



Working Together
To Prevent Damage



Common Ground Alliance 2017





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Common Ground Study / CGA

- Congress passed Transportation Equity Act for 21st Century in 1998. Legislation called for USDOT to conduct a study of best practices in place nationwide for enhancing worker safety, protecting vital underground infrastructure and ensuring public safety during excavation activities conducted in the vicinity of existing underground facilities.





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Establishment of CGA

- 160 Stakeholders Participated in Study
- Completed in 1999: 132 Best Practices published with consensus support from all involved.
- Common Ground Alliance established in 2000 to support industry efforts to continue the implementation and development of the [Damage Prevention Best Practices](#).

COMMON GROUND

Study of One-Call Systems and Damage Prevention
Best Practices

August 1999

Sponsored by the United States Department of Transportation; Research and Special Programs Administration; Office of Pipeline Safety, as authorized by the Transportation Equity Act for the 21st Century (TEA 21)

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CGA Mission *(Purpose of the CGA)*

Provide clear and tangible value to our stakeholders by helping to reduce damages to North America's underground infrastructure. The CGA works cooperatively, fostering a sense of shared responsibility to enhance safety and protect underground facilities by:

- Identifying and disseminating the stakeholder best practices;
- Developing and conducting public awareness and education programs;
- Sharing and disseminating damage prevention tools and technology
- Serving as the premier resource for damage and one call center data collection, analysis and dissemination.





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CGA Vision *(Desired future state CGA is working to create)*

CGA is making significant, measurable progress in creating a damage prevention culture across North America...on every site, every day. Calling before digging is the norm, with all underground utilities identifiable and accurately mapped. Data is used to systematically address root cause issues and shows a trend of declining numbers of incidents.

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16 Stakeholder Groups Representing...



Member Driven Organization...





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CGA Core Programs

- Best Practices
- Educational Programs
- Data Reporting and Evaluation (DIRT)
- Stakeholder Advocacy
- One Call Systems International (OCSI)
- Technology





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Damage Information Reporting Tool (DIRT)

- Collects damage and near miss data
- Voluntary
- Secure, on-line database
- Can report one-at-a time, or bulk by Excel file
- Managed by a proven committee process





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Q: What is the Damage Information Reporting Tool (DIRT)? Who submits to it?

A: DIRT is a completely secure online database that allows damage prevention stakeholders to anonymously submit information about damages and near-misses, which in turn helps create an industry-wide picture of opportunities to improve safety. One call centers, facility owners, municipalities and government regulatory entities are among those who voluntarily submit data to DIRT.





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What data is collected?

- A. Who is submitting data
- B. Date and Location of the event
- C. Affected Facility Information
- D. Excavation Information
- E. Notification
- F. Locating and Marking
- G. Excavator Downtime
- H: Description of Damage
- I: Description of the Root Cause
- J. Additional Comments
(Character Limit: 4000)



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Rev. 3/10/12
*** Indicates a Required Field

Part A – Who is Submitting This Information

Who is providing the information? Excavator Insurance Liquid Pipeline Engineer/Design Equipment Manufacturer
 One-Call Center Private Water Railroad Locator Natural Gas
 Road Builders State Regulator Telecommunications Public Works Railroad
 Unknown/Other

Name of the person providing the information: _____

Part B - Date and Location of Event

*Date of Event: (MM/DD/YYYY) _____
 *Country _____ *State _____ *County _____ City _____
 Street address _____ Nearest Intersection _____

*Right of Way where event occurred
 Public: City Street State Highway County Road Interstate Highway Public-Other
 Private: Private Business Private Land Owner Power/Transmission Line Dedicated Public Utility Easement
 Pipeline Railroad Data not collected Unknown/Other
 Federal Land

Part C – Affected Facility Information

*What type of facility operation was affected?
 Cable Television Electric Natural Gas Liquid Pipeline Sewer (Sanitary Sewer)
 Steam Telecommunications Water Unknown/Other

*What type of facility was affected?
 Distribution Gathering Service/Drop Transmission Unknown/Other

Was the facility part of a joint trench?
 Unknown Yes No

Was the facility owner a member of One-Call Center?
 Unknown Yes No

Part D – Excavation Information

*Type of Excavator
 Contractor County Developer Farmer Municipality Occupant
 Railroad State Utility Data not collected Unknown/Other

*Type of Excavation Equipment
 Auger Backhoe/Trackhoe Boring Drilling Directional Drilling
 Explosives Farm Equipment Grader/Scraper Hand Tools Milling Equipment
 Probing Device Trencher Vacuum Equipment Data Not Collected Unknown/Other

*Type of Work Performed
 Agriculture Cable Television Curb/Sidewalk Bldg. Construction Bldg. Demolition
 Drainage Driveway Electric Engineering/Survey Fencing
 Grading Irrigation Landscaping Liquid Pipeline Milling
 Natural Gas Pole Public Transit Auth. Railroad Maint. Road Work
 Sewer (sanitary) Site Development Steam Storm Drain/Culvert Street Light
 Telecommunication Traffic Signal Traffic Sign Water Waterway Improvement
 Data Not Collected Unknown/Other

Part E – Notification

*Was the One-Call Center notified?
 Yes (If Yes, Part F is required) No (If No, Skip Part F)

If Yes, which One-Call Center? _____
 If Yes, please provide the ticket number _____

Part F – Locating and Marking

*Type of Locator
 Utility Owner Contract Locator Data Not Collected Unknown/Other

*Were facility marks visible in the area of excavation?
 Yes No Data Not Collected Unknown/Other

*Were facilities marked correctly?
 Yes No Data Not Collected Unknown/Other

Part G – Excavator Downtime

Did Excavator incur down time?
 Yes No
 If yes, how much time?
 Unknown Less than 1 hour 1 hour 2 hours 3 or more hours Exact Value _____

Estimated cost of down time?
 Unknown \$0 \$1 to 500 \$501 to 1,000 \$1,001 to 2,500 \$2,501 to 5,000
 \$5,001 to 25,000 \$25,001 to 50,000 \$50,001 and over Exact Value _____

Part H – Description of Damage

*Was there damage to a facility?
 Yes No (i.e. near miss)

*Did the damage cause an interruption in service?
 Yes No Data Not Collected Unknown/Other

If yes, duration of interruption
 Unknown Less than 1 hour 1 to 2 hrs 2 to 4 hrs 4 to 8 hrs 8 to 12 hrs 12 to 24 hrs
 1 to 2 days 2 to 3 days 3 or more days Data Not Collected Exact Value _____

Approximately how many customers were affected?
 Unknown 0 1 2 to 10 11 to 50 51 or more Exact Value _____

Estimated cost of damage / repair/restoration
 Unknown \$0 \$1 to 500 \$501 to 1,000 \$1,001 to 2,500 \$2,501 to 5,000
 \$5,001 to 25,000 \$25,001 to 50,000 \$50,001 and over Exact Value _____

Number of people injured
 Unknown 0 1 2 to 9 10 to 19 20 to 49 50 to 99
 100 or more Exact Value _____

Number of fatalities
 Unknown 0 1 2 to 9 10 to 19 20 to 49 50 to 99
 100 or more Exact Value _____

Part I – Description of the Root Cause Please choose one

One-Call Notification Practices Not Sufficient <input type="checkbox"/> No notification made to the One-Call Center <input type="checkbox"/> Notification to one-call center made, but not sufficient <input type="checkbox"/> Wrong information provided to One Call Center	Locating Practices Not Sufficient <input type="checkbox"/> Facility could not be found or located <input type="checkbox"/> Facility marking or location not sufficient <input type="checkbox"/> Facility was not located or marked <input type="checkbox"/> Incorrect facility recognition
Excavation Practices Not Sufficient <input type="checkbox"/> Failure to maintain marks <input type="checkbox"/> Failure to support exposed facilities <input type="checkbox"/> Failure to use hand tools where required <input type="checkbox"/> Failure to test-hole (pot-hole) <input type="checkbox"/> Improper backfilling practices <input type="checkbox"/> Failure to maintain clearance <input type="checkbox"/> Other insufficient excavation practices	Miscellaneous Root Causes <input type="checkbox"/> One-Call Center error <input type="checkbox"/> Abandoned facility <input type="checkbox"/> Deteriorated facility <input type="checkbox"/> Previous damage <input type="checkbox"/> Data Not Collected <input type="checkbox"/> Other

Part J – Additional Comments



You are Signed In

[Main Menu](#)

[Log Out](#)

Steve Blaney

<stevenb@commongroundalliance.cc

Common Ground Alliance

New to DIRT? Register Here!

[101 Introductory page](#)

[Frequently Asked Questions \(FAQ's\)](#)

[Begin Registration ...](#)

DIRT Tools/Resources

[User Guide](#)

[Root Cause Tip Card](#)

[Offline Field Form](#)

[DIRT Security Whitepaper](#)

[DIRT Confidentiality Memo](#)

[Release Notes](#)

[Data Committee](#)

Virtual Private DIRT (VPD)

[Get It](#)

[More Information](#)

Annual DIRT Reports

[Most Recent](#)

[Access Annual Reports](#)

Damage Prevention Network

[CGA Newsletters](#)

Training

DIRT Main Menu

[Damage Report](#)

Submit a new Damage Report

[Browse Damage Reports](#)

Browse Damage Reports for all companies

[File Upload](#)

Upload a file containing multiple Damage Reports to be processed by the Automated Data Loading (ADL) process

[Browse File Uploads](#)

Browse file uploads and associated Damage Reports for all companies

[Data Grants](#)

Grant/Revoke access to your raw data for reporting purposes. Set whether or not this is a Reporting Organization to which other organizations may grant access.

Cross DIRT Data Grants is now available for sharing between DIRT North America and Virtual Private DIRT!

Optionally, you can now share your identity (i.e. Company/Org Name only) with whom you provide a Data Grant.

[Data Quality \(DQI\)](#)

The Data Quality Index reports provide simple metrics on the number of essential fields submitted to DIRT and the measure of their contribution to the DIRT Annual Report. ([more info...](#))

Average DQI for submissions from Common Ground Alliance for 2016: **n/a**, 2017: **n/a**.

[Dashboard](#)

Dashboard provides visibility into key performance indicators (KPIs) through simple visual graphics such as charts and tables (tabular data)

[Query Wizard](#)

Query Wizard now provides two interfaces - "Quick Reports" and "Power Reports". The new Power Report Designer uses a "Wizard" like process to step you through the report creation process. Also, You'll be able to choose from a list of predefined reports, organized by "owner" and reports shared by others. Currently, your role will allow you to download submitted data for all companies



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Part C: Affected Facility Information (DQI 0/12)

<p>*What type of facility operation was affected?</p>	<input type="text" value="-- select --"/>
<p>*What type of facility was affected?</p>	<ul style="list-style-type: none">-- select --Cable TVElectricNatural GasLiquid PipelineSewer (Sanitary/Storm)SteamTelecommunicationsWaterUnknown/Other
<p>Was this facility part of a joint trench?</p>	
<p>Was the facility owner a member of one-call?</p>	



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Part D: Excavation Information (DQI 0/14)

***Type of Excavator:** ✖
Please choose a valid value

***Type of Excavation Equipment:** ✖

***Type of Work Performed:**

- select --
- Auger
- Backhoe/Trackhoe
- Boring
- Drilling
- Directional Drilling
- Explosives
- Farm Equipment



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***Part I – Description of the Root Cause** *Please choose one

One-Call Notification Practices Not Sufficient

- No notification made to the One-Call Center
- Notification to one-call center made, but not sufficient
- Wrong information provided to One Call Center

Excavation Practices Not Sufficient

- Failure to maintain marks
- Failure to support exposed facilities
- Failure to use hand tools where required
- Failure to test-hole (pot-hole)
- Improper backfilling practices
- Failure to maintain clearance
- Other insufficient excavation practices

Locating Practices Not Sufficient

- Facility could not be found or located
- Facility marking or location not sufficient
- Facility was not located or marked
- Incorrect facility records/maps

Miscellaneous Root Causes

- One-Call Center error
- Abandoned facility
- Deteriorated facility
- Previous damage
- Data Not Collected
- Other

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DIRT Report

- Collection of data on over 350,000 events
- Analysis & Recommendations Published each year
- DIRT Report for 2015 published in October 2016 – Provides key action items for damage prevention stakeholders.

CGA DIRT 2015
Volume 12

Analysis & Recommendations

Year	Jan	Feb	Mar	Apr
2012	14383	14573	17272	19182
2013	12966	12036	14939	18212
2014	14108	13923	18083	22173
2015	18584	16245	23469	29457
2016	1994	2120	2656	2577
Total	62015	58897	76419	91601

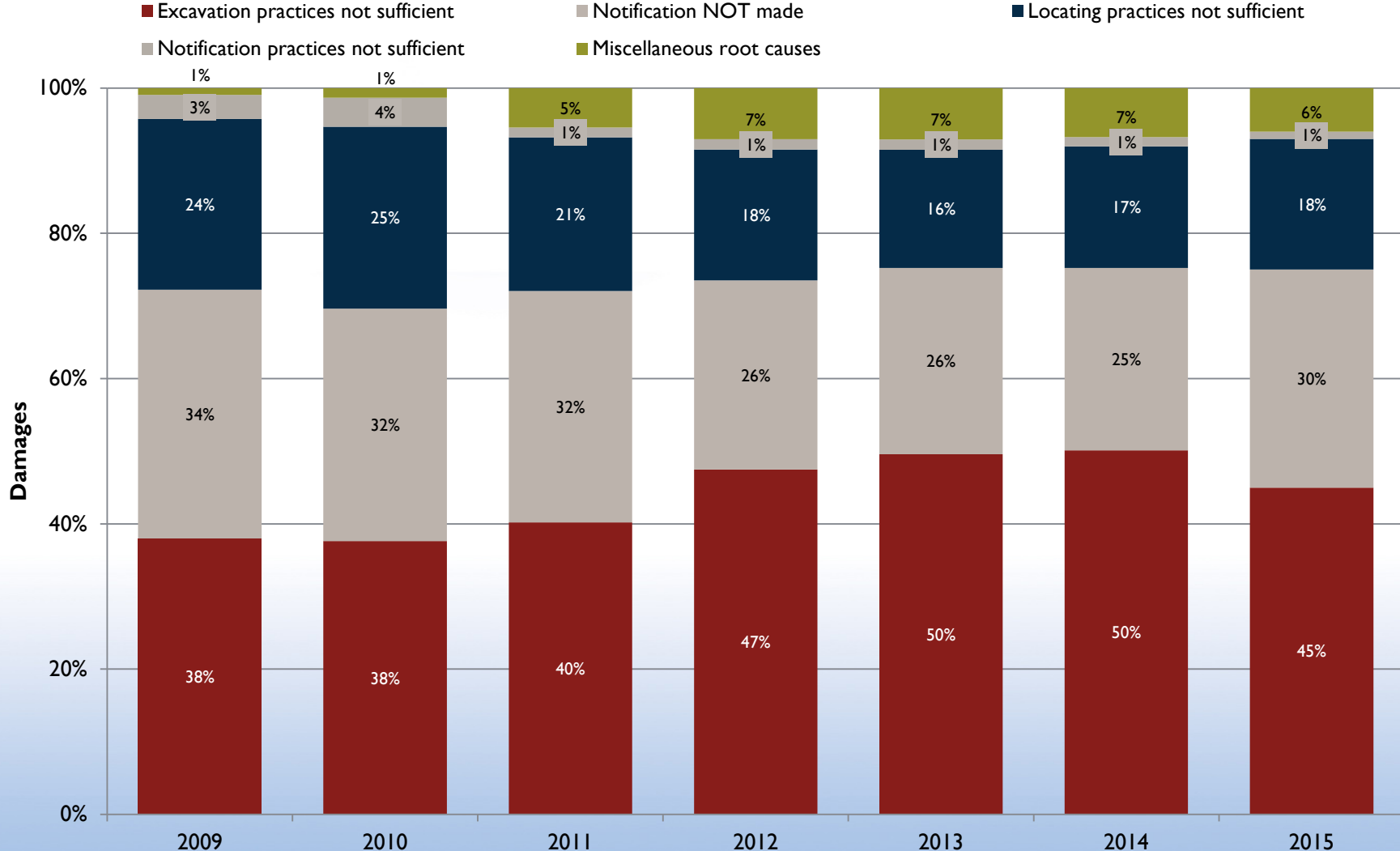
Released September, 2016
This report may be referenced as the DIRT Annual Report for 2015. © 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015
Common Ground Alliance, all rights reserved. To download the report or to access additional analysis, just visit cga-dirt.com.

DIRT
Damage Information Reporting Tool

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Root Cause Groups



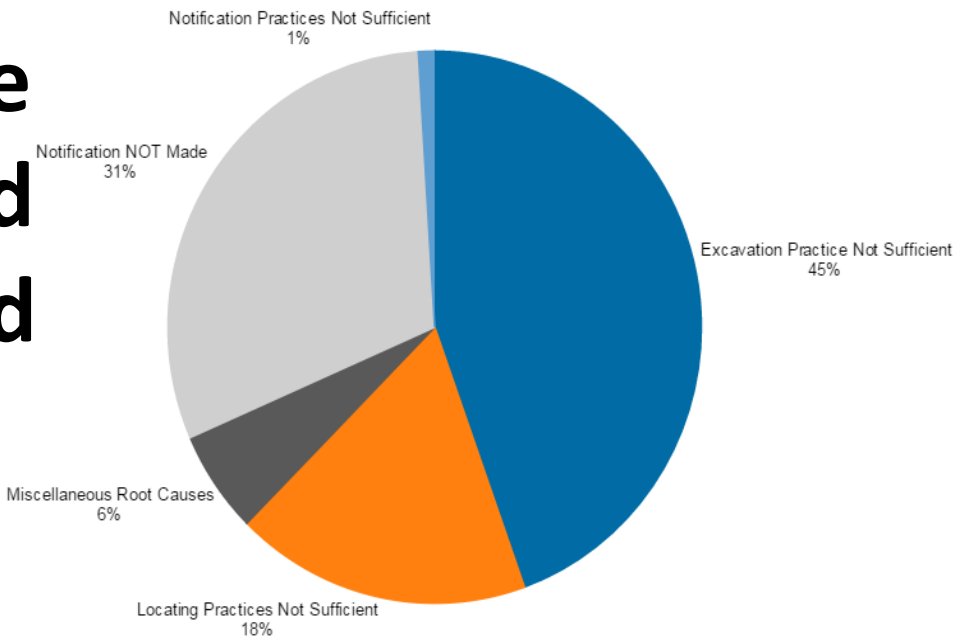
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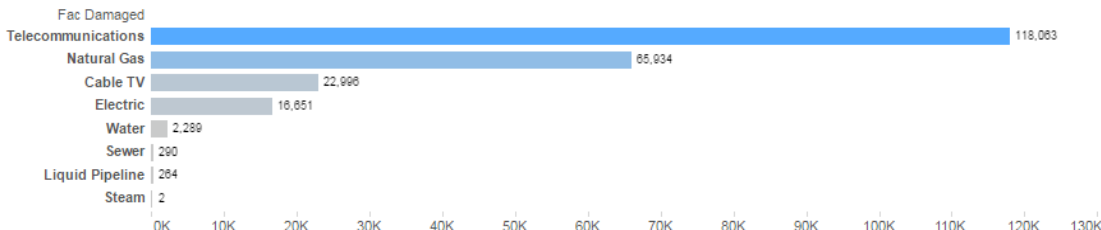
Interactive Dashboard Introduced last year

- Analysis Overview
- Damages Reported by State (U.S. only)
- Damage Rate Analysis (U.S. only)
- Damage Cause Analysis**
- Work Performed by Excavator Analysis
- Work Performed by Equipment Type Analysis
- Reporting Stakeholder Group Analysis
- Call Before You Dig Awareness Analysis (U.S. only)

Damage Root Cause



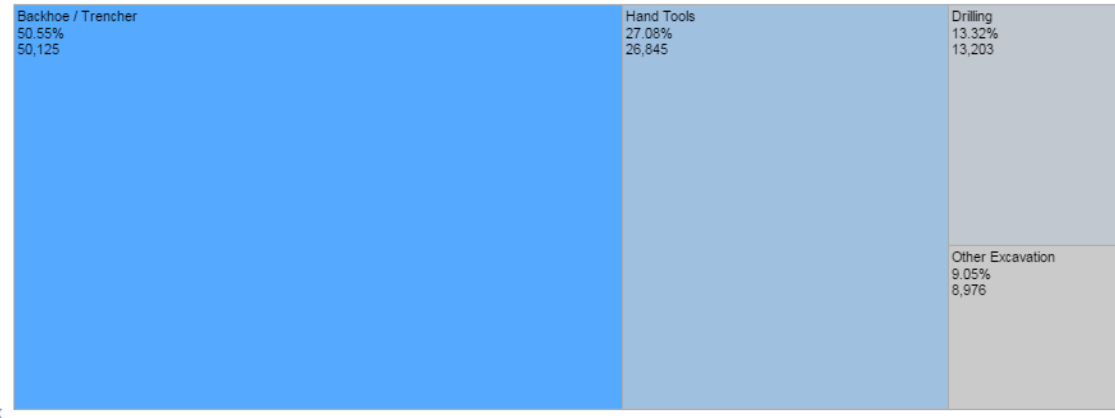
Facility Damaged



Excavator Type



Equipment Type



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Become a Member

About Us

Membership

Damage Prevention

Programs

Events

Media &

2015 DIRT Report



811

Best Practices

Damage Information Reporting Tool (DIRT)

One Call Systems

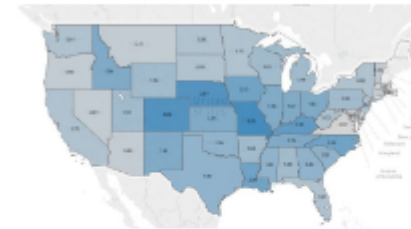
Regional Partners

Stakeholder Advocacy

Technology

Interactive Dashboard (access from *commongroundalliance.com*)

DIRT Report Interactive Dashboard



Access the interactive Tableau dashboard that allows users to filter the data more granularly.

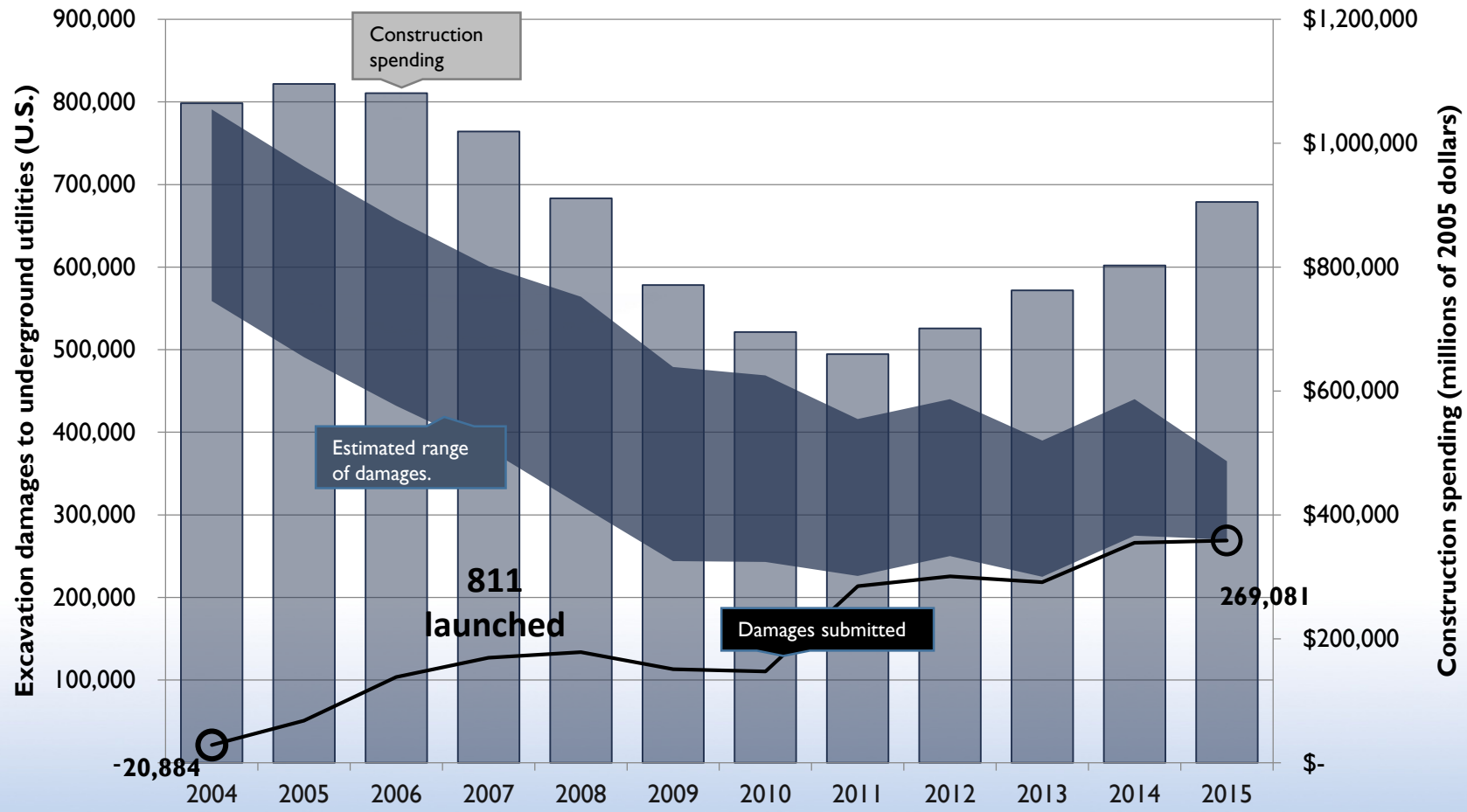
INTERACT



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Estimated U.S. Total Damages



675,000 estimated damages in 2004

317,000 estimated damages in 2015

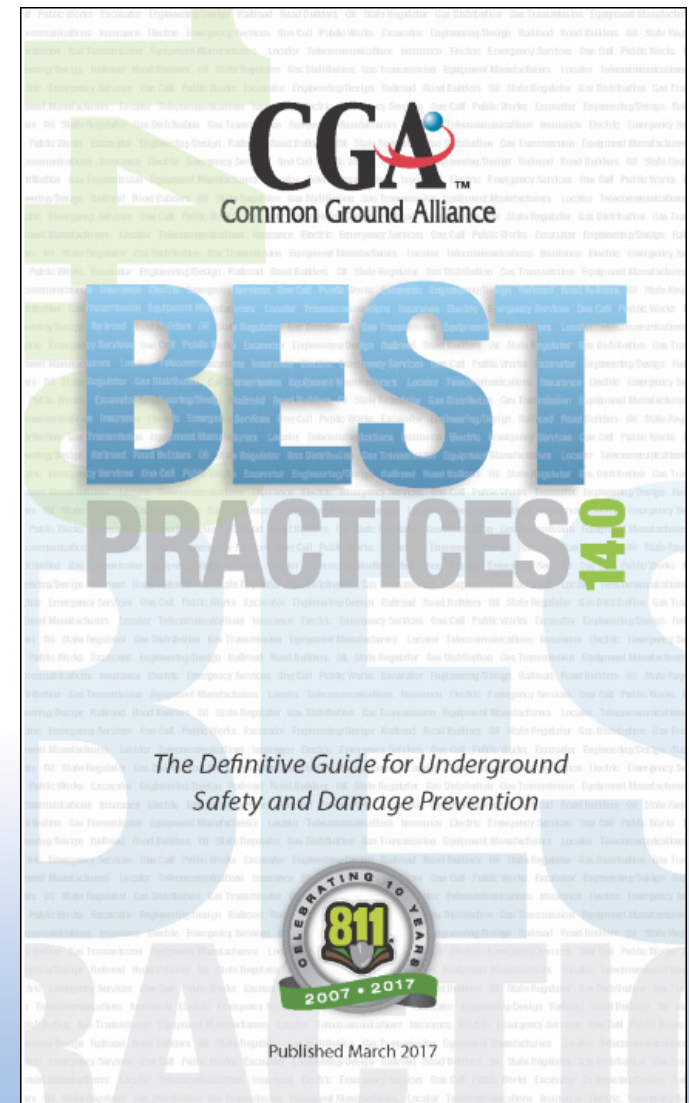


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Best Practices

- Version 14.0 Published March 2017
- Approximately 155 practices developed by consensus
- Must actually be in use somewhere
- Many have become law in certain states
- Distribution of 20,000 Books Annually



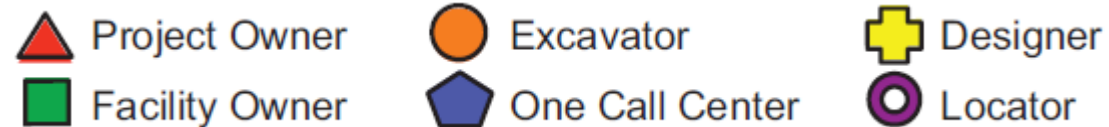
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Best Practices Chapters

- Planning & Design
- One Call Center
- Locating & Marking
- Excavation
- Mapping
- Compliance
- Public Education
- Reporting & Evaluation

Best Practices Icons



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Educational Programs

811 / Safe Digging Process



Know what's **below**.
Call before you dig.

811 Goal: Reduce damages by increasing awareness of 811 and driving homeowners/excavators to notify the one call center prior to digging.





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Technology

GOAL: Stimulate awareness and use of technologies that enable CGA best practices and/or mitigate damage risk as identified through DIRT data analysis.





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Stakeholder Advocacy Committee Established – June 2012

GOAL: Proactively work with local stakeholders to educate state policymakers regarding use of CGA best practices to positively impact state legislation and/or regulations under consideration.



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Organized as the One Call Systems International (OCSI) Committee in CGA, OCSI offers a forum for one call system employees and board members to discuss trends from the other CGA committees on a local level. OCSI began as an independent organization in 1985, and elected to join CGA as a committee in 2003.





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CGA Today...

- Over 1,700 members
- Almost 240 member organizations/companies
- 69 Sponsors (Bronze, Silver, Gold & Platinum)
- 5 staff members





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- Since the Founding of CGA:
 - Excavation Damage removed from NTSB’s “Top 10” list
 - 811 3-digit dialing introduced in 2007
 - 12 Annual DIRT Reports released
 - DIRT growth from 21,884 reports in 2004 to >390,000 for 2016
 - Damages down approximately 50%

