# MUNICIPAL DASHBOARD
# PRACTITIONERS' HANDBOOK

1ST EDITION

# A HUGE THANK YOU TO OUR SPONSORS & PARTNERS:



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PROFESSIONAL DEVELOPMENT CENTER
UNIVERSITY of WASHINGTON | TACOMA

MRSC

# APPLAUSE FOR OUR FEATURED DASHBOARD CHAMPIONS:

CITY OF SEQUIM

CITY OF RENTON

Olympia

THURSTON COUNTY
WASHINGTON
SINCE 1852

CITY OF KIRKLAND
WASHINGTON

City of Redmond
WASHINGTON

City of Tacoma
WASHINGTON

# TABLE OF CONTENTS

## OUR FORMULA FOR GOVERNMENT IMPROVEMENT

Measures That Matter + Learning Conversations = Government Improvement

## OUR PURPOSE
We are a network of civic thinkers and government practitioners seeking to transform government from the inside out to support a world where more lives can flourish by design.

## OUR MISSION
Accelerate the effective use of data measures to inform improvement of municipal operations and service delivery.

## OUR GOAL
Catalyze and support an active and sustained learning community in performance improvement for local government practitioners by offering a set of common practice templates, tools and references as a basis for social learning and collaboration.

Government
Performance
Consortium

# Welcome to the GPC Municipal Dashboard Community of Practice

Dear Government Performance Enthusiasts,

Welcome to the GPC Municipal Dashboard Community of Practice! We are a social learning network for government practitioners seeking to transform government from the inside out by effectively using data to inform improvement.

Cultivating and sustaining measurable performance improvement in government takes more than just data, technology, and best practices books and guidelines. It takes an authentic learning community where people who share a concern or passion for doing this work can engage in regular interactions, share stories and resources, and learn how to do it better.

We believe that many public sector performance management programs and initiatives in the last three decades have not quite lived up to their promise because we did not fully grasp the importance of social learning, or peer-to-peer connections in the context of a community of practice, in helping people overcome barriers and sustain motivation in doing the hard work of measuring performance and improving results.

Thanks to our sponsors at the Washington State Auditor's Office, the University of Washington Tacoma, the Municipal Service Research Center and participation from our city and county partners, the GPC hosts a vibrant learning community in data-informed performance improvement. We convene leaders, managers, analysts and frontline staff in conversations about effective use of data measures and data visualizations to inform improvement of municipal operations and service delivery. We conduct research and produce open-source tools, templates and references to support practical learning and collaboration.

This book presents artifacts developed in the first three years of our collective learning journey to serve as a handy reference to our growing community of practitioners. Notable are original stories of data-informed performance breakthroughs told by leading practitioners in the field. As with our Strategies for a More Joyful Government (www.govjoy.com) book, this is a living document that continues to expand and deepen as a shared repertoire of useful and actionable examples, templates, tools and references in the practice of fact-based high performance government.

From our vantage point, we see the future of great government performance is already distributed among us. We are committed to advancing this future by helping more people see and learn from one another. Join our evolving network as we grow multitudes of communities of practice in joyful government excellence!

With love and sincere respect,
Larisa Benson and Chelsea Lei
Co-Creators of GPC

# Roadmap to Government Improvement

1. Establish clarity about what we are trying to accomplish.

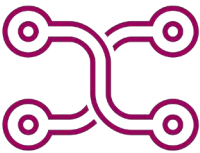2. Identify measures that matter to people doing the work.

3. Create an at-a-glance framework of key results and measures.

4. Start building dashboards with data we already have.

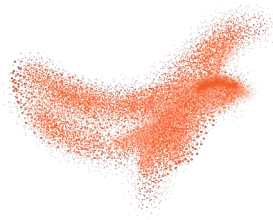5. Create a data development agenda to collect data we still need.

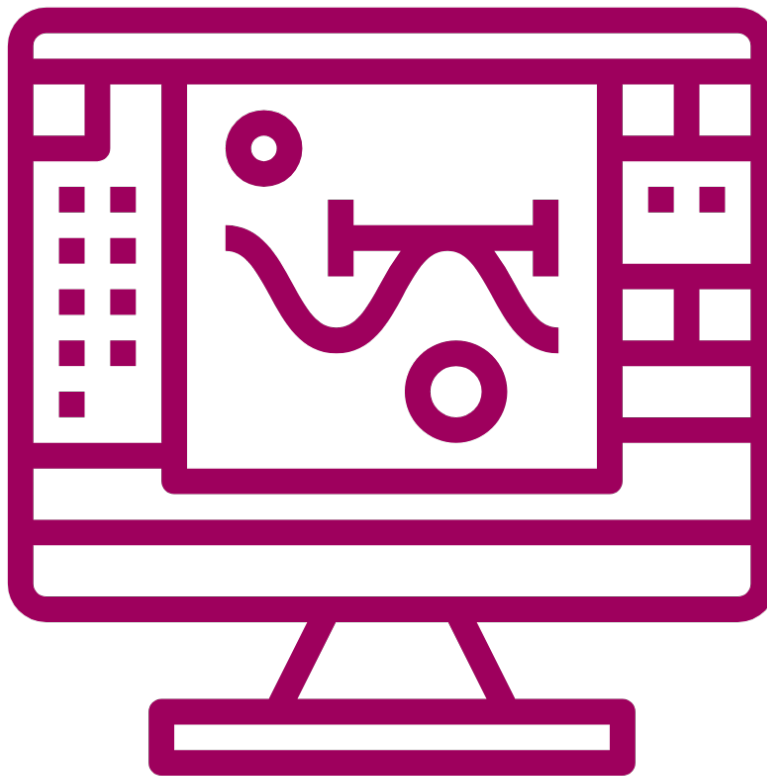6. Establish "data flow" to keep dashboards current.

7. Use data dashboards to inform conversations about improvement strategies to "turn the curve."

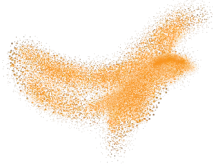8. Ask for help from peers who excel at what we are trying to accomplish.

# GPC Municipal Dashboard Project



IN THIS SECTION

# GPC Municipal Dashboard Project Overview

**By Chelsea Lei**

The Municipal Dashboard Project is a cross-jurisdictional research and practice collaboration hosted by the Government Performance Consortium. The purpose of our project is to accelerate the effective use of data measures to inform improvement of municipal operations and service delivery. Our goal is to catalyze and support an active and sustained learning community in performance improvement for local government practitioners by offering a set of common practice templates, tools and references as a basis for mutual learning and collaboration.

During the first two phases of the project (2015-2017), we produced the Municipal Dashboard of Community Indicators, a free and open-source template that any city or county can use to generate a working dashboard in Microsoft Excel to gain understanding about the communities they serve.

During the third phase (2018-2019), we created two model performance dashboard frameworks, the Municipal Finance Performance Dashboard and the Municipal Streets Performance Dashboard, and a standard group learning conversation method called "Clarity Clinic" that managers of any municipal agency or program can use to develop meaningful and actionable performance measures.

In the project's fourth phase (2019-2020), we will be working with a select group of leaders and senior managers to offer technical assistance and develop a gallery of data stories and examples as we continue to support an active Municipal Dashboard Community of Practice.

## How To Use This Book

Wondering where to get started? Great! We have some suggestions for you below.  And don't worry, you really can't go wrong no matter where you decide to start. You know your own organization best, and using data to inform and inspire continuous improvement is an evolving practice. So wherever you start, you're likely to visit this handbook again and again as you discover new opportunities and challenges along the way. You can:

- Get a big picture view of why and how by reading "Mastering Fact Based Government"
- Get inspiration and ideas from other governments like yours by reading the "Dashboard Champion Stories"
- Get clear on your purpose and measures that matter by using the "Clarity Clinic"
- Build your own performance dashboards by modeling after the "Demo Finance Performance Dashboard" or "Demo Street Performance Dashboard"
- Generate a dashboard for your city or county without starting from scratch by using the Municipal Dashboard of Community Indicators template
- Look for specific "how-to" tips and sample dashboards in the Dashboard Tool Kit section

**GPC Municipal Dashboard Project Open Source Folder Link:**
https://drive.google.com/drive/folders/1HKZgfL4U2wDXe6bp1V680v-lDXPQouGR
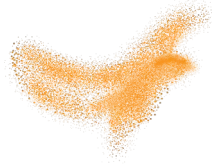
# GPC Municipal Dashboard of Community Indicators

**By Chelsea Lei and Chantal Stevens**

The Municipal Dashboard of Community Indicators is the Government Performance Consortium (GPC)'s recommended set of 32 core indicators for cities and counties to practice using in common in order to gain understanding about the communities they serve. This section offers an explanation of the dashboard and its associated MS Excel template and reference materials.

## What is the Purpose of a GPC Municipal Dashboard of Community Indicators?

There is an enduring and commonly expressed need among cities and counties in Washington State to learn from one another in pursuit of performance excellence through some method of comparison and benchmarking. Previous initiatives in response to this need were largely unsuccessful for reasons that include difficulties with identifying meaningful and comparable performance data, mandatory or pay-to-play participation, and premature focus on commercial technology platforms. Learning from past experience, the GPC seeks to offer a path forward that allows for voluntary and decentralized participation with minimal cost and technology barriers. Our strategy is to facilitate an incremental and practitioner-focused approach by convening one or more communities of practice dedicated to learning how to measure and improve performance, create continuous improvement cultures, and turn the curve on community conditions with results-based accountability.

## What Are Community Indicators?

A community can be described as a set of interconnected elements or parts forming a complex whole, itself a part of larger systems. Indicators are a representation of trends that places data about a community in a context to make it easily understandable and that is actionable. Community indicators use data to tell the story of a complex system by providing insight into the overall direction for things that matter to the public. For decision- and policy-makers, community indicators offer a glimpse of community life and conditions on issues that may be directly, indirectly or tangentially related to government programs, services or policies.

Tracking and understanding the living conditions in communities they serve allow cities and counties to predict and prepare for how residents might react to programs or services, identify what can influence or undermine the effectiveness of municipal services and programs, and determine where policy changes might be needed, or whether those changes could be having unexpected outcomes. When examined across jurisdictions, a common set of indicators supports strategic thinking and facilitates focused conversations around best practices and civic priorities among decision-makers, analysts and front-line staff.

## Examples of Community Indicators Projects

We noted the following community indicators projects in our 2017 research paper for the quality of their work and presentation, and their value in recognizing and highlighting community issues:

- ACT Rochester (www.actrochester.org)
- Austin and Travis County Community Dashboard (www.cancommunitydashboard.org)
- SA2020 (www.sa2020.org)
- Spartanburg Community Indicators Project (www.strategicspartanburg.org)

## What Is the GPC Municipal Dashboard of Community Indicators?

In May - October 2017, the GPC developed the initial concept and a working prototype of a Municipal Dashboard of Community Indicators in consultation with the Community Indicators Consortium and an Advisory Committee consisted of representatives from 17 Washington State cities and counties, and in partnership with the Washington State Auditor's Office, the University of Washington Tacoma, and the Municipal Research and Services Center.

As a concept, the GPC Municipal Dashboard of Community Indicators would provide an at-a-glance overview of major issues affecting how a community is doing in order to inform the work of cities and counties. Tracking and understanding the living conditions in communities they serve would allow cities and counties to predict and prepare for how residents might react to programs or services, identify what can influence or undermine the effectiveness of municipal services and program, and determine where policy changes might be needed, or whether those changes could be having unexpected outcomes. When examined across jurisdictions, a common set of indicators supports strategic thinking and facilitates focused conversations around best practices and civic priorities among decision-makers, analysts and front-line staff.

## What is the Community Indicators Dashboard Prototype?

The prototypical Municipal Dashboard of Community Indicators is a free and open-source do-it-yourself template in Microsoft Excel that automatically generates a working dashboard of community indicators for your city or county once the requisite data are entered based on specific instructions and reference links provided in the template. Build in MS Excel, a tool that all cities and counties have access to and frequently use, the prototype demonstrates potential features and functions of a shared practicing template.

The common municipal dashboard was created in the spirit of inquiry. We asked ourselves, "What learning becomes possible when there is a common set of indicators?" We invite practitioners to vigorously pursue this inquiry with us, participating actively in the evolution of the concept and the benefits of application through our community of practice.

**Open Source Folder**: https://drive.google.com/drive/folders/1IdcKEiduv8vJJFejubFkV_31ouvgj2-k

## How to Generate a Dashboard for Your City/County?

The community indicators dashboard template in Excel is intended as a learning tool. We hope you will find joy and learn valuable things in playing with this tool and also share your learning with our GPC community of practitioners.

To generate a dashboard for your city/county, first take a look at the At-a-Glance Dashboard examples for Kitsap County and City of Pullman. Imagine for a second an At-a-Glance Dashboard for your city/county.

Then, spend some time getting acquainted with the Excel workbook "GPCMunicipalDashboardPrototype_Template_V1".

Here is a quick overview of what's in the V1 Excel workbook:
- **Intro** tab contains basic information about this template.
- **Dashboard** tab presents an at-a-glance view of your city/county's community indicators once all requisite data are entered appropriately. You can click on each indicator and it takes you to its corresponding indexed tab.
- **Data Entry** tab contains the data table you will be working in for the most part. V1 comes with applicable US and Washington State data pre-filled for most indicators for at least one year. The rows colored in light blue are where you need to look up and enter the data for your city/county.
- **Indexed** tabs (A1, A2, etc.) pulls data from the Data Entry data table and produces automated analyses for each indicator, including comparison to Washington State and a trendline chart.
- **Reference** tab contains definitions, links to data sources, and explanations
- **Status** tab is programmed to work in the background, translating analytical results into symbols on the Dashboard.
- **YourWorksheet** tab provides a blank sheet for your data work.

Then, follow the step-by-step guidelines for data entry below. When you complete entering requisite data - voila! - you will have generated a Dashboard for your city/county!

| Step-by-Step Data Entry | |
|---|---|
| 1 | In the "Dashboard" tab, insert your jurisdiction's logo to the top right corner above the highlighted cell. |
| 2 | In the "Data Entry" tab, <br> Step 1. Enter the name of your jurisdiction in the top left cell (DataEntry!A1). <br> Step 2. Pick one domain or one of the indicators to start with, or simply work in the order of the indexed indicators. <br> Step 3. For each indicator, refer to the Reference Tab for definition and why it's important. <br> Step 4. Click on the Source URL cell for the each indicator and follow the steps outlined in the Steps for Data Retrieval cell. <br> Step 5. Enter the data for your city/county in the blue row under the corresponding year. <br> Step 6. Note how each indicator is preceded by an index (e.g., B3 for Price of Government). Click on the indexed tab corresponding to the indicator you are working on. |
| 3 | In the indexed tabs (A1, A2, ...etc.) <br> Step 1. Review the data table below the chart to make sure it picks up the data for the most recent years with available data. Adjust the data pickup formula if necessary (see below). <br> Step 2. Using the trend line as a visual aid, when available, select one of the options in the dropdown list next to "Multiyear Trend" based on whether the trend appears to be Improving, Maintaining, Worsening, or NA. <br> Step 3. For G2 (Education Attainment), select the comparison category and group in the dropdown lists. This sets the basis for comparing your jurisdiction to Washington State and the US. |
| 4 | Return to the "Dashboard" tab, check to see the icons accurately reflect the results of comparison to WA and multiyear trend analysis. This step is automated, so if there are discrepancies, check the "Status" tab and manually override the code when necessary. |
| 5 | Print the Dashboard and indexed tabs of drill down analysis for each indicator. Note that the print areas are pre-set for all the tabs. |

COMMUNITY INDICATORS

| Notes on Default Settings that Can be Adjusted: |
|---|
| V1 comes with default assumptions used for the comparison analysis to statewide conditions (symbolized by the Harvey Balls on the Dashboard). You can find them at the bottom of each indexed tab and change them to reflect your analytical assumptions.<br>a. The first assumption is whether higher or lower the numerical value of an indicator means the underlying community condition is better or worse.<br>b. The second assumption is with regard to the thresholds below or above which your city/county's community condition would be considered "on par with", "better" or "worse", "significantly better" or "significantly worse" than that statewide.<br><br>The following threshold assumptions are applied uniformly across all applicable indicators in calculating the difference between city/county and the state. The signs of the threshold assumptions depend on the first assumption.<br><br>     1. When higher numerical value means better condition,<br>        >-5% & <5% Difference = On Par<br>        >5% & <15% Difference = Better<br>        >15% Difference = Significantly Better<br>        <-5% & >15% Difference = Worse<br>        <-15% Difference = Significantly Worse<br>     2. When lower numerical value means better condition,<br>        >-5% & <5% Difference = On Par<br>        <-5% & >-15% Difference = Better<br>        <-15% Difference = Significantly Better<br>        >5% & <15% Difference = Worse<br>        >15% Difference = Significantly Worse |
| V1 comes with default setting for the data table that underlies the trendline chart for each indicator (when applicable). The data table automatically picks up data from the Data Entry tab. To change the data table, edit the data pickup formulas. Refer to the Excel function MAX/MIN for changing the range of years and OFFSET for changing the range of corresponding data. |
| V1 comes with default setting for the degrees of government influence (symbolized by the bar charts on the Dashboard) for all indicators. To change the default setting, go to "Status" tab and choose from the drop down lists under Column F. |

## How to Keep the Dashboard Up to Date?

Part of GPC's proposal for the next phase is to establish a push-pull data update system where a point person at GPC or a partner organization will track and update new data for the US and Washington when they become available and push them out periodically to participating cities and counties. Practitioners in cities and counties will update their own data. If the community of practice decides to utilize a centralized repository to enable cross jurisdictional comparison, then GPC or partner organization will work with cities and counties to pull everyone's data together and perform desired analyses.

**See the appendix for detailed explanations of the 32 recommended community indicators.**

# Municipal Dashboard of Community Indicators

## Your County/City At a Glance

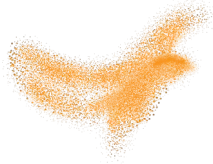Place logo of Your County/City here.

**Economy & Workforce**
- Per Capita Income
- Unemployment
- Housing Affordability Index
- Children in Poverty

**People & Community**
- Arts-Related Businesses
- Community Cohesion
- Price of Government
- Voter Turnout

**Natural Environment**
- Air Quality Index
- Waste Diversion
- Tree Canopy
- Water Quality Index

**Public Safety**
- Perception of Safety
- Violent Crime Rate
- Emergency Preparedness
- Traffic Serious and Fatal Injury

**Infrastructure & Mobility**
- Drinking Water Quality
- Recreation Expenditures Per Capita
- Average Commute Time
- Commute Without Vehicle

**Health & Wellbeing**
- Premature Death
- General Mental Health
- Adult Smoking
- Adult Obesity

**Equity & Justice**
- Racial Diversity Index
- Education Attainment
- Domestic Violence Reported
- Access to Healthy Food

**Learning & Education**
- Third Grade Reading
- High School Graduation
- Library Circulation Per Capita
- Internet Access

### Legend

Click on an indicator to view its drill-down page with data and analysis.

- Significantly Better than State
- Better than State
- On Par with State
- Worse than State
- Significantly Worse than State

- On Target / Compliant with Standards
- Off Target / Not Compliant with Standards
- Data Unavailable or More Analysis Needed

- Improving
- Maintaining
- Worsening
- Not applicable

- Direct county influence
- Indirect county influence
- Insignificant county influence

Government Performance Consortium

Open Source Folder: https://drive.google.com/drive/folders/1ldcKEiduv8vJJFejubFkV_31ouvgj2-k

# GPC Municipal Performance Dashboards
**By Chelsea Lei and Steve Gorcester**

The GPC Performance Dashboards are the Government Performance Consortium (GPC)'s proposed model performance measurement frameworks for specific municipal operations and service areas. This section explains the first two model performance dashboards on financial management and street maintenance, created for discussion and demonstration purposes during phase III of the Municipal Dashboard Project.

## What is the Purpose of Municipal Performance Dashboards?

Many performance measurement efforts in local governments focus on technology solutions, such as what software vendors to use for data display and warehousing. Few focus on what we see as an entrenched and almost universal barrier local governments face in using data to improve performance: the difficulty with knowing what should be measured in the first place. The purpose of the GPC Municipal Dashboards is to help remove this barrier and enable local governments to more readily identify and adopt measures that really matter to inform decisions and make improvements.

We recognize that decisions about why, what, how often and for whom to measure are local, and there is no simple one-size-fits-all approach to measuring performance. At the same time, we believe it is possible to accelerate the understanding and adoption of leading practices by offering a common or standard model to get to measures that matter for informing improvement.

In the spirit of inquiry, we created model dashboards for two common areas of municipal operations and service delivery in order to engage our community of practice in learning conversations on the question: "What learning becomes possible when everyone can see the whole service delivery system they are part of?" We also developed a simple, repeatable and inclusive method, called "Clarity Clinic," to enable anyone in local government to develop measures that matter in their unique context as a supplementary tool to the model dashboards.  We intend all of these products as generally applicable and flexible templates that managers can use to validate what's working for them, identify new ideas, or adopt as a starting place for designing their own performance improvement efforts.

## What Are Performance Measures?

There are many formal definitions in the performance management literature. They are not always helpful. From a practice point of view, performance measures are simply numerical reflections of how well a program, service, line of business, strategy, action or activity is working. Performance measures should matter to the people doing the work who can use them frequently for the purposes of inquiry, learning and continuous improvement. See more on this point in Steve Gorcester's "Mastering Fact Based Government" article in this book (pg.38).

## What are the Performance Dashboards Frameworks for Finance and Streets?

The Performance Dashboard Frameworks for Finance and Streets provide a model for organizing, measuring and interpreting the key results of two common municipal lines of business - one internal (finance) and the other external (street maintenance) - and propose a sample set of measures associated with those results. We

developed these models through our own research and practical experience, and engaging local professional experts to crowdsource ideas and gather feedback. Our primary design principle was that performance dashboards should display measures that indicate the intended outcomes of a municipal agency or program instead of just data they happen to have. Similarly, an agency should go beyond measuring how much work gets done (portfolio metrics) to include what it's trying to accomplish (outcome metrics) and how it plans to converge on goals (strategic metrics).

The two frameworks present a "whole systems view" of how operations and improvement activities in a specific municipal service area are integrally connected to community conditions and contribute to improved policy outcomes. This represents a unique contribution to an ongoing national conversation about strategies to integrate community indicators and performance measures to better assess and improve communities quality of life.

The key results and measures are organized by typical reporting levels of a municipal government so that managers at various levels of positional authority can identify with what is important to them and tell a story about how their intended outcomes contribute to those of their divisions, department and the city and community as a whole. The levels ensure consistency as visual management cascades down the organization, picking up detail and specificity as they get closer to where the work gets done.

Managers in these two service areas can use these frameworks to validate what they are already measuring, or as a menu of ideas on possible measures to help develop and refine their own working dashboards. Managers in other service areas can also apply or adapt the model to organize or develop performance dashboards that align to their own policy goals and operational objectives. Most importantly, managers can use sample measures to accelerate the evolution of performance management and create the discipline of counting the right activities. Users are encouraged to go beyond sample measures to find the facts that matter to their own goals.

## Clarity Clinic

The Clarity Clinic provides a structured and repeatable group conversation process that helps a group member reflect on the intended outcomes of his or her municipal agency or program in terms of measurable improvement. This standard work approach walks step-by-step through the essential questions that need to be asked in order to create a dashboard populated by meaningful and actionable measures.

Many public managers do not get value from measuring because they lack the benefit of a supportive thinking environment to clarify what they are really trying to accomplish, and thereby identify measures really matter for their success. The Clarity Clinic offers managers well-contained time and supportive space to reflect on what the high-level long-term visions of their council or leadership mean for the specific intermediate outcomes they should seek to accomplish. For example, translating "make our city more livable" to the more specific and operational "increase bike lane miles by 25% in five years" is one way to express a measure that matters, in language that makes it possible for managers and front line staff to see the connection between their daily work and top level mayoral and council goals.

The design of the Clarity Clinic is informed by leading practices in adult learning, results-oriented coaching, and group process facilitation. The process takes 60 min to complete and requires participants to be peers with no hierarchical relationship among them. While the group conversation format provides the benefit of a supportive audience and access to their wisdom and experience, managers can get great mileage from independent journaling using the questions embedded in the tool. The form of reflection is flexible. It's the pattern of inquiry that is essential.

**Open Source Folder**: https://drive.google.com/open?id=1sCbY7CcjrT-RarxoB6ocRm0VLCq6fuJf

**MUNICIPAL FINANCE PERFORMANCE DASHBOARD**

# Municipal Finance Performance Dashboard Framework

A Whole Systems View of Finance with Key Results & Recommended Measures at Multiple Reporting Levels

**Community Level:**
**Residents Are Able to Afford Quality Local Government Services**

Price of Government

**Leadership Level:**
**City/County Government is Credit-Worthy and Financially Healthy**

**Bond Ratings**
Unlimited Tax General Obligation Bonds
Limited Tax General Obligation Bonds

**Financial Health Indicators***

For GAAP Basis Accounting:
- Fund Balance Sufficiency
- Change in Fund Equity
- Government Funds Sustainability
- Debt Service Load
- Current Ratio
- Enterprise Cost Recovery

For Cash Basis Accounting:
- Cash Balance Sufficiency
- Change in Cash Position
- Government Funds Sustainability
- Debt Service Load
- Enterprise Cost Recovery

*Annual reports available for all local governments in WA at http://portal.sao.wa.gov/FIT

**Department Managers Level:**
**Management is Legally Compliant, Professionally Certified, and Valued by Partners and Customers**

- **Financial Audit Report**
- **Debt within Limits**
- **Best Practices Certifications**
    - GFOA Awards (Budget, Financial Reporting)
    - WPTA Certification (Debt Policy, Investment Policy)
- **Partners/Customers Survey Ratings** (Internal, External)

**Operational Levels:**
**Finance Staff are Continuously Improving Processes to Deliver Accurate, Complete and Timely Products & Services**

Sample improvement objectives, progress measures, trend and status report:

| Strategic Objectives | Progress Measures | Trend | Status |
|---|---|---|---|
| Develop error proof credit card reconciliation process | % charges with issue (error rate) | | Improving |
| Grow fund reserves to 18% of GF expenditures per policy | fund reserves as % of GF expenditures | | Target met |
| Reduce utility account shut-offs by 50% | % change in utility account shut-offs | | Target met |

Recommended set of measures for annual reporting and managerial review.

Build your dashboard to support a learning conversation based on a simple, common sense pattern of questions:
1) What are we trying to achieve?
2) Where do we stand today?
3) What's the story - what's caused the data results we see?
4) What strategies can improve our results?
5) Who else needs to know, and who can help us?

For more on data-informed learning conversations, please see "Turning the Curve" on our website www.govjoy.org or on page 69.

Sample operational dashboard showing current improvement activities for frequent (at least monthly) team review and inquiry about performance data.

Use in conjunction with standard progress reports highly recommended.

# Demo Finance Performance Dashboard

Here is an example of adapting the GPC finance performance dashboard framework to create an Excel dashboard and progress report using data that already exists at the City of Sequim.

## 2017 — Sequim Finance Performance Demonstration Dashboard*

☑ **Our Community is Able to Afford Quality Local Government Services**

Price of Government — 5.3%

☑ **Our City/County Government is Credit-Worthy and Financially Healthy**

Bond Ratings (S&P):

| | |
|---|---|
| Unlimited Tax GO Bonds | AA- |
| Limited Tax GO Bonds | AA- |

Financial Health Indicators:

| | All Funds | Gen. Fund | Sewer | Water | Benchmark |
|---|---|---|---|---|---|
| Cash Balance Sufficiency | 263 | 141 | 749 | 721 | > 60 |
| Change in Cash Position | 29.90% | 20.40% | 10% | 4.30% | > 0% |
| Government Funds Sustainability | 24.50% | 13.30% | | | > 0% |
| Debt Service Load | 4.90% | | 15.80% | 4.20% | < 12% |
| Enterprise Funds Self-Sufficiency | | | 25.10% | 34.90% | >= 0% |

☑ **Our Finance Department is Legally Compliant, Professionally Certified and Valued by Partners**

| | | | |
|---|---|---|---|
| Financial Audit Opinion | Clean | GFOA/WPTA Certifications | NA |
| Debt within Limits | 1.03% | Internal Customer Satifaction Rating | NA |

☑ **Our Staff is Continuously Improving to Deliver Accurate, Complete and Timely Products & Services.**

| Current Process Improvement Project | Progress Measures | Trend | Status |
|---|---|---|---|
| Credit Card Reconciliation Process (12/2018 - 04/2019) | Followup Rate (% of total charges) | | Improving (See Progress Report) |
| | Time to Complete (hours) | | Target met |

Data sources: US Census. WA State Auditor's Office. City of Sequim Department of Finance.

*\* Prototype created by the Government Performance Consortium for demonstration purpose only, June 2019.*

## Sequim Finance Performance Dashboard
### Progress Report* on Credit Card Reconciliation Process Improvement Strategy

**Project Contact: Jason Loihle**

**Summary**

We are working toward an error proof process for credit card reconciliation.

Starting in February 2019, we have implemented a pilot test to catch fraudulent charges early, streamline documentation process, and strengthen internal controls and oversight for credit card usage.

As a result, we have seen the followup rate as measured by volume of charges with issues decline for three consecutive months which directly decreased completion time to the target one day (8 hours).



Sequim Finance Credit Card Reconciliation Process
— Time to Complete (hours)  ● Followup Rate (% of total charges)
Pilot Starts

**Next Steps in Continuous Improvement:**

| Steps | Who | What | By When |
|---|---|---|---|
| 1 | Sue H. | Adopt credit/charge card usage policy update | May 24 |
| 2 | Karen T. | Create training plan on US Bank reconciliation website | May 31 |
| 3 | Jason L. and Karen T. | Review data from month of May | June 3 |

*\* Prototype created by the Government Performance Consortium for demonstration purpose only, June 2019.*

## Definitions & References

### Price of Government

**Definition**: Sum of all taxes, fees, and charges collected by the City as a percentage of aggregate personal income. That is, all revenue excluding that which comes from "Other Financing Sources" (Long-term debt proceeds, sale of capital assets, transfers from other funds, insurance proceeds) and "Non-Revenues" (Cash received for accounting purposes but is not technically revenue).

**Data Sources**: Sources on revenues: Washington State Auditor's Office Financial Intelligence Tool portal or your city/county's Budget Office.[1]
Sources on personal income: US Census, total population in your city/county, per capita income.[2]

**Why It Matters:** This indicator allows a local government to monitor the level of resources available to provide critical services within its jurisdiction and helps inform the price range within which residents and businesses are willing and able to pay for living in a city/county with those services.

### Bond Ratings

**Definition:** A bond rating is a credit risk evaluation assigned to a bond issuing entity based on factors including the economy, debt structure, financial condition, demographic factors, and management practices of the governing body and administration. There are three major rating agencies for municipal bonds: Moody's Investors Service, S&P Global (formerly Standard & Poor's) and Fitch Ratings. Of the three rating agencies, S&P Global and Moody's rate over 80% of all municipal and corporate bonds.

Limited Tax General Obligation Bond is a type of municipal bond that is secured by limited taxing power of the issuer. For example, a bond may be secured by a municipality's property tax subject to a maximum rate at which the tax may be levied.

Unlimited Tax General Obligation Bond is a type of municipal bond backed by the full faith and commitment of the issuer, which is generally a city or municipality, to raise taxes, without limit, to service the debt until it is repaid.

Moody's "investment grade" ratings (ratings in the Baa category or higher in contrast to lower rated issues that are considered speculative) are described below.

- "Aaa" - Issuers or issues rated Aaa demonstrate the strongest creditworthiness relative to other U.S. municipal or tax-exempt issuers or issues.

- "Aa" - Issuers or issues rated Aa demonstrate very strong creditworthiness relative to other U.S. municipal or tax-exempt issuers or issues.

- "A" - Issuers or issues rated A present above-average creditworthiness relative to other U.S. municipal or tax-exempt issuers or issues.

- "Baa" - Issuers or issues rated Baa represent average creditworthiness relative to other U.S. municipal or tax-exempt issuers or issues.

1   https://portal.sao.wa.gov/FIT/
2   https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml

The following table shows the comparable investment grade ratings of the three major rating agencies:

| Ratings | Moody's | S&P Global | Fitch |
|---|---|---|---|
| Best Quality | Aaa | AAA | AAA |
| High Quality | Aa1<br>Aa2<br>Aa3 | AA+<br>AA<br>AA- | AA+<br>AA<br>AA- |
| Upper Medium Grade | A1<br>A2<br>A3 | A+<br>A<br>A- | A+<br>A<br>A- |
| Medium Grade | Baa1<br>Baa2<br>Baa3 | BBB+<br>BBB<br>BBB- | BBB+<br>BBB<br>BBB- |

**Data Sources**:
- Moody's Ratings (U.S. Public Finance, Local Government)
- S&P Ratings[1]
- Fitch Ratings[2]

**Why It Matters:** A bond rating can be likened to an individual's credit worthiness. It reflects a municipality's ability to meet or exceed the highest nationally recognized fiscal policy benchmarks as determined by bond rating agencies. While many factors go into investors' decision making process, the bond rating is often the single most important factor affecting the interest cost on bonds. The better the bond ratings, the lower the interest rate at which a municipality can borrow.

## Financial Health Indicators

The following set of financial health indicators are developed by the Washington State Auditor's Office for the purpose of detecting financial distress. A standard annual report of these indicators are available for all local governments for free based on data submitted to the auditor's office. For more information, visit the Washington State Auditor's Financial Intelligence Tool Portal.[3]

## Fund Balance Sufficiency

**Definition:** This indicator shows the number of days a fund(s) could operate based solely on its ending fund balance(s).

**Data Source:** Washington State Auditor Financial Intelligence Tool Portal[4] - Search by government name

**Formula:**

$$Days\ Covered = \frac{Ending\ Fund\ Balance}{\left(\frac{(Expenditures + Debt\ Service + Transfers)}{365\ days}\right)}$$

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1   https://www.standardandpoors.com/en_US/web/guest/home
2   https://www.fitchratings.com/site/home
3   http://portal.sao.wa.gov/FIT
4   https://portal.sao.wa.gov/FIT/

**Why It Matters:** Maintaining fund balance sufficient to operate for at least 60 days is important so that the government has enough reserves on hand to operate, as well as deal with unexpected costs or emergencies. This indicator is a way to measure whether the government's level of reserves is sufficient or concerning.

## Change in Fund Equity/ Net Position

**Definition:** This indicator shows the percent change in ending fund balance compared to the prior year. That is, it will show the extent to which fund balance increased or was used up during the year.

**Data Source:** Washington State Auditor Financial Intelligence Tool Portal[1] - Search by government name

**Formula:**

$$\text{Change in Fund Equity} = \frac{(Ending\ Fund\ Balance - Beginning\ Fund\ Balance)}{Beginning\ Fund\ Balance}$$

**Why It Matters:** The ability to "add" to reserves (i.e. fund balance) is usually a positive sign that an entity is moving in a good direction to plan for bad times or set aside funds for capital improvements. However, setting aside more reserves than is needed can represent a missed opportunity to provide programs or other services in the current year revenues. Alternatively, when reserves are being used up, this indicator will be negative and will prompt users to ask more questions about why that is occurring. It can be for good reasons, such as to pay for capital improvements that were planned for or to pay off debt, but it can also be an indicator the government might not be living within its means. It is not uncommon for this indicator to fluctuate and a negative indicator is not necessarily a concern - it is important to evaluate the reasons for the decline in reserves. However, multiple years of decline in fund balance might be concerning.

## Cash Balance Sufficiency

**Definition:** This indicator shows the number of days a fund(s) could operate based solely on its ending cash and investments balance.

**Data Source:** Washington State Auditor Financial Intelligence Tool Portal[2] - Search by government name

**Formula:**

$$\text{Days Covered} = \frac{Ending\ Cash\ and\ Investments}{\left(\frac{(Expenditures + Debt\ Service + Transfers)}{365\ days}\right)}$$

**Why It Matters:** Maintaining a cash and investment balance sufficient to operate for at least 60 days is important. This helps make sure the government has enough cash on hand to operate, as well as deal with unexpected costs or emergencies. This indicator is a way to measure whether the government's level of "savings" or "reserves" is sufficient or concerning.

## Change in Cash Position

**Definition:** This indicator shows the percent change in ending cash and investments compared to the prior year. That is, it will show the extent to which cash increased or was used up during the year.

**Data Source:** Washington State Auditor Financial Intelligence Tool Portal - Search by government name

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1   https://portal.sao.wa.gov/FIT/
2   https://portal.sao.wa.gov/FIT/

**Formula**:

$$Change\ in\ Cash = \frac{(Ending\ Cash\ and\ Investments - Beginning\ Cash\ and\ Investme...}{Beginning\ Cash\ and\ Investments}$$

**Why It Matters:** The ability to "add" to the savings account (i.e. cash and investment balance) is usually a positive sign that an entity is moving in a good direction to either build reserves or set aside funds for future capital improvements. However, setting aside more cash than is needed can represent a missed opportunity to provide programs or other services in the current year. Alternatively, when the "savings" is being used up, this indicator will be negative and will prompt users to ask more questions about why that is occurring. It can be for good reasons, such as to pay for capital improvements that were planned for or to pay off debt, but it can also indicate the government might not be living within its means. It is not uncommon for this indicator to fluctuate and a negative indicator is not necessarily a concern. It is important to evaluate the reasons for the decline in cash balances. However, multiple years of declines in cash balances might be more concerning.

## Government Funds Sustainability

**Definition:** This indicator shows if the funds are spending in line with the revenue they receive (spending includes expenditures plus debt service). General governmental activities usually do not have a lot of control over their primary sources of revenues. The government should limit programs and services in order to balance their budget in the long term.

**Data Source:** Washington State Auditor Financial Intelligence Tool Portal[1] - Search by government name

**Formula:**

$$Governmental\ Funds\ Sustainability = \frac{Revenues - (Expenditures + Debt\ Service)}{Revenues}$$

**Why It Matters:** This ratio can help you evaluate whether the government is living within its means. While the benchmark is 0, the indicator results should ideally be greater than zero. This would indicate the government has funds available for capital improvements or to build reserves. If the indicator is negative, it might indicate the government is living beyond its means. However, further inquiry might be needed to complete that assessment. For example, if the government paid down extra debt in one year, this indicator would likely be negative for that year.

## Debt Service Load

**Definition:** This indicator shows how much of the government's revenues are being used to make debt payments.

**Data Source:** Washington State Auditor Financial Intelligence Tool Portal[2] - Search by government name

**Formula:**

$$Debt\ Service\ Load = \frac{Debt\ Service\ (Principal\ and\ Interest)}{Revenues}$$

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1   https://portal.sao.wa.gov/FIT/
2   https://portal.sao.wa.gov/FIT/

**Why It Matters:** Issuing debt is common in governments to finance capital improvements, however at certain levels it can become a burden. With enterprise funds and activities, it is difficult to determine where that point is, and each situation would have to be evaluated. Many enterprise funds, such as utilities, require significant investment in infrastructure, and typically these costs are planned for and recouped through future rates. Therefore, some enterprise funds might carry higher debt loads and able to manage it well. However, some enterprise funds might have less flexibility to raise rates than others, or have increasing pressure to replace a backlog of costly infrastructure, and debt might become more of a burden.

## Current Ratio

**Definition:** This measure shows how many times current assets can cover current liabilities for general fund.

**Data Source:** Washington State Auditor Financial Intelligence Tool Portal[1] - Search by government name

**Formula:**

$$Current\ Ratio = \frac{Current\ Assets}{Current\ Liabilities}$$

**Why It Matters**: An amount above 1.0 implies the government will be able to pay fund expenses as they come due. However, governmental fund financial data does not include the liability for debt payments due immediately after year end (even if the payment is to be made the following day, which is often the case). Other liabilities that are also short term might also be excluded due to the accounting requirements for governmental funds. Therefore, many governments need to have a ratio well above 1. If this amount is less than 1.0, it implies the government has more immediate obligations than assets available to make payments and will need to either borrow or receive excess revenue in the short term. This would be unusual as most governments would borrow from other funds or possibly issue long-term debt to avoid this situation. However, these actions would be signs of fiscal distress.

## Enterprise Fund Cost Recovery

**Definition:** This indicator shows if enterprise funds are able to recover its costs, considering all operating and non-operating revenue sources.

**Data Source:** Washington State Auditor Financial Intelligence Tool Portal[2] - Search by government name

**Formula:**

$$Enterprise\ Fund\ Cost\ Recovery = 1 + \frac{(Ending\ Net\ Position - Beginning\ Net\ Position) + Net\ Transfers\ Out}{Expenses}$$

**Why It Matters:** A measure of 100% or greater indicates that the fund as a whole was successful recovering the full costs of service through charges for services and other revenues/sources. A measure of less than 100% indicates that the fund had to borrow from the past, borrow from the future, or be subsidized by other means.

## Financial Audit Report

**Definition:** A financial audit report is the result of an independent evaluation of a local government's financial statements. A "clean" audit report means no findings or management letters. All local governments in Washington State are required by state law (RCW 43.09.230) to submit an annual financial report to the State Auditor's Office within 150 days of the end of their fiscal year. The State Auditor audits a local government's financial records to ensure public funds are accounted for and controls are in place to protect public resources

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1   https://portal.sao.wa.gov/FIT/
2   https://portal.sao.wa.gov/FIT/

from misappropriation and misuse.

**Data Source:** Washington State Auditor's Office - Audit Reports[1] - Search by local government name and type, audit type (Financial), and date range.

**Why It Matters:** Financial audits provide an independent opinion on a local government's financial statements and report issues about internal controls when found in the course of the auditor's work. A finance team that can consistently undergo audits with few reportable issues is an indicator of the effectiveness and soundness of an organization's financial management practices.

## Debt within Limits

**Definition**: Level of total debt incurred is within a jurisdiction's authorized debt issuance limitation based on a percentage of taxable property values, or assessed value of taxable properties in the jurisdiction. Total debt includes voted and non-voted debt.

**Data Sources:**  Relevant state constitutional debt limits and statutory debt limits.

For Washington State Cities, the following resources may be helpful:
- Bond Clearinghouse Public Debt database, Public Debt Report, Local General-Obligation Debt Data[2]
- Municipal Services and Research Center - General Obligation Debt Limits[3]
- Department of Commerce - Limitations on Municipal Debt[4]

**Why It Matters:** Local governments are required by law to not exceed their constitutional and statutory debt limits.

## Best Practices Certifications

**Definition:** Certifications in best practices received from professional associations in municipal financial management, such as the Government Finance Officers Association (GFOA) or the Washington Public Treasurers Association (WPTA).

**Data Sources:**
- GFOA Budget Award[5]
- GFOA Financial Reporting Award[6]
- GFOA Budget Presentation Award[7]
- Washington Public Treasurers Association Certifications[8]

**Why It Matters:** Awards or certifications in various areas of financial best practices provide external validation and recognition of an organization's achievement in providing high quality financial management services.

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1  https://www.sao.wa.gov/reports-data/audit-reports/
2  https://www.commerce.wa.gov/about-us/research-services/bond-users-clearinghouse/reports-articles-databases-2/
3  http://mrsc.org/Home/Explore-Topics/Finance/Debt/General-Obligation-Debt-Limits.aspx
4  http://www.commerce.wa.gov/wp-content/uploads/2016/06/RS-BUC-Limitations-on-Municipal-Debt-Table-2014.pdf
5  https://www.gfoa.org/award-programs/distinguished-budget-presentation-award-program-budget-awards-program
6  https://www.gfoa.org/pafr
7  https://www.gfoa.org/award-programs/distinguished-budget-presentation-award-program-budget-awards-program
8  http://www.wpta.us/certification.html

## Customers Survey Ratings

**Definition:** Ratings of customer perception on the quality and value of a finance department's internal and/or external services. Internal customers are typically other departments that receive financial advice and services from the financial department. External customers may include residents, businesses, developers, and contractors. The scale and meaning of the ratings are discretionary and depend on the purpose and design of the survey.

**Data Source:** Survey results of internal or external customers

**Why It Matters**: Finance department is an important service provider to other city/county departments as well as to residents and businesses. Survey ratings on the quality and value of a finance department's services reflect the general experience of its customers and may be used to improve its operations and service delivery.

## Sample Process Improvement Progress Measures

The three sample process improvement projects and their progress measures, trendline data and status reports are real "turning-the-curve" stories from the City of Sequim, City of Kent, and City of Pasco in Washington State. Here is a brief synopsis of these progress measures.

### % Charges with Issues for Following Up
The City of Sequim chartered a lean six sigma black belt project to improve its credit card reconciliation process in late 2018. One goal of the project was to minimize the incidence of errors and fraudulent charges. The project team conducted user interviews, reviewed accounting data and implemented a pilot intervention test in February 2019. The test was designed to catch fraudulent charges early, streamline documentation process, and strengthen internal controls and oversight for credit card usage. Since the pilot test, the error rate as measured by the percent of charges with issues for following up has declined significantly.

### Fund Reserves as % of General Fund Expenditures
The City of Kent needed to improve fund reserves in the General Fund (GF) in the wake of the 2007/2008 financial crisis and set a goal to grow fund reserves to 10% of GF expenditures per policy. In 2012, the city established a 1% internal utility tax to help augment reserves. The goal was reached in 2015. The city continued to budget permitting and development services revenues conservatively so that excess can help augment reserves. In 2017, the city increased its fund balance goal to 18% of GF expenditures per updated policy and has been able to maintain its fund reserves as the intended level.

### % Change in Account Shutoffs
Finance department staff at the City of Pasco noticed that Wednesdays were a "total waste of time" for everybody because that's when they would shut off the waters for people who didn't pay their bills. They would get calls from upset customers complaining about the shutoffs. One staff member decided to look at the people who were getting their accounts shut off. She said, "We are in the business of providing people water, not turning it off." She found that the city usually notified people about their water bills with robo calls and then with a letter, but the notification period seemed short.  She experimented with extending the notification period, adding a few more robo calls (which cost nothing), and she made personal reminder calls to people who still hadn't paid their bills. Her efforts resulted in a 53% reduction in account shut-offs between 2014 and 2018.

# Dashboard Work in Action...



Olympia City Council Member Jessica Bateman (kneeling) listens to citizen dialogue to inform the city's budget priorities at a community workshop April 2018.



Olympia city planner Stacey Ray explains how she used a combination of participatory leadership techniques (Art of Hosting and Liberating Structures) and the city's community indicators dashboard to engage a demographically representative group of citizens to inform the city's budget priorities.



Assistant County Administrator for Thurston County Robin Campbell demonstrates how to navigate the delicate balance of policy and budget during the GPC Government Financial Dashboards demonstration on June 11, 2019 in Renton Washington.

**Watch the video:** https://youtu.be/gOEz5ApkQ-4

# Municipal Street Performance Dashboard Framework

A Whole Systems View of Local Streets with Key Results & Suggested Measures at Multiple Reporting Levels

## Community Level: Local Streets Support Community Safety, Mobility and Health

**Average Pavement Condition Index/Rating**
**Community Conditions Indicators:**
- Traffic Serious and Fatal Injury on City Streets
- Average Commute Time
- Commute Without Vehicle (Non-SOV Mode Split)

## Leadership Level: City/County Provides Safe, Reliable and User-Friendly Streets

**Citizen/Community Survey Results**, for example:
- % of residents agreeing that the city provides a safe street system for all users
- % of residents agreeing that they can travel within the city in a reasonable and predictable amount of time
- % of residents agreeing that the city provides adequate modes of transportation to all users

## Director Level: Public Works Provides Proper Stewardship of Street Assets

High-level street measures:

| | |
|---|---|
| % Pavement in Poor and Worse Conditions | $ Street Maintenance Backlog |
| % Pavement Network Maintained per year | Average Annual Street Maintenance Spending |

## Department Managers Level:  Street System Management is Proactive and Cost-Effective

**For Operations Management:**
- Average seal cost per unit of measure (e.g. lane mile)
- Average overlay cost per unit of measure (e.g. lane mile)
- Average pavement management system spending per lane mile
- % Scheduled maintenance completed
- Average time to close critical maintenance
- Average response times to different types of work orders
- # Claims due to issues in street maintenance
- % Treatment methods achieving targeted useful life

**For Engineering Management:**
- % Pavement needing seal
- % Pavement needing overlay
- % Pavement needing rehabilitation / reconstruction
- % Intersections not meeting level of service targets
- Average sidewalk condition (# of offsets per mile)
- % Arterial mileage without sidewalk on at least one side
- % Arterial mileage without bike lanes
- % Target dates met for bidding out annual contracts

## Operational Levels:  Streets Maintenance Operates Timely, Responsively and Efficiently
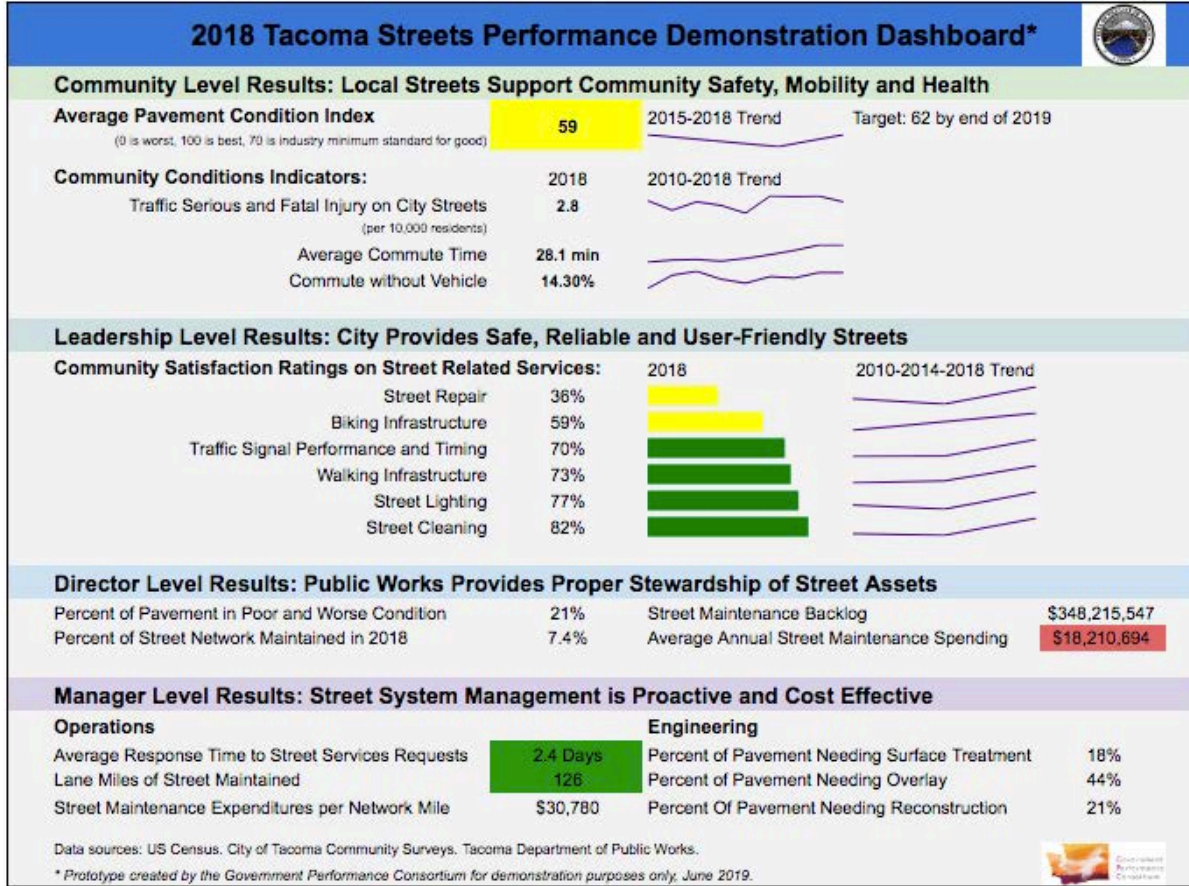
### Sample Visual Management Dashboard

| Pothole Repair | Asphalt Projects | Concrete Projects | Traffic Control | General Maintenance |
|---|---|---|---|---|
| **(D)** % Production targets met last month **(M)** % Repair requests responded to same day **(M)** # Repair requests completed per mile driven | **(W)** % Production targets met last month **(Q)** % Asphalt projects delivered on time & within budget | **(W)** % Production targets met last month **(Q)** % Concrete projects delivered on time & within budget | **(M)** Response time to downed signs and broken signals | **(Q)** Time to complete routine work orders in -Street light repair -Street sweeping -Striping & Markings -Mowing & weeding -Graffiti removal |

| Planning | Utility Coordination | Equipment | Public Information | Emergencies |
|---|---|---|---|---|
| **(M)** Next special event **(Q)** Next traffic signals maintenance due **(Q)** Next pavement markings due | **(Q)** # Upcoming utility projects **(A)** % Decrease in unnecessary utility cuts over 5-year period | **(Q)** # Equipment needing urgent repair **(Q)** # Equipment needing general maintenance | **(M)** Relevant street maintenance information up to date on city website and social media | **(Q)** Emergency planning and training up to date **(Q)** Average time to complete removal debris or snow/ice from streets during winter storms |

Legend for Recommended Frequency of Update & Review: Annually (**A**), Quarterly (**Q**), Monthly (**M**), Weekly (**W**), Daily (**D**), Hourly (**H**), Real Time (**R**)

# Demo Street Performance Dashboard

Here is an example of adapting the GPC street performance dashboard framework to create an Excel dashboard using data that already exists at the City of Tacoma.

## 2018 Tacoma Streets Performance Demonstration Dashboard*

### Community Level Results: Local Streets Support Community Safety, Mobility and Health

**Average Pavement Condition Index**
(0 is worst, 100 is best, 70 is industry minimum standard for good)

| | |
|---|---|
| 59 | 2015-2018 Trend  Target: 62 by end of 2019 |

**Community Conditions Indicators:**

| | 2018 | 2010-2018 Trend |
|---|---|---|
| Traffic Serious and Fatal Injury on City Streets (per 10,000 residents) | 2.8 | |
| Average Commute Time | 28.1 min | |
| Commute without Vehicle | 14.30% | |

### Leadership Level Results: City Provides Safe, Reliable and User-Friendly Streets

**Community Satisfaction Ratings on Street Related Services:**

| | 2018 | | 2010-2014-2018 Trend |
|---|---|---|---|
| Street Repair | 36% | | |
| Biking Infrastructure | 59% | | |
| Traffic Signal Performance and Timing | 70% | | |
| Walking Infrastructure | 73% | | |
| Street Lighting | 77% | | |
| Street Cleaning | 82% | | |

### Director Level Results: Public Works Provides Proper Stewardship of Street Assets

| | | | |
|---|---|---|---|
| Percent of Pavement in Poor and Worse Condition | 21% | Street Maintenance Backlog | $348,215,547 |
| Percent of Street Network Maintained in 2018 | 7.4% | Average Annual Street Maintenance Spending | $18,210,694 |

### Manager Level Results: Street System Management is Proactive and Cost Effective

| Operations | | Engineering | |
|---|---|---|---|
| Average Response Time to Street Services Requests | 2.4 Days | Percent of Pavement Needing Surface Treatment | 18% |
| Lane Miles of Street Maintained | 126 | Percent of Pavement Needing Overlay | 44% |
| Street Maintenance Expenditures per Network Mile | $30,780 | Percent Of Pavement Needing Reconstruction | 21% |

Data sources: US Census. City of Tacoma Community Surveys. Tacoma Department of Public Works.

* Prototype created by the Government Performance Consortium for demonstration purposes only, June 2019.

Background Notes:

1. Pavement in poor and worse conditions in Tacoma has PCI at 40 or below

2. Percent street network maintained measure does not include individual asphalt repair or work performed on brick/gravel streets

3. Street maintenance backlog includes reconstruction backlog plus deferred maintenance

4. Average annual street maintenance spending is 4-year annual average of total actual expenditures of the Tacoma Streets Initiative Fund and PW Streets Operations & Engineering Fund during 2015-2018 period.

5. Average response time to street service requests is based on response times to pothole repair notifications. Target for 2018 is 5 days.

6. Lane miles of street maintained refer to work done on arterial streets. Target for 2018 is 93 lane miles.

7. Sreet maintenance expenditure per network mile tracks the total lane miles of arterial and residential streets preserved through the application of asphalt overlays and surface treatments

## Definitions & References

### Average Pavement Condition Index or Rating

**Definition**:  A numerical index between 0 and 100 used to rate the general condition of the surface of a road network. There are multiple pavement condition rating methodologies. The Pavement Condition Index (PCI) is a commonly used measure that indicates pavement conditions in terms of the type, extent and severity of pavement surface distresses (typically cracks and rutting) and the smoothness and ride comfort of the road. Zero is the worst possible condition and 100 is the best. The PCI is a subjective method of evaluation based on inspection and observation. It is typically conducted annually so that changes in road condition can be evaluated. The Pavement Condition Rating (PCR) is another commonly used measure that indicates the composite effects of varying distress types, severity and extent upon the overall condition of the pavement.

Note: The Washington Department of Transportation uses a more detailed pavement rating system with three different rating scales.
1. Pavement Structural Condition (PSC) - a measure of pavement distress such as cracking and other distress measures and ranges from 100 (no distress or very good condition) to zero (extensive distress or very poor condition).
2. Pavement Rutting Condition (PRC) - a measure of rut depth in inches. The scale ranges from 100 (no rutting) to 0 (0.70 inches of rutting)
3. Pavement Profile Condition (PPC) - a measure of roughness.

Generally, as pavement deteriorates with age, weatherization and loading, its PSC and PRC decrease, while PPC increases.

**Data Sources:**  Your city/county's pavement condition assessment reports. The Washington Transportation Improvement Board's Performance Dashboard[1] provides average PCR for all small cities (<5,000 pop.) in Washington State. The Washington State County Road Administration Board rolls up county data in their County Transportation Metrics Dashboard.[2]

**Why It Matters:** Pavement condition ratings tells public officials the current condition of the road network and the rate of deterioration of the road network over time. Different scales are sometimes used, but PCI/PCR can identify immediate maintenance and rehabilitation needs, monitor pavement condition over time, develop a network preventive maintenance strategy, develop road maintenance budgets, and evaluate pavement treatments and designs.

### Traffic Serious and Fatal Injury

**Definition:** Fatal and Serious Injury by year on all roads within a jurisdiction per 10,000 residents

**Data Source:** Washington Dept. of Transportation Crash Data Portal[3]

**Why It Matters:** This is a standard metric commonly used to inform transportation and road safety policy and planning. Statewide goals and funding seek to implement the Washington State Strategic Highway Safety Plan, Target Zero[4]

1   http://www.tib.wa.gov/dashboard/ http://www.crab.wa.gov/Metrics/index.cfm?submit=LAUNCH+DASHBOARD
2   http://www.crab.wa.gov/Metrics/index.cfm?submit=LAUNCH+DASHBOARD
3   https://remoteapps.wsdot.wa.gov/highwaysafety/collision/data/portal/public/#!
4   http://www.targetzero.com/
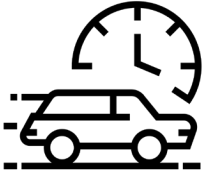
### Average Commute Time

**Definition:** Mean travel time to work

**Data Source:** U.S. Census Bureau – American Community Survey, Table S0802.[1]

**Why It Matters:** Average Commute Time by all modes provides a macro view of total transportation system performance. Commute time must be carefully evaluated against community characteristics and goals as it cuts both ways on community health and mobility. Long commutes may decrease overall sense of well-being in individuals and negatively impact both mental and physical health. Furthermore, long commute times are strongly affected by conditions of sprawl, as greater sprawl is associated with increased costs to the traveler. A tradeoff exists between commute time and cost of housing. Many individuals may choose to live further away from their place of work due to lower housing costs, while, conversely, some may opt for higher cost urban housing in order to avoid stressful commutes and lengthy travel times.

## Commute without Vehicle

**Definition:** Share of commuters using alternate modes of transportation, which include using public transportation, walk, bicycle, taxicab or motorcycle, or working at home.

**Data Source:** U.S. Census Bureau – American Community Survey Table S0801.[2]

**Why It Matters:** Modal diversification is critical to growing communities. Research shows that active transport is inversely related to obesity rates. Air quality (especially sulfur and VOC emissions) is typically higher in areas where active transportation is popular than in those in which it is unpopular. This popularity comes with additional health benefits. In addition, research suggests that those who commute using active methods report lower commute stress levels; it is important to note that this may be related to city size, because as size increases, demand for public transit increases.

## Citizen/Community Survey Results Related to Street Services

Many cities and counties regularly survey their residents to understand their perception and experience of a variety of local services. Resident opinions on street services can be used to inform planning, priority-setting, projects selection and operational improvement. The three example opinion measures are based on the City of Bellevue's community survey questions.

**Data Source:** Your city/county's citizen/community survey results.

**Why It Matters:** Virtually everyone – residents, visitors, pedestrians, passengers, commercial and private car drivers – experiences the streets and observes their condition. People know that it is city government's responsibility to maintain them. For many, the performance of local government itself is evaluated by the condition, safety, reliability and user-friendliness of the local street system.

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1   https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t
2   https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t

## Suggested Measures at Director Level

A street network is among the most valuable assets of a local government. At the public works or transportation department director's level, it is important to have a few measures that reflect the work of stewardship from an asset management perspective. We suggest four high level measures that directors can use to monitor maintenance levels and funding needs as a quick way to check if street assets are managed at levels consistent with available resources and if any funding gap exists.

- **% Pavement in Poor and Worse Conditions** is a measure of the share of the street network with pavement condition ratings in the "poor" and "worse" categories. While standard rating scales exist, an agency needs to define what "poor" and "worse" mean in their pavement management systems.

- **% Pavement Network Maintained per year** is a measure of the share of the street network that receives any type of maintenance treatment in a given year. Note that this is a basic measure of maintenance coverage that does not indicate that the right treatment method is always applied. A better and more sophisticated measure would be something like the % Pavement Network Maintained by Best Treatment Method Possible.

- **Street Maintenance Backlog** can be estimated in at least three different ways. Regardless of the definition an agency chooses, the backlog should provide a credible estimate of a system's unmet maintenance needs.
  1. Estimated one-time funding needed to eliminate backlog of poor and failed streets
  2. Mileage of street system in treatable range that's not being treated
  3. Deferred maintenance plus streets that can no longer be maintained in a cost-effective manner and need to be completed reconstructed

- **Average Annual Street Maintenance Spending** is the average total spending on street maintenance programs and operations. When used in conjunction with the Street Maintenance Backlog, it helps show whether a jurisdiction has a pattern of underfunding its street maintenance. For example, if the street maintenance backlog is $300,000,000 in terms of one time funding needed to bring poor and failed streets to acceptable conditions, it would cost $30,000,000 a year over 10 years to eliminate the backlog. However, if a jurisdiction is only spending $10,000,000 a year on average, it can be said that street maintenance is underfunded for $20,000,000 a year.

## Suggested Measures at Manager Level

In many cities and counties, the work of street systems management is organized into two units. A streets operations unit performs day-to-day maintenance activities such as pothole repairs while an engineering management unit oversees the design, planning and management of maintenance and construction projects. Agencies vary a great deal in the types and amount of maintenance tasks performed in-house by city staff versus contracting out. As a general primer, we suggest two groups of performance measures for operations managers and engineering manager to use to validate and gain insights on the extent to which a street program is proactive (versus reactive and ad hoc) in its management approach and cost-effective (i.e. spending limited resources in the most productive manner possible according to industry best practices) in its preservation strategies. Managers could adopt and/or adapt one or more of these suggested measures to design and inform performance improvement strategies. To be most useful, these measures should be tracked consistently over a period of time and/or compared to those of peer agencies.

For Operations Management:
- Average seal cost per unit of measure (e.g. lane mile) is a measure of average surface treatment costs that

can be used to monitor the cost vs. benefits of particular treatment methods.

- Average overlay cost per unit of measure (e.g. lane mile) is a measure of average surface overlay costs that can be used to monitor the cost vs. benefits of particular treatment methods.

- Average pavement management system spending per lane mile is a measure of staffing, technology and other costs for the collection, analysis and reporting of pavement condition and other data used to assist decision makers develop preservation strategies.

- % Scheduled maintenance completed is a measure of the extent to which maintenance activities adhere to a general schedule where appropriate treatment methods are applied at the optimal time.

- Average time to close critical maintenance is a measure of service responsiveness to maintenance work orders in the "critical," or highest priority, category. An agency needs to develop its own definition of what "critical" means.

- Average response times to different types of work orders is a measure of service responsiveness to work orders by type, such as pothole requests, debris removal, downed street signs, graffiti removal, emergencies, etc.

- # Claims due to issues in street maintenance is a measure of street operations safety in terms of worker and street user injury claims against the city/county. For example, the Washington Cities Insurance Authority reports liability claims by functional areas, which include street maintenance.

- % Treatment methods achieving targeted useful life is a measure of the efficacy of pavement preservation strategies and can be used to assess costs versus benefits of different treatment options.

For Engineering Management:
- % Pavement needing seal is the share of the pavement network where it is cost effective to perform seal treatment to extend their useful life.

- % Pavement needing overlay is the share of the pavement network where it is cost effective to perform surface overlay.

- % Pavement needing rehabilitation / reconstruction is the share of the pavement network that can no longer be treated cost effectively and need to be completely reconstructed.

- % Intersections not meeting level of service targets can be used a measure of ADA accessibility in planning for more equitable street infrastructures.

- Average sidewalk condition can be measured in terms of the number of offsets per mile of sidewalk.

- % Arterial mileage without sidewalk on at least one side can be used as a measure of walkability in planning for more pedestrian friendly street infrastructures.

- % Arterial mileage without bike lanes can be used as a measure of complete streets in planning for more multi-modal street infrastructures.

- % Target dates met for bidding out annual contracts can be used as a measure of cost efficiency where agencies are bidding out annual contracts for work like asphalt overlay to obtain the most favorable bidding climate.

In the course of researching performance measures for street systems management, we found that local government performance audits of street programs provide especially useful and actionable examples of using performance measures to inform improvement strategies. Here is a sample of recent audits for further reading:

- Street Pavement Maintenance: Road Conditions is Deteriorating Due to Insufficient Funding, City of San Jose Auditor's Office, 2015. http://www.sanjoseca.gov/DocumentCenter/View/46908
- Review of Road Services Division Pavement Preservation, King County Auditor's Office, 2014. https://www.kingcounty.gov/~/media/depts/auditor/new-web-docs/2014/2014-rsd/rsd-2014.ashx?la=en
- Street Pavement: Conditions show need for better stewardship, Portland City Auditor's Office, 2013. https://www.portlandoregon.gov/auditservices/article/435217
- Performance Audit of the Streets Division's Pothole Repair Operations, San Diego Auditor's Office, 2013. https://www.sandiego.gov/sites/default/files/13-012_potholes.pdf
- Failing Streets: Time to Change Direction to Achieve Sustainability, City of Berkeley City Auditor's Office, 2011. https://www.cityofberkeley.info/uploadedFiles/Auditor/Level_3_-_General/Streets%20Audit%20Report_Final(2).pdf

## Suggested Visual Management Dashboard at Operational Level

The sample visual management dashboard is a conceptual mockup of a communication tool that provides at-a-glance information about current process performance, both quantitative and qualitative data, to help street operations staff coordinate and guide their daily work and monitor ongoing improvement projects. The board is organized into typical major task areas of a street maintenance program. The measures are illustrative of the kinds of information that might be useful to make visible and updated regularly and frequently for people performing the work to enable real time problem solving, create positive feedback cycles and motivate staff.

# Dashboard Work in Action...

GPC Lean Community of Practice visits the City of Tacoma's street maintenance shop in November 2016.



Washington TIB Performance Dashboard pioneer Steve Gorcester shares stories and insights about mastering fact based government at GPC Municipal Dashboard Champions Convening on June 11, 2019 at City of Renton.



City of Tacoma Pavement Manager Erik Sloan (left) and City of Renton Street Maintenance Manager Patrick Zellner (right) in conversation at GPC Municipal Dashboard Champions Convening on June 11, 2019 at City of Renton.

**Watch the video:** https://youtu.be/gOEz5ApkQ-4
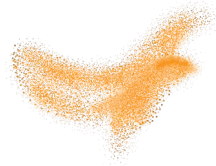
# Clarity Clinic

## Overview:

Getting to measures that matter requires clarity. We recommend convening a group of peers to help you identify and clarify the important outcomes of an agency, department, or program. This case clinic provides a clear structure and step-by-step guidelines for engaging a group of peers to help a "case-giver" reflect and clarify their goals and metrics. A "case giver" is ideally the person responsible for the purpose and service delivery of a given program, department or agency. Clarity Clinics enable participants to:

- Generate new ways to look at the purpose, challenge or strategy of an agency/program
- Translate abstract council visions into concrete operational goals
- Develop meaningful and actionable performance measures

## Purpose:

To think well for oneself and together as a group on key questions about the intended outcomes of a municipal agency or program in a supportive peer group setting.

## Principles:

The case should be based on a perceived gap between the current state and the desired future state of a municipal agency or program.

- The case giver needs to be a key player in the case.
- The participants are peers with no hierarchical relationship among them.
- Create the best possible conditions for the case giver to think on his/her own terms. Listen gently, quietly and encouragingly. Take it slow and allow silence.

## Set Up:

- Groups of 3-5 peers
- Sitting in a circle or around a table where everyone can see one another.
- A minimum of 60 minutes is required.
- Handout instructions for each participant.

## Roles:

- Case Giver: sharing a challenge and specifying desired outcome
- Facilitator: managing time and moderating questions and group dialogue
- Group Members: playing one or more of the following roles
    - Coaches: asking questions that facilitate and expand positive thinking
    - Consultants: providing expert opinion, sharing experience, stories & tools
    - Supporters: expressing appreciation & acknowledgment for what's working
    - Critics: identifying critical issues, risk factors & false assumptions
    - Out-of-the-boxers: bringing wildly unexpected perspectives to the mix

| Clarity Clinic Process ||
|---|---|
| **Step** | **Activity** |
| 1 | **Select Case Giver, Facilitator, and Group Member Roles (2 min)** |
| 2 | **Sensemaking Interview with the Case Giver (30 min)**<br>Case Giver takes 1-2 minutes to reflect on what s/he hopes to achieve through the clarity clinic. It may be helpful to write down short notes on the following questions:<br>• What would you like to gain clarity on through this conversation?<br>• On a scale of 1-10, how clear are you on the matter you'd like to gain clarity on? (1=complete lack of clarity, 10=complete clarity)<br><br>Facilitator interviews Case Giver with the following questions while Group Members listen in silence without interruption. Ask one question at a time. Aim to cover all questions in the order they are listed in the suggested amount of time. Let the case giver complete their thought before asking the next question.<br>1. What are you trying to accomplish?<br>2. What connections or contradictions do you see between your council/leadership goals and your agency or program goals?<br>3. What is your vision of your agency or program one year from now?<br>4. What is the gap between your current state and desired future state?<br>5. What would be an exciting goal for you to work on over the next six months?<br>6. What are the major steps or strategies for achieving that goal?<br>7. What else could you try (if you were not afraid or holding back)?<br>8. What actions are necessary to implement one of your strategies?<br>9. What do you need to know in order to see if your strategy is working?<br>10. What is a measure of success that speaks to you personally? |
| 3 | **Group Asks Clarifying Questions (5 min)**<br>Group Members ask questions to get a better understanding of the case giver's context and way of thinking. Don't give advice, make commentary, or ask leading questions with advice or solution baked into them. Facilitator moderates the conversation to ensure questions are for clarification purposes only. |
| 4 | **Group Offers Reflection (15 min)**<br>First, Group Members each reflect in silence on what they heard and what came up for them as they listened to the case giver (~2 min). Then, Group Members (including Facilitator) take turns to offer observations, ideas, insights, stories, advice, etc. based on the roles they selected to play. Case Giver listens without interrupting and notes any ideas on follow-up. If Group Members complete their offerings early, Facilitator can move the group into an open dialogue on how new perspectives or approaches may enhance the case giver's situation going forward. Go with the flow of the dialogue. Build on each other's ideas. Stay in service of the case giver's need to establish clarity. |
| 5 | **Closing Interview (8 min)**<br>Facilitator interviews Case Giver on the following questions:<br>• What has become clearer through the course of this conversation?<br>• What is your level of clarity now on your case on a scale of 1-10?<br>• What is one action you are likely to take after this conversation?<br>All members take turn to say something brief to complete their participation (e.g. express thanks and appreciation). |

# Stories From The Field

IN THIS SECTION

# Mastering Fact Based Government: Insights from Evolution of the TIB Dashboard

### By Steve Gorcester Edited by Chelsea Lei

*Steve Gorcester is the former Executive Director of the Washington State Transportation Improvement Board (TIB), a large infrastructure grant program. He used his Lean training and belief in measurement to create better programs and long-term financial stability. He led development of the award winning TIB Performance Dashboard. As a core advisor to the GPC Municipal Dashboard Project, he has shared numerous insightful stories and lessons learned with our community of practice. Here is a compendium of his ideas and practical pointers on what it means to govern by facts and how to use data and performance dashboards to improve government.*

## First, Establish Fact Basis

I spent 15 years of my 32 years in government running the Washington State Transportation Improvement Board (TIB), a large infrastructure grant program. We pushed through $2 billion of infrastructure funding during my time at the TIB.

The interview panel for the Executive Director position asked what I would focus on first should I get the job. I planned to research why there seemed to be so many open grant projects in the inventory, some started too many years ago. Not surprisingly, the excessive number of grants had stressed the budget and the agency was 5 months behind in payments to local agencies. Performance data would be needed to turn that around but it took days of research to extract basic facts like remaining grant obligations. In the months ahead, I caught this bug of using performance data to inform continuous improvement by going through the process of  establishing what I call "fact basis".

Over the years, my staff took on many process improvements informed by performance data. For example, we re-engineered the geographically inefficient paving of small city streets and raised the average pavement condition in cities and towns across the state. It was not until we started to systematically collect and visualize performance data using a dashboard that we realized that our former practice of funding small scale projects had failed because we were paying double the cost per ton of larger projects due to poor scale economies.

Today, the TIB Performance Dashboard [1] provides real time information on the agency's financials and program effectiveness. When initially created in 2003, it was among the earliest examples of live and interactive performance dashboards in government. The dashboard gives the public the same data used by staff and the Board of Directors in managing the agency's $200 million annual budget.



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1    http://www.tib.wa.gov/Dashboard/
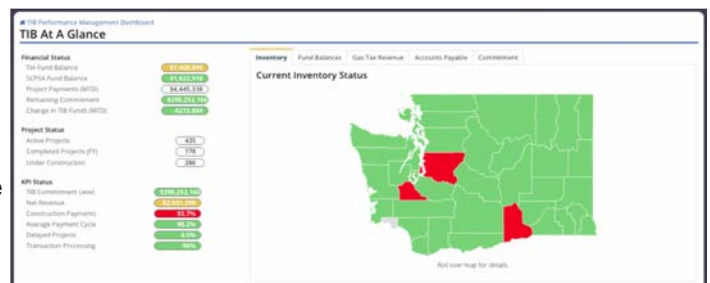
I didn't know at the time that establishing fact basis is the gateway to what we're all trying to do, make government work better and improve public value. I saw the TIB staff work hand in hand with small towns to stop the long decay of their aging streets. Performance initiatives in many Washington state agencies produced similar achievements. I have absolute belief that the people of government will pursue exceptional results with the right facts and a clearly stated purpose. Measurement and setting targets are critical elements of the improvement process. What we need is to help one another overcome several key barriers unique to the government sector, taking good ideas and examples from learning networks like the Government Performance Consortium and continuously adding our own ideas to advance fact based government.

## Dashboards are NOT about Transparency

People in government produce a lot of data. It is often held in massive warehouses but we can't see it without data visualization. From my experience running TIB, I know that high performance government requires us to make the highest and best use of data. We have to use it to inform improvement.

A couple of key barriers keep government agencies stuck at the low-value stages of data usage. When agencies are ordered to report measures, they may mistakenly believe measurement is about transparency. It's not about transparency. Measurement must be used by the people doing the work to learn and make things better. If we manage that way, transparency is a byproduct of using data. When we turned the TIB dashboard public facing, we accomplished transparency too, even though we never set out to do that.

Second, when somebody asks for metrics, people look for what data they have and package that data into metrics that don't necessarily mean anything to them personally. They reported, and reporting was their only objective. But the data we need often can't be found in the data we have, it must be based on what we are trying to accomplish. I also often see people go straight to visualization, produce the pretty pictures, without making accurate data a part of daily work. Their dashboards end up too hard to update, go stale and will not be used.

Measuring what we're trying to accomplish is far more valuable than measuring the data we happen to have. It does take some time to learn to see intended outcomes and ask questions in a methodical way that leads to important and useful measures. I've found that if you know your purpose, identify strategies that perform to purpose and follow an action plan that implements those strategies, the right measures fall out.

Finally, establishing data flow is vital. A dashboard with both utility and currency requires establishing the routine flow of accurate data. If you build a dashboard one day, and you don't flow data to it, it will become static and outdated fast. A great dashboard can't evolve if the marginal effort of every update is high.

For example, the TIB made changes to its street project database so the dashboard could automatically calculate how long it takes to process a transaction request. Meeting intended targets for transaction processing ended the common customer phone call about their delayed transaction requests. Those phone calls were a form of inefficiency that we easily designed out.

There are three methods for getting data into dashboards: static, excel-driven, and relational-database-driven. There's nothing more important to ongoing success with visual management than establishing data flow to enable automated database-driven dashboards. Database-driven dashboards can access data from the management systems where the actual work gets done. Take the example of a licensing agency that inputs a new license into a database application. An automated connection between a dashboard and the database means the licensing agency has already done the work to keep a dashboard current. No additional counting!
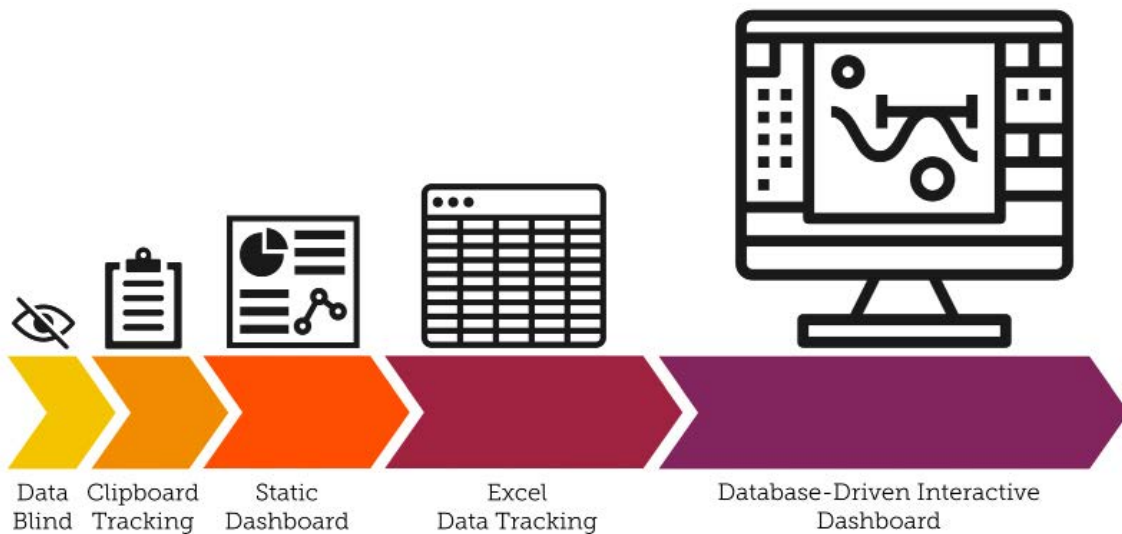
## An Evolutionary Process of Continuous Improvement

**Performance measurement is not an event. It's an evolutionary process.** No organization can bypass the evolutionary steps. The TIB had few examples when we started in 2003. We couldn't find another government agency building real-time web-facing dashboards. There are many more great government measurement examples now though. Looking back, each step we took to improve visualization at TIB was part of our evolutionary process toward effective measurement. We were learning to build dashboards, to count the right things, and to see what the data could tell us about providing great service. Creating a continuous improvement environment means never finishing this process. We just kept finding opportunities to make things better and leveraged performance measurement to get there.

My first dashboard-like tool was a "heat map," a color coded static snapshot of TIB's key performance indicators (KPIs) in three different years. A static dashboard requires new data to be loaded manually at each update. My staff had to process through old data to find historical data for important metrics. The most valuable KPIs just were not gathered in the past. Even with that limited early view we could see for the first time where we were trying to go and take specific actions to operate within budget. Once we were paying customers on time, KPI indicators started to fall in line.

The TIB Performance Dashboard originated from these early static charts. We created a standard financial report for our Board of Directors and then improved visualization over time. This helped the Board make well-informed decisions. Eventually, financial reporting could all be done with the online dashboard. I even took a mobile version into Legislator briefings.

After a couple years of clipboard counting, we managed to automate the charts and build a first-generation dashboard. I still remember the day when myself, the finance officer, and our technology officer were huddled around a computer monitor. I looked at the prototype on the screen and said, "Let's keep doing that. We're onto something!" We did not yet know it would speed improving pavement conditions in small towns or save millions by rapidly converting to LED street lights. In the coming years we built a data platform that won an Award for Excellence from the Government Finance Officers Association and an Innovations Award selected directly by state legislators from across the country. Most valuable though were multiple future funding commitments from the state legislature. We were seeing a better way to learn and tell other people how we were performing.

## Evolutionary Steps in Mastering Fact Based Government



Data Blind    Clipboard Tracking    Static Dashboard    Excel Data Tracking    Database-Driven Interactive Dashboard

In the next several years, we continued to build more powerful versions of the performance dashboard as we improved measurement information. We threw out and renewed about 85% of what we measured in the process of moving from Gen-2 to Gen-3, one of the 5 major dashboard redevelopment efforts from 2003 to 2017. Realizing better measures was a natural part of the evolutionary process. Eventually, we got to a point where we could see improving KPIs in real time and we were able to say, "We've turned the curve on that problem so let's start making other things better. Let's live in a CI (continuous improvement) environment!"

In 2007, we turned the Gen-3 TIB dashboard public facing on a website. Initially my staff was worried people would use our data to criticize us. But that was folklore! Potential critics turned out to be more concerned that we knew our own facts. When we could show we knew, they were more content.

Over time, the use of performance data become embedded in our daily work. I asked for standard performance information every month and at every board meeting. My staff were talking about the performance data across the office. Data visualization trained our eyes to see patterns and spot problems very quickly by glancing at the numbers and graphs on our dashboard.

For example, there is one graph that tells me more about the financial condition of the agency than any other. The net revenue graph tells me if more money is going out to projects than coming in month over month. Street projects do not neatly come in right at budget, so the graph should oscillate above and below net zero. Too much above, funds will collect in the bank instead of improving streets. Too negatively weighted and cash shortages will develop. I know which way fund balance will be going from looking at that graph because data visualization trains the eye to see connections between facts.



Today, on the Gen-5 TIB dashboard, you can see TIB's financial and project status at a glance. No more 10 day wait for analysis. You can also see performance embedded mapping features that pull database values onto Google Maps to create easy geographic functionality. Some dashboard data updates immediately upon entry into the project tracking database application. Several dashboard web pages update right away when a project moves from design to construction in the database.

## Standard Work Meetings Based on Performance Data

Establishing a fact basis, building dashboards and drawing process maps were key components to what became a government business turn-around. I later came to understand Lean, the Toyota Production System, and realized we could make things better by designing processes to perform to purpose. I was taught to ask three essential questions to promote a constant state of inquiry: What's happening now? What should be happening? How can we close the gap?

After we had fully recovered from years of over programming I turned my attention to root cause. We were spending $10 million per month of the people's money. How could I make sure we never lost control of it again? Root cause 5-Why inquires led to several causes, including a condition I call "straight-to-do", where a program or activity just gets stood up in response to budget or policy. We had done that. When the Legislature provided funding to help small towns restore their pavement, we responded by distributing $50,000 checks. But that problem of geographic inefficiency translated to poor scale economies. Our straight-to-do process led to poor results. Street condition continued to slide.

If people think instead about their desired future state, they would be in a better position to design processes and implement strategies that converge on goal. This requires processes designed to perform to purpose like the Toyota Production System was developed to do. Performance measurement slots right in there to tell us whether our design is working.

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**3 Primary Uses of the TIB Performance Dashboard**

1. Rapid status reporting
   a. Every board meeting
      i. Financial
      ii. Project control
   b. Legislative report
2. Standard meetings
   a. Quarterly financial status
   b. Quarterly inventory control
3. Annual assessment
   a. Scorecard (presented to board)
   b. Assessment report
      i. What happened previous year
      ii. What metrics indicate
      iii. What to expect next year (strategic redirection)

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**The best process improvement we did at TIB was instituting two standard work meetings: one on financial status, the other on project inventory.** The meetings were designed to establish a shared inquiry into what's happening now, what should be happening, and responding with specific countermeasures to close the gaps.

We created a rapid financial status report we would give at every board meeting. The format was standardized so the board would get used to seeing the essential numbers and graphs. It armed them with facts and made them better at asking great questions. We would always tell them, what's the fund balance, how much inventory is under construction, payments per month and increases versus surpluses on projects. We turned TIB around financially because small process improvements made us better decision makers and enabled our board to make data-informed rather than data-blind directions.

The inventory control meetings were critical to our ability to manage program risk holistically. In my industry we are taught to manage projects. I was trying to bust the myth that everything was fine if our individual projects are well managed. At the peak, we had 936 projects. We started 2002 with 70 delayed projects that were up to 12 years old. Imagine the risk escalation on 12-year-old capital projects. All were now under funded and many already showed signs of failure, never reaching construction and wasting prior design expenditures. A few things going wrong on a single project is normal, but a few things going wrong on 900 projects can sink you. Small deviations in schedule, cost or risk of failure on individual projects rolls up to a potential waste and cost exposure. We used inventory control meetings to share problem-solving on individual projects and manage risk across the entire portfolio.

Inventory control meetings started with the Lean standard question "what's happening now?" My staff didn't initially know how to answer that, but ultimately they learned to answer at a high level. "Right now we're doing pavement ratings and we need to get ready to rate 300 new project requests." It would take 2-3 minutes at the beginning of the meeting, and then we go into the standard work process we had developed around controlling the inventory of projects.

## Capture Greater Value with Performance Data

**Value is public sector profit.** People in government can design processes to capture greater value if they see the intended outcomes of their programs and improve in a measurable way. I knew the straight to do process of sending out $50,000 checks was underperforming. Our charge was to help small cities maintain their streets, because they don't have enough gas stations to generate the money locally. But if the project was $150,000, they did a third of it at up to twice the unit cost due to poor scale economies. Sending out checks felt good, nobody objected, but the street condition continued to decline. Were we really helping them? How could we tell without facts?

Back then, we measured performance by how many agencies got checks. When we started to look at that from an outcome basis, improving street condition, instead of an input basis, number of checks sent, we realized that what we were really accomplishing was disposing of the people's money. Since then we started to focus on the outcome of the money we spent and used the TIB dashboard to track pavement condition ratings in cities and towns across the state. We ended up spending the same amount of money, but the streets conditions got better. That's value capture!

In another case, we found a single work stream where we awarded grants for the design phase of projects that did not have any identified construction funding. Projects funded for design only have a higher tendency of failing to reach construction. The policy created an incentive to spend grant money on design even when the customer would not have spent their own money that way. We never completely eradicated failed projects, they are a business reality, but we nearly eliminated losses to wasted design when we understood where the construction funding would come from. That's value capture!

The TIB replicated small and large process improvements over and over, and it still does. The Legislature responded by asking us to create multiple new programs and help our customers build even more infrastructure. The TIB dashboard helped us answer the question "how-do you-know?" It was not the only way - other visual management tools emerged, but it was the big one.

## Unlock the Motivational Value of Pride with Performance Measurement

If you visit the TIB dashboard website, you can see pavement condition of small cities and towns in all counties across Washington State. And if you take a look today specifically at the street inventory information of the Town of Mattawa in Grant County, you would see a map showing pavement condition of the entire town and that the average pavement condition rating there is above 70.



A screenshot of Mattawa street condition pulled from TIB on June 21, 2019. https://www.dropbox.com/s/tl4aidyo1ozs0sd/Screenshot%202019-06-21%2012.37.30.png?dl=0

Before we initiated this program, Mattawa had an average pavement condition rating of 33. We were not aware they were begging the Governor for help. Once we collected the data and built an online map, we could see all the failed pavement in town. They had the worst pavement condition in the state. Now it's mostly blue and green, meaning new or good condition. Our program rescued these streets.

And Mattawa was not alone. Before we started to systematically measure things, pavement conditions of 160 small towns - 3000 miles of streets - had been declining for decades. They were set up for failure with low local revenues, poor build quality long ago and remote locations. Since 2008, small city street condition has improved collectively.

The heart of Lean is orderly inquiry. I'm proud of the way my staff went through the inquiring process together and demonstrably turned the curve. In the current state at that time, we were sending them checks but did not know what the condition was, nobody was measuring it. When we asked what our desired future state would be, we realized first and foremost we needed to know what the actual street conditions were.

For this first objective, we did a process improvement project by following the plan-do-check-act (PDCA) improvement cycle. We figured out how to get the data, operationalized the process, and started to flow the data into the TIB dashboard. Next, we did another round of PDCA and figured out what it cost us to maintain the streets. We discovered very high unit prices on asphalt - much higher than other paving projects. The issue was that asphalt is price elastic, so small quantities of asphalt hauled long distances are a perfect storm of inefficiency. So the question became how can we curb the unit price disadvantages of small towns spread across 70,000 miles?

We realized WSDOT, our state department of transportation, was paving in the same towns on state highways and they're paying 40 percent less on average than what the towns were paying. So we thought, why don't we have them do it? At the same time, the counties were paying 60% or less for preventative pavement sealing. We thought, why don't we have the counties help too? These partnerships unlocked the skills and price advantages of much larger projects.

The Speaker of the state House of Representatives called me out of the blue one day and said our customers told him they got the best service from TIB, referring to my staff. My staff loved providing great service to our customers and their belief grew in the power of performance management. In government, we don't have a lot of flexibility to incentivize people with money, so we've got to unlock the motivational value of pride. I've found one of the best ways to do that is to show with data that we've really turned the curve on what matters. And then do it again.

# Just the facts...

Here are 4 mini-TIB performance improvement examples. These were the things that made the biggest difference, were the most tangible. There are 80 other stories...

### Redesigning the Small City Preservation Program Around Facts

| | |
|---|---|
| What? | We were sending out $50,000 checks but street condition wasn't improving. Asphalt is highly price elastic. We were buying small amounts of asphalt, hauled long distances at high unit prices. No pavement condition data. |
| So What? | We explored other options, experimented, created data flow with pavement ratings, and learned to fight back against geographic inefficiency. |
| Now What? | Implementing countermeasures to geographic inefficiency worked. Bulk purchasing improved cost efficiency. Pavement condition improving. |

### Using Lean Thinking To Create the Complete Streets Program

| | |
|---|---|
| What? | TIB received funding for Complete Street grants, meant to encourage designing streets for all users, not just cars. Not enough funding to be an effective incentive. |
| So What? | Wanted to create a powerful incentive for better street design. Set up a recognition award instead of a grant program. Funds can be self-directed to any complete street project(s). Leveraged the incentive value of pride in great design. |
| Now What? | Dramatic increase in adoption of complete street policies. Unlocked the incentive of pride beyond just winning a grant. Fewer than 10 project grants became Awards to 88 winners since 2016. Created entrepreneurs for better design. |

### Financial Turnaround The Long-Term Recovery Strategy

| | |
|---|---|
| What? | Too many grants led to late payments. Had no visual data to drive good decisions. Escalated financial risk. Legislators refusing to provide more funding. |
| So What? | Grant recipients calling the state because they weren't getting paid. Grant cycles being cancelled. Fewer projects built. |
| Now What? | Created clear policies for financial objectives. Established KPI's and visual financial reports. Picked the right metrics and worked to a standard. Changed daily work to "flow" the right data. Evolved from static visuals to live data dashboards. Right-sized grant programs and developed tools to "micro-trim" the cash flow. Took 3 years to fully stabilize cash flow. Established long-term financial security and four new Legislative investments in new programs. |

# Just the facts...continued.

| LED Street Light Conversion | |
|---|---|
| What? | Heard from a small town how much they spent on old streetlights. Lacked the funding for efficient LEDs. |
| So What? | State energy programs with high match didn't work for small towns. Individual towns couldn't convince utility owners to extend savings. Rapidly converting to LED would save $3 million. |
| Now What? | Pitched legislature for funding. Negotiated with utility owners on behalf of all 220 small cities. Program converted 195 cities since 2015. Quickly brought efficiencies to small communities and high environmental justice populations where savings were most needed. |

## Relight Washington

Statewide Completion
**80.4%**

Total Lights Replaced
**44,797**

### Status Indicators

- Greater than 80% Completion
- 20% to 80% Completion
- Under 20% Completion

### Overview

RELIGHT WASHINGTON
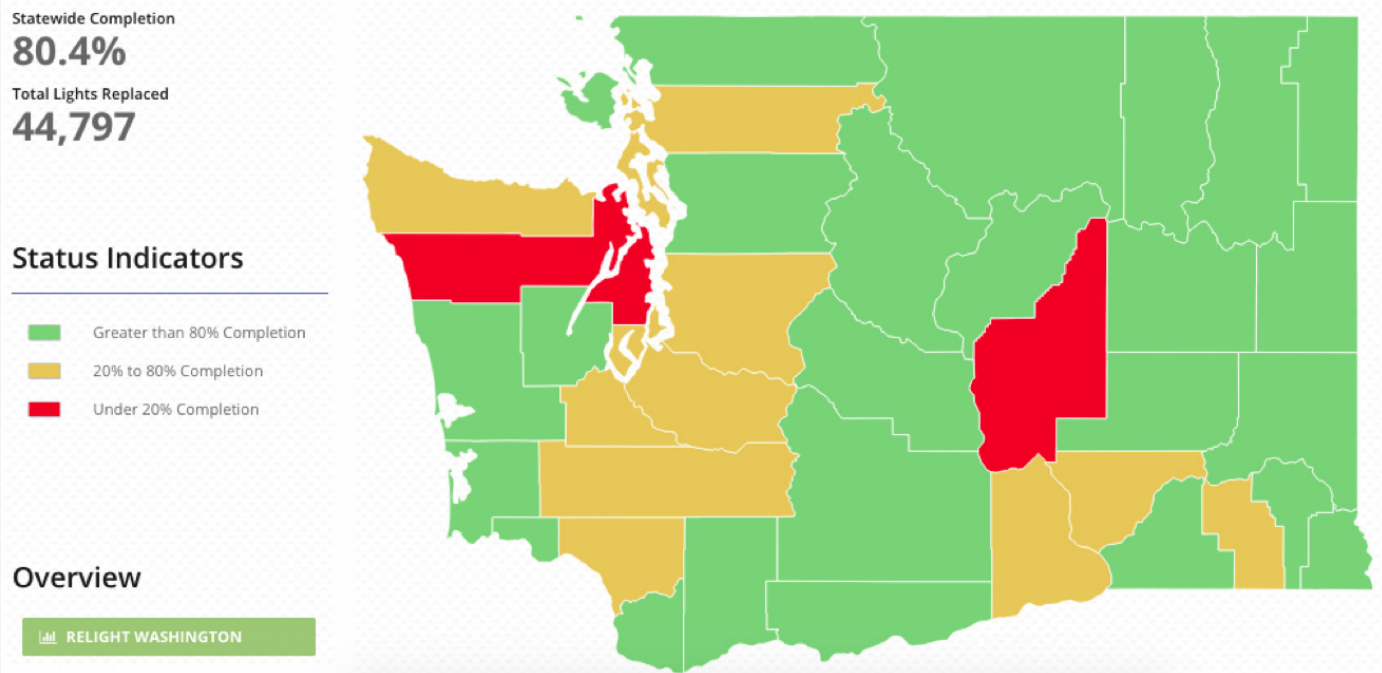
Caption: A screenshot of the Relight Washington program's public facing dashboard from the WA Transportation Improvement Board Performance Dashboard. http://www.tib.wa.gov/Dashboard/modules/RelightWashington/ (Accessed June 16, 2019)

Caption (Right): GovPandas is a comic series by Chelsea Lei about humans of government. This GovPanda strip is based on the true story behind Washington Transportation Improvement Board's Relight Washington program, which launched in October 2015. The program pays for initial capital costs to enable cities to convert to more energy efficient LED streetlights and achieve long-term savings.

# Gov Pandas: SG's Street Lights Story

Created by Chelsea Lei
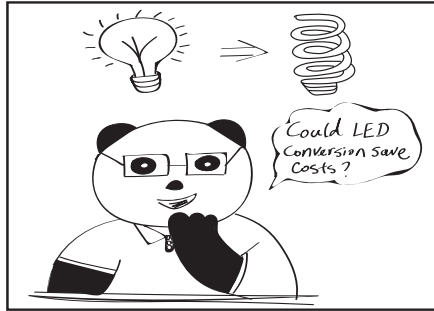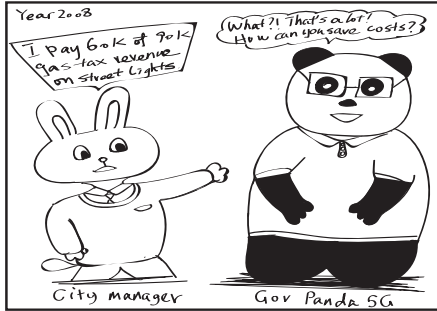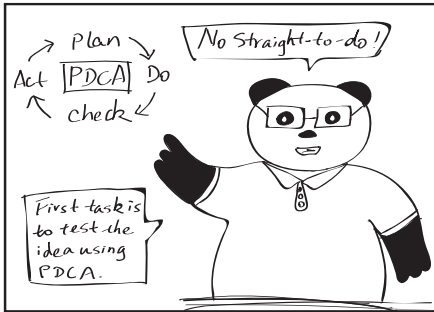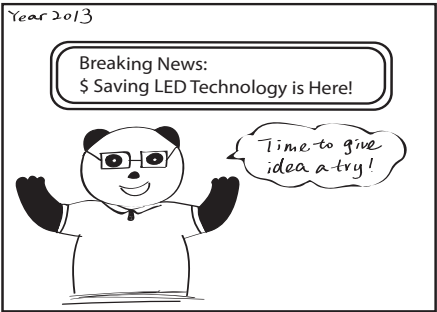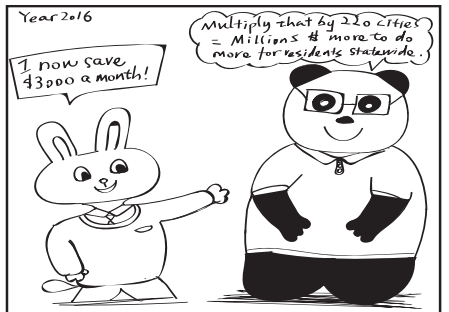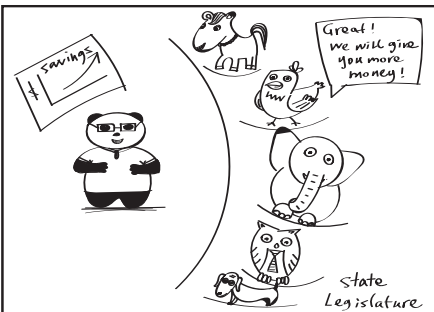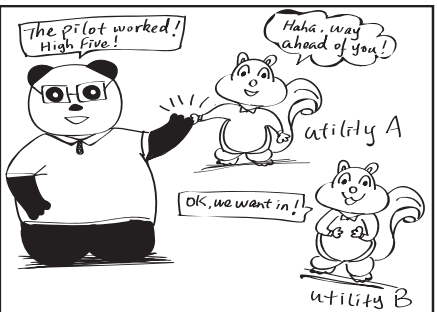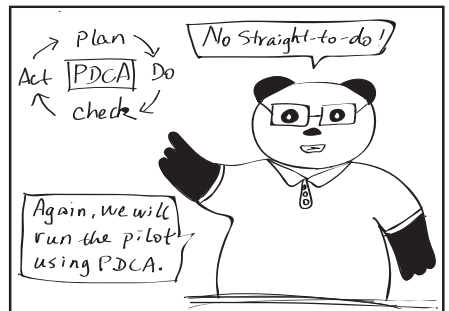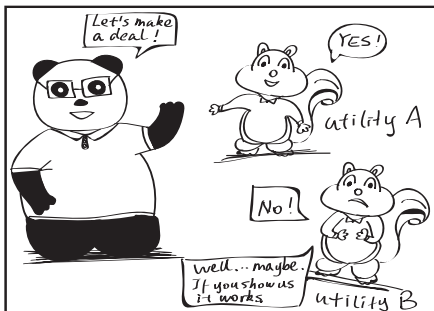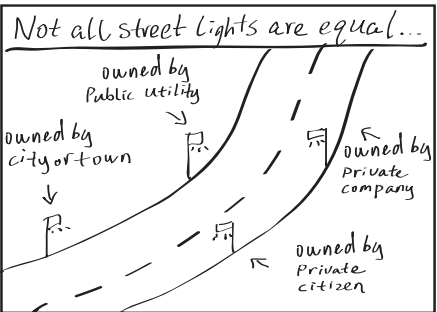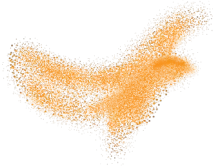
# Transforming Employee Healthcare at City of Kirkland

**Told by Tracey Dunlap, Deputy City Manager, City of Kirkland**
**Edited by Chelsea Lei**

I have a fact-based decision example that is fascinating, because it's not part of our performance measures or dashboards. But it's probably the best example I can think of.

We overhauled our healthcare program four years ago. At the time, we were seeing a lot of people with double digit growth every year in their healthcare cost. At the rate of growth we would have been liable for what's called the "Cadillac tax" under the Affordable Healthcare Act in 2018. That's upwards of $1.5 million.

The City Manager Kurt Triplett, the HR director Jim Lopez, and I were on a team looking into this. Kurt and Jim wanted to be bold given their successful healthcare overhaul at King County. I was the finance director at the time and asked lots of questions. What we did was we sat down with the data that we had about what's driving up our cost. Thinking about the urban legends in this, we found it wasn't emergency room visits. It wasn't expensive surgeries. It was office visits. We just had tons of office visits!

On-site clinics, or having your own clinic, was becoming a trend. It's a way to convert office visits to a fixed cost. For it to be successful we'd have to make it free to our employees. So we took a risk of doing that. We had a good partner - a startup care provider in fact - and we were their first major government client. We also designed what we called a "full systems approach" to give people economic incentives to make healthy choices and participate in wellness activities in addition to free unlimited primary care.

Since we started the new program in 2015, we've actually seen an increase in office visits, but it's a fixed cost. People were going in when they need to go in. So the quality of care stayed the same and in some cases got better, and our healthcare costs didn't grow at all for three years in a row. Everybody doesn't believe it but it's true.

I'm proud of the fact that while each element of our new program has been done successfully somewhere in the United States, our approach was unique in implementing each of these elements together, and at the same time, as interdependent parts of a full health care delivery system.

The other thing is the symbolic elements of it. This is very much an integrated wellness program. Our city manager needed to lose some weight. He decided when we were doing this he was going to commit to the coaching element. He did, and the transformation was fast and very noticeable. What we've seen is walking the talk. I can name half a dozen people who were inspired by that and did the same thing. One of them was one of our council members.

This was scary. We were really changing the way we were delivering healthcare. We needed to go all in. It all started with looking at the data. What made it successful was people really buying in and demonstrating commitment in a visible way to the organization.

## Bending the Trend

PEPM

Legend: Claims & Fixed, Non-Clinic · Clinic & Compass · HRA VEBA Funding · Pre-Clinic Trend · Trend w/Clinic
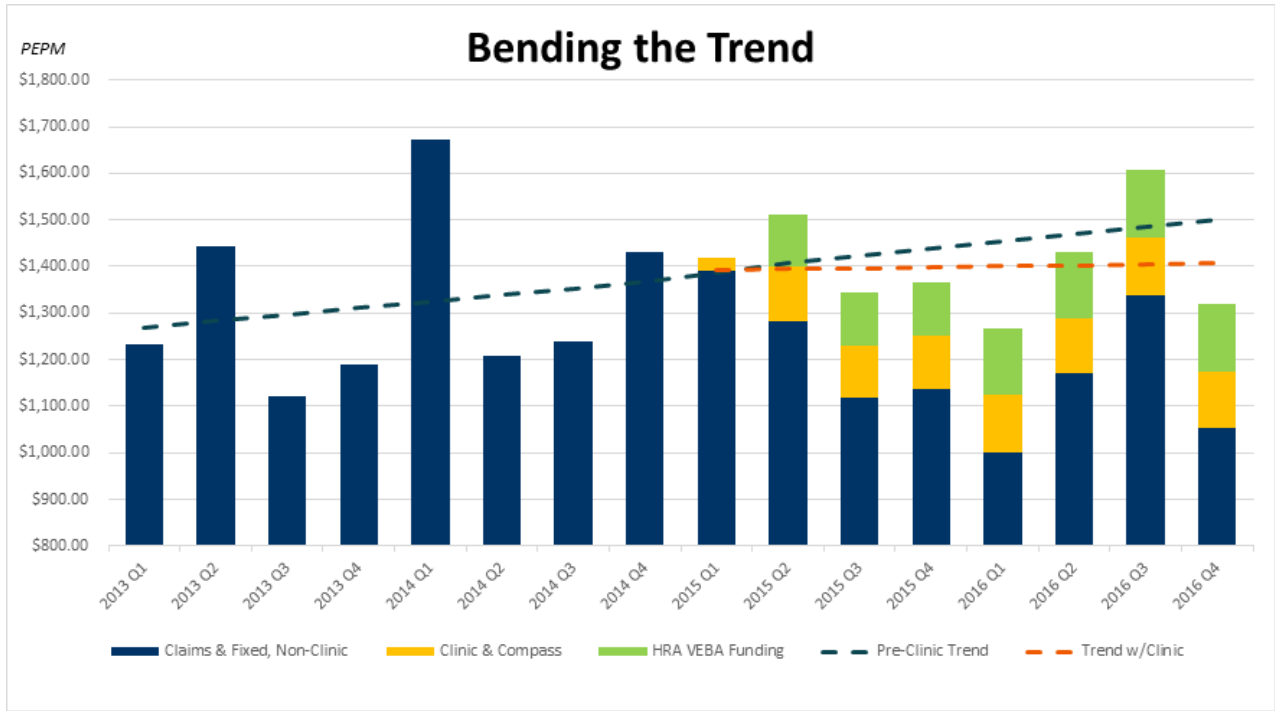
Introducing the Healthy Kirkland employee health plan in 2015 led to bending the trend of growing healthcare costs ("Trend A") to a sustainable level ("Trend B"). Source: City of Kirkland.



Kirkland's on-site clinic. Source: City of Kirkland.

**Timeline of Healthy Kirkland Initiative**[1]

- **2011**  Kirkland becomes self-insured (which helps make the city's health care cost data available)

- **2013**  City Council and City staff from HR, Finance and City Manager's Office conduct study sessions focused on employee healthcare issues and recognize an unsustainable trend in claims growth, which would trigger the Affordable Health Care Act "Cadillac Tax" in 2018. City Council directs the City to take all necessary action to avoid paying the Cadillac Tax.

- **2014**  City leadership sets goal of continuing to provide City employees with a quality healthcare plan while containing costs to a sustainable level.

    Healthy Kirkland Initiative is introduced as a "full systems approach" to meeting the goal.
    Principal elements of the program included:
    1. Individual economic incentives to better empower individuals to make more informed medical decisions and improve the likelihood of health savings;
    2. Increased market transparency so employees could be more informed in those decisions;
    3. Unlimited primary care services, free to employees and qualified dependents, to promote proactive healthy behavior.

- **2015**  City's new employee health plan goes into effect.

    The City's AFSCME, PSEU and Teamster bargaining units and Management and Confidential staff join the program.

    2015-2016 Budget assumes zero percent growth in health benefits fund as a result of higher than expected cash reserves from early results of the program and in anticipation of continued success of Healthy Kirkland Plan.

- **2016**  Remaining police bargaining units join the program.

    Overall health care "Per Employee Per Month" contribution decreased by 4.5% in 2016 (For interpretation: compare to 6% increase in national average in health care costs, and a 9.1% increase for 2016 with Association of Washington Cities high deductible health plan similar to the City's.)

- **2017**  2017-2018 Budget assumes no increase to the contribution to the health care fund in 2017 and a 2% increase in 2018 (well below national average and AWC plan increases)

- **2018**  Participation in the free on-site clinic and wellness incentive programs at highest levels seen by the provider.

    Employee balances in their health care saving accounts are in excess of $3.7 million as of September.

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1   Based on Tracey Dunlap's healthcare program update memo to City Manager Kurt Triplett on September 27, 2018, and Jim Lopez's healthcare update and 5-year benefits framework memo to City Manager Kurt Triplett on November 19, 2015.
https://www.kirklandwa.gov/Assets/Finance+Admin/2019-2020+Budget/Healthcare+Program+Update.pdf
https://www.kirklandwa.gov/Assets/Finance+Admin/2019-2020+Budget/Healthcare+Program+Update.pdf

# Building Capital Projects Together at City of Olympia

**Told by Danelle McEwen, Performance Management Specialist and Lean Black Belt, City of Olympia**

I have a story about how we leveraged visual management and performance data to transform how we build capital projects at Olympia.

In 2016, Public Works Engineering decided to take a look at the process by which projects flowed through the engineering pipeline from scoping to design and construction at the initiative of Debbie Sullivan, the deputy Public Works Director at the time, and Fran Eide, the City Engineer. I was tasked to be the point person for coordinating this process improvement effort.

We knew we had a problematic process as evidenced by damaged relationships between engineering and their internal customers, which had been going on for years. A symptom of this problem was that Fran's team struggled every year in meeting, what seemed to her team, as unrealistic expectations around scope, schedule, and budget.  This was causing a lot of friction amongst the Public Works staff and angst for Fran.

When we did some digging and collected information, we found that the design part of the process had a lot of spin, churn, and rework. Our theory was that the projects were not fully scoped with reliable budgets when they got to Fran's Engineering Team.  Each line of business would develop the project scope and preliminary budget without involving the engineers and project managers in Fran's group. When the projects reached Engineering to complete the design and construction, issues emerged that hadn't been previously identified. This resulted in churn and rework during the design process, which in turn affected the construction schedule. This often resulted in significant project budget overruns and schedule delays.

The goal of the process improvement project, which we purposefully named "Building Capital Projects Together!," was to help Engineering design a more standardized and predictable process. Their current process was somewhat unique based on the individual Project Manager or Engineer's approach.  There were some standards in place, some documentation, but everybody did things a little differently. The process wasn't predictable and it ultimately created distrust between Engineering and their customers.

To develop a standardized process, we worked with Larisa Benson and Steve Gorcester to put together a process improvement event. We carved out time during the week and took Fran's leadership team to work on the problem. To our surprise, it initially turned out to be a disaster. The team was reluctant to acknowledge that there was a problem and they were defensive.

In retrospect, this was a critical part of the learning journey for Fran and her team. We approached the problem using standard process improvement techniques – agreeing on a problem statement and mapping the current process. Steve Gorcester, who most of the team members knew, had a lot of credibility. He was able to demonstrate that churn and rework was embedded in the process.  Ultimately, the team acknowledged the problem and committed to working on it.

Steve introduced the idea of using a visual management board to allow the engineering group to see their work. He helped them design a work-in-progress (WIP) board. Instead of operating off of individual Project Managers lists or an online spreadsheet, we wanted to have a visual management board to show how the total projects and where each project was in the pipeline. This was the first step in "learning to see" the problem.

The engineering group came up with a prototype WIP board based on Steve's recommendation. The board has evolved over time to better meet the needs of Engineering, and their customers. One of the things the team did that's been really successful is implementation of regular stand up meetings with Engineering, project owners and other interested staff. Those meetings have been going on for a couple of years and I'm really proud of Engineering and Fran for being able to sustain that work and continue to get people to come to those meetings. In fact, they are very well attended, as people that want to know about projects can just pop into those meetings to find out what's going on with the work and the building of the capital projects.



One benefit of the stand-up meeting is at the moment problem solving. Engineering and project owners are having ongoing discussions about project status, issues, and at-the-moment problem solving strategies. If projects are stalled or stopped, the team can resolve issues quickly rather than having discussions via email or meetings, which took a lot longer. One of the primary goals of this project was to build trust and help strengthen relationships between Engineering and the project owners. These stand up meetings have gone a long way toward achieving that goal.

Another improvement Fran and her team implemented are collaborative field visits. These field visits are strategically designed to take place during the initial scoping phase of the project. The implementation of field visits is designed to address the spin, the churn, and the rework that were happening in the design process. Now, it is a collaborative effort between the customers, project management, engineers and whoever else needs to be involved, whether it's operations, survey or a consultant team. Engineering has developed standard work including forms, agendas, and expectations for this work. Following a briefing by the project owner, the entire team goes into the field together to look at the project site, determine what the issues are and what decisions need to be made. After the field visit, the entire team, and the project owner's Director, have a debrief meeting on the field visit. They're finding that the field visits are smoothing out the process quite a bit. That theory has been confirmed by establishing a common understanding of the project goals. The theory is that it will help reduce churn in design and keep projects on schedule and on budget.

Fran and her team historically struggled with what metrics, beyond soft costs, to track.
Now Engineering is tracking two metrics: on-budget project delivery, and on-time project delivery. Although they only have three years of data, they are already seeing encouraging progress. In 2016, for on-budget project
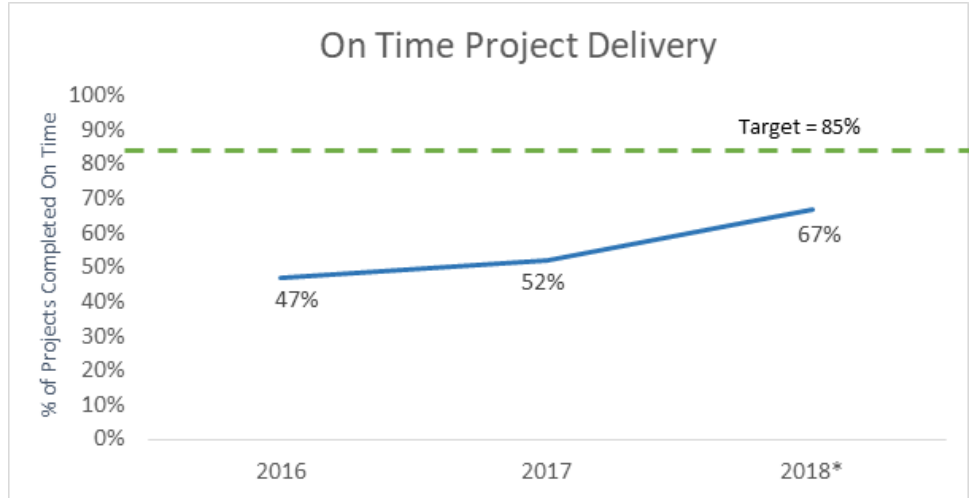
delivery, Engineering was at 40% with a target of 90%. In 2017, after implementing the work in progress board, the on-budget project delivery rose to 69%. It slipped back down to 56% in 2018. Engineering found this is due to limited data and projects that were in the queue before starting the BCPT! Process. The results are substantially better than where they started. Engineering will continue to track and report on this particular metric and dig into how they can continue to improve their performance.

The on-time project delivery metric was 47% in 2016, 52% in 2017 and jumped to 67% in 2018. The target is 85%. There has been improvement in a short amount of time, and we are definitely encouraged.

I believe a big part of what made this improvement effort successful was Debbie and Fran's determination to make these changes and sustain the effort. Fran especially has been instrumental in running the stand-up meetings and getting her team on board with this work. That was really, really tough.

At the onset of this project there was a lot of resistance from Fran's team to make the "Work In Progress" Board visible.



On Time Project Delivery

Target = 85%

47%    52%    67%

2016    2017    2018*

% Projects Completed within 6 Months of Date Identified in Project Charter, City of Olympia. *2018 was a transition year for the new project development process. Only 9 out of 21 of the projects completed in 2018 are represented due to poor data availability.

Everyone lobbied for a spreadsheet where people could access it on-line. It was presented as being efficient but I believe that everyone needed to readily see the work so they could identify the problem areas as a group. Historically, Fran and Debbie worked to solve the issues but until we could address the root cause, the frustration from the project owners would continue. We worked hard to help the engineering group feel safe to make their work visible. As one Project Manager said "I would go home feeling like a bad Project Manager but now I realized there aren't bad people just bad processes." If you talk to the Engineering team and the customers today they would say the experience has been positive, well worth the effort and worthy of sustaining.

# Interviewing a High Performance Leader at City of Renton

**Told by Chelsea Lei**

I have a story from doing research on the GPC streets performance dashboard. It's about Patrick Zellner, who is the streets maintenance manager at the City of Renton.

Patrick and I met at one of our events, For the Love of Cities, three years ago. Here's a picture of him showing his love for Renton in by posing as the letter "R".

I interviewed Patrick for the Municipal Dashboard Project. A few of the things that he said really stood out to me. I learned that he really cares about people being happy when they drive into Renton. He cares about the people who work for him. He told me, I have broken bones in my neck and back; when I became the boss here, I don't want anybody to get injured anymore. He also cares greatly about shifting the culture of the organization from pushing people to their utmost limits to actually intentionally building up the program in terms of their equipment, their staff skillsets and their sense of pride.

- "The better your roads are, the happier people are. When people drive into Renton we want them to see the difference."

- "When I became the boss here, I said, I will no longer allow any of our crew members to have their bodies broken."

- "[I wanted to shift from] push, push, push to the point of breaking, not enough people, not enough right equipment to building the equipment, building skill sets, and building a high level of expectation."

In the course of our conversation, he said something that just absolutely stunned me. During the most recent snowstorm, the one that hit our region on February 7 and 8, 2019 from Monday morning to Tuesday night, Patrick's crew "hit every single street and cleaned up all 700 miles of Renton streets in less than 48 hours." That's an extraordinary snow emergency response rate for any local government in our state.

As it turns out, Patrick has been working on preparing for this kind of winter emergency for a long time. He was crystal clear about his intended outcome: to remove the snow as quickly as possible. So he worked with the city's GIS staff to build an operations map that reflected everything he has learned about Renton's streets from decades of working on the street crew. The map shows five main snow routes and divides the city into several manageable areas for cleanup. He gradually built up the city's winter operations equipment. Whereas many other cities may not have even one snow plow, Renton has ten. During the summer time, he also made the crew

go out to test drive the snow plows because he knew when there's snow the city streets would look very different. He wanted the crew to have a working memory of the snow routes. Then, he basically told his guys the plan is you're going to stay in your assigned area and you do not leave until the cleanup is done. Finally, he has instilled in his street crew a strong sense of pride. He said to me, "my guys really feel like they own the street, they really care about it. The fact that they cleaned up every single city street in less than 48 hours shows the kind of commitment they have to our community."

This was a very humbling experience for me as a performance analyst who's chasing after key performance indicators and trying to build these holistic management frameworks and integrated performance dashboards. What I learned was that leaders like Patrick intuitively already understand and embody what "high performance" and "high performance leadership" mean. It's important that I really show humility and carry my curiosity to go see what he's doing. And to Tracey Dunlap's point about finding out what's already working even though it's not something on your dashboard, that's indeed very important.

I think Patrick doesn't necessarily speak the same language I speak about performance measurement. But when I heard what he and his crew were able to accomplish after that major emergency, I knew it was a powerful performance statistic. So, the question is, how can I help? How do I meet people like Patrick where they are and offer performance data tools in a way that's actually helpful? The story Patrick told me just had one single data point, for example. What if we had a measure of the average snow removal time

and also data from multiple events over multiple years to show a trend? Would that add value to him? I think he would probably say yes because it helps his guys feel proud of what they are doing when they could see that they are doing well and improving.

And to Steve Gorcester's point about the importance of unlocking the motivational power of pride, what I learned from Patrick was that by making sure his crew really understood the purpose of what they are doing and feel proud of the work they do, in times when they needed to really deliver results to citizens they did it.
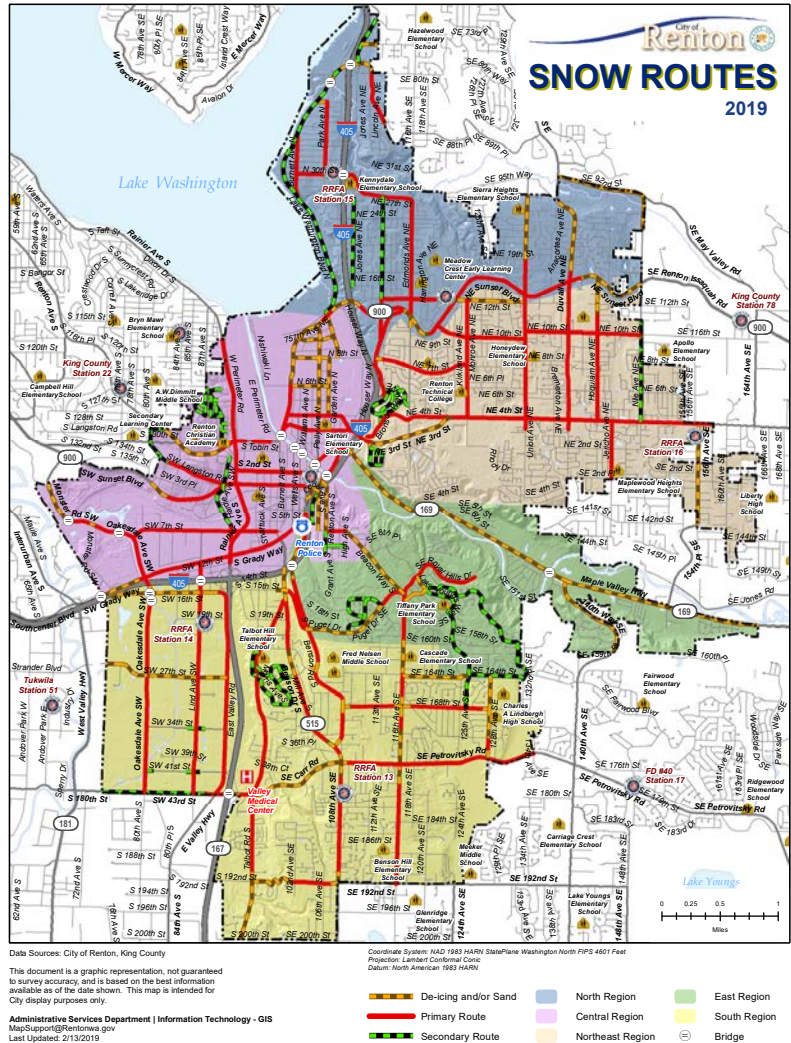
# Using Lean and Metrics to Improve the Commercial Permitting Process at City of Redmond

**By Larisa Benson**

Mayor John Marchione of Redmond was an early adopter of lean and the Government Performance Consortium at the UW, sponsoring a major redesign of the commercial permitting process in 2015. "I knew customer service was an issue in the development review process. Adding staff resources wasn't an option, we simply had to create more capacity within existing resources. And this is where lean came in."

Bart Phillips, CEO of One Redmond, a civic organization with a mission to attract jobs investment and to make Redmond a livable community, didn't mince words in his criticism of the city's commercial permitting process. "Before the lean project, Redmond had a reputation as a difficult place to do business, a high cost of doing business and inefficiency and unpredictability in the permit process."

Lean is a set of practices and principles that's used by the employees responsible for doing the work to take a fresh and close look at the service delivery process. Step by step, each activity is evaluated for whether or not it really adds value from the customer or employee perspective, or if it could be streamlined or improved in some way.

"And it all started by locking ourselves in a room for one week," said Kelley Cochran, who served as the lean project team lead. (She now serves as deputy director of finance for the city.) Three directors from the planning, public works, and fire departments co-sponsored a cross-departmental team of staff that had a working knowledge of the commercial permitting process, and the team was facilitated by Larisa Benson, a lean expert from the University of Washington.

Carol Lewis, a supervisor in the planning department, explains: "We started by listening to our customers, and we braced ourselves because we thought they would say we had to work faster, and we were already working at peak capacity. It turned out what really wanted even more than fast decisions was simple clarity on things like permits, plans and requirements. So we mapped out our process, we identified what our major pain points were, and then we came up with a series of prototype experiments that we believed would either increase the capacity within our process, the quality of our work, the level of customer satisfaction and/or employee morale."

Redmond discovered their customers are not "one size fits all," but rather fall into specific customer segments, each with different needs. This insight led the team to conduct a redesign of the website into three sections. One section meets the needs of "frequent flyer" customers who already know our system pretty well, another section provides more basic support for customers that need more assistance, and the third section includes tools, resources and ways to contact city staff members on specific projects. They also fine tuned worked on a PREP process, which allows customers to begin the process earlier and get through the process with a more predictable and complete timeline.

"We heard from our customers that they don't like to get hit with surprises," said Heidi Poole, an engineering technician in the planning department. What they do want, she said, was clear and accurate information so they can calculate their project costs from the beginning. In response, Redmond developed an online fee calculator that made it easy for a developer to answer a series of questions that automatically populates the fee calculator; it also sends reminders to let developers know when those fees are due throughout the project, relieving staff time and speeding up revenue collection. These creative solutions made the process easier and more user friendly for customers.
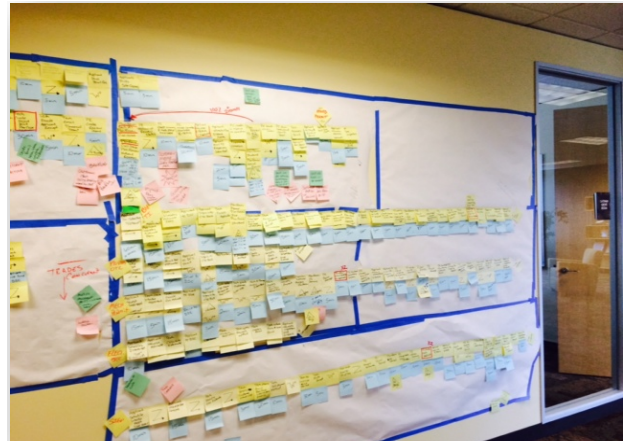
Kelsey Johnson, an assistant planner, said that the lean process helped the team recognized that what permit customers really want is more consistent and reliable information, so that they can move forward with their project. Permit staff shared stories about "answer shopping," a pattern where some permit seekers would approach the permit counter seeking the answer they wanted. This led the team to standardize their work and train all staff, so that the level of coordination between departments was improved. As a result, staff feel "on the same page" and more empowered to make decisions on issues related to project review and confident they are providing a consistent message to all customers.

"Lean can truly be an intense process, a lot of hard work," said Rich Gieseke, an assistant fire marshall who does permit inspections. "But that work is really necessary in order to understand the big picture and have a deep understanding of what it is we do and why we do it. Lean also gave us the power to ask for changes in how we do things, and remove those things from our work day that don't add value to the customers, and provide some assurance to our sponsors, our supervisors that we truly understand what it is we're trying to achieve within the organization. And that we know there's a more efficient way to do it."

A year after the lean team began this project, Bart Phillips was "very impressed by the process, both from being invited in early on to help identify the points that needed to be addressed. We were pleased to serve as the voice of the client, and we're very impressed with the outcome and the commitment of the city and city staff on improving the permitting process."

Mayor Marchione agreed. "I like how it brought employees together, to work collaboratively to solve problems. I like that we understand customer service better, that we are confident in the data and we've listened to our customers. Lean wasn't about cutting corners and lowering our standards. Lean is about customer service, keeping our standards high, doing things more efficiently. This helps the employees do their job and together we're building a great city."

Watch the video of the story: https://youtu.be/2OOWLscAYLg

# Dashboard Toolkit

IN THIS SECTION

# Creating a Functional Performance Dashboard in 8 Steps

**By Tracy Burrows, Executive Director of MRSC,** November 16, 2015

The Government Performance Consortium hosted six intrepid Government Data Change Agent interns for the cities of Airway Heights, Anacortes, Kent, Issaquah, Renton, and Tukwila.

Their charge was to create a viable local government performance dashboard in eight weeks, working 12-15 hours a week. A performance dashboard provides an at a glance view of key organizational performance indicators. Like an automobile dashboard, it allows the viewer to monitor important performance data in a highly readable visual display.

Watching the Data Change Agent interns work their magic this summer helped us better understand the process of building a performance dashboard. While the visual tool is the end product, the foundational work is all about clarifying your goals and connecting them to your metrics and data. It may seem daunting at first, but by following the steps below, you too can create a helpful, visual management tool for your department or jurisdiction.

Our roadmap to creating a dashboard is intended to get you started. If your jurisdiction hasn't been systematically collecting performance data, start small. Your first dashboard could be as simple as an internal management tool that displays expenditures against your annual budget to show at a glance whether your agency is staying within budget. Start with what you have, and expand from there.

## Step 1: Identify the Framework for the Dashboard

Many people dive into performance dashboard projects simply because they look cool and seem innovative. The goal is to transform raw numbers into a compelling story that drives performance decisions. A dashboard may be visually interesting, but if it does not have relevance to your organizational goals or operational strategies, then it is nothing more than a pretty picture.

To kick off your dashboard project, sit down with your management team and ask yourselves, what are the primary goals of your organization or department? What story is your dashboard going to tell? How will the dashboard be used? Will it be available to all staff or just management? Will it be made public so that citizens can track your success? How will the data be maintained?

Ideally, the data displayed in the dashboard will make agency performance more transparent to the public and help drive decisions that will improve agency performance.
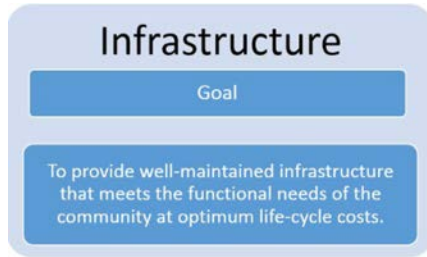Possible guidance sources for the framework:
- Agency Strategic Plan
- Council or Commission Goals
- Department Goals

Here is an example of a community's parks and recreation goal that could form the basis for a dashboard related to the effectiveness of recreation programming:

## Parks and Recreation
### Goal

To provide parks and recreation programs that enhance the health of the community

Likewise, progress toward a community's infrastructure goal could be monitored through an infrastructure dashboard:

## Infrastructure
### Goal

To provide well-maintained infrastructure that meets the functional needs of the community at optimum life-cycle costs.

Tip: Start with a narrow scope that can be broadened to encompass all the performance aspects of your local government.

## Step 2: Identify Key Strategies that Achieve Agency Goals

Your dashboard is going to visually show whether your agency is making progress toward its goal. But to do this effectively, you'll need to clearly identify what your agency is trying to accomplish and the steps that will get you there.

Use a logic model to capture the elements of the programs you want to measure.
- Inputs are the resources you are spending on the program.
- Activities (or outputs) are the things you are doing that make progress to the goal.
- Outcomes are the goals you are trying to reach.

Often you will find that there are many factors outside of local government that influence outcomes. That's okay. As you measure performance over time, you'll get a better idea of how and whether your local government efforts impact outcomes. Ideally, the measures will help you develop new strategies that are more effective in helping to achieve outcomes. That's called progress!

So here we're translating our parks and recreation goal into a very simple logic model that captures the basic elements or strategies of community fitness center programs:

**Input** — We have fitness center staff — So that... → **Activity** — We can keep the fitness center open and can provide classes — So that... → **Activity** — Residents use the center and participate in classes — So that... → **Outcome** — Residents are fit and live longer, healthier lives.

And here's the simple logic model for a single aspect of the infrastructure goal – filling potholes:



The Kellogg Foundation Logic Model Development Guide is an excellent resource for more information about logic models and how to use them to develop performance measures.

Tip: While this blog presents this process as consecutive steps , the development of a dashboard is an iterative process. For example, the data that you currently collect will likely influence your initial choice of measures. The choice of a dashboard platform may influence the measures that you choose to visualize.

## Step 3: Identify Your Performance Measures

The next step is to define the performance measures that track the program inputs, activities, and outcomes that you want to evaluate. There may be multiple performance measures that relate to a single activity. Choose the measures that most accurately relate to the goals that the program is trying to achieve.

Following our first example of tracking the performance of community fitness centers, below are sample measures that correlate to the defined inputs, activities, and outcomes:
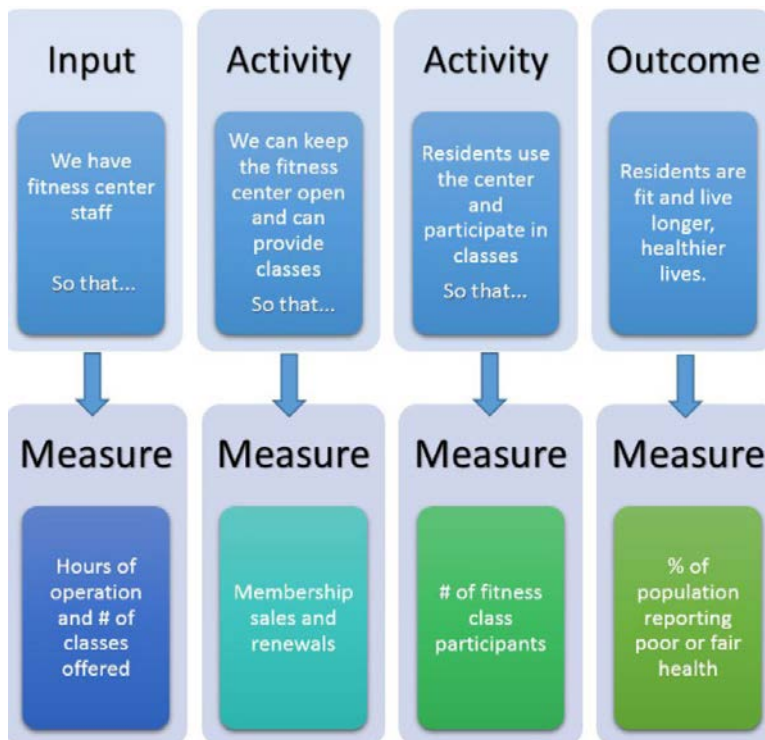
Here are examples of measures that go along with the infrastructure goal of filling potholes:
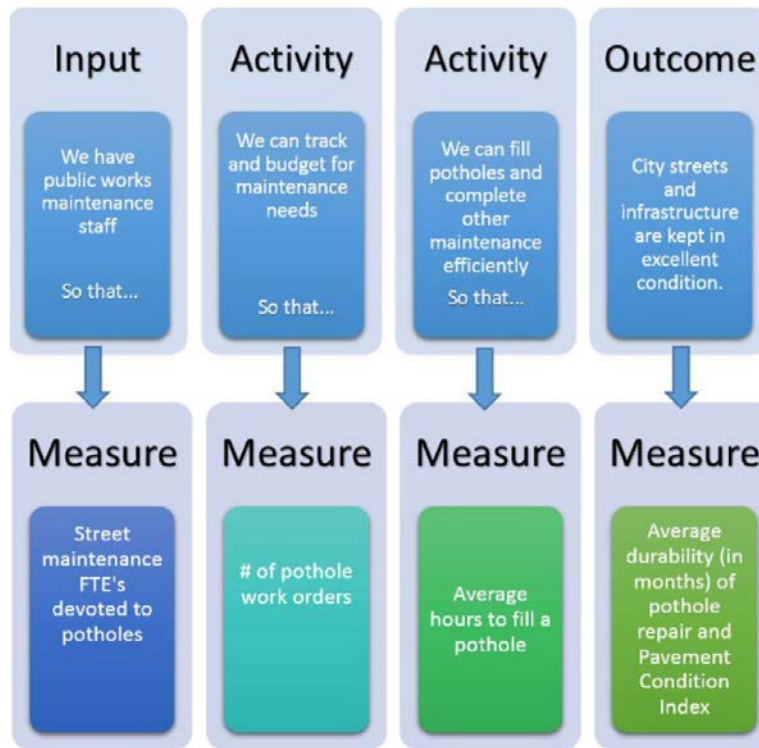


For more information on establishing relevant performance measures, see this Guide for Developing Relevant Key Performance Indicators for Public Sector Reporting by the Office of the Auditor General of British Columbia.

## Step 4: Conduct a Data Inventory

Your dashboard is going to visually display data related to the programs and outcomes you want to measure. But let's be real: you probably won't have all the data that you'd like to have. Start with the data that you already collect regularly or can obtain from other sources, such as the county or state. You'll be surprised with how much you have. Focus on the most important data and narrow the scope of your project to something that is achievable. You can always expand the project later. If you find that you do not currently collect key data, set up a system to collect it so that it can be included in the next iteration of the dashboard.

Steve Gorcester, Executive Director of the Washington Transportation Improvement Board, has developed this helpful recipe for a data readiness assessment:

1. What data do we need?
2. What data do we have?
3. Where is the needed data located?
4. What format is the needed data in?
5. What needed data is missing?
6. Do we need any data collection improvements?

Here's a simple example of a data inventory for community fitness programs. The data reflects both activities (# of participants in classrooms) and outcomes (% of population reporting fair or poor health). In this example, this data is going to have to be manually exported into Excel to populate the dashboard. This will mean additional staff resources to ensure the dashboard is regularly updated.

## Goal: Enhance Health of the Community
### Subgoal: Improve Participation in Fitness Programs

| Measure | Data Source | Frequency | Data Status |
|---|---|---|---|
| Membership sales and renewals | Recreation system | Monthly | Manual export to excel |
| # of participants in classes | Recreation system | Monthly | Manual export to excel |
| Geographic distribution of participants | Recreation system | Monthly | Manual export to excel, display in free mapping application |
| Satisfaction with facilities and classes | Need survey data | Quarterly | Not available |
| % of population that is physically active | Public Health | Annually | Available |
| % of population reporting poor or fair health | Public Health | Annually | Available |

A lot of local government data resides in proprietary system software that can produce reports, but not the customized visuals you want. That's where the dashboard comes in.

Here's a data inventory for performance on filling potholes. The workload data that is available will tell us how efficient we are at filling potholes. Notice that most of this data has an automated connection from the city's work order management database to the dashboard. Creating this automated connection depends on some programming expertise.

## Goal: Maintain Infrastructure Efficiently
### Subgoal: Maintain Streets Efficiently

| Measure | Data Source | Frequency | Data Status |
|---|---|---|---|
| # of pothole work orders | Work flow system | Real time | Directly connected to SQL database |
| Average hours to complete work order | Work flow system | Real time | Directly connected to SQL database |
| Scheduled vs. unscheduled work | Work flow system | Real time | Directly connected to SQL database |
| Budget vs. Expenditure | Work flow system | Real time | Directly connected to SQL database |
| # of times same pothole is repaired in a year | Not currently tracked | Annually | Not available |
| Pavement Condition Index | Survey | Annually | Manual entry to dashboard |

Automation is ideal. Depending on your platform, the data may have to be exported from one system and imported into the dashboard program.

## Step 5: Choose a platform for your Dashboard

To this point, the steps in the process should look familiar to any agency that has been tracking performance measures. The goal of the dashboard is to make the data come alive. The best data is meaningless unless everyday decision-makers can understand and interact with it.

Many local governments are choosing to invest in dashboard software that is specifically designed to turn raw data into visually appealing graphs, charts, and maps for display on a local agency website. These products may allow you to create compelling visuals and simplify the connections to data in existing databases.

However, the costs of such software and associated technical assistance can be prohibitive for smaller jurisdictions. If you have someone on staff who is tech savvy, you may want to experiment with free or low-cost online tools that can help guide the development of a dashboard.

Another option is to start with generating performance visuals using Excel as the platform for your dashboard. It's a good place to start because it has some powerful graphing tools and your agency probably already has it in-house. Start with a simple dashboard that you can update monthly or quarterly.

Make sure the type and size of dashboard you choose fits your agency's capacity to maintain it. If you hire a consultant to develop the dashboard, be sure that you can maintain the final product in-house.

Tip: An easy starting place is to create an at a glance dashboard that gives an overall picture of progress toward meeting city goals.
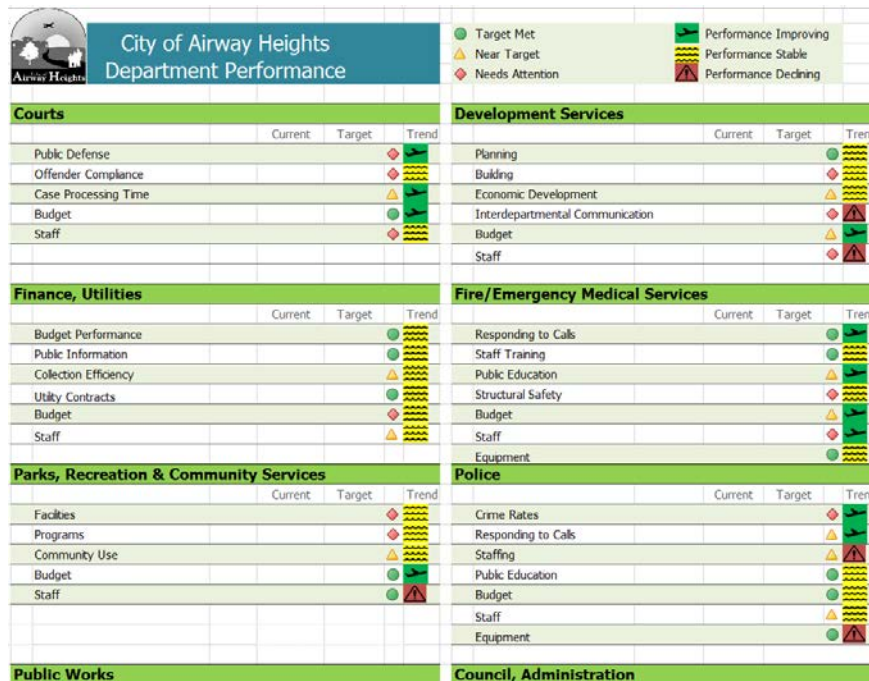


## Step 6: Plan for Data Maintenance

Who is going to maintain the data that is displayed in the dashboard? Ideally, your staff is regularly inputting operational data (i.e. info like fitness pass sales or pothole work orders) into some kind of database, likely in the form of your finance, public works, recreation, and/or other software system.

If you have the capacity to build a connected dashboard with an automated connection between the data in the department or agency database(s) and your dashboard, then voila, no additional data entry is required and your dashboard reflects real time information automatically! If you're investing in a custom dashboard application, make sure it can automate this process.

If you're not quite to the point where you can automatically populate the dashboard data, you'll have to periodically export the data from your software system into an Excel format and update your dashboard manually. Other data that you collect (i.e. from a resident survey) can also be entered into Excel manually on a periodic basis.

Somewhere along the way, you are going to find out that the data you have is incomplete, has been inconsistently entered into the system, or is just plain wrong. Your dashboard is only as good as the data it displays, so plan for, and invest in, maintenance resources to continually keep your dashboard accurate and effective. Take the time to clean up any problematic data as early as possible in the process.
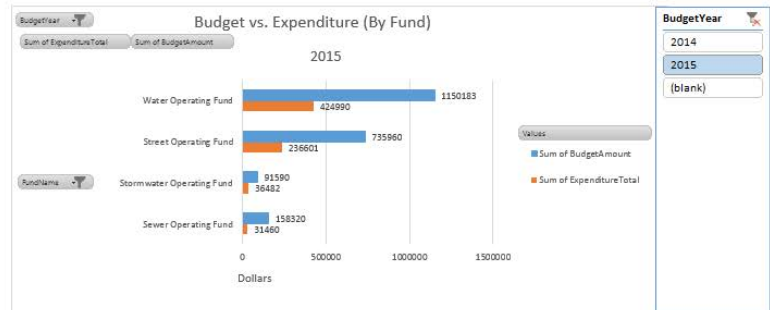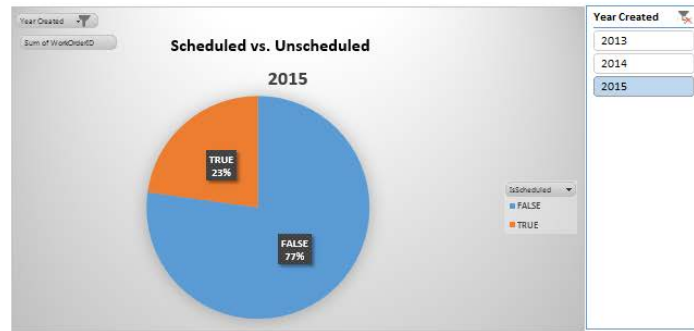


Dashboards are only as reliable as their data...you're going to have to clean it up and maintain it.

## Step 7: Decide on Your Visuals.

The beauty of a dashboard is its ability to very quickly and easily display patterns, problems, or opportunities. Choosing the right graphs and charts is critical here because the right one will really pull out key aspects of the data.

What story do want your dashboard to tell? What are the key performance measures that you want to see at a glance? Depending on the amount of data that you have, there are all kinds of things you can display. Does the chart tell you something important about your organization's performance against a goal, or is it simply a pretty visual?

If you're creating a homegrown dashboard, a staff member with good Excel skills can show you some of the possibilities. If you're using dashboard software, explore the template options and think about what is most appropriate for your needs.

Think through the types of issues the dashboard data can display, and choose those that are most important for your agency and the public.
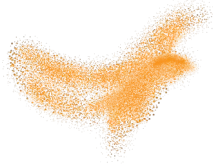
For more in-depth information about designing a dashboard, see the write-up of the Transportation Improvement Board's experience in creating an interactive dashboard.

## Step 8: Show off Your Dashboard!

Now you've got a beautiful dashboard that you can continue to enhance over time. Your dashboard should be a primary tool for communicating progress toward your agency's goals. Develop a plan for how you will use the dashboard to communicate internally, to the public, and to elected officials. Some larger agencies have regular monthly meetings to review performance data, explore the questions that the numbers raise, and refine strategies. You may want to highlight the entire dashboard on a dedicated performance page of your website. Alternatively, you can integrate relevant dashboard visuals into the existing pages of your website (such as a pothole visual on the public works page) where viewers are more likely to find them. Reviewing the dashboard once or twice a year as an agenda item on the council or commission meeting could also be a strategy.

Dashboards can be an effective tool to focus your organization on improving and sustaining performance in key areas. It's important to spend time up front carefully defining what the key indicators of performance are for your organization. Once you've identified those indicators, the dashboard is simply a compelling visual that allows the viewer to do a progress check at a glance.

Republished from the Municipal Research and Services Center: http://mrsc.org/Home/Stay-Informed/MRSC-Insight/November-2015/Creating-a-Functional-Performance-Dashboard-in-8-S.aspx

# Results Based Accountability

**Cited from the RBA© Guide developed by Clear Impact, based on the concepts and materials developed by Mark Friedman, author of** *Trying Hard is Not Enough*

## What is Results-Based Accountability™?

Results-Based Accountability™ ("RBA") is a disciplined way of thinking and taking action used by communities to improve the lives of children, families and the community as a whole. RBA is also used by agencies to improve the performance of their programs.

## How does RBA work?

RBA starts with ends and works backward, step by step, towards means. For communities, the ends are conditions of well-being for children, families and the community as a whole. For example: "Residents with good jobs," "Children ready for school," or "A safe and clean neighborhood" or even more specific conditions such as "Public spaces without graffiti," or "A place where neighbors know each other." For programs, the ends are how customers are better off when the program works the way it should. For example: The percentage of people in the job training program who get and keep good paying jobs.

## Why use RBA?

RBA improves the lives of children, families, and communities and the performance of programs because RBA:

- gets from talk to action quickly;
- is a simple, common sense process that everyone can understand;
- helps groups to surface and challenge assumptions that can be barriers to innovation;
- builds collaboration and consensus; and
- uses data and transparency to ensure

accountability for both the well being of children, families and communities and the performance of programs.

## What is the RBA Guide?



The RBA Guide is a tool for leading or facilitating a group in the use of RBA in decision making. The RBA Guide is designed to be used as a roadmap with which to navigate the complete RBA decision-making process, step-by-step.



Guru Dorje, King County, shares a turning-the-curve story about an educational program for high-barrier youths using a "value-driven, data-supported" approach.
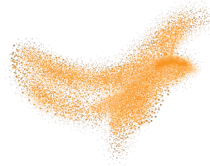
# Turn The Curve

**Cited from the RBA© Guide developed by Clear Impact, based on the concepts and materials developed by Mark Friedman, author of** *Trying Hard is Not Enough*
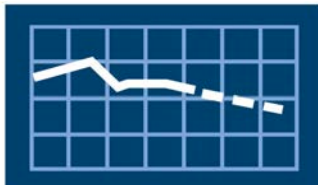
This template is an overview of the step-by-step RBA "turn-the-curve" decision making process.

## 1. What is the end?
Choose either a result and indicator or a performance measure.

## 2. How are we doing?
Graph the historic baseline and forecast for the indicator or performance meaure.

## 3. What is the story behind the curve of the baseline?
Briefly explain the story behind the baseline: the factors (positive and negative, internal and external) that are most strongly influencing the curve fo the baseline.

## 4. Who are the partners who have a role to play in turning the curve?
Identify partners who might have a role to play in turning the curve of the baseline.

## 5. What works to turn the curve?
Determine what would work to turn the curve of the baseline. Include no-cost/low-cost strategies.
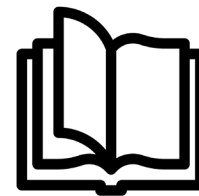
## 6. What do we propose to do to turn the curve?
Determine what you and your partners propose to do to turn the curve of the baseline.

**Continuous Learning and Improvement Cycle**

**RESULTS AND INDICATOR OR PERFORMANCE MEASURE**
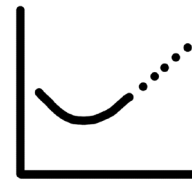
**STORY BEHIND THE CURVE**

**WHAT WE PROPOSE TO DO TO IMPROVE PROGRESS**

### Links to Resources:
- Visit the GPC Event Page: bit.ly/2BO2o5H
- Workshop Folder: bit.ly/2BK9NTb
- Clear Impact Consulting: clearimpact.com
- Mark Friedmans's book: bit.ly/2rrCUtc

# Local Gems: "State of the Art" Examples and Key Trends in Washington
### Curated By Chelsea Lei

**Dominant Trend**

- Annual performance reports ("dashboard") in web or document form
- Measures organized by city-wide priorities or goal areas
- Top level view with drill-down details

## Bellevue Vital Signs

**Characteristics:**

- Annual Performance Report
- 7 Priority Areas
- 16 top measures
- Report structure
  1. Community values
  2. Are we achieving results that matter?
  3. Key community indicators (multi-year data tables)
  4. Key performance indicators (multi-year data tables)

https://bellevuewa.gov/city-government/departments/finance/budget-and-performance/performance-reports

Contact Micah Phillips (mphillips@bellevuewa.gov) to learn more.

**Bellevue Vital Signs 2013-2017**

| | Meeting or Exceeding Target ✅ | Close to Target ⚠️ | Opportunity for Improvement 🔴 |
|---|---|---|---|

**Economic Growth and Competitiveness**

| Performance Measure | 2013 Value | 2014 Value | 2015 Value | 2016 Value | 2017 Value | 2017 Target | 2017 Status |
|---|---|---|---|---|---|---|---|
| Percent of residents who agree or strongly agree that Bellevue is doing a good job planning for growth in ways that will add value to residents' quality of life | 76% | 76% | 76% | 74% | 72% | 80% | ✅ |
| Percent of residents who say the city is headed in the right direction/strongly headed in the right direction | 86% | 82% | 79% | 77% | 69% | 81% | 🔴 |

**Healthy and Sustainable Environment**

| Performance Measure | 2013 Value | 2014 Value | 2015 Value | 2016 Value | 2017 Value | 2017 Target | 2017 Status |
|---|---|---|---|---|---|---|---|
| Utilities: Unplanned water service interruptions per 1,000 customer accounts | 1.15 | 1.69 | 1.88 | 1.83 | 1.81 | 2.25 | ✅ |
| Utilities: Percentage of days per year in compliance with state and federal drinking water regulations | 100% | 100% | 100% | 100% | 100% | 100% | ✅ |

**Improved Mobility and Connectivity**

| Performance Measure | 2013 Value | 2014 Value | 2015 Value | 2016 Value | 2017 Value | 2017 Target | 2017 Status |
|---|---|---|---|---|---|---|---|
| Percent of Mobility Management Areas (MMAs) meeting level of service and concurrency standards | 100% | 100% | 100% | 100% | 100% | 100% | ✅ |
| Average pavement rating across the residential roadway system | 87 | 87 | 80 | 81 | 79 | 76 | ✅ |
| Neighborhood street sweeping – Meets to exceeds Expectations | 81% | 91% | 88% | 94% | 87% | 89% | ⚠️ |

**Innovative, Vibrant and Caring Community**

| Performance Measure | 2013 Value | 2014 Value | 2015 Value | 2016 Value | 2017 Value | 2017 Target | 2017 Status |
|---|---|---|---|---|---|---|---|
| Overall satisfied to very satisfied with parks and recreation in Bellevue? | 93% | 90% | 92% | 92% | 90% | 92% | ⚠️ |

**Quality Neighborhoods**

| Performance Measure | 2013 Value | 2014 Value | 2015 Value | 2016 Value | 2017 Value | 2017 Target | 2017 Status |
|---|---|---|---|---|---|---|---|
| Percentage of residents rating their neighborhood as a good or excellent place to live | 96% | 94% | 94% | 94% | 94% | 90% | ✅ |

**Responsive Government**

| Performance Measure | 2013 Value | 2014 Value | 2015 Value | 2016 Value | 2017 Value | 2017 Target | 2017 Status |
|---|---|---|---|---|---|---|---|
| Maintain Aaa bond rating | Yes | Yes | Yes | Yes | Yes | Yes | ✅ |
| Percent of residents getting/definitely getting their money's worth for their tax dollars | 85% | 81% | 83% | 79% | 71% | 82% | 🔴 |
| Percent of residents who rate their neighborhood as a good/excellent place to live | 96% | 94% | 94% | 94% | 94% | 95% | ⚠️ |

**Safe Community**

| Performance Measure | 2013 Value | 2014 Value | 2015 Value | 2016 Value | 2017 Value | 2017 Target | 2017 Status |
|---|---|---|---|---|---|---|---|
| Fires confined to room of origin | 92% | 90.76% | 91.20% | 79.20% | 85.19% | 85% | ✅ |
| Cardiac arrest survival rate | 59% | 58.33% | 56.10% | 60.14% | 56.30% | 50% | ✅ |
| Part One UCR Crimes per 1,000 citizens | 31 | 35 | 34 | 34 | 33 | 35 | ✅ |
| Priority One call response times | 3.06 | 3.08 | 3.22 | 3.37 | 3.35 | 3.38 | ⚠️ |

# Redmond Performance Measures

## Characteristics:
- City-wide Dashboard on one webpage
- 6 Priorities
- 23 Grouped Measures
- 2-level Drill downs
    1. Voice of a Resident
    2. Grouped measures
    3. Narrative Pattern: Measure description, Results, Importance, Targets

http://www.redmond.gov/Government/
FinancesandBudget/Budget/
PerformanceMeasures/

Contact Malisa Files (mfiles@redmond.gov) to learn more.

## Safety

"I want to be safe where I live, learn, work and play."

### Crime Rates

**Description:** Measures crime rates per 1,000 population as benchmarked against rates for the State of Washington

**Results 2016:** (updated August 2017) 50 per 1,000 population

>>

50

### Fire Suppression & EMS Response Times

**Description:** Measures time from when crews are dispatched to when they arrive on scene of an emergency incident

**Results:** 2014: RFD response times were within standards 88.5% of the time

>>

88.5%
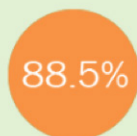
### Fire Suppression & EMS Response Times

**Description:** Measures time from when crews are dispatched to when they arrive on scene of an emergency incident

**Results:** 2014: RFD response times were within standards 88.5% of the time

>>

**Importance:** Faster response times improve patient outcomes and reduce fire loss.

**Target:** Arrive at scene of an incident within time standard for 90% of emergency responses.

88.5%

RFD Response Time Standards (90% goal)
2014 vs. 2015

| | 2014 | 2015 |
|---|---|---|
| Dept.-Wide | 91.0% | 89.5% |
| City (6 minute) | 89.7% | 87.9% |
| Dist. 34 (10 minute) | 96.8% | 96.4% |
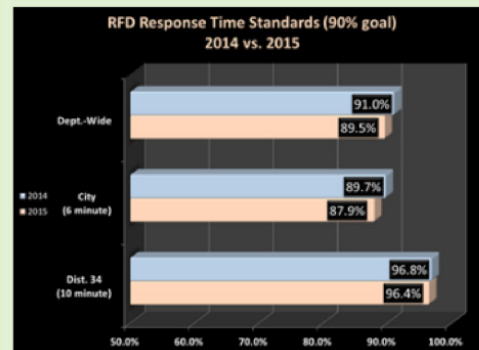
# Olympia Action Plan Dashboard

## Characteristics:
- Community Indicators Dashboard
- 5 City Action Areas
- 31 Indicators
- Display structure: Baseline | Most Recent | Goal | Target | Status Dial
- Drill-down narrative pattern:
    1. Why is this indicator important
    2. What influences this indicator
    3. What are we doing about this
    4. How do we measure progress

http://olympiawa.gov/city-government/codes-plans-and-standards/action-plan/community-indicators.aspx

Contact Contact Debbie Sullivan (dsulliva@ci.olympia.wa.us) to learn more.

### Community, Safety & Health

| | BASELINE | MOST RECENT | GOAL | TARGET | STATUS |
|---|---|---|---|---|---|
| Citizen Satisfaction with their Involvement in City Decision Making | 57% very or mostly satisfied (2014) | 75% very or mostly satisfied (2017) | Increase | TBD | |
| High School 5-year Graduation Rates | 86.3% (Class of 2013) | 91.6% (Class of 2015) | Increase | 1-5% annual increase | |
| Number of Individuals who are Homeless in Thurston County | 441 (2006) | 579 (2017) | Decrease | TBD | |
| Participation in Parks, Arts and Recreational Activities (Hours) | 244,570 (2015) | 250,301 (2017) | Increase | 255,300 (2018) | |
| Percentage of Total Calls which are Mental Health Related | Fire/Medical: 13.7% (2017) Police: TBD | Fire/Medical: 13.7% (2017) Police: TBD | Decrease | TBD | |
| Residents who have Nearby Access to a Source of Healthy Food (%) | 47.9% (2017) | 47.9% (2017) | Increase | TBD | |
| Emergency Fire and Medical Response Times | 10.00 min. or less in 9/10 calls (2016) | 9:53 or less in 9/10 calls (2017) | Decrease | 9/10 calls in 6:00 (min/sec) or less | |
| How Safe do Residents Feel in Olympia? | 92% reported feeling safe (2017) | 92% reported feeling safe (2017) | Increase | TBD | |

### Downtown

| | BASELINE | MOST RECENT | GOAL | TARGET | STATUS |
|---|---|---|---|---|---|
| Sales Tax Revenue | $1,472,227 (2016) | $1,545,680 (2017) | Increase | 1.5% Annual Increase | |
| Housing Mix (Market Rate to Low Income Ratio) | 43% market rate 57% low-cost in (2015) | 57% market rate 43% low-cost in (2017) | Increase (market-rate) | TBD | |
| Peak Hour Weekday Parking Occupancy (%) | 69% (2015) | 77% (2017) | Maintain | Between 70-85% | |
| Retail/Office Vacancy Rates (%) | 2.2% (2015) | 2.2% (2017) | Maintain | 5-7% | |
| Citizens Rating Downtown as Clean and Safe (%) | 78% Daytime 37% Nighttime (2017) | 78% Daytime 37% Nighttime (2017) | Increase | Increase | |
| Community-wide Arts Venues or Special Events | 72 Venues 19 Events (2017) | 72 Venues 19 Events (2017) | Maintain | Increase | |
| Number of Historic and Cultural Sites | TBD | TBD | Increase | TBD | |

### Economy

| | BASELINE | MOST RECENT | GOAL | TARGET | STATUS |
|---|---|---|---|---|---|
| Gross Local Production | $11,815,037,000 (2015) | $12,262,436,000 (2016) | Increase | TBD | |
| Number of Arts-related Businesses | 410 (2010) | 333 (2017) | Increase | TBD | |
| Jobs that are Living Wage or Higher (%) | 91.46% (1 adult) 83.29% (2 adult/2 children) (2017) | 91.46% (1 adult) 83.29% (2 adult/2 children) (2017) | Increase | TBD | |
| Business Owners Rating Olympia as a Good Place to do Business (%) | TBD | TBD | TBD | TBD | |
| Condition of City Infrastructure | B-minus (2017) | B-minus (2017) | Increase | B or better | |

### Environment

| | BASELINE | MOST RECENT | GOAL | TARGET | STATUS |
|---|---|---|---|---|---|
| Tons of Solid Waste Going to Landfill (lbs/capita) | 4.3 lbs / capita / day (2006) | 3.13 lbs/ capita/ day (2016) | Decrease | 5% reduction by 2020 | |
| Compliance with Drinking Clean Water Standards (%) | 100% (2015) | 100% (2017) | Maintain | 100% | |
| People Walking, Biking and Riding the Bus (%) | 22.3% (2015) | 22% (2017) | Increase | TBD | |
| Greenhouse Gas Emissions (Metric Tons) | 541,498 (1990) | 579,000 (2014) | Decrease | 108,300 metric tons | |
| Preserved Green Space for Public Use or Environmental Benefit | 3.5 acres per 100 residents (2017) | 3.5 acres per 100 residents (2017) | Increase | TBD | |
| City-owned Sites with Contaminated Soil Cleaned Up (%) | 22% (2017) | 22% (2017) | Increase | 100% | |

### Neighborhoods

| | BASELINE | MOST RECENT | GOAL | TARGET | STATUS |
|---|---|---|---|---|---|
| Residents Rating their Neighborhood as a Desirable Place to Live (%) | 85% excellent or very good (2014) | 85% excellent or very good (2014) | Increase | TBD | |
| Percentage of City Located within 1/2 Mile of Park or Open Space | 56.6% (2015) | 60.3% (2017) | Increase | 90% | |
| Households within Recognized Neighborhood Associations (%) | 59.8 % (2017) | 59.8 % (2017) | Increase | TBD | |
| Residents Rating their Neighborhood as Safe (%) | 98% Daytime 86% Nighttime (2017) | 98% Daytime 86% Nighttime (2017) | Increase | TBD | |
| Households within 1/2 Mile Walking Route to Meet Daily Needs (%) | 69.5% (2017) | 69.5% (2017) | Increase | TBD | |

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### Residents Rating their Neighborhood as Safe (%)

| 98% Daytime 86% Nighttime (2017) | 98% Daytime 86% Nighttime (2017) | Increase | TBD | |

▼ More information...

**Why is this indicator important?**

Olympia values safe and welcome neighborhoods for those who live and work in the city. The future of our community is dependent on our children and families, and the neighborhoods where they live and play. In order to preserve and enhance the quality of life in Olympia, neighborhood safety is essential.

**What influences this indicator?**

A feeling of safety and security in and around the neighborhoods of Olympia is enhanced by the partnership and presence of law enforcement, the responsiveness of the City to criminal and code concerns, and safe routes to schools and City centers.

**What are we doing about this?**

The Olympia Police Department is committed to the community and safe neighborhoods. School Resource Officers provide a regular presence in the schools in our communities and ensure safe roadways and walkways in and to our neighborhoods. The Department's Community Policing programs also focus resources on communication, neighborhood support, and public information keeping our citizens who live and work in Olympia connected, educated, and informed about community safety.

In the fall of 2017, Olympia voters passed a Public Safety Levy provided funding for a Neighborhood Liaison team that will work directly with neighborhood leaders to identify and resolve ongoing issues that impact safety and quality of life such as nuisance and abatement issues related to problem houses. This allows for a comprehensive community approach to community safety with a priority on neighborhoods and families.

The 2017 Public Safety Levy also provided funding for an additional Code Enforcement Officer that will work closely with the Police Department and neighborhoods to address community and safety concerns.
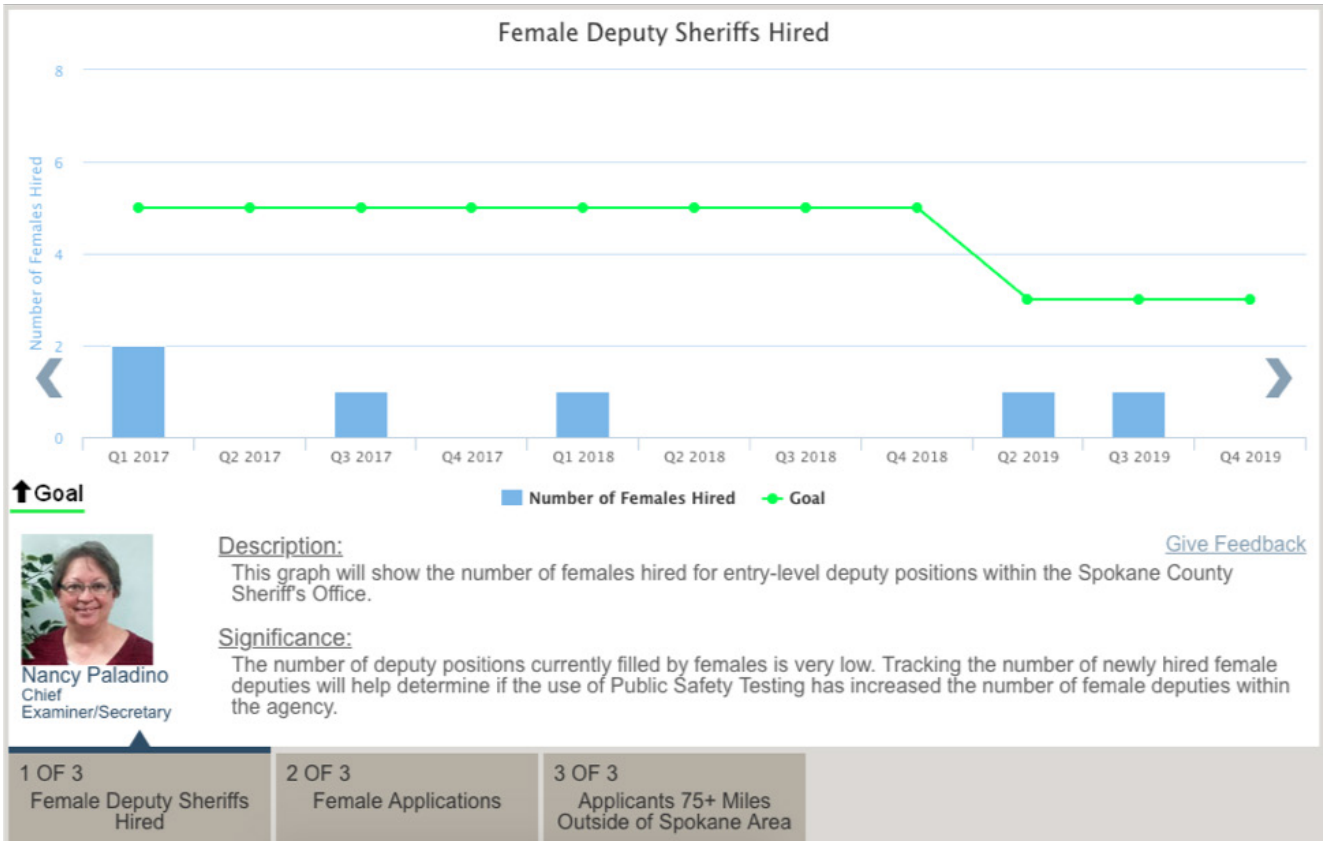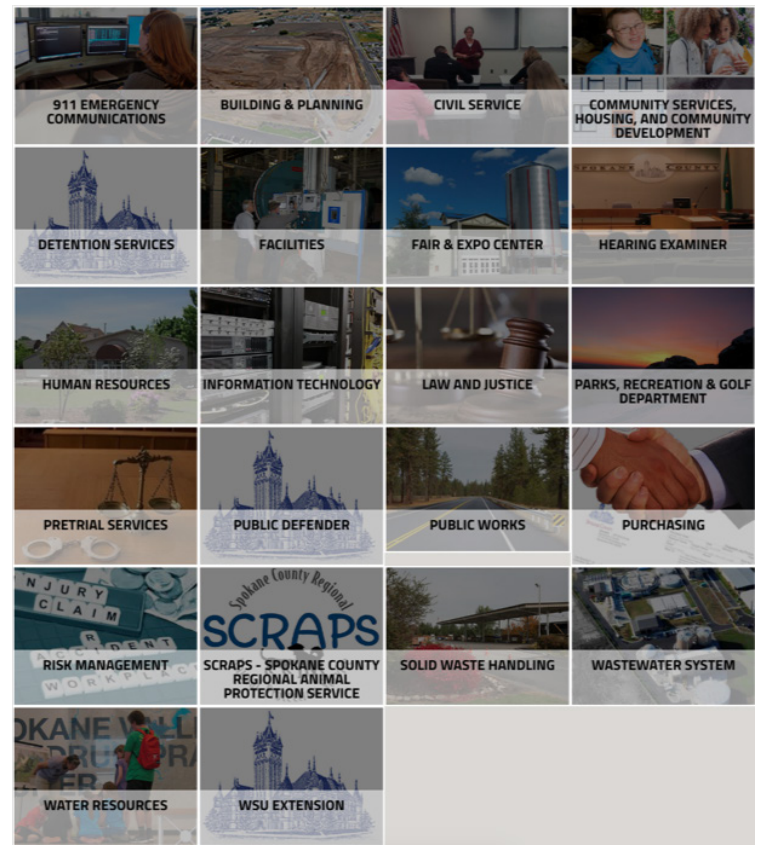
**How do we measure progress on this?**

# Spokane County Performance Indicators

**Characteristics:**
- 22 Departments / Service Areas
- 84 Measures (1-12 per department)
- Drill-down Structure:
    1. Goal statement
    2. Multi-year data with trendline
    3. Metric description
    4. Significance
    5. A human face with contact info

http://cp.spokanecounty.
org/ChiefOperationsOfficer/
PerformanceIndicators/

Contact John Dickson (JDICKSON@
spokanecounty.org) to learn more.

### Female Deputy Sheriffs Hired



**↑Goal**

■ Number of Females Hired　—●— Goal

**Description:**　　　　　　　　　　　　　　　　　　Give Feedback
This graph will show the number of females hired for entry-level deputy positions within the Spokane County Sheriff's Office.

**Significance:**
The number of deputy positions currently filled by females is very low. Tracking the number of newly hired female deputies will help determine if the use of Public Safety Testing has increased the number of female deputies within the agency.

Nancy Paladino
Chief
Examiner/Secretary

| 1 OF 3 | 2 OF 3 | 3 OF 3 |
| --- | --- | --- |
| Female Deputy Sheriffs Hired | Female Applications | Applicants 75+ Miles Outside of Spokane Area |

# Mercer Island Report Card

## Characteristics:
- 35 "top tier" indicators on "state of the City" in 6 priority areas
- Meaningful, manageable, and substantive (if not glamorous)
- Annually updated 2007-2014
- Multi-year data on each indicator with analysis and commentary on story behind the data
- Peer comparisons

http://www.mercergov.org/Page.asp?NavID=2651

Contact Chip Corder (chip.corder@mercergov.org) to learn more

**"Report Card" Summary**

One of six ratings (i.e. very good, good, improving, concerning, needs attention, or unknown), along with a brief comment, is provided for each of the 35 "dashboard" indicators below, which are organized by priority of government.

***Community Safety & Security***

| # | Dashboard Indicator | Rating | Comment |
|---|---|---|---|
| 1 | Personal security | Very good | Per Apr 2014 survey, 87% of residents feel "very safe" or "completely safe" walking alone in neighborhood |
| 2 | Crime prevention effectiveness | Very good | 2nd lowest violent crime and property crime rates among 6 Eastside cities in 2014 |
| 3 | Traffic safety effectiveness | Very good | 2nd lowest traffic accident rate among 6 Eastside cities in 2014 |
| 4 | Timely crime response | Very good | Emergency calls:<br>▪ Average response time:<br>- 4.3 min in 2014 vs. 5.3 min in 2010<br>▪ Calls responded to within 6 min:<br>- 75% in 2014 vs. 73% in 2010 |
| 5 | Fire loss/prevention effectiveness | Concerning | 2010-2014 avg annual $ fire loss per 1,000 population:<br>▪ Mercer Island = $34,135<br>▪ Comparison jurisdiction avg = $27,440<br><br>Note: MI had 5 costly fires in 2014 amounting to $3.0M, which was very unusual |

## Traffic Safety Effectiveness

| Dashboard Indicator | Results | | | | |
|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 |
| 3) Mercer Island's traffic accident rate relative to other Eastside cities and the King County average (expressed as # of traffic accidents, excluding state routes, per 1,000 population): | | | | | |
| ► Sammamish | 4.39 | 3.73 | 4.83 | 4.20 | 5.03 |
| ► Mercer Island | 4.76 | 4.98 | 4.85 | 3.83 | 5.19 |
| ► Issaquah | 9.79 | 8.70 | 9.09 | 10.18 | 10.25 |
| ► King County average | 10.59 | 10.43 | 10.13 | 10.03 | 10.84 |
| ► Bellevue | 11.69 | 11.43 | 11.69 | 11.45 | 11.14 |
| ► Kirkland | 11.13 | 12.10 | 9.71 | 10.12 | 11.28 |
| ► Redmond | 10.05 | 10.84 | 11.71 | 11.98 | 11.89 |

## Commentary/Analysis

Traffic accidents on state routes are excluded from the accident rates noted above. With fewer arterials and high volume intersections by comparison, Mercer Island consistently has had one of the lowest traffic accident rates among six Eastside cities, posting the second lowest rate in 2014. Relative to Sammamish, Mercer Island's slightly higher traffic accident rate in 2010-2012 and 2014 can be pinpointed to the presence of I-90, which invites additional traffic on City streets. As noted above, Sammamish does not have any interstates running through or near it. The number of Mercer Island traffic accidents on City streets for the period 2010-2014 is noted in the table below.
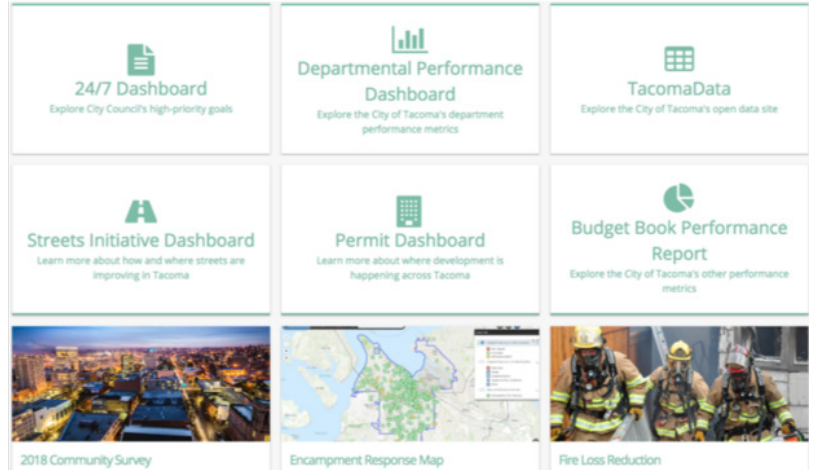
## Emerging Trends

- Quarterly performance reports
- Clear logic models connecting operational targets and council goals
- Intentionally selected "vital few" set of community indicators and performance measures with stories behind the data

## Tacoma Open Data Portal (Results 253)

**Characteristics:**

- 24/7 Council Priorities Dashboard
  - 15 high level goal measures
- Department Performance Dashboard
  - 17 Departments, 40 Measures
- Quarterly Performance Reports
  1. Statements of goals and intended operational outcomes with specific metrics
  2. Multi-year data trend graphs
  3. Narrative pattern:
     - a. Why is this goal important?
     - b. What will we do?

https://data.cityoftacoma.org/

Contact Jared Eyer (JEyer@ci.tacoma.wa.us) to learn more.
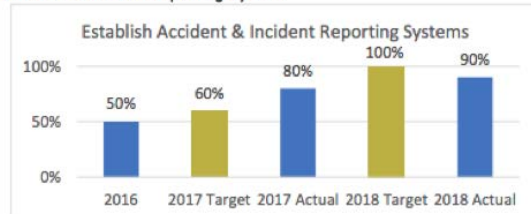
# Kirkland Performance Measures Report

## Characteristics:

3 Key Performance Measures
- Price of Government
- "Kirkland Quadrant" Survey Results
- Financial Stability

10 Priority Areas Performance Reports
- Logical progression of strategies, outcomes, measures and targets
- Multi-year data
- Narrative pattern:
  1. How do we measure [goal area]
  2. How are we doing
  3. What are we doing

http://www.kirklandwa.gov/depart/CMO/Reports/Performance_Measures.htm

Contact Jim Lopez (JLopez@kirklandwa.gov) to learn more.



2016 Survey Results With 2017-18 Budget

"Imperatives" Total: 12.4% $22.5 million

"Stars" Total: 79.6% $144.5 million

Fire/Emergency Medical $42.0M
Police $50.8M
Pedestrian Safety $49K
Parks $15.9M
Traffic $1.3M
Streets $17.3M
Environment $988K
Sidewalks $169K
Recycling & Garbage $34.7M
Preparedness $547K
People in Need $3.2M
Businesses $690K
Neighborhoods $308K
Land Use $4.4M
Bike Safety $812K
Permitting and Inspection $3.0M
Recreation Programs and Classes $4.8M
Arts $46K
Events $355K

"Lesser Priorities" Total: 5.1% $9.2 million

"Successes" Total: 2.9% $5.2 million



## PUBLIC SAFETY

**GOAL** Provide for public safety through a community-based approach that focuses on prevention of problems in a timely manner.

| | MEASURE | 2013 | 2014 | 2015 | 2016 | 2017 | Target |
|---|---|---|---|---|---|---|---|
| The City provides trained staff and funding | Total Police Services Funding | $23,997,564 | $25,608,694 | $25,154,156 | $25,215,927 | $26,089,620 | N/A |
| | Total Fire and Emergency Management Services Funding | $19,628,244 | $19,997,924 | $20,365,020 | $21,338,549 | $22,565,224 | N/A |
| | Sworn Police FTE's (authorized) per 1,000 population | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | N/A |
| So that... | Paid Fire and EMS staffing per 1,000 population served | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | N/A |
| Emergency services provide timely responses | EMS response times under 5 minutes | 69% | 51% | 49% | 49% | 59% | 90% |
| | Fire response times under 5.5 minutes | 62% | 48% | 48% | 35% | 48% | 90% |
| So that... | Building fires contained to area of origin | 56% | 50% | 55% | 60% | 60% | 60% |
| Residents are prepared for an emergency and feel safe | Residents have at least two working smoke detectors in their residence | * | 97% | * | 95% | * | 100% |
| So that... | Residents are prepared for a three day emergency | * | 62% | * | 65% | * | 90% |
| All those who live, work and play in Kirkland are safe. | Residents feel safe walking in their neighborhoods after dark | * | 82% | * | 82% | * | 80% |
| | Residents feel safe walking in their neighborhoods during the day | * | 97% | * | 97% | * | 90% |

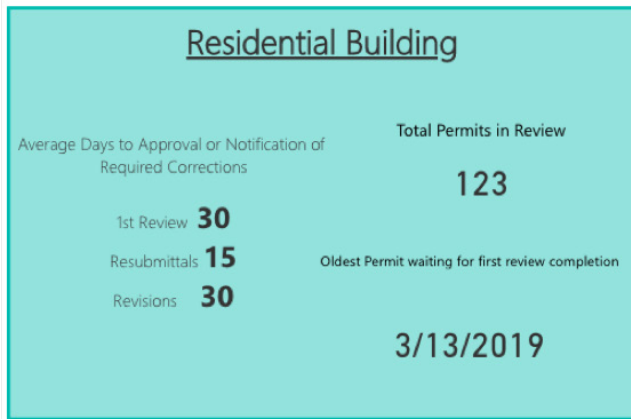## Glimpses of the Future that is Possible

### Performance Excellence Across Kitsap (PEAK)

Monthly, weekly, or daily or real time performance updates and interactive data visualization at Kitsap County.

https://www.kitsapgov.com/dis/Pages/Performancecenter.aspx

Contact Andy Hento (ahento@co.kitsap.wa.us) to learn more.

## Current Review Statistics

### Residential Building

Average Days to Approval or Notification of Required Corrections

1st Review **30**

Resubmittals **15**

Revisions **30**

Total Permits in Review

**123**

Oldest Permit waiting for first review completion

**3/13/2019**

### Land Use and Engineering

Average Days to Approval or Notification of Required Corrections
(Site Development Activity Permits)

1st Review **90**

Type II Permits **60**

Type III Permits **90**

Total Permits in Review

**82**

#### Where is my permit in the line?

Permits are reviewed in chronological order by date received. All reviewers must be finished before the first review is considered complete. Unfortunately, we **are not** accepting requests for expedited review.

#### How do I get an update on my permits progress?

Every Friday, our staff contact applicants of permits that have been under review for more than 30 days. You can track the review of your permit in our Online Permit Center anytime.

| REVENUES | | EXPENDITURES | |
|---|---|---|---|
| Revenues by Category | 2019 Adjusted Budget | Expenditures by Category | 2019 Adjusted Budget |
| Misc/Other 8.57% Charge... 9% L... 10.53% Other Tax 11.62% Sales Tax 27.06% Property Tax 31.42% | $104,971,595.02 | Misc/Other 6.82% Interfun... 9.2% S... 13.88% Salaries and Benefits 67.46% | $108,267,685 |
| | YTD Actuals | | YTD Actuals |
| | $37,876,948 | | $31,950,117 |
| YTD Actual to Adjusted Budget | Percent In | YTD Actual to Adjusted Budget | Percent Used |
| $37,876,948 $0M $104.97M | 36.08% | $31,950,117 $0M $108.27M | 29.51% |

*Revenue high points are in April & October because of property tax due dates

*Salaries & Benefits are trending under budget due to timing of settled labor contracts

# King County Finance and Business Operations Division - Value Stream Mapping
Mapping and measuring whole value streams at King County
Contact Eunjoo Greenhouse (eunjoo.greenhouse@kingcounty.gov) to learn more.

Key: Mostly FBOD | Mostly Agency | Half FBOD Half Agency

**1 Procure to Pay**
1.1 Analyze Requirements | 1.2 Sourcing | 1.3 Contracting | 1.4 Req/Receive | 1.5 Pay | 1.6 Contract & Compliance

**2 Record to Report**
2.1 Asset & Transaction Processing | 2.2 Period Close & Data Integrity | 2.3 Transform Data into Meaningful Info | 2.4 Grant Reporting | 2.5 Financial Reporting

**3 Hire to Retire**
3.1 Hire | 3.2 Administer Comp & Benefits | 3.3 Administer Comp & Benefits | 3.4 Employee Engagement & Development | 3.5 Exit Employee

**4 Debt Issuance**
4.1 Identify Need | 4.2 Determine Financial Method | 4.3 Sell Bonds | 4.4 Administer Debt | 4.5 Post-Issuance Compliance

**5 Investment Pool Management**
5.1 Develop Cash Flow | 5.2 Determine Cash Position | 5.3 Review Position | 5.4 Decide Impact to Policy | 5.5 Monitor & Report | 5.6 Distribute Earnings & Statements

**6 Billing-to-Cash**
6.1 Receive & Process Order | 6.2 Order Mgt | 6.3 Billing | 6.4 Accounts Rec | 6.5 Collections

**7 Assess-to-Collect**
7.1 Assess Property & Record Tax Roll | 7.2 Bill & Collect | 7.3 Deposit | 7.4 Balance & Distribute

## Hire to Retire

**Administer Compensation**: timeliness of payrolls submitted to central Payroll by King County agencies, with a goal of 90-95% on time.

### PERCENTAGE OF PAYROLL DEADLINES MET BY KC AGENCIES

December-17: 82%, January-18: 92%, February-18: 91%, March-18: 86%, April-18: 86%, May-18: 93%, June-18: 85%, July-18: 91%, August-18: 88%, September-18: 87%, October-18: 88%, November-18: 88%, December-18: 89%
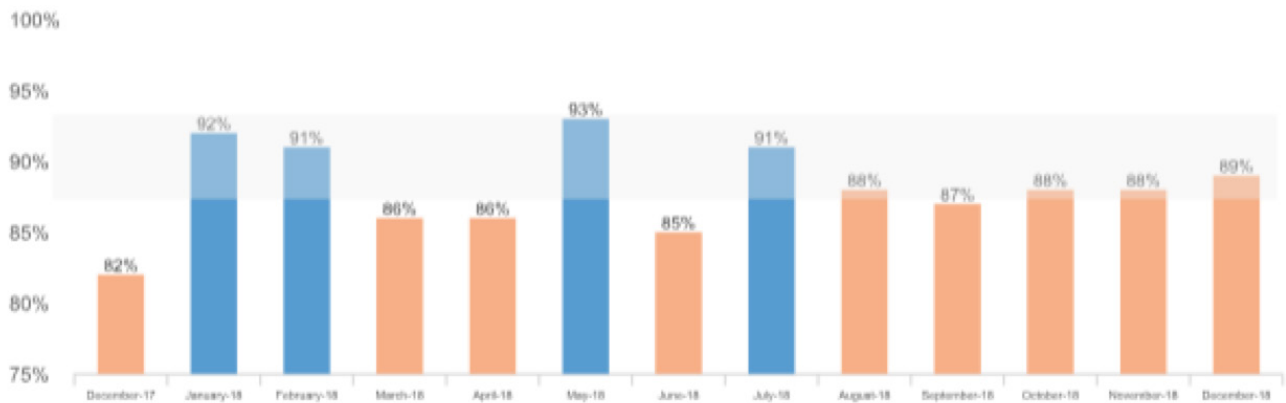
# WA Transportation Improvement Board

Transparency as a byproduct of using data dashboard for improvement at the WA Transportation Improvement Board

http://www.tib.wa.gov/Dashboard/
Contact Steve Gorcester (sgorces@mac.com) to learn more.

## TIB At A Glance

### Financial Status

| | |
|---|---|
| TIA Fund Balance | $7,468,891 |
| SCPSA Fund Balance | $1,822,910 |
| Project Payments (MTD) | $10,458,334 |
| Remaining Commitment | $295,461,323 |
| Change in TIB Funds (MTD) | -$1,317,323 |

### Project Status

| | |
|---|---|
| Active Projects | 437 |
| Completed Projects (FY) | 177 |
| Under Construction | 276 |

### KPI Status

| | |
|---|---|
| TIB Commitment Level | $295,461,323 |
| Net Revenue | $1,726,076 |
| Construction Payments | 89.9% |
| Average Payment Cycle | 89.3% |
| Delayed Projects | 4.8% |
| Transaction Processing | 95.3% |

Inventory | Fund Balances | Gas Tax Revenue | Accounts Payable | Commitment

**Current Inventory Status**
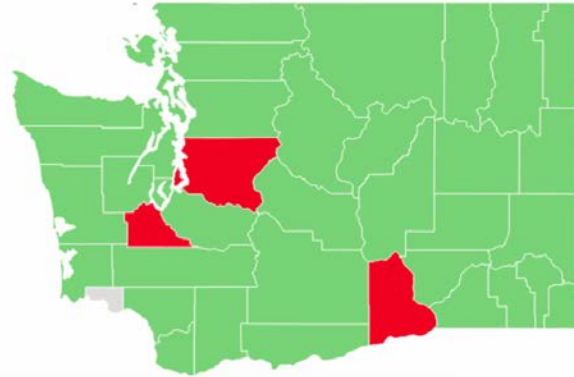
## Small City Street Preservation

**73.2** Statewide Avg. PCR

**1,553.5** Miles of Roadway

### Preservation Priorities

**City Priorities**
- 43.9 Soap Lake
- 57.4 Raymond
- 57.6 Ilwaco
- 57.9 Morton
- 58.9 Ritzville

**County Priorities**
- 61.6 Pacific
- 62.8 Adams
- 63.4 Columbia
- 65.2 Grays Harbor
- 66.8 Wahkiakum
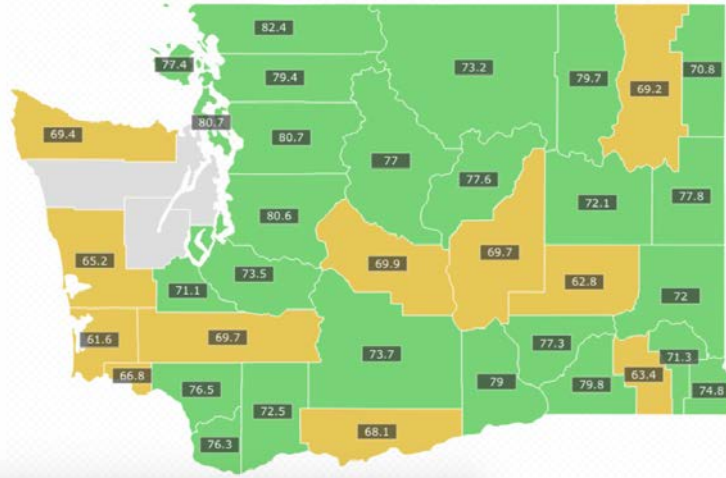
### Overviews

- SCPP PORTFOLIO
- PCR SCORES
- MAPPING STATUS

## Relight Washington

**Statewide Completion**
80.4%

**Total Lights Replaced**
44,797

### Status Indicators

- Greater than 80% Completion
- 20% to 80% Completion
- Under 20% Completion

### Overview

- RELIGHT WASHINGTON
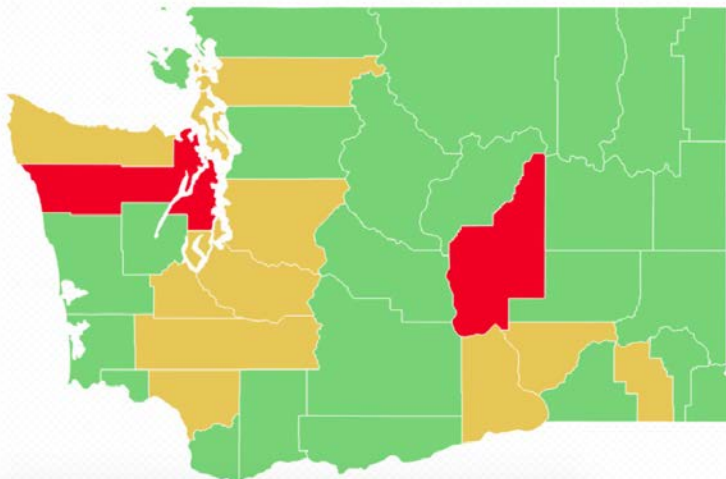
# Dashboard Basics
**By Chantal Stevens**

Like a car dashboard, organizational dashboards display performance metrics in a visually engaging way, so that key information is easily understood by users. Government organizations use dashboards not only to track their performance internally, but also to reach out to the public.  Dashboards offer a "visual display of the most important information needed to achieve one or more objectives; consolidated and arranged on a single screen so the information can be monitored at a glance."  Dashboards are not designed to tell you what to do, but they do give you the information you need to address problems honestly.

Dashboards are best when based on clear outcomes. If a strategic plan is not available, then a list of goals, or areas (domains) should be created to establish the framework under which data will be organized.

Industry has been using dashboards to track performance on production and service delivery for decades. Government dashboards can fall into several categories:

- Operational dashboards are used mainly for monitoring purposes. Front-line workers use operational dashboards to monitor operational processes, events, and activities on a real-time basis .

- Tactical dashboards are used mainly for analytical purposes. Executives use tactical dashboards to review and benchmark performance of departmental activities and processes . Departmental managers use the dashboards for monitoring their unit's progress .

- Strategic dashboards are used by executives to track progress toward achieving strategic objectives. These dashboards are often implemented using the balanced scorecard framework.

Dashboards can be static or dynamic.

- Static dashboards, such as printed reports, are not interactive and cannot be updated on the fly; they provide performance metrics for a specific time (or period of time) .

- Dynamic dashboards, such as web-based dashboards (or other forms) draw on live information from data warehouses, making them interactive and capable of manipulation by the user. Dynamic dashboards have the power to provide information in real time, based on how often the underlying data are updated.

- Visual simplicity is key to effectiveness. Data visualization allows users and viewers to understand complex data in less time than it takes to read a full report. Unlike PowerPoint, which assists someone in making a presentation, the dashboard itself is the presentation. According to Alexander and Walkenbach, one attribute of the dashboard is that it "contains predefined conclusions relevant to the goal of the dashboard

and relieves the reader from performing his own analysis."

- Dashboards should fit on a single page (or screen). Few argues that all the key information of interest in a dashboard should fit on a single page (or screen) for easy visualization. Scrolling through screens or viewing multiple screens fragments the data and the user may not be able to make connections between the various performance indicators of interest (Few, 2006).

- Dashboards should be simple. Dashboards should provide the needed information in a sparse way. Tufte refers to this as maximizing the data-ink (i.e. the ratio of data-ink to total-ink). Visual components that are purely decorative in nature (that contribute to "chart junk") should be minimized (Tufte, 2001).

- Dashboards should use the best display medium for communicating data effectively. There are several ways of summarizing data: tables, graphs, icons, text (Few, 2006) . Appropriate selection of the medium is important for an effective dashboard . For example, tables allow identification of individual values more efficiently than a graph does . Graphs can condense complex data to give visual trends or comparison between data points . Icons can be used to highlight alerts (similar to stoplights in roads), up or down movement, or on/off state. Text can supplement graphics for self-contained explanation of dashboard.

References:

Few, Stephen. "Common Pitfalls in Dashboard Design." ProClarity. February 2006. https://www.perceptualedge.com/articles/Whitepapers/Common_Pitfalls.pdf

Tufte, Edward R. The Visual Display of Quantitative Information. Cheshire, Conn: Graphics Press, 2001. Print.

# Nuts and Bolts on Developing and Using Performance Dashboards

**By Steve Gorcester**

| Dashboard Functional Purposes | Dashboard Functional Elements |
|---|---|
| • Inform improvement<br>• Make decisions<br>• Maintain stability/control<br>• Display needed data<br>• Ensure progress toward targets<br>• Transparency (by-product) | • Alerts<br>• Drill downs<br>• Spark lines<br>• Geographic display<br>• User filters<br>• Time series<br>• Print/export |

## Three Ways to Get Data to Flow into Dashboards:

1. Manually incorporate, enter, or transfer from hardcopy or unattached spreadsheet
2. Input into spreadsheets attached to a dashboard display as a backend. Dashboard display could be either within an Excel top-level spreadsheet or in other software, like SAP Dashboard Design, which can read and display Excel tables.
3. Pull automatically from Open Database Connector (ODBC) accessible databases like Microsoft SQL. Some dashboard building software can be programmed to execute XML data calls to databases. This allows electronic access to database applications used for daily work and eliminates some or most of the marginal effort associated with counting.

Note: TIB used all three data acquisition methods to support the TIB Dashboard. At maturity, the TIB Dashboard displayed about 80% ODBC acquired data. The TIB staff do their daily project administration work in database applications with a Microsoft SQL back end and the dashboard accesses that data in real time.

## How to Create Automated Data Flow for Dashboard

Step 1.  Assess data readiness
Step 2.  Format data into same format
Step 3.  Put data into accessible formats
Step 4.  Make data routinely available
Step 5.  Automate database-driven dashboard

## Four Ways of Using Dashboards in Daily Work.

1. Reference. Check facts and analyze pending business decisions.
2. Standard meetings. Support standard work meetings.
3. Walkarounds. Initiate discussion or ask questions of coworkers.
4. Reporting. Annual assessment report and quarterly or monthly status reports to decision-makers.

# Common Performance Measures Table

**By Larisa Benson**

| How much did we do? | How much did it cost? |
|---|---|
| • # of users/customers served<br>• # of products produced or services performed<br>• # of activities or tasks completed | • $ per unit produced or service provided<br>• $ per user/customer served |

| How well did we do it? (internally) | How well did we do it? (externally) |
|---|---|
| • % team member satisfaction<br>• Workload ratio<br>• Turnover rates<br>• % team members fully trained<br>• Worker safety | • % user/customer requirement met/satisfaction<br>• % products (or services) produced (or delivered) on time<br>• % products or tasks completed to qualify standard<br>• User/customer completion rate<br>• Social justice analysis (can also apply internally) |

| Did we make a difference? |
|---|
| • # and % change in skills, knowledge and/or ability<br>• # and % change in attitude or opinion<br>• # and % change in behavior<br>• # and % change in condition or circumstances |

# Criteria for Selecting Performance Measures
## Curated By Chelsea Lei

There is no one right set of criteria for selecting performance measures. Here we offer a compendium of recommended criteria from a range of credible sources.

## Criteria for a Good Set of Performance Measures
Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards, 2nd Edition, by David Ammons

- **Valid**. They measure what they purport to measure - a score on a given measure does in fact reflect possession of the underlying dimension or quality
- **Reliable**. The measure is accurate and exhibits little variation due to subjectivity or use by different raters.
- **Understandable**. Each measure has an unmistakably clear meaning.
- **Timely**. The measures can be compiled and distributed promptly enough to be of value to operating managers or policy makers.
- **Resistant to Undesired Behavior**. Sets of measures have little vulnerability to strategies/actions designed to "beat the system". Typically include multiple measures that address performance from several dimensions and hold potentially perverse behavior in check.
- **Comprehensive**. Capture the most important performance dimensions. Address major elements.
- **Nonredundant**. Limit information overload by favoring unique measures over duplicative measures.
- **Sensitive to Data Collection Cost**. Include best choices among practical measurement options.
- **Focused on Controllable Facets of Performance**. Emphasize outcomes or facets of performance that are controllable by policy initiatives or management action without necessarily excluding important, overarching and perhaps relatively uncontrollable characteristics relevant to a particular function.

## Criteria for Selecting Outcome Indicators[1]
Performance Measurement, 2nd Edition, by Harry Hatry, p. 62

- Relevance to the mission/objectives of the program and to the outcome the indicator is intended to help measure
- Importance to the outcome. Does the indicator measure an important aspect of the outcome
- Understandability to users of what is measured and reported
- Program influence or control over the outcome. (as long as a program is expected to have some tangible, measurable effect on a specific outcome)
- Feasibility of collecting reasonably valid data on the indicator
- Uniqueness. If an indicator is duplicated by, or overlaps with, other indicators, it becomes less important.
- Manipulability. Do not select indicators that program personnel can easily manipulate to their advantage

---

1   Defined as numerical measurement that indicates progress toward an outcome; equivalent to performance measures.

- Comprehensiveness. Set of indicators should include outcomes that identify possible negative and detrimental effects.
- Cost of collecting the indicator data. (use this criterion with caution)

**Criteria for Selecting High-Performing Indicators: a Checklist to Inform Monitoring and Evaluation**
Evaluation Checklists Project, by Goldie MacDonald, Centers for Disease Control and Prevention[1]

"The checklist includes practice-based criteria to be considered in the selection of indicators for use in monitoring and evaluation. ...

For the purposes of this checklist, an indicator is a documentable or measureable piece of information regarding some aspect of the program in question (e.g., characteristics of the program, facets of implementation or service delivery, outcomes). In many cases, indicators provide a meaningful marker or approximation of the status of program implementation or outcomes. For the purposes of monitoring and evaluation, an indicator requires an operational definition and methodologically sound, rigorous data collection. An indicator may use qualitative or quantitative information....

The checklist is designed to help those responsible for monitoring and evaluation identify high-performing, resource-efficient indicators in collaboration with stakeholders, especially those in a position to make decisions regarding the program based on findings of the study. The checklist should be used at the earliest stages of planning the study to inform and stimulate dialogue regarding options for indicators, including the practical considerations relevant to data collection."

- Accepted practice and history of use
- Applicability in different settings
- Availability of data
- Burden of data collection on participants
- Clarity of focus and meaning
- Cultural appropriateness and relevance
- Data quality
- Investment of resources
- Nondirectional language
- Opportunity to detect unexpected or unintended findings
- Pathways for use of data
- Relevance to evaluation questions
- Strength of evidence or substantive merit
- Value within a set of indicators

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1   https://wmich.edu/sites/default/files/attachments/u350/2014/Indicator_checklist.pdf
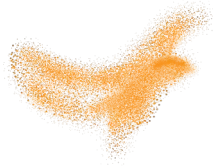
# Examples of Dashboards
### Curated By Chelsea Lei

## National, State, and Regional

Open Michigan: https://midashboard.michigan.gov/
(nice use of dashboard on the secondary pages)

Virginia Performs: http://www.vaperforms.virginia.gov/
(nice scorecard-at-a-glance)

(Scotland) Local Government Benchmarking Framework:
http://www.improvementservice.org.uk/benchmarking/tool.html
(combination dashboard and benchmarking)

United States Patent and Trademark Office: https://www.uspto.gov/dashboards/patents/main.dashxml
(visually impressive)

## City and Community

CincyInsight: https://insights.cincinnati-oh.gov/stories/s/Cincinnati-INsights/s59x-yqy3
(applies narrowly to a few hot button issues)

London: http://citydashboard.org/london/

Atlanta: http://documents.atlantaregional.com/research/20-county-data-dashboard/

CAN Community Dashboard: http://www.cancommunitydashboard.org/

East Tennessee Dashboard: http://etindex.org/dashboard/region

Juneau United Way: http://www.mcdowellgroupdashboard.net/united_way/

## WA Local Governments

Spokane County: http://cp.spokanecounty.org/ChiefOperationsOfficer/PerformanceIndicators/

King County AIMS High: http://www.kingcounty.gov/~/media/depts/executive/performance-strategy-budget/documents/pdf/aimshigh/01-KingCounty-Performance-Scorecard.ashx?la=en

City of Olympia: http://olympiawa.gov/city-government/codes-plans-and-standards/action-plan/community-indicators.aspx

City of Redmond: https://www.redmond.gov/Government/FinancesandBudget/Budget/PerformanceMeasures/

City of Tacoma: https://data.cityoftacoma.org/

City of Kirkland: http://www.kirklandwa.gov/depart/CMO/Reports/Performance_Measures.htm

City of Bellevue: https://bellevuewa.gov/city-government/departments/finance/budget-and-performance/performance-reports

Mercer Island: http://www.mercergov.org/Page.asp?NavID=2651

## Issue specific

North Dakota Health Dashboard: https://www.ndhealth.gov/StrategicPlanning/dashboard/

Washington Transportation Improvement Board: http://www.tib.wa.gov/TIBDashboard/

City of Tacoma Streets Initiative Dashboard: http://tacomastreetsinitiative.org/

## General

Dashboard Spy's Collection of Dashboard Examples: https://dashboardspy.wordpress.com/

# GPC Common Language Glossary
## Curated by Larisa Benson

**Action**
An action, step, activity or work done to achieve a specific goal or contribute to a strategy

**Benchmarking**
Standard to which a municipality compares performance measures. Benchmarking can be done over time, against larger units of government (e.g., city to state), or against similar jurisdictions.

**Community Indicators**
Measurements of past and current community-wide trends related to quality of life, reflecting the interplay between social, environmental, and economic factors affecting a region's or community's well-being.

**Community of Practice**
Groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. A community of practice is defined by a domain of shared interest, a community of learning partnerships, and a shared repertoire of resources and practices.

**Dashboard**
A collection of metrics displayed in an easy-to-read "snapshot" format. Dashboards are a management tool designed for decision-makers to see at a glance the current status and historical trends of an organization or project and take appropriate actions to address performance problems relating to the organization's or project's critical success factors. There can be a single dashboard or a system of dashboards for relevant decision-makers throughout the organization. The defining characteristic of effective dashboards is that information is simplified, filtered and constantly updated to provide the most relevant and timely data. Many dashboards convert performance data and analysis into charts and graphs or other forms of visual representation.

**Indicator**
An indicator is a value, characteristic, or metric used to track the performance of a program, service, or organization, or to gauge a condition. Synonymous with the term "measure."

**Measure**
A measure is a value, characteristic, or metric used to track performance of a program, service, or organization, or to gauge a condition. Synonymous with the term "indicator."

## Metric

A metric is a value derived from measuring an aspect of performance (e.g. frequency count, duration, size, rate). A good metric has a quantitative basis, allows accurate and detailed comparisons, and helps generate useful conclusions. Here are five general attributes of good metrics:

- Reliable: if metric A > metric B, then performance A > performance B
- Repeatable: same value is measured each time
- Consistent: units and definition are consistent across systems
- Independent: able to withstand pressure to change what it measures because stakes are high on its performance results
- Linear*: if metric increases 2x, then performance should increase 2x
- Easy to use*: because no one will use it if it is hard to measure or use

*Nice to have, not required.

## Mission

The purpose of an organization, program or line of business. Synonymous with "vision" and "purpose".

## Outcome

A specific aspect, component or condition of the desired future. The term should describe impact, not what was done. Outcomes are often identified as immediate, intermediate, and long-term. Synonymous with "result."

## Performance Metric

A measure that helps quantify how well a program, service, line of business, strategy, action or activity is working. Synonymous with "performance measures."

## Plan

A descriptive collection of strategies, actions and desired results. In local government, a "strategic plan" explains how a vision expressed by Council/Commission will be achieved.

## Progress Report

A one page summary that provides the foundation for a data-informed conversation about how to continuously improve our results.

## Prototype

An early sample, model, or release of a product built to test a concept or process or to act as a thing to be replicated to learned from.

## Result

A result is the outcome of a program, service, set of activities, or strategy. The term should describe impact, not what was done. Results are often identified as immediate, intermediate, and long-term. Synonymous with "outcome."

**GLOSSARY**

### Results Based Accountability

Results-Based Accountability ("RBA") is a disciplined way of thinking and taking action used by communities to improve the lives of children, families and the community as a whole. RBA is also used by agencies to improve the performance of their programs. RBA starts with ends and works backward, step by step, towards means. For communities, the ends are conditions of well-being for children, families and the community as a whole. For example: "Residents with good jobs," "Children ready for school," or "A safe and clean neighborhood." For programs, the ends are how customers are better off when the program works the way it should. For example: The percentage of people in the job training program who get and keep good paying jobs. Read more about RBA here.

### Strategy

A coherent set of actions that has a reasoned chance of producing a desired result. Sometimes, an evidence based approach or a special initiative.

### Target

A desired number or level related to a performance measure. Targets are the performance objectives an organization is striving to reach.

### Turn the Curve

A step-by-step process in Results-Based-Accountability to get from ends to means. Step 1: Graph the measure you have chosen including a history and a forecast of where you think this measure is going if you do nothing differently. Step 2: Analyze the "story behind the data". This involves analyzing the factors that contribute to the data history and forecast. Step 3: Identify existing and new partners who have a role to play in improving the data. Step 4: Brainstorm what works to address the contributing factors and "turn the curve"? Step 5: Develop and implement a comprehensive action plan.

# A Special Thank You

# GPC Performance Dashboard Phase III Design Survey Results

**January 7, 2019**

The GPC conducted a design survey with a representative group of stakeholders in Washington State local governments on the the current state of performance measurement and performance reporting. The survey results include our stakeholders feedback on our value propositions and general design criteria for our open-source products.

| Table 1. Participation | |
|---|---|
| Number of Survey Recipients | 70 |
| No. of Respondents | 45 |
| Response Rate | 64% |

| Table 2a. Representation | | # | % |
|---|---|---|---|
| No. of Jurisdictions/Organizations | | 24 | |
| | Cities | 16 | 67% |
| | Counties | 4 | 17% |
| | Special Districts | 3 | 13% |

| Table 2b. List of Participating Jurisdictions/Organizations | | |
|---|---|---|
| City of Bellevue | City of Pullman | City of Tukwila |
| City of Bainbridge Island | City of Puyallup | City of Vancouver |
| City of Issaquah | City of Redmond | King County |
| City of Kent | City of Renton | Pierce County |
| City of Kirkland | City of Sammamish | Pierce Transit |
| City of Lynwood | City of Seattle | Snohomish County |
| City of Olympia | City of Sequim | Spokane County |
| City of Pasco | City of Tacoma | MRSC |

| Table 3. Types of Departments/Offices | | # | % |
|---|---|---|---|
| Executive (county executive, city manager, budget office) | | 15 | 33% |
| Administration | | 15 | 33% |
| | Finance | 8 | 18% |
| | HR | 2 | 4% |
| | IT | 2 | 4% |
| Public Works | | 5 | 11% |
| Performance and Continuous Improvement | | 8 | 18% |

| Table 4. Roles | # | % |
|---|---|---|
| Program Director / Manager | 7 | 16% |
| City Manager / Chief Executive | 7 | 16% |
| Department Director | 6 | 13% |
| Analyst | 6 | 13% |
| Lead staff for my jurisdiction's performance measurement / improvement initiative | 6 | 13% |
| Assistant City Manager / Deputy Executive | 5 | 11% |
| Deputy Department Director | 3 | 7% |
| Supervisor | 2 | 4% |
| Program Staff | 1 | 2% |
| Elected Official | 0 | 0% |
| Other | 0 | 0% |

| Table 5. Current State of Performance Measurement (Top 3 Responses) | |
|---|---|
| 56% | A few areas are experimenting but we are not using performance data consistently across departments yet |
| 27% | Consistently using data to inform improvements, still learning and improving |
| 13% | We have some interest but have not yet started anything |

| Table 6. Current State of Dashboards Usage and Performance Reporting (Top 3 Responses) | |
|---|---|
| 38% | Have one or more dashboards or performance reports that are both public facing and for internal use |
| 24% | Have measures and use them but we don't have a functional dashboard or performance report |
| 16% | Have only one or more public facing dashboards or performance reports |

| Table 7. Needs Assessments (Rated on Level of 5-0) | | | | | |
|---|---|---|---|---|---|
| Number | Needs / Value Propositions | Sum | Essential (5) | Important (4) | Valuable (3) |
| 3 | Credible recommendations on a core set of key measures for a given line of municipal business to inform selection of performance measures | 93% | 31% | 33% | 29% |
| 2 | A practical, relevant and transparent reporting mechanism (i.e. a dashboard) to support making decisions and improving core municipal services | 89% | 49% | 20% | 20% |
| 6 | Free or low-cost ways to increase our technical skills and capacity for using performance data to inform and improve | 89% | 31% | 31% | 27% |
| 7 | Access to tools, templates and training resources | 89% | 36% | 31% | 22% |
| 1 | A compelling business case to convey the value of performance measurement and improvement to an internal audience | 80% | 29% | 16% | 36% |
| 8 | Participation in a local or virtual community of practice for technical assistance, networking, and professional learning and development | 84% | 24% | 31% | 29% |
| 5 | An example dashboard that helps us specify to software providers what we need in a customized dashboard | 76% | 13% | 20% | 42% |
| 4 | A free dashboard template in Excel that we can easily adapt for our purposes without paying for a proprietary software | 71% | 13% | 18% | 40% |

| Table 8. Dashboard Design Criteria (Rated on Level of 3-0) | | | | |
|---|---|---|---|---|
| Number | Design Criteria | Sum | Must Have (3) | Should Have (2) |
| 1 | Alignment with strategic purpose or line of business purpose | 100% | 82% | 18% |
| 2 | Contains relevant and meaningful measures | 100% | 91% | 9% |
| 7 | User friendly to maintain | 98% | 78% | 20% |
| 3 | Enables at-a-glance view of overall performance | 93% | 60% | 33% |
| 5 | Enables storytelling | 89% | 40% | 49% |
| 6 | Track actions taken to improve performance | 84% | 49% | 36% |
| 4 | Shows updates and trends in real time | 60% | 29% | 31% |
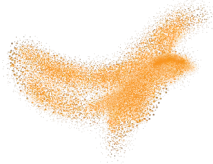
# Municipal Indicators: Detailed Explanations

**By Chelsea Lei and Chantal Stevens**

## ECONOMY AND WORKFORCE

### A1 - Per Capita Income

**Definition**: Mean money income received in the past 12 months computed for every woman, man, and child in a geographic area

**Data Sources:** U.S. Department of Commerce: U.S. Census Bureau – American Community Survey: "Per Capita Income In the Past 12 Months (In [Year] Inflation Adjusted Dollars), search by state, county, and year.[1]

**Why It Matters:** Life satisfaction is strongly correlated with per capita income. This is particularly true among disadvantaged countries, regions, and communities, because income gains in these places are associated with greatest increases in life satisfaction.

### A2 - Unemployment

**Definition:** Unemployed individuals are those without jobs who are able, available and actively seeking work. The unemployment rate is the number of unemployed people as a percentage of the total labor force (the total number of employed and unemployed non-institutionalized individuals 16 or older).

**Data Sources:** U.S. Census Bureau, Employment Status (Table S2301), Dataset: American Community Survey 5-year Estimates, refine search results by entering city/county and state info.[2]

**Why It Matters:** The unemployment rate is seen as a lagging indicator for the strength of the economy, both national and regional. On a personal level, low educational attainment, ability not captured by education, financial deprivation and behavioral problems in childhood are positively correlated to a person's susceptibility to unemployment. Additionally, there is strong evidence of structural dependence induced by early unemployment experience for men, while only minor persistence for women. Unemployment and crime rates are positively correlated. Unemployment correlated with premature mortality and higher rates of depression, anxiety, and suicide.

### A3 - Housing Affordability

**Definition:** The Housing Affordability Index measures whether or not a typical family earns enough income to qualify for a mortgage loan on a typical home.  A value of 100 means that a family with the median income has exactly enough income to qualify for a mortgage on a median-priced home. For example, a composite HAI of 120.0 means a family earning the median family income has 120% of the income necessary to qualify for a conventional loan covering 80 percent of a median-priced existing single-family home.

1   https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t
2   https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t

**Data Sources**: University of Washington Rundstad Center for Real Estate Studies Washington State Housing Market Snapshots Q2 values for Washington[1]

**Why It Matters:** Median home values are often tracked as an indicator of the wealth of a community. Many municipalities are funded through property tax which is closely tied to home values. Households that are cost-burdened, characterized as spending 30% or more of household income on housing, are more likely to experience marital dissatisfaction and are less likely to spend money on child enrichment, healthcare, and food. Lack of access to affordable housing can increase commute times (leading to lower quality of life) and higher rates of eviction. Typically a household's second-largest expenditure, transportation costs are largely a function of the characteristics of the neighborhood in which a household chooses to live. Opposing trends are at work on housing affordability: lower mortgage costs, lower home values and the health of the market economy all contribute to a higher score.

## A4 - Children in Poverty

**Definition:** The number of children under 18 living below the federally defined poverty line, expressed as a percentage of all children under 18

**Data Sources:**
- U.S. Census Bureau, Percent of Related Children Under 18 Years Below Poverty Level in the Past 12 Months(Table GCT 1702).[2]
- Also available at National Center for Children in Poverty, Demographic Profiles search engine providing state specific data on characteristics of children in poor and low-income families by age.[3]

**Why It Matters:** Childhood poverty is strongly and negatively correlated with children's mental, emotional, and behavioral health in childhood and long-term life chances. Children in low socioeconomic status households are less likely to graduate from high school and more likely to experience developmental and academic difficulties.

## PEOPLE AND COMMUNITY

### B1 - Arts-Related Businesses

**Definition:** Total Number of Arts-Related Businesses and Rate per 1,000 Businesses based on the County Business Patterns (CBP), an annual series that provides subnational economic data by industry during the week of March 12, first quarter payroll, and annual payroll. Businesses include art galleries, camera & photographic supply stores; book stores; performing arts companies; performing arts promoters; independent artists; writers & performers; musical instrument stores; compact disc & record stores; and museums.

**Data Sources:** American FactFinder: Jurisdiction, subset Industries, County Business Patterns - 71 (Arts, Entertainment & Recreation).[4]

**Why It Matters:** The activities of art-related businesse.s and cultural organizations foster

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1  http://realestate.washington.edu/research/wcrer/
2  https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t
3  http://www.nccp.org/profiles/demographics.html
4  https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t

cultural and creative vitality. A growing number of arts-related businesses also provide opportunities for individuals to learn and participate in a rich array of arts and culture activities. They are also essential to supplying arts and cultural organizations with products and services. Consequently, their number reflects, in part, the strength of the arts sector in a regional economy.

## B2 - Community Cohesion

**Definition:** Percent of adults who report sense of high social cohesion (trust and feeling connected) in their neighborhoods

**Data Sources:** Locally generated through annual citizen survey. Example: City of Redmond, "Sense of Connection to the Community"

**Why It Matters:** A cohesive society is one where people are protected against life risks, trust their neighbors and the institutions of the state and can work towards a better future for themselves and their families. Social cohesion, built on social inclusion, social capital and social mobility, is the glue that holds society together.

## B3 - Price of Government

**Definition:** Sum of all taxes, fees, and charges collected by the City as a percentage of aggregate personal income. That is, all revenue excluding that which comes from "Other Financing Sources" (Long-term debt proceeds, sale of capital assets, transfers from other funds, insurance proceeds) and "Non-Revenues" (Cash received for accounting purposes but is not technically revenue).

**Data Sources**:
- Sources on revenues: Washington State Auditor's Office or your city/county's Budget Office.
- Sources on personal income: US Census, total population in your city/county, per capita income.

**Why It Matters:** This indicator allows a local government to monitor the level of resources available to provide critical services within its jurisdiction and helps inform the price range within which residents and businesses are willing to pay for living in a city/county with those services.

## B4 - Voter Turnout

**Definition:** Number of ballots cast for population over age of 18 for November elections

**Data Sources:**
Local and State: Washington Secretary of State Elections and Voting - Election Related Data & Tables - Voter Participation Data (2000-current)[1]
US:
- United States Elections Project[2]
- 1984-2014 November General Election - Voting-Eligible Population (VEP) and Total Ballot Counted
- US Census - Voting and Registrations tables - 2016-2014-2012-2010

1   https://www.sos.wa.gov/elections/voter-participation.aspx
2   http://www.electproject.org/

**Why It Matters:** Civic engagement and citizenship are core ideals of American society. Voting rates often reflect citizens' feelings of self-efficacy. High rates of voting are typically connected to home ownership, higher levels of education, employment, income, and age. Voting rates have an impact on policy responsiveness and where tax dollars are allocated. Policies such as felon disenfranchisement and voter identification laws can significantly influence voter turnout.

## NATURAL ENVIRONMENT

### C1 - Air Quality Index

**Definition:** The Air Quality Index is an indicator of overall air quality that takes into account all of the criteria air pollutants measured within a geographic area.

**Data Sources**: US EPA Air Quality Report - Select year and geographic area. Divide #Good/Moderate/All Unhealthy combined by #Days with AQI for percent.[1]

**Why It Matters:** The Air Quality Index (AQI) summarizes levels of ground-level ozone, particulate matter (soot and other particles), carbon monoxide, sulfur dioxide, and nitrogen dioxide into one measure. WAQA is slightly more protective. There are many dimensions to capturing the health of the natural environment, and air quality is one of the most important. The AQI captures information on a variety of pollutants, such as ground-level ozone, particle pollution, carbon monoxide, and sulfur dioxide, which each pose unique risks to human health. Air pollution has been proven to cause infection in the respiratory system, cause or irritate asthma, and cause permanent lung damage. Additionally, pollution can exacerbate cardiac issues such as heart attacks and can increase the rate of emergency room visits.

### C2 - Waste Diversion

**Definition:** Tons of solid waste diverted to recycling/composting as a ratio of tons of solid waste collected in the waste stream

**Data Sources:** Your city/county's waste management records

**Why It Matters:** This indicator tracks how much solid waste is collected for recycling or otherwise diverted from disposal each year. Diverting solid waste from a landfill conserves valuable resources, saves energy, reduces greenhouse gas emissions and other harmful environmental pollutants, conserves landfill space, and creates jobs. Greater public outreach can change personal behavior and increase waste diversion.

### C3 - Tree Canopy

**Definition:** Percent of total land covered by tree canopy, derived from high spatial resolution images

**Data Sources:** National Land Cover Database (NLCD)[2]

**Why It Matters:** Urban tree canopies have the ability to sequester carbon dioxide and to

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1    https://www.epa.gov/outdoor-air-quality-data/air-quality-index-report
2    https://catalog.data.gov/dataset/national-land-cover-database-nlcd-land-cover-collection

remove a measureable amount of particulate matter from the air, thus correlating with improved air quality. Tree canopies reduce energy use by increasing shade, lowering summertime temperatures, and reducing wind speed around buildings (thereby protecting secondary air quality standards). Green spaces like tree canopy may reduce mental distress, increase home value, and reduce noise pollution. A new body of research suggests a relationship between tree canopy and a decrease in low-for-gestation birth weights.

### C4 - Water Quality Index

**Definition:** Water quality index at sampling site(s) within the jurisdiction.  The Water Quality Index, or WQI, is a number ranging from 1 to 100; a higher number indicates better water quality. In general, stations scoring 80 and above met expectations for water quality and are of "lowest concern," scores 40 to 80 indicate "moderate concern," and water quality at stations with scores below 40 did not meet expectations and are of "highest concern."

**Data Sources:** WA Dept. of Ecology River and Stream Water Quality Index[1]

**Why It Matters:** The Water Quality Index condenses a lot of ecological information into one consolidated number for community members and decision makers. It also makes direct comparisons between water bodies possible. Water quality can be degraded by urban development, through the increased presence of impervious surfaces. Quality may also be negatively affected by agricultural production, through the usage of fertilizers and pesticides. Water degradation results in risks to ecosystems and increased water purification costs for communities.

## PUBLIC SAFETY

### D1 - Perception of Safety

**Definition:** How safe residents feel about public safety in their community

**Data Sources:** Your city/county's community/citizen survey

**Why It Matters:** Perceptions of neighborhood crime are negatively associated with level of physical activity among youth, as well as depressive symptoms among adults ages 50-74. Perceptions of neighborhood crime have been positively associated with other mental health problems, such as anger, depression, and anxiety, as well as vicarious victimization by exposure to violence in the neighborhood and visual signs of disorder. However, individuals who have a strong connection to their neighbors are less likely to worry about crime, even when living in areas with high levels of disorder.

### D2 - Violent Crime Rate

**Definition:** For state level data, the violent crime rate is defined as the number of reported violent crimes per 100,000 residents. The violent crime figures include the offenses of murder, rape, robbery, and aggravated assault.

**Data Sources:** FBI: Crime in the United States, Under Offenses Known to Law Enforcement, select "Violent Crime". Browse by National data (Table 2), State totals (Table 5), City Agency,

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1   https://fortress.wa.gov/ecy/eap/riverwq/regions/state.asp?mode=statemap

County Agency and Metropolitan/Nonmetropolitan Counties.[1]

**Why It Matters:** Violent crime rates correlate positively to poverty levels, income inequality, and residential instability. Research suggests that violent crime rates negatively correlate to the probability of arrest, the probability of imprisonment, level of social capital, and collective efficacy. Relative poverty and local segregation of high income households from low income households can exacerbate violent crime. Violent crime in the community is linked to higher levels of depression among a community's older residents.

### D3 - Emergency Preparedness
**Definition:** The jurisdiction has emergency preparedness, mitigation, response and recovery plans updated within the last three years.

**Data Sources:** Your city/county's emergency management agency. For best practices on emergency management, refer to EMAP's Emergency Management Standard[2]

**Why It Matters:** Local governments play a critical role in disaster mitigation, preparedness, response and recovery. Continuously planning, training, exercising and coordinating emergency activities throughout a year is considered best practice in the emergency management profession.

### D4 - Traffic Serious and Fatal Injury
**Definition**: Fatal and Serious Injury by year on all roads within a jurisdiction per 10,000 residents

**Data Sources:** Washington Dept. of Transportation Crash Data Portal[3]

**Why It Matters:** This is a standard metric commonly used to inform transportation and road safety policy and planning.

## INFRASTRUCTURE & MOBILITY

### E1 - Drinking Water Quality
**Definition:** Compliance with standards set for safe drinking water

**Data Sources:** Your city/county's Drinking Water Consumer Confidence Report.

**Why It Matters:** Water is necessary for life, and the quality and abundance of drinking water can have significant health and developmental effects such as various forms of cancer, gastrointestinal illness, and death or limiting brain development which impacts academic achievement and potentially even increases criminal behavior. Many things can impact drinking water quality including agency oversight, water infrastructure, well location, and wastewater treatment practices. Since water quality can change quickly and vary on location - the water should be tested regularly at different locations in order to paint an accurate picture of the water quality.

1   https://ucr.fbi.gov/crime-in-the-u.s
2   https://www.emap.org/
3   https://remoteapps.wsdot.wa.gov/highwaysafety/collision/data/portal/public/#!

## E2 - Recreation Expenditure Per Capita

**Definition:** General fund expenditures for Parks & Recreation expressed in terms of per capita expenditure

**Data Sources:** Local data: Municipal Budget Book (Parks & Recreation Total Expenses + Parks Capital Expenses) Population data: American FactFinder - ACS Population estimates 5 yr estimates (2011-2015) based on the 2010 Census[1]

**Why It Matters:** Funding allocated to sustain parks and recreation facilities is one measure of a community's commitment to a system that contribute to physical, social, environmental and aesthetic quality of life. Parks provide physically activity and access to nature, as well as diverse ecological functions.  Additional benefits include strengthening of the social fabric of a community and positive economic benefits through rising property values.

## E3 - Average Commute Time

**Definition:** Mean travel time to work

**Data Sources:** U.S. Census Bureau – American Community Survey, Table S0802.[2]

**Why It Matters:** Research suggests that longer commutes have negative impacts on both mental and physical health. Long commutes may decrease overall sense of well-being in individuals. Conversely, some research suggests that commutes may reduce stress by providing time to transition from the work mindset to the home mindset. Studies indicate that long commute times are strongly affected by conditions of sprawl, as greater sprawl is associated with increased costs to the traveler. Furthermore, a tradeoff often exists between commute time and cost of housing. Many individuals may choose to live further away from their place of work due to lower housing costs, while, conversely, some may opt for higher cost urban housing in order to avoid stressful commutes and lengthy travel times.

## E4 - Commute without Vehicle

**Definition:** Share of commuters using alternate modes of transportation, which include using public transportation, walk, bicycle, taxicab or motorcycle, or working at home.

**Data Sources:** U.S. Census Bureau – American Community Survey Table S0801.[3]

**Why It Matters:** Research shows that active transport is inversely related to obesity rates. Air quality (especially sulfur and VOC emissions) is typically higher in areas where active transportation is popular than in those in which it is unpopular. This popularity comes with additional health benefits. In addition, research suggests that those who commute using active methods report lower commute stress levels; it is important to note that this may be related to city size, because as size increases, public transit stress increases.

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1   https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t
2   https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t
3   https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t

# HEALTH & WELLBEING

## F1 - Premature Death

**Definition:** Premature death measures the risk of dying before age 75, uses Years of Potential Life Lost as its measure of Premature Death, per 100,000.

**Data Sources:** County Health Rankings[1] - Washington Rankings Data - Downloads tab - Under [year], dowload Washington Data - Ranked Measure Data tab - Premature Death - Years of Potential Life Lost- Select Wasington or County

**Why It Matters:** Premature death is an important indicator of poor health or dangerous behavior in a community. Because it is not cause specific, programs and policies that are expected to have wide ranging health effects can be assessed using this measure.

## F2 - General Mental Health

**Definition:** Average number of days a county's adult respondents report that their mental health was unhealthy in past 30 days (age-adjusted - Adjusting for age removes the effect of age as a risk factor on poor mental health days since aging is not preventable)

**Data Sources:** County Health Rankings[2] - Washington Rankings Data - Downloads tab - Under [year], dowload Washington Data - Ranked Measure Data tab - Poor mental health days - Select Wasington or County

**Why It Matters:** Mental health is essential to a person's well-being, healthy family and interpersonal relationships, and the ability to live a full and productive life. Untreated mental health disorders are at high risk for many unhealthy and unsafe behaviors, including alcohol or drug abuse, violent or self-destructive behavior, and suicide.

## F3 - Adult Smoking

**Definition:** Percent of adults age 18 or older who smoked at least 100 cigarettes in their lifetime and are current smokers

**Data Sources:** County Health Rankings[3] - Washington Rankings Data - Downloads tab - Under [year], dowload Washington Data - Ranked Measure Data tab - Adult Smoking - Select Wasington or County

**Why It Matters:** Tobacco is one of the leading preventable causes of deaths and disease in the United States. Research has shown that smoking increases the risk for chronic lung disease, coronary heart disease, stroke, cancer of the lungs, larynx, esophagus, mouth, and bladder. Current smokers are more likely to experience both housing and food insecurity and report drinking and mental health issues than non-current-smokers. They are also more likely to have only fair or poor health. In addition, exposure to secondhand smoke increases the risk of heart disease and lung cancer among nonsmokers.

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1   https://www.countyhealthrankings.org/app/washington/2017/downloads
2   https://www.countyhealthrankings.org/app/washington/2017/measure/outcomes/42/data
3   https://www.countyhealthrankings.org/app/washington/2017/measure/factors/9/data

## F4 - Adult Obesity

**Definition:** Percent of adults age 18 or older who have body mass index of 30 kg/m2 or more

**Data Sources:** County Health Rankings[1] - Washington Rankings Data - Downloads tab - Under [year], dowload Washington Data - Ranked Measure Data tab - Adult Obesity - Select Wasington or County

**Why It Matters:** Adult obesity is strongly correlated with a host of health problems, including type 2 diabetes, heart disease, and hypertension. These negative health outcomes are correlated with economic costs (both direct and indirect) of billions of dollars.

## EQUITY & SOCIAL JUSTICE

## G1 - Racial Diversity Index

**Definition:** The Diversity Index from Esri represents the likelihood that two persons, chosen at random from the same area, belong to different race or ethnic groups. This number does not reflect which race/ethnicity is predominant within an area. The higher the value, the more racially and ethnically diverse an area. (Note: Ethnic diversity, as well as racial diversity, is included in this definition of the Diversity Index. Esri's diversity calculations accommodate up to seven race groups: six single-race groups (White, Black, American Indian, Asian, Pacific Islander, Some Other Race) and one multiple-race group (two or more races). Each race group is divided into two ethnic origins, Hispanic and non-Hispanic. If an area is ethnically diverse, the diversity is compounded. If an area's entire population belongs to one race group and one ethnic group, then an area has zero diversity. An area's diversity index increases to 100 when the population is evenly divided into two or more race/ethnic groups.)

**Data Sources:** ESRI ArcGIS, USA Diversity Index[2]. Note that ESRI's Diversity Index draws upon US Census Bureau's Hispanic Origin by Race Table (B03002). As a proxy, you may consider using % non-white for this indicator if you do not have access to ESRI data.

**Why It Matters:** Tracking the diversity of our society informs our understanding of the shifting demographics of race and ethnicity in our communities. The Racial Diversity Index can be used to leverage diversity as a community asset to support inclusion and equity policies, strengthen democratic participation, and improve economic opportunities for disadvantaged groups.

## G2 - Education Attainment

**Definition:** The number of residents with high school, associate and 4-year college degrees broken down by race, ethnicity, gender and income, expressed as a percentage of all residents 25 and older in a region

**Data Sources**: US Census Bureau American Community Survey, Table S1501. Data prior to 2015 is not available.[3]

1   https://www.countyhealthrankings.org/app/washington/2017/measure/factors/9/data
2   https://www.arcgis.com/home/item.html?id=12fed4a1726546aba083bd2c04ce6931
3   https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t

**Why It Matters:** Researchers correlate higher levels of educational attainment with better economic prospects. Earnings increase with higher levels of education. One's earning power compounds, rather than merely increases, with higher levels of educational attainment. However, the benefits of higher levels of education do not accrue evenly. Whites and Asians receive greater economic benefit from education than Black and Hispanic individuals. In addition, for white and Asian individuals education has a protective effect on wealth during times of recession while this benefit is absent for Black and Hispanic individuals for equal education.
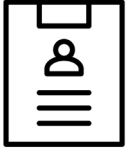
## G3 - Domestic Violence Reported

**Definition:** Number of domestic violence offenses per 1,000 residents. Domestic violence includes any violence of one family member against another family member. Family can include spouses, former spouses, parents who have children in common regardless of marital status, adults who live in the same household, as well as parents and their children. Offenses are incidence reporting. When more than one victim is involved an offence is filed for each victim. Multiple property violations performed at the same incident are counted as one offence. However when both types of events happen, only the victim incidents are reported as offenses. Offenses focus on the nature of the crime, while arrests focus on the apprehended accused perpetrator. Many offenses occur without arresting perpetrators.

**Data Sources:** Washington State Department of Social and Health Services: Risk and Protection Profiles for Substance Abuse Prevention Planning - Select the appropriate jurisdiction in the desired format. Under "Problem Outcomes", see "15. Criminal Justice". Offenses, Domestic Violence[1]

**Why It Matters:** Domestic violence has unique negative effects on victims and families. It can cause serious and permanent emotional and psychological damage, which hurts one's quality of life and ability to contribute to society and perform at work.

## G4 - Access to Healthy Food

**Definition:** Percentage of total population within a designated area that is identified as both "low income" and having "low access" to healthy food. Note that there are many ways to measure food access for individuals and for neighborhoods, and many ways to define which areas are food deserts (neighborhoods that lack healthy food sources). Explore the USDA Food Access Research Atlas data to determine other possible indicators to measure food access in your jurisdiction.

**Data Sources:** USDA Food Access Atlas.[2] The atlas provides a spatial overview of food access indicators for low-income and other census tracts using different measures of supermarket accessibility and provides downloadable census-tract-level data on food access. See "Documentation" for details.

**Why It Matters:** Healthy food retailers are considered important components of healthy, thriving communities. Limited access to supermarkets, supercenters, grocery stores, or other sources of healthy and affordable food may make it harder for some community residents to eat a healthy diet. The challenge to access healthy food has often been persistent in particular for communities of color and many rural communities and small towns. For decades, community activists have organized around the lack of access to healthy food as an economic, health and social justice issue.

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1   https://www.dshs.wa.gov/ffa/research-and-data-analysis/county-and-state
2   https://www.ers.usda.gov/data-products/food-access-research-atlas/

# LEARNING & EDUCATION

## H1 - Third Grade Reading
**Definition:** Share of 3rd grade students meeting or exceeding reading standards

**Data Sources:** KIDS Count Data Center[1], Washington KIDS COUNT, 2009-10 to 2013-14 series. Note that the most recent data series starting in 2014-2015 to present are based on the Smarter Balanced test that replaced the Measurement for Student Progress test.

**Why It Matters:** Third grade reading is important because by the fourth grade, children are expected to read to learn, and those who can't, will fall behind. Research has shown that children who aren't proficient by the end of third grade are four times more likely to not graduate from high school than proficient readers. For that reason it is often used as an early warning indicator of high school graduation rates. High school graduation is associated with improved financial stability, employment outcomes, physical health, civic engagement, and lower crime rates.

## H2 - High School Graduation
**Definition:** The number of students graduating on time (after four years of high school), as a percentage of their cohort

**Data Sources**: Washington State Office of Superintendent of Public Instruction, Dropout and Graduation Reports, Appendix B County Adjusted 4 year[2]

**Why It Matters:** Educational attainment has long been seen as a key factor in economic mobility, as high school graduation rates are correlated with improved social and economic life outcomes. As of 2015, an individual with a high school degree earned $185 more per week than someone without one, and the unemployment rate for people with a high school degree was 2.6% lower compared to people without one. High school graduates are also more likely to vote, be healthier, and commit fewer crimes.

## H3 - Library Circulation Per Capita
**Definition:** Number of library materials lent to the number of persons the library serves. It is the annual circulation divided by the library's legal service area population, and indicates the average number of loans made to each resident annually.

**Data Sources:** Washington State Secretary of State: WA State Library[3], scroll down to find Washington Public Library Statistics - Under 2015 Report Categories, select "Circulation, ILL and Cooperatives", Table 11. Previous years statistics 1994-2014 also available.

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1   https://datacenter.kidscount.org/data/tables/8535-third-graders-meeting-or-exceeding-reading-standards-msp?loc=49&loct=5#detailed/5/6947-6985/false/1249,1120,1024,937,809/any/17222
2   http://www.k12.wa.us/DataAdmin/Dropout-Grad.aspx
3   https://www.sos.wa.gov/library/libraries/libdev/publications.aspx

**Why It Matters:** Circulation per capita per year is a meaningful, feasible measure of library use across long periods. It indicates a significant type of individual behavior both in establishing an administrative relationship to a library and in using library materials.

## H4 - Internet Access

**Definition:** Percentage of population with access to download speed greater than 25 Mbps at home (as of 2014)

**Data Sources:** National Broadband Map.[1]

**Why It Matters:** The Internet has an enormous impact on education, streamlining access to information and making it easier for individuals to engage in online learning. It makes access to information and communication far easier. Internet access has a huge impact on businesses, allowing employees to work remotely from home and communicate more efficiently. Healthcare is another field greatly affected by the advent of the Internet. Improvements in online connectivity and communication technology allow physicians much greater access to medical resources. Government organizations use the Internet to improve organization and communication, and voters can go online to gain more information about current issues.

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1    https://www.fcc.gov/news-events/blog/2018/12/07/decommissioning-national-broadband-map-and-its-apis

# GPC Municipal Dashboard Project
## Core Team

**Chelsea Lei**

Chelsea is a civic researcher, designer and coach who co-created the Government Performance Consortium and catalyzed its "GovJoy" movement to transform government from the inside out. Chelsea led the GPC Municipal Dashboard Project and spearheaded original research and product development for the GPC Municipal Dashboard of Community Indicators and the GPC Performance Dashboards. Previously Chelsea created a municipal finance internship program at Stanford University, served as management auditor at the King County Auditor's Office, authored research tudies at the Harvard Kennedy School of Government. Chelsea holds a B.A. from Harvard University and M.A. from Stanford University, and is currently pursuing a PhD in Organizations Studies at Boston College.

**Larisa Benson**

Larisa Benson is the host of the Government Joy Network and co-creator of the Government Performance Consortium. A three-time national award winner for innovation in the public sector, she interweaves periods of doing, reflecting and teaching throughout her career. She serves on the board of the Whidbey Institute, teaches Search Inside Yourself and weaves networks of participatory leadership for social change.

**Steve Gorcester**

Steve Gorcester is a 38-year career professional in public management, transportation and capital finance.  His successful efforts to turn around an ailing state grant agency earned him multiple awards for performance excellence and innovation. He has studied and applied Lean process improvement in state and local governments since 2008.

**Chantal Stevens**

Chantal Stevens is the executive director ot the Community Indicators Consortium, an international organization that provides resources and tools to help communities and practitioners advance the practice and effective use of community indicators.  She's was the executive director of Sustainable Seattle, a pioneer in the development of community indicators.  She also worked for King County as the oversight manager of the Countywide Community Forums and as a performance management analyst. She is an active advocate for community indicators and public engagement as key elements of a functioning performance management system in the public and nonprofit sectors. A long time resident of the Pacific Northwest, she holds a BS and MMA from the University of Washington in Seattle.



**Jessica Riehl**

Jessica Riehl is a designer and facilitator who uses collaborative-based design processes to gain insight and empower change. She employs visual and systems thinking, mindfulness, storytelling, ethnographic research, cameras, sharpies, Post-it notes, graphic design, markers, and agile websites. You could say, she helps a client make their work visible. As an entrepreneur, nature lover, photographer and former Naval Officer, Jessica brings a unique perspective that informs her design process, artifact creation, and facilitation. She holds an M.S. in Environmental Policy and an M.F.A. in Collaborative Design.

**Bring your gems. Together we form a beauitful gem mandala.**



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