



GEOGRAPHIC
INFORMATION
SERVICES, INC

USING GIS AND AGOL TO VISUALIZE DIRT DATA





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GEOGRAPHIC
INFORMATION
SERVICES, INC

COMMON GROUND ALLIANCE (CGA)

§ Mission

- Ensuring public safety, environmental protection, and the integrity of services by promoting effective damage prevention

§ Membership

- Natural Gas (Midstream and Distribution)
- Electric Utilities (Transmission and Distribution)
- Telecommunications

DAMAGE INFORMATION REPORTING TOOL (DIRT)



§ CGA's primary purpose is the promotion of safe underground excavation practices and prevention of damages.

DIRT serves an important role in this regard. DIRT itself cannot prevent underground excavation damages, but it is a unique industry asset that can identify opportunities to do so and can measure the effectiveness of outreach efforts.



DAMAGE INFORMATION REPORTING TOOL (DIRT)

§ Incomplete

- Not every utility belongs to or reports to CGA

§ Statistical modeling is used to fill in the gaps

It is not known exactly how many underground excavation damages actually occur in a given year. The 2010 DIRT report estimated total damages of 165,000 based on a statistical model first introduced in 2005.

This model compared the number of reported events to population counts and new housing starts for the states of Colorado and Connecticut, which both mandate reporting of all damages.

DAMAGE INFORMATION REPORTING TOOL (DIRT)

- § Better data suggests that a new model should be developed
- § One of the new approaches employs a linear regression model for 11 states believed to have all or the majority of such damages reported (based on legislative requirements).



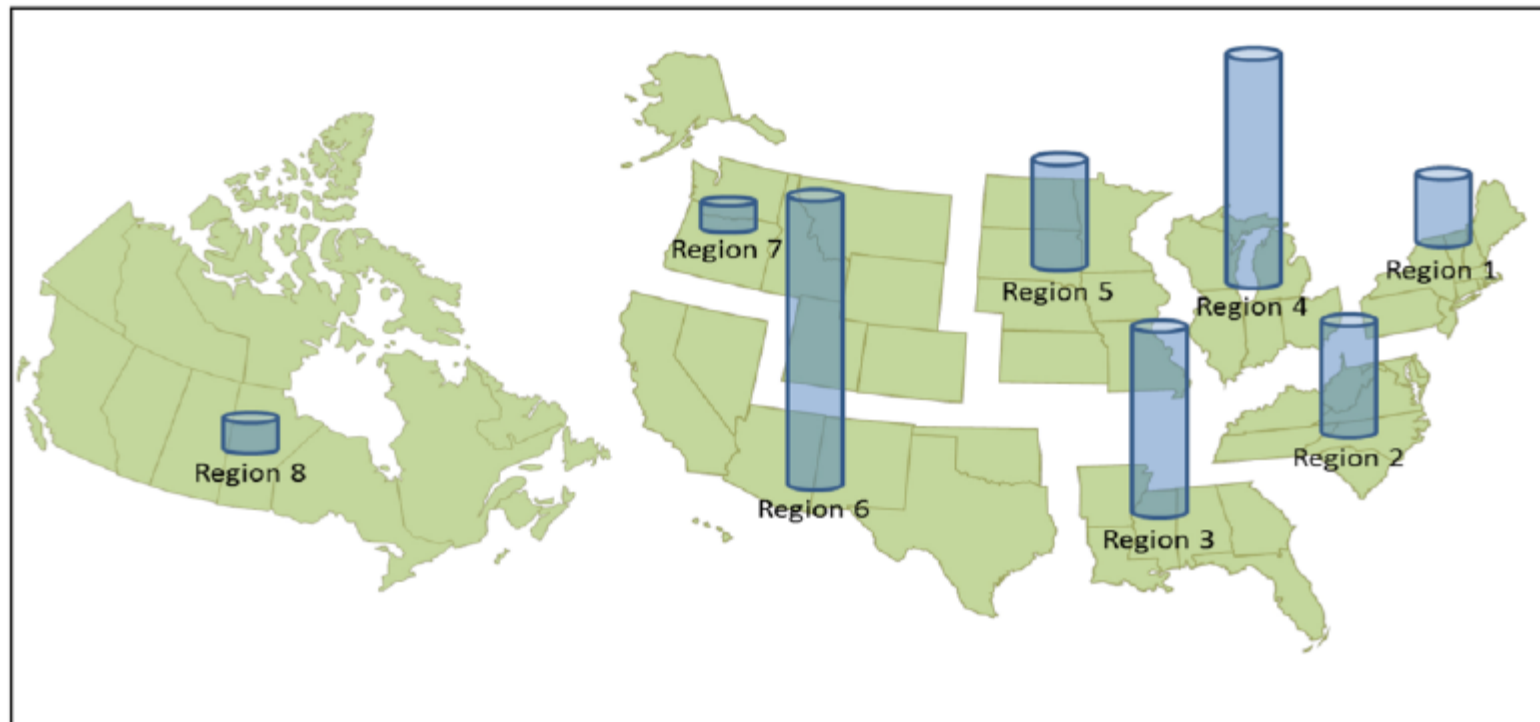
DAMAGE INFORMATION REPORTING TOOL (DIRT)

- § This approach results in a much higher estimate of total underground excavation damages for 2011
 - slightly more than 330,000.
- § In contrast, using 2005 statistical model based only on Colorado and Connecticut for the 2011 data
 - an estimated 151,000 total damages
- § Applying both models against known data suggests a downward trend year over year

DAMAGE INFORMATION REPORTING TOOL (DIRT)

§ Geographical Distribution

Exhibit 23: *Distribution of events by OCSI region*

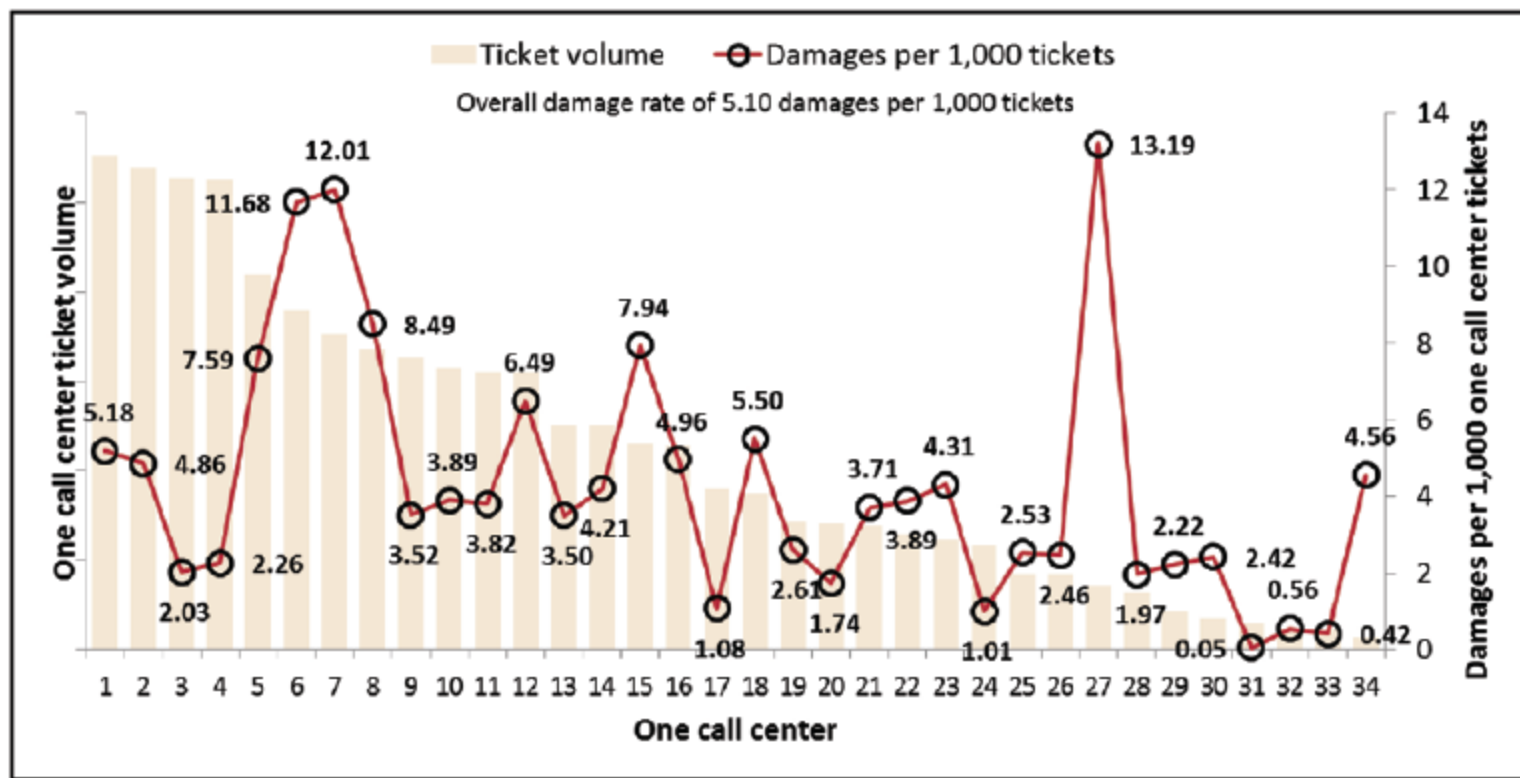


OCSI Region>	1	2	3	4	5	6	7	8
No. events	14,618	22,773	36,044	43,868	21,523	55,022	6,451	7,480
Share	7%	11%	17%	21%	10%	26%	3%	4%

DAMAGE INFORMATION REPORTING TOOL (DIRT)

§ There is still a lot of work to do. Our goal is and always will be to get to ZERO.

Exhibit 1: Damages per 1,000 one call center tickets for 34 states



THIS PRESENTATION

§ What it's not about

- New ways to use GIS to take over the world



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§ What it's not about

- New ways to use GIS to take over the world



THIS PRESENTATION

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- New ways to use GIS to take over the world
- How to establish better control over GIS data



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§ What it's not about

- New ways to use GIS to take over the world
- How to establish better control over GIS data
- How to force your business users to stop using Excel for everything they do



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THIS PRESENTATION

§ What it is about

- Putting GIS into the hands of business users
- Relinquishing control and helping business users understand the power of Location



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REQUIREMENTS

§ ArcGIS Online Account

- Organizational account is recommended

§ ArcGIS Maps for Office Plugin





DEMO





DISCUSSION ANY QUESTIONS?

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