Save Lives
Reduce
Claims
Mitigate Litigation
PREVENT
Injuries
manage risk
Increase
Stakeholder
VALUE
Enhance
Your Brand








CULVER

Public Safety Engagement

Promoting Utility Business Goals, Keeping Pace with Regulation, Demonstrating Continuous Improvement, and Achieving Bottom-Line Results

Amy Rosenkrantz, Culver Company, LLC
December 10, 2018

California Underground Facilities and Safe Excavation Board

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Agenda

- Culver Company Overview
- Public Safety Context
- Culver Company's Approach
  - The Situation
  - Developing Programs Based on Risk and Influence
  - Case Study—Public Safety Across the Enterprise
- Solutions
  - At-Risk Workers
  - Emergency Responders/First Responders and Public Officials
  - Educators, Students and Families/Affected Public
- Next Steps

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Culver Is Uniquely Qualified to Provide Insights into Utility Public Safety Outreach Programs

- Our Heritage: Utility public safety strategists for 41 years
- Our Offering: Strategic planning for utility public safety outreach
  - Litigation and regulatory support
  - Public safety risk assessment and tactical solutions to fill gaps
  - Risk management reporting
  - Program design, implementation, evaluation, and refinement
  - Primary research on program effectiveness (national benchmarks and company baseline)
  - Behavior change experts
- Our Expertise:
  - Providing public safety programs, data, and services to utilities and industry partners in 50 states and Canada
  - Serving approximately 700 utilities annually
  - Reaching nearly 2 million at-risk third-party workers, 400,000 first responders, 3.5 million students, and 360,000 educators annually
  - Providing advisory services in support of AEGIS insurance assessments, state, and local regulatory proceedings and rate cases as well as in support of hearings before FERC, the National Transportation Safety Administration, and the Pipeline and Hazardous Materials Safety Administration
- Some of Our Utility Partners Include:

PG&E Pacific Gas and Electric Company®
Southern California Edison An EDISON INTERNATIONAL® Company
SMUD®
Sempra Energy®
LA DWP Los Angeles Department of Water & Power
Dominion Energy®
nationalgrid
EVERSOURCE
Xcel Energy®
DUKE ENERGY®

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Public Safety Risks and Opportunities Impact Utilities at Strategic, Cultural, and Functional Levels

- Investment community confidence
- Credit risk
- Remediation
- Litigation

- Performance gaps
- Operational inefficiencies
- Risked infrastructure
- Workforce turnover
- Institutional knowledge transfer



- Fines
- Reduced license to operate
- Risk earning authorized rate of return
- Required resources for hearings

- Negative media attention
- Special interest group attacks
- Employee disengagement
- Customer dissatisfaction
- Public confidence and trust
- Key stakeholder relationships (e.g., public officials, customers, emergency responders)

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Stakes Are High. Utilities' Financial and Reputational Risks Around Public Safety Continue to Escalate, Driven Partly by Lack of Proactive Processes

Issues



- 1 in 4 utilities report having had a "recent risk surprise"
- Nearly 60% do not require a risk analysis to determine an acceptable resilience/recovery level
- 2 out of 3 companies did not define when a risk issue needed to be escalated

Impact



- Reputational impacts from safety incidents can far exceed operational losses and are often times not fully considered

Implications



- Identifying gaps in risk management processes can allow companies to more effectively protect against comprehensive impacts of safety incidents
- A better predictor of risk is needed across the industry

True Cost of Failing to Adequately Manage Risk

$45.8 M	Legal: administrative
$25.7 M	Legal: settlements
$8.5 M	Health and safety: third party settlements
$4.3 M	Health and safety: administration
$50.0 M	Other settlement costs
$10.2 M	Excess liability
$3.7 M	Insurance: Directors Sarbanes-Oxley
$5.5 M	Risk management
$153.7M	**Total**

Source: ERM Industry Assessment of 103 AEGIS Member Utility Companies, presented by Dr. Paul Walker, St. John's University, Tobin College of Business, School of Risk Management at 2015 AEGIS Policy Holders Conference

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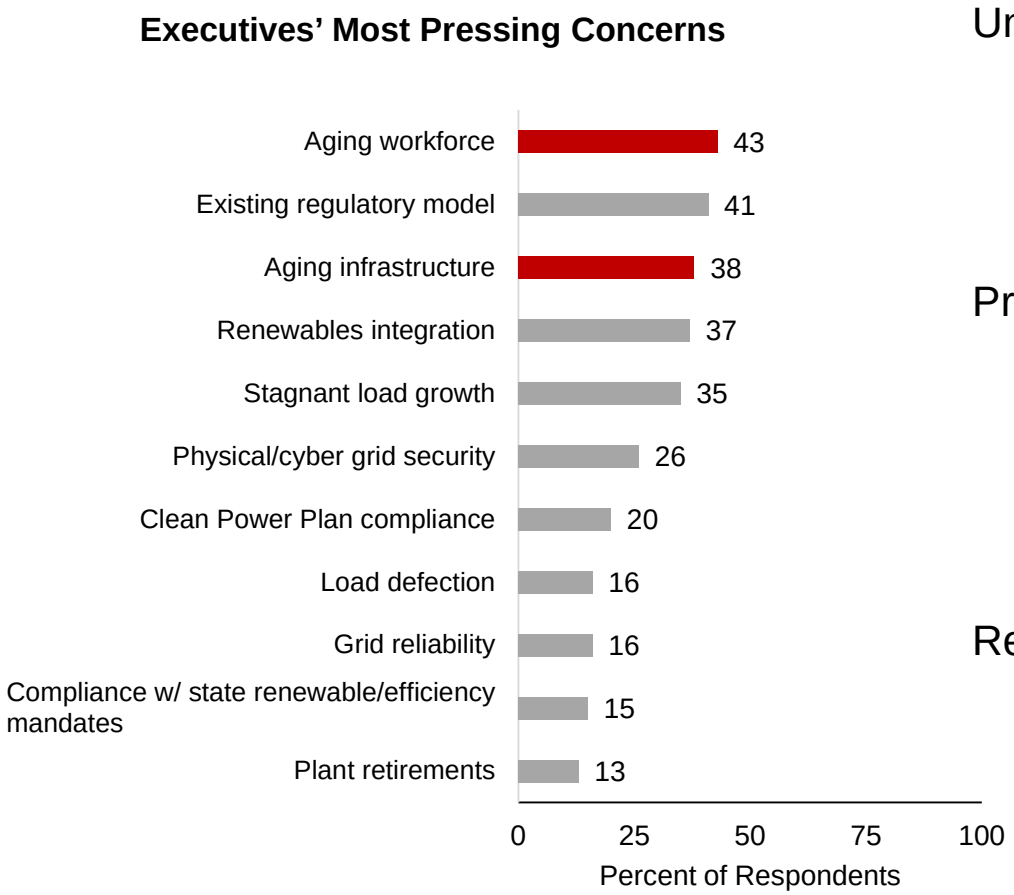
Aging Workforce & Infrastructure Challenge Our Industry. Public Safety Outreach Investments Are Even More Critical



Unprecedented Retirements

- Knowledge loss and lack of implementation/
- Different mindset/culture of new employees

Proof Points

- Safety stakeholders – more on your shoulders
- Culver increasingly asked to connect the dots, fill in the gaps on incidents
- Investment in capital projects

Reliability and Safety

- Aging electric and gas infrastructure
- Limited maintenance investments

Source: 2016 State of the Electric Utility Survey, Utility Dive
Online survey conducted with 515 electric utility executives (61% IOUs, 15% Muni, 14% Coop and 10% public power)

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What We Mean When We Say “Utility Public Safety”



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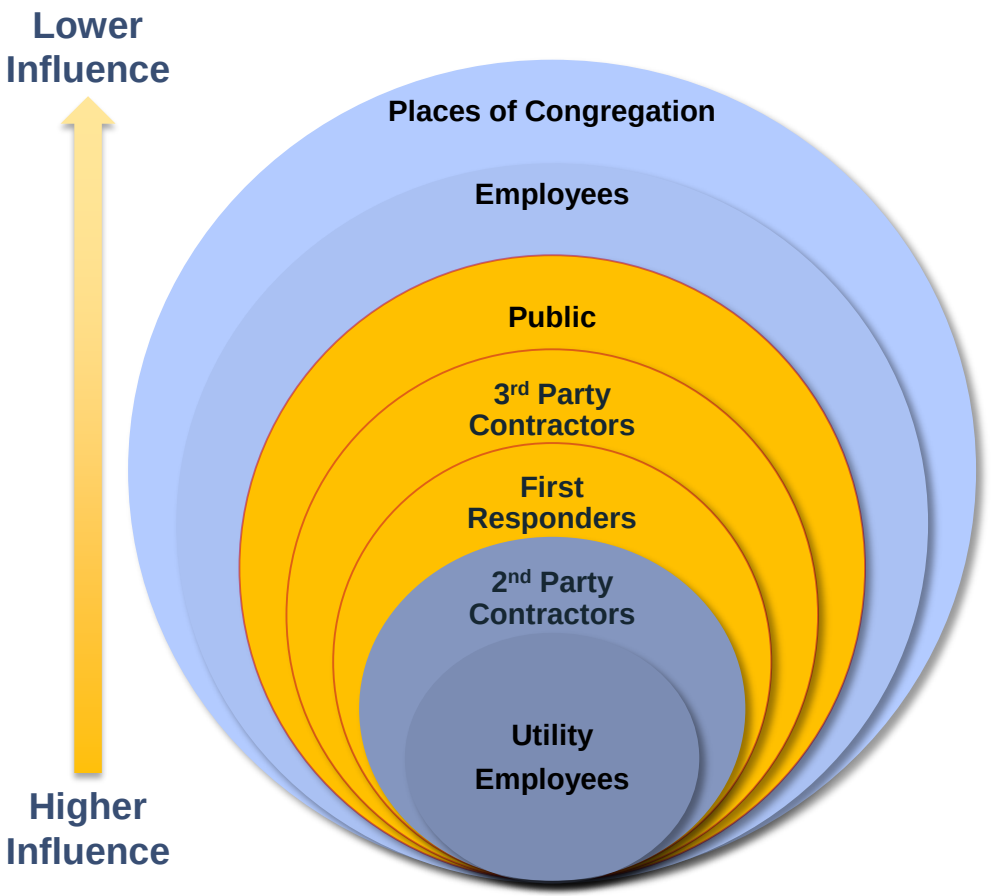
Knowing the Target Audience and Developing Programs Based on Risk and Influence



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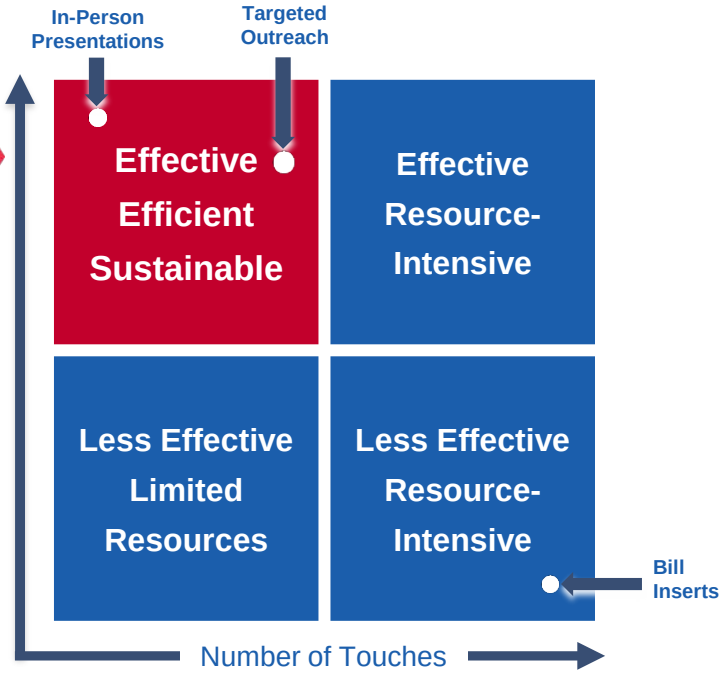
Culver Company's Outreach Programs Promote Public Safety By Driving Behavioral Change Among At-Risk Stakeholders

Prevention-Based Strategy



Strategic Framework for Decision Making



A Prevention-Based Strategy Increases Engagement, Awareness, and Safe Behaviors Among Affected Audiences

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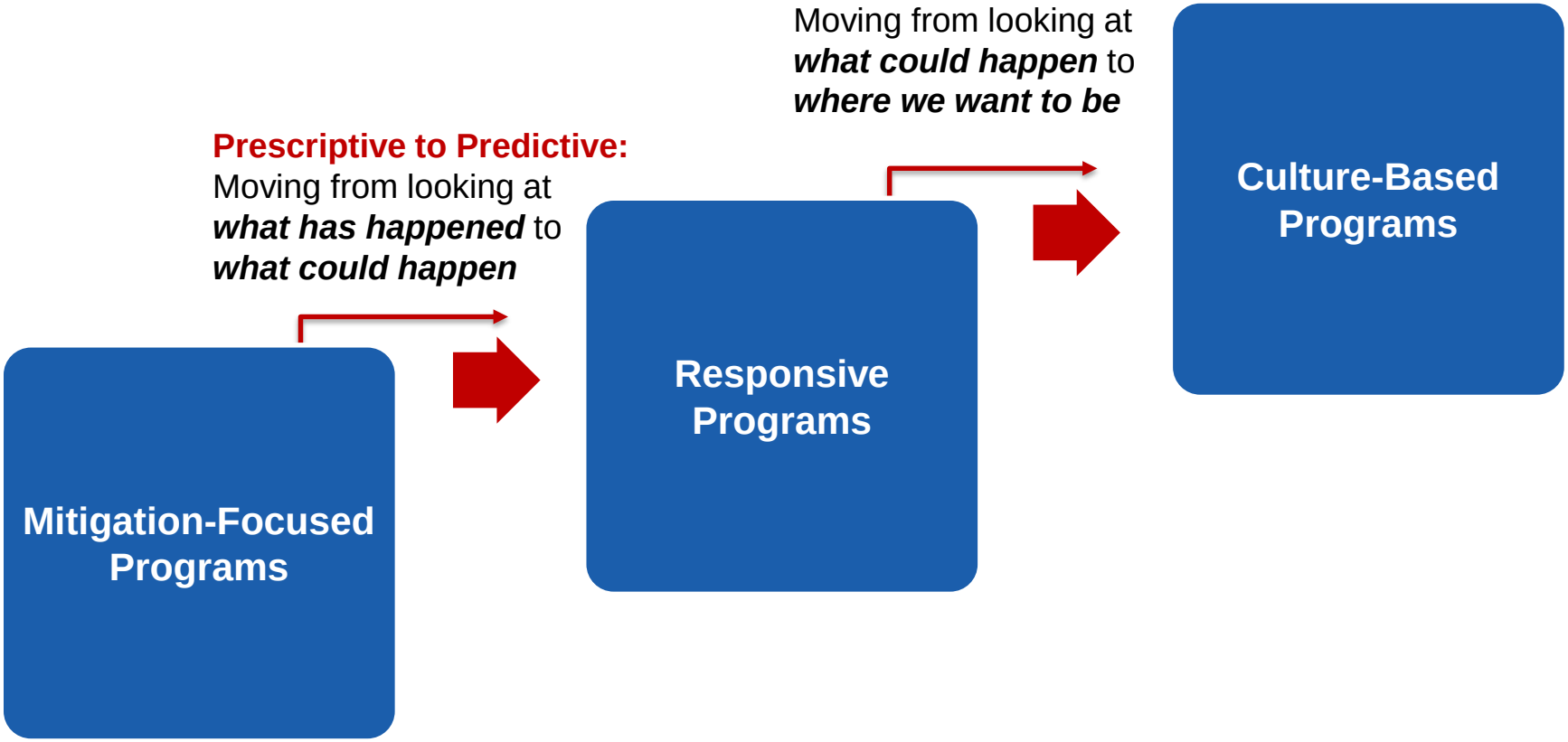
Evolution of Public Safety Programs In a Changing Environment

Predictive to Prevention:
Moving from looking at ***what could happen*** to ***where we want to be***

Prescriptive to Predictive:
Moving from looking at ***what has happened*** to ***what could happen***



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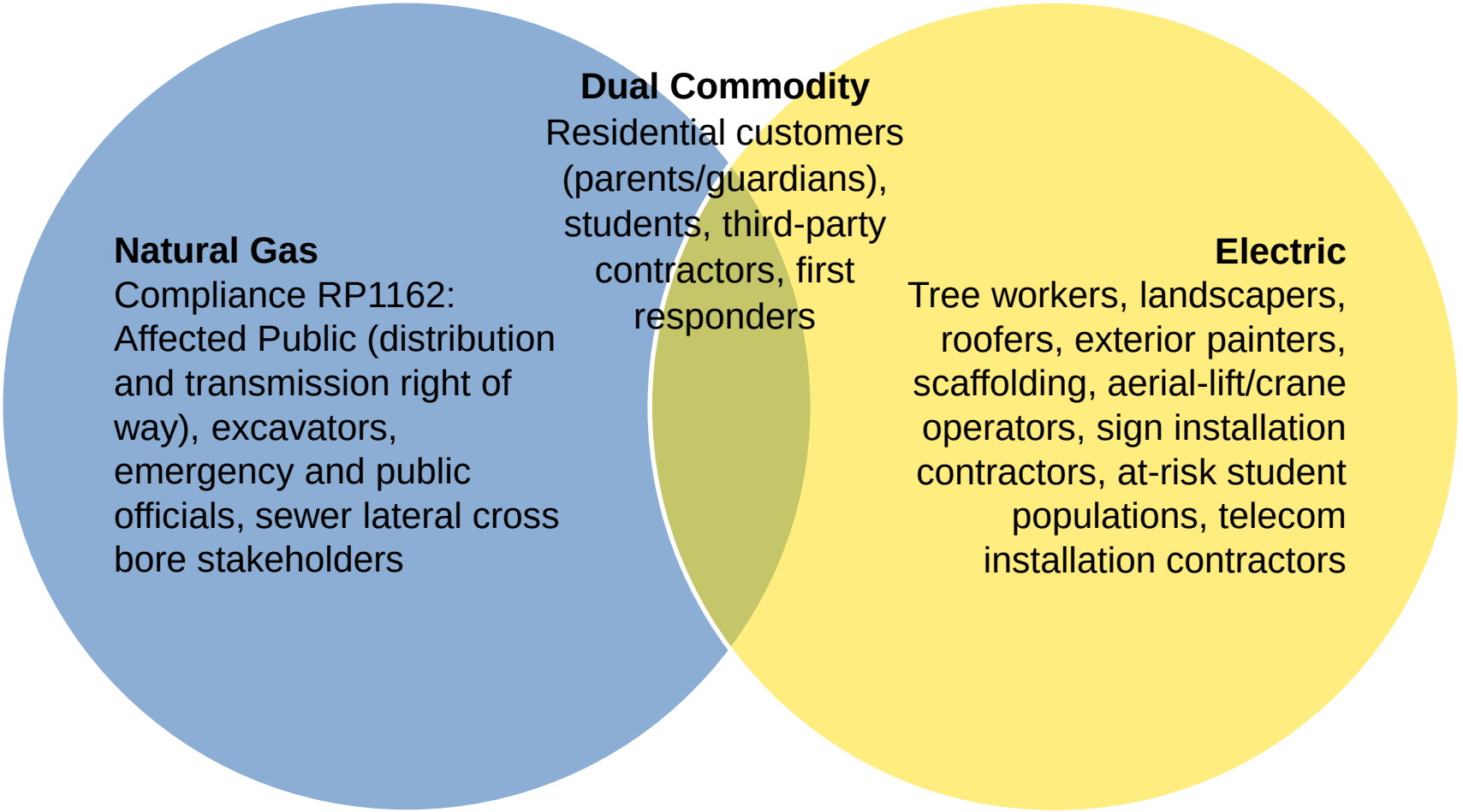
Public Safety Outreach Creates a Customer-Centric, Unifying Messaging Platform that Eclipses Operational and Regulatory Differences and Enhances Enterprise Value



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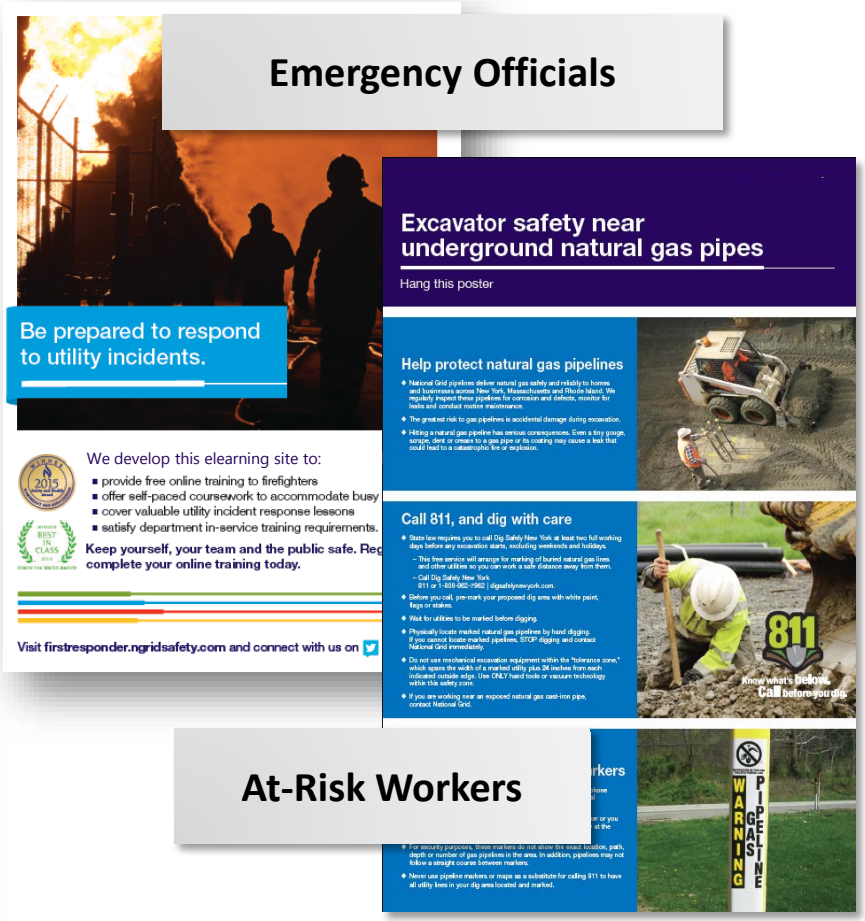
Efficiently Deploy Unified Safety Messaging Using Stakeholder-Preferred Channels, Maintaining Brand Consistency

Affected Public



Emergency Officials



Teachers and Families



At-Risk Workers

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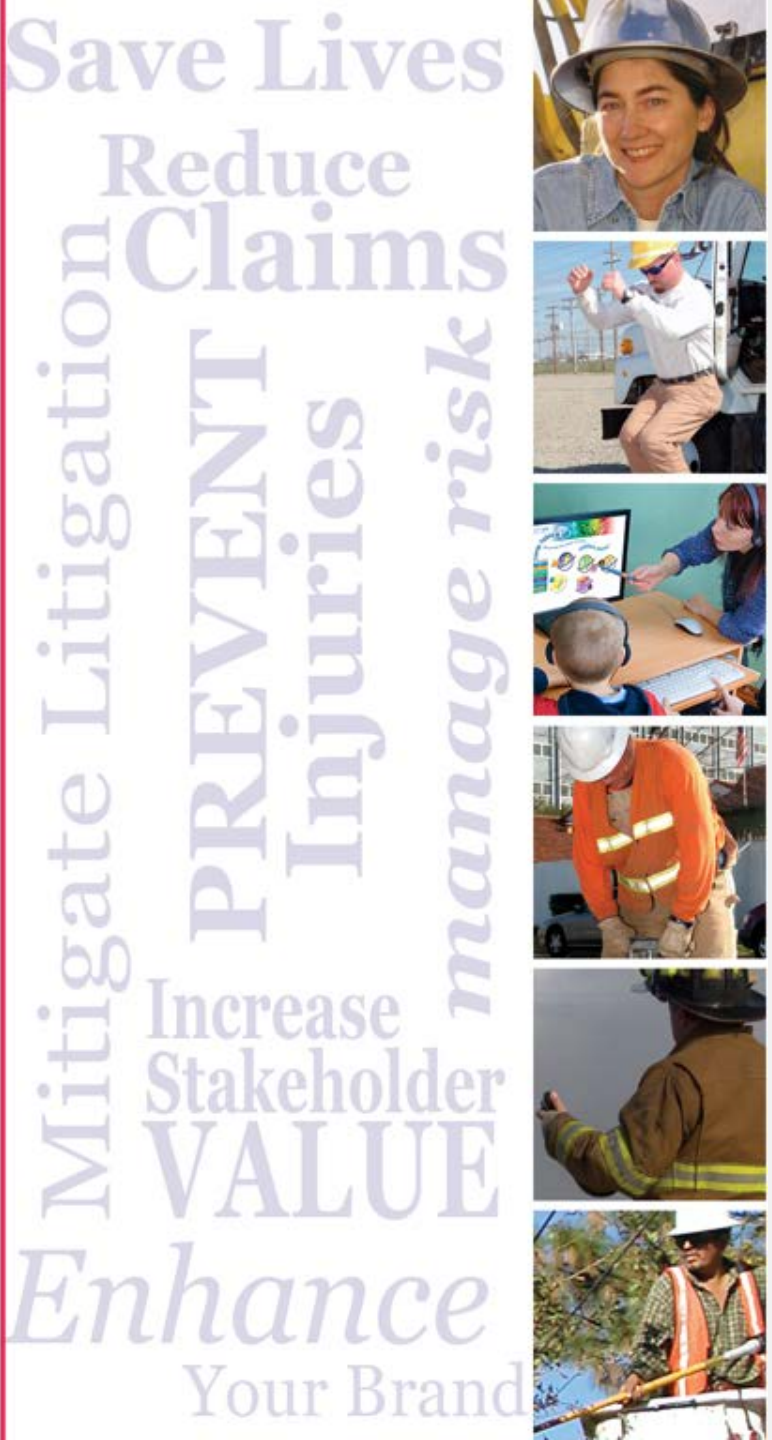


At-Risk Workers

Annually Reaching More Than 100,000 Third-Party Contractors At Risk of Injury or Creating an Incident

Culver Company's Methodology for Identifying and Communicating With Stakeholders

1. **Design Outreach Campaign Materials to Create Safety Awareness and Build Brand**
2. **Engage Organizations to Identify Safety Information Needs**
3. **Distribute Safety Program Materials Through Preferred Channels and Vehicles**
4. **Collect At Risk Worker Organization Feedback Regarding Use and Impact**
5. **Analyze National Data to Identify Best-In-Class Practices and Strategies**



Worker Safety

ELECTRICAL AND NATURAL GAS SAFETY INFORMATION FOR YOU AND YOUR EMPLOYEES

HANG THIS POSTER

BEWARE OF POWER LINES

Keep people, tools and equipment at least 10 feet away from overhead power lines carrying up to 50 kV. Cranes or derricks used in construction may require a 20 foot clearance from lines up to 350 kV.

- **Survey your job site every day** to find overhead power lines, poles and guy wires.
- **Review your emergency plan** so everyone knows what to do in case of power line contact.
- **When working with ladders or long tools:** Stay at least 10 feet away from overhead lines carrying up to 50 kV.
- **When cranes and derricks are used in construction:** The operator of such equipment must maintain 20 feet of clearance from lines up to 350 kV and 50 feet of clearance from lines greater than 350 kV but at or less than 1000 kV until the operator has taken specific safety measures.
- **As voltage increases, clearance distances also increase.** Consult the OSHA regulations at www.osha.gov for specific safety clearance requirements.
- **If your equipment contacts a power line** have someone call 911 and PECO immediately.

DON'T RISK IT! USE A SPOTTER

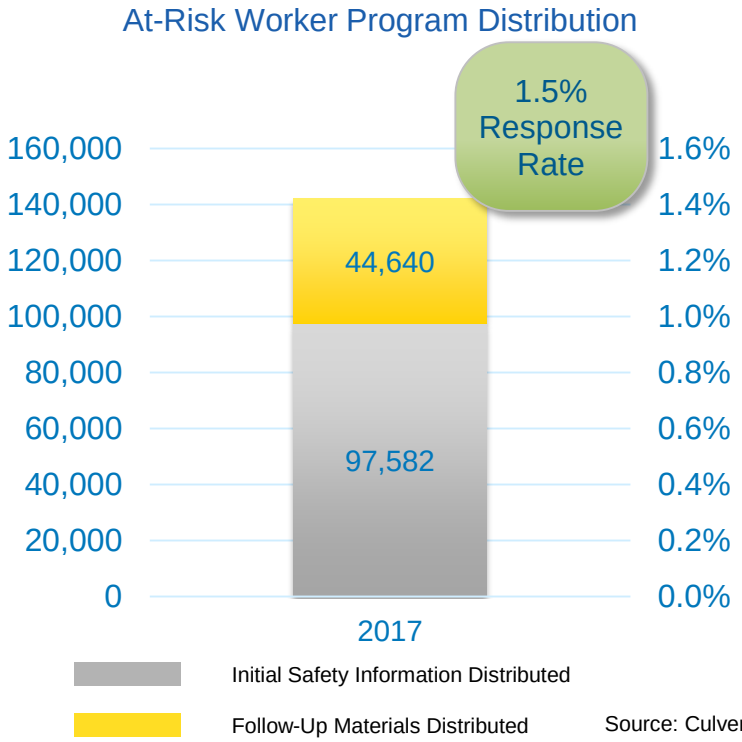
A dedicated spotter helps you stay clear of overhead lines.

- No equipment operator working alone can safely judge the distance from the equipment to overhead power lines. **Work with a spotter whose only responsibility is to keep you and your equipment a safe distance from overhead lines and other hazards.**
- When a crane or other equipment hits an overhead power line, workers on the ground guiding the load are in the most danger. **Electricity can travel through the tag line and through you.**
- **Don't risk injury or death by trying to guide a load and spot at the same time.** Rely on a designated spotter to help keep you clear of power lines.

CALL 811 BEFORE YOU DIG

Call in advance so you can work safely.

- **Call 811 before you move earth in any way.** They will arrange to mark underground power lines, natural gas pipelines and other buried utilities so you can work safely.
- **Notification requirements vary from state to state,** so make sure you know how many days prior to digging you must make this call.



The National Response Rate for Third-Party Contractor Programs Is 1.5%

Source: Culver Company 2017 customer program.

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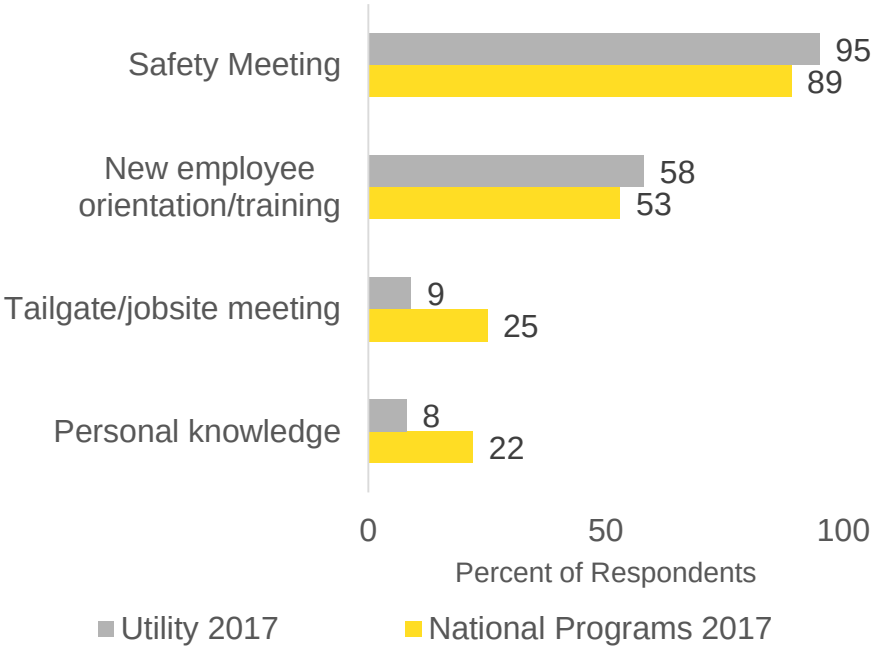
Recipients Engage With the Safety Information Sent to Them; Serves As a Foundation for Meetings and Training

How At-Risk Workers in the Service Territory Use Your Utility Public Safety Materials



Additional Safety Materials



Insight: Unprecedented numbers of retirements are influencing contractors to leverage utility materials for safety meetings (95%) and new employee orientation/training (58%)

Source: Culver Company Benchmark Data, 2017 National Average n=8,470, Utility customer 2017 n=217

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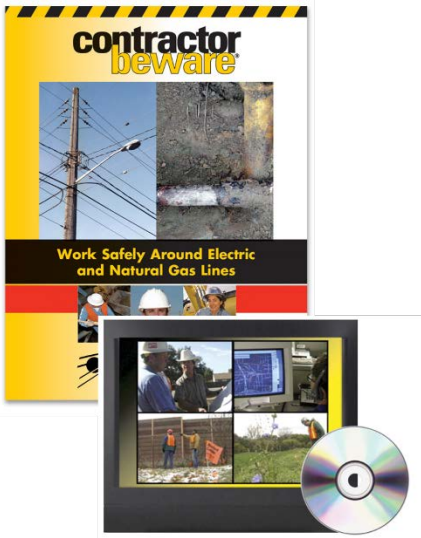
Effective Communications Gain Impact by Segmenting for Industry, Language, and Message-Delivery Preferences









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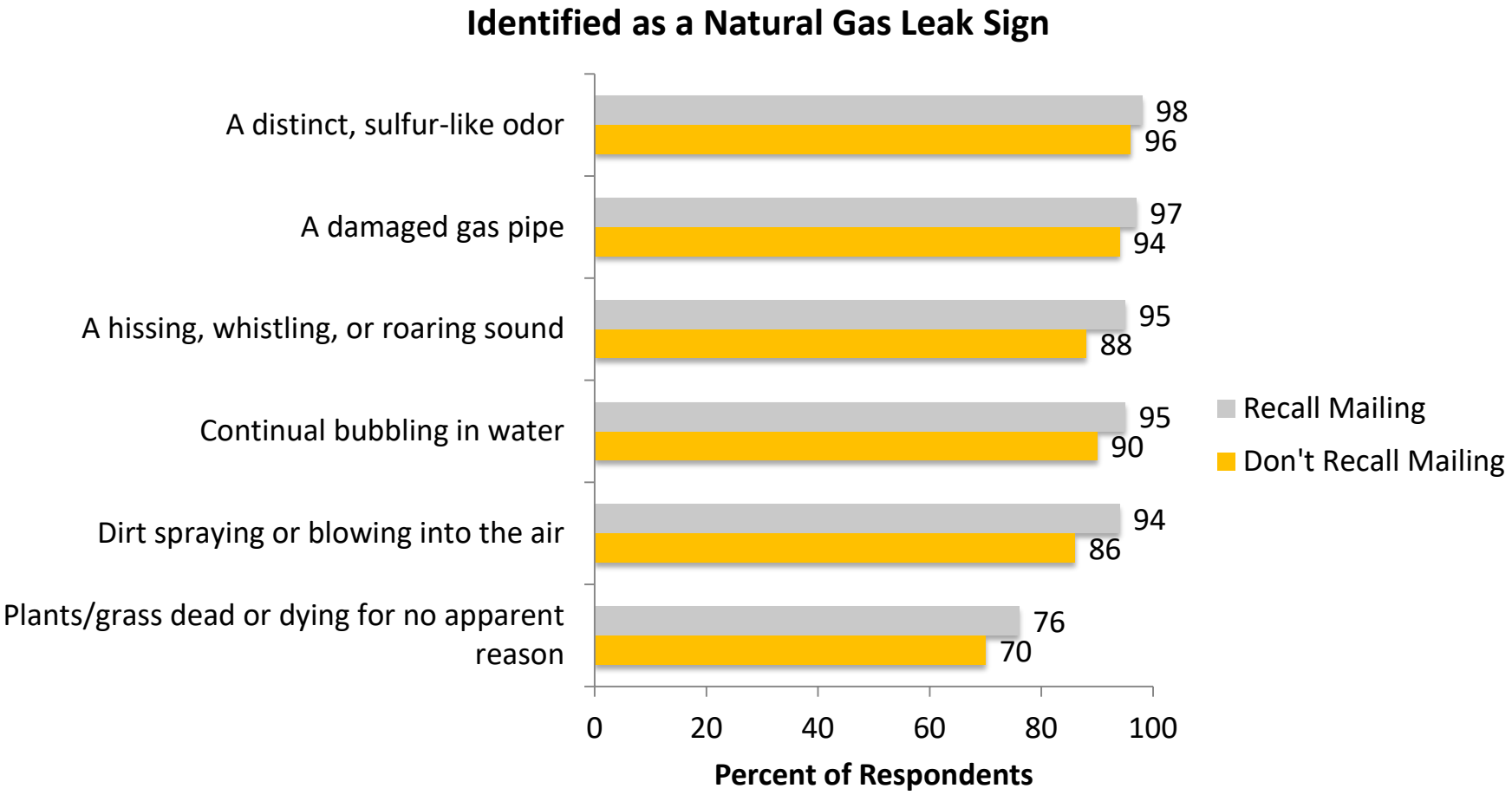
Excavators Who Recall Utility Safety Mailings Better at Recognizing Gas Leaks, Particularly Signs Other than the Scent of Mercaptan Alone



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Enhanced Communication Drives Awareness and Evokes Emotions, Which Drive Desired Behavior

Know.

- Messages in enhanced mailings get noticed
  - 47% of excavators reported messages stood out
  - Call 811 before digging in particular attracted their attention with 57% mentioning this in response to an unaided question

Feel.

- They tap into what is meaningful to the target audience
  - 86% will change how they approach work because they learned safe practices reduce costs
  - Excavators also tend to recall photographs and images

Do!

- And, they drive behavior
  - 82% said the safety messages in the mailing were effective at changing behavior
  - 64% will change their on-the-job behavior because of the call before you dig messages they saw

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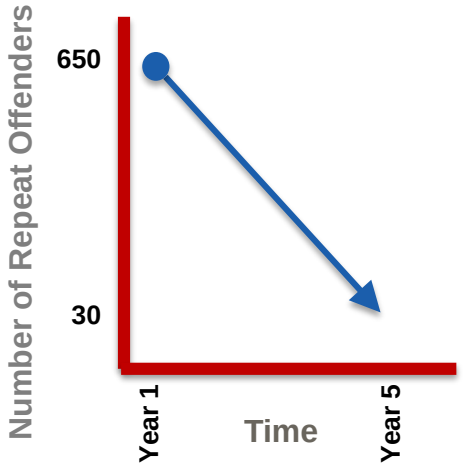
Integrating Repeat Offender Outreach Programs to Reduce Incidents, Mitigate Risk, and Address Regulatory Concerns

Culver Company Has Teamed with Numerous Utilities to Deliver Verifiable Reductions in Incidents and Related Hard and Soft Dollar Savings

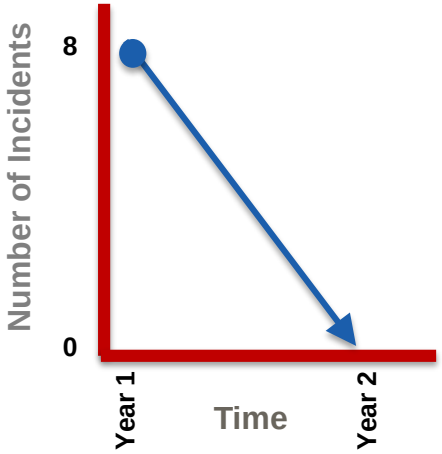
Dominion Energy

Dual-Commodity Repeat Offender List



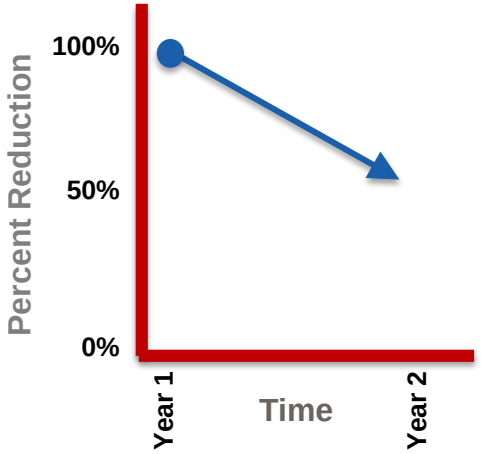
FPL

Electric Overhead Incidents



Xcel Energy

Excavator Pipeline Strikes



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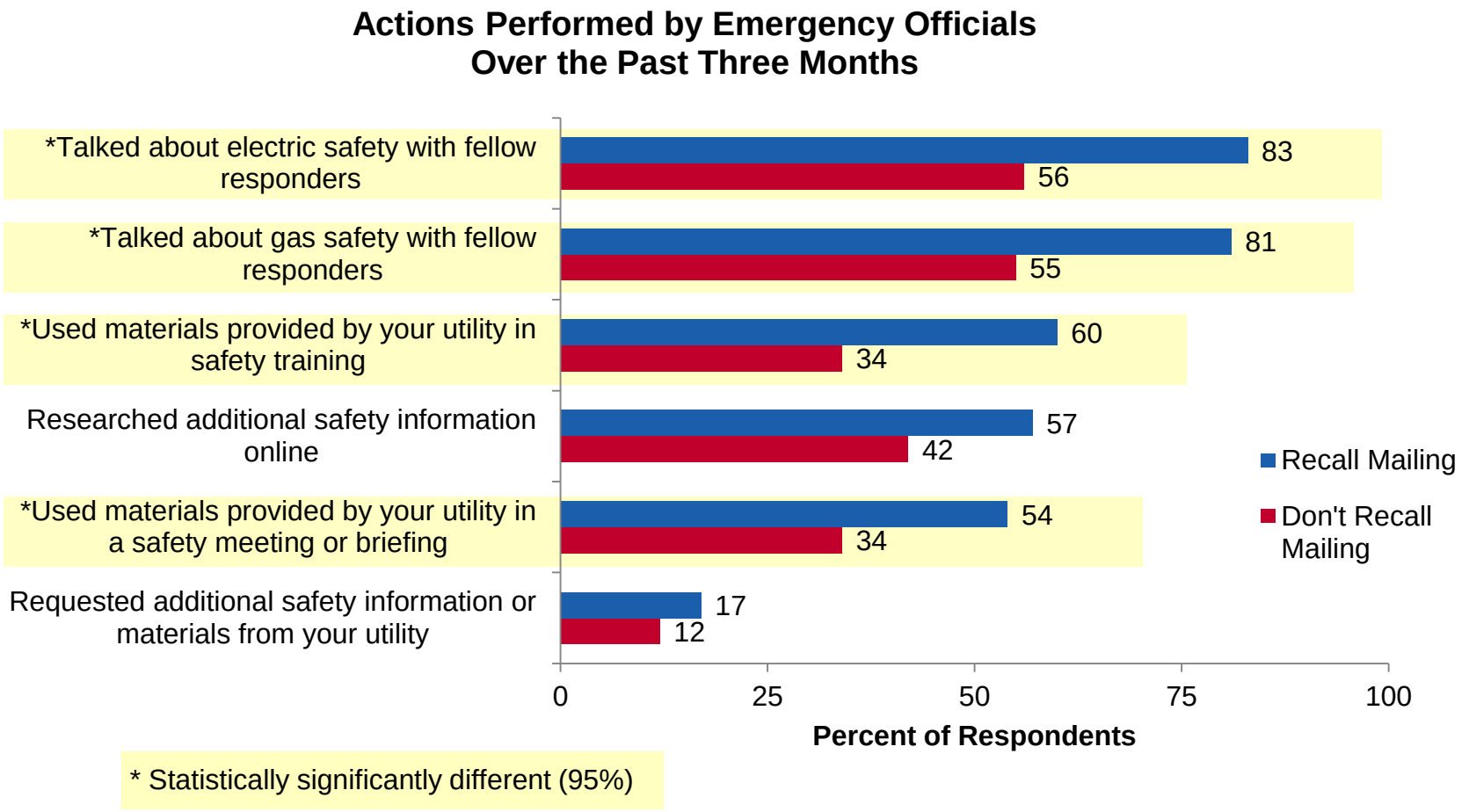
At-Risk First Responders, Students and Their Families

Behavior Data Indicate Impacts of the Public Safety Materials Distributed by the Utility to the Emergency Responder Community



Source: Culver Program Partner data, 2016

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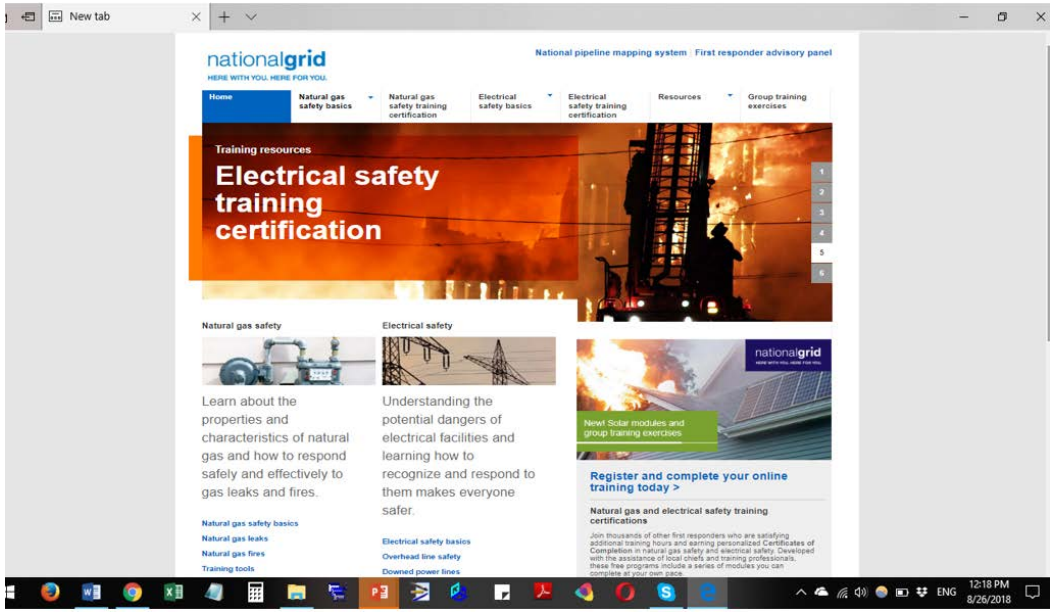
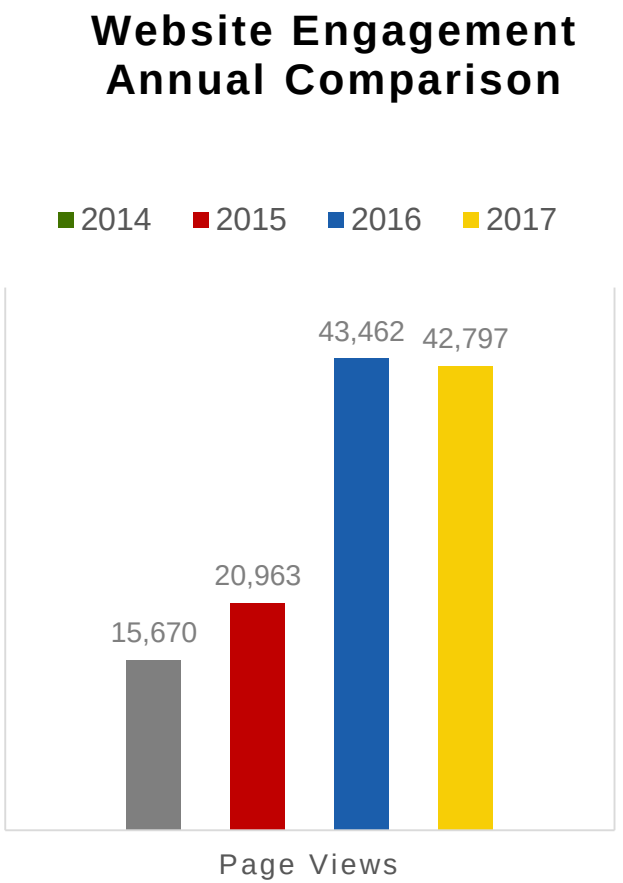
Best-in-Class Programs Leverage Metrically-Driven Solutions to Strengthen Ties with First Responders



First Responder e-Learning Metrics:

- 400 webpages and growing
- 40,000+ page views annually
- 6,000+ completed trainings, and expanding
- Validated by regulators and industry



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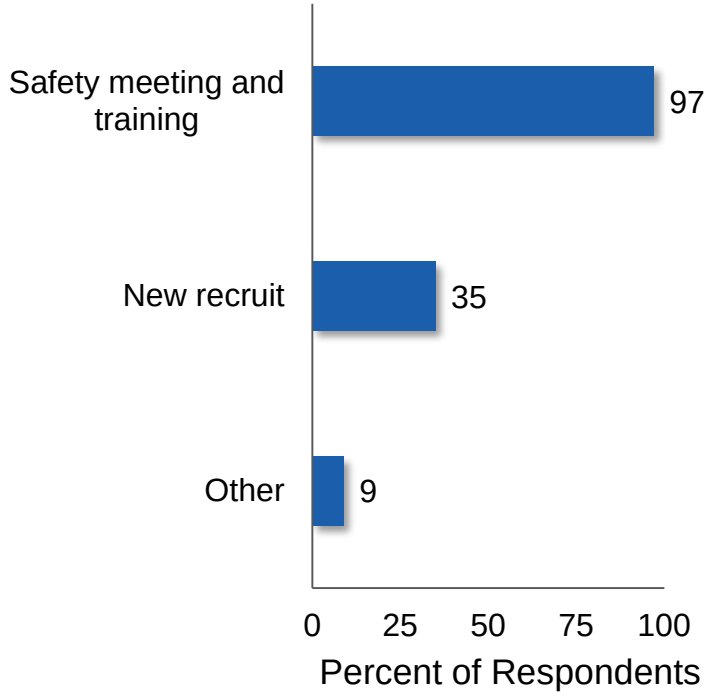
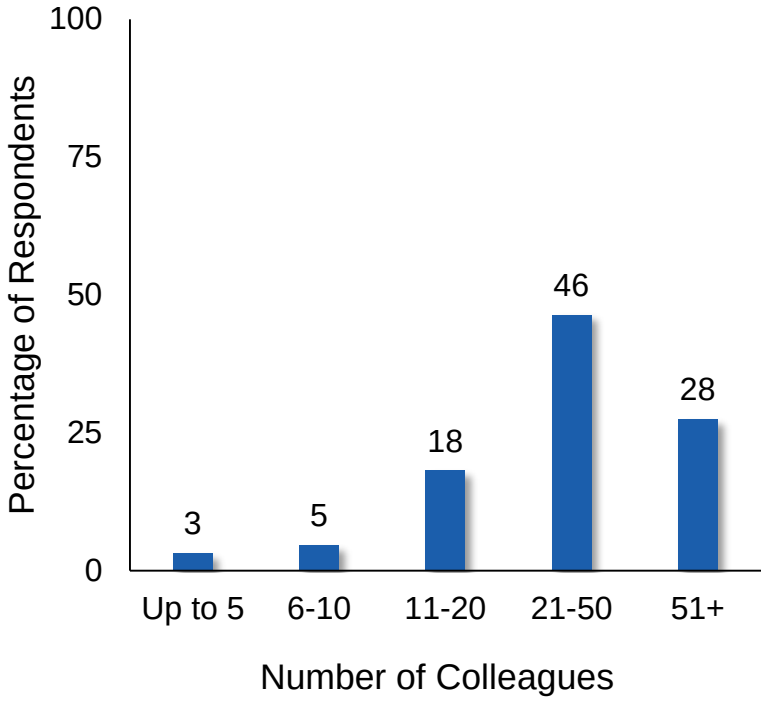
First Responders Nearly Universally Depend on Quality Safety Content from Their Utilities As a Foundation for Safety Training

How First Responders Use Program Safety Information



Number of Colleagues to Whom First Responders Provide Training Materials



Culver First Respondents Insights Benchmark Analysis 2018

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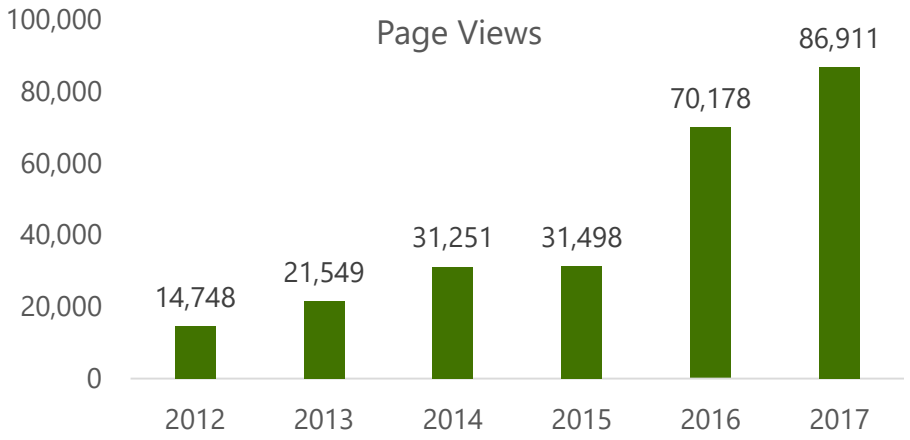
All-Electric Company Proactively Invests in Student/Family Safety Communications, with Impressive Engagement Metrics

- History
  - School program reaches educators, students, and their families with direct mail and online resources
  - Since 1999, reached 2,559,875 students with electrical safety education
- Educational Materials
  - Offers 4th and 5th grade safety booklets to area educators, students, and families
  - *e-SMARTkids* educational website





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Classroom Educational Programs Offer Extensive Reach and Impact

For each request in the utility's territory, nearly 7 educators received materials, sharing these with an average of 38 students each



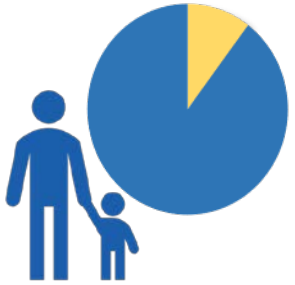
Total of 301 educators requested classroom materials



For every request, nearly 7 teachers in all received the utilities classroom materials
Total: 2,107 teachers



Each teacher shared the utility's materials with an average of 38 students
Total: 80,066 students



92%* of parents report that they saw the utility's safety materials, which had been brought home by their students

Culver Company School Safety Program Data 2017
*Culver Company At-Risk Insights Benchmark Analysis 2018 n=636

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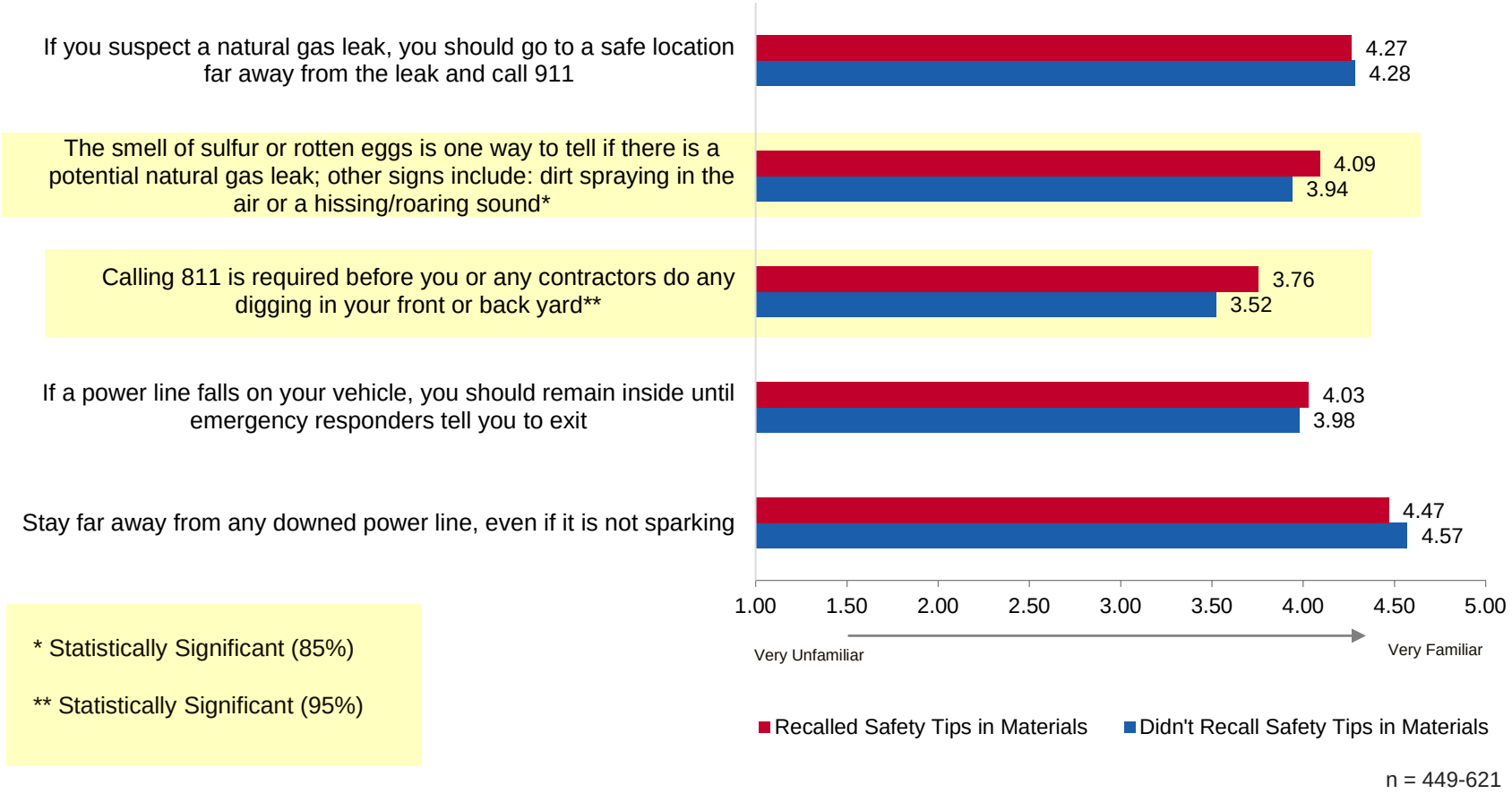
Classroom Materials Increase Parent Awareness of Safety Behaviors (Call 811 before Digging; Identifying Signs of a Natural Gas Leak)

Level of Familiarity (1 to 5) with Safety Tips in School Materials



* Statistically Significant (85%)

** Statistically Significant (95%)

n = 449-621

Source: Culver Company Parent Engagement Survey data, 2017

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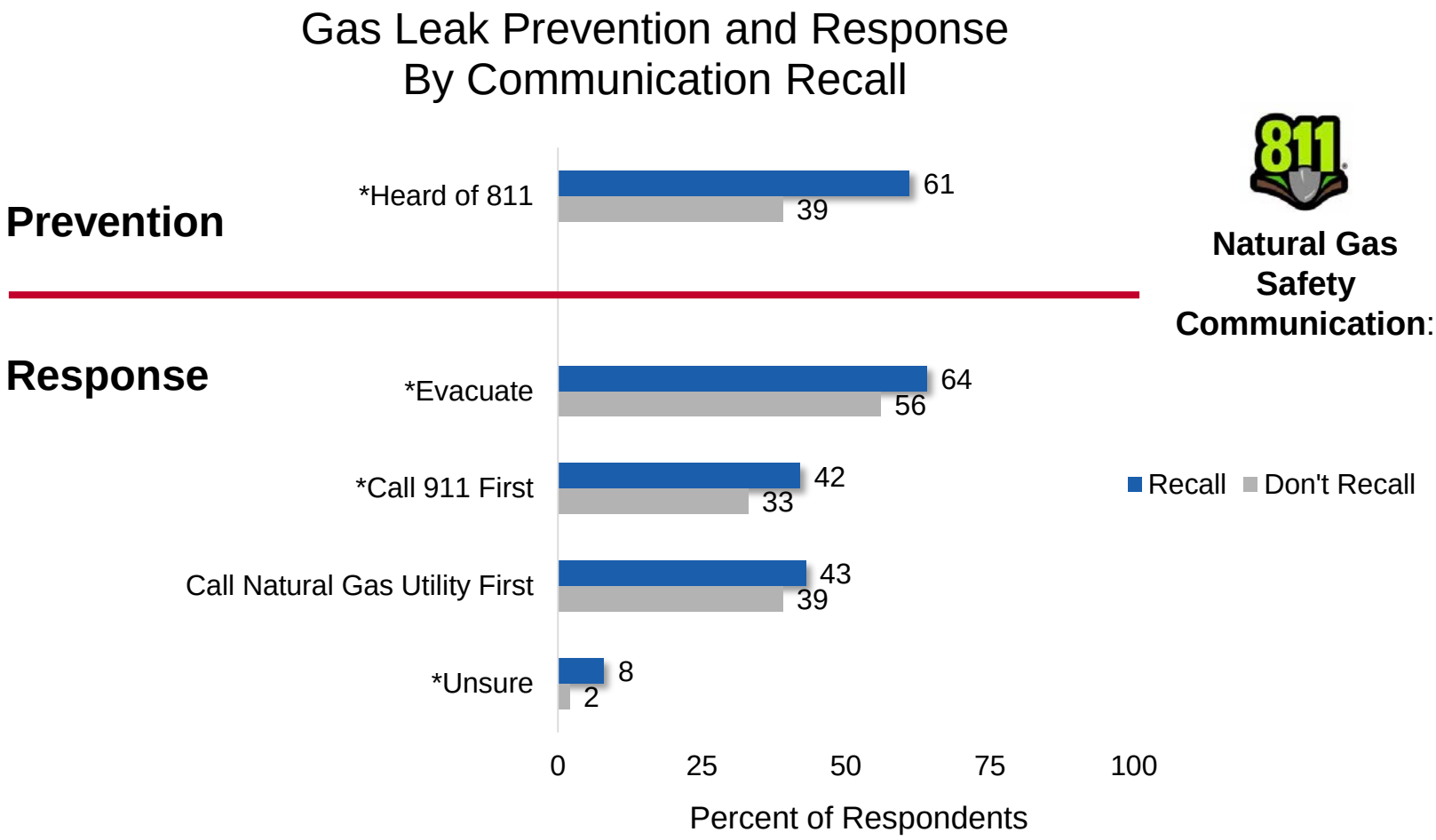
Our Communications Help Consumers Better Protect Themselves and Others



Culver Company Affected Public Insights Benchmark Analysis 2018

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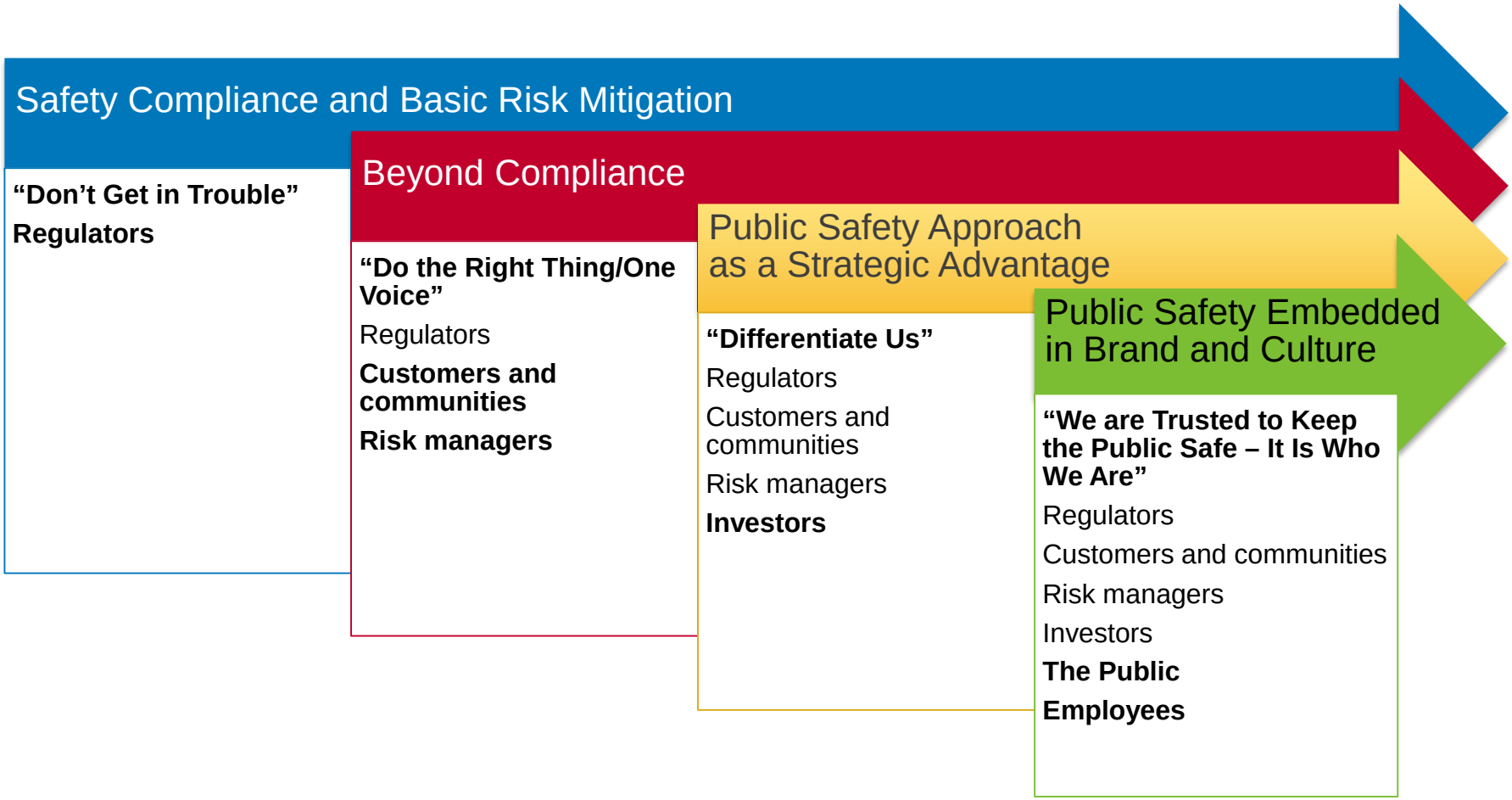
Leading Utilities Are Embedding Public Safety in Their Brand and Company Culture



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Enhancing Public Safety Impact Through Our Partnerships, Approach, and Research



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