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Public Perspective on Improving Performance Measures

Presented by Carl Weimer
Executive Director, Pipeline Safety Trust

Pipeline Safety TRUST

Credible.
Independent.
In the public interest.

2009 PHMSA Data Quality Assessment

In the 2008 safety culture survey, only 46% of PHMSA employees agreed that *"our available safety data is useful for decision making."*

2009 PHMSA DQA Findings

- *We don't have a good conceptual model for understanding failures*

- *We have little data that might be used to identify emerging risks or leading indicators*

- *Our failure data focuses on the top layer of a much larger pyramid*

- *Most of our data collection relies on third-party reporting from regulated companies. There is a natural, inherent bias in reporting from the regulated industry.*

- *Our own independent accident investigations are very limited in number and scope.*

- *We have difficulty integrating data*

2009 PHMSA DQA Findings

- *We have limited understanding of the safety trends we are seeing.*

- *Inspection deficiencies are not captured in a way that can be tied to the causes of incidents/failures.*

- *Incident cause codes cannot deal effectively with multiple failures or sequences of failures.*

- *We don't capture data from states in a form that is comparable to the federal program*

- *Incident reports are often missing important data.*

- *Our risk models use data; they are not data-driven.*

- *We often make program decisions and use data to support them, rather than demanding data as input for our decision making.*

To develop good performance standards we also need to ensure that data and the analysis of data is accurate

MODEL CALCULATIONS
"Garbage In-garbage Out" Paradigm
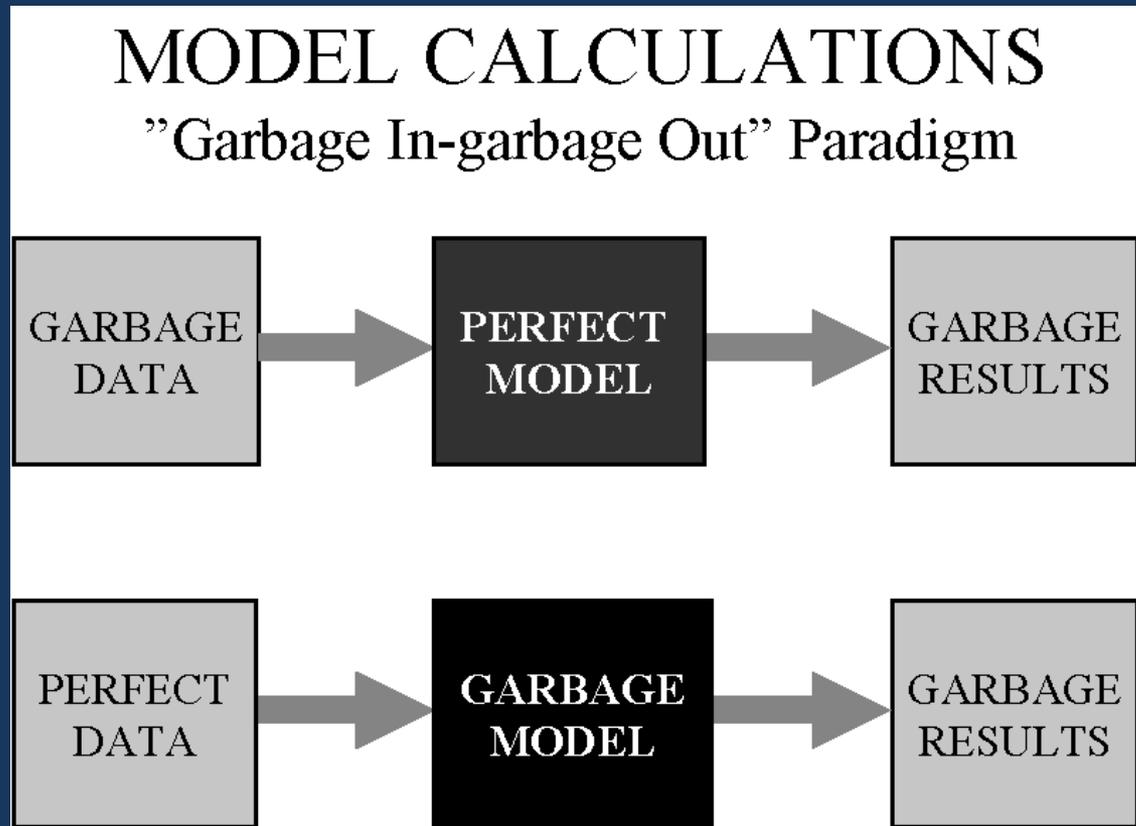
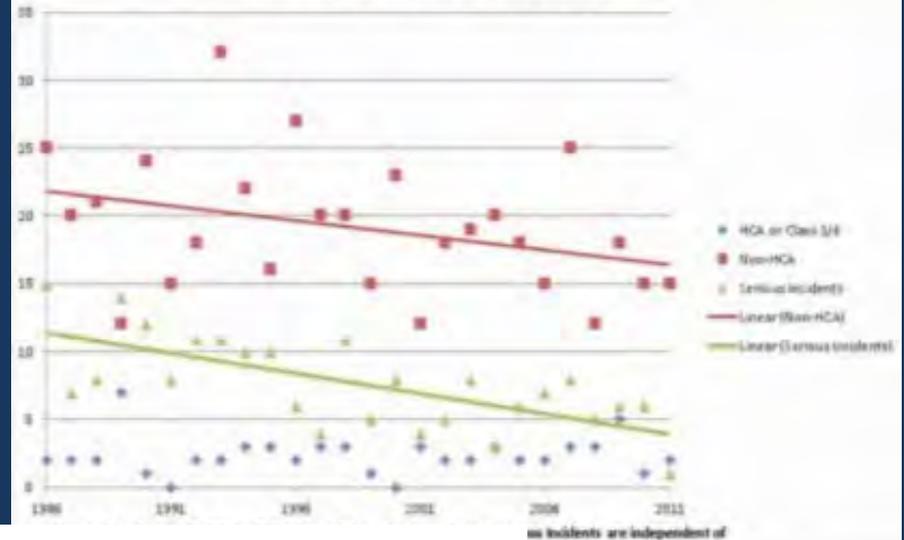# Need to decide what performance we are trying to measure

Public awareness example
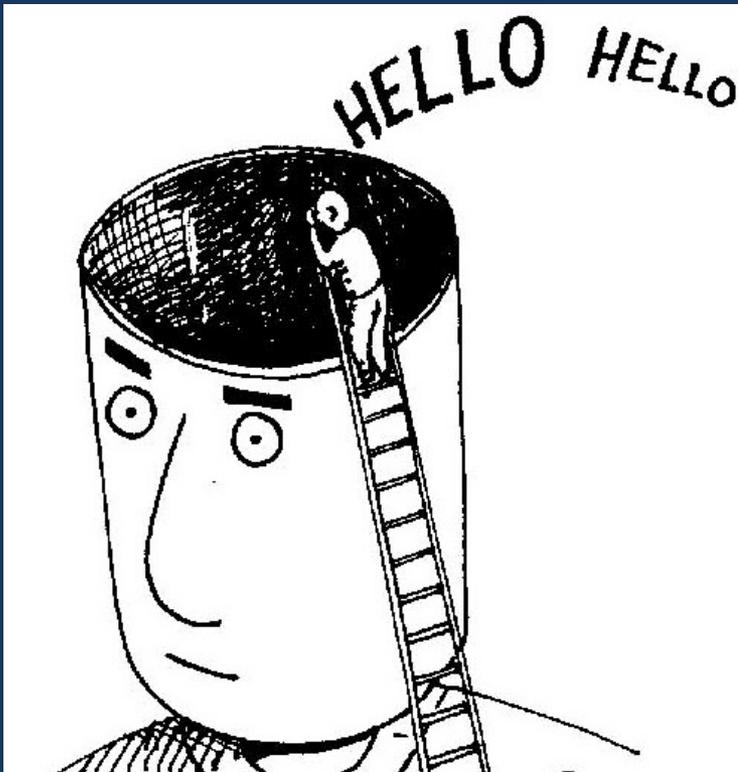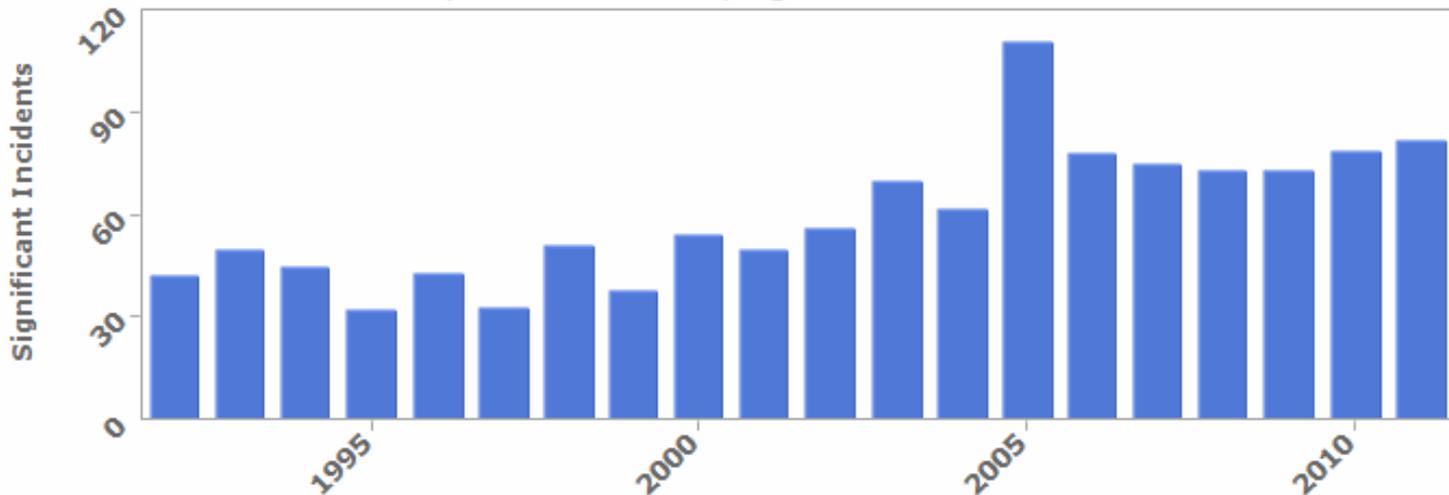
One other example of choosing performance measures

Ruptures are a Key Determinant in Serious and Significant Accidents Affecting Public

INGAA

Number of Ruptures (Onshore Only)

- HCA or Class 3/4
- Non-HCA
- Serious Incidents
- Linear (Non-HCA)
- Linear (Serious Incidents)

National, Gas Transmission, Significant Incidents: Count 1992-2011

Source: PHMSA Significant Incidents Files September 28,

From a public perspective, we are most interested in indicators that:

• Show whether incidents, and the consequences of incidents, are declining.

• Show whether industry and regulators understand, and are dealing with, the present and future risks that could lead to incidents

• Show specific performance differences between companies, sectors, and regulators

• Show whether the industry and regulators understand and are dealing with the peripheral issues that undermine trust in pipelines

Show whether incidents, and the consequences of incidents, are declining.

- Total incidents/year by sector
- Total incidents/mile/year by sector
- Total consequences/year by sector
  - Deaths and injuries
  - Spill/release volumes
  - Property damage (Private, public, company)
  - Costs (restoration, response, lost product, environmental)

Many of these are already available

Show whether industry and regulators understand, and are dealing with, the present and future risks that could lead to incidents

- Total incidents / cause / year by sector
- Incident cause trend lines over time by sector
- Incident cause trend lines – HCA vs Non-HCA - over time by sector
- Near misses / cause / year by sector
  - Excavation damage below incident thresholds
  - Safety Related Conditions
  - Leaks / cause / year by sector

Show specific performance differences between companies, sectors, and regulators

- Incidents & consequences/mile/company/year
- Repairs by type and cause/mile/company/year
- Emergency response times/company
- Spill drill results / company
- Federal enforcement actions/company/year
- State enforcement actions/company/year
- PHMSA state audits
- PHMSA inspection priorities
- State regulator & pipeline company transparency

Show whether the industry and regulators understand, and are dealing with, the peripheral issues that undermine trust

- Use of contractors vs. own employees
- Health related issues after releases
- Use of eminent domain
- Frequency of changes in ownership
- Public awareness measurables
  - Increase in 811 use
  - local government land use policies
  - fire department trainings

Prove it through easy transparency

Most all of these measurables could be incorporated into a GIS system that would allow the public to click on a pipeline in their neighborhood and learn all about it.