

Guide to 21st Century Planning at State Departments of Transportation

September 7, 2016



Today's Presenters

- **Moderator**
Brian J. Smith, AICP
- **21st Century Planning Guide Overview**
Janet D'Ignazio, ICF international
- **The 21st Century Planner**
Tim Henkel, Minnesota Department of Transportation
- **Accountability for 21st Century Agencies**
Patricia Hendren, I-95 Coalition



NCHRP is...

A state-driven national program

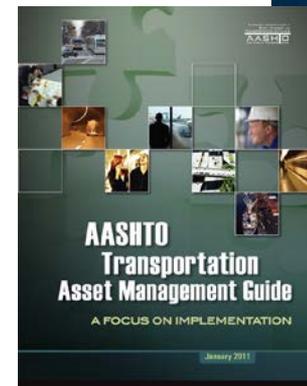
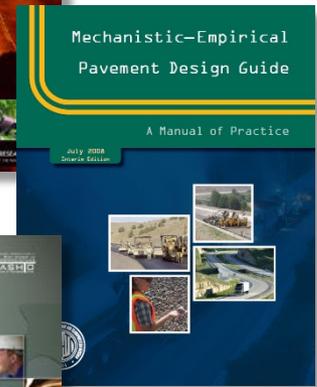
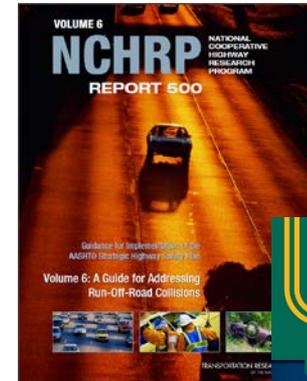
- The state DOTs, through AASHTO's Standing Committee on Research...
 - Are core sponsors of NCHRP
 - Suggest research topics and select final projects
 - Help select investigators and guide their work through oversight panels



NCHRP delivers...

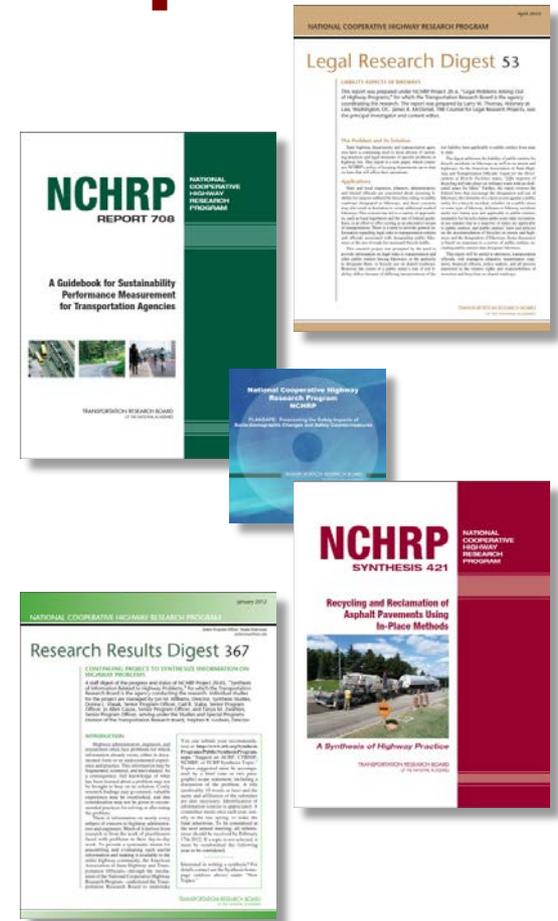
Practical, ready-to-use results

- Applied research aimed at state DOT practitioners
- Often become AASHTO standards, specifications, guides, manuals
- Can be directly applied across the spectrum of highway concerns: planning, design, construction, operation, maintenance, safety



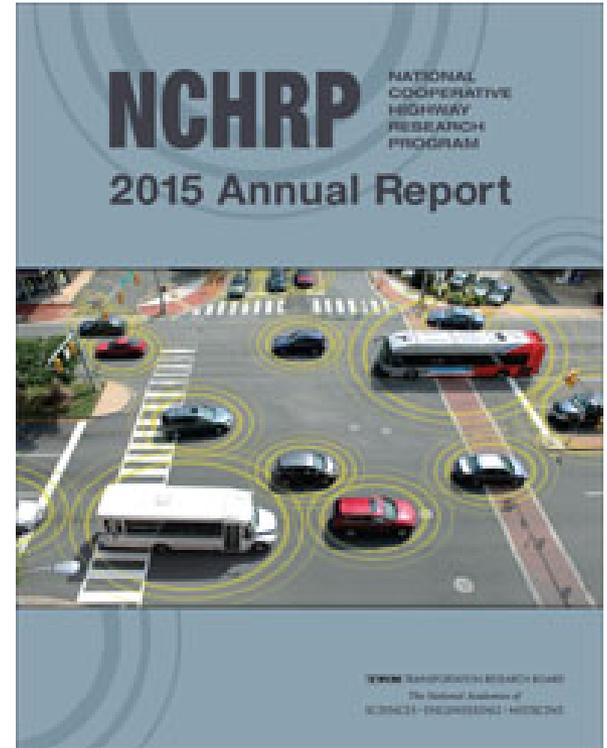
A range of approaches and products

- Traditional NCHRP reports
- Syntheses of highway practice
- IDEA Program
- Domestic Scan Program
- Quick-Response Research for AASHTO
- Other products to foster implementation:
 - *Research Results Digests*
 - *Legal Research Digests*
 - *Web-Only Documents and CD-ROMs*



NCHRP Webinar Series

- Part of TRB's larger webinar program
- Opportunity to interact with investigators and apply research findings.



Evolution of a strategic idea

- 21st Century Planning Guide started in discussions of AASHTO's Standing Committee on Planning in updating its Strategic Plan
- Suggested as a quick response project, upgraded to a full NCHRP project
- Assembled an eminently qualified panel/consultant team, extensive stakeholder outreach during the project



Today's First Presenter

- **21st Century Planning Guide Overview**
Janet D'Ignazio, ICF international





21ST Century Planning at State DOTs

NCHRP REPORT 798

Panel Participants

- ▶ Brian Smith, AICP Consultant
- ▶ Janet D'Ignazio, ICF International
- ▶ Tim Henkel, Minnesota Department of Transportation
- ▶ Patricia Hendren, I-95 Coalition



Overview

Janet D'Ignazio, ICF International

What is in the 21st Century Planning Guide?

Executive Summary

Chapter 1: Introduction

Chapter 2: Why is planning important to the State DOT

Chapter 3: What drives transportation change

Chapter 4: Characteristics of effective planning and planners in the 21st century

Chapter 5: Integrating planning into strategic decision-making

Chapter 6: The 21st century planning readiness self-assessment and roadmap

Chapter 7: Implementation

Appendices

What are Strategic Decisions?

- 1: Aligning DOT and Statewide Goals, Priorities, and Performance
- 2: Agency Visioning and Goal Setting
- 3: Identifying Performance Outcomes
- 4: Defining State, Regional, and Local Roles
- 5: Internally Integrated Planning
- 6: Externally Integrated Planning
- 7: Revenue and Financial Planning
- 8: Investment Strategy Resource Allocation
- 9: Linking Performance Measures to Outcomes
- 10: Program-Level Resource Allocation
- 11: Aligning Project-Level Decision-making
- 12: Feedback—Monitoring and Reporting Agency Performance

What does the Guide provide about each strategic decision?

- What is different?
- Introduction
- Process changes may be needed
- Supporting elements or resources needed
- Internal and external relationships and stakeholders involved
- Challenges that must be overcome or managed

Strategic Decision 2: Agency Visioning and Goal Setting

What is different?

- Be “futurists”
- Understand the overarching goals and vision
- Provide data-driven information and analyses to help decision makers evaluate the complementary and competing trade-offs
- Look for new data sources and organize this data into meaningful and succinct information
- Become proficient in a range of traditional and new communication techniques and technologies in order to maximize opportunities to collaborate

Strategic Decision 2: Agency Visioning and Goal Setting

Introduction

- Describes what is important to executive decision makers
- How planners can or should support executive level decision making

Strategic Decision 2: Agency Visioning and Goal Setting

Processes Needed

- Inclusive and transparent outreach
- Collaborative performance based goal, objective and target setting
- Scenario testing process that:
 - Identifies societal and technological trends that will impact transportation
 - Broad range of desired local, state and national outcomes
- Identifies, analyzes and communicates relevant data that can help:
 - Differentiate and identify trade-offs among potential “futures”
 - Potential revenue and revenue generating options

Strategic Decision 2: Agency Visioning and Goal Setting

Supports and Resources

- Access to information about emerging societal and industry trends and their impact on transportation
- Access to new or improved data-sources and the tools to translate this data into meaningful and succinct information
- Time and resources to support consensus building scenario testing approaches

Strategic Decision 2: Agency Visioning and Goal Setting

Relationship and Stakeholders

- Transportation planning partners, stakeholders and the public
- Employees of the DOT and its decision making partners
- Statewide political and agency leadership
- Public and private sector multimodal transportation owners

Strategic Decision 2: Agency Visioning and Goal Setting

Challenges

- ▶ Time and resources
 - ▶ To become the agency's futurists
 - ▶ For expanded outreach and collaboration
 - ▶ For new data and analysis tools
- ▶ Establishing the strong technical, policy and decision making foundation needed to support performance based planning and programming
- ▶ Adapting the vision and goals to fiscal realities
- ▶ Staff turnover and the ability to hire experienced and qualified staff

What is the Self-Assessment tool?

Strategic Decision 2: Agency Visioning and Goal Setting

| Assessment Questions | Not at all | To some extent | Extensively |
|---|--------------------------|--------------------------|--------------------------|
| Does your DOT have multiple documents and/or processes that establish strategic direction? If so, are the key elements (goals, objectives and performance measures) aligned? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| How familiar are you with the full range of state and local strategic documents that should influence your DOT's strategic direction and planning processes? Are these integrated into your LRTP? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Do you have strategic-level visioning tools and, if so, how effective are they? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| How well are your long-range, mid-range, and short-term planning and programming processes connected? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| How well do your planning processes consider non-improvement needs such as asset management and operations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| How well are performance measures integrated into department-wide decision-making? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

What other information does the Guide have?

- ▶ Change Organizational Silos
- ▶ Risk Assessment and Risk Mitigation
- ▶ Data
- ▶ Planner Skills and Competencies



Integrating Planning into Strategic Decision Making

Patricia Hendren, I-95 Coalition

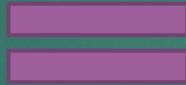
What is planning?

Planning provides the factual, analytical, and collaborative basis for reaching decisions to improve multimodal transportation system performance. Effective planning results in cost-effective, cooperative, and responsive transportation solutions that achieve desired societal outcomes by balancing costs and benefits to communities, the economy, and the environment.

What does planning really mean?

Great Definition

Planning provides the factual, analytical, and collaborative basis for reaching decisions to improve multimodal transportation system performance. Effective planning results in cost-effective, cooperative, and responsive transportation solutions that achieve desired societal outcomes by balancing costs and benefits to communities, the economy, and the environment.



**Make the future
better.**

Great Quote

“Planning provides a state DOT with the skills to define a consensus-based, collaborative, long-term vision for transportation reflecting the perspectives of both internal [staff] and external stakeholders.”

The Guide outlines **HOW** planners can make the future better

- ▶ Talk about things people care about
(e.g., Strategic Decision #3, #9)
- ▶ Link resource allocation to planning
(e.g., Strategic Decision #11)
- ▶ Act on the results
(e.g., Strategic Decision #12)
- ▶ Be an effective communicator
(across the entire Guidebook)

Link resource allocation to planning

(strategic decision #11)

Pg. 61: Project level decision-making is the follow through on aligning overall goals, objectives and targets and implementing performance based monitoring and accountability.

YES: Across modes

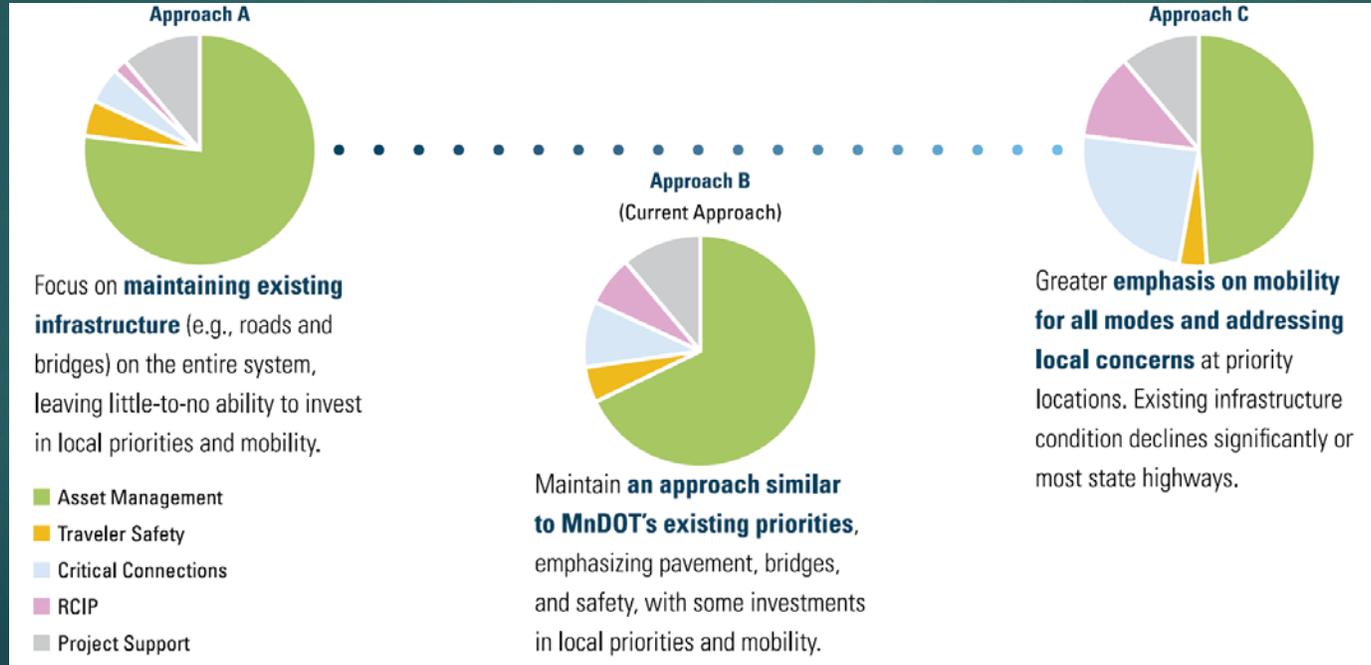
Yes: Across strategies

(new construction vs. operational improvement)

“It may seem that using universal programming criteria could put certain projects at a disadvantage. However, working in conjunction with our MPO, we found it was a useful tool. By applying universal programming criteria, we have been able to more effectively demonstrate a project’s need and benefit to the region.”

- Zoe Robertson, Southeastern Pennsylvania Transportation Authority

Example # 1: Minnesota DOT 20 Year State Highway Plan



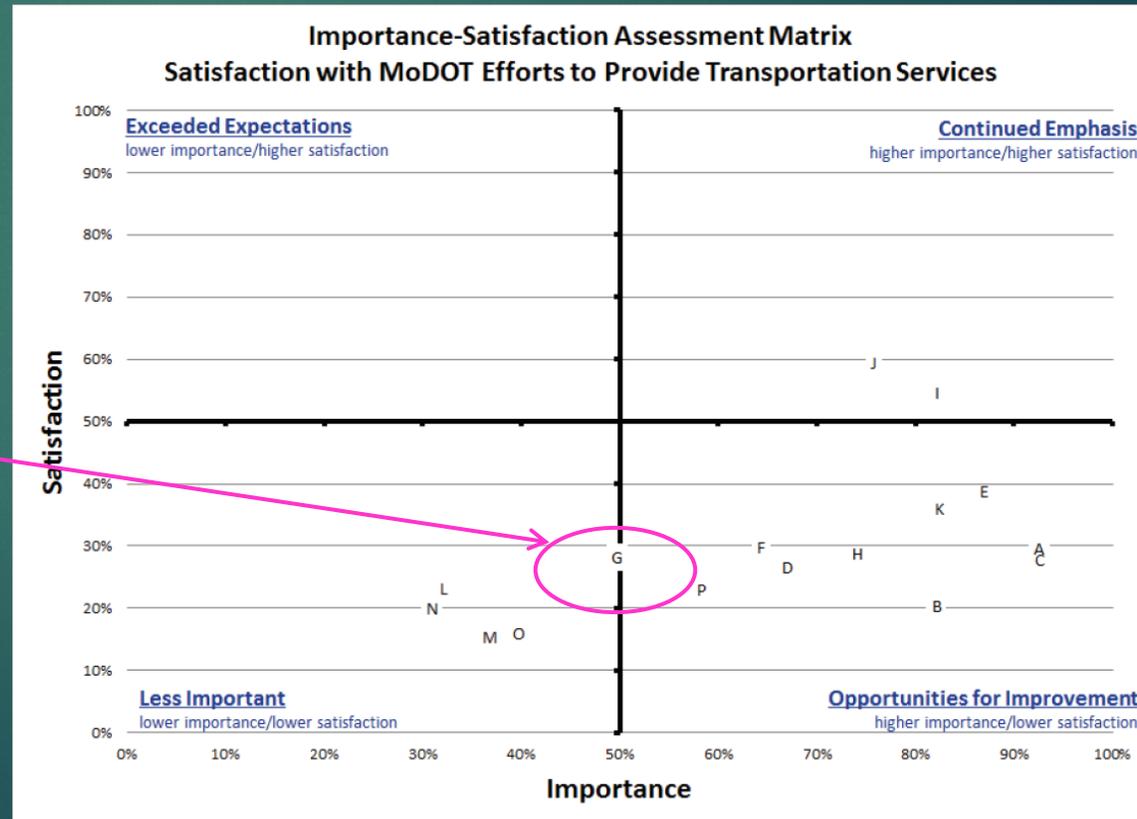
Link resource allocation to planning

(Continued)

Example # 2: Missouri DOT

Situation: Funding Shortfall

Mowing/trimming
along highways



Link resource allocation to planning

(Continued)

Example # 2: Missouri DOT

- ▶ Reduction of mowing from four to three times a year
- ▶ \$2.5M savings per year (reallocated)
- ▶ No change in customer satisfaction



Act on the Results

(Strategic Decision #12)

Pg. 65: State DOTs will be expected to quickly respond and incorporate feedback into its decisions and make mid-course adjustments as needed to meet performance outcomes



“Embrace the power of “why” — Focusing on the why clearly communicates that performance management intends to understand the results and identify improvements, not to punish.”

Source: “Moving from Reactive to Strategic Decisions Making.” TR News 293 July-August 2014

“A performance-based approach shifts the focus off of “can we deliver the project on budget” to “are we doing the right set of projects. Monitoring and adjustment processes are key to picking the right set of projects year after year.”

— Greg Slater, Maryland State Highway Administration

Act on the Results

(Continued)

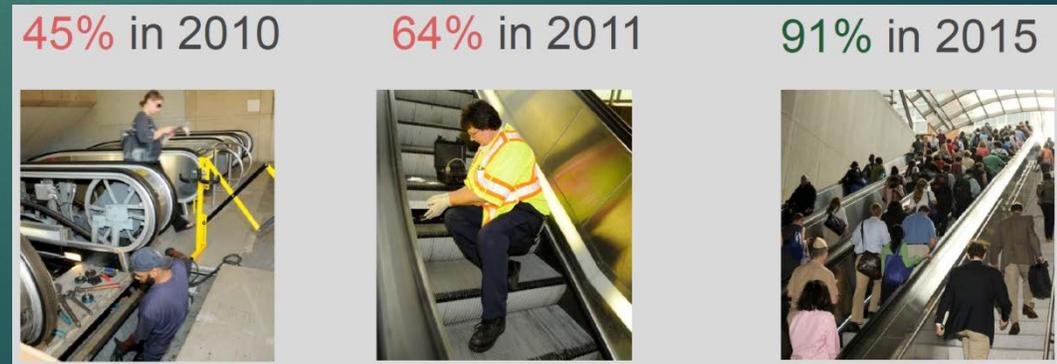
Example # 1: RTC of Southern Nevada FAST Dashboard



Example # 2: Rhode Island installation of Snowplow Equipment



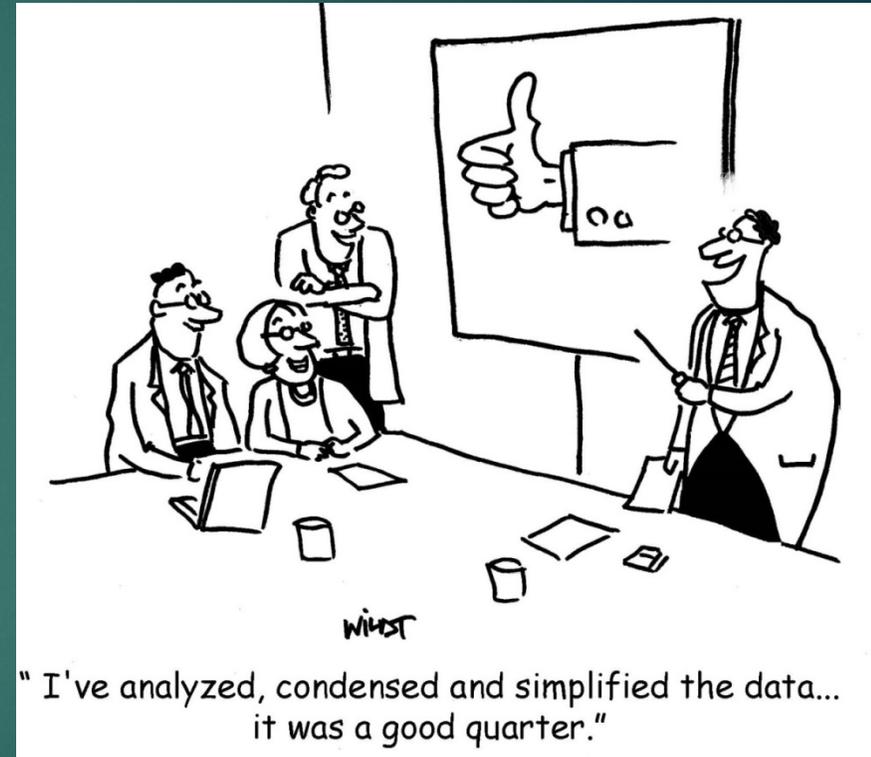
Example # 3: Tracking WMATA's Escalator Preventive Maintenance



Be an effective communicator

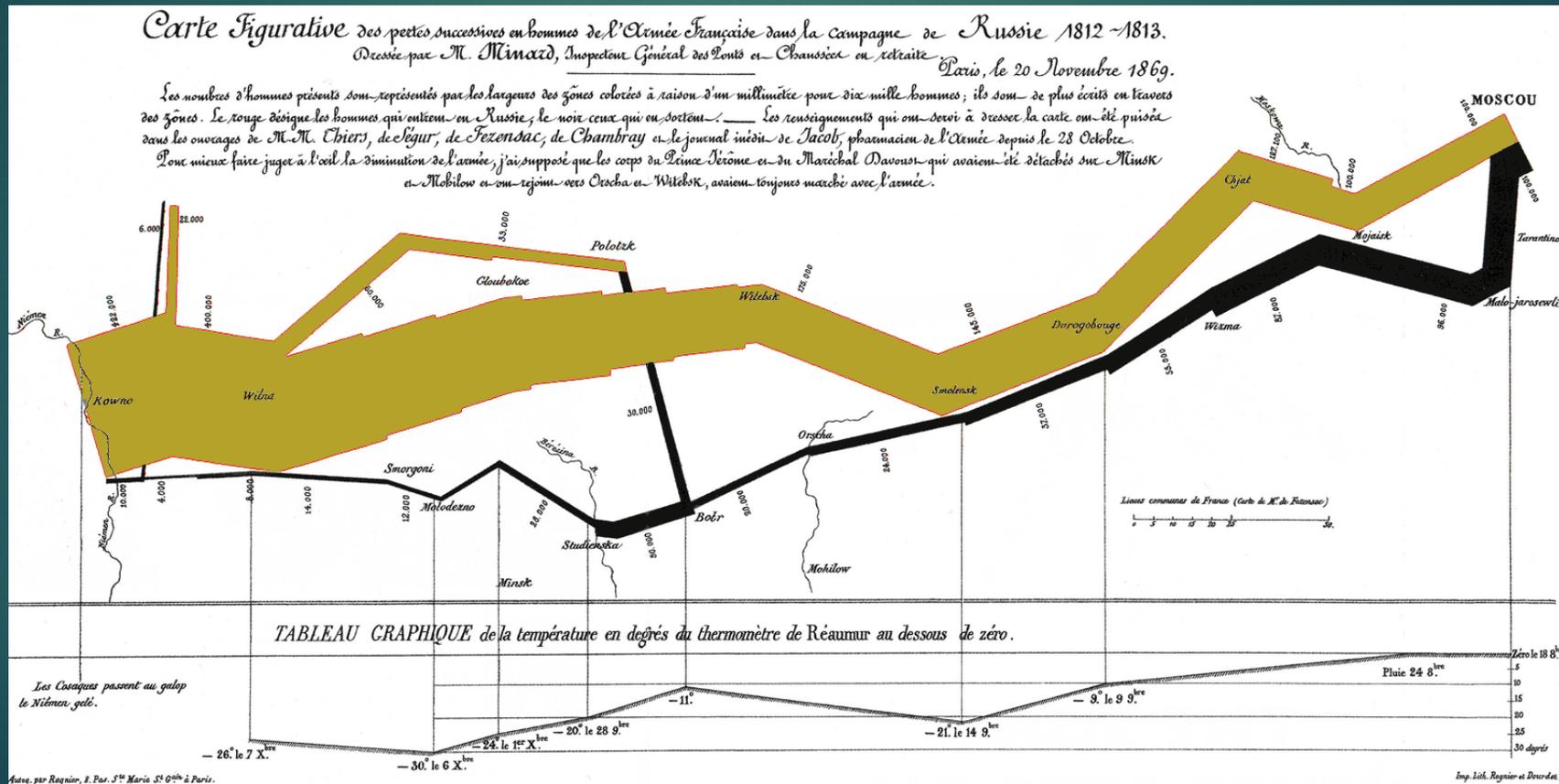
(Across entire Guidebook)

- ▶ Make your case using data
- ▶ Commit to regular reporting
- ▶ Don't forget data quality is key
- ▶ Analysis, analysis, analysis
- ▶ Spend time on that "picture"



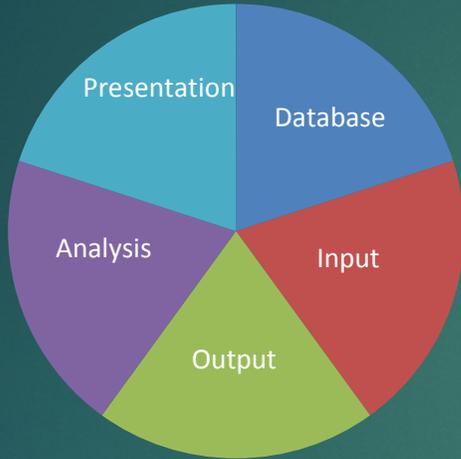
How much is an awesome graph worth?

Napoleon's March to Moscow- The War of 1812

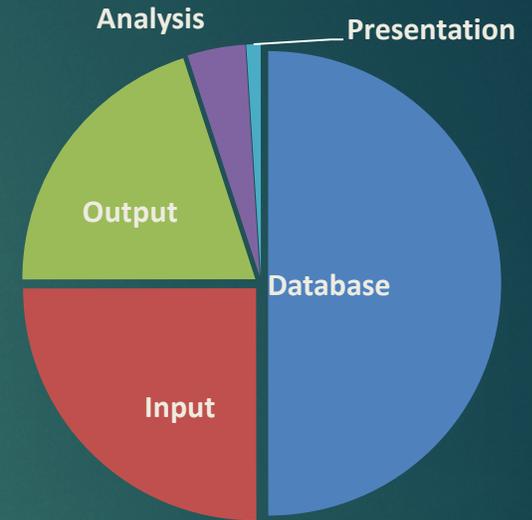


Make time for ANALYSIS and "PICUTRE"

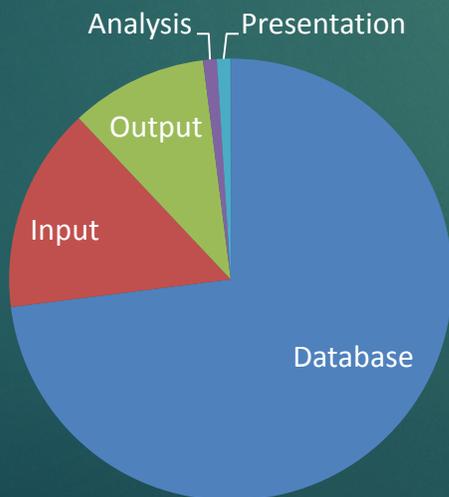
The Steps



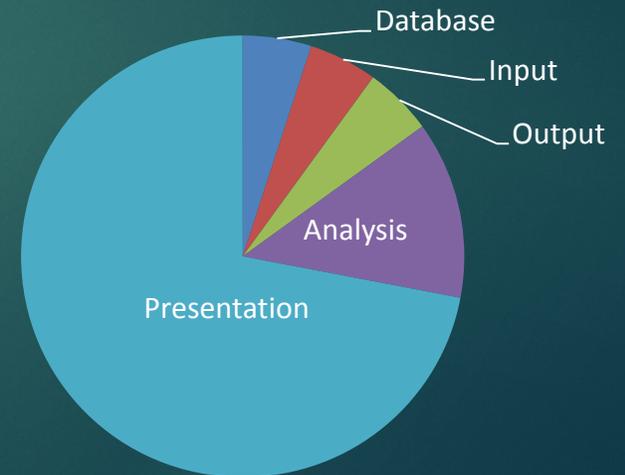
Where the Time Goes



Where the Money Goes



What is Important



Why to we care about integrating planning into decision making?

- ▶ Base decisions on data: defensible, repeatable, clear (transparency)
- ▶ Articulate the benefits of positive investment
- ▶ Make case for \$
- ▶ Demonstrate how we are being good stewards of public funds (accountability)
- ▶ HARDEST: help each employee see their role in agency outcomes

Make the future better.



The 21st Century Planner

Tim Henkel, Minnesota Department of Transportation

What is planning?

Planning provides the factual, analytical, and collaborative basis for reaching decisions to improve multimodal transportation system performance. Effective planning results in cost-effective, cooperative, and responsive transportation solutions that achieve desired societal outcomes by balancing costs and benefits to communities, the economy, and the environment.

Why is 21st century planning important?

- ▶ Higher public expectations
- ▶ Changing missions of DOTs
- ▶ Shared mission/partner and customer focus
- ▶ Performance driven decision making
- ▶ Focus on outcomes and accountability
- ▶ Greater need for communication and collaboration

What are the characteristics of the 21st century planner?

- ▶ Multi-modal, multi-disciplinary
- ▶ Creative
- ▶ Consensus oriented
- ▶ Technologically savvy
- ▶ Skilled in using new data sources, data collection and analytical techniques
- ▶ Skilled listeners, facilitators and communicators
- ▶ Decision and outcome focused

What skills and competencies do they need?

| Current | Enhanced for the 21 st century |
|---|---|
| Visioning and strategic thinking | External awareness |
| Fostering collaborative relationships | Decision making acuity |
| Communication | Change readiness |
| Leading people | |
| Analysis and problem solving | |
| Specialized transportation planning expertise | |
| Transportation industry awareness | |

How can we recruit planners ready for the 21st century?

- ▶ Implement employee mentoring programs
- ▶ Implement a rewards program for high performers
- ▶ Create advancement within positions
- ▶ Recruit non-traditional applicants
- ▶ Provide realistic job preview
- ▶ Utilize social networking for recruitment

Questions