



Bridging the Gap Between Agencies and Citizens:

Performance Journalism offers a practical solution to communicate performance results

Abstract

Performance measurement is an evolving field that has gained momentum particularly with the call for enhanced accountability that many transportation organizations are facing. The measures that public agencies use to evaluate their performance have evolved into sophisticated tools for agency management. While these tools have been refined, the methods for effectively communicating results to audiences outside the agencies have not. There is a large gap in the performance measurement and reporting literature about the effective communication of performance information. Ineffective communication does little to build credibility, leads to information asymmetry, and can increase public dissatisfaction, reflected as anti-tax sentiments and growing funding shortages.

The Washington State Department of Transportation (WSDOT) has been using its Performance Journalism approach to communicate performance measures and results to a diverse audience including the public, the media, and policy-makers. This well tested approach has proven effective as it helped support two gas tax increases and helped defeat an anti-tax initiative. WSDOT developed Performance Journalism based on experience gained over six years of reporting comprehensive transportation system performance information in the agency's quarterly performance report, Measures, Markers and Mileposts, also referred to as the Gray Notebook. Effective communication of performance information is more than just publishing data and text. It requires an agency to tell its story and apply both analytical and journalistic methods. These requirements are embodied in WSDOT's Performance Journalism principles. This paper offers a viable method for effective performance communication that can be used by any public agency and practitioner.

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Bridging the Gap Between Agencies and Citizens

Performance Journalism as a Practical Solution to Communicate Performance Measures and Results

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Performance measurement is an evolving field that has gained momentum, particularly with the call for enhanced accountability that many transportation organizations are facing. The measures that public agencies use to evaluate their performance have evolved into sophisticated tools for agency management. Although these tools have been refined, the methods for effectively communicating results to audiences outside the agencies have not. There is a large gap in the performance measurement and reporting literature concerning the effective communication of performance information. Ineffective communication does little to build credibility, leads to information asymmetry, and can increase public dissatisfaction, reflected as antitax sentiments and growing funding shortages. The Washington State Department of Transportation (Washington State DOT) has been using its performance journalism approach to communicate performance measures and results to a diverse audience including the public, the media, and policy makers. This well-tested approach has proved effective; it helped support two gas tax increases and helped defeat an antitax initiative. Washington State DOT developed performance journalism on the basis of experience gained during 6 years of reporting comprehensive transportation system performance information in its quarterly performance report, *Measures, Markers and Mileposts*, also referred to as the Gray Notebook. Effective communication of performance information is more than just publishing data and text. It requires an agency to tell its story and apply analytical and journalistic methods. These requirements are embodied in Washington State DOT's performance journalism principles. This paper offers a viable method for effective performance communication that can be used by any public agency and practitioner.

The Washington State Department of Transportation (Washington State DOT) has successfully used the principles of performance journalism as its fundamental communication strategy since 2001. This approach was initially implemented by the former secretary of transportation, Douglas MacDonald, as a strategy to cope with poor public credibility. Press reaction to the agency's quarterly performance

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report, *Measures, Markers and Mileposts*, also referred to as the Gray Notebook (GNB), indicates that the approach successfully changed the perception of Washington State DOT from an agency plagued with “waste and mismanagement” to one that is accountable for its actions.

In regard to the GNB, one reporter writes, “What’s notable is the department holding itself to a standard of accountability, a report card that offers no place to hide if there’s a slippage from one quarter to the next” (1). Public confidence is evident from the approval of two funding packages totaling \$14 billion and rejection of a citizen-led initiative to rescind one of these packages, the first time in state history that a tax decrease was defeated by voters.

FAILURE TO COMMUNICATE EFFECTIVELY AS THE CULPRIT

Even without statutory [e.g., the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (2)] requirements, there is evidence that it is in the best interest of agencies to collect and, more important, to report performance measurements and results. The New Public Management (NPM) movement enjoyed widespread adoption, particularly after the Clinton administration endorsed it in the Reinventing Government program led by Vice President Al Gore. NPM assumes that even when agencies are performing well, citizens can still be dissatisfied with agency performance (3). This dissatisfaction is due to information asymmetry, which can be corrected through citizen education. Information asymmetry is a state of imbalance between what an agency knows about its performance and what the public knows about the agency's performance. A state of information asymmetry occurs when an agency's performance information is not effectively communicated to appropriate audiences. One study found no correlation between input, output, or outcome measures and citizen satisfaction (3). Some argue that dissatisfaction is due to citizens not understanding the message (4). However, the solution is telling the story and providing information in a format that allows citizens and policy makers to understand the message. The onus is on the agency to effectively communicate its performance and solicit citizen input. A more detailed discussion of the literature and an analysis of these concepts are available in Bremmer and Bryan (5).

This paper's definition of “citizens” is broad and includes legislators, the media, institutions (private, public, and nongovernmental organizations), and individuals. This definition of “citizens” is based on the principle of accountability. Political science scholar Luigi

Manzetti writes, “Accountability is usually understood in political science as the act of informing about one’s actions and answering and taking responsibility for them” (6). The definition of “citizens” uses this understanding of accountability, with agencies providing information about their actions to those to whom they must answer: legislators, the media, institutions, and individuals.

Agencies do not lack knowledge about those to whom performance measures should be communicated. One study discovered that two-thirds of state agencies use the strategic planning process to identify stakeholders and constituents (7). Agencies know the audience they need to reach. The problem is that citizens do not understand the message. With the role of administrative agencies as technical experts, information communicated to citizens may be too complex or technical to be easily understood. Even so, the primary challenge for effective communication of performance measures is the method of delivery, not necessarily the measures themselves. This hypothesis is consistent with Walsh, who notes that consumers of public services are in a paradoxical position when it comes to information—those who need information the most are often “least able to judge the service that they get because they lack the resources for evaluation” (8).

In other words, agencies must do more than just publish performance information. The communication of performance information must be done in an effective manner that provides citizens with the tools that they need to understand and evaluate the data that are presented to them. No amount of performance information is useful if the audience that it is directed toward is not getting the message, and the problem of information asymmetry persists. It is the effective communication of performance measures that is crucial to agency credibility.

Current Knowledge About Performance Reporting Is Limited

There is an extensive literature that addresses the development and implementation of performance measurement systems and citizen participation in the process, yet the literature is devoid of information about the communication of these measures and their results. Previous work has noted that a complete performance measurement system includes a system for communicating effectively, but points to the lack of guidance for doing so (9).

In this research, two popular social science electronic databases were queried that broadly index literature in public administration, political science, sociology, and psychology as well as other fields of social science. As of June 2007, there were no articles in either database with the key words “performance measurement communication” or “performance communication” in the citations or abstracts. Having exhausted the social science literature, the authors turned to an index of communications journals with the same key word queries. This effort was also unsuccessful in that it did not yield articles that address the communication of public agency performance information.

Performance measurement textbooks for public administrators are of little value in learning how to effectively communicate results to citizens. The review of several texts discovered extensive coverage on topics such as benchmarking and measuring inputs, outputs, and outcomes. Some of these texts have chapters devoted to measurements that are applicable to specific types of agencies such as municipal or health care agencies. However, no advice or strategy to communicate the measures once they are collected and computed was found (10–16).

The Association of Government Accountants’ Certificate of Excellence in Accountability Reporting program offers some guidance with respect to content (17) and design (18) of performance reports. Another similar resource is published by the Government Accounting Standards Board. Although helpful, the materials do not provide training or detailed guidance for the practitioner.

Clearly, there is little practical guidance for practitioners who want to effectively communicate their agencies’ performance to citizens. This paper posits that there is a significant research need and a lack of useful information that bridges the communication gap between agencies and citizens and offers a practical approach.

Performance Journalism as a Method for Effective Performance Communication

Washington State DOT’s performance journalism approach centers on seven key principles that guide the communication of all agency performance results. Washington State DOT uses its GNB, as its central report. It is the basis for many forms of performance communication through the web; through printed media, such as folios, brochures, papers, and press releases; or through oral presentations. The GNB is directed toward a wide audience including the public, the media, the governor, the legislature, and national and international transportation partners.

Production of the GNB began in the spring of 2001. Before that time, Washington State DOT collected extensive data, but did not communicate performance results; thus, the agency was facing a crisis of public, legislative, and executive confidence. The intent was to increase public credibility by communicating performance to ensure accountability and transparency. These efforts contributed to two funding increases (following more than a decade of no new funding) and significantly enhanced credibility in the eyes of the public. These positive results encouraged Washington State DOT to analyze, summarize, and share the performance journalism factors that supported this important credibility gain.

The Washington State DOT journey began with research into how other state departments of transportation, as well as other public agencies, nationally and internationally, were reporting performance; and that process continues today. Washington State DOT keeps evaluating and testing best practices for effective performance reporting by reviewing the work of its peers, both nationally and internationally. Looking at many varying approaches, examples were selected that displayed rigor of analysis, clarity of description, or effectiveness of graphical format. No approaches or reports that embedded all the needed factors were found, but elements were identified that could be further enhanced. In addition, staff incorporated the work of Tufte (19–21) for effective presentation of quantitative data. It was and is an iterative process, and varying approaches were tried and tested. The key elements of clear writing and storytelling, effective graphic presentation of data, and rigorous data analysis and data quality control are the foundation for the following seven principles of performance journalism and for all subsequent agency performance reporting:

- Good stories combined with good graphics,
- Good writing,
- Good data,
- Good graphics,
- Good format and presentation,

- Quality control, and
- Good timing.

PRINCIPLES OF PERFORMANCE JOURNALISM

Principle 1. Good Stories Combined with Good Graphics—Narrative Reporting to Tell the Real Story

Many performance reporting efforts use limited text to accompany the data that are presented as graphs, tables, and charts. These efforts are missing an important opportunity to tell citizens the story that underlies the particular data and performance reports. A program, together with its key challenges and external as well as internal factors, trends, and other supporting or comparative data, is explained with the narrative reporting approach. For example, project delivery data may indicate a decline in on-budget performance; however, cost overruns may be attributable to a tripling of the cost of construction materials. Explaining these factors is at best difficult and at worst impossible via a table or graph alone.

Narrative reporting requires discipline. A proper balance must be struck between the urge to be too brief and the urge to provide an overlong narrative. Clear, concise, unbiased writing using the what, why, who, and when approach is the key to this first princi-

ple. Trivializing issues, using vague descriptions, avoiding candor, or burying the result in bureaucratic jargon must be guarded against. Interactive and web-based dashboard-type reports are becoming more popular because they offer an easy-to-view, roll-up summary of results. Most of these approaches and related software should be flexible enough to accommodate good storytelling by providing “click-down” paths that lead to relevant and detailed narratives.

Narrative reporting takes time and effort. Investigating a problem underlying a particular result and digging into the organizational issues take tenacity and skills not unlike those needed to be an investigative reporter. Hard questions have to be asked, organizational barriers and silos need to be overcome, and superficial or canned answers need to be rejected. “Why was a project late? why did we fail our maintenance targets? why is this transit run consistently late? why is this district always on budget compared with others?” But identifying the underlying issue is just the beginning. Crafting a paragraph that explains results clearly and concisely takes discipline and time. Writing it can take many more hours than gathering and analyzing the data itself. These journalistic aspects of performance reporting and telling the story are key and yet are the aspects that are often omitted in performance reporting.

Although it is tempting to use narrative reporting to tell only the story of what went right, it is just as important to tell the story about what went wrong. Figure 1 shows an example of a report that was

A Perfect Storm: WSDOT Learns From Its Mistakes

WSDOT’s Winter Maintenance programs have continued to develop over time in order to improve road conditions when severe winter weather strikes; however, on November 27, 2006, a series of winter weather conditions hit the central Puget Sound region that ended up temporarily paralyzing drivers on highways and local roads in some of the worst conditions possible. The situation brought forth an opportunity to evaluate Winter Maintenance performance and where improvement was needed.

WSDOT utilizes a private weather forecasting organization throughout the year in order to prepare for severe inclement weather. Predictions called for one inch of snow, followed by rain/snow mix. WSDOT usually uses a sand mixture to improve traction when conditions include snow and rain mixes. Unfortunately, below freezing (32°F) temperatures and four additional inches of snow arrived. The storm hit central Puget Sound beginning at 4:00 pm, the traditional start of rush hour.

The last complication came after 10:00 pm, when a Monday Night Football game ended at Qwest Field in Seattle. More than 50,000 people immediately entered the freeway system, and were quickly isolated in congestion and decreasing temperatures. Some ended up spending cold evenings in their cars before weather conditions let up enough for WSDOT and King County maintenance vehicles to improve conditions.

After the storm WSDOT publicly addressed its maintenance performance and indicated where it could improve. Although all plows were operational and sand and deicer were well stocked, WSDOT learned that these tools are only effective when storm conditions are analyzed correctly. WSDOT must also accurately communicate to drivers about commutes, driving conditions, and preparedness recommendations. Such changes were implemented in a storm that arrived later in the winter season, with better performance results.



On November 27, 2006, a snow and ice storm paralyzed central Puget Sound. WSDOT’s maintenance efforts fell short, but gave the department an opportunity to learn and improve performance.

FIGURE 1 Telling the story: example of candid narrative reporting.

used in the Washington State DOT GNB March 31, 2007, edition. The example illustrates the approach to reporting “the good, the bad, and the ugly.” Although this narrative focuses on mistakes, it provides an opportunity to let the audience know that the agency learned from its mistakes. Candor builds credibility and is an important part of transparent reporting.

**Principle 2. Good Writing—
A Reader-Friendly Approach**

Performance journalism requires authors to use good writing skills in relaying the narrative stories described in Principle 1. Plain English that is clear, concise, and free of industry jargon is essential to effectively communicate to citizens. Complex policy issues, technical problems, and engineering challenges must be translated into easy-to-understand text. Washington State DOT’s simple test for meeting the good writing principle is “Could someone (i.e., your mother) take that information presented in graphical and text form and explain it to her next door neighbor over the weekend barbeque?”

Hence good writing does not mean “dumbing down” the narrative and does not require an agency to follow the seventh grade writing standard that some advocate. Agencies need to respect the intelligence of their audiences. The fact that the public may not understand an issue is more often attributable to poorly written material and content than to a lack of capacity to understand.

Clear writing has become an agency priority at Washington State DOT. For instance, environmental documents are prepared using guidelines developed and published that make them reader friendly using the Reader Friendly Document Toolkit and approach (23).

Statewide, Washington Governor Christine Gregoire signed Executive Order No. 05-03, titled “Plain Talk,” which directs agencies to communicate using clear, concise language.

Figure 2 shows an example of Principle 2. Note how the “before” text, which was full of complex, technical jargon, was translated into text that satisfies the good writing principle.

Principle 3. Good Data

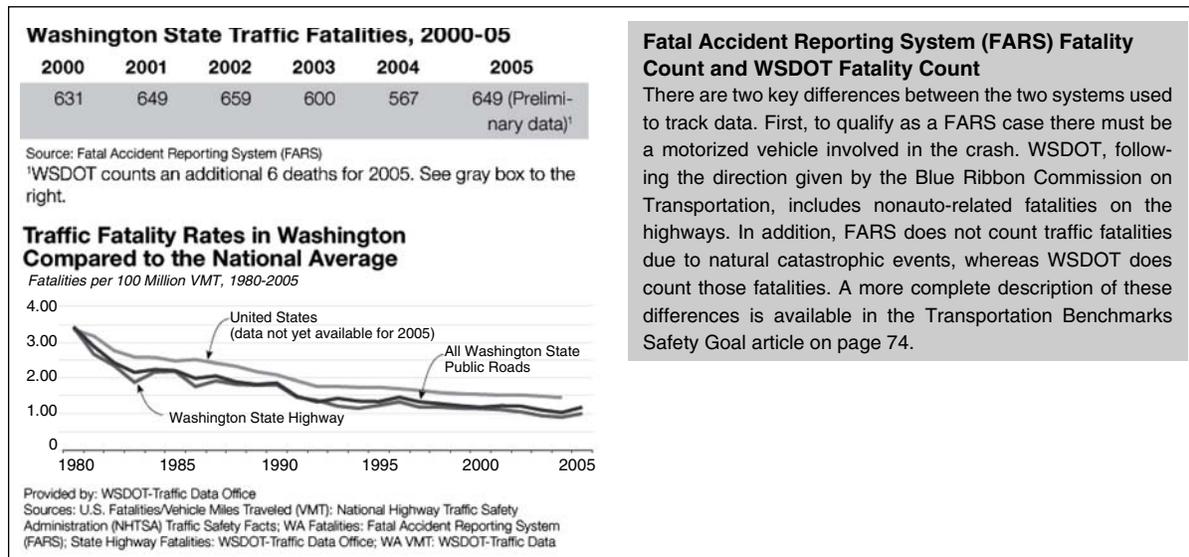
Data form the basis of an agency’s performance report. Thus, it is critical that agencies apply the highest standards for data analysis. This requires critical thinking skills and an unyielding pursuit for data integrity and quality. At the same time, agencies must balance the need for data perfection against a need to publish in a timely manner (see the principle of good timing described later).

Some may have the tendency to be overcautious when using and publishing data. Their preference may be to gather additional years of data before being comfortable enough to publish. Be prepared to push back while respecting those concerns. At the same time, address the issue of incomplete data or data limitations in the performance report by providing detailed footnotes or paragraph text. If data are likely to change, describe them as preliminary.

For example, Washington State DOT explains differences in fatality data due to procedural differences between two data collection systems. The need to publish these data is politically important and cannot wait. Figure 3 shows the principle of good data. The fatality data are presented in tabular and graphical form, with a comprehensive yet readily understood explanation of a discrepancy in the data methods.

<p>Before - First Draft Intersections that are projected to operate with especially long delays or overcapacity during the PM peak hour are identified as “congested intersections.” These intersections are those that operate under LOS F conditions (average vehicle delay of greater than 80 seconds) or ICU greater than 100 percent. Congested intersections are further identified as “highly congested” if they exceed 110 seconds of average vehicle delay and have an ICU of greater than 110 percent.</p>	<p>After - What Printed What are congested and highly congested intersections? Congested intersections are intersections that cause drivers considerable delay. A driver might wait between one and two minutes to get through a traffic signal at a congested intersection. At a highly congested intersection, a driver might wait two minutes or more to get through the traffic signal.</p>
<p>Before - First Draft <i>SR 4, Svenson’s Curve - Realignment</i> This project is on hold as the result of a recent court ruling. Wahkiakum County Circuit Court ruled against WSDOT’s necessity to take an entire adjacent parcel for use as a construction waste site for an estimated 80,000 cubic yards of excess excavated soil material. The advertisement date has been deferred to the 2015-2017 biennium, providing time to 1) investigate potential alternative waste sites, 2) determine right-of-way and construction cost impacts, and 3) if required, secure additional funding. It is projected that the right-of-way and construction costs will be higher as there are very limited options for other nearby potential waste sites. When final cost impacts are determined, WSDOT will ask for legislative direction on whether to proceed with the project.</p>	<p>After - What Printed <i>SR 4, Svenson’s Curve - Realignment</i> The advertisement date has been deferred from January 2006 to April 2012. The project is on hold as the result of a recent court ruling against condemnation for an entire adjacent parcel needed as a construction waste site for an estimated 80,000 cubic yards of excess excavated soil material. The deferral is necessary to provide time for investigating alternate waste sites and determine right-of-way and construction cost impacts. It is projected that the right-of-way and construction costs will be higher as there are very limited options for other nearby potential waste sites. When final cost impacts are determined, WSDOT will ask for legislative direction on whether to proceed with the project.</p>

FIGURE 2 Example of good writing.



Fatal Accident Reporting System (FARS) Fatality Count and WSDOT Fatality Count

There are two key differences between the two systems used to track data. First, to qualify as a FARS case there must be a motorized vehicle involved in the crash. WSDOT, following the direction given by the Blue Ribbon Commission on Transportation, includes nonauto-related fatalities on the highways. In addition, FARS does not count traffic fatalities due to natural catastrophic events, whereas WSDOT does count those fatalities. A more complete description of these differences is available in the Transportation Benchmarks Safety Goal article on page 74.

FIGURE 3 Example of good data application (23).

Principle 4. Good Graphics—Telling Stories and Asking Questions

Quantitative and narrative reporting are vital elements in performance journalism. The quality of charts, graphs, and visual tools are important components in telling the story. As such, graphs should clearly communicate results and lead the reader to further engage with the material by asking questions of the provided data and related narrative text. Proper use of graphics can convey a large amount of information in a very small space. Data should be clearly presented to allow the reader to grasp them very quickly and correctly. All too often, though, the format of graphical presentation is such that the message is confusing at best or, at worst, lost altogether. In general, graphics meeting the requirements described above

- Are quickly comprehended and understood by the reader;
- Are relevant to the data and topic;
- Are formatted with a sense of balance, proportion, and clarity of design;
- Can stand on their own (without accompanying text) if lifted from the page;
- Have data, analysis, and scale integrity; and
- Answer some fundamental questions.

The general methods that Washington State DOT's GNB uses for effective charting and graphing and for presenting visual performance information are described in the following subsections.

Formatting Graphs

Formatting issues deal primarily with ensuring that the format and design of a graphic do not take away or distract from the content. The loss of a message because of the format or design has the same result as not publishing the information in the first place. The content should

be the first thing a reader sees; the format should not be noticed. For charts, this means that 90% of the chart's overall architecture and its components need to be devoted to the data themselves instead of "chart[ing] junk" (21). Uppercase text, fancy fonts, and drop shadows should be avoided because they are difficult to read. Picking the right data scale is important in getting a message across; it is also relevant in regard to graph integrity. Avoid the temptation to expand or minimize the scale to play up or play down particular performance results. If multiple graphs are used describing the same topic or data set, apply the same scale to allow the reader to move easily from graph to graph and draw conclusions based on a quick visual analysis.

In addition, three-dimensional (3-D) formatting should be avoided; it adds little value to the graph and makes reading data extremely difficult. Similarly, vertical (y-axis) labels should also be avoided. The intended audience generally does not walk around with their heads bent sideways, hence the use of vertical fonts violates common sense and good graphing rules.

Headings and Footnotes

The headings and subheadings of most graphs published in performance reports lack the clarity needed to allow the reader to quickly understand what the graph contains, what is important to know about the data, and what type of data are used. Conduct the following tests: Can the graph or table be clipped and pasted into another document, and would the information still be clear and transparent? Can the graph stand alone? Treat headings as headings describing text would be treated. Be succinct, yet clear. If the topic is complex, use multiple lines and subheadings to convey the information. Within seconds of viewing the page, the reader should understand the graph's content and purpose. Use footnotes liberally to explain data sources and anything else the reader needs to know to draw the right conclusions and understand the analysis and data limitations.

Limiting Use of Color

Although color allows for a nice, glossy print, most performance reports are posted to the web or shared over e-mail and are eventually printed or photocopied in black and white. Black and white with gray scaling is the best choice for publishing. Every chart needs to be readable in a photocopy or fax and, if in doubt, colors and shading should be tested on a copy machine before publishing. Gradient shades should be used to show incremental transitions in data or scale. Gray shading should be used consistently. Black or the darkest shade should be used for the most significant piece of data or the most current, with the caveat that the most significant piece of data may not always be the biggest slice. The lightest shades should be used for data with the least significance or data from a previous period.

Deconstructing and Reconstructing a Typical Graph

Spreadsheet software, though widely used, has some limitations. Do not give into the temptation to use the many formatting features offered in spreadsheet programs simply because they are available. Many of the formatting features violate good graphing principles. The following reconstruction of a typical graph is offered as an alternative. All of this can be done using standard spreadsheet software, and anyone with good spreadsheet skills should be able to replicate these steps.

Figure 4 shows a redesigned chart to illustrate some important good graphics principles. Simple steps that were used to improve the read-

ability of this chart include (a) removing figure label; (b) removing the background shading; (c) removing the outside box; (d) removing the 3-D effect; (e) removing some of the numbers on the left axis; (f) removing some gridlines and lightening them and removing tick marks on the bottom axis; (g) removing the legend on the right side of the graphic; (h) removing the unneeded totals data (comparing men versus women in income, so the totals are not relevant); (i) labeling bars and moving totals out of the bars; (j) strengthening the color by making the 1989 bar darker; (k) matching the headings (i.e., men versus male, and female versus women); (l) making the fonts more legible decreasing the emphasis on the chart reference; (m) rewriting the title; (n) deleting the subhead; (o) removing vertical/y-axis label and using as subheading; and (p) adding a reference for the source data.

Principle 5. Good Format and Presentation

The use of good formatting and presentation is an essential principle of performance journalism; the design of a report should entice the reader to engage with the material, allow a quick grasp of the message, and not distract from the content.

Use a Reader-Friendly Page Layout

Use a layout that does not overwhelm the reader by cramming too much data onto one page. At the same time, strive to present the critical information, text, and graphs adjacent to each other in as little

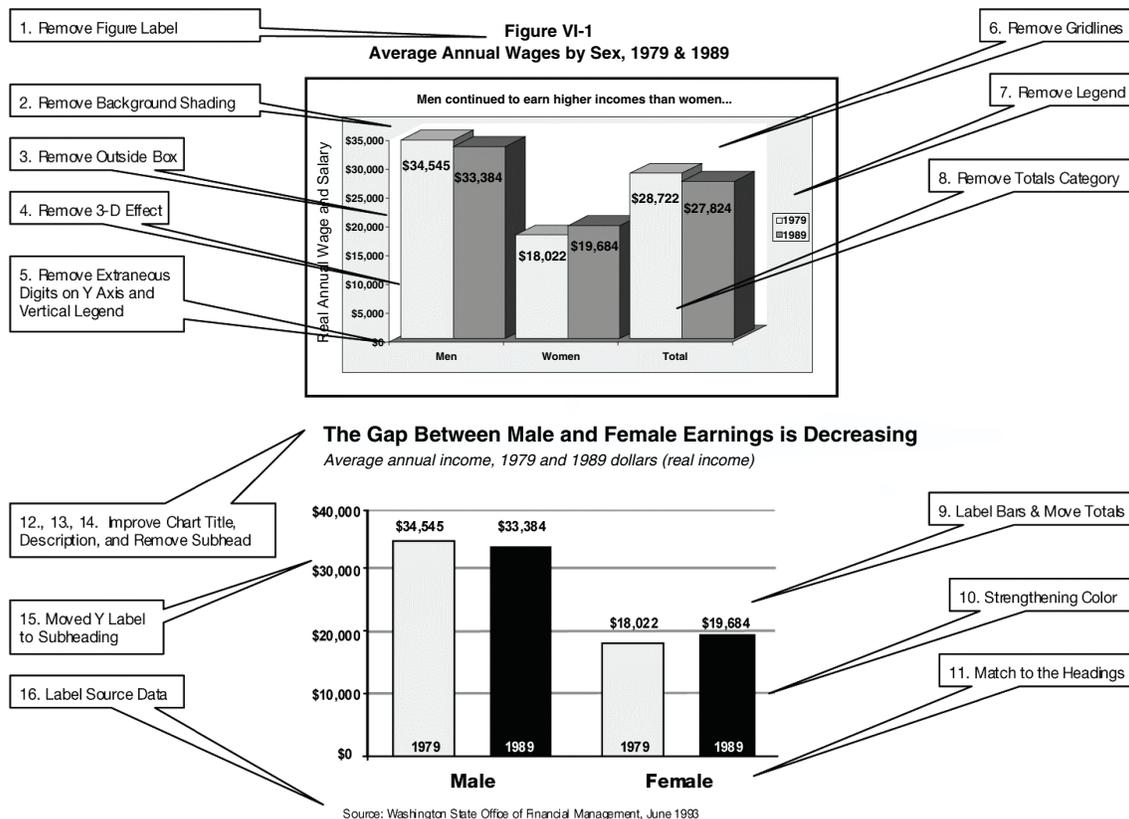


FIGURE 4 Revising graphical data to be reader friendly.

space as possible. Do not use multiple fonts or too many colors. Treat the page like expensive real estate, and use it wisely to share the most critical result and key messages. “What is it that the audience needs to know about a particular performance topic?”

Group Relevant Information Together and Avoid Reference Labels

Include text that explains a chart or graph on the same page. This prevents readers from having to flip between pages to find data that are being discussed in the narrative. The use of figure or table references, although possibly appropriate or required for academic material (such

as this paper), is not suggested. If, as mentioned under “good graphs,” the text that relates to a data set is placed close to the graph, no referencing system using Table # or Figure # is needed. When possible, use a photograph that can give the reader a further visual representation of a topic that is being discussed. If the topic is very technical or requires additional background material, use sidebars and text boxes near the graph and main text. Ask the question, “How should this page be planned to use and lay out text, data graphs, technical information, and photos in the most effective way to convey the message?”

Figure 5 is a page from Washington State DOT’s GNB. Notice how this layout includes graphical data, a narrative explanation, a sidebar, and a photo to illustrate the concepts in the article.

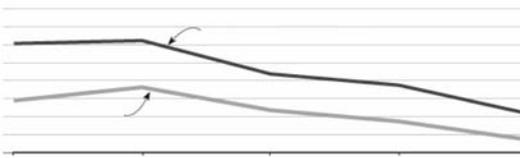
Highway Maintenance: Annual Update

Integrated Vegetation Management

Integrated Vegetation Management (IVM) is the program that manages plants along a roadway’s right of way for low maintenance costs and environmental rehabilitation. While most of the responsibility for this work is a component of maintenance, IVM is also dependent on how well roadsides are treated during and after highway construction projects. If roadsides areas are not well maintained and protected in the construction process, maintenance expenses over time tend to be greater due to the presence of unwanted vegetation. However, when soil is conserved and improved, and native vegetation is restored at the time of highway construction, the ongoing roadside maintenance requirements can be relatively low.

Herbicide Use Decreased by 42% from 2005
WSDOT’s primary measurement of herbicide use is by pounds of active ingredient. Herbicide use has decreased for the third straight year since 2003. In 2006 the agency’s statewide herbicide use for roadside maintenance decreased by 42% from 75,019 pounds in 2005 to 43,892 pounds in 2006. The majority of this reduction is a result of WSDOT’s efforts in eastern Washington to minimize the amount of vegetation-free ground along the edge of pavement. As of 2003, 60% of all WSDOT herbicide use was for maintenance of vegetation at the edges of pavement. In 2006, roadside herbicide applications had decreased to 14,823 pounds from 72,630 pounds in 2003, an 80% reduction from 2003. Research has shown that alternative (i.e., IVM) treatments at pavements’ edge can be effective with little or no herbicide.

Statewide Herbicide Use Trends 2002-2006



Data Source: WSDOT Maintenance Office
¹ Included in “Total Amount Used” line

University of Washington IVM Research to Aid WSDOT
WSDOT is continuing to refine its policy and practice for implementing IVM through an ongoing research project. Following research and investigation by the University of Washington in 2005, WSDOT is conducting documented field trials on alternative methods. Thirty eight sites were selected in 2006 to monitor costs and overall results of 19 alternative approaches for a 3-year period. More information is available online.
www.wsdot.wa.gov/Maintenance/vegetation/research.htm

In 2006, WSDOT adopted restrictions above and beyond existing federal and state legal mandates for herbicides use. This was done in response to an independently commissioned risk assessment of the application methods used on Washington State highway roadsides. These new WSDOT restrictions limit the types of herbicides allowed for use and implement buffers in and around sensitive areas. Additional information on WSDOT’s herbicide use policy is available online: www.wsdot.wa.gov/Maintenance/vegetation/herbicide_use.htm



Image of U.S. 12 east of Tri-Cities, where the roadside was constructed to establish native grass species.

FIGURE 5 Example of a good layout.

Principle 6. Quality Control as Credibility

The issue of quality control was briefly discussed in the section on good data. Quality control goes beyond ensuring that data are correct. It is also important to apply quality control to data with respect to reasonableness. Do the data obtained from different sources or years make sense? Is the data set consistent? Statistical testing, although helpful, is not absolutely necessary to check that data are consistent. The important skill is critical thinking and a good sense and eye for numbers.

Importance of an Audit Trail

Quality assurance also mandates keeping an audit trail of all data. A performance audit at some time in the future is virtually guaranteed, and keeping careful records of data sources will be helpful in responding to audit questions. At the very least, a systematic and efficient record-keeping system makes answering questions about the way performance measures are computed or why one method of measuring was chosen over another much easier.

Questioning Data and Text

Agencies must challenge assumptions and explanations for performance and understand data sources and their particular weaknesses or shortcomings. Performance reports must also be subject to quality control for consistent messaging. Are agency programs siloed or do they work collaboratively in ensuring good performance reports? Instilling a sense of shared responsibility so that everyone in the organization owns the results and has responsibility for accuracy is a key component of the sixth principle.

Performance Reporting: Not a Spectator Sport

Executives should be prepared to edit the performance report as needed. For example, Washington State DOT's former secretary, Doug MacDonald, and other executives were closely involved in editing the GNB. An example of his hands-on approach can be found at <http://www.wsdot.wa.gov/Accountability/Publications/PerformanceDocuments.htm>. Click on "Doug's Accountability Legacy" on page 4. Although not every CEO is able to conduct such detailed, hands-on editing, executive and upper-level management involvement is necessary. Upper-level managers should understand and be able to critically review data and text.

Principle 7. Good Timing—Leading, Not Following

Timing is everything. It is important to start performance reporting now and to report frequently and consistently. Do not yield to the temptation to delay reporting until a perfect data set is collected, a complete measurement program is developed, or a sophisticated IT system is installed. Washington State DOT's 100-plus-page GNB is published every quarter without automated data collection systems. Although it is more difficult to produce performance reports without automated data collection systems, it does not need to be a fatal flaw or handicap.

Public expectations and discontent have added a sense of urgency to the need to publish performance results, yet many organizations struggle with how to begin and how to sustain the effort once it is

under way. What to report is largely a function of what the agency is responsible for and what accountability needs exist. Questions to ask may include "What are we responsible for? what is important for us to know about our programs? what is important for the public or media to know about us? how do we know we are doing what we said we would do and are funded to do? what data do we have to support any of these questions?"

Although there is a sense of urgency, it is important to be selective. It is not necessary to start reporting everything immediately; rather, start small. Gradually cover all the most critical systems and delivery issues. For example, Washington State DOT's first performance report was published within 6 weeks of the arrival of the new secretary. Even though it was only seven pages long and addressed only two topics, worker safety and project delivery, it was an important message and symbol that Washington State DOT was going to be accountable. The media response was immediate. The agency had faced strong public ridicule and criticisms for lack of accountability before April 2001. Three months later, just after the second GNB was published, reactions were positive: "These reports are among the best I've seen in Washington state government for using performance measurement data to tell the agency's story" (unpublished data, The Washington State Office of Financial Management, July 2001).

Twelve months later, press response was overwhelmingly positive: "Accountability builds trust and candor removes mysteries, . . . the Gray Notebook is as addictive in the same manner as the copy of The Word Almanac" (1).

"*The Measures, Markers and Mileposts* (Gray Notebook) publication is education in action. If you are not checking this out, you are missing out" (unpublished data, Washington Highway Users Federation, May 2002).

In general, the more timely and frequently the performance information is published, the better. In today's environment, citizens and policy makers expect instant information and just-in-time delivery. Annual reports, although suitable for outcomes or indicators tracking, do not provide the agility to respond to changing public needs, emerging policy issues, and topics that gain media attention. A quarterly or, even better, monthly report allows agencies to use performance journalism to provide performance data and special updates on selected topics and emerging issues. For example, Washington State DOT was able to use the GNB as a venue to quickly respond to a public outcry over pesticide use by producing a performance article on the actual pesticide use and overall program.

Even if key performance areas such as congestion or pavement and bridge condition can be published only annually because of data availability, information on other topics, such as incident response or on-time performance of transportation services, can be published at least quarterly to establish a regular, public presence and accountability brand that people will readily recognize. For additional examples of these seven principles of performance journalism, visit Washington State DOT's GNB archives on the web at http://www.wsdot.wa.gov/Accountability/GrayNotebook/gnb_archives.htm.

GENERAL OBSERVATIONS AND LESSONS LEARNED

Resource Needs

Resource needs will vary based on content and reporting frequency. At Washington State DOT, the quarterly 100-plus-page data- and narrative-dense report involves four full-time employees (FTEs) with

an approximate salary of \$84,500 (including benefits and overhead costs) per FTE. This FTE level does not include the data collection requirements for the divisions that report data to the Strategic Assessment Office, in which the GNB is produced. To put the size of the agency into perspective relative to others, Washington State DOT had an operating budget in the 2007 to 2009 biennium of \$1.35 billion and a capital budget of \$4.56 billion (both for 2 years). Total FTEs number approximately 7,000.

Software for Reporting

Standard office software packages can be used and adapted to meet performance journalism principles and create effective communication tools for regular hard-copy reports, the Internet, or special publications such as folios and brochures. Some vendors offer various performance reporting software packages that produce standard reports and graphs. Although Washington State DOT has not specifically tested these products, many appear to lack good customized graphing and formatting options and have limited to no options for narrative text. Performance journalism principles can be easily applied to dashboard and other interactive, web-based performance reporting approaches as long as the underlying software is flexible enough to allow for narrative text and enhanced graphs.

The good news is that complex performance reporting software or an IT system is not needed to generate good reports. Washington State DOT uses widely available publishing and illustrating software for publishing its 100-plus-page quarterly report.

The Good, the Bad, and the Ugly

Do not hide bad news. Performance journalism is an agency's chance to tell its story first and do it the correct and complete way. This is especially true for sharing not so good news. Timely performance reporting allows agencies to control rather than be controlled by the headlines. Reporting the bad as well as the good builds credibility and trust. A report on a negative performance result can be just as powerful as telling a success story provided that an agency tells the story in a candid manner and provides a clear picture of what the next step will be to address a given situation. However, this is not meant to be a license to perform poorly. Consistent, good performance is a must for sustained credibility.

Performance Reporting as Iterative

Practitioners must be aware that performance measurement and reporting is not static. It is an iterative process that is continuously evolving to meet changing external mandates, policy priorities, funding scenarios, and internal management needs. Agencies should also expect that measures will change over time as performance tracking and analysis methods become more robust and established. Agencies have to be prepared to try to test different approaches to find the right balance in analyzing and communicating key issues.

Developing a performance reporting program may appear to be a huge project. Agencies may be tempted to abandon development of a performance reporting system because of the enormity of the task. The authors urge public administrators to start small, but start now. Recognize that additional performance measures can and most likely will be added as multiple information consumers become accustomed

to receiving performance information and request more (24). To use Washington State DOT's GNB as an example, the first edition had seven pages of content and has grown to more than 100 pages of content during a 3-year period. It continues to change to meet changing internal and external reporting needs.

CONCLUSIONS AND FUTURE WORK

This paper posits that public administrators must not just publish performance information; they should do so in a manner that effectively communicates this information to a broad audience collectively defined as "citizens." Effective communication of performance information goes beyond simply compiling and publishing data. It requires a communication style that captures and retains citizens' interest and then provides citizens with the necessary tools to understand the data that are presented. If citizens cannot easily understand the performance report that is produced, it will do little if anything to correct the problem of information asymmetry and the resulting lack of knowledge about agency performance. Public agencies are well advised to effectively communicate performance information in light of the current environment of ever-increasing demands for government services combined with declining funding.

Washington State DOT's strategy for effective communication of performance information is the result of more than 6 years of experience communicating transportation performance measures. The strategy employs seven principles, collectively called performance journalism, that proved successful in gaining public support for increased funding. The April 2007 comments of Gregory Nickels, Mayor of Seattle, provide a succinct summary of the results obtained from the performance journalism approach to performance reporting instituted by former Secretary Douglas MacDonald: "Under [Doug MacDonald's] watch Washington State increased funding for state highway projects to an unprecedented degree. He consistently emphasized accountability to the people of Washington State" (unpublished data). In light of the importance of effective performance reporting methods in correcting the problem of information asymmetry and in supporting cases for increased funding, it is hoped that the important work of researching, testing, and validating the effectiveness of various approaches will be done in the not-too-distant future.

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