KEY TRENDS IN DEVELOPMENT CO-OPERATION FOR NATIONAL DATA AND STATISTICAL SYSTEMS

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Abstract

This policy paper sheds light on current trends in development co-operation for data and statistical systems in developing countries. It analyses trends in funding through official development assistance as well as strategic priorities and modalities for providing support. It identifies different approaches to capacity development and discusses their strengths, opportunities and risks. The objectives of the research published in this paper are twofold: first, to understand key challenges to ensuring support is effective, owned by partners, aligned with their priorities and needs, and conducive to producing capacity and results that outlive specific projects and; second, with a view to identifying good practices, to provide insights on how Development Assistance Committee members support statistics and statistical capacity development in developing countries.

Foreword

Data and statistics are key for better policies and better lives. Relevant, accurate and timely data and statistics inform governments, development partners, non-governmental organisations and business efforts to plan, assess and adjust policies and programmes and allocate resources equitably and efficiently. They enable consumers to make informed decisions; civil society to hold government to account; and researchers to identify new challenges and probe new solutions.

OECD Development Assistance Committee (DAC) members endeavour to improve the effectiveness of their support for statistical and data systems in developing countries – systems which produce and use data and statistics that are crucial for policy, planning, monitoring, research and accountability for development. Almost all DAC members provide some support to data and statistics in their partner countries. They all strive to ensure that development co-operation is data driven and that decisions are based on evidence.

However, at a time when the Sustainable Development Goals (SDGs) have increased the demand for data in developing countries and new technologies provide opportunities for data production and use, many developing countries, especially low-income and fragile states, continue to lack core statistical systems. The Covid-19 pandemic, which caused a sudden spike in demand for timely and accurate data on population health and the economy across the globe, has only served to highlight the divide in statistical capacity.

Providing effective and sustainable co-operation for data and statistical systems has proven challenging in the past: Insufficient funding; weak co-ordination of data projects, programmes and initiatives between providers and partners; and limited alignment with national priorities and strategies for the development of statistics are key bottlenecks.

The OECD's *Development Co-operation Report 2017: Data for Development* called on development co-operation actors to take action to bridge the data divide for sustainable development. DAC members are determined to increase the quality and effectiveness of their support to the producers and users of data and statistics in partner countries and instigated a work stream on data for development at the OECD in an effort to share good practices and improve collective effectiveness. This paper, which is based on extensive consultations with DAC members and other providers of co-operation for data and statistics, is a first analytical output of this work stream, highlighting challenges and opportunities in providers' efforts to strengthen data and statistics in their partner countries and sketching a path forward.

Acknowledgements

Abbreviations and acronyms

CRESS	Country reports on support to statistics
CRS	Creditor Reporting System
CRVS	Civil registration and vital statistics
CSO	Civil society organisation
DAC	Development Assistance Committee
DCLI	Data Collaboratives for Local Impact
DHS	Demographic and Health Surveys
GDP	Gross domestic product
GHO	Global Health Observatory
GPEDC	Global Partnership for Effective Development Co-operation
IDA	International Development Association
IFI	International financial institution
IMF	International Monetary Fund
LSMS	Living Standards Measurement Study
MCC	Millennium Chalenge Corporation
MDB	Multilateral development bank
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Surveys
NSO	National statistical office
NSS	National statistical system
ODA	Official development assistance
PEPFAR	President's Emergency Plan for AIDS Relief
PRESS	Partner Report on Support to Statistics
SDG	Sustainable Development Goal
UNICEF	United Nations Children's Fund
US	United States
USAID	United States Agency for International Development

Executive summary

Providers of development co-operation, including members of the OECD Development Assistance Committee (DAC), are important partners to official statisticians in developing countries. They are also often key users and producers of data on development. Yet, as this paper explains, the continued scarcity of solid and objective data and statistics in developing countries continues to be a major risk to delivering Agenda 2030 and ensuring that no one is left behind.

DAC members struggle to increase the quality and effectiveness of their support to the producers and users of data and statistics in partner countries. While a lack of funding is often cited as a constraint, major bottlenecks to effective and sustainable support to statistics and statistical capacity development include weak co-ordination of data projects, programmes and initiatives between providers and partners as well as limited alignment with national priorities and strategies for the development of statistics.

This paper provides a background analysis on the availability of key development data in developing countries. It then takes stock of levels and trends in funding for development data, shows how international support is delivered, and examines opportunities and challenges to strengthening co-ordination of support to statistics and aligning to country priorities, including national strategies for the development of statistics. The paper is informed by an analysis of different datasets, a review of the literature, and, importantly, consultations with experts from DAC members and other providers of support for data and statistical systems.

Key findings

Lack of funding from both domestic and external sources for data and statistics

There are significant challenges to funding for development data, including the public good nature of data, uncertain fiscal returns, political economy constraints and complementarities between different types of data that imply low returns on investment. In line with these challenges, national statistical systems in low-income countries are highly reliant on external finance. However, official development assistance (ODA) to data and statistics currently accounts for only 0.33% of total ODA. It is estimated that to produce the data needed to ensure that the SDGs indicators can be adequately measured and monitored, ODA to statistics should double.

Key challenges to increasing effectiveness of support to statistical systems

1. Lack of shared good practice guidance for international support to statistics and statistical capacity development that would help to strengthen co-ordination between providers and alignment to country priorities.

2. There is scope to give more strategic focus and direction to support to statistical systems and capacity development, including specifying comparative advantage and sustainable outcomes. There is a lack of guidance on what kind of activities are best supported in a specific country and with regard to how to ensure the sustainability of these activities.

3. There is a lack of mainstreaming of support to data and statistics beyond specific support for sectoral data. Internal co-ordination of support within individual members'/providers' institutions is also limited.

4. There is demand for guidance and good practices in relation to harnessing the data revolution and increasing digitalisation of data, including data for development.

Challenges relating to donor co-ordination and alignment with country priorities can often be explained by a combination of weak in-country demand for data and statistics and unclear priorities, along with the tensions created by strong donor demand for specific data and statistics for programme design, targeting, monitoring and results reporting. Weak domestic demand can translate into a lack of core domestic funding of the national statistical office (NSO) and high reliance on donor funding. A lack of domestic support can also undermine NSOs' ability to co-ordinate activities with other data-generating arms of the government. Providers – bilateral and multilateral – on the other hand, often have strong demand for data, be it for their own planning or results monitoring or because they are mandated to monitor progress towards international development goals. Providers, however, often have different and specific data priorities which makes co-ordination of their support more costly and challenging, especially when national statistical systems lack crucial resources to lead the co-ordination, such as mandate and qualified staff.

Wide variation in DAC members' support for national statistical and data systems

There is wide variation in DAC members' support for national statistical and data systems in terms of policy priorities, modalities, channels and co-operation partners. This paper identifies key aspects of DAC members' approaches, including 1) technical assistance led by DAC member national statistical offices; 2) support channelled through the multilateral system; 3) support that aims to strengthen statistical literacy and data use (possibly in conjunction with developing capacity to produce data); and 4) support to data and statistics aimed at building the informational foundation of sectoral projects and programmes. Each of the approaches has distinct strengths and opportunities and each faces unique challenges in overcoming the constraints outlined above.

This paper suggests ways forward that are linked together by the notion that better co-ordination between providers is key to increasing the effectiveness of support: there are clear opportunities to learn more about what works in building sustainable statistical capacity and under which circumstances. There is also scope to explore mechanisms to improve co-ordination among providers at the country level. Finally, in order to increase the chances that support will be sustainable, providers of development co-operation should explore new ways to consistently raise the profile and ownership of data and statistics in partner countries.

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1 Context: Development data trends and challenges

What are development data and what are they for?

Development data are all data produced nationally, subnationally and globally that can be used for setting development targets, measuring progress towards them and implementing development goals. Official data constitute the backbone of development data. While governments, donors, the private sector or civil society groups can all produce data and statistics relevant to development, the production of most datasets and statistics that are key to development policy making – statistics on the economy, incomes and poverty, health, and education, etc. – have traditionally formed part of official statistics (see Box 1).

Box 1. Key terminology used in this paper

- The **national statistical system** is the ensemble of statistical organisations and units within a country that jointly collect, process and disseminate official statistics on behalf of the national government.
- The **national statistical office (NSO)** is the leading statistical agency within a national statistical system.
- **Official statistics** are statistics disseminated by the national statistical system, excepting those statistics that are explicitly stated not to be official.
- **Data ecosystem** can be understood as the entirety of factors that condition the supply and use of development data and statistics in a specific country, including the institutional framework, technical capacity of producers, data and statistical literacy of users, and other resources.
- **Statistical capacity** is the ability of a country's national statistical system and data ecosystem, its organisations and individuals, to collect, produce, analyse and disseminate high-quality and reliable data and statistics to meet users' needs. **Statistical capacity development** includes all activities in support of generating statistical capacity.
- **Statistical literacy** is the ability to understand and critically evaluate statistical results – coupled with the ability to appreciate the contributions that statistical thinking can make to taking decisions.
- **Support to statistics** refers to all funding of statistical activities while **support to statistical capacity development** refers more narrowly to activities that aim to develop capacity for data collection, production, analysis, use and dissemination.

Sources: OECD (2020[2]), *OECD Glossary of Statistical Terms*, https://stats.oecd.org/glossary/index.htm; PARIS21 (2019[3]), *Statistical Capacity Development Outlook*, https://paris21.org/flagship/2019; Wallman, K.K. (1993[4]), "Enhancing statistical literacy: Enriching our society", https://doi.org/10.1080/01621459.1993.10594283.

Broadly, the tools official statisticians have at their disposal to generate official statistics fall into two categories: 1) primary data collected expressly for official statistics such as sample surveys and censuses (i.e. complete enumeration of a population of interest); and 2) secondary data collected primarily for some other purpose (e.g. administrative data, private sector data, etc.). Secondary data include registers and databases that are updated continuously for a specific purpose and from which statistics can be collected and produced. Typical examples include civil registration and vital statistical systems, registers of taxpayers and cadastral systems.

Data produced by these key statistical systems can provide a wide range of economic and societal benefits, some more obvious than others, to a wide range of actors (Box 2). However, because of the public good character of data and statistics (see Section 2), estimating the monetary value of the benefits of official statistics has often been elusive.

Box 2. Investing in and supporting national data and statistical systems has many benefits

While it is inherently difficult to pinpoint the monetary value of key statistical systems, there are many examples that show that data and statistics are valuable to a wide range of actors (UNECE, 2018[5]) and that they can have major economic and societal benefits.

Better macroeconomic management and lower borrowing costs

- One study by the International Monetary Fund (IMF) finds that improvements in statistical capacity are associated with less pro-cyclicality of government spending (Tapsoba, York and Noumon, 2016[6]).
- Another IMF study finds that subscribing to its data standards initiatives provides a strong signal to investors, lowering sovereign borrowing costs in private capital markets by reducing launch spreads by 8-20% (Cady and Pellechio, 2006[7]).

Private sector growth

- A survey of US enterprises finds that private companies are often major users of government data and that government data have helped create new businesses, and facilitated transparency and competition (Hughes-Cromwick and Coronado, 2019[8]). This is especially true in the information and communications technology sector, which is increasingly important, especially in Africa (Songwe, 2019[9]). Importantly, the study finds that it is often the combination of companies' proprietary data and government data that enable innovation and growth.

Improved public service delivery

- Studies of England and Wales (Burgess, Wilson and Worth, 2013[10]) and Pakistan (Andrabi, Das and Khwaja, 2017[11]) find that providing information about school performance to parents improves school effectiveness. In Pakistan, providing information to parents resulted in increased child learning and enrolment and lowered fees charged by private schools.

Gaps in development data and capacity

There are significant gaps in key statistical systems in developing countries, resulting in a lack of adequate development data. While there is some variation across statistical systems, these gaps are typically more pronounced in low-income countries and fragile states (Figure 1).

Gaps exist, for instance, in population and housing censuses. While they typically form the backbone of population statistics, conducting censuses is costly, requires substantial institutional capacity and at times runs against political constraints.[1] The United Nations recommends that population censuses be conducted every ten years (United Nations, 2008[12]). Yet in 2018, only around 70% of today's low-income countries have had a population census since 2009, compared to more than 90% of all middle-income countries (Figure 1a). By contrast, low-income countries were **more likely** than middle-income countries to have had a health survey during the last five years and as likely to have had a poverty survey (Figure 1b-c).[2]

Another statistical domain in which low-income countries[3] typically lag behind are economic statistics. Estimates of gross domestic product (GDP) and, more generally, the System of National Accounts, are important for many SDG indicators: about 10% require information on GDP, gross national income or sectoral value added – typically as the denominator.[4] Yet **less than half** of all developing countries produce monthly data on industrial production, a key input into the estimation of GDP (Figure 1d). And despite some progress, with many countries rebasing their GDP estimates after 2010, estimates in developing countries are often produced with outdated base years, a problem that is also more pronounced in low-income countries (Figure 1e). Weak foundational data systems, failure to update inputs into the estimation and a lack of harmonisation often render rankings of countries by GDP or comparisons of growth rates invalid (Johnson et al., 2013[13]) and lead international organisations to individually re-estimate GDP series or use imputation, resulting in inconsistent accounts of economic development (Jerven, 2016[14]).

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[1] Population censuses often inform the political influence of population groups, which has at times made them a target for political interference.

[2] Challenges associated with donor support to and demand for different statistical system are discussed in more detail in Section 3.

[3] Low-income countries are defined by the World Bank as those countries that have a gross national income per capita, calculated using the World Bank Atlas method, of USD 1.025 or less in 2018. There were 31 low-income countries in the fiscal year 2020, with Zimbabwe graduating to lower middle-income status between fiscal year 2019 and fiscal year 2020.

[4] Examples are 17.3.2, the volume of remittances as a proportion of total GDP, and 9.3.2, the proportion of small-scale industries in total industry value added.

Figure 1. Availability of data by country income and fragility status, 2005-18

(a) Population census conducted in last ten years

(b) Health survey conducted within last five years

(c) Poverty survey conducted within last five years

(d) Monthly data on industrial production

(e) NA base year no more than ten years in the past

(f) Complete registry of vital events
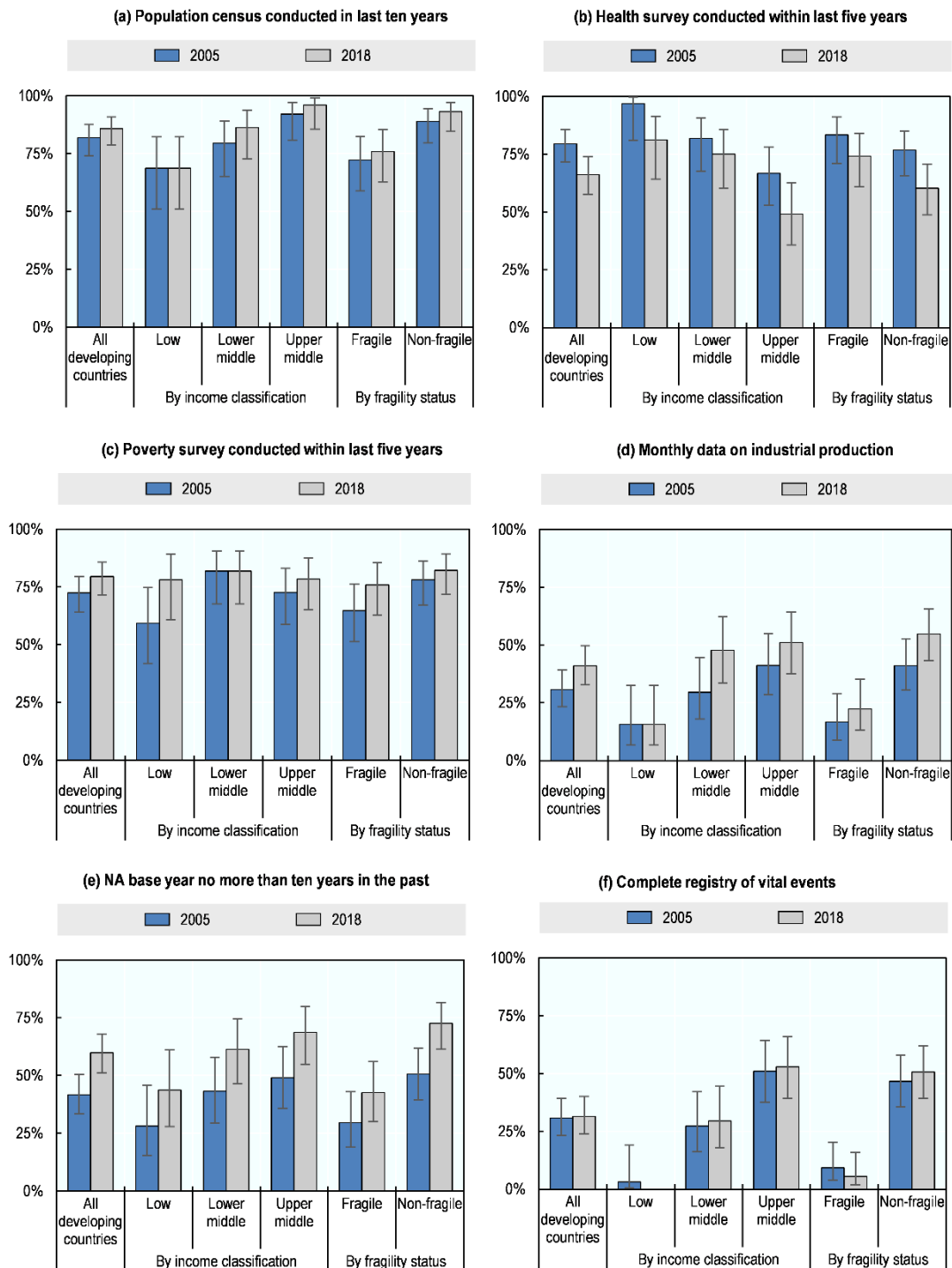
Notes: NA: National accounts. Based on 127 low- and middle-income countries. Fragility is based on the DAC list of fragile states. Of the 32 low-income countries in the sample, 29 are classified as fragile. So are 19 lower middle-income countries (out of 44) and 6 upper middle-income countries (out of 51). Country income groups are fixed over time and based on the classification used by the World Bank in fiscal year 2019. Ninety-five per cent confidence intervals indicated.

Source: Author's elaboration based on World Bank (2020[15]), *Data on Statistical Capacity*, http://datatopics.worldbank.org/statisticalcapacity.

Finally, gaps are pronounced in administrative data systems. One example are data from civil registration and vital statistics (CRVS) systems which are the basis for individual legal identity and allow countries to identify their most pressing health issues. Importantly, data from CRVS systems can be used to populate many SDG indicators – one study finds that 67 indicators (out of 230 on the final list), covering 12 of the 17 SDGs, can be measured effectively with data from CRVS systems with sufficient coverage (Mills et al., 2017[16])[5] – and the SDGs call explicitly for improving CRVS systems.[6] Yet no low-income country has a complete registry of vital events (Figure 1f) and progress in expanding their coverage has been very slow at best (Mikkelsen et al., 2015[17]).

In sum, developing countries often lack basic statistics on critical issues ranging from population to the economy. Progress in recent years has often been slow and uneven. It is also worth noting that the Covid-19 pandemic, which caused a sudden spike in demand for timely and accurate data on population health and the economy, has served to highlight the divide in key statistical systems (Box 3).

Box 3. Covid-19 highlights the divide in key statistical systems

Data have been front and centre in shaping understanding and response to the spread of Covid-19. Yet, putting aside differences in the capacity to conduct tests at scale, the availability of key statistical systems in high-income countries puts them in a much better position to understand the impact of Covid-19 on their populations. These systems range from vital registration systems that register deaths (and thus serve as the basis of the key metric of "excess deaths") to monthly indicators of economic activity: the World Health Organization estimates that while nearly 80% of high-income countries collect medium- or high-quality data on deaths by cause, there is not a single low-income country that does so (WHO, 2020[18]). According to data from the International Monetary Fund, less than one in five low-income countries can rely on even quarterly data on industrial production.

Source: See also Schmidt, J., A. Misra and J. Jütting (2020[19]), *Combating Covid-19: Data Everywhere But Not the Kind We Need*, https://oecd-development-matters.org/2020/06/17/combating-covid-19-data-everywhere-but-not-the-kind-we-need.

The rapid spread of new technologies – mobile connectivity, ever more powerful computers and algorithms, remote sensing and imagery – puts developing countries at risk of falling further behind. The spread of these technologies has resulted in many more potential sources of development data as well as means to collect, refine and disseminate data. Yet while many OECD countries have started to integrate these innovations into their official statistics, increasing their scope and making them more timely and accurate (Braaksma and Zeelenberg, 2020[20]), developing countries are struggling to do so.

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[5] These include indicators on mortality and violence, including maternal and child mortality (3.1 and 3.2), mortality due to communicable and non-communicable diseases (3.3 and 3.4), road traffic accidents (3.4), pollution and contamination and natural disasters (3.9 and 11.5), and violence and related deaths (16.1).

[6] Two SDG targets call directly for improvements in CRVS, Target 16.9, which calls for providing legal identity for all, including birth registration, and Target 17.19, which calls for developing measurements of progress on sustainable development that complement GDP and supporting statistical capacity building in developing countries.

Development co-operation and development data

Weak statistical capacity and systems in developing countries along with the relatively slow progress in improving capacity present a significant challenge to development co-operation providers. The World Bank's Statistical Capacity Indicator[7] shows, for example, only very moderate gains since 2005. Evaluations of statistical capacity support note some progress and success stories, but also voice concerns about the sustainability of capacity built (IEG, 2017[21]; OPM, 2009[22]). DAC members continue to find it challenging to base their decision making, monitoring, and reporting on partner country data and evidence (Figure 2). While most try to use partner country data in line with DAC guiding principles on effective support (OECD, 2019[23]), actual use often varies from country to country (Sanna and Mc Donnell, 2017[24]).

The SDGs have further increased the demand for development data. In particular, they come with 232 indicators that rely on adequate data. And while the SDGs explicitly recognise the important role that high-quality and timely data play in achieving the overarching ambition to leave no one behind, very little of the needed data have been collected before on a regular basis. In addition, "leaving no one behind" calls for data that are "disaggregated by income, gender, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts" (Target 17.18). SDG 17 also calls for regular population censuses and an increase in coverage of civil registration. These aspirations add new layers of complexity to long-standing challenges for developing country national statistical systems. The current level of investment in data and statistics is insufficient to meet SDG data needs. Making the SDGs measurable will require not only more investment, but also creativity in how resources are used by official statisticians and their co-operation partners.

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[7] The World Bank's Statistical Capacity Indicator is a composite measure of the series in Figure 1 and other data on the availability of statistics and adherence to standards. See Cameron et al. (2019[94]).

Figure 2. DAC members' view on data availability, levels of funding and co-ordination
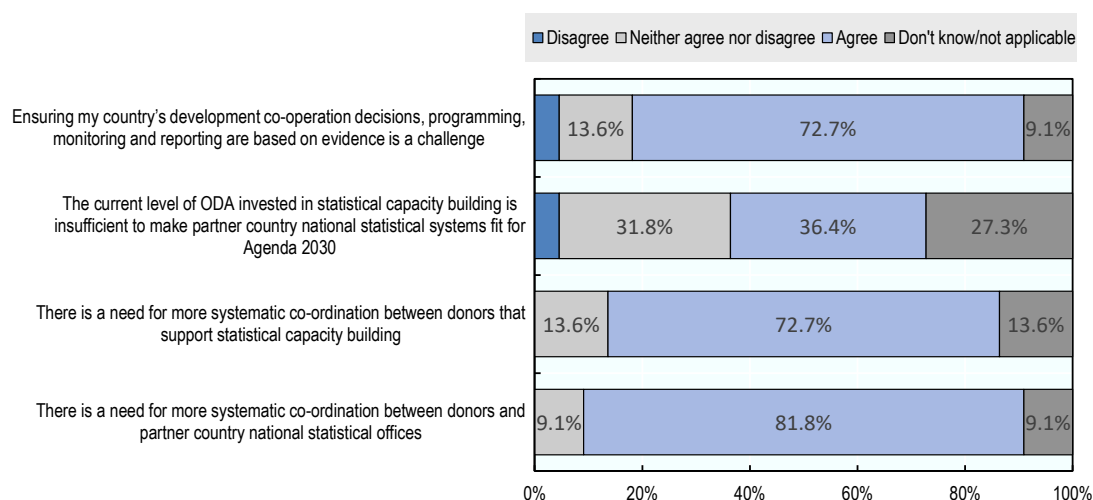
Note: DAC members were asked to respond to the following statement: "The current level of official development assistance that is invested in statistical capacity building [...] is sufficient to support developing countries to make their national statistical systems fit-for-purpose in the context of Agenda 2030." The above presentation reverses the question for improved readability.
Source: 2017 survey of DAC members. See Sanna and Mc Donnell (2017[24]), "Data for development: DAC member priorities and challenges", https://www.oecd.org/dac/WP35%20Complete.pdf.

Current levels of official development assistance (ODA) investments in official statistics by national governments and development partners are insufficient to make national statistical systems fit-for-purpose (OECD, 2017[25]) (see next section). While the UN[8] and other stakeholders, notably the Bern Network on Financing Data for Development (see Box 4),[9] have recently issued calls for more ODA to help bridge the data divide, not all DAC members are yet convinced that more funding is the answer. For instance, a survey among DAC members found that one in three consider the current level of ODA invested in statistical capacity development insufficient (Sanna and Mc Donnell, 2017[24]).[10] Rather, a majority of respondents raised concerns about the effectiveness of current support, citing a need for better co-ordination between providers and between providers and their partners (see Figure 2). In addition to challenges of co-ordinating effectively, experts on statistical capacity from DAC member institutions consulted for this research also mentioned potential efficiency gains from improved co-ordination of support across different agencies and units within their own institutional set-up,

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[8] The United Nations' Cape Town Global Action Plan for Sustainable Development Data, which was adopted by the UN Statistical Commission in March 2017, argues that the modernisation of national statistical offices is essential to the full implementation of Agenda 2030 and outlines necessary actions. Objective 6.1 of the action plan focuses on ensuring resources are available to implement the necessary programmes and actions as outlined in the plan (HLG-PCCB, 2017[75]).

[9] The Bern Network on Financing for Development is an open, multi-stakeholder alliance to support the 2030 Agenda by promoting more and better financing for data (Bern Network, 2020[29]). See Box 4.

[10] DAC members who were not able to say if the level of financing at the time was sufficient or not – those that neither agreed nor disagreed – mentioned that developing statistical systems is not only a matter of the amount of ODA funding, but also of its continuity and co-ordination. They highlighted the need to find more cost-effective solutions and to improve NSOs' leadership and resources and their ability to deliver on their strategic objectives.

e.g. between development co-operation agencies and NSOs active in international co-operation.

Box 4. Key initiatives in support of development data in 2020 and beyond

The World Bank

IDA19, the latest replenishment of the International Development Association (IDA), the World Bank's fund for the poorest countries, was approved in February 2020. It entails USD 82 billion in new funding that cover the fiscal years 2021-23. Among the World Bank's commitments under the agreement is a pledge to support at least 30 eligible countries under the Data for Policy (D4P) agenda, which will cover 3 areas of support: 1) enabling factors to improve the performance and productivity of national statistical system; 2) the production of a core set of statistical sources; and 3) access and use of data for monitoring and evaluation of public policies and programmes.

In addition, in January 2020, the World Bank announced that next year's *World Development Report 2021* will look at the opportunities and challenges of data to improve the lives of poor people in low- and middle-income countries.

Sources: International Development Association (2020[26]), *Report from the Executive Directors of the International Development Association to the Board of Governors: Additions to IDA Resources: Nineteenth Replenishment*, http://documents.worldbank.org/curated/en/459531582153485508/pdf/Additions-to-IDA-Resources-Nineteenth-Replenishment-Ten-Years-to-2030-Growth-People-Resilience.pdf; Rodríguez Castelán, C., K. Himelein and A. Dabalen (2020[27]), *Evolution in the Data Ecosystem: An Idea That's Got Legs*, https://blogs.worldbank.org/opendata/evolution-data-ecosystem-idea-thats-got-legs; World Bank (2020[28]), *World Development Report 2021: Data for Better Lives*, https://www.worldbank.org/en/publication/wdr2021.

The Bern Network

The Bern Network on Financing Data for Development is an open, multi-stakeholder alliance of aid and development agencies, national statistical offices, ministries, private sector actors, and civil society groups that aims to promote more and better financing for development data. It was established in 2019 by the Swiss Agency for Development Cooperation and the Swiss Federal Statistical Office, together with partners, to "catalyse change in the amount and quality of resources for data and statistics" ahead of the 3rd United Nations World Data Forum in Bern, Switzerland.[11] The Bern Network Secretariat is hosted by PARIS21.

Source: Bern Network (2020[29]), *More and Better Development Data for a Decade of Action*, https://bernnetwork.org.

The **Global Partnership for Effective Development Co-operation (GPEDC)**

The Global Partnership for Effective Development Co-operation (GPEDC), a multi-stakeholder platform to advance the effectiveness of development efforts, has included strengthening effective support to statistical capacity and data as one action area in its 2020-22 work programme. It will explore how stakeholders are working together to put in place country-level systems and how data are collected and shared in ways that promote ownership, reduce duplication and support use by diverse stakeholders. The work will also include in-country exploration and testing of new and better ways to address data challenges.

Sources: GPEDC (2020[30]), *How We Partner Together for Sustainable Development: 2020-2022 Work Programme*, http://effectivecooperation.org/wp-content/uploads/2020/05/GPEDC_2020-2022_Work_Programme_FINAL_15May.pdf; GDEDC (2020[31]), *Statistical Capacity and Data*, https://knowledge.effectivecooperation.org/landing-page/action-area-12-strengthening-effective-support-statistical-capacity-and-data.

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[11] The 3rd United Nations World Data Forum was originally set to take place in October 2020. It will now be convened one year later in 2021.

2 Funding for development data

Constraints to funding of development data

The OECD's 2017 *Development Co-operation Report: Data for Development* argues that budgets should grow if statistical systems are to respond to the growing demand for more and better data (OECD, 2017[25]). Official statistics are particularly underfunded in least developed countries, where national statistical offices are largely dependent on external resources. Several interlinked constraints to funding may help explain this apparent lack of support for investing in statistical and data systems:

- **Data as a public good:** Similar to ideas or knowledge, the value of data is not diminished with use – for most practical purposes, data are a public good (Taylor, 2016[32]; Stiglitz, 1999[33]). They can be used many times, by different actors, for different purposes and not get used up or exhausted (Coyle et al., 2020[34]). Indeed, official statistics are used by government agencies, private enterprises and the public at large (journalists, civil society organisations, academics or private citizens). But while private enterprises may use data derived from, say, a population census to take investment decisions, a census is too costly and the benefits too narrow for any private sector actor to invest in. Hence, despite strong overall demand, a census would not be conducted if it not by the government.

- **Uncertain fiscal returns and low visibility:** Investments in data and statistics have uncertain and remote returns and low political visibility. The information provided by official statistics can help government and private enterprises allocate resources more efficiently and allows consumers to take better informed choices. However, these benefits are inherently difficult to assess and the time lag between the actual investment and its returns may be substantial. Moreover, official statistics and reports may lack public visibility, limiting the incentives for policy makers to invest in official statistics, especially under resource constraints and in comparison with other public projects (e.g. infrastructure) (Taylor, 2016[32]).

- **Vicious cycles and traps:** Many developing countries may be stuck in a vicious cycle of low demand for data for policy making or trapped in a situation in which returns to investment are low. Low demand results in weak statistical institutions with poor governance; lack of investment in staff, infrastructure and tools; low human capacity; and highly fragmented statistical systems. These shortcomings, in turn, translate into low-quality data, which reinforce the lack of demand (OECD, 2017[25]). Moreover, different types of data are often complementary, i.e. combining data with different strengths can increase their relevance, precision and timeliness and allows for

assessing data quality through cross-checking.[12] This suggests that the returns to investing in data are initially low yet potentially increasing as more data become available, lowering the incentives to invest in data and statistics in countries that are data-deprived. Breaking out of these vicious cycles or traps may require sustained investment in the supply of data and statistics to allow demand to pick up and returns to be realised and, possibly, concomitant investment in supply and demand.

- **Political economy constraints:** In some cases, governments may not recognise the value of data or may have limited incentives to invest in data and statistics or disseminate them. Political economy constraints to investment in data and statistics have been recognised in recent years by those aiming to support developing country national statistical systems (Taylor, 2016[32]; Dargent et al., 2018[35]; Hoogeveen and Nguyen, 2019[36]). For example, uncomfortable truths such as low rates of economic growth, rising poverty and inequality, or a changing electorate[13] are harder to obscure when good quality data are routinely produced and publicly available.

Overall funding from domestic and external resources

Domestic resources have advantages over external funding as they tend to be both more predictable and more sustainable than alternative sources (Calleja and Rogerson, 2019[1]). They also show political will to support data systems. However, there is a lack of systematic information about how much developing countries allocate to their statistical systems. Less than one in four low-income countries publishes detailed data on NSO budgets (PARIS21, 2020[37]), and few countries publish data on budget allocations to other data-generating government entities.[14] While a lack of basic development data clearly suggests that funding is lacking, the paucity of data on domestic resources allocated to statistics presents a challenge for assessing gaps in funding.

Estimating total financial support to data and statistics in developing countries from providers is also challenging (see Annex A). PARIS21, which publishes annual estimates in its Partner Report on Support to Statistics (PRESS), estimates that the international development community's funding of data and statistics increased from USD 214 million (equivalent to 0.14% of total ODA) in 2006 to USD 668 million (0.35% of ODA) in 2011. However, funding has since levelled off at a range between USD 500 million and USD 750 million per year. The last available estimate for 2017 was USD 689 million, or 0.35% of total ODA (PARIS21, 2019[38]).

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[12] For instance, census data are frequently combined with poverty surveys to obtain so-called small-area estimates of poverty (Bedi, Coudouel and Simler, 2007[76]) – poverty statistics at a high degree of geospatial resolution. Similarly, new data such as earth observation data or call records from mobile phone use have in recent years often been combined with traditional sources to obtain more timely or detailed estimates of statistics of interest (Osgood-Zimmerman et al., 2018[77]; Blumenstock, 2018[78]; Burke and Lobell, 2017[86]).

[13] Population censuses have often become highly politicised as they typically form the basis for the distribution of central government resources and the number of seats in national parliaments. While the phenomenon is by no means limited to developing countries, Nigeria's experience with population censuses is instructive in many ways (Mimiko, 2006[80]; Okolo, 1999[81]).

[14] This reflects a general lack of budgetary transparency: the International Budget Partnership (2019[79]), a non-profit organisation, reports that as many as 19 out of 24 low-income countries provide minimal, scant or no information on budget allocations.

Analysis of support to statistics based on the OECD Creditor Reporting System database (see Annex A) suggests that funding to data and statistics – about USD 490 million per year (in 2018 prices)[15] – did not change much between 2010 and 2017 (Figure 3a). However, there may have been an increase in support from 2017 to 2018, from USD 411 million to USD 624 million. DAC members account for 50-65% of support over this time period, with no apparent trend over time in their share *vis-à-vis* other providers of financial support.[16]

Figure 3. Total official financial assistance to data and statistics and distribution by provider, 2010-18

(a) Total provider financial assistance to data and statistics, USD million, 2018 prices

(b) Distribution of support by provider, 2016-18
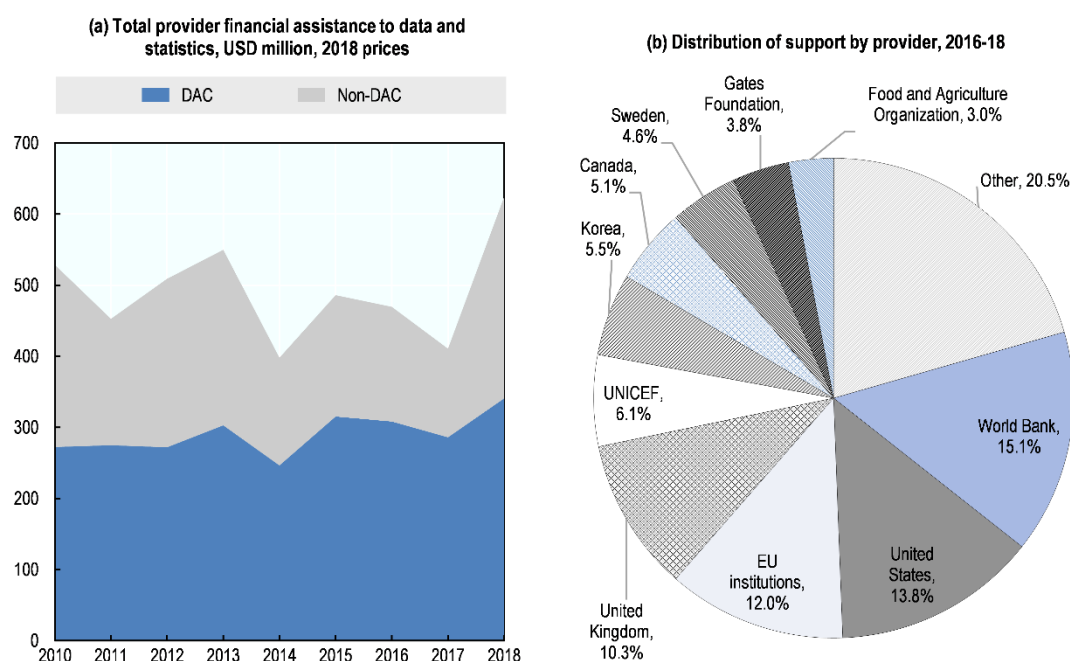
Note: See Annex A for details.

Source: Author's calculations based on data on disbursements (2018 prices) from OECD (2020[39]), *Creditor Reporting System (CRS) Aid Activity Database*, https://stats.oecd.org/Index.aspx?DataSetCode=CRS1.

Between 2016 and 2018, the last three years for which data are available, the World Bank appears to be the single-largest provider of support to statistics, accounting for 15.1% of total support (Figure 3b).[17] The three most important DAC members in terms of funding are the United States (13.8%), the EU (12.0%) and the United Kingdom (10.3%). Overall, six out of the ten most important providers of financial support to data and statistics are DAC members, with Canada, Korea and Sweden each accounting for about 5% of the total.

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[15] Annex A provides a discussion of the differences in the methodology that may account for the difference in these estimates.

[16] However, as only DAC members are under an obligation to report financial flows, the share of support they account for may be overestimated. See Annex A.

[17] Note that only support out of the multilateral's core funding is counted here. "Multi-bi aid", donor contributions to multilateral organisations earmarked for specific purposes, is assigned to the original source of funding.

Despite the challenges in measuring both domestic funding allocated to statistics and ODA support, there are indications that external support is the more important source of funding in many developing countries. In particular, data from PARIS21's 2018 *Statistical Capacity Monitor* suggest that domestic resources account for at least 50% of total funding for statistics in only around half of all developing countries (51.1%). While domestic funding is more important in nearly two-thirds of all middle-income countries, the share drops to less than 10% in low-income countries (PARIS21, 2020[37]).

There have also been a number of attempts to estimate the funding gap that would need to be filled to put in place statistical systems that would allow for SDG progress to be monitored adequately. Calleja and Rogerson (2019[1]),[18] for instance, estimate that, depending on the level of ambition, between USD 2.9 billion and USD 5.6 billion per year are needed. They argue that in the most ambitious scenario, donor financial support to statistics would need to double to meet SDG data needs (PARIS21, 2019[38]). These estimates are based on the assumption that the world's poorest countries (countries eligible for concessional funding from the World Bank's International Development Association) require external funding to cover 50% of the costs to produce SDG data, while other developing countries require external funding to cover 5% of the costs (GPSDD, 2016[40]),

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[18] However, different estimates of the additional resources required to adequately monitor SDG progress differ by an order of magnitude. See Jerven (2014[87]), SDSN et al. (SDSN et al., 2015[88]), Demombynes and Sandefur (2014[89]) and Chandy and Zhang (2015[90]), who are costing SDG data production based on different assumptions, and Bill-Weilandt et al. (2016[82]) for a discussion of the differences.

3 Co-ordination, ownership and the sustainability of support

Donor co-ordination

Co-ordination between providers of development co-operation can help reduce fragmentation of support – that is, support that comes in too many small slices from too many providers – and duplication (OECD, 2009[41]). Fragmentation can lower the effectiveness and efficiency of support if it results in high administrative costs, if donors have incompatible strategies or if it results in duplication of effort. Co-ordination between providers can also increase the effectiveness of the provider's policy dialogue with the partner country, for instance, if providers agree in advance on priorities, and mitigate competition for scarce resources such as qualified counterpart staff. Both providers (Figure 2) and national statistical offices are concerned about the lack of co-ordination (Ngo and Flatt, 2014[42]; PARIS21, 2018[43]). Indeed, support to statistics may be particularly susceptible to aid fragmentation and donor proliferation. This section discusses the reasons for this.

1. International development actors have strong demand for development data

International development actors are a source of high demand for specific data and statistics to inform their own programming and projects and to demonstrate the impact of their work. This can translate into donor-centric, supply-driven support for data production to meet their needs. The demand for such data appears to have increased along with the emphasis on results-based management and accountability to domestic constituencies for results achieved through development co-operation.

Recognising this challenge, the new OECD-DAC *Guiding Principles for Managing for Sustainable Development Results* (OECD, 2019[23]) call for strengthening and using partner countries' statistical and monitoring systems. In particular, providers' are urged to align their internal reporting to national results frameworks and to use partner countries' monitoring and statistical systems, enhancing national capacity to produce and analyse data, including disaggregated data to capture results related to populations left behind. However, the 2019 progress report of the Global Partnership for Effective Development Co-operation notes that only 50% of results indicators used by development partners relied on data from national statistics in 2018, down from 52% two years earlier (OECD/UNDP, 2019[44]).[19] A more strategic and collaborative approach to data production and sharing has the potential to benefit both providers and national statistical systems (Box 5).

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[19] The decrease is driven primarily by bilateral development partners (DAC and non-DAC) and vertical funds and initiatives. Multilateral development banks, on the other hand, have increased their reliance on country-owned results frameworks. See OECD/UNDP (2019[44]).

Box 5. Official statistics and providers' demand for monitoring and evaluation data

Providers of development co-operation invest substantial resources in programme and project evaluation and results monitoring. By one estimate, 2-3% of total official development assistance (ODA) went towards project monitoring and evaluation (Powell and Stout, 2018[45]). In 2017, this would have equated to approximately USD 2.9-4.4 billion, a much larger amount than is currently allocated to supporting statistics in partner countries (see Section 2). A significant share of this total is spent collecting data that have no further use beyond a given project, resulting in what one report refers to as "data graveyards" (Custer and Sethi, 2017[46]).

All this suggests that significant efficiency gains may be had by strategically redirecting resources towards strengthening national statistical systems. However, it is not obvious that the project-specific data that providers currently seek for monitoring and evaluation can be readily produced by countries' statistical systems through standard statistical sources. In particular, while data from statistical sources such as censuses and surveys are often available in developing countries (see Section 1), they typically lack the statistical power and timeliness required for monitoring and evaluation of projects targeted to small sub-populations and implemented over short time periods. On the other hand, administrative data systems may meet the demands of providers more readily, but are often not available.

Realising win-win opportunities may thus require providers to reassess their approach to monitoring and evaluation data, exploring ways to employ sector- and country-wide monitoring data rather than project-level data (OECD, 2019[47]). Alternatively, they may explore ways to invest strategically in data systems that can produce the data they – and others – need.

2. An increasing number of providers, often with different priorities and mandates

Because data and statistics are needed for all sectors and themes, many developing country governments have a large number of partners supporting data and statistics who often have different priorities and mandates in this area.[20] For instance, most Development Assistance Committee (DAC) members provide some support to statistics, be it through development co-operation agencies, specialised agencies such as national statistical offices or, increasingly, both (see Section 4). International financial institutions (multilateral development banks and the International Monetary Fund) and a wide range of UN agencies, programmes and funds, many of which have recently been mandated to collect additional data on specific SDG indicators, also provide significant support. Finally, the presence of new providers such as vertical funds and private foundations, whose engagement is often highly data-driven, has increased in recent years (Figure 4a). Across 7 countries for which detailed information about support was available, the average was 13.3 partners over the course of just 3 or 4 years.[21] On average, UN agencies accounted for more than 40% of NSS' partners and DAC members accounted for 33% (Figure 4b).

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[20] Although not the focus of this paper, civil society organisations are also active in data production and use.

[21] The data come from an analysis of PARIS21's Country Reports on Support to Statistics (CRESS), an initiative led by partner countries to gather all data relating to funding of the NSS, whether deriving from domestic resources or external aid.

Figure 4. Landscape of actors supporting data and statistics: Aggregate levels and by country, 2010-18

(a) Number of providers by type of provider

DAC members | MDBs | UN agencies
Foundations | Vertical funds | Other

(b) Number of development partners to the NSS

DAC member institutions | IFIs (MDBs and IMF)
UN agencies | Other multilaterals
Vertical funds and initiatives | Private foundations
Other
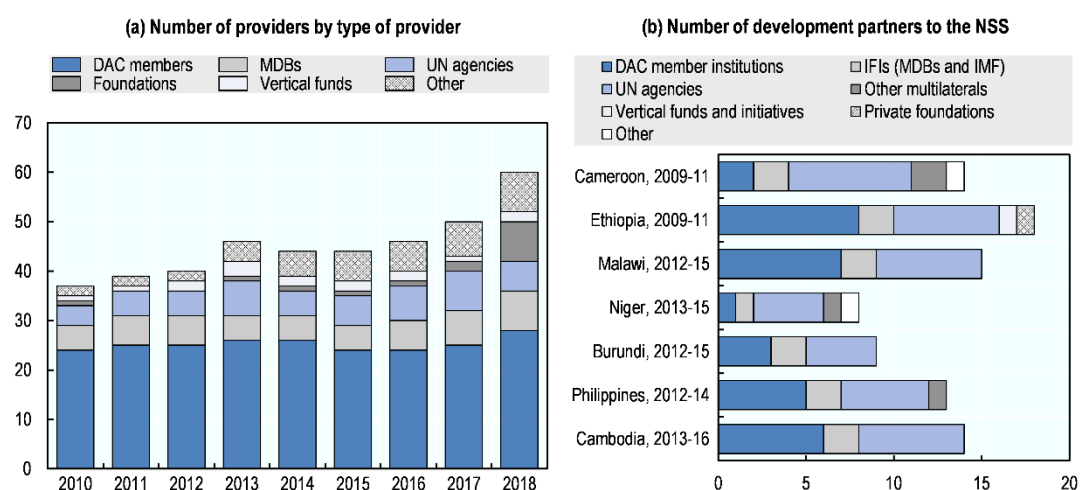
Note: MDB: multilateral development bank; NSS: national statistical system; IFI: international financial institution. Panel A is based on providers reporting against the DAC Creditor Reporting System. Panel B is based on a common list of 38 development partners.

Source: Panel A is based on OECD (2020[39]), *Creditor Reporting System (CRS) Aid Activity Database*, https://stats.oecd.org/Index.aspx?DataSetCode=CRS1. Panel B is based on various CRESS reports that are available from PARIS21 (2020[48]), *Country Reports on Support to Statistics*, https://paris21.org/fr/node/2875.

While there may be advantages to an NSS having a large number of development partners, a large number of providers with different priorities will render co-ordination more challenging. For instance, support from different partners might come with different administrative requirements, increasing the burden on counterpart staff. In addition, multiple providers may compete for qualified staff that can act as counterparts, a situation that resembles the "tragedy of the commons", a problem that is often aggravated with increasing group size and heterogeneity of actors (Dawes, 1980[49]; Kopelman, Weber and Messick, 2002[50]).[22] Different priorities of donors can also result in fragmented data systems that leave synergies untapped. An example comes from donor support to health management information systems that record and store data collected at the facility level on health status, service provision, etc. (Mbondji et al., 2014[51]). While donors have often supported health management information systems, a lack of co-ordination between different providers focused on different health issues has, in the past, resulted in fragmentation, duplication and a high burden on healthcare workers, without much progress in data use (Box 6).

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[22] For instance, one case study explicitly notes the disadvantage aid agencies experience if they refuse to pay top-ups to counterpart staff while other providers do: according to the report, counterpart staff started to prioritise side jobs over project activities. In order to still motivate counterparts, the aid agency started to provide non-wage benefits such as training opportunities in the donor country, study tours to third countries and equipment such as personal computers for projects activities. See Tomizawa and Masugi (2018[91]).

> ### Box 6. The contribution of global health initiatives to better health statistics: Upsides and downsides
>
> Policy makers, planners and health system managers need actionable data to improve the performance of the health system and track progress towards health-related goals, including the prevention of premature mortality. Health statistics can be derived from population censuses and household or facility surveys. But routine health management information systems that collect data provided by health workers on patients' health status, services provided and inputs used have advantages in terms of timeliness and relevance. Yet, while all countries routinely collect data from health facilities, the information is systematically under-analysed and under-utilised for planning purposes and programme evaluation (Mbondji et al., 2014[51]).
>
> Since 2000, the emergence of several large disease-specific global health initiatives has changed the way in which international donors provide assistance for public health. One of the defining characteristics of these initiatives is their insistence on timely and accurate data that allow them to link inputs to quantifiable results.
>
> The increased demand for data from health management information systems has had both positive and negative effects. On the one hand, global health initiatives have drawn attention to the shortcomings of health information systems, resulting in concerted efforts in many countries to strengthen information for national disease programmes. On the other hand, a lack of co-ordination between providers has often resulted in fragmentation, duplication and a high burden on healthcare workers, without much progress in data use (Evans and Stansfield, 2003[52]; AbouZhar, 2005[53]; World Health Organization Maximizing Positive Synergies Collaborative Group, 2009[54]).

3. Weak domestic demand for data

National statistical offices often lack capacity to co-ordinate support effectively and across the national statistical system (see Box 1). Because of weak domestic demand for data, statistical offices often suffer from a general lack of core funding and political support. They are thus in a weak position to co-ordinate with other data-producing government agencies and with a large number of donors. For instance, 41% of respondents to a survey among NSOs listed improved co-ordination within their NSS among the three most important objectives and 53% said that planning and reporting systems between producers of official statistics should be modified to improve the governance of the NSS (PARIS21, 2018[43]).

Country ownership and alignment

In theory, developing countries should lead on and decide on the support they get, by formulating and communicating realistic national strategies for the development of statistics that will meet their own needs and guide partners in how to support them. Development partners, on the other hand, should respect national priorities, investing in statistics that are consistent with these priorities (OECD, 2017[25]). In practice, the combination of significant demand for data from donors and a lack of domestic demand that is observed, especially in the poorest countries (see Section 1), can undermine country ownership, one of the key principles of effective development co-operation. Despite more than 93% of developing countries having a national strategy for the development of statistics or a national statistical plan in place (PARIS21, 2020[37]), only half of all DAC members make the national strategy for the development of

statistics the basis of their engagement (Figure 5). Peer-to-peer encounters (e.g. discussions between NSOs) are often important in countries in which their own NSO plays an important role in delivering technical assistance.

Figure 5. Main factors informing DAC members' decisions on how and what to support
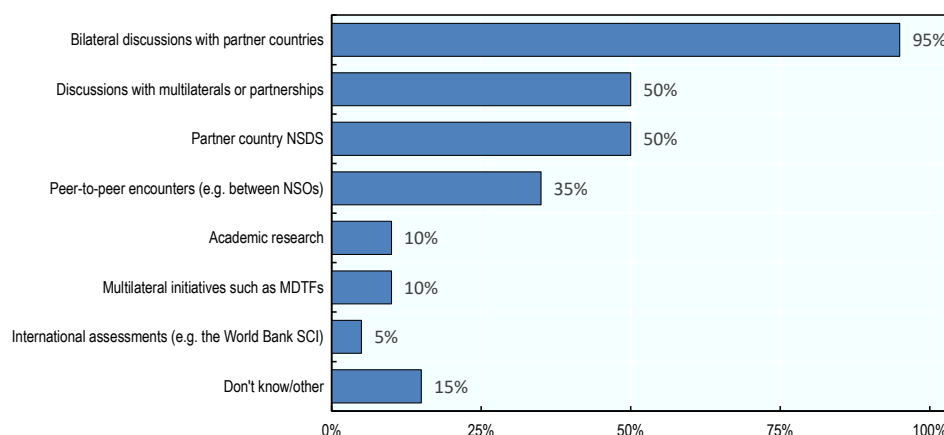
Note: Note: NSDS: national strategy for the development of statistics; NSO: national statistical office; MDTF: multi-donor trust fund; SCI: statistical capacity indicator.
Source: 2017 survey of DAC members. Sanna and Mc Donnell (2017[24]), "Data for development: DAC member priorities and challenges", https://www.oecd.org/dac/WP35%20Complete.pdf.

Consider first NSOs. Limited core funding from domestic sources can translate into NSOs being open to accepting external support if it brings in additional funding, even if it may not fit with national needs and priorities – for instance, in the form of per diems that supplement salaries of poorly paid staff. NSOs may also have incentives to seek non-financial support in order engage with partners that may provide funding in the future. This results in a situation in which NSOs prioritise short-term projects that reflect donor priorities rather than working towards their own long-term, strategic objectives. As one report puts it: "[r]ather than funding what needs to get done, whatever gets funded gets done" (OPM, 2009[22]). In reflecting on this challenge and the way forward, one expert from a DAC member NSO working in international statistical co-operation noted that "we have to make sure our partners can say 'no'."

Providers, which typically aspire to be data-driven and evidence-based, can also have priorities that are not aligned with national strategies for the development of statistics. For instance, multilateral organisations, which often constitute a large portion of all co-operation partners to a national statistical system (Figure 4b), are typically mandated to track progress towards specific SDG indicators.[23] Other providers may have priority sectors for which they seek data for monitoring and evaluation (see also Box 5 and Box 6).

Moreover, providers may find it easier to invest in some statistical sources than in others. For instance, donor support has in the past increasingly been geared towards funding household

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[23] The World Bank, for instance, is mandated to monitor global poverty, a task that requires first and foremost household expenditure surveys. Accordingly, a survey conducted in 2017 by the World Bank's Independent Evaluation Group finds that while its partners primarily used population data derived from censuses and civil registration and vital statistics systems and macrofiscal or price data, World Bank staff used primarily household survey data (IEG, 2017[21]).

surveys, especially surveys that can be used to produce internationally comparable statistics,[24] which became the workhorse of development data production in the run-up to the Millennium Development Goals (MDG)-era[25] and have underpinned a vast body of research in medical science and economics (Short Fabic, Choi and Bird, 2012[55]). Since the 1990s, these investments have led to a pronounced increase in the availability of household survey data (Figure 6a), especially in low-income countries (Figure 6b).

Figure 6. Number of household surveys by programme and country income group, 1985-2017

(a) Number of household surveys by programme, 1985-2015

(b) Number of DHS per country-year, 1990-2017, by World Bank income group in FY19
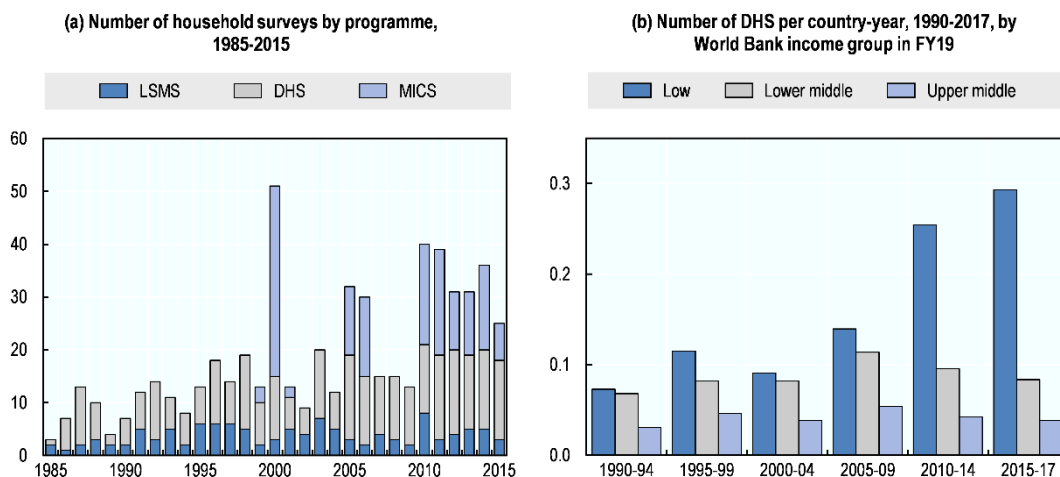
Note: LSMS stands for the World Bank's Living Standards Measurement Study (LSMS) programme; DHS for USAID's Demographic and Health Surveys; and MICS for UNICEF's Multiple Indicator Cluster Surveys.
Source: Author's elaborations based on metadata from World Bank (2020[56]) Microdata Library, https://microdata.worldbank.org/index.php/home.

Beyond their importance in generating internationally comparable development data, household surveys have advantages for donors: they typically provide ready-to-use data in a few months' time; inputs and results are easy to monitor; and the risk of delays or cost overruns is generally low. In contrast to administrative data systems, the implementation of household surveys also requires little co-ordination with government agencies other than the NSOs. These surveys are thus suitable to the kind of project-type support that providers are increasingly opting for (see below). Yet household surveys are not necessarily conducive to developing sustainable capacity, as the role of the NSO is often reduced to recruiting and fielding enumerators while questionnaire designs are typically standardised and data analysis conducted by development agencies or contracted out to international consultants. Household surveys are not necessarily strategic priorities of NSOs: a recent survey finds that only 16% of NSOs cited household surveys as their number one priority while more than half cited administrative data sources, including civil registration and business registers (PARIS21, 2018[43]).

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[24] Examples of donor-funded household survey programmes include the World Bank's Living Standards Measurement Study (LSMS) programme, USAID's Demographic and Health Surveys (DHS), and UNICEF's Multiple Indicator Cluster Surveys (MICS).

[25] By one estimate, more than half of the MDG indicators could be measured using internationally comparable household survey data (Muñoz and Scott, n.d.[92]).

Sustainability

There is some evidence that capacity development tends to be more sustainable when delivered as part of broad-based support to specific policies or reforms (IEG, 2017[21]). In the 1980s and early 1990s, for instance, the World Bank's technical assistance projects in Uganda, which are widely seen as having been instrumental in building the foundation for Uganda's strong statistical system, had the twin objective of facilitating the design and implementation of economic reforms and fostering longer term institutional development (World Bank, 1995[57]). In the late 1990s and early 2000s, support to statistics was often linked to the implementation of poverty reduction strategies, whose focus on long-term development and poverty analysis and monitoring would pave the way towards investments in surveys and other sources of official statistics. And over the course of the early 2000s, some NSOs benefited disproportionately from budget support,[26] an aid modality designed explicitly to ensure country alignment and which created robust demand for more data in-country (e.g. on poverty levels and trends or service delivery) (OPM, 2009[22]).

With the establishment of PARIS21, the World Bank's Trust Fund for Statistical Capacity Building and the Marrakesh Action Plan for Statistics, the year 1999 saw support to statistics become a sector within development co-operation in its own right (IEG, 2011[58]). These initiatives were set up in response to the growing importance donors attached to development results and a recognition of the importance of having the right data for results monitoring – more and better data were urgently needed, not least to monitor progress towards the MDGs. But while these initiatives raised awareness for the need for more and better data and were followed, initially, by a sustained increase in donor financing of statistics (see Section 2), they may also have resulted in an increase in stand-alone support to statistics that lacked a clear link to policies and reform efforts.

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[26] The Uganda Bureau of Statistics, for instance, was a major beneficiary of general budget support *vis-à-vis* other government entities. At its peak, general budget support accounted for less than 30% of the overall government budget (DEVAL, 2018[59]) but 70% of the Uganda Bureau of Statistics' budget (UBOS, 2002[83]).

Figure 7. Share of funding for data and statistics by type of aid, 2010-18
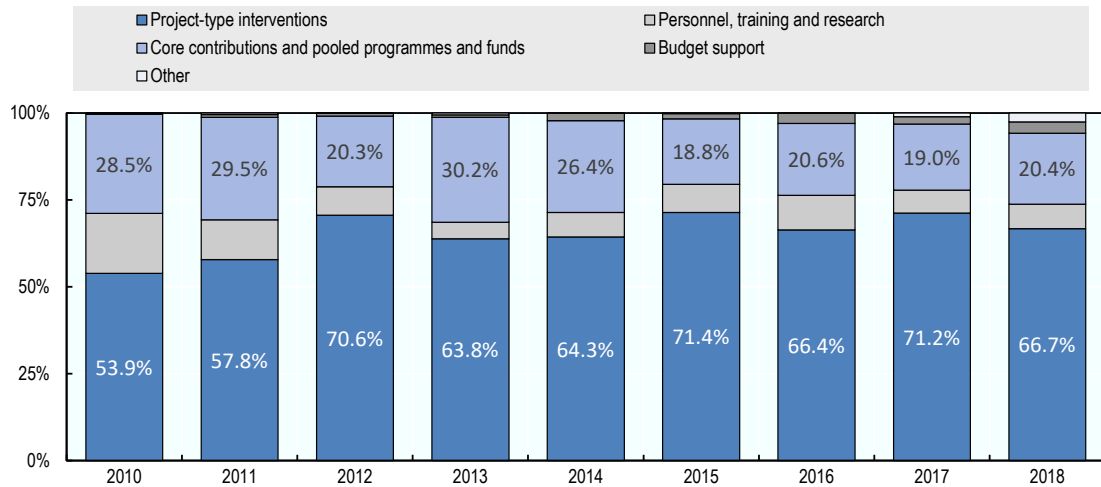
Source: Author's calculations based on data on disbursements (2018 prices) from OECD (2020[39]), *Creditor Reporting System (CRS) Aid Activity Database*, https://stats.oecd.org/Index.aspx?DataSetCode=CRS1.

More recent changes in aid modalities could lower the effectiveness and sustainability of support to national statistical systems. When the budget support era ended in the early 2010s, aid budgets were often restructured towards project-type interventions (DEVAL, 2018[59]) that typically allow for greater provider oversight. Support to data and statistics was no exception: the share of disbursements delivered as project-type aid increased from around 54% in 2010 to nearly 67% by 2018 (Figure 7).[27] As argued above, project-type support may be better suited for one-off, short-term outputs such as surveys or censuses as opposed to long-term capacity development and the strengthening of administrative data systems.

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[27] A notable exception to this trend is the European Union, which still delivers more than one-fifth of its ODA in the form of budget support. This decision shapes the way the EU supports statistics: in 2017, it reported that its support in this area focused on statistics for key societal variables, which are often needed as performance indicators.

4 A closer look at DAC members' support for data and statistics

DAC members' financial assistance to data and statistics

Most Development Assistance Committee (DAC) members provide some financial and technical support for data and statistics. Twenty-seven out of the 30 DAC members reported financial assistance under the designated purpose code for statistical capacity building between 2010 and 2018.[28] While 2 out of 22 respondents to a 2017 survey among DAC members– Portugal and Sweden – considered statistical capacity development a strategic priority of their development co-operation in 2017, 16 DAC members reported that they provide support even if it's not an explicit priority of the development policy (Sanna and Mc Donnell, 2017[24]). Twenty-nine DAC members provided some support to data and statistics at some point between 2010 and 2018, although their level of support varied widely, from annual disbursements of around USD 60 million (in 2018 prices) for the United States, the EU and the United Kingdom to less than USD 100 000 for Slovenia, Hungary and the Slovak Republic (Figure 8).

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[28] As noted previously, amounts reported under this purpose code provide a low estimate of total support to statistics. Some DAC members, notably Switzerland and the United States, support statistics and statistical capacity development but do not report against the designated CRS purpose code.

Figure 8. DAC members' funding of data and statistics, 2010-18
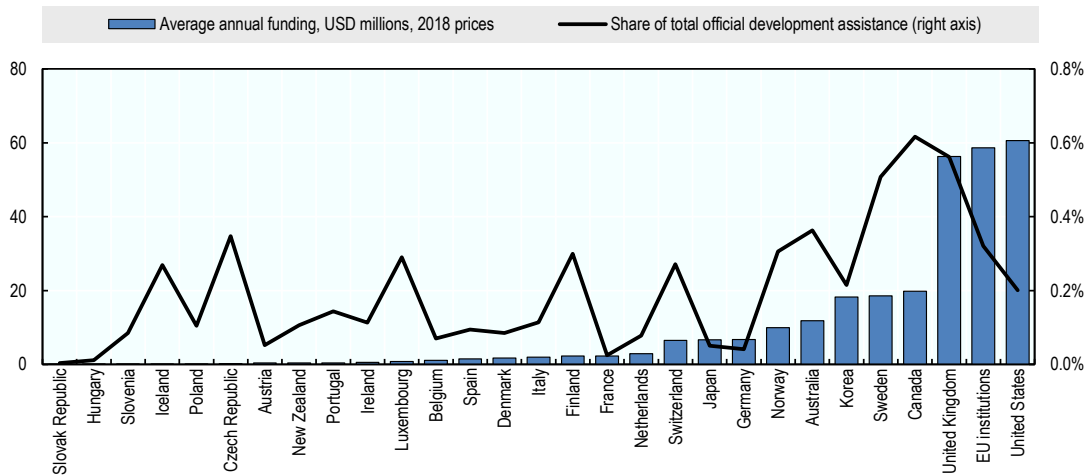
Source: Author's calculations based on data on disbursements (2018 prices) from OECD (2020[39]), *Creditor Reporting System (CRS) Aid Activity Database*, https://stats.oecd.org/Index.aspx?DataSetCode=CRS1.

DAC members also differ in the share of total ODA that supports statistics. Some allocate comparatively large portions of their total ODA to activities in support of statistics, including Canada (0.62%), the United Kingdom (0.56%), Sweden (0.51%), Australia (0.36%), the Czech Republic (0.35%), Norway (0.31%), Finland (0.30%), Luxembourg (0.29%), and Iceland and Switzerland (0.27%). Nevertheless, support to statistics appears fairly concentrated among DAC members. The ten largest providers of financial support to data and statistics account for more than 90% of all bilateral support from DAC members and the 3 largest providers alone account for more than 60% of all support to statistics from DAC members.[29]

Trends in funding since 2010 also differ across DAC members, with some members significantly scaling-up their support, especially since 2015 (Figure 9). Out of the ten largest providers among DAC members, funding for data and statistics from Australia and Korea increased significantly between 2010 and 2018; funding from Canada and the United States also increased; and funding levels of the European Union, Sweden, Norway and the United Kingdom remained roughly constant. Funding from Germany and Japan decreased over this time period.

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[29] Author's calculations. See Annex A for details.

Figure 9. Trends in DAC members' support to statistics, 2010-18

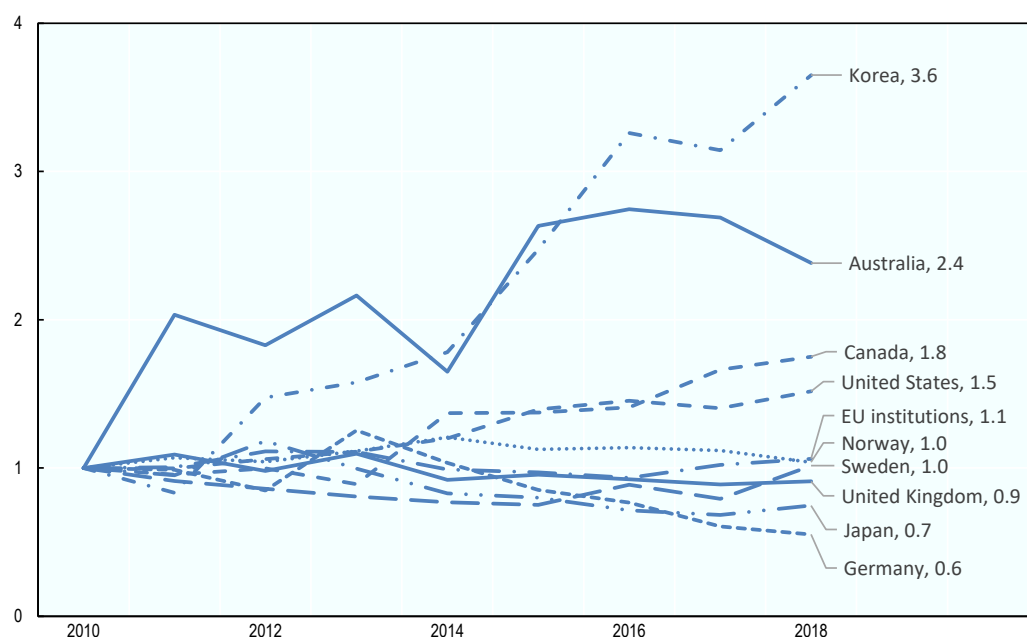Note: 2010 = 1. Series is based on exponential smoothing with smoothing parameter set to 0.5.
Source: Author's calculations based on data on disbursements (2018 prices) from OECD (2020[39]), *Creditor Reporting System (CRS) Aid Activity Database*, https://stats.oecd.org/Index.aspx?DataSetCode=CRS1.

Policy objectives, types of support and links with other ODA

Policy objectives

DAC members differ in the extent to which support to data and statistics is anchored in their overall strategy for development co-operation. In some cases, support to data and statistics is derived directly from the overarching strategy for development co-operation or thematic strategies. Sweden's Policy Framework for Swedish Development Cooperation and Humanitarian Assistance (Government of Sweden, 2016[60]), for instance, notes the importance of reliable data and statistics as key to ensuring transparency, openness and effectiveness in relation to the 2030 Agenda. Its strategy for capacity development defines the objective to contribute to "[b]etter possibilities and strengthened capacity for actors in partner countries to implement, follow up and participate in the global dialogue on the 2030 Agenda" (Government Offices of Sweden, 2019[61]).

In addition to objectives derived directly from over-arching strategies for development co-operation, the cross-cutting nature of data and statistics (see Section 3) gives rise to a multitude of wider policy objectives for support in this area. The rationale for support may be linked to providers' priority sectors and themes, aiming, for instance, to expose gender disparities or public health issues, to build the evidence base on environmental resources, or to enhance participatory development and good governance.

The most common policy objectives of DAC members' financial assistance to data and statistics among those for which markers exist in the DAC CRS data[30] were participatory development and good governance; gender equality; environment; and reproductive, maternal, newborn and child health (Figure 10). On average, more than half of DAC members' financial assistance to data and statistics aims to enable participatory development and good governance and around one-third has gender equality at least as a significant objective.

Figure 10. Share of DAC members' support to data and statistics for which a specific policy area is a significant objective, 2014-18
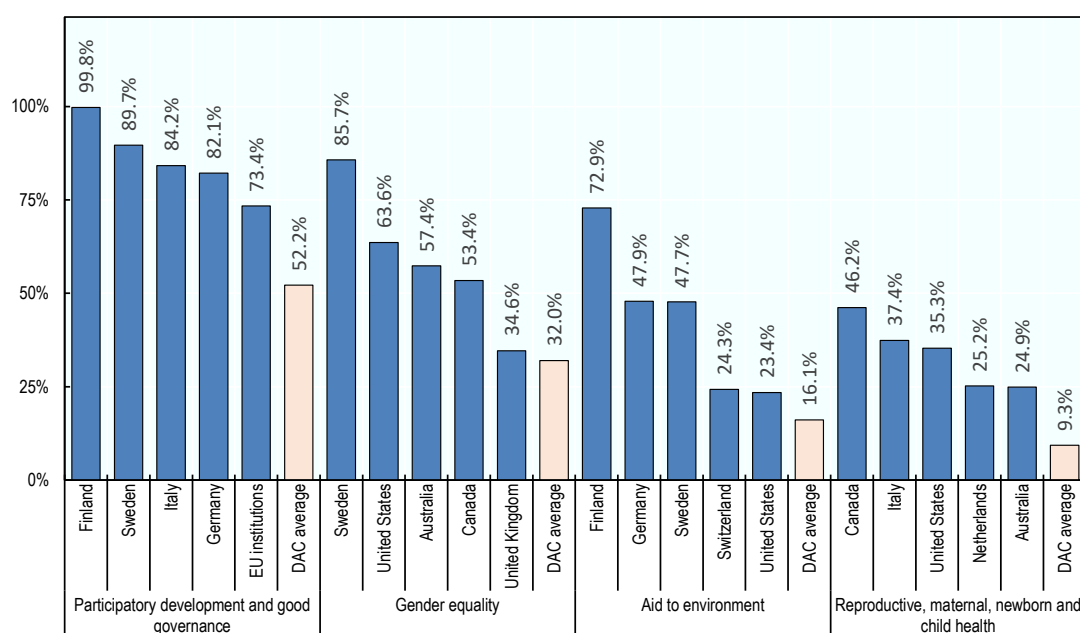
Note: Markers for policy objectives typically are coded in three categories: "principal objective", "significant objective" and "not targeted". For this graph, the first two categories were combined. Support to reproductive, maternal, newborn and child health is coded differently and was identified here as being a significant policy objective if at least half of the support aims to improve these areas. In each domain, only projects that were screened were also considered. Only the 15 DAC members for which total disbursements between 2014 and 2018 were greater than USD 10 million (in 2018 prices) were considered for being displayed individually.
Source: Author's calculations based on data on disbursements (2018 prices) from OECD (2020[39]), *Creditor Reporting System (CRS) Aid Activity Database*, https://stats.oecd.org/Index.aspx?DataSetCode=CRS1.

However, there is significant variation across DAC members here as well. For instance, nearly all of Finland's support in this area aims to strengthen participatory development and good governance and 72.9% is identified as aid to environmental causes, significantly higher shares than for the average DAC member. Sweden, which emphasises global gender equality as one of five perspectives in its 2016 Policy Framework (Government of Sweden, 2016[60]), allocates 85.7% of its support to data and statistics to activities that have gender equality at least as a significant policy objective. Compared to other DAC members, Canada, Italy and the United States all put significant emphasis on improving the health of mothers and their children

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[30] The analysis is based on policy markers in the OECD's Creditor Reporting System, indicators of the policy objectives of aid. Policy markers have been created for a range of objectives, but are not exhaustive. For more information, see OECD (2020[84]).

Types of support

The 2017 *Development Co-operation Report: Data for Development* argues that the development of statistical capacity is a long-term process that encompasses investments in people and institutions as well as improvements in the environment in which NSOs operate (OECD, 2017[25]). Traditional approaches to developing statistical capacity are often limited to training and workshops focusing on building the technical skills of NSO staff or improving business procedures. In addition to these core capacities to produce and use statistics and data, PARIS21 stresses the importance of investing in other key capacities to ensure sustainability, such as leadership skills and human resource management (PARIS21, 2020[62]).

More broadly, evaluations have found that sustainability can be increased when the users of statistics are actively involved and capacity to use data and statistics is also built (IEG, 2011[58]; OPM, 2009[22]). Some more recent initiatives have increasingly focused on data users. An example are Data Collaboratives for Local Impact (DCLIs), a programme set up by the Millennium Challenge Corporation (MCC) and the United States President's Emergency Plan for AIDS Relief (PEPFAR) that seeks to improve the capacity of individuals, communities and organisations to use data to solve development challenges (Millennium Challenge Corportation, 2020[63]). Finally, international development actors can play an important role in advocating for greater use of data and evidence with partner governments and institutions (IEG, 2017[21]).

In a 2017 DAC survey, most DAC members stated that their support aims to strengthen data production and dissemination (Table 1). Support to data use and statistical literacy of data users is less common: 40% of DAC members noted that they also support these aspects of the data ecosystems. Only two DAC members noted that they also support statistics through advocacy on the value and impact of data and statistics.

Table 1. Type of support offered by DAC members, 2017

	Improving statistical production	Strengthening data dissemination	Advocacy on the value/impact of data and statistics	Statistical literacy of data users	Promotion of the use of data
	← Supply-side interventions		Demand-side interventions →		
Australia	√	√		√	
Belgium	√				√
Canada	√	√			√
Denmark	√				√
EU	√	√			
France	√	√	√	√	√
Germany					√
Italy	√	√		√	
Japan	√	√		√	
Korea	√			√	√
Netherlands					
New Zealand	√			√	√
Norway	√			√	
Portugal	√	√			
Sweden	√	√		√	
Switzerland	√	√	√	√	√
United Kingdom	√	√			
United States	√	√			√

Source: 2017 survey of DAC members. See Sanna and Mc Donnell (2017[24]), "Data for development: DAC member priorities and challenges", https://www.oecd.org/dac/WP35%20Complete.pdf.

DAC members also differ in the extent to which they apply a sectoral focus in their support to statistics. Ten DAC members reported that their support to statistics focuses on specific sectors (e.g. health or education statistics) while five reported that they took a flexible approach that aims to be driven by partner country priorities, citing, for instance, support for partner countries' national strategy for the development of statistics.

Links with other ODA

DAC members' support to data and statistics also differs in the extent to which it is connected to other official development assistance (ODA). As argued in the previous section, linking statistical capacity development to other programmes offers the opportunity to increase the visibility of statistics in the provider's dialogue with its partners, potentially increasing the chance to build demand in tandem with capacity to produce data.

On the other hand, the development of some statistical systems, especially administrative data systems, can take many years, with benefits accruing over an even longer time period. While these long time horizons may make it difficult to create links with other initiatives, the public good nature of official statistics (see Section 2) can still render these activities desirable. Stand-alone activities can have the advantage of offering more flexibility to respond to partners' priorities. Also, support delivered in the form of core funding of multilateral initiatives has advantages but will typically forego opportunities that can come through connecting it with other bilateral ODA.

An interesting example in this regard is Norway's NSO, Statistics Norway, which plays an important role in Norway's overall support to data and statistics. While it often supports partner

countries through stand-alone, broad-based institutional support that offers ample flexibility, it also provides support under Norway's Oil-for-Development programme, in which case the focus is typically more narrowly on macroeconomic and energy sector statistics (Statistics Norway, 2020[64]).

Delivery modalities and channels

Delivery modalities

Delivery modalities range from projects (i.e. sets of inputs, activities and outputs to reach a specific objective or outcome within a defined time frame, budget and geographical area) and other technical assistance (e.g. through the provision of personnel, training and research) to core contributions to multilateral organisations, non-governmental organisations, and basket funds to sectoral or general budget support (contributions channelled directly through the recipient country's budget).

Between 2014 and 2018, the last five years for which data are available, DAC members on average provided close to 60% of their financing for data and statistics in the form of project-type interventions, an ODA category that can include infrastructure investment, but also technical co-operation activities, feasibility studies or capacity building projects (OECD, 2013[82]). Core contributions and contributions to pooled programmes and funds accounted for close to 25% of DAC members' support on average. The provision of experts, training and research outside of projects accounted for much of the remainder. Other types of aid, including budget support, accounted only for a very small share on average.

Again, there is considerable variation across DAC members. For instance, project-type interventions account for more than 50% of total funding of data and statistics in a majority of DAC member countries and for a share in excess of 90% in Korea and the United States. Japan, Canada and the United Kingdom provide a larger share of their support in the form of core contributions or contributions to pooled programmes and funds. Finland is the only country which provides a significant share of its support – nearly two-thirds – in the form of budget support.

Figure 11. DAC members' support to data and statistics by type of aid and use of multilateral system, 2014-18

(a) By type of aid

Legend:
- Project-type interventions
- Personnel, training and research
- Core contributions and pooled programmes and funds
- Budget support
- Other

Country	Project-type interventions	Other segment
Korea	93.8%	
United States	90.8%	
Germany	82.3%	
EU	81.0%	
France	79.3%	17.1%
Switzerland	76.9%	23.1%
Netherlands	71.3%	25.2%
Australia	62.6%	33.2%
Sweden	57.8%	31.0%
Norway	57.5%	29.2%
Italy	50.6%	44.5%
Japan	45.9%	48.8%
Canada	41.1%	45.3%
United.	37.1%	53.9%
Finland	32.5%	65.4%

(b) Use of multilateral channels

Legend:
- Core contributions
- Project-type interventions
- Personnel, training and research

Country	Value
Canada	68.5%
Netherlands	67.5%
United Kingdom	62.6%
Switzerland	53.5%
Italy	51.6%
Japan	47.0%
Australia	46.5%
Germany	45.0%
Finland	32.5%
EU	27.9%
Sweden	26.5%
Norway	24.2%
France	2.0%
Korea	1.4%
United States	0.9%

Note: Including only 15 DAC members for which total disbursements between 2014 and 2018 were greater than USD 10 million (in 2018 prices).

Source: Author's calculations based on data on disbursements (2018 prices) from OECD (2020[39]), *Creditor Reporting System (CRS) Aid Activity Database*, https://stats.oecd.org/Index.aspx?DataSetCode=CRS1.

Channels

DAC members often deliver a significant share of their support to data and statistics directly to public sector entities in their own country or in partner countries: between 2014 and 2018, DAC members channelled on average close to 40% to public sector entities, accounting for more than 50% for nine DAC members. France, Korea, Poland and Portugal all channelled more than 90% of their support to public sector entities. Support in the form of peer-to-peer collaboration between NSOs, an integral part of support to data and statistics provided by Korea, Norway, Poland, Portugal, Sweden and others, is typically classified as support channelled through public sector entities in the donor country.[31]

The second-most important channel was earmarked contributions to multilateral organisations,[32] so-called "Bi/Multi" aid (OECD, 2020[65]), accounting on average for 36% of support across DAC members. Among DAC members that disbursed at least USD 10 million to data and statistics between 2014 and 2018, Australia, Canada, Germany, Italy, Japan, the

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[31] Norway could also be listed here. However, support channelled through Statistics Norway is classified not under "public sector" but under "teaching and research institutions."

[32] Core funding to multilaterals is not captured in the data and would in any case not be assignable to programmes and projects of multilateral organisations in support of data and statistics in developing countries.

Netherlands, Switzerland and the United Kingdom all relied on Bi/Multi aid to deliver upward of 40% of their financial support (Figure 11b).

Use of multilateral channels can take different forms. For instance, DAC members or other providers may contribute to trust funds supporting global programmes and managed at multilaterals' headquarters.[33] Alternatively, they may take the form of initiatives at the regional[34] or country level.[35] Contributions to multilateral organisations can also be distinguished between softly earmarked contributions, whereby the allocation of core funding to projects is decided by the multilateral organisation, and tightly earmarked contributions, whereby the DAC member allocates funds to specific projects of the multilateral organisation (Figure 11b).

Support through other channels is important only for some DAC members: Australia, for instance, channelled about one-third of its support between 2014 and 2018 through the Data for Health Initiative, a donor country-based non-governmental organisation founded by Bloomberg Philanthropies and the Australian government (Bloomberg Philanthropies, n.d.[66]). According to OECD data, the United States between 2016 and 2018 channelled more than USD 130 million (in 2018 prices) through domestic private sector entities, including more than USD 110 million for private companies acting as implementers of USAID's MEASURE DHS (Demographic and Health Surveys) project (USAID, n.d.[67]).

Partner countries

Low-income countries and fragile states tend to be less likely to have key statistical systems in place (see Figure 1). While low-income countries are not necessarily in a position to finance statistical production from domestic resources, developing statistical capacity in fragile contexts faces additional challenges (OPM, 2009[22]).[36] DAC members differ substantially in the share of country allocable[37] support they invest in statistics and data in low-income countries and fragile states (Figure 12). The Netherlands, Italy, Canada, Japan, the United Kingdom and Norway all target more than 70% of their allocable support to statistical capacity development to least developed countries or other low-income countries and more than 75% to fragile states.

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[33] Examples include the World Bank's Trust Fund for Statistical Capacity Building, the IMF's Data for Decisions Trust Fund or the United Nations Population Fund Population Data Thematic Fund.

[34] For instance, Japan's support to the UN Statistical Institute for Asia and Pacific or Australia's support to the Secretariat of the Pacific Community in support of the implementation of the Ten Year Pacific Statistics Strategy.

[35] For instance, the Evidence for Development project in Nepal, which is funded by the Department for International Development yet implemented by the World Bank, the United Nations Population Fund and others.

[36] Countries in fragile situations, especially countries emerging from conflict or crisis, often have a very low statistical base, there is often both low demand and low supply of data and statistics and statistical capacity building may not be a high priority for partner governments (OPM, 2009[22]).

[37] Note that not all resources DAC members disburse can be allocated to specific countries or regions. The analysis that follows is based on the share of support to data and statistics that can be assigned at the relevant level, which can differ significantly between DAC members. Annex B provides more details.

Germany,[38] Switzerland[39] and France,[40] on the other hand, allocate less than 10% of their allocable support to data and statistics to least developed countries and other low-income countries.

Figure 12. Support to data and statistics by recipient income group and fragility status, 2014-18

(a) Country allocable aid by recipient income group

LDCs | Other LICs | LMICS | UMICS | MADCTs

Country			
Netherlands	89.0%		
Italy	81.1%		
Canada	79.1%		
Japan	73.6%	22.4%	
Norway	70.4%	24.7%	
United Kingdom	65.5%	26.9%	
Sweden	63.7%	25.1%	
Australia	61.4%	19.0%	19.6%
United States	56.5%	37.7%	
EU	40.9%	32.0%	25.9%
Korea	35.7%	40.3%	24.0%
Finland	34.2%	65.6%	
Germany	19.1%	73.6%	
France	89.3%		
Switzerland	90.9%		

(b) Country allocable aid by recipient fragility status

Fragile | Non-fragile

Country	Fragile	Non-fragile
Netherlands	96.5%	
Italy	93.8%	
United Kingdom	91.0%	
Norway	79.7%	20.3%
Canada	77.8%	22.2%
Japan	77.5%	22.5%
United States	74.8%	25.2%
Sweden	72.7%	27.3%
Australia	59.8%	40.2%
EU	54.4%	45.6%
Switzerland	47.6%	52.4%
Korea	35.7%	64.3%
Finland	34.2%	65.8%
Germany		90.2%
France		92.0%

Note: Excluding DAC members whose country allocable support totalled less than USD 10 million in 2018 prices. LDCs: least developed countries; LICs: low-income counties; LMICs: lower middle-income countries; UMICs: upper middle-income countries; MADCTs: more advanced developing countries and territories. Fragility is based on the DAC list of fragile states. See Annex B for a discussion of country allocable support.
Source: Author's calculations based on data on disbursements (2018 prices) from OECD (2020[39]), *Creditor Reporting System (CRS) Aid Activity Database*, https://stats.oecd.org/Index.aspx?DataSetCode=CRS1.

A key feature of Australia's support to middle-income countries is its regional focus on small island developing states in the Pacific region. These states tend to be lower middle-income countries which are also classified as fragile.[41] The EU allocates more than one-fourth of its

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[38] Top recipients of Germany's support include Azerbaijan and Brazil, where Germany has been supporting land registration systems.

[39] Key projects for Switzerland over this time period include the State Secretariat for Economic Affairs' support for the development of business registers in Viet Nam, and the Swiss Agency for Development and Co-operation's core funding and support for census work to the Palestinian Central Bureau of Statistics at various times. Both Viet Nam and the Palestinian Authority are classified as lower middle-income.

[40] The recipient of the largest share of France's support was Wallis and Fotuna, classified as upper middle-income, where France supported the development of an education management information system.

[41] Examples are Papua New Guinea and the Solomon Islands.

support to upper middle-income countries, a result of its focus on countries in neighbouring regions such as Central Asia and North Africa.

In general, DAC members often focus their support in specific geographic areas, in some cases their own geographical neighbourhoods (Table 2). Examples include New Zealand's support to countries in Oceania and, to a lesser extent, EU support to countries in Europe, Central Asia and North Africa. Members also provide support based on historical ties: co-operation partners of Statistics Portugal, for instance, are largely NSOs of other Portuguese-speaking countries.

Table 2. Country allocable support to statistics by region, 2014-18

		Africa	America	Asia	Europe	Oceania
New Zealand		0.0%	0.0%	0.0%	0.0%	100.0%
Ireland		99.6%	0.0%	0.4%	0.0%	0.0%
Finland		1.8%	0.0%	98.2%	0.0%	0.0%
Belgium	More concentrated →	96.0%	0.0%	4.0%	0.0%	0.0%
Denmark		0.0%	2.0%	94.7%	3.3%	0.0%
Czech Republic		4.9%	1.3%	6.9%	86.9%	0.0%
France		2.6%	1.8%	9.7%	0.0%	86.0%
Netherlands		19.3%	0.0%	80.3%	0.4%	0.0%
Portugal		79.3%	14.9%	5.8%	0.0%	0.0%
Switzerland		11.0%	0.2%	77.1%	11.7%	0.0%
Italy		73.9%	1.7%	24.4%	0.0%	0.0%
United Kingdom		66.1%	0.4%	33.3%	0.1%	0.0%
Australia		0.0%	0.0%	51.9%	0.0%	48.1%
Spain		62.5%	32.7%	4.8%	0.1%	0.0%
Norway		62.4%	2.3%	28.6%	6.7%	0.0%
Austria	← Less concentrated	59.1%	0.0%	33.7%	7.3%	0.0%
Korea		14.2%	23.1%	62.5%	0.0%	0.2%
United States		60.5%	9.3%	29.3%	0.6%	0.2%
Japan		42.0%	0.2%	50.0%	0.2%	7.6%
Sweden		55.3%	4.7%	16.3%	23.7%	0.0%
Germany		4.1%	26.2%	53.9%	15.8%	0.0%
Luxembourg		37.0%	46.8%	16.2%	0.0%	0.0%
Canada		50.0%	32.2%	9.5%	7.9%	0.4%
EU institutions		47.2%	5.2%	18.6%	29.0%	0.0%

Notes: DAC members ranked by a common measure of concentration, the Herfindahl-Hirschman Index, defined as the sum over squared shares, from most concentrated to least concentrated. DAC members that provided less than USD 1 million in support between 2014 and 2018 were excluded. Note that only funding that can be assigned to regions was included here. See Annex B for a discussion of region-allocable support.
Source: Author's calculations based on OECD (2020[39]), *Creditor Reporting System (CRS) Aid Activity Database*, https://stats.oecd.org/Index.aspx?DataSetCode=CRS1.

DAC members' support: strengths, opportunities and risks

DAC members' approaches to supporting national statistical and data systems show substantial variation – in terms of the type of support offered, priorities, modalities, channels and selection of co-operation partners. What are the opportunities that these different approaches offer to overcome challenges of co-ordination, ownership and sustainability examined in Section 3?

Consider first the following (stylised)[42] taxonomy of common features of DAC members' support:

- **NSO-led technical assistance:** The development co-operation provider supports the production-side of statistical capacity in partner countries through technical assistance delivered by the provider's own NSO. Support is typically delivered in the form of project-type interventions, experts or other technical assistance channelled directly to partner country NSOs. Peer-to-peer interactions between NSOs tend to be important in determining what type of capacity is supported and relationships between NSOs are often long term and cover collaboration in different areas of statistics.

- **Whole-of-system:** The provider aims to address a lack of statistical and data literacy on the part of users, but also a more general lack of awareness of the advantages of data use for decision making, through investments in skills and resources of data users, and an overall enabling policy, political and cultural environment, perhaps supplemented by support to data production.

- **Multilateral:** The provider channels support through multilateral initiatives and implementing partners, either global initiatives aimed at strengthening statistics in a specific domain or at country level.

- **Sectoral:** The provider supports the production of statistics and/or statistical capacity as part of bilateral support to a particular sector (e.g. support in setting up health management information systems to allow for better monitoring of the results of broader support to health systems).

These approaches have distinct strengths and offer distinct opportunities in light of the key challenges associated with donor co-ordination and alignment to country priorities discussed in Section 3. However, they also face specific risks.

An approach built around DAC members' NSOs or other technical agencies will often be well-positioned to establish trusting relationships with NSO leadership and staff and an understanding of the constraints and opportunities they face. This type of support is thus conducive to addressing constraints in terms of technical or organisational capacity. In addition, DAC members' NSOs are generally not mandated to support the production of specific data and statistics. They are thus at liberty to provide flexible support that aligns well with sister organisations' priorities. On the other hand, a strong focus on NSOs may face constraints in partner countries in which the NSO is disconnected from policy making and has insufficient domestic support and standing to assert its priorities and to co-ordinate statistical activities across the wider national statistical system. The approach may also be less effective in a context in which a lack of statistical literacy among key data users is a binding constraint.

An approach that aims to foster statistical and data literacy of data users inside and outside of government, perhaps along with support to data production and dissemination, has the potential to overcome what was described earlier as a vicious cycle, in which a lack of quality data gives rise to low capacity to use data and vice versa (see Section 2). However, partly as a result of its novelty, evidence on the effectiveness of support that aims to strengthen statistical and data literacy among users is currently limited. Programmes in other domains that aim to build skills, such as vocational or financial literacy training, have often been found to have only modest effects at best while being comparatively costly (McKenzie, 2017[68]; Bruhn, Lara Ibarra and McKenzie, 2014[69]). To the extent that insights from the literature on financial literacy education

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[42] Many DAC members or individual agencies fall into more than one category, employing different approaches in different contexts or in parallel.

apply, targeting children or youth may be more effective than targeting adults (Bruhn et al., 2016[70]; Entorf and Hou, 2018[71]).

Support channelled through multilateral organisations has the potential to achieve significant scale, which can reduce the administrative burden for partners and may be important in some contexts to overcome multiple binding constraints. It also puts providers in a position to leverage technical expertise housed in multilaterals or, in the case of multilateral development banks, to unlock additional funding. On the other hand, multilateral organisations are often mandated to ensure short-term data collection to inform international indicators and can lack incentives to triage statistical capacity at the country level.

Finally, statistical capacity development in the context of sectoral support has the potential to raise awareness of key data gaps in a specific sector and links with other projects and programmes present opportunities to stimulate demand for data and statistics in partner countries' administration. On the other hand, there are often only limited incentives to seek synergies with other parts of the NSS, most notably the NSO, as this can appear to add additional complications with little obvious benefits for the primary objectives of sectoral support. Table 3 provides a summary of the strengths, opportunities and threats of these different approaches.

Table 3: Strengths, opportunities and threats of different approaches to supporting statistics and statistical capacity development

	NSO-led technical assistance	**Whole-of-system**	**Multilateral**	**Sectoral**
Strengths	• Long-term, flexible engagement conducive to building technical and organisational/ management capacity in accordance with partner priorities	• Conducive to identifying and addressing constraints to effective data use across the entire data ecosystem	• Greater harmonisation/ co-ordination between providers • Lower transaction costs for partners and providers	• Clear link between support for data and statistical capacity and the strategies and results to be achieved in the sector
Opportunities	• Building the understanding of country-specific national statistical office (NSO) challenges and long-term, trusting relationships	• Identifying the potential of new technologies for data production and use in specific country contexts	• Achieving scale, linking with other activities of multilaterals and harnessing of their resources (e.g. additional funding or technical skills of staff)	• Win-win: developing statistical systems in concert with sectoral priorities that often attract significant funding
Threats	• Interactions at the level of NSOs may fail to address lack of demand for data and statistics from across government and lack of NSO capacity to manage data production and compilation across national statistical system	• So far, there is limited evidence on the effectiveness of interventions aiming to build statistical and data literacy	• Potential for bias towards priorities/mandates of multilateral organisations	• Support tied to sector-specific and project/programme data risks being fragmented, siloed and duplicative • Limited incentives for ensuring NSO involvement or alignment with priorities in statistical development (e.g. national strategies for the development of statistics)

5 Conclusion

This policy paper takes stock of levels and trends in funding for development data. It has highlighted opportunities and challenges in donor co-ordination for statistics and alignment to country priorities, before zooming in on Development Assistance Committee (DAC) members' approaches to supporting data and statistics in their partner countries.

Key takeaways

First, a well-documented lack of key statistical sources and data in the poorest countries, combined with available information on funding from domestic and external sources, strongly suggests that overall funding for development data is insufficient. This report has highlighted characteristics of data and statistics that can result in weak incentives for investment, including vicious cycles between insufficient investment and weak capacity to use data and low returns on investment in data in countries that lack complementary data systems. The increase in ambition for development data that came with the Sustainable Development Goals (SDGs) has so far not been met by a concomitant increase in funding.

Second, support to data and statistics may be particularly susceptible to co-ordination challenges and a lack of country ownership. Both imperil the sustainability of statistical capacity that providers strive to help build. Providers are often a source of strong demand for data, be it for their own planning or results monitoring or because they are mandated to monitor progress against specific international development goals. An increase in the number of providers and differences in their priorities increase the administrative burden on partners and render co-ordination costly.

Ensuring country ownership will be challenging whenever strong demand for data and statistics from donors encounters weak domestic demand. Weak domestic demand will often translate into a lack of domestic funding and political support for NSOs, high reliance on donor funding and a lack of capacity within the NSO to co-ordinate activities with other parts of the NSS. It is under these circumstances that NSOs or other data-producing government agencies will find it difficult to take the lead and guide development partners. It is also under these circumstances that support to official statistics that require inputs from multiple government agencies will be the most challenging.

Third, DAC members take different approaches to supporting data and statistics in their partner countries, including peer-to-peer support built around strengthening the technical and organisational capacities of national statistical offices (NSOs), support channelled through multilateral channels, support aimed at fostering demand for data and statistics inside and outside of government, and support in the context of other activities in specific sectors. Despite this heterogeneity, DAC members consulted for this research often identified similar opportunities to make their support more effective. These include better co-ordination and agreeing on and following good practice guidance, scope for more strategic direction in support to statistics, mainstreaming and internal co-ordination of support within individual members'

institutions, and better guidance and good practices in relation to the increasing digitalisation of development data.

Ways forward

Addressing critical gaps in development data will require additional funding from both domestic and external sources. However, additional funds will be easier to unlock if there is a demonstrable increase in the effectiveness of current levels of support. The findings in this paper suggest several ways forward to improve the effectiveness and sustainability of providers' support to data and statistics:

First, there are clear opportunities to learn more about what works in developing sustainable statistical capacity and under which circumstances. This includes the advantages and disadvantages of different modalities and types of support in different contexts and the taxonomy put forward in the previous section provides starting points. It also includes aspects of co-ordination within individual members' institutions and opportunities associated with new technologies.

Second, mechanisms to improve co-ordination at the country level should be explored, being realistic about the fact that co-ordination among providers is costly. These could range from increased information sharing about providers' support and developing country gaps, something currently under consideration by the Bern Network, to developing best practices to converge on joint priorities and to better align to country priorities.

Lastly and most importantly, NSOs and the wider national statistical system need to be put in a position to assert their priorities *vis-à-vis* their partners. Providers should thus explore ways to strengthen the standing of these institutions in their partner countries. While they should clearly seek to raise the profile of data and statistics in their policy dialogue, this should ideally also entail specific actions that aim to alter the incentives of providers and their partners.

For instance, providers could explore ways of funding that leave it to countries which types of data and statistics they want to develop. Sectoral budget support is one option and so are cash-on-delivery aid models that specify a wide range of data and statistics that qualify for financial assistance.[43] Providers of sectoral support could also commit to setting aside funds for official statistics, much as resources are typically set aside for project monitoring and evaluation.

These actions, which would need to be implemented at scale to meaningfully alter incentives, clearly entail a significant change in how data and statistics are currently being supported in developing countries. However, persistent gaps in key statistical sources and the potential benefits for both countries and providers of development co-operation suggest they are well worth exploring.

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[43] A similar idea was discussed in a joint report by the Center of Global Development and the African Population and Health Research Institute (CGD, 2014[95]).

Annex A. Identification of support to statistics from the OECD Creditor Reporting System database

This report uses information on providers' financial support to statistics and statistical capacity development that is extracted from the Creditor Reporting System (CRS), the official source of information on aid flows maintained by the OECD. The data are collected at the project level and this report uses information reported for the years 2010-18, the last year for which data are available. This annex explains how information on providers' support to statistics and statistical capacity building was extracted.

Identification of projects that support statistics or statistical capacity from the CRS database is not trivial, mainly because data and statistics are a cross-cutting issue. While reporters have the opportunity to report support aimed at "statistical capacity building" under a designated purpose code (16062), extracting only that information underestimates total funding for statistics (OECD, 2019[72]) and provides a partial picture of both the number of development co-operation actors engaged in this area and the range of activities in support of data and statistics.

Method

In addition to projects that were recorded under the purpose code for statistical capacity building, additional support was identified by scanning project titles for specific terms indicative of support to statistics, data or statistical capacity building. Descriptions in project titles were first transformed to lower case letters and then classified as being in support of statistics or statistical capacity building if they contained any of the terms in Table A.1.

Table A.1. Search terms used to identify provider support to statistics and data from project titles in the CRS database

| English	French	Spanish	Portuguese
statisti		estadisti, estadísti	estatísti
national account	comptes nationaux	cuentas nacionales	contas nacionais
price index	indice des prix	indice de precios, índice de precios	índice de preço, indice de preco
production index	indice de production	índice de produccion, indice de produccion	índice de produção, indice de producao
survey	enquête, enquete	enquesta	inquérito, inquerito
census	recensement	censo	
information system	système d'information, systeme d'information	sistema de información, sistema de informacion	sistema de informação, sistema de informacao
birth registr	enregistrement des naiss	inscripción del naci, inscripcion del naci	registo dos nasci
death registr	enregistrement des déc,	inscripción del defunc,	registo do óbito, registo do

	enregistrement des dec	inscripcion del defunc	obito
civil registr, crvs	registre civil	registro civil	registo civil
land registr	enregistrement fonc, enregestriment des terrai	inscripción de tierra, inscripcion de tierra, registro de tierra	registo de terren, registo de propriedad
cadaster	cadastre	catastro	cadastro
business registr	registre des entrepr, registre du commerce	registro mercantil	registo das empresas, registos comerciais
database	base de données, base de donnees	base de datos	banco de dados
big data			
data for decisions	données pour les décisions, donnees pour les decisions	datos para decisiones	dados para decisões, dados para decisoes
data science	science des données, science des donnees	cienca de datos	ciência de dados, ciencia de dados
data for development	données pour le développement, donnees pour le developpement	datos para el desarrollo	dados para desenvolvimento
data journalism	journalisme de données, journalisme de donnees	periodismo de datos	jornalismo de dados
data for education	données pour l'éducation, donnees pour l'education	datos para la educación, datos para la educacion	dados para educação, dados para educacao
education data	données sur l'éducation, donnees sur l'education	datos educativos	dados educacionais
data for health	données pour la santé, donnees pour la sante	datos para la salud	dados para saúde, dados para saude
health data	données de santé, donnees de sante	datos de salud	dados de saúde, dados de saude
refugee data	données sur les réfugiés, donnees sur les refugies	datos de refugiados	dados de refugiados
migration data	données de migration, donnees de migration	datos de migración, datos de migracion	dados de migração, dados de migracao
data collection	collecte de données, collecte de donnees, collecte des données, collecte des donnees, rassemblement des données, rassemblement des donnees	recopilación de datos, recopilacion de datos, colección de datos, coleccion de datos, compilación de datos, compilacion de datos	regocida de datos
action through data			
data project	projet de données, projet de donnees	proyecto de datos	projeto de dados
open government data	données publiques ouvertes, donnees publiques ouvertes		
open data	données ouvertes, donnees ouvertes	datos abiertos	dados abertos
openstreetmap			
satellite data	données satellites, donnees satellites	datos satelitales	dados de satélite, dados de satelite

In a second step, the resulting projects were analysed manually and some projects were subsequently removed. Examples include projects in support of surveys that are arguably not part of official statistics (e.g. surveys of unexploded ordnance and geological surveys) and projects that cited evidence from surveys or information systems in project titles but which did not themselves support these activities.

Results

Using the above procedure, additional support to statistics and statistical capacity was identified, accounting for 40-65% of all records in the data (with non-zero disbursements) and 50-70% of the total disbursements between 2010 and 2018 (in 2018 prices).

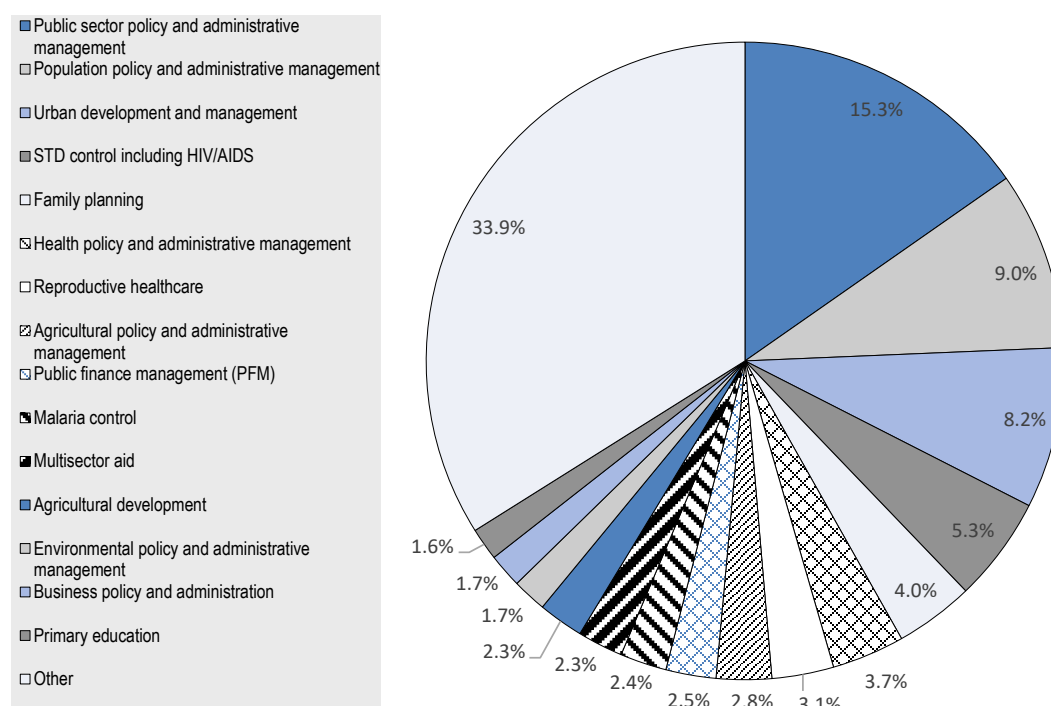**Figure A.1. Number of records and disbursements by source of data, 2010-16**
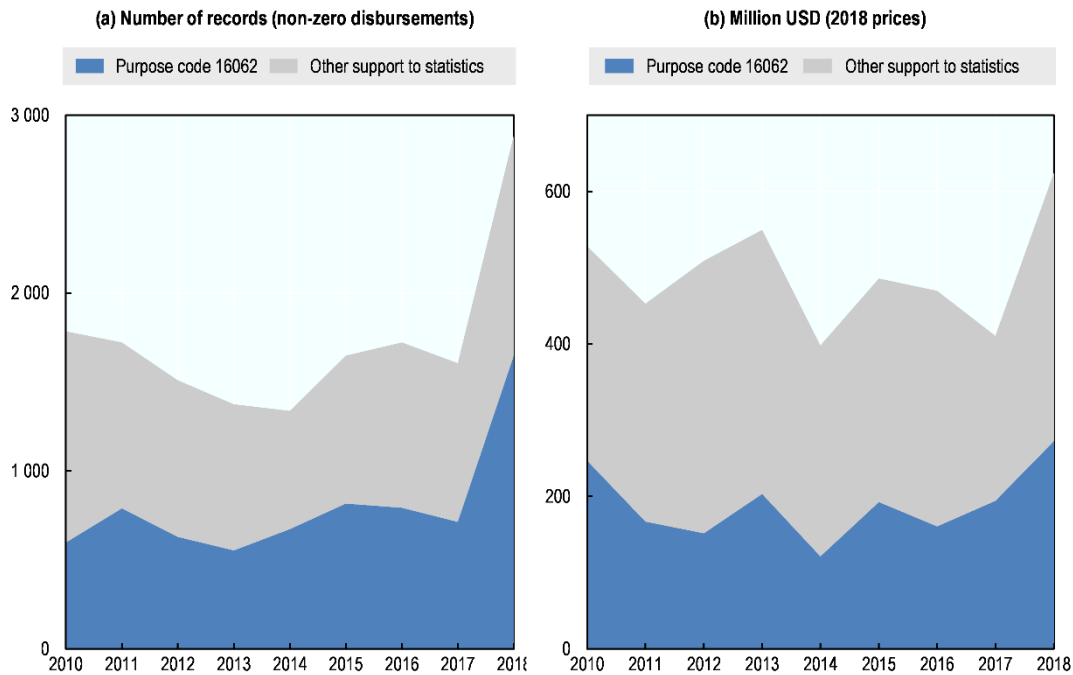
Source: Author's calculations based on OECD (2020[39]), *Creditor Reporting System (CRS) Aid Activity Database*, https://stats.oecd.org/Index.aspx?DataSetCode=CRS1.

Additional projects identified are recorded under a wide range of purpose codes. The most important ones in terms of total disbursements between 2010 and 2018 are:

- public sector policy and administrative management (15.3%)
- population policy and administrative management (9.0%)
- urban development and management (8.2%).

Figure A**.2. Additional projects identified in support of statistics and data, 2010-18**

Source: Author's calculations based on OECD (2020[39]), *Creditor Reporting System (CRS) Aid Activity Database*, https://stats.oecd.org/Index.aspx?DataSetCode=CRS1.

At least until recently, the clarifications for reporters of the above purpose codes indeed often used statistical concepts. For instance, they describe "public sector policy and administrative management" as "[i]nstitution-building assistance to strengthen core public sector management systems and capacities", including "monitoring and evaluation", which may well involve strengthening of public sector statistics and data collection or analysis. "Population policy and administrative management" was described, until recently, as "[p]opulation/development policies; **census work, vital registration; migration data**; demographic research/analysis; reproductive health research; unspecified population activities" (emphasis added). And the purpose code for "urban development and management" is meant to record, among other things, support to "land registries."

In addition, USAID's funding of the Demographic and Health Surveys is recorded under a wide variety of purpose codes. But the largest portion falls under purpose codes for "family planning" (13030, USD 82.8 million in 2018 prices), "STD control including HIV/AIDS" (13040, USD 69.4 million), "reproductive healthcare" (13020, USD 64.2 million) and "malaria control" (12262, USD 60.9 million). These purpose codes were the 4th, 5th, 6th and 7th most important in terms of total disbursements among additional projects identified.

DAC members differ widely in whether their support to statistics between 2010 and 2018 was recorded under the designated purpose code for statistical capacity building or some other purpose code. Yet, for all DAC members, with the exception of Iceland, some projects were identified that are likely to be supporting data and statistics yet were not recorded under the purpose code for statistical capacity building. In relative terms, support not classified under this purpose code was particularly important for the Slovak Republic, Hungary, the United States, Switzerland, Finland, Ireland, France, Korea, Denmark and Belgium. It was less important in

relative terms for Iceland, Portugal, the United Kingdom, Sweden and Luxembourg. In absolute terms, it was important primarily for the United States (USD 545.5 million), EU institutions (USD 307.9 million), Korea (USD 144.1 million), the United Kingdom (USD 136.8 million), Canada (USD 130.4 million), Australia (USD 42.7 million) and Switzerland (USD 57.3 million).

Figure A.3. Share of support to data and statistics identified through scanning project titles, 2010-18
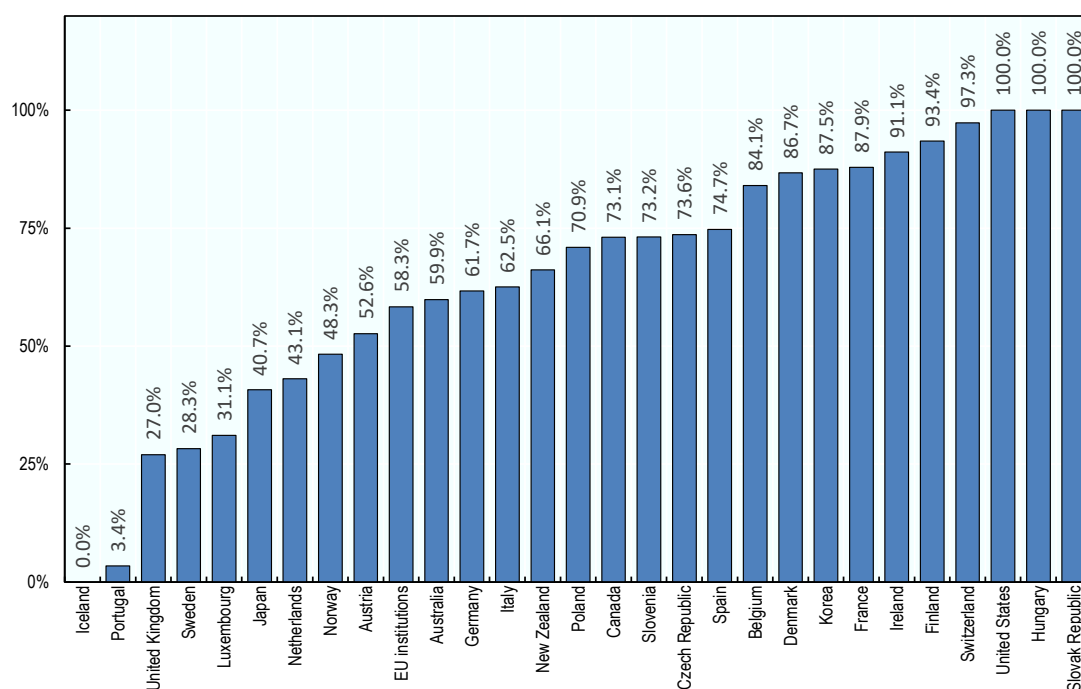
Source: Author's calculations based on OECD (2020[39]), *Creditor Reporting System (CRS) Aid Activity Database*, https://stats.oecd.org/Index.aspx?DataSetCode=CRS1.

Comparison with PARIS21's PRESS-estimate of total support to statistics

PARIS21 publishes annual estimates of total support to statistics in its Partner Report on Support to Statistics (PARIS21, 2019[38]). It is also mandated to produce data for SDG Indicator 17.19.1, the "[d]ollar value of all resources made available to strengthen statistical capacity in development countries". Over the period 2010-17, the PARIS21 estimate was on average just under 30% higher than the estimate that the method used here produces.

There are both similarities and differences between the method used here and that used by PARIS21 that explain the observed differences:

- **Provider survey:** In addition to text-mining not unlike the method described above, PARIS21 fields a survey to major providers of financial support to statistics. Notable respondents include the World Bank, Eurostat and the International Monetary Fund, all of which are among the top five providers in terms of support in the last two PRESS reports (PARIS21, 2018[73]; PARIS21, 2019[38]). Eurostat is the only DAC member organisation that has participated in the survey in the past.

- **Purpose codes admitted:** To control for context, PARIS21 restricts the extraction of additional projects in support of statistics from the CRS database to 20 purpose codes (PARIS21, 2018[73]). In contrast, our analysis employs no restriction on purpose codes. Purpose codes found here to be quite important in the present analysis, especially the four codes under which the United States tends to report funding to the DHS programme, are not considered for the PARIS21 estimate.

- **Commitments vs. disbursements:** The PARIS21 estimate is based on commitments, which measure donors' intentions to spend in the future, whereas the present paper uses disbursements, i.e. actual payments, throughout. While differences should even out as commitments are realised, especially over longer time periods, commitments typically tend to fluctuate more year-on-year.

Remaining caveats

The method described here and used in this paper is not ideal and caveats remain:

- The OECD/DAC encourages all providers of development co-operation to report their aid flows and many do report flows. However, only DAC members are under an obligation to do so.[44] As a result, the approach used here may result in an underestimate of support by non-DAC providers.

- Support to data and statistics will in some cases be delivered as part of a larger project or programme. To the extent that project titles make no reference to the data/statistics component, they will not be included in the present analysis.

- Conversely, the method used here captures some projects that have non-data/ non-statistics components that would nevertheless be included in the total if reference is made to the statistics component in the project title.

To provide a more holistic picture of official development assistance support to development data, other sources of information were used for this research, including interviews with programme managers and experts from DAC member institutions, other providers, and international CSOs (Annex C); country reports on support to statistics (CRESS), stock-taking exercises led by countries and supported by PARIS21 that are currently available for a dozen countries; a survey of DAC members conducted in 2017 (Sanna and Mc Donnell, 2017[24]); and a review of the relevant literature (e.g. academic papers, evaluations, project documents, etc.).

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[44] See: https://www.oecd.org/dac/stats/non-dac-reporting.htm.

Annex B. Allocability of financial assistance by region and by recipient country

In interpreting the analysis presented in Section 4 on the allocation of Development Assistance Committee (DAC) members' financial support by recipient country and region, it is important to keep in mind that not all financial assistance is allocable by region or country and that this share differs across providers. For instance, financial assistance may be provided in the form of core funding to international organisations working in different regions, in which case it will often not be allocable by country nor by region. Similarly, aid may be provided to regional organisations or earmarked for regional programmes and projects, in which case it will be allocable by region, but not by country. Figure B.1 provides a breakdown of the share of DAC members' financial support to data and statistics by allocability.

Figure B.1. Allocability of financial assistance by region and by recipient country, 2010-18
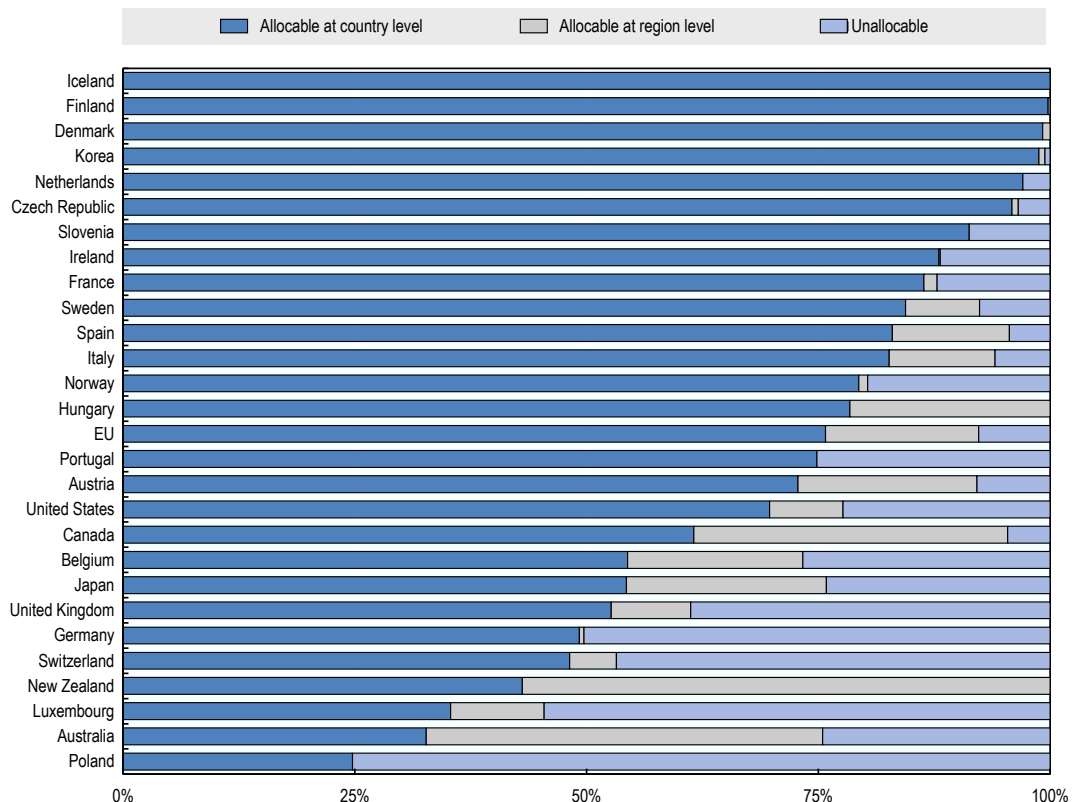
The share of support that is allocable at the country level varies from only 24.7% for Poland to 100% for Iceland. Zooming in on the ten DAC members that provided the largest amount of funding for data and statistics between 2010 and 2018 – the United States, the European Union, the United Kingdom, Canada, Korea, Sweden, Australia, Norway, Switzerland and Japan – five allocate at least one-fifth of their support in a way that it cannot be allocated at the regional level. These are: Switzerland (46.8%), the United Kingdom (38.8%), Australia (24.5%), Japan (24.1%) and the United States (22.3%). Australia and Canada stand out for a large share of financial assistance that can be allocated to a specific region, but not to a specific country.

Various global or regional initiatives, which do not earmark funding by country, account for the relatively lower share of country allocable support, of which the following provide examples:

- Switzerland supports the IMF's Data for Decisions (D4D) multi-donor trust fund as well as PARIS21.

- The United Kingdom provides core funding to a wide range of multilateral organisations. Among the largest contributions were support of the World Bank's Trust Fund for Statistical Capacity Building, a global initiative.

- Australia is the main contributor to the Bloomberg Philanthropies' Data for Health Initiative (Asia region), the Ten-Year Pacific Statistics Strategy (Oceania region) as well as core funding for UN WOMEN (global), greatly explaining the large share that cannot be allocated by country.

- Japan is a major supporter of the United Nations' Statistical Institute for Asia and the Pacific.

- Funding of the Demographic and Health Survey programme, a global initiative, accounts for the largest share of the United States' unallocable financial assistance.

- Canada supports the Project for the Regional Advancement of Statistics in the Caribbean, a regional initiative.

Annex C. Consultations with DAC members and key partners

Table C.4. Overview of consultations with DAC members between September 2019 and April 2020

Country	Organisation(s)
Belgium	Federal Public Service Foreign Affairs and Enabel
Canada	Global Affairs Canada, International Development Research Centre, Statistics Canada
Denmark	Ministry of Foreign Affairs, Statistics Denmark
Finland	Ministry of Foreign Affairs
Germany	Federal Ministry for Economic Cooperation and Development (BMZ), German Corporation for International Cooperation GmbH (GIZ)
Greece	Ministry of Foreign Affairs
Ireland	Irish Aid, Department of Foreign Affairs and Trade
Italy	Italian Agency for Development Cooperation (AICS)
Japan	Japan International Cooperation Agency (JICA)
Korea	Economic Development Cooperation Fund (EDCF), Korea Eximbank
Netherlands	Ministry of Foreign Affairs
Norway	Norwegian Agency for Development Cooperation (NORAD), Statistics Norway
Portugal	Ministry of Foreign Affairs (MNE)
Spain	Ministry of Foreign Affairs, European Union and Cooperation (MAEUEC)
Sweden	Swedish International Development Cooperation Agency (SIDA), Statistics Sweden
Switzerland	Swiss Agency for Development Cooperation (SDC), State Secretariat for Economic Affairs (SECO)
United Kingdom	Department for International Development (DFID)
United States	United States Agency for International Development (USAID), Millennium Challenge Corporation (MCC)
Others	World Bank, the United Nations Population Fund, United Nations Children's Fund, PARIS21, Open Data Watch, Development Gateway

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