

# Counting on Statistics:

How can national statistical offices  
and donors increase use?

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Executive Summary

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The growing demand for official statistics—datasets produced by official government agencies—has not been met with a corresponding increase in the capacity of countries to deliver them. Moreover, there is an estimated shortfall in funding for statistics of roughly \$200 million annually between 2016 and 2030 (GPSDD, 2016). Ultimately, if countries lack access to timely and reliable official statistics, decision-makers at various levels cannot allocate resources efficiently and monitor progress. However, every dollar spent on collecting official statistics has an opportunity cost: fewer funds available to deliver public services and development programs. The case to increase funding for better official statistics thus rests on whether domestic or international funders see a return on this investment: a corresponding increase in the use and usefulness of these data.

This report draws upon two perspectives to address the capacity gap: the primary producers of official statistics (national statistical offices) and an important domestic user group for these data (government officials) in low- and middle-income countries (LMICs).<sup>1</sup> From national statistical offices (NSOs), we need to better understand the supply-side constraints that inhibit them from responding to demand. From government users of official statistics, we want to understand how NSOs can build their capacity in line with user demand. Together, these two perspectives can help answer the question: *How can future efforts by domestic and international actors support NSOs to increase the use of official statistics by aligning their strategies with the needs of their government users?*

This report is particularly timely as governments and their development partners increasingly recognize the need for pooled financing mechanisms rather than ad hoc, bilateral investments in discrete datasets. Our findings shed light on how these domestic and international actors can provide financial or technical assistance to NSOs in a way that not only increases the supply of official statistics, but simultaneously bolsters the likelihood that this information is used effectively by domestic stakeholders.

In early 2018, AidData sent two online surveys to get first-hand information about the use of official statistics in 140 LMICs: one to NSO officials and the other to their counterparts in five government ministries—Finance and/or Planning, Health, Education, and the Office of the President or Prime Minister. Close to 400 NSO officials shared their views on: the most important and frequent users of their data; whether or not they are monitoring use of official statistics; dissemination

practices around the data they produce; improvements to spur uptake of their data; and what NSOs need to make those improvements. Approximately 650 officials in government ministries responded to a series of questions similar to those asked of NSO officials. The purpose was to understand whether NSO perceptions of the use of official statistics were aligned with those of their government users.

## Five Findings

In this executive summary, we present five findings that relate to how NSOs view their users, whether their dissemination strategies are aligned with what government users want, whether and how they monitor use of their data, what they perceive as the main barriers to the uptake of official statistics, and what they need to overcome these challenges.

### FINDING #1

**International development partners are the most important and frequent users in the eyes of NSO officials, followed by domestic research organizations, suggesting the need to broaden the domestic user base for official statistics.**

NSOs consider international development partners the most important users of official statistics, and overall, the importance of domestic actors as users in the eyes of NSOs is relatively low, with the exception of research organizations, universities, and think tanks. This academic community is much more important to the NSOs as a target user group compared to domestic policymakers in other government ministries (Figure E1).

NSOs may be incentivized to pay greater attention to international development partners and domestic research organizations if they focus on the user base with the strongest (and most vocal) demand for the data they produce. In countries where domestic consumption of official statistics is comparatively weak, NSOs may instead focus where demand is already high. The fact that development partners and research organizations are also perceived to be the most frequent users of NSO data lends support to this explanation.<sup>2</sup> Alternatively, NSOs might believe that paying attention to external demand will help them secure financial or reputational benefits that would otherwise not be accessible.

While a high perceived demand from domestic research organizations is encouraging, the general

emphasis of NSO respondents on international users over domestic constituencies (e.g., ministry of finance and/or planning, line ministries, local government, and NGOs) may have an important unintended consequence of displacing attention from efforts to capture information that is more relevant to decisions made at the national or local level.

## **FINDING #2**

**NSOs may need to rethink some of their dissemination strategies to be more in line with what government users want.**

Globally, NSOs and their government users are aligned on one dissemination strategy: posting NSO data on the website or data portal. This was the top choice for NSO officials to inform users of their data, as well as the top preference for ministry officials to learn about NSO data (Figure E2).

However, the dissemination strategy of NSOs deviates from how ministry officials reportedly prefer to access data produced by NSOs in one critical way. While nearly half of all ministry respondents said they would like to subscribe to updates via email or text message, this was the least-used dissemination channel by NSO officials. Notably, this dissemination channel is particularly important if NSOs want to reach political staff (i.e., senior-level officials) in government ministries, as these individuals identified subscribing to email or SMS updates as much a preferred option as visiting the NSO website.

A one-time investment in a system where users can voluntarily register to receive regular email or SMS updates would be relatively cost-effective and could yield significant gains in terms of raising awareness of new datasets and boosting data use.

## **FINDING #3:**

**Most NSOs officials consider it important to monitor the use of their data, and web analytics is the most common and preferred way for NSOs to monitor use of their data.**

Contrary to what we expect to see based on NSOs' core responsibilities<sup>3</sup> on the production side, most NSO officials reportedly monitor use of the data they produce. Even among those who do not currently measure the use of their data, 88 percent report that it is very or quite important for NSOs to do so.<sup>4</sup> Using the World Bank's Statistical Capacity Index scores for the countries in our sample, we find that a substantially smaller share of NSO officials in low- and medium-capacity countries monitor data use, compared to their counterparts in higher-capacity countries.

Similarly, NSO officials from middle-income countries were more likely than their counterparts in low-income

countries to monitor use of official statistics (Figure E3). These results suggest that NSOs see value in monitoring data use, but may not be doing so currently due to capacity or resource constraints in the face of other competing priorities. Among NSOs that monitor use of their data, more than half employ web analytics and user surveys to do so. Even more striking is the overwhelming majority of NSO officials that would like to monitor data using web analytics (Figure E4). This monitoring strategy makes good sense in two respects: ministry officials prefer to visit their NSO's website to look for new data and NSO officials also inform prospective users by publicly posting new data on their website or data portal.

Conversely, tracking the number of subscriptions for data products was one of the least popular ways to monitor data use. This is consistent with our earlier finding that many NSOs do not have systems to subscribe users or share email/SMS updates. However, such a system seems to be on the radar of 40 percent of NSO officials, who would prefer to monitor the use of their data by tracking user subscriptions.<sup>5</sup>

## **FINDING #4:**

**NSOs and government ministries agree that making NSO-produced data easier to use and access is critical to spur data use.**

Globally, NSO officials and their peers in other government ministries agree on two critical ingredients to spur greater take-up of official statistics: (1) ease of data use through better documentation and data visualization; and (2) ease of data access through free and publicly available machine-readable file formats.

The greatest divergence between NSOs and their government users globally is that NSO respondents place more emphasis on making their website easier to navigate, while their ministry counterparts are more concerned with the frequency with which data are published. Since most NSO officials reported informing users of their data by publicly posting the data on their websites or portals, this interest in making the website easier to navigate seems to be a natural extension of that approach. This is also in line with the preference among ministry officials to learn about available NSO-produced data by visiting a website.

As for the ministry officials, their emphasis on improving the frequency with which data are published reflects a common concern with official statistics. Previous studies have found timeliness of data to be a particular challenge, especially with census, household, and sectoral surveys (Custer and Sethi, 2017). The lack of timely data also contributes to a general lack of trust, which may explain why our surveys find that government ministries overall seem less confident about official statistics than NSOs think they are.

**FINDING #5:**

**NSOs would like to increase their technical expertise and obtain greater technical support from development partners, particularly in countries with low income or statistical capacity.**

To make improvements that will encourage use, NSOs most want to upgrade the technical skills of their existing staff and access more technical support from development partners. These two top responses may be mutually reinforcing, in that NSOs appear to place a premium on technical support from development partners that is directed towards building their in-house capacity, rather than funding or supporting one-off data collection exercises.

While they may converge around top priority improvements, there is a clear distinction between NSOs in the highest-capacity countries versus those with lower levels of statistical capacity when it comes to what they need to make these changes in practice. Respondents from the highest-capacity countries emphasized the need to upgrade or procure equipment, both hardware and software. Meanwhile, respondents from countries with lower levels of statistical capacity and income focused instead on increased technical expertise among their current staff, as well as technical support from development partners.

## Six Recommendations

Development partners and funders should continue to invest more in data and statistics, but in a way that is responsive to demands from both NSOs and their domestic users. NSO officials are highly interested in monitoring the use of the data they produce; therefore, one practical way to take action on this intent is to work with their governments and development partners to update the National Strategies for the Development of Statistics (NSDS) guidelines to include an emphasis on measuring and strengthening use of official statistics. Taking this step would be an important signal that the global statistical community—including those that fund, plan, and produce official statistics—recognize the importance of measuring use. Drawing upon some of the findings in this report, we present several recommendations for NSOs, as well as development partners and funders that work closely with NSOs, to improve the data and statistics ecosystem in LMICs.

**RECOMMENDATION #1**

**To increase the use of NSO-produced data within the government, NSOs should allow users to subscribe to receive email or SMS updates on new datasets.**

Despite strong interest among government users of official statistics to keep abreast of new data from NSOs

via email or SMS/text updates, NSOs use this dissemination channel the least. This represents a lost opportunity for NSOs to cater to the needs of one of their most important target users in government ministries—political staff—who expressed a strong interest in learning about new data through such updates.

NSOs should prioritize a registration system whereby users can voluntarily subscribe to receive updates through email or SMS regarding new datasets and analytical products. By adopting such a system, NSOs will not only lower the transaction costs for individuals looking to use official statistics, but may also create two positive spillover effects: (1) increasing the visibility of previously lesser known datasets; and (2) creating the means to track subscriptions and monitor requests for new data via the service. This low-hanging fruit strategy can be implemented relatively quickly in comparison to other recommendations that require more structural or systemic changes.

**RECOMMENDATION #2**

**NSOs should build local demand for official statistics by prioritizing the needs of domestic users and engaging more with technical staff in ministries.**

Research organizations, universities, and think tanks were the most important and frequent domestic users in the eyes of NSOs. Conversely, local governments and domestic NGOs/CSOs were viewed as neither important nor frequent users of NSO data. This suggests that building domestic demand is a two-way street. For NSOs, this means honoring their obligation to produce high-quality statistics that meet the needs of these local actors,<sup>6</sup> which may be politically difficult in the short-term given the implications of publishing data that expose governments to higher levels of scrutiny. However, NSOs should take a longer-term view and recognize that increasing the user base and domestic demand for statistics is “key to ensuring NSO autonomy from changing governments” (Dargent et al., 2018).

Evidence-based policies call for data to be on the radar of policymakers. NSOs can increase demand for and use of their data within government ministries by engaging more with the technical staff in ministries that are often responsible for analyzing NSO data and presenting the findings to policymakers. In this role, they can be influential actors that help ensure decision-makers draw upon data to inform policies. NSOs can encourage use of their data by these technical staff in ministries by paying attention to the improvement that mattered most to them: publishing data more frequently.

### RECOMMENDATION #3

**NSOs can build trust in official statistics by soliciting feedback, increasing transparency, and using third-party validation for quality assurance.**

A key attribute of domestic demand for data is credibility—if users do not trust the data, they have little incentive to use it. The NSO officials we surveyed overestimated the confidence that other government officials have in various types of official statistics. Previous studies have also found that this lack of confidence in the accuracy of data is not limited to government users alone, but extends to CSOs (Custer and Sethi, 2017). If NSOs want to increase the use of official statistics, they must tackle this confidence gap head on.

NSOs can increase the trust domestic users have in their data in four ways. First, NSOs should solicit feedback from users not only on what data they want to use, but also on concerns they have about the data that is available and where it can be improved. NSO officials that responded to our survey did express a desire to gather feedback from users through emails or in informal conversations. Second, NSOs should transparently document the processes by which they assure the quality and accuracy of their data. Third, NSOs could simultaneously strengthen the credibility of their quality assurance processes and the veracity of their data by including third-party perspectives or assigning dedicated staff to these procedures. Finally, NSOs should continually monitor whether and how these trust-building efforts are changing the attitudes of existing or prospective users of official statistics.

### RECOMMENDATION #4

**Development partners should help NSOs, particularly in resource- and capacity-constrained countries, to monitor the use of official statistics through web analytics.**

Web analytics emerged as the most popular current method to monitor use of NSO data, as well as the most preferred choice for those NSO officials that would like to monitor data use in the future. If development partners wish to be responsive to this demand, they should channel future capacity building investments in working with NSOs to install and use web analytics tools as a means of gaining better intelligence on their end users. This will require building the capacity of staff to choose the right metrics to monitor and use this information for making changes to improve the NSO's website, data portal or dissemination strategies.

There is a particular need for funders to support the efforts of NSOs in countries with lower levels of income and statistical capacity, where there is high reported interest but limited existing efforts to monitor use of

official statistics. Strengthening the ability of NSOs in these constrained environments to leverage web analytics would be a good starting point, though ideally this tool should be used alongside any ongoing user surveys and feedback channels.

### RECOMMENDATION #5

**Global partnerships and trust funds should invest in areas prioritized by producers and users of official statistics: making these data more accessible and easier to use.**

NSOs and their counterparts in other government ministries agree that official statistics should be easier to use and more accessible than is the status quo in LMICs. In order to realize these improvements in practice, NSO officials expressed the need for greater technical expertise in the form of upskilling current staff as well as accessing technical support from development partners. This provides something of a roadmap for development partners in how best to direct their financial and technical support to strengthen national statistical systems.

Development partners should resist the temptation to invest in short-term data collection exercises that serve their own reporting needs but do little to build sustained capacity of NSO staff. Instead, they should emphasize capacity building for NSO staff (and domestic users of official statistics) in two areas of expressed interest: ease of use and greater accessibility. Capacity building initiatives to make data easier to use could take the form of trainings for NSO staff on data visualization or creating user-friendly documentation to accompany the data. To increase the visibility and accessibility of data, technical staff in NSOs would benefit from programs that cover website design and publishing data in machine-readable formats. In addition to improving the competencies of technical staff, development partners should also work to advance legislative and political frameworks such as freedom of information laws that obligate NSOs to publish information freely, as well as executive branch open data policies that enforce such regulations and even incentivize their effective implementation.

### RECOMMENDATION #6

**Development partners should responsibly leverage their position as important users of NSO-produced data to bolster a greater supply of official statistics in line with domestic demand.**

Development partners, including international and regional organizations, are reportedly the most important target users of official statistics, at least in the eyes of NSO officials in LMICs. This dynamic can unintentionally create perverse incentives for NSOs to prioritize responding to international, rather than domestic, demand. Fortunately, there are three ways

that development partners can leverage their position to create positive incentives for NSOs to strengthen supply of official statistics in line with domestic demand.

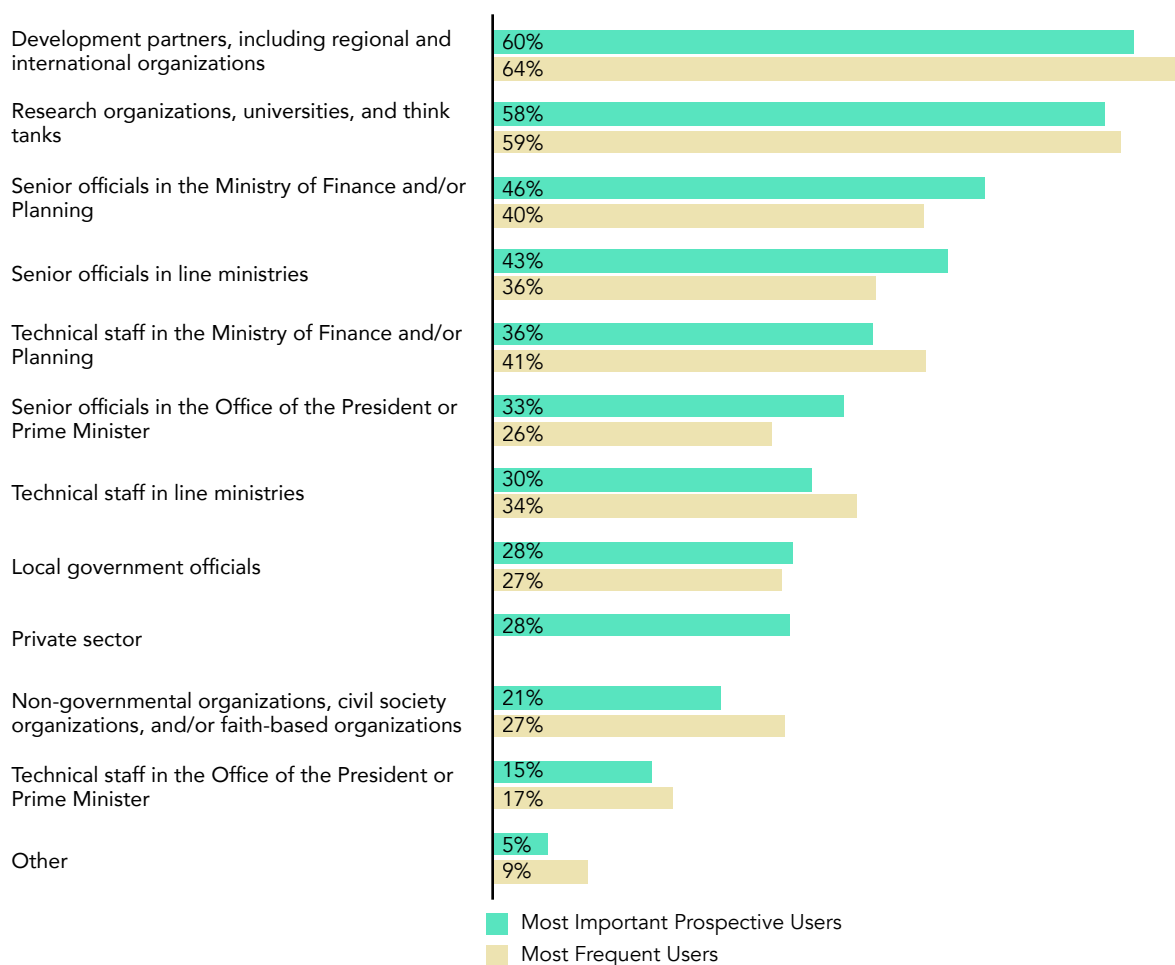
First, when making investments in, or requests for, official statistics, development partners should carefully assess the likely domestic demand for this information as part of their standard procedures to vet new projects. Second, as providers of financial and technical assistance to various government agencies, development partners may be well-positioned to

collect intelligence on what these target users want from official statistics and report back to their NSO counterparts. Third, in evaluating the success or failure of investments to build capacity for official statistics, development partners should work with NSOs to measure performance against criteria that would be somewhat indicative of responsiveness to domestic demand. Such criteria could include: (1) the amount of new matching funding attracted from domestic actors; (2) the reported usage rates of official statistics among domestic audiences; and (3) the reported satisfaction rates among domestic users.

**FIGURE E1**

### Who do NSO officials consider their most important and most frequent users?

Percentage of respondents. Each respondent could select up to five choices.

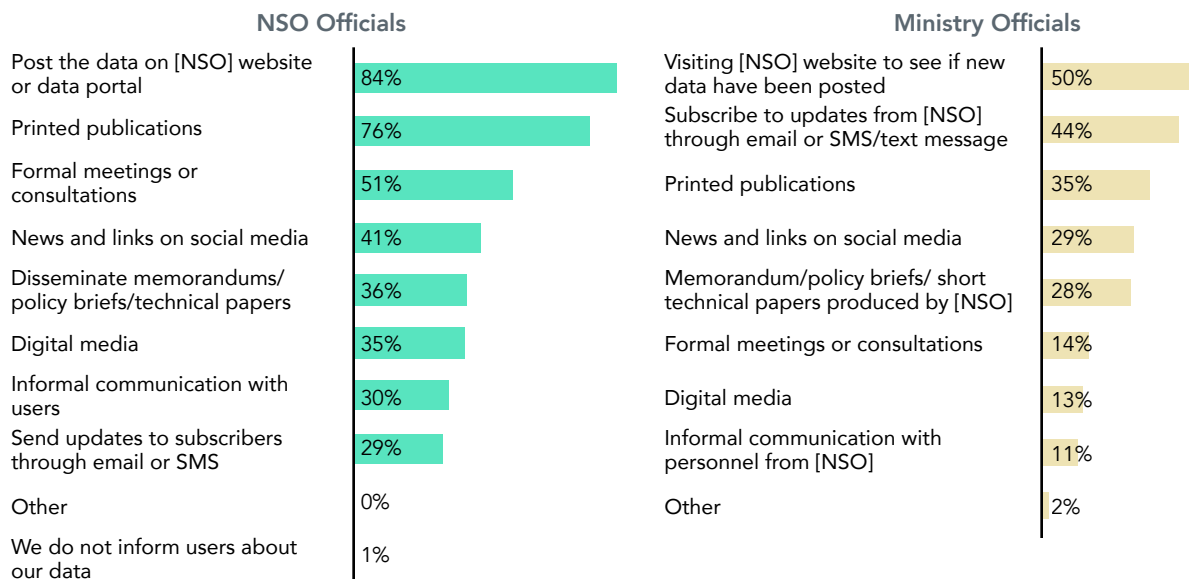


Notes: This figure shows the responses of NSO officials to two questions: (1) which of the following groups are the most important prospective users of your data? (2) Which of the following groups do you think uses data produced by [your NSO] most frequently? The number of respondents that answered this question was 350.

**FIGURE E2**

**How do NSOs inform their users about their data and how would ministry officials prefer to learn about these data?**

Percentage of respondents. NSO officials could select all that apply. Ministry officials could select up to three options.



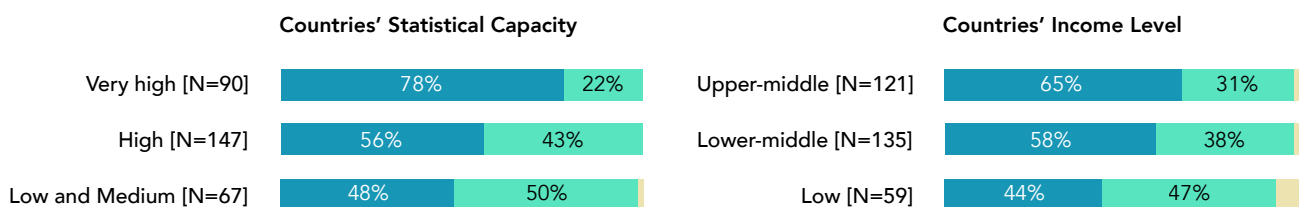
Notes: This figure is based on questions asked to NSO and line ministry officials. The question in the NSO snap poll was: How do you inform your users about your data? The number of respondents that answered this question was 332. The question in the line ministry snap poll was: How would you prefer to learn about the availability of data produced by [NSO]? The number of respondents that answered this question was 557.

**FIGURE E3**

**How does monitoring data use change with the income and statistical capacity of countries?**

Percentage of respondents who:

- Monitor use
- Don't monitor use, but think it is "very" or "quite" important
- Don't monitor use, and think it is unimportant

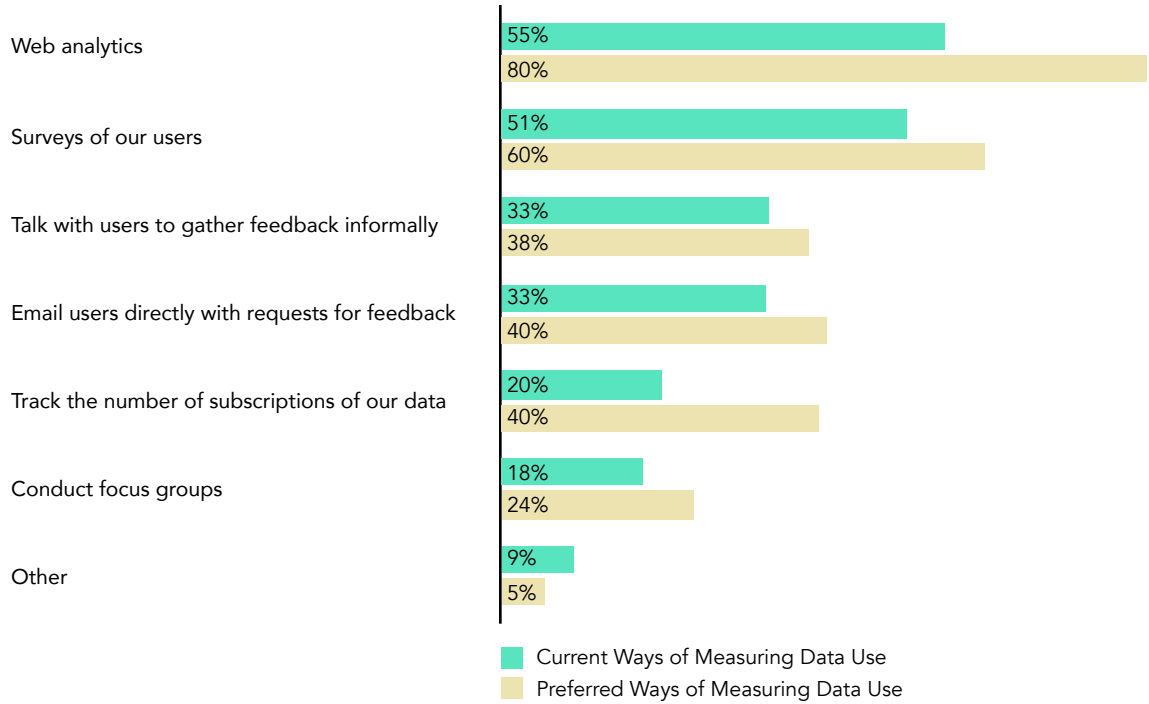


Notes: Given the very small number of countries in the low statistical capacity group in the World Bank's Statistical Capacity Index, we combine low and medium capacity countries into a single category. Numbers in brackets indicate the total number of respondents from countries in a certain statistical capacity or income category.

**FIGURE E4**

**How do NSOs measure the use of data they produce?**

Percentage of respondents. Each respondent could select all that apply.



Note: For those that reported monitoring use of their data, the question asked was: How do you measure the use of data produced by [NSO]? For those that did not currently monitor data use, but said it was quite important or very important to do so, the question asked was: How would you like to measure use of data produced by [NSO]? The number of respondents that answered this question was 200 and 121, respectively.



## References

Bruengger, H. (2008). How should a modern national system of official statistics look, UNECE, January. Retrieved from: <https://www.unece.org/fileadmin/DAM/stats/documents/applyprinciples.e.pdf>

Custer, S. & Sethi, T. (Eds.) (2017). *Avoiding Data Graveyards: Insights from Data Producers & Users in Three Countries*. Williamsburg, VA: AidData at William & Mary.

Dargent, E., Lotta, G., Mejia-Guerra, J. A., & Moncada, G. (2018). Who wants to know?: the political economy of statistical capacity in Latin America, IDB, Retrieved from: <https://publications.iadb.org/handle/11319/8899>

GPSDD (2016). The State of Development Data Funding 2016. Retrieved from: <https://opendatawatch.com/wp-content/uploads/2016/09/development-data-funding-2016.pdf>

Greenwell, G., Kinyua, J., Klein, T., & Ranjan, R. (2016). Making Data portals work for SDGs: A view on deployment, design and technology. Discussion Paper No. 8. April. Retrieved from: [http://www.paris21.org/sites/default/files/Paper\\_on\\_Data\\_Portals%20wcover\\_WEB.pdf](http://www.paris21.org/sites/default/files/Paper_on_Data_Portals%20wcover_WEB.pdf)

OPM (2009). Evaluation of the Implementation of the Paris Declaration: Thematic Study – Support to Statistical Capacity Building, Synthesis Report. Retrieved from: <https://www.oecd.org/dac/evaluation/dcdndep/43189996.pdf>

UN (2003). *Handbook of Statistical Organization, Third Edition: The Operation and Organization of a Statistical Agency*. Retrieved from: [https://unstats.un.org/unsd/publication/SeriesF/SeriesF\\_88E.pdf](https://unstats.un.org/unsd/publication/SeriesF/SeriesF_88E.pdf)

## Notes

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<sup>1</sup> Government ministries represent only one of many user groups, but they have historically been viewed as a particularly important audience for official statistics, given their role in national policymaking (UN, 2003; Bruengger, 2008). The needs of other users such as citizens, media, and local municipal governments, while relevant and valuable, lie outside the scope of this report.

<sup>2</sup> The fact that NSOs consider development partners as their most frequent users is perhaps unsurprising, as previous studies have found evidence of relatively stronger demand for official statistics among international actors than domestic constituencies (OPM, 2009; Greenwell et al., 2016).

<sup>3</sup> The raison d'être of NSOs is to collect, publish, and disseminate official statistics. As such, NSOs place great emphasis on the production side of the equation: collecting high-quality data, meeting national or international definitional and methodological standards, and publishing the data with the appropriate frequency. Conversely, NSOs seldom identify the measurement of the use of their data as one of their official responsibilities.

<sup>4</sup> One caveat is that desirability bias may have influenced these responses, since it was costless for an NSO respondent to say that they see the value of monitoring data use. There is thus a possibility of over-reporting on their interest in monitoring data use.

<sup>5</sup> Typically, when users subscribe to receive updates from an organization, they can customize their preferences and select the products they are most interested in. This can also reveal user preferences and the datasets that are most in demand.

<sup>6</sup> For users, this means highlighting any gaps in official statistics, demanding better and more timely data, and demonstrating the importance of this information in decision-making and improving public service delivery.

## About AidData

AidData is a research lab at William & Mary's Global Research Institute. We equip policymakers and practitioners with better evidence to improve how sustainable development investments are targeted, monitored, and evaluated. We use rigorous methods, cutting-edge tools and granular data to answer the question: who is doing what, where, for whom, and to what effect?

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