Higher Performing Government:
Progress Made, Problems Encountered, Opportunities & Challenges
Reflecting with Metropolitan Washington Council of Governments
Chief Administrative Officers

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   I want to talk today about performance and evidence-informed management in government. By that, I mean *using* goals, measurement, analysis, evaluations and other kinds of occasional studies, data-rich discussions, and well-structured incentives to deliver more effective, efficient, fair, understandable, and trusted government. In addition, I mean effectively *communicating* this performance information to the public.

   When well-executed, this management approach works remarkably well. When poorly executed, however, it can do a lot of damage.

   The challenge we all face is helping people across government understand how to execute these practices successfully. Today, I want to reflect on where we are and where to go from here. I also want to invite your reflections because so many of you, both as individuals and as local governments, have long been pioneers in public sector performance management. Your pioneering leadership continues today. I know, for example, that several of your communities participate in Mid-Atlantic StatNet, a promising consortium of committed government performance management leaders who recently started coming together regularly to benchmark, sharing data to find ways to improve.

   Eight years ago prior to the last Presidential election, I similarly scanned the state of practice in the U.S. and around the world to assess what we have learned about what works and what does not. I looked at the experience of the U.S. federal government, that of other countries, and also at experience in states and localities where so much progress and innovation has taken place. Following that scan, at the request of the IBM Center for the Business of Government, I wrote a set of recommendations for the next Presidential administration. After Obama was elected, I was given the opportunity to implement those recommendations as Associate Director for Performance and Personnel Management at the U.S. Office of Management and Budget. Happily, applying the recommendations worked remarkably well. Still, we have far more work to do to improve government management and accountability.

   I co-led a similar review effort sixteen years ago, this one convened by Harvard's Kennedy School of Government. Four times over two years, we brought together the same group of federal, state, local, private sector, and academic experts to review the state of practice and produce a small booklet of performance management recommendations, one targeted to federal government leaders coming in with the new President and one to state and local leaders. A few Bush Administration leaders embraced the recommendations. I remember, for example, watching EPA's Deputy Administrator

hold up the booklet we produced and urge EPA regional offices and state leaders to put its principles into practice. Perhaps even more exciting, Anthony Williams, a member of the Kennedy School group and D.C. Mayor-elect at the time of our first meeting, took some of the ideas discussed at the first meeting and put them into practice soon after he took office. Even before Baltimore Mayor Martin O'Malley initiated CitiStat, he launched the D.C. Scorecard, posting each deputy mayor's goals online, followed by quarterly public progress updates. Williams hoped the Scorecard would establish clear expectations for his senior management team. He also welcomed the public feedback he knew he would get when posted performance reports did not ring true.

Today, I want to reflect with you both on lessons learned and those still to be learned, and look at some "bright spots" in government performance reporting. I hope this helps all of us think about what governments can and should do next, both individually and collectively, at the federal, state, local and intergovernmental level.

What We Have Learned

Useful, useful, useful. If people in government do not *use* the performance goals they set and the measures they collect; if they do not analyze and discuss performance and other data on a continuing basis to learn from experience and complement routinely collected performance data with occasional evaluations and other studies; and if they do not apply those lessons and test, assess, and adjust new practices to find ones that can accomplish more with available funds, then performance and evidence-informed management tends to be a frustrating, wasteful exercise.

Beyond that, if people in government do not *communicate* performance information in easy-to-find, easy-to-understand ways to *people in the delivery chain*, "UPS'ing the data" and if they do not share it *with people making performance-informed decisions*, it inhibits performance improvement.

Finally, if government fails to *communicate performance information meaningfully to the public*, it squanders opportunities to build government's accountability to the public and people's trust in government.

Let me suggest six lessons learned about how to make performance management useful:

1.   Outcomes-focused, data-rich management using goals, measurement, data analytics, evaluations, and other forms of evidence is a powerful, effective means for managing within, across, and beyond organizations at all levels of government and in all policy areas.

Done well, outcomes-focused management improves outcomes (i.e. beneficial impact on people, communities, and places) along multiple dimensions, including:
- o   mission-focused impact;
- o   return on spending (efficiency, cost-effectiveness);
- o   interaction quality (e.g., customer service, regulatory understanding);

- fairness;
- risks and unwanted side effects; and
- public understanding of what government is doing, how, why, and how well.

Outcomes-focused management has several distinct advantages over other ways of managing. It:
- compels more careful thinking about what government wants to influence;
- excites employees more than managing activities and processes;
- encourages continual innovation to find increasingly effective and cost-effective approaches;
- affords government organizations flexibility to stay the course, expand uptake of current practices, or test and assess new approaches while simultaneously strengthening accountability;
- engages other parts of government and those outside government in problem-solving and opportunity pursuit;
- informs and improves individual decision-making when individuals can choose different suppliers of government-supported goods and services;
- motivates continual improvement; and
- helps the public understand what government is trying to do and why.

That is not to suggest that process quality management is not important. It is, in fact, a valuable companion to outcomes-focused management. Nonetheless, even the most efficient processes are wasteful if they do not successfully improve outcomes or if another process or processes could improve the same outcome at a lower cost.

2.   When government leaders manage government in a goal-focused, data-rich way and clearly identify for the public and for delivery partners the leader responsible for driving progress on each goal, it accelerates progress and boosts accountability.

When the elected or appointed head of a government agency regularly reviews progress on a limited number of organizational goals, it greatly accelerates progress on those goals. This way of managing works best when an organization's top leadership frequently engages the organization to look for practices worth continuing, those worth spreading, those in need of attention, and next steps. This way of managing can work well even when a top leader does not engage if other leaders in the organization – such as the head of a program office, regional unit, or problem-solving team – manage this way for some goals in some places.

It is also important to identify clearly the person or office with the responsibility, accountability, and authority to manage progress on an organization's outcomes-focused goals. Senior leaders often assign this responsibility but when that does not happen, an entrepreneurial leader elsewhere in the organization (or beyond it) can step forward and bring people together around a resonant goal.

When goal leadership does not happen, when no individual or group assumes responsibility for coordinating implementation of an announced goal, goals are just words that breed cynicism instead of energizing focused action.

3.   Analysis and discussion of ongoing performance and operational data to gauge progress on goals and look for outliers, patterns, relationships, and discrepancies suggesting paths to improvement are essential. Discussions informed by data analyses are even more valuable when paired with occasional complementary studies.

The way organizational leaders review progress on a goal makes a big difference in whether or not an organization realizes the benefits of this way of doing business. Regular data-rich meetings work well when they are used to determine where problems exist, engage collective knowledge to address issues sooner rather than later, and identify local successes to replicate and, if successfully replicated, roll out more broadly. They don't work well when the meetings become rote reviews, show-and-tell sessions, check-ins hyper-focused on target attainment, or "gotcha" sessions.

Government should use data analysis and discussion to trigger focused-follow-up inquiries to understand why something is happening. Repeatedly asking "why" leads to insights about causality and the causal factors government can influence. If performance data are not analyzed and discussed and if they are not used to trigger questions, decide follow-up actions, and determine additional data and research needed, performance management becomes an annoying compliance exercise.

Agencies benefit when they complement the data they routinely collect with other, occasional studies. These studies can take many forms, including:
  o Measured trials comparing similar groups of people or places, with one affected by government action and one (the control group) not;
  o Root cause, error, and failure reviews to identify key causal factors;
  o Regression analyses to assess the relative import of causal factors at time of study;
  o Descriptive studies to understand the size, scope, and key characteristics of problems and opportunities government might want or need to address, contextual indicators such as the number of people seeking a service, risks, and possible side effects;
  o Benchmarking studies to identify and compare the performance and processes of one's own organization to best-in-class to find opportunities for improvement; and
  o Futures studies, scenario analyses, simulations, and risk assessment.

4.   Continuous-learning-and improvement-communities that bring front-line workers and others in the delivery chain together with skilled researchers build knowledge and motivate people to improve.

When the frontline – such as teachers, postal workers, social workers, public works employees, police, prison guards, foresters, and inspectors – is involved in identifying problems and testing and assessing different practices to address those problems, it tends

to excite and engage them and speed the spread of successful practices. Performance management tends to backfire, however, when people view performance data or evaluations as a threat and burden rather than a resource that will improve their decisions and guide their actions. In that case, performance and evidence-informed management tends to frustrate and anger.

A good way to engage the frontline constructively is through communities of practice and problem-solving networks bringing people from the field, central office, and the research world together in-person and online to identify issues, develop theories of change, test and assess possible solutions, and share information about new practices that work better. The leader-convened data-rich reviews described in the previous section work especially well when they include and invite the insights of people from the field and elsewhere in the delivery chain.

5.   Effectively communicating performance information so the insights gleaned from it are routinely used is essential. Data, analyses, and evaluations need to help people across the delivery chain – as well as consumers who must decide where, when, and from whom to obtain a government-supported service – make better individual decisions and contribute to collective knowledge.

Data systems need to support the collection, analysis, and dissemination of performance information in readily understandable, useful forms. One key to that is identifying who needs performance information to make better decisions and continually checking if their needs are met. Government agencies need to identify more intentionally key people and positions in the delivery chain, what they know, what they need to know and when they need to know it, then figure out how to get them information in a timely, easily understood manner that informs their decisions and actions. Government agencies also need to identify consumers of government-supported services – such as schools, parking, transit, and recreation – and deliver them information so they can make better personal choices about location, timing, product characteristics, quality, and other variables.

One tool for effective communication is websites. Well-designed websites function effectively as a public accountability tool, communicating to the public what government agencies are doing and why. They can also be a valuable motivational mechanism that helps keep government workers, grantees, and contractors focused on making progress on their goals. In addition, they enable governments dealing with similar situations to learn from each other's experience and coordinate progress on shared goals, and can inform individual decisions.

Just as important is making information available and understandable on mobile devices so people in the field, both government workers and consumers of government services, can readily access the information when and where they need it. Consider the example of the United Parcel Service (UPS.) UPS regularly uses data and tests new practices to increase productivity, profits, driver pay, and safety levels. It analyzes data from drivers, their handheld devices, and their trucks and then returns that information to drivers in a way that helps them find faster routes, anticipate dangerous dogs, and avoid lost

packages. At the same time, it collects new data from drivers to build company and colleagues' knowledge. In addition, UPS constantly asks questions, observes, brainstorms, and then works to test, assess, and adjust different designs for better equipment, such as smart key fobs and streamlined doors, and smarter practices, such as better driving behaviors.

The Annie E. Casey Foundation is similarly working to improve data systems to help children in foster care and the front-line workers who interact with them. Caseworkers often write their case notes in personal notebooks that go with them if they move on, leaving their successors without a child's case history. Even when caseworkers stay, the state cannot look across caseworkers' notes to detect serious or common problems or find promising practices worth testing and promoting for broader adoption. Working closely with frontline workers as well as state program managers in Indiana, the Foundation launched Case Commons to design, test and refine an electronic notebook and data system that caseworkers like using that also generates information useful to supervisors, program managers and, eventually, researchers and policy makers.

New technologies have emerged over the past several decades – including the internet, microprocessors, mobile devices that transmit reams of information at low marginal cost almost any where any time, dispersed sensors, and robots – that continue to drive down the costs and enhance the potential value of data collection, analysis, and dissemination. Although government does not enjoy revenue from investing in data systems the way the private sector does, it nonetheless needs to find ways to pay for updating legacy systems or building new systems. Failure to do so greatly impedes progress. In truth, though, especially in the age of agile systems development, money is often not the biggest impediment; inattention to user-focused design of data systems and failure to appreciate data's importance is the bigger hurdle.

6.   Establishing appropriate accountability expectations is critical, placing emphasis on learning and improvement, not compliance or punishment.

While goals with specific targets are very useful as a management and communication tool, holding people or organizations primarily accountable for target attainment can quickly backfire. This may sound counter-intuitive, but focusing on the percentage of targets met tends to encourage adoption of timid targets, undermining the inspirational, innovation-driving, performance-improving power of a well-chosen stretch goal. Hyper-attention to target attainment can also encourage measurement manipulation unless fair, effective monitoring mechanisms are put in place, often a costly proposition.

Fortunately, most people like to do well even without promise of a reward or threat of punishment linked to target-attainment because we are instinctively motivated from within to want to do well. This intrinsic motivation may be especially strong in people who choose to be public servants. For that reason, it is often far better to hold people accountable for six essential practices, not for meeting targets.

These practices are:
   i.   adoption of SMARRRT goals (specific, measurable, ambitious but realistic, relevant and resonant, time-bound), with publicly announced stretch targets in a few priority areas;
   ii. knowing the data – patterns, trends, relationships, and anomalies relevant to a goal – and applicable evaluations;
   iii. adoption and implementation of cogent strategies to improve trends on priority areas of interest informed by analysis of the data, measured trials, and other relevant information;
   iv. holding frequent data-rich discussions to help people in the organization and delivery partners learn from past practice and decide next steps for the short and long-term;
   v.   acting on insights generated during these discussions, including filling information gaps; and
   vi. communicating information effectively within and beyond the organization in ways that help the field and delivery partners apply the lessons of experience, enable consumers of government-supported services to make better choices, and allow the public to understand what government is doing and why.

What We Still Need to Learn

We have made significant progress in government performance and evidence-informed management, but far more progress is needed, both for individual governments and across governments, including inter-governmental action.

Let me suggest a few areas where we need to learn more.

1.   Designing and implementing well-structured incentives and motivational mechanisms, both for individuals and for organizations

There is often a strong inclination, especially but not only coming from the legislative branch, to link performance levels to rewards and penalties to "incentivize" better performance. Legislators call for performance budgets and pay-for-performance agreements. Federal grant programs for states, localities, and non-profits often try to link performance levels to grant payments and permissions. We need to learn more about which motivational mechanisms are likely to work well in different situations and which are likely to fail, both for organizations getting government grants and contracts and for individual employees. Failure to figure this out creates real problems, as numerous ill-structured grant program incentives have shown.

Unfortunately, despite a robust body of research on individual incentives, too few in government apply that knowledge in their work. Past research suggests, for example, that penalizing highly motivated employees for things they cannot control or do not know how to influence is likely to frustrate them, turn them into disgruntled or former employees, or motivate timid targets and measurement manipulation. At the same time, using rewards instead of penalties runs the risk of frustrating and discouraging those not

rewarded, especially when the performance distinction between their work and that of the person who was rewarded is hard to measure and subjectively determined. Individual awards work well, research suggests, only when agreement is reached in advance about the basis for reward and when performance distinctions can be easily observed, objectively measured, and honestly reported. In other words, rewards are likely to work well primarily in government production operations where people do similar, readily observed work, but they are not likely to work well for many other types of government work.

Research on effective motivational mechanisms for groups and government organizations units is not as robust as that for individuals, despite a rich history of government working with other organizations using grants and contracts. Moreover, finding effective mechanisms for motivating organizations is likely to be harder in government than for the for-profit sector because private firms are motivated by the fear of losing sales to their competitors. Some research has been done on group and organizational incentives, but that which has been done is not easy for practitioners to find and use, despite a great need for this knowledge.

Government needs to identify healthy dynamic mechanisms that keep the pressure on for continual improvement. Does public performance reporting play that role and, if so, when and how? Can the web be used to invite constructive feedback and exert a healthy pressure to do better and, if so, how? How can comparison be done constructively in a way that inspires and guides improvement and when is it likely to backfire? Does the way comparative performance data get displayed affect its ability to bring about needed improvement? For example, does indexing or disaggregated comparative data showing performance data on different dimensions (similar to the charts *Consumer Reports* uses to compare products) work better for inspiring improvement

2. **Communicating information in more user-focused, audience-specific ways so it gets used both in and beyond government**

Government websites have become increasingly consumer friendly, helping citizens and businesses find information. Many local government websites are organized around consumer demand, providing ready access to the answers to commonly asked questions and enabling easier transactions with government. Progress has been made at the federal level, too. Recreation.gov and Business.USA.gov, for example, target specific user-groups and help them find information without needing to know which government organization produces the information. In short, government has made progress getting information to residents and others when they need to get permissions, find a service, field complaints, or book a recreational activity, although far more progress is possible.

We still need to make progress explaining what government does, how, and why to boost accountability and trust, however, and we need to figure out how to collect and share information in more meaningful ways with field offices, delivery partners, those making choices based on government-supplied information, and policy-makers. Further, we need to build the evidence in this area – designing, testing, assessing, and adjusting how we

communicate performance information to target audiences, both those in the delivery system or consumers of government-supported services, so they make better decisions and take smarter actions.

3. Building understanding of performance and evidence-informed management and the capacity to do it, tapping expertise from across and beyond government

Although the numbers are growing, too few people in government understand what performance and evidence-informed management is, why it is important, and how it can help. In the federal government, when you say "performance management," most people think you are talking about personnel appraisals, ratings, and rewards. If you "google" performance management, the advertisements that rise to the top pertain to human resource management, not operational performance improvement. It is not surprising, then, that many employees fear the idea of performance management, while others resent or ridicule it. Similarly, if you say "evidence," legally-minded people are most likely thinking about a very different type of evidence, while even evidence advocates tend to hold very different definitions in their minds.

While knowing the words are not important, understanding and embracing the key concepts is. We need to learn how to build understanding and capacity to manage this way, and increase its rate of uptake. We also need to learn how to integrate multiple analytic tools and expertise – tapping expertise from multiple disciplines including statistics, operations researchers, quality management, epidemiology, economics, risk management, and evaluation – to improve performance on specific goals.

4. Constructive comparison

Fair comparisons can be hard to do, but they are incredibly valuable. They support the search for more effective and cost-effective practices worth trying to replicate and, if successfully copied, promote for broader adoption. In addition, they can reveal possible problem areas in need of attention. Comparative data can also inform individual choice, such as the search for a neighborhood in which to live or the Department of Motor Vehicles office to visit to get a license.

Comparisons across different governments can be hard because governments tend to organize their work and data in different ways. What analytic methods can governments use to generate fair comparisons to aid the search for successes and problems? Can trend comparison be used, for example, and in what circumstances? What other analytic and data display practices could help field offices and governments learn from others' experience? We need to build knowledge and skills in constructive comparison.

5. Spreading success

Identification of better practices does not necessarily result in their adoption. People not only need to find more effective and cost-effective practices, they also must want to promote their adoption. A growing body of research on knowledge and practice diffusion

suggests ways to spread success within and across organizations. Whether or not people in government are aware of the findings and know how to put them into practice is another question.

Appendix:
"Bright Spots" in Government Performance Reporting

In their book, *Switch, How to Change Things When Change is Hard*, the Heath brothers recommend: Follow the bright spots. Investigate what's working and clone it.[1] Here are some performance reporting bright spots I have found that it would be good to see more governments clone. Please let me know about others.

I. Montgomery County
https://reports.data.montgomerycountymd.gov/countystat

What I like
- ✓ Priority (8) outcomes-focused objectives that are easy to find and understand
    - o Each objective links to a suite of indicators
    - o Indicators are color-coded and marked with an icon check, arrow, or plus mark indicating whether trending in right direction
    - o Benchmarking objectives – county trends compared to regional and national trends
- ✓ Every major county department shows:
    - o County Priority Objective(s) department supports
    - o Department "At A Glance" information including its mission statement, and what the department does and for whom, broken out by division, plus budget and headcount information
    - o Suite of key performance indicators broken down into two categories: (1) headline indicators and (2) regional and sustainable leadership indicators
        - ▪ For each headline indicator, site explains: why indicator is important, factors contributing to current performance, factors restricting performance improvement, and performance improvement plan
        - ▪ Responsive and Sustainable Leadership (including overtime, workplace injuries, succession planning, plus a variety of environmental and internal audit metrics) captures
- ✓ Smaller offices provides an overview of the office's mission, core functions, activities, and performance measures and a graphical view the office's performance data
- ✓ Links to county data sets, budget information, and spending information
- ✓ Calendar of CountyStat meetings, noting which are public and allowing on-line RSVP

II. Fairfax and Fall River
http://www.fairfaxcounty.gov/homeless/

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[1] The Heath brothers uses this term in their book, *Switch: How to Change Things When Change is Hard.* For a summary of the concepts, see http://heathbrothers.com/download/switch-framework.pdf

What I like
- ✓ Cross-government collaboration on outcome-focused goal (homelessness)
- ✓ Lays out short and long-term plans
- ✓ Created campaign to enlist and engage the public
  http://www.fairfaxcounty.gov/homeless/build-a-village/
- ✓ Describes trends and snapshots for different sub-groups for better understanding of key characteristics that may affect design of government action; describes government actions being used to affect outcomes
  http://www.fairfaxcounty.gov/homeless/point-in-time/pit-2016.htm
- ✓ Describes strategies and explains why they were chosen, including experience when used in other communities
  http://www.fairfaxcounty.gov/homeless/housing-first.htm

III. Virginia
Government-wide:

  http://vaperforms.virginia.gov/Scorecard/ScorecardatGlance.php
Specific problem:

  http://vaperforms.virginia.gov/indicators/publicSafety/crime.php
These sites are run by the Council on Virginia's Future, an organization headed by the Governor which includes legislators and community representatives as its members, established in 2004 to develop a vision and long-term goals for Virginia's future and tasked with developing a performance leadership and accountability system for state government.

What I like
- ✓ Succinct summary of full suite of state's priority outcome indicators, showing those trending in right direction and those that are not, plus strength of state's ability to influence outcomes
- ✓ For each indicator, explains why the indicator is important, how the state is doing (broken down into subsets), discussion of the factors influencing the indicators of interest, how much the state can affect the indicator, and state programs trying to influence the outcome

IV. New York City 2005 and today
2005 Mayor's Management Report
  http://www1.nyc.gov/assets/operations/downloads/pdf/mmr/0905_mmr.pdf
  (See printed pp.3-11, PDF pp. 11-21 pertaining to the Department of Health an Mental Hygiene.)
What I like
- ✓ Outcomes-focused statement of high-level goals (Key Public Service Areas) and objectives (Critical Objectives) that are easy to understand and resonate as higly relevant (printed p.3, complemented by specific (how much of what by when) targets in tables and graphs in rest of agency report.
- ✓ Clearly identified leader responsible for progress on the goals and objectives (e.g., printed p. 3).

- ✓ Trend graph showing long-term trends (1993-2004) over many years along with dates of major agency action, suggesting (although not proving) how government action might have influenced outcomes (smoking prevalence graph on printed p.4.)
- ✓ Trend graph showing multi-year progress (1999-2004), as well future goals set by the city and others (e.g., on printed p.5), all on the same chart.
- ✓ Progress update on all objectives, and planned next steps described for each objective.
- ✓ Priority-setting explaining why goals were set (e.g., on printed p. 4, Promoting health initiative based on significant health findings)
- ✓ Comparative performance data looking at other major cities (e.g., for syphilis rate, printed p.6)
- ✓ Narrative describing historic trends and suspected causal factors.
- ✓ A chart showing trends and targets for key objectives (printed p. 7).
- ✓ Trends pertaining to demand side, including patterns in 311 calls, trends and most common types of calls (printed p.11).

New York City current sites
http://www.nyc.gov/html/ops/cpr/html/home/home.shtml (Go to home page and then pick an agency performance reports, such as the Department of Health and Mental Hygiene.)
What I like
- ✓ Can quickly see trends on key indicators and which ones are trending in wrong direction
- ✓ Compares mid-year to same time previous year

https://data.cityofnewyork.us/report/pmmr/collaboration (Click on Vision Zero tile)
What I like
- ✓ Cross-agency collaboration with agencies contributing to goal clearly identified
- ✓ Outcomes data shown in easy-to-read table
- ✓ Describes activities being taken to improve outcomes
- ✓ Links to more detailed descriptions of progress

http://a816-dohbesp.nyc.gov/IndicatorPublic/QuickView.aspx (neighborhood benchmarking)
What I like
- ✓ Provides descriptive outcomes and causal factor data for each neighborhood in the city, making clear how it compares to other parts of the city, to the borough, and to city neighborhood with the best statistics

V. U.S. federal government
https://www.performance.gov/clear_goals?page=1&stra_goal=0&prio_goal=1&fed_goal=0&goal_type=APG#goals

What I like
- ✓ Shows outcomes-focused goals and objectives for all federal government Cabinet departments and other major agencies, sortable by type of goal (2-year implementation focused priority goals and longer term strategic goals and objectives)
- ✓ Goals sortable by budget theme

https://www.performance.gov/node/92581#overview (college attainment)
https://www.performance.gov/node/40362/overview#overview (patent processing)
https://www.performance.gov/content/reduce-number-foodborne-salmonella-illnesses-are-associated-usda%E2%80%99s-food-safety-and-0#overview (salmonella)

What I like
- ✓ Identifies goal leader
- ✓ Explains goal and why it was chosen
- ✓ Explains strategy and why it was chosen
- ✓ Shows trends for performance and other indicators and milestones achieved
- ✓ Describes recent progress and problems (see, for example, salmonella goal) and factors affecting the progress
- ✓ Describes planned next steps

https://www.performance.gov/content/cybersecurity#overview
What I like
- ✓ Same as previous list plus
- ✓ Supports cross-agency coordination

VI. Informs individual choice: Australia schools
https://www.myschool.edu.au/

What I like
- ✓ Enables fair comparisons to be made among schools serving students from similar socio-educational backgrounds

VII. Mapping suggests relationships
http://www.ph.ucla.edu/epi/snow/snowmap1_1854_lge.htm

What I like
- ✓ Mapping can reveal geographically based causal factors
- ✓ Mapping can inform location-linked choices

VIII. Time Patterns (private sector example)
https://www.google.com/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#q=main%20street%20cafe%20concord

Consider the many ways government might be able show time patterns of service utilization as Google is now doing for restaurants – parking lots, DMV offices, etc.

What I like
- ✓ Showing time patterns can inform individual decisions about when to use government services. This could lead people to shift their use of services to lower-demand times and possibly reduce frustration by establishing more accurate expectations for the likely wait time.