Putting Big Data to Work
What is Big Data?
What Big Data Are We Working With?

Mobile device data from ~23% of US and Canadian adults and ~12% of commercial truck trips
By Itself, Big Data is Not Useful Information – It is A Mess

The Information Explosion

- Data Volume
- Data Variety
- Data Velocity

Analysis Gap

Ability to Analyze

Source: Kay, David and Mark van Harmelen, Delivering benefits from the data deluge, Dec 2012, jisc.ac.uk
With the Right Processing Techniques, Big Data is Valuable and Useful
The Wheel of Putting Big Data to Work

What is the Best Allocation of Resources to Meet Our Goals?

Can We Build Better Travel Demand Models for Less?

What Are Freight Travel Patterns?

How Can We Reduce Cut-Through Trips?

How Can We Engage the Public More Effectively?

How Do We Model New Modes? (TNCs, Flying Cars)

What is Causing Traffic in My Community?

Did Our New Policy/Project Actually Work?

Where Should We Expand Transit?

What is Causing Traffic in My Community?

How Can We Engage the Public More Effectively?

What is the Best Allocation of Resources to Meet Our Goals?
55% of beach traffic occurs between 1-3PM on Sundays

- Analyze trip volume on select routes by time of day
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What is the impact of beach traffic on the Bay Bridge and surrounding facilities?

![Graph showing traffic volume by time of day on different routes.](image-url)
35% of trips on I-275 use Exit 44 to Downtown Tampa

- Identify high-use roadways to prioritize infrastructure investments
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- Scan road segments to determine origins and destinations of trips.
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Thank You!