PERFORMANCE MANAGEMENT GUIDEBOOKS

SETTING TARGETS

A practical guide to help governments set better targets in their performance practice.

What Works Cities
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Setting Performance Targets

Everyone sets targets. Some people set fitness and savings goals. Students want better grades. CEOs aim for certain profit margins. Principals want higher graduation rates. Across every domain, people use performance measures and targets to shape choices. Performance measures provide people quantifiable information about something they care about achieving or maintaining. Targets help them know where to aim.

Governments are no different than individuals. Many governments have been told they need S.M.A.R.T. goal statements and strong targets. However, not every jurisdiction, department, and program understands how to set achievable targets that will inspire people to improve, and setting the right target for each measure can be difficult.

The Center for Government Excellence at Johns Hopkins University (GovEx), a partner in Bloomberg Philanthropies’ What Works Cities initiative, created this practical guide to help governments advance performance management practices by setting stronger targets. The guide includes: tips for dealing with five common categories of target-setting scenarios; an in-depth example for practicing accuracy in target setting; links to benchmarking and proxy measure resources; and a robust glossary of terms.
Five Common Categories of Performance Targets

Setting strong targets can be both art and science; and governments should strive for as much science as possible. However, programs, departments, and organizations have varying levels of performance measurement and data science capacity. Therefore, GovEx developed this guide to give practical advice based on the five “common categories” of target setting in governments across the country.

All five target setting categories are illustrated in Figure 1. The graphic is intentionally conceptual, not based on real measures or targets, to make it more generalizable and applicable to a wider audience. The categories are often sequential but not mutually exclusive. One organization can have measures in multiple categories, or all the categories. They are simply commonly occurring, and therefore worth learning from.

What Should Governments Aim For? The ultimate goal is for governments to set accurate targets until they are sustainably reached. However, there is no wrong door to enter and no shame in any of these categories. Every government faces each category mentioned in this guide and must deal with uncertainty while sometimes reaching higher than their capacity. Every government has a few programs and measures that are "mediocre." This guide will provide quick do's and don'ts for every stage along the journey. In the end, the ideal state is continuous improvement, not perfection.

A quick summary of the five categories:

- **Uncertainty:** no baseline data exists to set appropriate targets without guessing
- **Overconfidence:** targets are unrealistic and unattainable based on baseline data
- **Mediocrity:** targets are far below proven capacity
- **Accuracy:** targets are carefully calculated to drive precise achievement
- **Stability:** performance has reached an acceptable level, time to maintain and shift focus

Figure 1
Goals vs. Targets

Many organizations have very precise definitions for the words goal and target. For example, a city may set a goal to end homelessness by 2018, and then set specific targets for each preceding year. Under this construct, the goal is the ultimate desired achievement, and the target is the path to get there. However, other organizations, including GovEx, use the words more interchangeably, because they are essentially the same thing: a specific quantity a program, department, or government is trying to achieve in the future. Because goals and targets have so much in common, GovEx has chosen to avoid making distinctions between them and encourages governments to use whichever terminology makes the most sense to its people and culture.

Goal statements

Goal statements are also commonly used in performance management, but are broader than goals and targets. Goal statements include qualitative as well as quantitative information, like “create a stronger and safer community for all residents by ending homelessness in 2018.” The goal/target in that statement is still zero homeless individuals by 2018, but language about stronger and safer communities has been added to provide context to the goal/target.
Category One – Uncertainty

Uncertainty occurs when a city has no baseline data about a performance measure, making it difficult to set appropriate targets without guessing. This most commonly occurs when a measure or program is new, or when historical data is not available due to a transition to new data systems.

Signs of uncertainty:

- No baseline data exists (yet).
- People are unwilling or uncomfortable setting targets for this measure.
- People are not confident in the way the measure is being calculated.
- People express a lack of control over the outcome
- The measure relates to a sensitive issue for which setting targets creates downstream political, legal, or moral consequences (e.g., staff downsizing).

Figure 2

What to do with uncertainty?

- Consider a proxy measure. Infant mortality rates are a direct measure of healthcare quality but are also a proxy for the economic and social welfare of a community. The unemployment rate is a direct measure of unemployment, but is also a proxy for the overall state of our economy. Proxy measures can be powerful tools for governments...
who do not have the exact data they want, but know the outcome they are trying to achieve. Both examples given here are commonly used, defensible federal measures.

- **Take advantage of benchmarking.** This measure may be new for your city, but another city may already have data you could learn from.

- **Make an informed guess.** Department heads, division managers and frontline staff have valuable insight and informed instincts about what is achievable. Rely on your internal expertise until better information is available.

- **Remember, targets can be revisited.** Targets are meant to drive progress on your priorities; and GovEx advises against changing targets during the performance period. However, revisit the target next year with new performance data and a better understanding of capabilities.

- **Ask an outside expert.** Reach out informally to an expert in the field: universities and think tanks have a wealth of experts willing to share their knowledge about “what good looks like” based on research and experience.

- **Consider not setting a target.** It is okay to wait for baseline data, just do not wait too long.

- **Use this time wisely.**
  - Create a data collection schedule and stick to it. People often use “baselining” as a delay tactic, so create a schedule outlining all of the data elements for collection and make sure the baseline data collection is occurring on that schedule.
  - Decide on the analytical methods in advance. Know exactly how to approach the data analysis and resolve any software issues that may hinder data analysis and **data visualization** once the data is available.
  - Engage stakeholders and communications channels so everyone understands the importance of a data-informed practice – there will not be as much time for those conversations once the results arrive.

**What not to do during uncertainty?**

- **Do not give up.** The absence of baseline data does not justify inaction. If a data collection effort is too costly, consider an existing proxy measure. However, if the time, resources, and political capital are available to collect new data, do it. We never walked on the moon until we did, and data collection is probably not rocket science.

- **Do not confuse reluctance with incapacity.** Many capable program managers are reluctant to set targets for their program. They often view it as an oversimplification of their program’s complexity or are understandably afraid to fail. But reluctance is not the same as an incapacity to set targets. If it is possible to set a target, then set a reasonable target that will comfortably stretch capable managers.

- **Do not be surprised when setting a target reveals a bad underlying measure.** Sometimes it is hard to distinguish good measures from bad until someone sets a
target. Setting a target triggers a confrontation with the measure itself and how it is calculated. It is often the first time people see what they will be held accountable for, and they do not control one or all of the inputs to the calculation. In situations like this, where target setting generates unrest about the underlying measure, focus on getting consensus about the measure before you attempt to set a target.
Category Two: Overconfidence

Overconfidence occurs when targets are unrealistic and unattainable based on all available evidence. There is no evidence the government has ever performed at the target level, and no evidence it can reach the target. It is pure optimism and/or sheer political will. This is most common when a government is trying to take an aggressive position to inspire higher performance, regardless of the evidence.

Why does overconfidence matter?

In 1962, President Kennedy famously said “We choose to go to the Moon! We choose to go to the moon and do other things in this decade, not because they are easy, but because they are hard; because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one we intend to win.” Seven years later, Neil Armstrong took his first steps on the Sea of Tranquility. For leaders like Kennedy, setting a bold goal to harness “the best of best of our energies and skills” is laudable. History is made by leaders like these. However, overconfident goals are the Hail-Mary passes of performance management, and should be reserved for rare occasions when a leader is willing to make “all-in” investments and stake significant political capital on their achievement. For the regular business of government (e.g., the non moon-landing stuff), setting the bar unreasonably high can have unintended negative consequences on morale and culture. In an effort to inspire improvement, an overconfident manager or leader can unintentionally create a Darwinian culture where some thrive on the bold target and others feel threatened by unfair expectations. In addition, an unreasonable target is rarely met (or takes a long time to achieve), guaranteeing an “I told you so” showdown and eroding buy-in for future initiatives. In performance management, it is great to be confident. Just base the confidence on evidence.

Signs of overconfidence:

- There is no internal consensus about the validity of the target – in fact some people are not even sure where the target came from.
- The target is set far beyond a reasonable range based on past performance and baseline data.
- The target was set by someone other than the subject matter expert.
What to do with overconfidence?

- **Understand it.** There may or may not be a reason someone is setting targets (and expectations) so unattainably high. They might not know the baseline historical data well. They might be relying on performance targets they have seen in other jurisdictions. Or they might be trying to inspire aggressive change. Many executives set an impossible target hoping the program will get halfway there - further than they would have gone without it. Once there is an understanding of the reason for overconfidence, it can be corrected (or let go).

- **Correct it.** Correcting for overconfidence is easy, because the data is available. For the average program manager, there are four quick things to make the case for a more reasonable target that still drives performance improvement:
  - **Identify the actual past performance history**
  - **Confirm all trends and anomalies**
  - **Show (do not just tell)** what it would take to reach the overconfident target
  - **Find a middle ground**

- **Adjust the timelines.** If the target setter is unwilling to change the target, consider adjusting the timeline for achieving it.

- **Let it go.** If leadership wants to set impossibly high expectations, there are worse problems to have.

What not to do with overconfidence?

- **Do not be defensive.** Aggressive targets are usually set by aggressive leaders who want aggressive improvement, which is often intimidating. People are hesitant to
challenge an aggressive leader’s assumptions. They do not want to disappoint or seem like a naysayer. Instead of being defensive, be inspired. When working for such a champion of change, the main task is to demonstrate competent analysis he/she can rely on to calibrate his/her high expectations.

- **Do not assume they know better.** Many targets are set in an information vacuum, so do not assume leaders have seen the baseline data and decided to ignore it. Create an opportunity to show them the baseline and how it relates to existing targets.
- **Do not overcorrect.** Pendulums are known for swinging back in the opposite direction, especially during a change in leadership. When guiding a leadership team from overconfidence toward reality, do not steer the team toward mediocrity.
Category Three: Mediocrity

Mediocrity occurs when an organization sets targets far below its proven capacity. This most commonly occurs when individuals and programs want to appear on target or above target at all times. This practice adds very little value to any organization and should be avoided.

Signs of mediocrity:

- Baseline data exists, but there is no evidence the existence of a target helps raise or lower performance.
- The measure and/or target is shared with the public and there is fear of public embarrassment.
- The target is not revised on predetermined intervals based on emerging data.
- The target is always set below past performance in order to continuously “succeed” (e.g., the performance dashboard or scorecard is “all green all the time”).
- Actual performance remains stagnant.

What to do with mediocrity?

- **Understand it.** Mediocre targets exist for three (often co-occurring) reasons: fear, distrust, and/or complacency. They can emanate from specific individuals, but they can also be endemic to an organization’s culture. Therefore, understanding and addressing
the root cause of mediocrity is critical to overcoming it.

- **Fear**: Managers often fear losing funding, staff, or their own jobs if a target is not met; so they often set targets artificially low to ensure success.
- **Distrust**: Managers do not trust how journalists or the general public will interpret missed targets.
- **Complacency**: Managers sometime lack a desire to improve the target. They may see the effort as fixing something that is not broken. They may also be unaware of the program’s actual capacity because the data may not be accessible to them.

- **Correct it.** If fear, distrust, or complacency are limited to a small number of individuals, then overcoming mediocrity can be easy, because data to show them a better way forward is available. For the average program manager, there are four quick things to make the case for a more reasonable target that drives performance improvement without scaring them away:
  - **Identify actual past performance history**
  - **Confirm all trends and anomalies**
  - **Show (do not just tell)** why a more aggressive target is reasonable and achievable
  - **Find a middle ground**

- **Plan for future success** by providing resources to help set a reasonable target next time.

- **Prevent it from recurring.** If fear, distrust, or complacency are endemic to an organization’s culture, preventing it from recurring is critical. Leaders should message the importance of continuously improving services by striving for what is possible. Missing a target is less problematic than failing to try.
  - A **culture of fear and/or distrust** will not be helped by creating a culture of accountability; so leaders should raise expectations through more inclusive and supportive language (e.g., let us figure this out together, us against the problem).
  - A **culture of complacency** needs a shot in the arm from senior leadership; stronger senior leadership directives, where leaders reject mediocrity and embrace accountability, may work better in those circumstances.

**What not to do with mediocrity?**

- **Do not tolerate it.** There should be no dashboard, PowerPoint slide, or scorecard where every measure is green because the targets have been met. If leaders tolerate the presentation of mediocre targets, then they are inherently blessing their proliferation.

- **Do not exacerbate it.** Since mediocre targets often emanate from fear and distrust, shaming people out of the practice with talk of increased “accountability” can have an exacerbating, not an ameliorating effect. Consider using more inclusive and empowering language to drive up performance expectations.
Category Four: Accuracy

Ensure accuracy by carefully calculating targets to drive precise achievement. This usually occurs when there is a wealth of historical performance data and when leaders expect program managers to leverage descriptive and inferential statistics to set achievable targets that continuously improve performance.

Signs of accuracy:

- Baseline data exists.
- There is internal consensus about the validity of the measure.
- There is internal consensus about the validity of the target.
- The measure and/or target can be shared internally and with the public.
- The target is set at least annually and revised on predetermined intervals.
- The target is always set beyond past performance in order to drive improvement.
- The target is within reasonable range based on the evidence of past performance.
- The target is forecasted for the entire performance period.
- The target is constructed using a combination of descriptive and inferential statistics.
- The target accounts for contextual variables (e.g., current budget environment, industry trends, policy changes, etc.).
- People routinely discuss methods to improve target accuracy.
- There is evidence of a relationship between the target and actual performance
- Actual performance continues to improve.

Figure 5
How to practice accuracy?

- **Leverage multiple datasets (variables).** An accurate target is one that accounts for as many variables as possible that impact the performance measure. For example, when forecasting the number of permits a building department can issue, think carefully about the influence of time, productivity, staffing levels, and permit type on achieving those targets. They likely all contribute to performance, so leveraging data on as many variables as possible will increase the accuracy of target predictions.

- **Use proven data science practices.** Predicting the expected performance is the holy grail of setting great performance targets, but doing it well requires more advanced data science techniques. After gathering all of the relevant datasets and conducting data hygiene (i.e., cleaning it up), initiate an exploratory analysis of the data (e.g., identifying measures of central tendency, variability, and dispersion). From there, consider using random sampling to conduct data modeling and statistical inference on the data to build a predictive model.

- **Run multiple what-if scenarios and sensitivity analysis.** With an underlying data model, variables can be changed to run multiple scenarios. For example, how sensitive is the target to changes in staff size, case loads, or operating hours. This is a great time to engage senior leadership in defining the inputs to the data model, because it helps secure their buy-in for the final target if they understand the methodology behind its creation.

- **Pick an acceptable error range.** No predictive model is perfect, so decide in advance how wrong it is acceptable to be. Error ranges can be statistically calculated and applied to the final target the same way a political polls have “margins of error.”
How not to practice accuracy?

- **Do not get intimidated.** Target setting can get advanced quickly, and the data science practices involved can intimidate even the best data enthusiasts. But the barriers to entry have never been lower for those trying to advance their data science and predictive modeling practices. The tools and training are cheaper than ever (many are free and online), and the community of practitioners is rapidly expanding.

- **Do not bend your target toward the actuals.** As results come in, it is tempting to refine your targets up or down to match the actuals. This can prevent important learning about the accuracy and inaccuracies in the data model, and ultimately does nothing to inspire performance improvement.

- **Do not refine the targets too frequently.** One way to prevent target “bending” is to set them and leave them unchanged, perhaps updating them quarterly (at most). Tinkering with the targets too frequently, in an attempt to be more accurate, opens the door for target manipulation.

**Setting Targets vs. Forecasting**

There is a subtle but important difference between setting targets and forecasting. Setting a target is defining where to aim. It implies aspiration based on capabilities. It is also intended to inspire improvement - always aiming higher and higher or closer and closer to the bulls eye. Forecasting is different. It is the science of predicting the exact mark most likely to be hit (e.g., where the hurricane will make landfall). As new data comes in about a program or service, revising the forecast is exactly the right thing to do; but resist the urge to revise the target. Instead, focus on understanding the variance among your targets, forecasts, and actuals so you can improve them moving forward.
Category Five: Stability

Stability occurs when performance has flatlined at an acceptable level. It occurs often with long-standing performance measures that have leveled off and show microscopic levels of improvement, if any. Targets for these measures are often 97-99% and holding. Congratulations for such a high level of achievement. It is now time to focus on a different measure.

Signs of Stability:

- There is little evidence of a continued relationship between the target and actual performance, because actual performance has stopped improving (or declining) discernibly.
- Performance has reached 97-99% and is holding, almost nothing seems to change it.
- The target is always met or sustained.
- There is very little external interest in this measure or its target. It is seen as standard business.

Figure 6

What to do with stability?

- Celebrate it. Reaching an acceptable level of performance and stabilizing is an achievement worth celebrating. It is undoubtedly the result of hard work, collaboration,
and tough choices along the way. Celebrate that achievement publicly, so stakeholders know about the achievement and staff feels appreciated for their efforts.

- **Learn from it.** The path toward stable achievement is paved with lessons learned, so don’t forget to learn them. Put together an after action panel of stakeholders and talk about how such an optimal and stable level of performance was reached. Those conversations will have applicability across other programs.

- **Identify a permanent champion.** Reaching a target does not mean the work is done, and someone’s job is to keep working and ensuring performance is maintained. Make sure everyone is clear whose job that is. Ensure they understand the importance of that sustained responsibility and are ready to ensure the program maintains such an optimal level of achievement.

- **Continue Monitoring (behind-the-scenes).** Ensuring the program maintains a high level of achievement requires continuous monitoring by the permanent champion. If performance dips, the champion should bring everyone back to the table to refocus.

- **Move on.** With a permanent champion in place, it is time for senior leadership to stop tracking and setting new targets for this measure. Move on to a program or service with a more difficult record of underperformance.

**What not to do with Stability?**

- **Do not take it for granted.** High performing programs can often be ignored because no one has to spend much time thinking about them. Do not make that mistake. Take time to learn from high performing programs to make sure they can be replicated and sustained.

- **Do not jeopardize it.** Stability is not achieved by accident. It required specific actions, investments, and management strategies. As other performance measures and targets come into focus, be mindful about shifting resources away from the very things that led to stability in the first place.
Practicing Accuracy

Example: City Permits

A new city manager wants to promote economic development by dramatically increasing the number of building permits issued by the city’s Department of Consumer and Regulatory Affairs. The department normally churns out almost 3,500 permits a year or just under 300 a month; but the city manager believes there is slack in the system. Halfway through the year, he announced a target of issuing 5,000 permits before year’s end. No one is sure where the number 5,000 came from, but you have all the permit data, so it is time to check the target against the facts.

Step One: Identify your actual performance from the same time time last year.

Take a look at the historical data for permits:

<table>
<thead>
<tr>
<th>Month</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>350</td>
<td>368</td>
<td>386</td>
<td>405</td>
</tr>
<tr>
<td>February</td>
<td>325</td>
<td>341</td>
<td>358</td>
<td>376</td>
</tr>
<tr>
<td>March</td>
<td>337</td>
<td>354</td>
<td>372</td>
<td>390</td>
</tr>
<tr>
<td>April</td>
<td>256</td>
<td>264</td>
<td>272</td>
<td>280</td>
</tr>
<tr>
<td>May</td>
<td>247</td>
<td>254</td>
<td>262</td>
<td>270</td>
</tr>
<tr>
<td>June</td>
<td>216</td>
<td>222</td>
<td>229</td>
<td>236</td>
</tr>
<tr>
<td>July</td>
<td>175</td>
<td>182</td>
<td>275</td>
<td>TBD</td>
</tr>
<tr>
<td>August</td>
<td>150</td>
<td>156</td>
<td>225</td>
<td>TBD</td>
</tr>
<tr>
<td>September</td>
<td>167</td>
<td>174</td>
<td>275</td>
<td>TBD</td>
</tr>
<tr>
<td>October</td>
<td>350</td>
<td>371</td>
<td>393</td>
<td>TBD</td>
</tr>
<tr>
<td>November</td>
<td>375</td>
<td>398</td>
<td>421</td>
<td>TBD</td>
</tr>
<tr>
<td>December</td>
<td>345</td>
<td>366</td>
<td>388</td>
<td>TBD</td>
</tr>
</tbody>
</table>

Quick Tip: Practice yourself by copying and pasting everything in the table to an Excel spreadsheet. (Just remember to clear the "To Be Determined (TBD)" cells, since they are not real numbers).
Step Two: Generate the summary statistics about past performance.

From this quick look, you can do rough calculations to gauge whether the target is achievable if the department maximizes performance. If the department operated at maximum proven capacity (421 permits a month) for the remaining six months, it would issue a total of 4,483 permits for the year, still short of the city manager’s goal. But the department keeps getting better every year – the minimum, average, median and maximum keep increasing – so maybe there is room for dramatic improvement.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Permits</th>
<th>Minimum</th>
<th>Average</th>
<th>Median</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>3,293</td>
<td>150</td>
<td>274</td>
<td>291</td>
<td>375</td>
</tr>
<tr>
<td>2013</td>
<td>3,449</td>
<td>156</td>
<td>287</td>
<td>302</td>
<td>398</td>
</tr>
<tr>
<td>2014</td>
<td>3,856</td>
<td>225</td>
<td>321</td>
<td>317</td>
<td>421</td>
</tr>
<tr>
<td>2015 (YTD)</td>
<td>1,957</td>
<td>236</td>
<td>326</td>
<td>328</td>
<td>405</td>
</tr>
</tbody>
</table>
Quick Tip: How to Generate Summary Statistics
This is not an exhaustive list of descriptive statistics, but it is enough to get started.

- **Sum**: To calculate the Total Permits issued each year, simply add each cell together for each year. The quick way to do this in Excel is to use the "Sum" Function, which should look something like this for 2012: =SUM(B2:B13). In this Excel formula, "SUM" is a function that adds everything in parentheses together, B2 is the data for January 2012, B13 is the data for December 2012; and the colon means "everything in between."

- **Minimum**: The quick way to find the Minimum number of permits issued each year is to use Excel's "MIN" Function, which should look something like this for 2012: =MIN(B2:B13). In this formula, "MIN" is a function that finds the smallest data point between everything in parentheses.

- **Average**: An average (or "mean") is the sum of a list of numbers divided by the number of numbers in the list. In this example, it is the sum total of permits issued for each month of the year, divided by 12 months. The quick way to find the average number of permits issued each year is to use Excel's "AVERAGE" function, which should look something like this for 2012: =AVERAGE(B2:B13). In this formula, "AVERAGE" is a function that adds everything in parentheses and divides it by 12.

- **Median**: The median is the point in your dataset that separates the larger 50% from the smaller 50%. For example, if I have numbers 1 through 10, 5.5 is the Median because 50% of the values are higher and 50% are lower. The quick way to find the Median number of permits issued each year is to use Excel's "MEDIAN" Function, which should look something like this for 2012: =MEDIAN(B2:B13). In this formula, "MEDIAN" is a function that sorts all of your data from smallest to largests and then finds the midpoint.

- **Maximum**: The quick way to find the Maximum number of permits issued each year is to use Excel's "MAX" Function, which should look something like this for 2012: =MAX(B2:B13). In this formula, "MAX" is a function that finds the largest data point between everything in parentheses.

**Step Three: Confirm all trends and anomalies**

It seems clear from the basic descriptive statistics that the 5,000 permit goal is improbable, but year-over-year improvement makes it seem possible. Because summary-level statistics can often mask the underlying dynamics, it is time to confirm all trends and anomalies. Plotting the data in a chart is an excellent way to spot both.

**Figure 7**
Quick Tip: Generating a Cumulative Chart

The original data in this example is discrete, where each month is independent of the other months. However, it is useful to convert discrete data to cumulative data by adding each month's total to those that came before. A quick way to do this in Excel is to make a copy of the original data and use formulas to create cumulative totals based off the original. For example, set January 2012 (copy) equal to January 2012 (original). Then set February 2012 (copy) equal to (January 2012 (copy) + February 2012 (original)). From there, autofill the rest of the cells to create a cumulative table. With a new cumulative data set, creating a cumulative chart is as simple as highlighting the data and inserting a line chart.

In the example above, improvement has been sustained every month for the past three years. However, it also seems September to December is one of the most productive times of year. So a key question to ask: “is productivity increasing at an increasing rate?” If so, there may be reason to hope 2015 will be even more productive than 2014. Changes in productivity can be assessed by calculating the slope (rise/run) of a line: the change in permits issued across time. Changes in productivity for September through December are calculated in the table below, which makes it clear productivity has continuously increased at an increasing rate. Therefore, it might be reasonable to assume we will come closer to the 5,000 permit goal through a natural annual increase in productivity for the remaining months.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rise (Change in Permits)</td>
<td>1,070 permits</td>
<td>1,134 permits</td>
<td>1,202 permits</td>
</tr>
<tr>
<td>Run (Change in Time)</td>
<td>3 months</td>
<td>3 months</td>
<td>3 months</td>
</tr>
<tr>
<td>Change in Productivity (Rise/Run)</td>
<td>357 permits/month</td>
<td>378 permits/month</td>
<td>401 permits/month</td>
</tr>
</tbody>
</table>

However, since 2014 seems to behave differently than prior years, it is important to learn whether the increase in permits was an anomaly. Cumulative charts can sometimes hide the trends by month, so create a monthly view to spot any differences at a more granular level. In the monthly chart below, July, August and September were all clear anomalies in 2014. How big were the anomalies? July bucked the trend of decreasing permits from previous months and beat the previous July average by 53%. Avoid building targets based on potential anomalies.

**Figure 8**

![Monthly Permits Issued](image)

**Step Four: Show (don’t just tell) what it would take to reach the overconfident target**

At this point, you know the following:

- the department keeps getting better every year (i.e. the minimum, average, median and maximum keep increasing every year); however,
- if the department operated at maximum proven capacity for the remaining six months, it would still short of the city manager’s goal; and,
it is unreasonable to assume a natural increase in productivity for the remaining months because productivity varies by month; Perhaps the City Manager will be persuaded toward a more reasonable target based on this information alone. However, it is better to show than tell. Create a chart which plots historical performance against the overconfident target, showing how the department would have to perform in order to reach the desired target. The overconfidence will be obvious.

Figure 9

To reach the City manager’s target, the department would have to perform better than maximum proven capacity for each remaining month; beat last July’s performance by a significant margin (which was already an anomaly from previous years); and would have to sustain an increased rate of productivity (which is abnormal for the months of August and December). Without a change in the way permits are issued, 5,000 permits in one year is an impossibly high target.

Step Five: Find a middle ground.

The reasonable city manager, persuaded by the statistics, will likely want to find a compromise target: one that inspires improvement while accounting for reality. To find the middle ground, you do a few simple things:

- assume the anomaly was an anomaly: ignore it until proven otherwise
- assume productivity will follow the same overall pattern from month to month
- apply an increased productivity factor to the performance each month
In this example, the revised forecast assumes a 3% increase in productivity for each remaining month, but applies the factor to the 2013 totals in July, August and September (to account for the anomaly in 2014) and then applies the 3% productivity increase to 2014 totals for the remainder of the year. The end result: the cumulative target for 2015 is 11% higher than 2013 and is based on a historically accurate productivity pattern. The target falls within 1% of 2014’s actual performance, which has a few months discounted as anomalies. If July’s performance mirrors 2014, the entire target for 2015 can be easily readjusted.
Proxy Measures

What is a Proxy Measure? A proxy is an indirect measure of the desired outcome which is itself strongly correlated to that outcome. It is commonly used when direct measures of the outcome are unobservable and/or unavailable. An organization should use a proxy measure when there is little or no data available about the program being implemented, but the outcome the program is designed to influence has an existing and commonly accepted proxy. GovEx has published a quick guide to proxy measures, which is available here.
**Benchmarking Resources**

**Benchmarking** is the process of continuously comparing and measuring one organization against another to gain information that will help the organization take action to improve its performance. Governments of all levels of capability can leverage benchmarking in their performance management practice. GovEx has published a guide to help governments understand the practice of benchmarking. Click on the links below to explore.

What is Benchmarking?

- **Internal Benchmarking**
- **External Benchmarking**
  - Useful Links for External Benchmarking

What is a Proxy Measure?
Talking Targets

Communicating about targets is critical. If governments can explain the purpose and rationale behind performance targets, then stakeholders can more easily achieve them. Here are some quick tips on how to talk targets with those who need to understand why they exist, what they mean, and how they can contribute.

Quick Tips

- **Be positive.** Targets can feel inherently punitive if not met, so avoid adding to that perception by using phrases that frame targets positively combined with words that place stakeholders in a supportive environment:
  - shared achievement
  - advance together
  - collaborative progress
  - improve as a team

- **Be clear.** If governments (and their leaders) can articulate a clear purpose and vision, then it is easier for stakeholders to understand WHY strong targets matter.

- **Be consistent.** Avoid confusion among stakeholders by finding ways to consistently message WHY this target matters, WHAT it is connected to, and HOW the organization is going to achieve it.

- **Make connections.** When talking to stakeholders about targets, find meaningful connections to their work and contributions. If they can see themselves contributing, then they are more likely to do so.

- **Do not advertise targets that negatively impact your stakeholders.** If the goal is to reduce the workforce by 5%, shrink the contracting budget, or increase the number of parking tickets issued to residents – keep that private. Consider finding an alternative way to demonstrate the issue. For example, show a ratio of parking officers to residents in comparable jurisdictions. If there are too many or too few ticket writers, it will be obvious.
Glossary

Anomaly: a deviation from what is normal or expected.

Baseline: a starting point or point of reference, usually established through the initial collection of data, from which comparisons, evaluation and target setting can be conducted.

Benchmark: A standard or point of reference against which data may be compared or assessed. May be used in data analytics or in the absence of internal data.

Benchmarking: The process of continuously comparing and measuring one organization against another to gain information that will help the organization take action to improve its performance.

Capacity: the maximum amount something can achieve and/or the ability to do or understand something.

Correlated Variables: two or more contributors to an outcome which have a dependent relationship on each other (i.e. a change in one relates to, but does not necessarily cause, a change in another).

Data: electronic records stored in computer systems. In the simplest terms, data are lists of things such as requests for service, inventories, or incidents, which include helpful details such as dates, locations, images, video, and more.

Data Hygiene: the process of “cleaning” data to ensure it is free of errors before analysis is conducted.

Data Science: an interdisciplinary field of study and practice which extracts insights from data to inform decision making. It includes, but is not limited to, mathematics, statistics, and computer science.

Data Visualization: the creation and study of the visual representation of data.

Descriptive Statistics: the practice of quantitatively describing a data set by using measures of central tendency, variability and dispersion.

- Central Tendency: measures of central tendency describe a central or typical value of a data distribution (e.g. mean, median, mode)
- Variability & Dispersion: measures of variability & dispersion describe how compressed or stretched the values are in a data set (e.g. variance, standard deviation, interquartile range)
**Error Range (Margin of Error):** a statistic which expresses the likelihood a prediction will miss the true number if an entire population is sampled.

**Exploratory Analysis:** an approach to analyzing data which involves summarizing and understanding its main characteristics, often through descriptive statistics and data visualization.

**Forecasting:** the process of making predictions of the future based on past and present data and analysis of trends. It involves estimating specific values at certain future times. Forecasting is related to target setting, in that each process involves an analysis of past data and an analysis of trends; however, forecasting also involves using the latest up-to-date data to continuously improve the accuracy of the forecast.

**Goal:** see the definition for "Target".

**Goal Statement:** broad statements describing desired end states, but more specific than an organization's mission. Sometimes referred to as strategic goals or strategic objectives, goal statements combine qualitative and quantitative information to convey a clear overarching context and purpose to a specific level of desired achievement. Goal statements include, but are not limited to, goals/targets. For example, in the following goal statement “The City of Smallville will create stronger and safer communities for all residents by ending homelessness by 2018,” ending homelessness by 2018 is the goal/target. The preceding language in the goal statement makes it clear to stakeholders why ending homelessness is important.

**Government Data:** data which describes the operations of a government; electronic records which the government maintains to do its business; statistical information created or maintained by or on behalf of and an agency that records a measurement, transaction, or determination related to the mission of an agency.

**Inferential Statistics:** the practice of using random sampling to predict (infer) outcomes for a larger population.

- **Random Sampling:** a method of extracting a sample data set from a larger population of data such that each item has an equal chance of being selected for the sample.
- **Data Modeling:** a process used to define and analyze existing data, identify its interrelationships, and determine an evolving framework through which new data can be incorporated and leveraged by software applications to make predictions.
- **Statistical Inference:** a process that uses the analysis of a randomized sample to infer properties onto the larger population.

**Family of Measures:** a combination of performance measures/metrics which, when taken together, provide multiple perspectives on an organization's achievement of its desired end state. A family of measures commonly includes the following categories.
- **Effectiveness**: the degree to which a process yields the desired outcome/result, regardless of cost (e.g. incidence of foodborne illness)
- **Efficiency**: the degree to which a process yields the desired output at minimum cost (e.g. cost per inspection)
- **Input**: the amount of resources contributed to the means of production, process or system (e.g. number of health inspectors)
- **Outcome**: the impacts or changes that occur resulting from the difference a program’s output makes on goals/targets (e.g., high school graduation rates increased by 90% over a period of 5 years)
- **Output**: the amount of resources generated by the means of production, process or system (e.g., number of health inspections)
- **Productivity**: rate of output per unit of input (e.g. inspections per inspector)
- **Service Quality**: the extent to which the process or service meets requirements and/or expectations (e.g. number of customer complaints, error rates)

**Metadata**: A set of data which describes or gives information on other data.

**Open Data**: makes electronic data records accessible in whole or in part to the public. This practice is considered proactive disclosure - making information available without it being requested.

**Performance Management**: the process by which leaders, managers, employees and stakeholders work collaboratively to identify what they want to achieve, decide how to measure progress, take informed action based on evidence, and take stock of the results to inform future decisions. It includes performance measurement, performance measures, performance targets, data science practices, and transparency.

**Performance Measurement**: the building block of performance management, it is the process of establishing performance measures/metrics, collecting the relevant data for those measures, and reporting out on the results.

**Performance Measure/Metric**: a quantifiable unit which provides information about the success of a program, department, service, or outcome people care about achieving or maintaining. A government may identify a measure/metric by inventorying data that it already collects, collecting new data, or using validated external data. Measures/metrics can focus on inputs, outputs, service quality, efficiency (e.g. cost per application processed); productivity (e.g. throughput); and effectiveness/outcomes (e.g. unemployment rate).

- **Key Performance Measure/Metric**: Commonly referred to as a KPI (Key Performance Indicator), it is a prevailing metric that a government identifies as the primary way to measure progress toward a goal statement. A goal statement may have one key measure organizations monitor on a regular basis, but multiple others.
**Performance Priority:** Category of subject matter on which a government wishes to achieve results. Categories may include public safety, public health, education, sustainability and the environment, jobs and the economy, and government operations and management.

**Proxy Measure:** A proxy is an indirect measure of the desired outcome which is itself strongly correlated to that outcome. It is commonly used when direct measures of the outcome are unobservable and/or unavailable. The most common example of a proxy measure is Gross Domestic Product (GDP), which is used by many organizations and research institutions as a proxy for standard of living or quality of life. An organization should use a proxy measure when there is little or no data available about the program being implemented, but the outcome the program is designed to influence has an existing and commonly accepted proxy.

**Result:** The ultimate desired endgame, which is achieved by strategies and assessed through analysis, and measures/metrics.

**S.M.A.R.T Goal Statements:** S.M.A.R.T. is commonly used mnemonic acronym in performance management. It provides criteria for drafting strong goal statements. The concept originated in 1954 when Peter Drucker published a book about management by objectives. The idea is to ensure each goal statement fits all of the criteria in the acronym. The letters S and M usually mean specific and measurable. The other letters have evolved to mean different things to different authors, as described below.

- **S** = Specific, Strategic
- **M** = Measurable
- **A** = Achievable, Attainable, Action-Oriented, Agreed-upon, Aligned, Ambitious
- **R** = Relevant, Realistic, Resourced, Reasonable, Results-based
- **T** = Time-bound, Time-based, Time-limited, Timely, Time-sensitive

**Strategic Framework:** An overarching set of performance priorities for which a government wishes to achieve results.

**Strategic Goal:** a goal statement that guides an organization’s efforts to move toward a desired end state and advances the organization’s mission.

**Strategy:** An action or set of actions that departments may take, individually or in concert with one another and/or the Chief Executive’s office and/or external stakeholders, to achieve the goal and ultimately the end result.

**Target:** a mark to aim for. A desired change in the measure/metric that will advance progress toward a goal statement within a specified timeline. This is often referred to as a "goal."

**Trends:** a general direction in which something is developing or changing over time.