The Evolving DOT Enterprise: Today Toward Tomorrow

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This white paper is one of three white papers commissioned for the State DOT CEO Leadership Forum 2013: Leading the 21st Century DOT. These papers synthesize current literature and research and outline the experiences of select states to provide context for launching discussion at the forum.

Each author interviewed CEOs or top staff from five states, which were chosen based on potential for uncovering interesting experiences related to the forum's theme. The papers were divided into three topical areas: the evolving DOT enterprise: today toward tomorrow; technology and business processes that work; and mission evolution, from facility design and construction to mobility-system management.

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Executive Summary

Departments of transportation (DOTs) today are being shaped by a wide range of factors — some of which are directly managed and controlled within the transportation industry while others are external factors shaping the demand for transportation services. Singularly and in combination, these factors are shaping the way DOTs mobilize to address the nation's transportation challenges:

- It's *still* the economy, stupid. Though public priorities tend to change over time, the American public is still highly focused on restoring jobs and strengthening the economy. Investing in transportation infrastructure is overshadowed by other competing priorities that the public views as more important.
- Transportation legislation is all about revenue with a few innovations
 thrown in. In recent years, transportation legislation has focused on maximizing
 limited resources and exploring new sources of revenue. Major legislation has
 included fuel tax increases, new taxes on alternative fuels and electric vehicles,
 and public-private partnership (PPP) authorization and expansion. Legislators
 have also expressed significant interest in innovative funding mechanisms,
 devolution of state responsibilities to local governments, and blue-ribbon panels.
- Belt tightening continues, but are our belts as tight as we think? The
 temporary injection of funding from the federal stimulus notwithstanding, all 50
 states face a shortfall between existing transportation revenues and their
 projected financial needs. However, transportation expenditures actually grew by
 6.5 percent between fiscal years 2009 and 2010. Several trends among state
 DOTs have emerged or been exacerbated during the past several years,
 including increasing reliance on general funds for transportation purposes, and
 increased discussion and review of PPPs and of tolling.
- Our population is becoming older, more urban, and more diverse...and it matters. Between 2010 and 2050, the U.S. population is projected to grow from 309 million to 439 million, an increase of 42 percent. The U.S. population is becoming older, more racially and ethnically diverse, and increasingly urban and with different transportation priorities.
- Climate change, is it back? Many states have developed climate action plans, mode shift goals for biking, walking, and transit, and vulnerability assessments, and have also joined climate action councils in conjunction with other state agencies. In fact, 38 states have at least some documentation regarding climate change and its impact on state DOT activities. But much of this activity began before 2009, before climate change became politically toxic. With the hottest year on record and three 100-year storms in two years on the east coast, will the climate discussion be re-engaged? It certainly has been on the east coast but perhaps not in other regions of the country.
- DOTs align with 21st century priorities. Some DOTs have decentralized core functions while others have focused on cultural change and becoming more customer-centric. Key trends include a shift toward hybrid silo/workflow-based

- organizational designs that promote nimbleness, efficiency, innovation, better alignment with generational work culture changes, and an increasing focus on outsourcing and privatization.
- Performance is the focus. State DOTs are increasingly using performance management. However, the state of the practice varies considerably.
 Performance management provisions introduced in MAP-21 have established new requirements for performance-based statewide and regional long-range plans, but will the states' approach connect with the audience?
- DOTs need different skills today. The nation is shifting to a knowledge-based economy that relies on skilled talent, innovation, and unique capabilities to create a competitive advantage. At the same time, employees are moving away from more permanent, lifetime jobs toward less permanent, nonstandard employment relationships (e.g., self-employment) and work arrangements (e.g., telecommuting). State DOTs face an increasing percentage of workers eligible for retirement, a limited number of younger replacements, and hiring limitations imposed by budget constraints. As the role of the DOT evolves, so do the skills required of the DOT workforce.

Perhaps the biggest factor creating change is socially/culturally driven, having transformational effects on how people spend their time, their expectations of public and private sector service providers, and their view of government. This change has been manifested in:

- A distrust of institutions and a suspicion of experts;
- An expectation for communications/information 24/7;
- An expectation for a role in decision-making;
- A desire for authenticity.

The most successful DOTs are/will be those that recognize the cultural element that is pushing them to change and, as a consequence, change in ways that are responsive to those cultural elements. Interviews at five state DOTs — the Minnesota, Michigan, New York, and Iowa departments of transportation and the Kentucky Transportation Cabinet — provide examples of how DOTs are pursuing interesting new approaches that are having a big impact:

• Minnesota DOT's Online Customer Community — Commonly used in the private sector to understand consumer markets, the Minnesota DOT (MnDOT) has created the nation's first public-sector online customer community (OLC) to explore a range of transportation topics with a representative sample of the Minnesota public. The OLC facilitates dialogue between MnDOT and the Customer Community as well as communications between members of the community. As a supplement to other forms of community engagement, MnDOT has found considerable value in the OLC's ability to get public feedback on topics that would have taken months to plan and execute previously.

- **Social Media and the Iowa DOT** The Iowa DOT has embraced the use of social media as a way to facilitate conversations with the public and provide real-time travel information. The DOT has developed several mobile applications, with more in the works, that help people make more informed transportation choices.
- Open Data Making certain public agency data freely available to the public
 has led to the development of some innovative, consumer-friendly applications at
 no cost to the agency. Open data can harness the creative energy of others to
 develop useful applications as well as to analyze data in a way the agency may
 never have had the time or resources to consider.
- Performance Reporting For public agencies, the ability to connect to and communicate with the public is no longer a "good" thing to do it is an absolute necessity if the public agency is to develop and retain the credibility that is critical to accomplishing its mission. A recent report prepared for the Federal Highway Administration (FHWA) provides lessons learned about what interests audiences about transportation and the principles of data visualization and design.
- State DOTs: Putting the Customer First State DOTs are finding new ways to interact with the general public and are recognizing that being customercentric requires culture change at the DOT and new ways to communicate with customers. Case studies from Michigan, New York, and Kentucky provide examples of ongoing changes within the transportation departments to embrace a more customer-driven focus.

Introduction

"Leading the 21st Century Department of Transportation (DOT)" is the theme of the 2013 CEO Leadership Forum hosted by the Center for Transportation Studies at the University of Minnesota on behalf of the American Association of State Highway and Transportation Officials (AASHTO), Federal Highway Administration (FHWA), and the Transportation Research Board (TRB). The topic of this paper, "The Evolving DOT Enterprise: Today toward Tomorrow," is one of three topic areas planned for discussion at the CEO Leadership Forum.

Factors Shaping the DOT Enterprise

Today's evolving DOT enterprise is being shaped by a wide range of factors — some of which are directly managed and controlled within the transportation industry while others are external factors shaping the demand for transportation services. Based on the literature review done for this paper, nine topics surfaced as relevant factors facing today's transportation leaders:

- It's still the economy, stupid. Though public priorities tend to change over time, the American public is still highly focused on restoring jobs and strengthening the economy. Investing in transportation infrastructure is overshadowed by other competing priorities that the public views as more important.
- Transportation legislation is all about revenue with a few innovations
 thrown in. In recent years, transportation legislation has focused on maximizing
 limited resources and exploring new sources of revenue. Major legislation has
 included fuel tax increases, new taxes on alternative fuels and electric vehicles,
 and public-private partnership (PPP) authorization and expansion. Legislators
 have also expressed significant interest in innovative funding mechanisms,
 devolution of state responsibilities to local governments, and blue-ribbon panels.
 And interestingly, legislation geared to driverless cars laws have passed in
 California, Nevada, and Florida and are currently under review in Colorado.
- Belt tightening continues, but are our belts as tight as we think? The temporary injection of funding from the federal stimulus notwithstanding, all 50 states face a shortfall between existing transportation revenues and their projected financial needs. However, transportation expenditures actually grew by 6.5 percent between fiscal years 2009 and 2010.ⁱⁱⁱ Several trends among state DOTs have emerged or been exacerbated during the past several years, including increasing reliance on general funds for transportation purposes, and increased discussion and review of PPPs and of tolling.
- Our population is becoming older, more urban, and more diverse...and it matters. Between 2010 and 2050, the U.S. population is projected to grow from 309 million to 439 million, an increase of 42 percent.^{iv} The U.S. population is becoming older, more racially and ethnically diverse, and increasingly urban and with different transportation priorities.

- Climate change, is it back? Many states have developed climate action plans, mode shift goals for biking, walking, and transit, and vulnerability assessments, and also have joined climate action councils in conjunction with other state agencies. In fact, 38 states have at least some documentation regarding climate change and its impact on state DOT activities. But much of this activity began before 2009, before climate change became politically toxic. With the hottest year on record and three 100-year storms in two years on the east coast, will the climate discussion be re-engaged? It certainly has been on the east coast but perhaps not in other regions of the country.
- DOTs align with 21st century priorities. Some DOTs have decentralized core functions while others have focused on cultural change and becoming more customer-centric. Key trends include a shift toward hybrid silo/workflow-based organizational designs that promote nimbleness, efficiency, innovation, better alignment with generational work culture changes, and an increasing focus on outsourcing and privatization.
- **Performance is the focus.** State DOTs are increasingly using performance management. However, the state of the practice varies considerably and will the states' approach connect with the audience?
- DOTs need different skills today. The nation is shifting to a knowledge-based economy that relies on skilled talent, innovation, and unique capabilities to create a competitive advantage. At the same time, employees are moving away from more permanent, lifetime jobs toward less permanent, nonstandard employment relationships (e.g., self-employment) and work arrangements (e.g., telecommuting). State DOTs face an increasing percentage of workers eligible for retirement, a limited number of younger replacements, and hiring limitations imposed by budget constraints. As the role of the DOT evolves, so do the skills required of the DOT workforce.
- State DOTs are becoming customer-centric. State DOTs are finding new ways
 to interact with the general public and are recognizing that being customercentric requires culture change at the DOT and new ways to communicate with
 customers. Social media is one of those new ways to interact. Today, 88 percent
 of states and the District of Columbia use Twitter, and 76 percent use Facebook.\(^{\text{V}}\)
 These communication methods enhance transparency and accountability and, if
 well done, authenticity.

Singularly and in combination, these factors are shaping the way DOTs address the nation's transportation challenges. This paper discusses some of the underlying factors that are bringing about the changes facing the 21st century DOT and presents several examples of DOTs implementing ground-breaking approaches to adapt to these changes.

The Catalysts of Change

Perhaps the biggest factor creating change is one that often goes unremarked. It is a factor well beyond the bounds of transportation or even government, though it is certainly having a huge impact on both. That factor is social/cultural change. Social and cultural change never really begins and ends — it is a constant. But over the last 10 to 15 years with roots going back much further, social/cultural change has had transformational effects on how people spend their time, their expectations of public and private sector service providers, and their view of government. That change has been manifested in:

- A distrust of institutions and a suspicion of experts;
- An expectation for communications/information 24/7;
- An expectation for a role in decision-making; and
- A desire for authenticity.

Add to that the recessions of 2001 and 2008, and you have public and legislative bodies that are deeply sensitive to budgets, performance, and efficiency.

These are the factors that are forcing DOTs to evolve, and while there is a revenue component, it is about much more than revenue. Even if revenues increase — taking the budget pressure off — things still will not go back to "normal." The most successful DOTs are/will be those that recognize the cultural element that is pushing them to change and, as a consequence, change in ways that are responsive to those cultural elements.

Approaches that will help DOTs respond to the broader, cultural shifts include adopting a customer-centric focus, adhering to transparent, accountable, and collaborative processes, and implementing organizational streamlining with a focus on cross-jurisdictional teams and strategic use of available funding and an emphasis on transportation's role in the economy.

For many government employees, the last 10 years have been tough. Challenges have included layoffs, pension redesign (which generally means downsizing), no pay hikes (or at least very small ones), and working for an increasingly hostile public. When the term "the takers" showed up during the presidential election, some no doubt had public employees placed squarely in that category.

Of course, it makes no sense to paint with too broad a brush. Many a public employee has been recognized for good work and appreciated by the public. Positive letters get written to departments every day to express appreciation for the good work of employees, letters to the editor show up in newspapers, and public employees often receive personal, heartfelt thanks.

Still, it would be hard to draw any conclusion other than that the last decade was not a good one for public employees. So what happened? Answering that question is a major research project of its own, but there are some cultural trends that can help inform an understanding of what has changed and why that change has impacted the public view of government and the employees that deliver its services.

A Distrust of Institutions and a Suspicion of Experts

A review of the polling of the public's trust in institutions indicates that public trust is declining for most large institutions except for the military — and the decline has definitely impacted government. In fact, trust in government is at near historic lows (Figure 1). According to the Pew Research Center for the People & the Press, just 26 percent of Americans trust the government "Just about always/most of the time." While this number reflects distrust in the federal government specifically, it is safe to assume that the public's trust of state and local government institutions has seen a similar, if not as steep, a decline. Some explanations of this distrust include the poor state of the economy, if and partisanship in Washington.

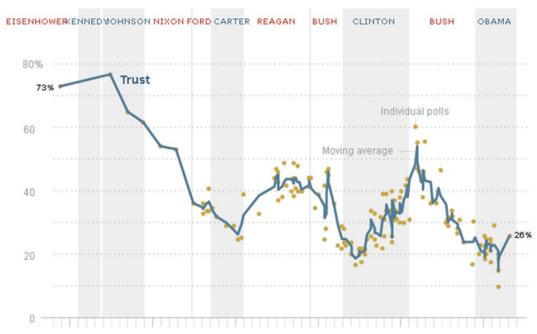


Figure 1: Public Trust in Government, 1958 to 2013

Source: Pew Research Center for the People & the Press. http://www.people-press.org/2013/01/31/trust-in-government-interactive/

This distrust in government is accompanied by a similar, and perhaps related, trend: increasing suspicion of experts. Some experts themselves — such as Suzanna Sherry in the Harvard Law Review — have attributed this phenomenon to the "democratization of information" facilitated by the Internet. Sherry notes that, "Everyone is now an expert — from the user-created content of Wikipedia to self-diagnosis of medical

conditions to a web site that provides do-it-yourself legal documents, we have created a society that finds experts unnecessary and even faintly suspect."

An Expectation for Communications/Information 24/7

As the world was becoming 24/7, government was still five days a week and 8:00 a.m. to 5:00 p.m., or was it 4:30 p.m.? Who hasn't tried to take care of a government service and received a recorded message saying the office hours were already over? As people grew accustomed to shopping at night and banking and paying bills any time that was convenient to them, it is easy to see why the inability to take care of services provided through government agencies might be frustrating. And government CAN be slow to change and slow to recognize the need to change. Any political science class would make the point that government is *designed* to be slow to change. But with change speeding up all around us, it can look like government is standing still.

An Expectation for a Role in Decision-Making

First there was American Idol, a smash hit soon to be copied by shows like X-Factor and the Voice. They are all talent shows, but the other thing they have in common is the *viewers get to vote.* The viewers decide who wins the competition.

A new branch of Amazon.com will produce original TV and movies (it has announced six new comedy shows). A pilot from each show will be made and posted on Amazon Instant Video, where users can give feedback and *determine whether Amazon will invest in a full season*. How does Liberty Mutual decide who is the NCAA football coach of the year? It starts with public voting.

How did Monopoly decide which token to retire and what token to replace it with? It let the public vote. When M&Ms wanted to add a new color, it was not a Mars executive that made the decision, it was the public.

With so much opportunity to express a view and to have an impact, it's only reasonable that citizens would expect as much from their own government. After all, the government is spending their money, so why shouldn't they have a say — a very active say — in how that money gets spent.

A Desire for Authenticity

According to *Dictionary.com*, authentic means not false or copied; genuine. Authentic is a word that gets thrown around a lot. We are looking for politicians who are *authentic*. Advertisers strive to attach the term to their products (Stolichnaya vodka is the "authentic" Russian vodka, according to a previous advertising campaign). Travel sites promise us an "authentic" adventure.

Authenticity entails a search for the real, and that search pervades modern life. Searching for authenticity is a very rational response to life in a world perceived as deeply inauthentic.

For a public looking for connections, how their government communicates with them and *whether* their government communications with them matters. State DOTs can communicate and offer services to their customers in ways that make the DOT feel distant and bureaucratic, or they can find ways to offer services and communicate in a way that lets their customers see that the DOT is made up of people — people who are just like them.

Looking back, it is not hard to see why DOTs and in fact most government services began to feel so disconnected from people's lives and concerns. But some really interesting things are happening at DOTs all around the country, and this paper explores a few of them.

Adapting to Change: Examples of DOT Strategies

CHANGE. We hear about it all the time. We see its effects all around us. We may tire of hearing how we need to change but feel impatient with those who do not see that *they* need to change!

In Spencer Johnson's allegorical tale, *Who Moved My Cheese*, the four characters — two mice named Sniff and Scurry and two humans, Hem and Haw — discover that the cheese is no longer at the feeding station where they have grown accustomed to finding it. Haw, one of Johnson's more adventurous characters, decides to try to find cheese somewhere else in the maze. Unable to get his companion, Hem, to go along, Haw leaves his friend messages along the wall:

"If you do not change, you can become extinct."

"They keep moving the cheese. Get ready for the cheese to move."

"The quicker you let go of the old cheese, the sooner you can enjoy the new cheese."

Johnson's message, of course: Do not be complacent, or arrogant, or convinced the way things are is the way they will always be.

A government agency can quickly find itself irrelevant if it clings too long to approaches sporting long past-due dates. Having money to allocate will likely keep the phone ringing, but it will not guarantee anyone is interested in your views or advice.

Interviews at five state DOTs — the Minnesota, Michigan, New York, and Iowa departments of transportation and the Kentucky Transportation Cabinet — indicate that at least these state DOTs are not expecting to find "the cheese" in the same spot. They are pursuing interesting new approaches that are having a big impact. These include:

- The online customer community run by the Minnesota Department of Transportation;
- The use of social media at the lowa DOT and the philosophy that is driving that use;
- The innovative uses of open data and its benefits:
- Performance management reporting—which is as important as how the measures and targets are crafted, if the goal is to create transparency, accountability, and better connect with citizens; and
- Organizational streamlining guided by a recognition of the need to be customercentric.

MnDOT Online Customer Community

Four years ago, the Minnesota DOT (MnDOT) did something unprecedented and *very strategic*: It hired Karla Rains, formerly with American Express and Ameriprise Financial, to direct the Customer Relations Office and create the nation's first public-sector online customer community (OLC).

OLCs have been common in the private sector. Users of the concept read like a Who's Who of Fortune 500 companies — because they are! The logos shown in Figure 2 are just a small sampling of companies that are using OLCs for market research and to understand the preferences of their customers.

Figure 2: Sample Private-Sector Users of Online Customer Communities



Source: Communispace.

Even though OLCs were not being used in the public sector, to Rains it made perfect sense. As she said, "after all, we already had the public's money." Rains makes the point that when you move from more qualitative research measures to more quantitative measures, you *increase your precision*, but when you move from quantitative measures to qualitative measures, you *deepen your understanding*. The latter is the purpose of the OLC, and it has proven highly effective for MnDOT. "It's not just *what* matters to your customer, but *why* it matters," Rains says. "MnDOT has never known as much about our customer as we do now."

How It Works

- An OLC requires the support of an online community provider. Key roles of
 the provider include recruiting the members of the online community, managing
 the community, and interpreting and presenting the results. Communispace is the
 provider that runs MnDOT's online community.^x Communispace has built more
 than 400 communities for 100 clients during the last 10 years and has a client list
 that includes companies like the AdCouncil, FedEx, HP, Coca-Cola, and many
 others.
- Recruit and carefully select a sample of customers. MnDOT has a 400-person sample of Minnesotans. Outgoing sample census criteria include gender, age, income, ethnicity, and geography. Return data are not weighted to census criteria. Community members agree to participate for a year.
- Communicate with the community through an online tool. MnDOT community
 members sign on weekly, read and participate in the discussions, and respond to
 surveys.
- Provide a small token of appreciation for participating. MnDOT provides \$10 gift cards per month for "regular" contributors and purges and replaces nonparticipants.
- **Use multiple methods** to gain input. Methods for gathering input include surveys, brainstorms, discussions, live chats, and image galleries.
- Provide **ongoing budget** support. The annual budget for the MnDOT OCL is \$250,000.

Benefits of an Online Customer Community

Why create an OLC, you might ask? Here is what Rains would say: "It meets our customers 'where they're at' and allows them to respond when it's convenient for them — often generating more thoughtful responses. It's timely, innovative, and highly responsive to our customers and it fills a gap for decisions not easily supported by traditional research." Importantly, it creates the opportunity for three-way communications: MnDOT to the customer community, the customer community to MnDOT, and most interesting, *communications between members of the community*. At the same time, it meets the criteria for successful, sustainable market research. The OLC is:

- **Nimble** changes along with the consumer;
- **Responsive** provides timely information to leaders/decision makers;
- Affordable sensitive to budget constraints;
- **Proactive** able to expose and close information gaps;
- Innovative leverages changing technology;
- Transparent customers see themselves in the process and decisions made;
- **Iterative** accommodates increasingly complex transportation issues those not easily understood from a "snapshot-in-time" study; and

• **Collaborative** — provides support and counsel in the application of research results.

Topics Explored Through the Online Community

The following are some of the topics that MnDOT has researched using its OLC:

- **Construction Kick-Off** how to inform customers of construction projects, what they specifically want to know about projects;
- Snow and Ice timely postseason feedback on snow and ice service, expectations during a snowstorm, weekend clearance expectations, and safety message testing;
- **Roundabouts** general understanding, ease/comfort of use, how best to educate/communicate with the public;
- Biking reasons/barriers to biking, ideas to increase nonrecreational use, bike map input;
- Transparency and Public Trust what does transparency look like, how does a transparent agency behave?
- Active Traffic Management concept test of system (video), perceived benefits/value, symbol comprehension test, and named the program 'Smart Lanes'
- **Smooth Roads** perceptions of road smoothness, driver impact from poor road conditions, and calibration of Ride Quality Index (RQI);
- State Fair transportation topics of interest customers would most like to learn about;
- **Logo Signs** distance willing to travel from interchange/exit for services, inform the new 'attractions' postings; and
- Flashing Yellow Light understanding customers' interpretation of new flashing yellow.

MnDOT was also able to use the OLC to support the recent Transportation Finance Advisory Committee (TFAC). The TFAC was appointed by the governor to provide a 20-year outlook on the state's transportation and funding needs and to make recommendations on how to meet those needs. TFAC heavily utilized the OLC online community as it was preparing its recommendations for the governor.

Lessons Learned

When asked if there were any lessons learned, Rains immediately said, "Yes, and the biggest lesson is it works! We knew [the OLC] would be helpful and useful before we started, but we continue to be delighted and see its value grow."

Here are some additional lessons learned from MnDOT's experience with its OLC:

- An OLC needs a full-time staff person. MnDOT was not sure when it started if it needed someone full-time, but the conclusion is that a full-time staff person who can be on point every day is important. Tasks include identifying topics (survey content or engagement discussions) to be pushed out every week, reviewing results of the previous week, monitoring the community responses in real time, presenting results, helping internal business partners understand what has been learned, counseling them on how to use community feedback, and ongoing marketing of the online community internally so staff is aware of the tool and takes advantage of it.
- Keep the OLC associated with MnDOT. Even though MnDOT uses an online community provider, it is important that customers know that even though Communispace is interacting with them, it is on behalf of MnDOT and state government
- A smaller community equals more engagement.

 MnDOT started with 600 members in its online customer community but later reduced it to 400: 200 metro, 200 throughout the state. It found that by reducing the size of the community, it actually increased the community's engagement. It traded off more statistical precision for a "true community" and concluded it was worth it.
- Always close the loop with customers and business partners. It is important to follow up regularly so customers know how their feedback is being used.
- The more you communicate with the community members, the more they participate. As MnDOT increased its communication with the community, the community's participation increased and so did the number of unsolicited comments of appreciation to MnDOT from the community.

Online Customer Feedback

"A department of Government Proactive; it must be mighty cold in hell! I love the fact that you are looking for input on how your department is run, the job it is doing and what is expected in the future! Great job! For me this says it all."

"I am most pleasantly surprised that a State Agency would take the time and effort to get feedback from their clients."

"It's nice to see that at least one government program is taking a more direct approach in learning what people are thinking, rather than the same small group of decision-makers who may have gotten out of touch years ago. It's refreshing."

- An incentive of \$10 per month is the right amount. OLC participants believe they should receive a token of appreciation for participating every week, but they understand it is taxpayer money and do not want it any higher than \$10.
- An OLC reduces expenditures for other types of outreach. MnDOT uses
 focus groups less now that it has the OLC, and it reduced other quantitative work
 as well. The OLC does not replace all focus groups, nor should it, but it does
 reduce those expenditures significantly.
- The nimbleness of the OLC is its greatest benefit. MnDOT quickly gets feedback on something that would have taken months to plan and execute previously.

• The OLC should be shared. Tax dollars pay for the OLC, so if another state agency needs to use it, MnDOT gives it access. This has to be managed so MnDOT can meet its transportation objectives, but opening it up keeps the community members from getting bored with transportation.

Iowa DOT: Information in Real-Time

Paul Trombino, director of the Iowa DOT, has a passion that comes down to three concepts: Smarter, Simpler, and Customer Driven. No matter what task the department is undertaking, he wants his staff to reimagine delivering the task using these three concepts. For Director Trombino, that means E-Government is the main focus.

Why Social Media Matters

Director Trombino believes that social media will define transportation systems and services because it is:

- Customer driven;
- Transparent;
- Engaging;
- Inclusive; and
- Sincere.

"We need to think about how we engage. I don't want people to come to us, we should go to them."

— Paul Trombino, Iowa DOT

And he says, "So is transportation!"

According to Director Trombino, there has been a shift in how people interact and engage. Here are a few facts to back him up:

- Fifty-six percent of Americans now have a profile on a social networking site.
 This is up from 52 percent just last year, and 48 percent in 2010. Fifty-five percent of Americans between the ages of 45 and 54 have a profile on a social networking site.
- Social networking is not just for kids any more. The biggest growth of any age cohort from 2011 to 2012 was 45- to 54-year-olds. The only group that is below average are 55+ Americans, and even 3 out of 10 of them are in the social networking game.
- 1.2 billion people use Facebook worldwide.
- There were 175 million tweets sent from Twitter every day in 2012.xi

The advantage that social media brings to a DOT in Director Trombino's view is that it allows the DOT to have a conversation with people. That is important, he says, because DOTs have 100 percent of the marketshare — and that brings responsibility.

Mobile Applications

Director Trombino's vision is not limited to social media, though. He also foresees a totally mobile app-based world ultimately replacing the need for websites entirely. And Director Trombino sees that as a really good thing for transportation, because when people have real-time, 100 percent accurate information, people make better choices. With those better choices, safety improves, mode choice improves, and construction speeds up. Moreover, DOTs will be able to better manage their

"Package [information] and give it to the people directly. People will make a safer decision and one that's better for us too."

— Paul Trombino, Iowa DOT

systems, creating more capacity without the need to build the capacity.

What really excites the director, though, is the economic impact that mobile transportation apps supported with real-time, accurate data will have. Improving system management and logistics, in his words, is a "pathway for wealth creation." And Iowa DOT is working on a concept that might have just that effect. Iowa is developing the ability for its customers to see the DOT's snowplows in real time and, based on that information, make their own decisions about routes to take and when to travel. After approaching private industry with big trucking fleets to see what they thought, Director Trombino received resounding support. Businesses told him they would use it, and it would influence their decisions about routing and when to send out their trucks.

His vision for Iowa DOT Apps? He's already realizing it. Iowa DOT customers can download a folder of mobile apps on the department's website, then click on the ones they want (Figure 3). Over time, the goal is to grow the number of apps that are available. And he is not done with ideas. Think about those live chat boxes that pop up on many websites. Director Trombino says, "Why not have that on our website and our apps? Let's talk in real time with our clients and help them resolve an issue."



Figure 3: Iowa DOT Downloadable Apps

Source: Iowa DOT.

In Director Trombino's view, the goal of all of the "new media" is engagement. "You need to *earn* your followers. Engagement is more important than volume." For agencies that do not yet have a social media program, the inset below has some steps to help start one.

Steps to Initiate a Social Media Program

- First get people on board...socialize your strategy and find champions who are interested in experimenting with new media and include them in early efforts.
- Social media does not replace traditional channels of communication with government's stakeholders, instead it provides a test bed for new ways of interacting with citizens and public.
- Design your social media strategy around your mission and the audiences you are trying to reach...not just to be out there. Make a conscious decision what your expectations are and if you have the manpower to actually engage and network with your audiences.
- The pure number of Twitter followers or Facebook fans does not indicate impact. It
 is more important to understand who follows your Twitter or Facebook profile, what
 they do with the content, and who is in their network. Social networks have the
 ability to distribute information from friend to friend and to their friends reaching
 many more than those directly following your updates.

Source: Ines Mergel, Maxwell School of Citizenship and Public Affairs, Syracuse University.

Open Data

Open data is the idea that certain data should be freely available to everyone to use and republish as they wish, without restrictions from copyright, patents, or other mechanisms of control. The idea of open data is not new, but the term "open data" itself is, and the concept has really gained currency in the mobile app age. The U.S. government entered the open data world with its launch in May 2009 of Data.gov. According to its website, "The purpose of Data.gov is to increase public access to high-value, machine readable datasets generated by the Executive Branch of the Federal Government."

Purpose of Open Data

Some see the need to open up the data because it was paid for with public funds — thus, it is the peoples' data already. Others argue that open data will rebuild confidence in government. While both of those reasons are valid, public-minded reasons to open data, there is also a strong customer service reason to consider; open data has led to the development of some really innovative, useful, consumer-friendly applications at *no* cost to the public agency. One of the first examples of a consumer friendly application to be developed from the federal government's open data is the site "flyontime." The site allows anyone to find out how likely their flight is to be on time based on past history. Details on the program are provided in the inset on the following page.

Open Data Spotlight: FlyOnTime

FlyOnTime.us is a free resource for air travelers and anyone else interested in the on-time performance of the commercial air system in the United States. The flight and weather information presented on the web site is derived from data provided by the United States federal government, while the security line times are submitted by air travelers. The FlyOnTime web site has four goals:

- Help American air travelers find the most on-time flights.
- Help the American public understand the data from government sources by presenting it in interesting and attractive ways.
- Tap the wisdom of crowds to collect data on airport security line delays.
- Allow developers to access flight on-time data in a simple, programmatic way.

FlyOnTime.us was also created to prove a broader point: when the government opens its data to the public, it saves tax dollars. FlyOnTime.us is an independent project created by private citizens. It is not affiliated with any government, agency, or organization. The website developers made use of open data from the Bureau of Transportation Statistics, the Federal Aviation Administration, the National Oceanic and Atmospheric Administration, and travelers on their cell phones to create a service of real value to the traveling public at no cost to the tax payers.



Approaches to Capturing the Benefits of Open Data

A number of agencies have used the idea of a contest to get developers to take their open data and create innovative ideas. For instance, Hubway, a bike-sharing program

in Boston funded primarily by public partners and membership fees, set up a data visualization contest and opened its data. In the contest, it posed some sample questions that contestants might want to try to answer in a visual way with the data, such as the gender of the bike users, time of day, day of the week, busiest stations, etc. Hubway also challenged contestants to come up with their own ideas. From the 67 submissions received, Hubway learned more about its users and picked up some great data visualization ideas, all for very little cost to the organization. Examples of Hubway's challenge winners are shown in Figure 4.

There is a wide range of interesting, publicly useful purposes that open data can provide. The Chicago Transit Authority (CTA) has a web page dedicated to its open data (Figure 5). The CTA encourages software developers, researchers, urban planners, and businesses to explore potential uses of its data. Similarly, the Washington DOT (WSDOT) makes its traffic data open and available on an Application Programming Interface (API) (Figure 6). It reasons that giving traffic data broad distribution will result in more informed travelers; a more efficient distribution of traffic across WSDOT roads, bridges, and ferries; and overall congestion relief.

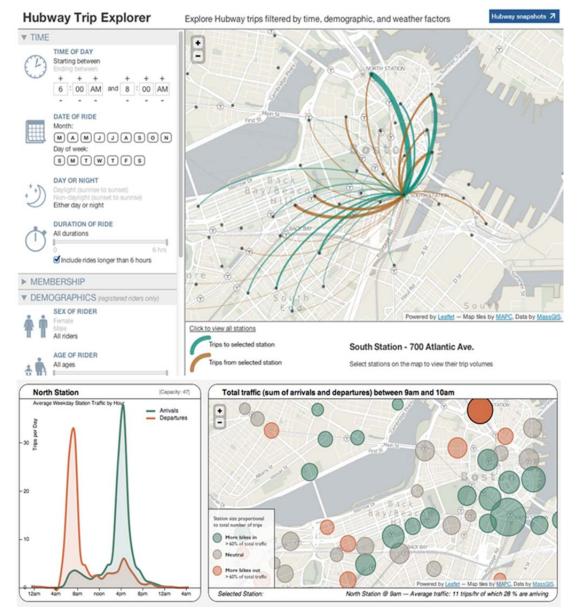


Figure 4: Sample Hubway Data Visualization Challenge Winners

Source: Hubway Data Visualization Challenge, http://hubwaydatachallenge.org/.

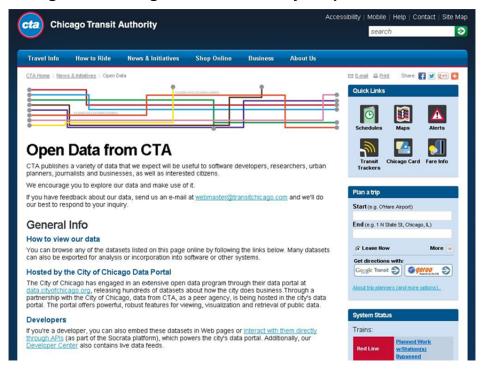


Figure 5: Chicago Transit Authority's Open Data Portal

Source: Chicago Transit Authority, http://www.transitchicago.com/data/.



Figure 6: 520 or 90 User Interface

Open data can harness the creative energy of others to develop innovative, consumerfriendly applications as well as to analyze data in a way the agency may never have had the time or resources to consider. However, not all data sets are appropriate to be open. No data set that has personal information or information of a security nature should be made available.

The Reporting Side of Performance Management

Over the last 15 years, there has been a dramatic increase among state DOTs in the use of performance management principles. And there has been an enormous amount of work done by FHWA, NCHRP/TRB, state DOTs, and others defining best practices, conducting comparative reviews, building the framework for performance-based planning and performance management, holding workshops, writing guidebooks, and holding webinars. While

Per-form'ance n. man'agement n.

A policy-directed, data-driven, performance-based business practice that links organization goals and objectives to resources and results.

there are numerous resources that focus on best practices in performance management, the focus in this white paper is on the "reporting side" of performance management.

Why Reporting Matters

There are a number of important reasons why state DOTs use performance management, including:

- Providing a foundation for policy formulation and system-wide planning;
- Assessing the status of a program, evaluating its cost- and performanceeffectiveness;
- Guiding improved delivery of services, focusing on desirable outcomes and alternative methods of delivering these results;
- Meeting or responding to federal and state legislative mandates and reporting requirements; and most importantly;
- Improving performance.

A very important reason for using performance management, though, is to be transparent, provide accountability, increase credibility with the public, gain support from the public, and improve communications within the agency itself as well as with transportation users, political leaders, stakeholders, and the public.

If the information is not being reported, though, the benefits of performance management will not be realized. For public agencies, the ability to connect to and communicate with the public is no longer a "good" thing to do — it is an absolute necessity if the public agency is to develop and retain the credibility that is critical to accomplishing its mission. The public may not use the same language as transportation

professionals, but performance is what the public cares about. The key questions they want answered are: What is being spent, and what has it bought? Has there been an improvement, and is it an improvement that matters?

Performance management is an important initiative for a governmental agency because government is *competing* for citizen support. Performance management creates an accountable framework that can help make clear to citizens *what* an agency does and *why* it does it. After all, when we buy a car or some other big-ticket item, we try to make an informed decision based on quality and price — and as consumers, we have a choice. But as consumers of government services, we have little choice about the services we pay for. We are "captured consumers" with little information about the quality or the cost of the public services we receive.

However, the question remains: How do you communicate performance results to connect with customers and create credibility? While there are many formats for presenting information and reporting performance — text, spreadsheets, graphs, even pictures — the complicated trick is getting it right. Getting it right requires *information design*; and when information design is done well, it grabs attention and educates more effectively than other approaches. The bottom line: how performance is reported matters.

Using Performance Reporting to Connect with the Public

Too often, public sector performance measures are technical or expressed in a jargon not readily accessible to citizens. It is important to have a short set of measures that if accomplished will improve performance and that are meaningful to citizens. Figuring out meaningful outcomes, determining how to measure those outcomes, and then crafting accessible language that is meaningful to citizens can feel like mission impossible. However, there have been some lessons learned from previous performance reporting work and through audience research that can ease the burden and provide direction.

A recent report prepared for the FHWA — FHWA Performance Reporting — provides several lessons learned based on the principles of data visualization and design and the available data about what interests audiences about transportation:

- Start strategic planning with public engagement. The best way to be sure
 that a DOT's performance reporting will be meaningful to citizens is to start the
 process with citizens. Focus groups and surveys are ways to reach out to
 citizens to ask them what they care about and to learn the language that
 resonates with them.
- Tell a story so the data comes alive. Lead with a story and use the data to support the story. Don't lead with the data. While this may sound simple, it can be a challenge in the field of transportation performance reporting. Crafting the story requires time and analysis. It must be delivered at the appropriate technical level for the target audience and be based on an area of the audience's interest.

- Focus on what the audience wants. Edward Tufte is considered one of the leading scholars on data visualization work. Tufte makes the point that much of data presentation is driven by institutional division. However, our audience has no interest, understanding, or patience with institutional divisions. To be effective, a transportation report needs to focus on how the audience experiences transportation rather than how DOTs manage it internally.
- Avoid red-light language and preconceived perceptions. Certain phrases can
 detract from the message of transportation performance if they are associated in
 the minds of the audience with unrelated (or only marginally related) negatives.
 So avoid words and phrases that may detract from the message and replace
 them with less loaded terms of similar meaning.
- Build in complexity as your audience becomes more selective. The advantage of an online performance report is that it can engage different audiences in different ways. The front page of an online performance report should target simple messages and have easy-to-comprehend graphics. A number of data visualization techniques can be used so that the nonspecialist (or lay) visitor is not driven away. However, as visitors show interest in pursuing specific questions, they can be rewarded with greater data detail, interactive capabilities, and complex statistics and statistical relationships. By carefully crafting tools to speak to different audiences at different points in their visit, DOTs can satisfy multiple segments of their target audiences.^{xii}

Research can tell us a lot about effective performance-reporting approaches that are likely to connect with target audiences, but there it is no substitute for going directly to target audiences and asking them what matters to them and how they would like to receive information. This is exactly the approach that was taken in FHWA's recent project to explore methods for reporting performance. One of the objectives of that project was to understand how to prepare a performance report that would resonate with three target audiences: elected officials, transportation stakeholders, and the public. In order to hear directly from members of those audiences, seven different audience outreach sessions were held. These included in-person meetings, webinars, and outreach through the MnDOT OLC. The discussions were centered around a detailed presentation in which several potential performance report formats, styles, content types, and levels of detail were introduced.

The objectives of the audience outreach was to:

- Gain an understanding of preferred formats, delivery mechanisms, and content of transportation performance reports for the general public, legislators, and transportation professionals;
- Gain an understanding of what the audience's primary areas of interest are relative to transportation performance; and
- Draw upon the creative input of audiences.

The meetings included the National Conference of State Legislators (NCSL), Congressional Staffers, the FHWA TPM Group, AASHTO SCOPM Subcommittee, the Illinois Chamber of Commerce's Transportation for Illinois Coalition, Council of State Governments (CSG), and the Minnesota Department of Transportation Online Community.

The top 10 takeaways from the outreach meetings are as follows:

- A Single Style Does Not Work. The participants felt that there is a wide variety
 of audiences targeted and that a single report style is unlikely to be successful.
 Instead, a mix of options is needed. For the general public, reports must be kept
 engaging but simple. Greater complexity should only be introduced for the benefit
 of transportation professionals.
- Personalize Reports. Reaching the audience will require reports to be as
 personalized and local as possible. Though data constraints may provide a
 challenge, local information and a story of how transportation impacts the
 everyday citizen is needed to spark interest. Another way to ensure a broader
 audience is to include both urban-oriented and rural-oriented transportation
 stories, recognizing the different interest areas between those audiences.
- **Snapshots Are not Enough.** Performance reports cannot stop with a snapshot of conditions. They also need to provide performance trends, a way to mark progress or contextualize the meaning of the performance, and the actions that are being taken to address and improve performance.
- State-By-State Comparisons Matter. Legislators and the general public are both very interested in state-by-state comparisons. This is likely to be a source of some contention as state transportation professionals often find state-by-state comparisons to be flawed. They find them lacking in the detail to make them truly relevant and highly susceptible to misinterpretation. While state-by-state comparison tools are in demand by both legislative and public audiences, the comparisons must be done with great care, recognizing the potential for misinterpretation.
- Appearance Matters but not at the Expense of Effectiveness. Reports need
 to avoid an overemphasis on appearance at the expense of effectiveness. This
 point was made when reviewing dashboard approaches where some felt that
 data was being pushed into a format for the sake of consistency rather than its
 explanatory power.
- **Public Cares about Accountability.** Agency missions, goals, and values should be included in transportation performance reports. The public is highly interested in accountability and wants to know who is making the decisions and why.
- Public Cares about Quality of Life. Members of the general public indicated that they are interested in transportation topics that relate to their overall quality of life. In particular, they have a desire to learn about safety, traffic conditions, and budgetary funding. They are also interested in the ways transportation departments are being proactive and planning for future transportation needs.

- Relevant, Easy to Understand Graphics Likely To Be Shared. There is great
 value in "single issue, single page" graphics-heavy infographics as a tool to draw
 in a larger audience.
- Safety Topic of Most Interest. Safety was the performance topic area that met
 with the most enthusiasm from all three audiences. The other topic that was
 universally recognized as engaging and important by all three audience groups
 was funding.
- Organize around narratives and subjects of interest to citizens, not around modes, functional areas, or jurisdictional structure. Citizens are interested in learning about how transportation relates to them — its relevance to their lives and wellbeing through a narrative structure that engages. Transportation professionals may need to see performance data organized by functional areas, but the public will not care.

State DOTs: Putting the Customer First

Over the years, DOTs have used a number of philosophies to organize their departments. There is the modal versus functional approach, the functional versus divisional approach, a matrix or hybrid approach, and the centralized versus decentralized approach. Pros and cons exist for all of the organizational structures, and at certain times, a particular approach tends to be more popular. Today, the interesting discussion that some DOTs are having is what it means to be a "customer-centric DOT" and what that says about how they should be organized and how they should approach their work. The following case studies provide examples of evolving practices at three DOTs: Michigan, New York, and Kentucky.

Michigan

In 1997, before many DOTs even thought about applying the word "customer" to the people they served, the Michigan DOT (MDOT) was thinking about its customers and how best to serve them. That was the year Michigan created more than two dozen Transportation Service Centers, each with a customer service person. The purpose of the centers was to interface with the community, get to know the customer, and be the local face of the DOT. Since this change 15 years ago, Michigan has been developing a culture of customer service.

Director Kirk Steudle decided to up the ante during an employee meeting with 300 MDOT managers, division directors, and executive leadership in February 2013. Kicking off MDOT's new customercentric focus, Director Steudle laid out a "WIG," or Wildly Important Goal for his employees. He challenged his staff to raise MDOT's customer

"If every hotel chain can send out an e-mail asking 'how did we do?', then why can't the DOT survey their customers after they've had a transaction with the DOT?"

Kirk Steudle, Michigan DOT

satisfaction number from 73 to 80, asking his employees to help him brainstorm strategies to achieve the target and find ways to measure and monitor the

improvements they make. Recognizing that improving customer satisfaction will take a concerted effort throughout the department, every sub-unit at MDOT is developing its own internal goals.

Reminiscent of the late Mayor Ed Koch, Director Steudle wants to know in real time "How am I doing?" One area of particular interest is delay, both in terms of time and cost. As a result, MDOT is creating a User Cost Delay number that measures delay caused by snow, crashes and the time to clear them, construction projects and detours, anything that might delay a motorist. At the end of the year, MDOT will have established a baseline Cost of Delay number for the year, and its challenge will be to reduce that number year after year.

Like many DOTs, MDOT is using other approaches to put the customer front and center. Twitter is becoming an increasingly meaningful way to communicate with customers. MDOT has two employees that monitor its Twitter sites, and when a customer tweets a problem, MDOT responds. Director Steudle recalls a tweet the department received. Within an hour it had a crew dispatched, and within two hours, the issue was resolved. The next tweet from the customer was to compliment the department rather than to register a complaint.

With a renewed focus on improving customer satisfaction through improved customer interaction, the MDOT Metro Region recently used TweetChat to present information on major projects for 2013 to the public. TweetChat encourages two-way conversations to address public concerns.

New York

Joan McDonald, the commissioner at the New York DOT, says that the battle cry within the department in the 1970s, 1980s, and 1990s was "Build at all Costs" — but not anymore. The change is partially due to the budget but also to demographic changes. People are living longer, and they are living in city centers. For the first time in 60 decades, city centers are growing faster than the suburbs. What customers want and expect from the state DOT is different than what it was in the past.

Commissioner McDonald points to five pressures pushing the New York DOT toward change:

- Climate Issues After three 100-year storms in two years, capital planning around sustainability is a big priority;
- **Economy** Today there is much greater coordination between transportation and economic agencies and a recognition at the DOT that it needs to be economically focused;
- **Demographics** Demographic changes are having a big impact, not just in New York City but also Syracuse, Rochester, and Buffalo;
- Customer-Centric The drive to become more customer-centric is a major motivator for change within the DOT; and

• Local Government Interface with State Government — In New York, a heated discussion is underway with local governments because of the collapse of formula funds. The distrust runs deep, so fair share concerns have taken center stage.

Rather than adapting to these changes through a restructuring of the organization, New York DOT is redefining its staff's job responsibilities. In other words, the department is making a cultural change from the inside out. A big part of that cultural shift is becoming more customer-focused. When Governor Cuomo took office in 2011, he made it clear to state agencies that government does not set the agenda, the citizens do. Now the New York DOT is more of a consensus-building department and it is working at becoming more customer-focused, too.

Kentucky

As secretary of the Kentucky Transportation Cabinet, Mike Hancock has been focusing his attention on planning. Given Secretary Hancock's former role as Kentucky planning director, this comes as no surprise. Like his colleagues at the Michigan and New York DOTs, Secretary Hancock was hearing from the Governor and the General Assembly that the Kentucky Transportation Cabinet needed to become more customer service focused. At the same time, the Kentucky Transportation Cabinet was struggling to achieve legislative support for the department's transportation projects. Looking for ways to energize his planning staff, Secretary Hancock decided to try a different approach — one that got his department working like a team — and they accomplished all of those goals by creating a new way to assemble the department's transportation program.

Secretary Hancock's new approach began with the University of Kentucky Transportation Center, which collected customer survey data for the DOT. Kentucky Transportation Cabinet managers started gathering more reaction to possible projects, including going to the home offices of every member of the Kentucky General Assembly and asking for their feedback. Through this revised process, Secretary Hancock and his team built a program of projects that resonated with the Governor and with the General Assembly.

Spending so much time thinking about customer service led Secretary Hancock to another realization: the operations and maintenance employees at the DOT are also customers of the rest of the DOT. Now the Kentucky Transportation Cabinet focuses on three primary customers: the citizens of Kentucky, elected officials, and the Kentucky Transportation field staff.

Thinking about planning and what its role should be at the DOT also led the Secretary to rethink the linear process used in Kentucky. Rather than moving from planning to design to construction to maintenance, the secretary recognized that shifting to a more holistic approach would allow the DOT to be more effective. But he needed those

groups working together. Secretary Hancock's goal is to get his staff out of the old silos and to keep them out. He noted, though, that even when you think you are out of the silo, sometimes you are still in it. When the Kentucky Transportation Cabinet instituted Context Sensitive Design, it thought it was out of the box. But Secretary Hancock notes, "you still have to implement the solutions, and that process was still very siloed."

For today though, Secretary Hancock is very happy with the direction the DOT is moving. The public is more aware of the department's spending and priorities, the bidding process is more competitive, the department has streamlined its environmental review process, and the DOT is doing a better job of defining projects early through the use of "First Look Studies." Importantly, it is also inculcating Practical Solutions to ensure that it is "right" sizing its projects by keeping costs front and center when planning a project.

Conclusion

Cultural change does not just impact us at a personal level — it also impacts us in the work place. For state DOTs to maintain public support, they have to recognize cultural change and what that means for their departments. Throughout the country, many state DOTs are doing exactly that — and they are changing their departments by making them more customer-centric.

As with so many things, there is no specific end-site or point where a DOT gets to say, "We're done! We're as customer-centric as we need to be." Rather, it is an ongoing journey. Many of the exciting new approaches being used by DOTs today will be old hat soon. The goal should not be implementing a specific customer-centric program, but rather constantly challenging current thinking by asking the question over and over, "Are we relevant?" If the answer is "not sure," "maybe," or "no," then it is time to get to work.

Lagniappe

Lagniappe, or a little something extra, is a chance to see what got left on the cutting room floor but is just too good to lose.

Here is just a little something extra.

Commissioner Joan McDonald, New York DOT

Commissioner McDonald has two other observations that other state DOTs might want to take note of. "In transportation," she says, "we continue to talk about the funding crises, but every issue seems to be in a crisis: health, education, the military. Transportation spending isn't a priority for the public, and our rallying cry should not be, 'we have a crisis.' The pie is the pie. Let's deal with it."

Her second observation is that DOTs need greater diversity: in race, in general, but also in *more non-career* employees, and she notes that DOTs need more employees with better communication skills.

She concludes by noting that in transportation, we have short-term budget and human resource issues and long-term climate and demographic issues. She believes we will be better off if we focus on our long-term issues.

Secretary Mike Hancock, Kentucky Transportation Cabinet

Secretary Hancock remembers when planning activities at state DOTs were challenging and exciting. Over the years, though, the planning work became more mundane and less core to the big decisions that the DOT was making. That doesn't sit well with Secretary Hancock, a former planner himself, so he's challenging his planning staff to rethink and reinvent their role at the department. One of his initiatives to energize his planners was a session he organized in which he asked two former Kentucky Transportation Cabinet secretaries and his seasoned planners to sit down with the department's young planners and talk about planning: what it is, why it matters, what the issues are today that planners should tackle. The secretary's goal: get his planners — especially his young planners — enthused and energized.

Director Paul Trombino, Iowa DOT

Director Trombino recognizes why it is important for DOTs to ask, "What are we doing that we no longer need to do?" However, he doesn't think that is the most important question. He reasons that over time, it typically becomes clear what no longer needs to be done. The more important question, he believes, is "Where are the emerging markets and are we prepared?" He says for state DOTs, the answer to that question is communications — and most DOTs lack the communication skill sets that they need.

Director Kirk Steudle, Michigan DOT

The last time motor fuels taxes were raised in Michigan was 1997. At that time, the department said it needed a 12-cent increase in the motor fuels tax. However, without good pavement predictive models to back that up, the political negotiations process settled on 4 cents.

It is a different discussion today, though, as Michigan is again discussing a revenue increase. This time, the Michigan DOT can verify pavement predictions going back to 1997, and it can show that its predictions were within 1 percent. Now when Director Steudle talks with legislative committees about how much new revenue the department needs, he gets head nods. Director Steudle says, "Today, no one says you don't need this much revenue, they say, how do we get there?"

Michigan DOT has also done a careful job of documenting its cost savings. DOTs often do not do a good job of this. So when the conversation turns to efficiencies, they do not have anything to back up their claims — but Michigan DOT does. Through its documentation, Director Steudle can report to his customers and legislature that the Michigan DOT has saved \$152 million in the last three years.

Mara Campbell, Missouri DOT

Mara Campbell is the director of organizational results at the Missouri Department of Transportation (MoDOT), but she is best known to active AASHTO participants as a champion of performance management and one of the individuals who started the successful comparative measures project. When asked about her observations about how states are approaching performance management, she sees states taking two primary approaches. One is the Baldridge type of an approach. According to Campbell, these states consider taxpayers as their customers. They establish processes so they can listen to their customers, they tend to be more open, and they are creating more transparent processes. On the other side are the states that are using more of a "sterile" business plan approach. It is a very analytical approach to determining goals and measures, but utilizes little talk about the customer or involvement of the customer in setting direction. Campbell's worry is that in the rush to comply with the new MAP-21 performance measures requirement, states will miss the forest for the trees. In her view, listening to customers is more important than improving data collection.

Washington State Twitter Feed

Transportation might strike some as boring: all about pavement, traffic backups, orange barrels, and acronyms. But the Washington Department of Transportation (WSDOT) looks for the fun in transportation and brings that philosophy into its daily tweets. The following tweets from WSDOT make clear that you can talk about traffic, and make it fun.



Figure 7: WSDOT Traffic Tweets, Check the Pass Reports

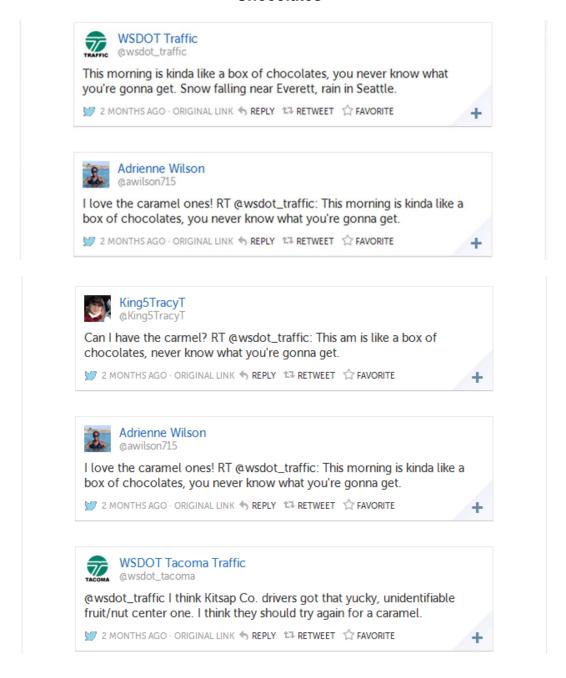
Source: https://twitter.com/wsdot traffic/status/280707277500063747

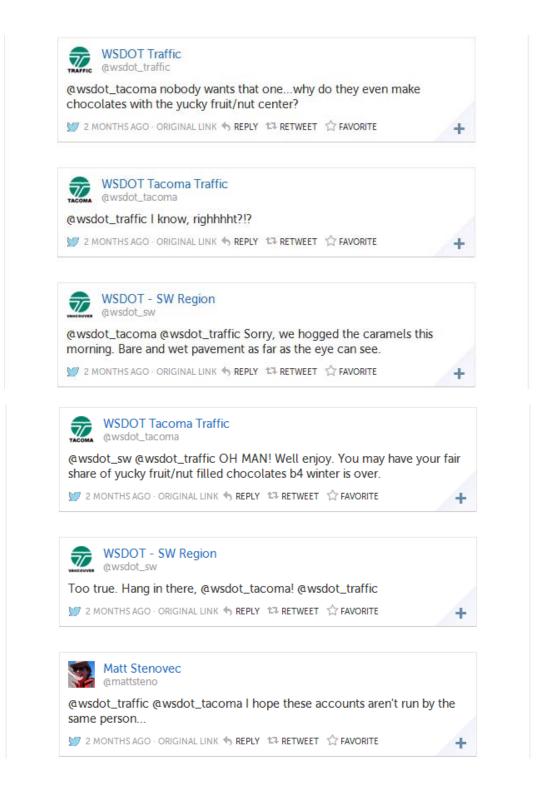
Washington State DOT Sorry folks, Friday afternoon traffic in the Puget Sound area is looking rough. #notimpressed pic.twitter.com/ic7nvehf 9 Lynnwood 524 Monroe Edmonds /Sultan Mountlake Terrace 104 Snohomish ----- Bothell King Woodinville 522 99 (202) Redmond Kirkland 520) Seattle 520 Toll Bake Chara Lake Sammamish Seattle Washington **60**0 Sammamish Snoqualmie Pass 405 Mercer Island l-90at **☎** SR 18 Renton, 509 Tiger 🚗 Mountain 169

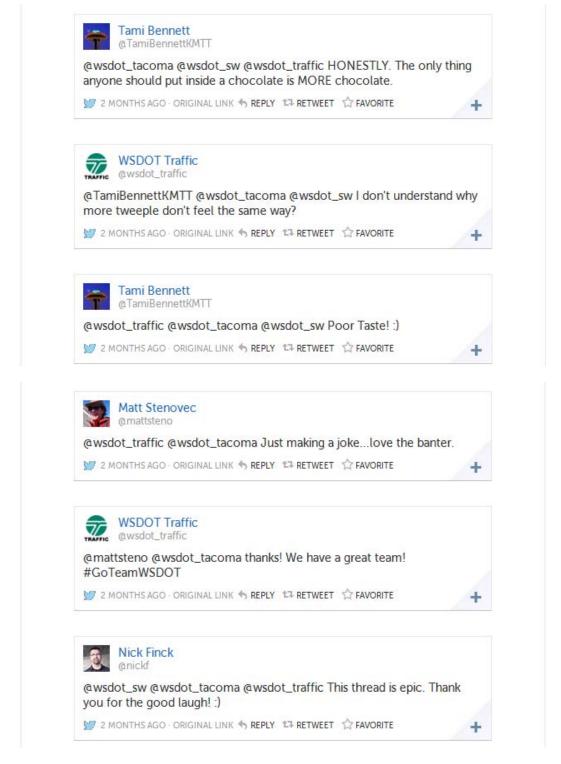
Figure 8: WSDOT Traffic Tweets, Not Impressed

Source: https://twitter.com/wsdot/status/234054694346059776

Figure 9: WSDOT Traffic Tweets, "Humanizing the Accounts. Like a Box of Chocolates"







Source: http://storify.com/wsdot/humanizing-the-accounts-like-a-box-of-chocolates

¹ "2010 State Expenditure Report," National Association of State Budget Officers, 2011. http://www.nasbo.org/sites/default/files/2010%20State%20Expenditure%20Report.pdf. Accessed November 15, 2012.

ⁱⁱ U.S. Census Bureau. *The Next Four Decades, The Older Population in the United States:* 2010 to 2050, May 2010.

[&]quot;2010 State Expenditure Report," National Association of State Budget Officers, 2011. http://www.nasbo.org/sites/default/files/2010%20State%20Expenditure%20Report.pdf . Accessed November 15, 2012.

iv U.S. Census Bureau. *The Next Four Decades, The Older Population in the United States: 2010 to 2050*, May 2010.

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^{ix} Suzanna Sherry, *Harvard Law Review*, F. 7 (2011): http://www.harvardlawreview.org/issues/125/november11/forum_738.php.

x http://www.communispace.com/home.aspx.

xi Infographic Labs, http://blog.sironaconsulting.com/.a/6a00d8341c761a53ef016767bafa2c970b-pi.

xii Federal Highway Administration, *FHWA Performance Reporting*, February 2013.