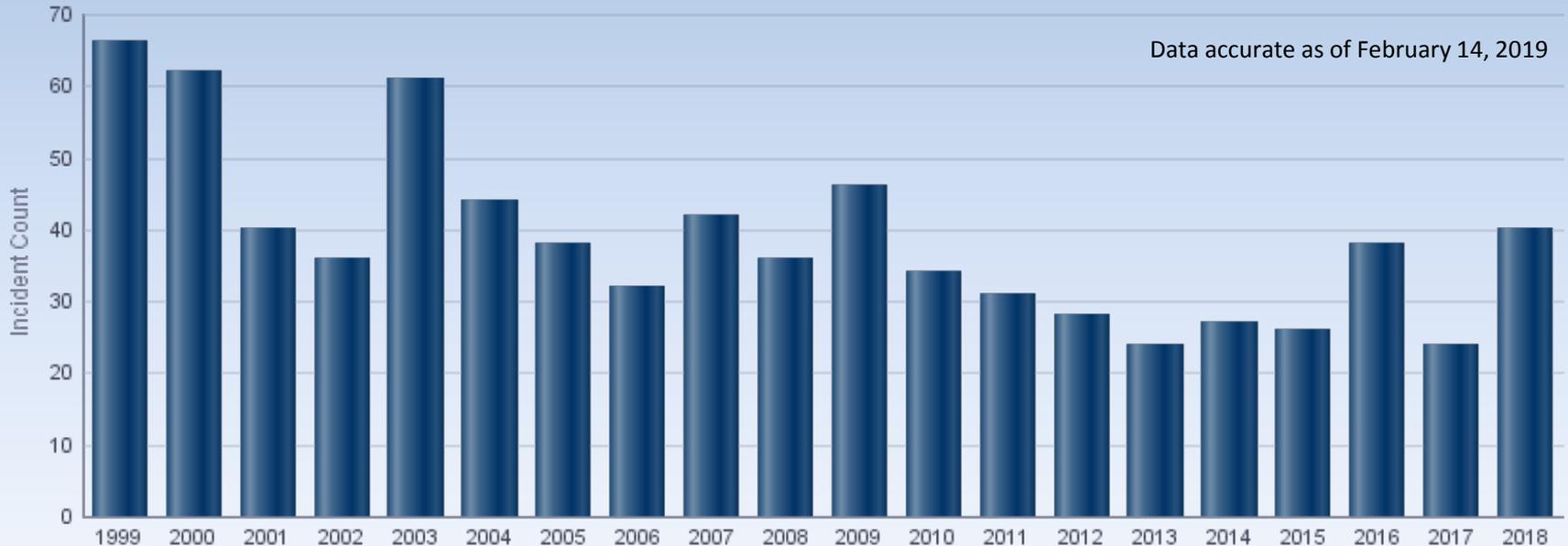
Categories of Incident Reports

- **Serious**
 - A fatality or injury that requires in-patient hospitalization.
 - **Fire First** incidents are excluded.
- **Significant** incidents include:
 - A fatality or injury that requires in-patient hospitalization;
 - \$50,000 or more in total costs;
 - Highly volatile liquid (HVL) releases of 5 barrels or more;
 - Non-HVL liquid releases of 50 barrels or more; and
 - Liquid releases that result in an unintentional fire or explosion.
 - **Fire First** incidents are excluded.



Serious Incidents

Increased by 67% from 2017 to 2018!



CY 2018

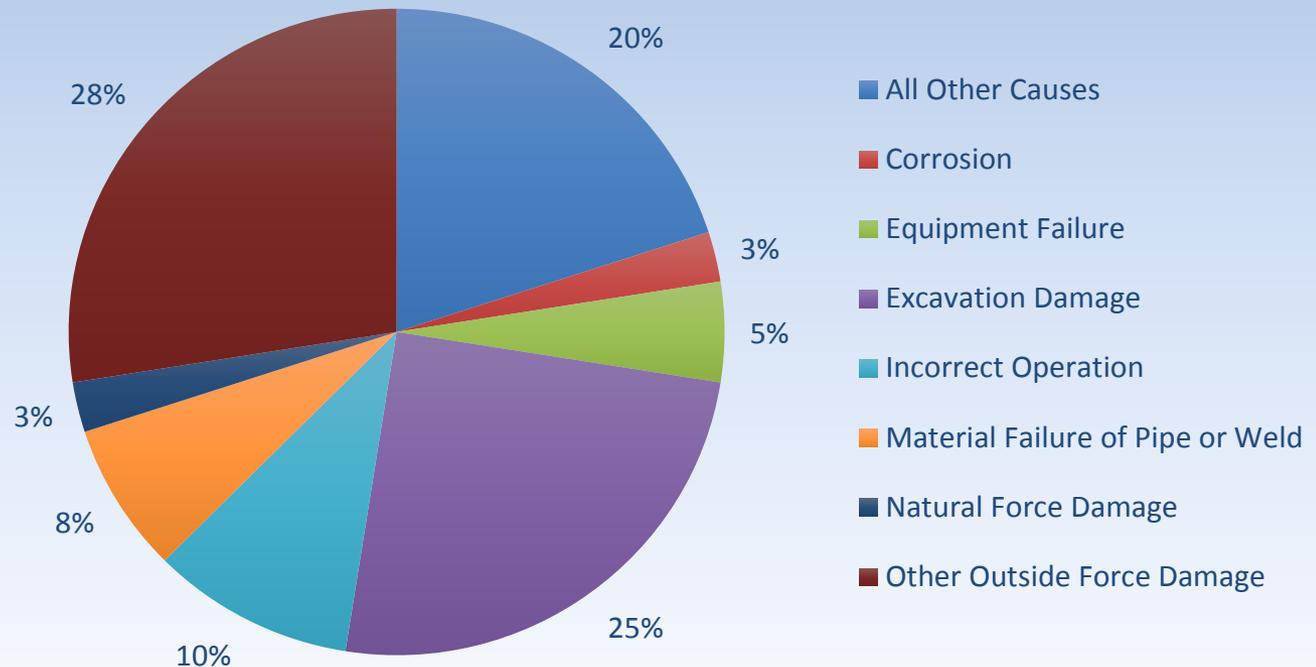
90%	Gas Distribution	7.5%	Gas Transmission
2.5%	Hazardous Liquid	0%	Liquefied Natural Gas (LNG), Gas Gathering, or Underground Natural Gas Storage



2018 Serious Incidents by Cause

CY 2018 Leading Causes

- Other outside force damage (vehicular damage)
- Excavation damage
- All other causes (under investigation)



Data accurate as of March 1, 2019



Significant Incidents

Decreased by 6% from 2017 to 2018!



CY 2018

52% Hazardous Liquid

26% Gas Distribution

21% Gas Transmission

<1% Gas Gathering

<1% LNG

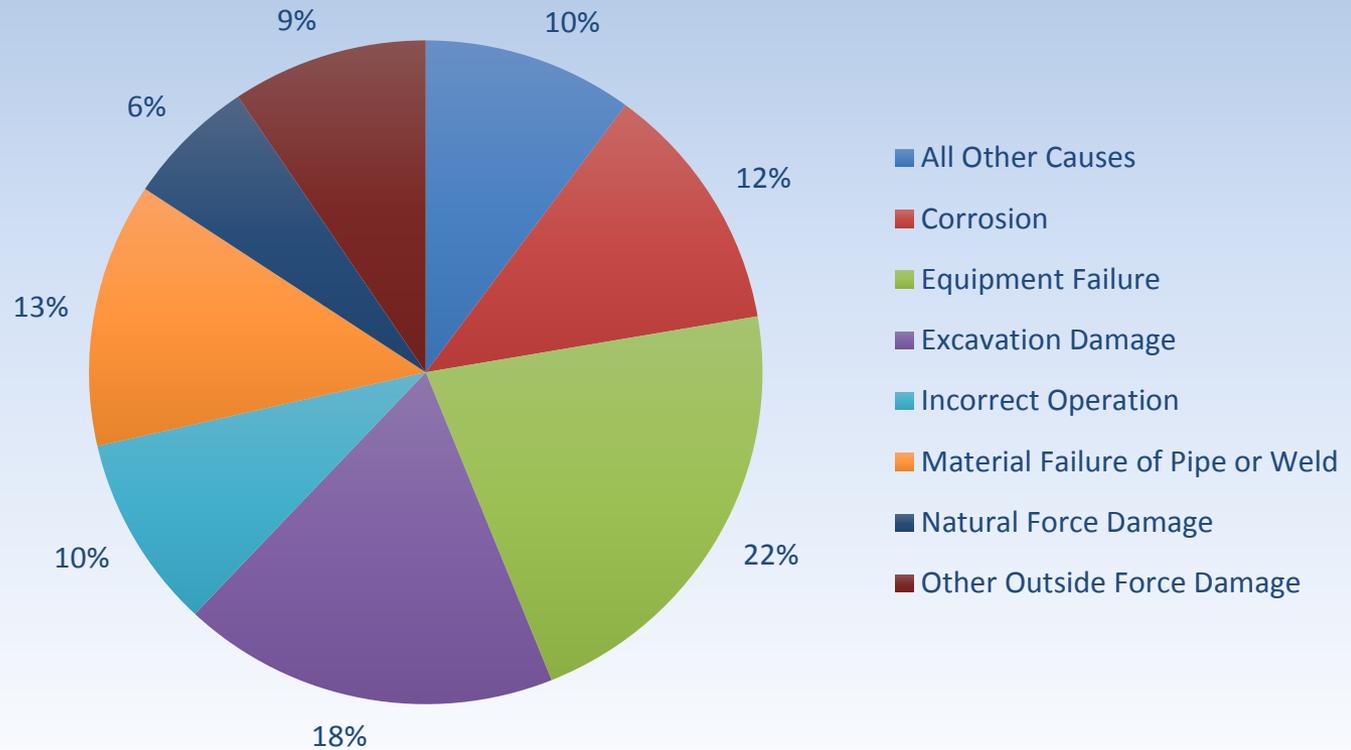
<1% Underground Natural Gas Storage



2018 Significant Incidents by Cause

CY 2018 Leading Causes

- Equipment failure (control/relief, connections)
- Excavation damage
- Material failure of a pipe or a weld (construction-related damage)



Data accurate as of March 1, 2019



Gas Distribution Serious Incidents

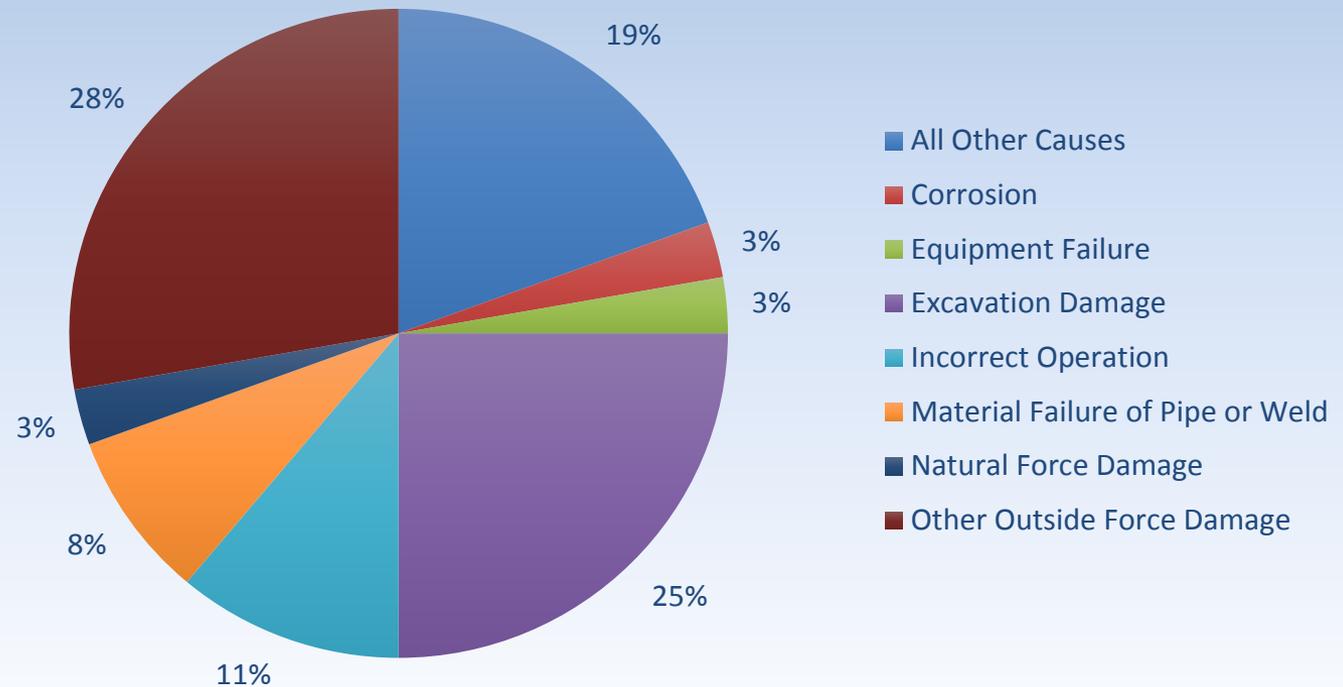
Increased by 44% from 2017 to 2018!



Serious Gas Distribution Incidents

CY 2018 Leading Causes

- Other outside force damage (vehicular damage)
- Excavation damage
- All other causes (under investigation)

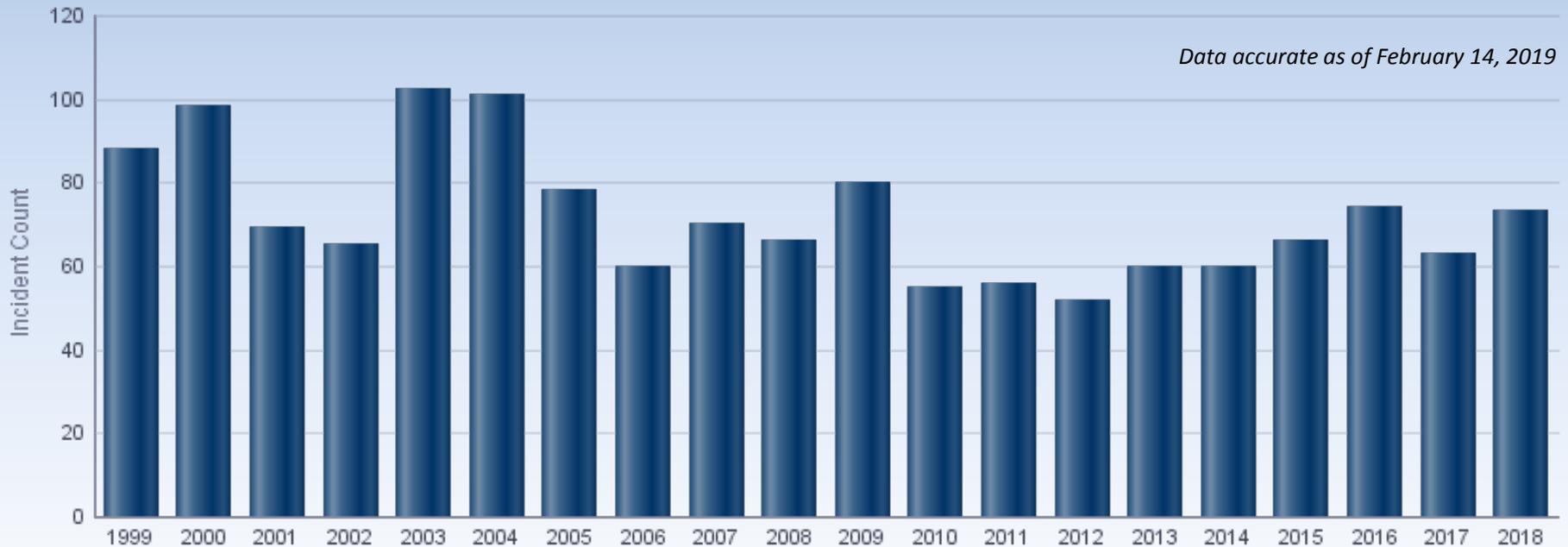


Data accurate as of March 1, 2019



Gas Distribution Significant Incidents

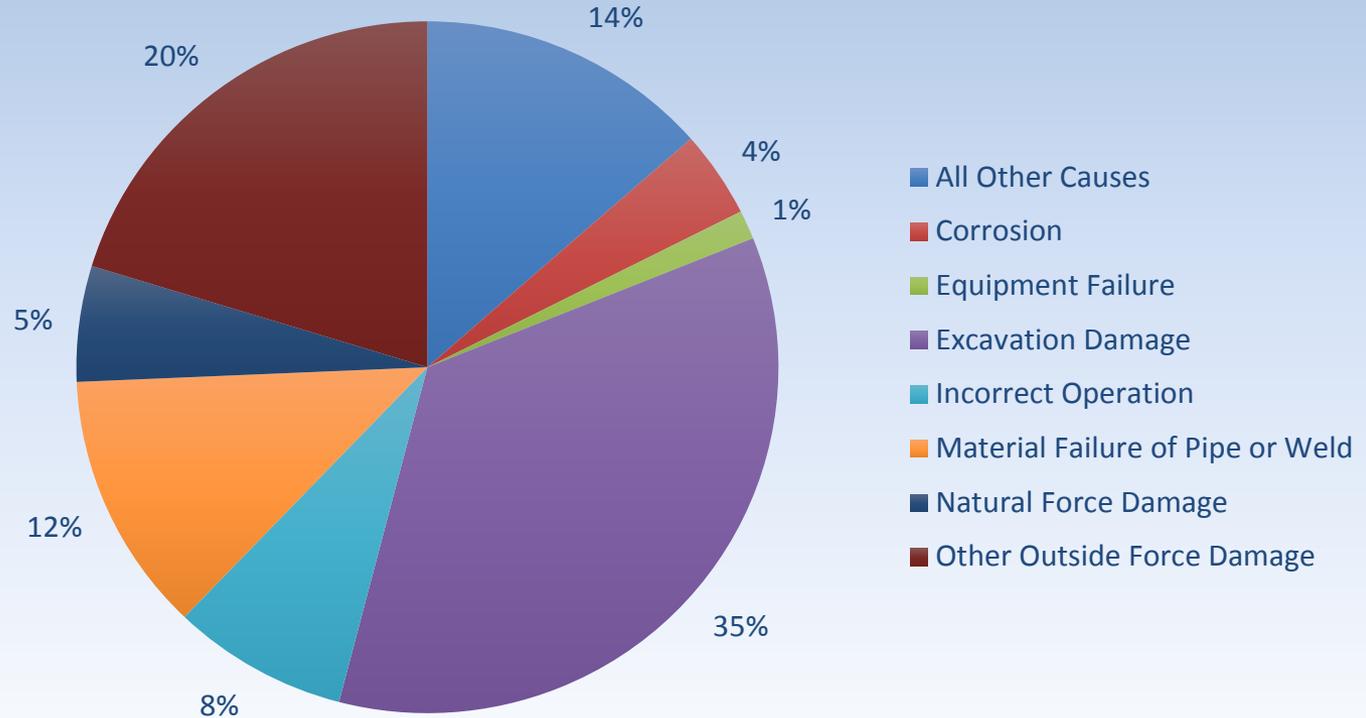
Increased by 16% from 2017 to 2018!



Significant Gas Distribution Incidents

CY 2018 Leading Causes

- Excavation damage
- Other outside force damage (vehicular damage and other)
- All other causes (under investigation)



Data accurate as of March 1, 2019



Gas Distribution Excavation Damage

2005-2018



- The number of significant incidents caused by excavation damage has fluctuated since 2005 but increased 8% overall.
- Damages per 1,000 tickets have decreased by 29% since 2010.



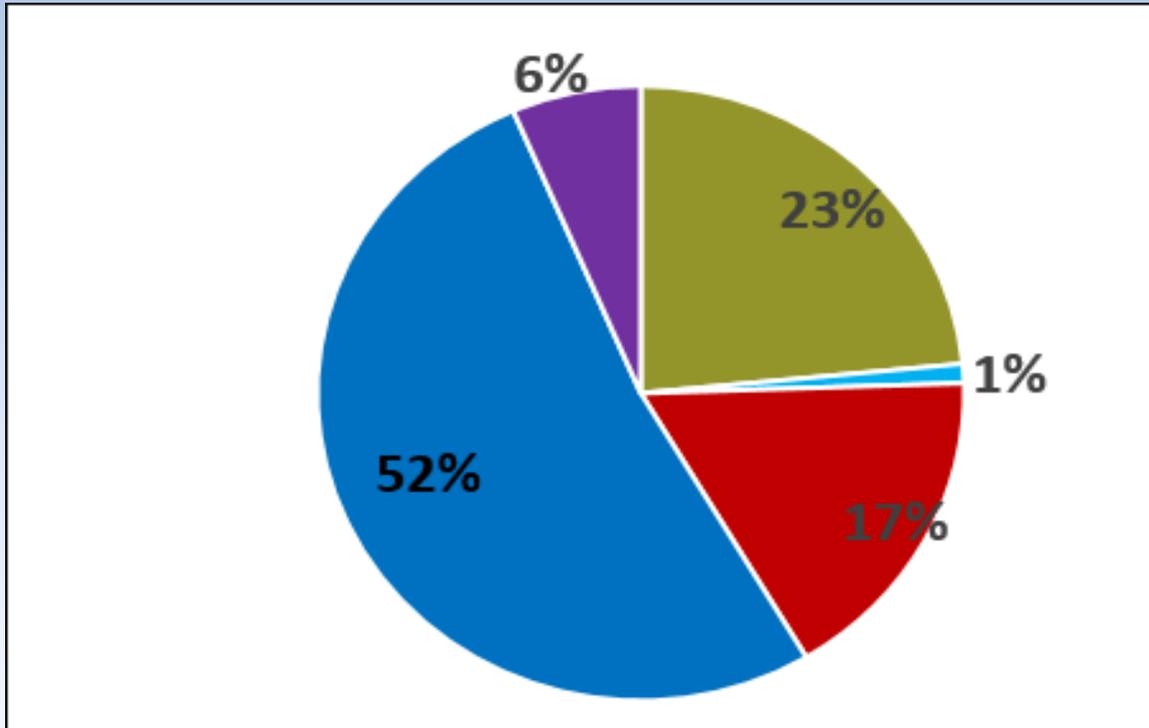
Damage Prevention Investigation/Enforcement

- PHMSA will investigate all major accidents/incidents in states with “inadequate” damage prevention enforcement programs.
- Repeat Violations



Damage Cause Analysis 2017

Damage Root Cause Group



■ Excavation Practices Not Sufficient

■ Locating Practices Not Sufficient

■ Notification NOT Made

■ Miscellaneous Root Cause

■ Notification Practices Not Sufficient

Source: CGA DIRT report



DIRT Report Root Cause Grouping

Group	Root Cause
Excavation practices not sufficient	<ul style="list-style-type: none"> • Failure to maintain clearance • Failure to support exposed facilities • Failure to use hand tools where required • Failure to test hole (pot-hole) • Improper backfill practices • Failure to maintain marks • Excavation practices not sufficient (other)
Notification NOT made	<ul style="list-style-type: none"> • No notification made to one call center
Locating practices not sufficient	<ul style="list-style-type: none"> • Incorrect facility records/maps • Facility marking or location not sufficient • Facility was not located or marked • Facility could not be found or located
Notification practices not sufficient	<ul style="list-style-type: none"> • Notification of one call center made but not sufficient • Wrong information provided to one call center
Miscellaneous root cause	<ul style="list-style-type: none"> • Abandoned • One call center error • Deteriorated facility • Previous damage



Public Awareness

We have made progress!

- More people use 811 before they excavate.
- More people know what to do when they see a pipeline issue.
- More stakeholders seek engagement with operators in their community!



Is it Time to Supplement the 811 Message?



Wait the Required Time for locates/Marks

Respect and Protect the Marks

Excavate Carefully!



Thank You!



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

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