

How to fund official statistics production to support statistical principles and ethics

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Abstract. The amount together with the modalities of provision of funds and other resources to statistical offices create opportunities for pressure on statistical principles and ethics via various means of interference in official statistics and via the development of self-censorship. A shorter time distance between the provision of funds and statistical production leads to more risks for ethics. So does a shorter distance in terms of political involvement in the use of funds in statistical production. We make a proposal for a multiannual statistics office budget to be adopted by the legislature, with its implementation lagged by more years than in an electoral cycle, and for setting up a trust fund fed by predetermined transfers from the government and by a prespecified share of a tax. An annual lump sum allocation would be made from the trust fund to the statistics office by a law-provided committee of representatives of users reflecting official statistics' global public good nature. Full financial autonomy would be given to the statistics office to use the resources provided. A set of additional specific conditions are discussed that ought to be provided for in national law to supplement and support the implementation of this proposal, including for safeguarding good financial management, efficiency and accountability in the use of resources.

Keywords: Official statistics, funding, budget, resources, principles, ethics

1. Introduction and overview of main points

The provision of resources is a fundamental aspect of the institutional environment for the production of official statistics. This paper argues that both the amount of funding for official statistics production and the modalities of that funding provide opportunities for pressure on statistical principles and ethics and thus greater risks would arise under some institutional setups than others. Section 2 of the paper discusses these matters. A critical point made is that the amount of funding allocated to official statistics production does not have to be actually restricted for there to be adverse effects on statistical principles/ethics; any lack of authority of the statistics producer to use the resources available to it is enough.

Section 3 briefly provides a stylized view of usual funding modalities of official statistics and an assessment of these modalities. It points to the very significant control the political side (the executive and the legislative branches of government) has on funding official statistics production for a given year and even from quarter-to-quarter within a year as well as on using this funding. It identifies two important metrics of this control: the time distance between allocation of funds and statistical production and the distance (proximity) in terms of political involvement in the use of funds in statistical production. A decrease in either distance leads to more risks for principles/ethics. Thus, the paper argues that the answer to supporting principles and ethics in official statistics lies in addressing these distances.

Section 4 briefly looks into what some major codifications of statistical principles and ethics currently say about funding of official statistics and concludes that these codifications are insufficient in this respect and have to be amended to address this problem.

Section 5 presents a proposal for funding official statistics with a view to supporting statistical princi-

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ples and ethics. It calls for adequate – taking account of views of statistical producers – and assured amount of funds allocated for the duration of a usual statistical project cycle, available for use at a time beyond one electoral cycle, readily useable by the statistics office, minimizing the possibility of interference by political interests, and maximizing accountability to society, always cognizant of the conflicts of interest of the political/policy side. Section 5 fleshes out the proposal to specify the adoption by the political side of a multiannual statistics office budget for 6–8 years based on the statistics office’s multiannual program, and implementation of the budget beginning 5 years after its adoption, assuming a 4-year electoral cycle. The annual statistics office budget would be financed by a trust fund, which in turn would be fed by predetermined annual transfers from the government and a prespecified small percentage of the annual receipts of an existing tax. The annual lump sum allocation from the trust fund would be provided to the statistics office by a law-specified committee of representatives of users of statistics reflecting official statistics’ global public good nature.³ The statistics office would have full financial autonomy to use the resources provided. Section 5 goes on to discuss a list of specific conditions that ought to be provided for in national law to supplement and support the implementation of the above proposal on funding official statistics production. A very important subset of these conditions is setups and processes to ensure good financial management, efficiency in the use of resources, and accountability.

Section 6 of the paper discusses the likely results from adopting the above proposal. They include the decoupling of the funding of official statistics from the political process associated with a government’s annual budget adoption and implementation. There is an increase in the distance – in time and in involvement – from the political decision to provide funds to the use of funds to produce statistics. Adequacy in the amount of resources available and certainty of their flow increase. Capacity for statisticians to use these resources also increases, accompanied by an increase in their accountability. Politicians become more stewards for the long-term of the societal resource that official statistics is and less masters of it. Accountability to them declines while it increases to the broader society consistently with the global public good nature of official statistics. The attendant increase in institutional independence of official

³A discussion of the global public good nature of official statistics is available in [1].

statistics production strengthens statistical principles and ethics: professional independence, impartiality and objectivity, and quality in general.

Section 7 of the paper concludes with some additional reflections on the feasibility of the proposal made in this paper and the consistency of the proposed setup with the democratic process.

2. Inadequacy/insufficiency of funds and incapacity to use available funds

The lack of adequate resources in an official statistics producer, as well as the lack of authority to use any resources available to the statistics producer, as well as the lack of authority to use whatever resources are available to the statistics producer, are enabling conditions for a number of modalities of manipulation of official statistics.⁴ Specifically, the amount of funding allocated does not have to be restricted to introduce risks for statistical principles/ethics. Any lack of authority of the statistics producer to use the resources available to it amounts to lack of effective/operative funding; and it introduces risks. For example, the resources may look adequate on paper (e.g., in the approved budget), but decisions on their actual use may be up to politicians/policy makers (e.g., on hiring of needed staff and expertise or even undertaking established surveys).

2.1. Risks from inadequacy/insufficiency of funds and incapacity to use available funds⁵

Risk 1:

Inadequacy of funds and/or incapacity to use available funds enable the outright suppression of specific statistical products that are deemed politically undesirable. The risk can materialize as suppression of official statistics for the long term (e.g., a statistical product fails to be produced as it is politically undesirable indefinitely) or as suppression of official statistics for the short-term (e.g., a delay in the publication of a revision in statistics that is undesirable at this point in time for some political reason).

Risk 2:

Inadequacy of and/or incapacity to use funds enable the ‘sidelining’ or ‘crowding out’ of an official statistics

⁴For a discussion of how in general enabling conditions combine with other elements in a process to give rise to manipulation of (corruption in) official statistics see [2].

⁵These risks are not simply theoretical possibilities. There exist real world cases where the risks discussed here materialized.

Box 1. A dog training allegory

How to train your dog using food

- ✓ You make sure you are the one who gives food, and thus you are the one to obey. If others give the food, the dog obeys them and not you ⇒ **Establish who the master is**
- ✓ You make sure you periodically take the food away when the dog is in the middle of eating ⇒ **Establish who the master is**
- ✓ You reward desirable behavior with food and you keep food away for undesirable behavior ⇒ **Ensure the link between resource provision and desirable behavior is clear; put pressure to comply**
- ✓ You make sure you reward the dog as soon as it performs the desired behavior; delays in reward undermine behavior modification ⇒ **Maximize clarity of connection between resource provision and desirable behavior**
- ✓ You do not give the food all at once but little by little, rewarding instances of desirable behavior along the way with bits of food ⇒ **Maximize leverage and control with incremental provision of resources**
- ✓ When after a while the dog does everything it is asked to do at a hint of food coming, you make sure to reward that and to not reward any occasional indifferent behavior ⇒ **Reward self-motivation/self-censorship with minimum management**
- ✓ At the end of the training process, when the dog is trying to please you by doing the desired behavior, even if you have not asked for anything, you make sure to reward its efforts ⇒ **Reward eagerness to please, complete self-motivation and self-censorship**

producer by alternatives provided by the political/policy side, which can take over in a couple of different ways the production of certain ‘sensitive’, for a political point of view, official statistics. One way can be that certain official statistics get to be produced wholly by policy or policy-controlled institutions or by private sector entities chosen by and catering to the policy side. Another way can be that the official statistics producer becomes critically dependent on ‘expertise’ from the policy side, and policy side staff with such ‘expertise’ end up exerting significant influence in critical statistical processes and decisions. Finally, another way is the creation of thoroughly ‘mixed teams’ of official statisticians and policy staff, and the de facto domination of statistical decisions by the policy side.

Risk 3:

Inadequacy of and/or incapacity to use funds serve to create the conditions for undermining the credibility of the official statistics, which leads to *delegitimation* of the statistics. One way this can be achieved is by undermining the *actual* quality of official statistics by depriving statistical production of necessary financial, human or other resources leading to the production of inaccurate statistics and as a result the credibility of the statistics is damaged. Alternatively, *delegitimation* can take place by undermining the *image* of the quality of the statistics with conjured phony ideas and fabricated information about the quality of statistics when an official statistics producer has inadequate resources to handle these reputation attacks (in terms of own human, ICT, legal counsel, and public relations resources). The result is that the reality statistics are supposed to depict is perceived in a distorted manner, either because the statistics are actually inaccurate or because the public sees them as inaccurate and the public believes instead in ‘alternative facts’ propagated by political interests.

Risk 4:

Inadequacy of and/or incapacity to use funds can be used by the government or the legislature to reward/punish and signal to official statistics producers regarding the statistics produced. This can affect the professional independence and the impartiality and objectivity of official statisticians in a couple of ways: (i) as they perceive the signal from the politicians and to the extent that they potentially modify their behavior to take account of nonstatistical considerations; (ii) as they potentially engage in self-censorship taking into account *past* signals from those they perceive as their ‘political masters’.⁶ The basic principles for achieving and reinforcing these behavioral modifications with the manipulation of the amount of resources and the use of particular modalities of provision of resources are not fundamentally different from those utilized in many other different training regimes (see Box 1).

3. Usual funding modalities of official statistics production and their assessment

A stylized view of usual funding modalities of official statistics production is as follows:

- National Statistics Office (NSO) budget allocation is approved annually as part of the annual budget law proposed by the executive and adopted by the legislature (or similar)
- Every year the NSO has to argue for its budget allocation and the executive (and/or legislature) can agree to it or decide to modify it

⁶It is the author’s experience that some official statisticians in informal conversations refer to politicians and policy makers as “the political masters”. This kind of nomenclature, unfortunately, reflects inappropriate relations of domination between politicians/policy makers and official statisticians and can be observed even in developed statistical systems.

- In some national statistical systems, the legislature can vote on specific line items, each corresponding to a specific statistical activity of the NSO
- Often, there is a discretionary quarterly allocation to the NSO from its approved annual budget; allocation is controlled by the government
- Often, spending authorizations and budget implementation for the NSO are not in the purview of the NSO but in that of a policy body
- In cases where official statistics production is embedded in a policy body (ministry, department, central bank), its funding is often part of the budget and budget implementation of the policy body; it may not be distinguishable from other funding allocated to the policy body and is in general more at risk of being reduced/shifted by nontransparent decisions of politicians/policy makers

Assessing the usual funding modalities of official statistics production, one should note the very significant control the political side (the executive and the legislative branches of government) has on funding official statistics production in a given year and even intra-year as well as on using this funding. There are two important metrics of this control:

- *distance in terms of time* between political allocation of funds and statistical production
- *distance in terms of political involvement* in the use of funds in statistical production

Consider a decline in (i) the *distance* in terms of time, from the decision to provide funds to the point of statistical production, and (ii) the *distance* in terms of involvement by the political/policy side⁷ in the actual use of otherwise available funds in statistical production. A fundamental point of this paper is that when this happens there is a strengthening of enabling conditions for less than full independence, impartiality and objectivity, and quality of official statistics in general via the materialization of the risks discussed in Section 2 above.

4. What codes of principles and ethics say about funding official statistics

- **United Nations Principles of Official Statistics (UNFP)** [3] do not discuss the issue of funding

⁷Via specific policy agents, such as the Minister of Finance, and via specific policy processes, such as the approval process of expenditure commitments in the Fiscal Control Service of the Ministry of Finance.

- **European Statistics Code of Practice** [4] has *Principle 3* – “*Adequacy of Resources: The resources available to statistical authorities are sufficient to meet European Statistics requirements*”
 - * *3.1 Human, financial and technical resources, adequate both in magnitude and in quality, are available to meet statistical needs*”
- **Principles and Practices for a Federal Statistical Agency** [5] do not mention funding or resources in the headline statements of the five basic Principles and the ten important Practices to implement the five Principles; there are some mentions in the chapters of the book of the National Academies of Sciences that provides the Principles and Practices⁸
- **UK Code of Practice for Official Statistics** [6] has *Principle 7* – “*Resources: The resources made available for statistical activities should be sufficient to meet the requirements of this Code and should be used efficiently and effectively.*”
 - * *Ensure that statistical services have the staff, financial and computing resources to produce, manage and disseminate official statistics to the standards of this Code*”
- **ISI Declaration on Professional Ethics** [7] and **ASA Ethical Guidelines for Statistical Practice** [8] do not discuss the issue of funding

⁸In the *discussions* offered in the book [5] there are some passages that briefly discuss the need for adequate funding and resources and aspects of how the funding should take place. For example: (p. 15) “The fundamental characteristic of federal statistics as a public good . . . and the demonstrated policy, planning, research, and informational value of today’s portfolio of statistical programs justify adequate budgets for federal statistics. Such funding needs to provide for research and development for continuous improvement in relevance, accuracy, timeliness, and accessibility.” (p. 41) “Another means to protect against political and other undue external interference is for the statistical agency to have its own funding appropriation from Congress separate from that for other departmental agencies or programs. This provides greater visibility and accountability to Congress, both by the agency and by its department. Other funding arrangements, such as the statistical agency being completely dependent on allocations from the budget of its parent department or agency, risk giving the department too much unchecked leverage over the statistical agency without transparency to external stakeholders and users, and potentially compromising its ability to fulfill its mission.” (p. 66) “Having sufficient in-house staff with the required types of expertise is as critical as having adequate budget resources for enabling a statistical agency to carry out its mission. . . . As part of their fundamental responsibilities to support statistical agencies, departments housing statistical agencies should work with and support them in being able to hire a sufficient number of staff with the right expertise to carry out their missions.” Yet, we note that these ideas are not reflected in the headline statements of principles and practices.

In some of the above codifications/lists of statistical principles there is some reference to the adequacy/sufficiency of the funding. However, in these headline statements of principles there is no allusion to the capacity to use allocated funds and there is no suggestion about how the funding of official statistics should take place. Moreover, in none of these headline statements of principles is there any mention of the idea that the way funding takes place affects statistical principles. The only connection made between funding and statistical principles in a codification is that in the UK Code, linking sufficiency of funding and meeting standards in the UK code in general. In the European Statistics Code of Practice there is linking of sufficiency of funding in broader terms to statistical principles as that Code links sufficiency of resources to “meet[ing] European Statistics requirements”.

Thus, the current codifications of statistical principles and ethics have to be deemed insufficient in the above important areas of the “institutional environment” for the production of official statistics. In our view they have to be amended and supplemented to address this problem.

5. Proposal for funding statistical production to support statistical ethics

5.1. Outline of the proposal

In order to support independence, impartiality, objectivity and quality in general in the production of official statistics the following proposal, in brief, could be considered:

Official statistics production should be provided adequate funds – taking account of views of statistics producers – whose magnitude is assured for the duration of a usual statistical project cycle, and which are readily available for use, while minimizing the possibility of interference by political interests, maximizing accountability to society, and being cognizant of conflicts of interest of the political/policy side.

The core of the proposal would comprise four pillars:

1. **Multiannual NSO⁹ budget** to be provided for in law, decided by the executive and legislative

⁹The proposal is presented in terms of the budget of the National Statistics Office (NSO) but applies equally to any Other National Authority (ONA) producing official statistics in the National Statistical

branches of government on year t , for 6–8 years, with budget implementation starting on year $t+5$ (e.g., a 2022 decision to approve the 2027–2033 NSO budget). By law, this budget should aim to be consistent with the implementation of the NSO’s multiannual program¹⁰ and any inconsistencies would have to be publicly reasoned by politicians/policy decision-makers

2. **Multiannual budget to be financed by a trust fund** provided for in law. The trust fund would be fed (with the aim for it to be in surplus) by – predetermined at time t – transfers from the government’s annual budget and by the proceeds from a predetermined sliver of tax receipts (e.g., in the form of (indicatively) 0.15% of VAT/sales tax receipts or 0.5% of profit tax, amounting (indicatively) to allocated tax proceeds of 0.015% of GDP)
3. **Annual lump sum allocation from the trust fund** to the NSO by a law-provided committee of representatives of parliament, government, unions, business groups, the scientific community, civil society, international statistical bodies and international policy organizations. The annual allocation process would be public following submission of a proposal for allocation by the NSO
4. **Full financial autonomy** of the NSO (provided for in law) to use the resources annually allocated to it. The statistical law would provide for control by the NSO of financial, human, IT, office housing, and other resources and for their use consistently with the NSO’s multiannual program

5.2. Explanations of aspects of the proposal

One reason for a 6–8 year multiannual budget is that there should be certainty about the magnitude of

System (NSS), such as official statistics producer units embedded in policy bodies (such as Ministries/Departments or National Central Banks) or more independent public agencies that are tasked with producing official statistics and are part of the NSS (but are not the NSO).

¹⁰The multiannual program of the NSO would be the outcome of an extensive and structured process of consultation with a very wide array of users of official statistics nationally and internationally, starting with the government and legislature and continuing with the other users. It is important for the purposes of the present paper to note that the multiannual program of the NSO would, first of all, have to ensure that all legal obligations regarding provision of official statistics products, arising from national law and from supranational and international treaties, etc., are fulfilled. Specifying further the matters regarding the generation of the multiannual program would be beyond the purview of the present paper.

resources that would be available for the production of official statistics over a long enough time to cover most statistical project development cycles. This would be beneficial to long-term planning and on that account to various quality aspects of official statistics.

Another important reason is that with a multiannual budget covering 6–8 years, official statisticians would not feel as much pressure in the first years *after*¹¹ the multiannual budget has become law – pressure that they would have to release figures palatable to the party in power to receive the next (e.g., annual or quarterly) increment of resources. Thus, this approach reduces leverage and pressure on official statisticians emanating from an incremental provision of resources. It also curtails opportunities for political parties to reward ‘cooperative behavior’¹² of official statisticians and thus to reinforce self-censorship (to serve the political interests of these parties) on the part of official statisticians.

However, there is the issue of potential leverage on official statisticians in the year or two *before* a new multiannual budget is adopted as law, when they could potentially feel significant pressure, worrying about the resources they may or may not receive. To address this matter, the above proposal argues for the multiannual budget that is decided on year t to start being used on year $t+5$. The logic here is that a political party in power in year t will not be in a position to easily ‘trade’ the soon-to-be-decided-upon budget for statistical results that show the party’s performance in a ‘fa-

vorable’ light (or the performance of a competitor party that may have been in power previously in a ‘negative’ light). The lagged initiation of use of the multiannual budget also further reduces opportunities for political parties in power to reward ‘cooperative behavior’ on the part of official statisticians and thus reinforce self-censorship (to serve these parties’ political interests) by statisticians.¹³

The further away the initiation of use of the adopted multiannual budget the better from the point of view of disrupting any potential association/connection between the political party in power deciding on resources for official statistics and the production of the statistics, i.e., the production of the information on the basis of which this political party’s performance will be judged. To make sure the above disruption is as effective as possible, while balancing this with the capacity to foresee the resource needs of statistical production a number of years ahead, the lag in the implementation of the multiannual budget is set in the above proposal five years later, i.e., after one election has surely taken place.¹⁴ In this way, the association/connection, as might be perceived by official statisticians (and users), between resource provision to statistics production and statistical figures potentially palatable to the party in power is further weakened. It becomes more difficult to establish the perception that the political party in power is the ‘master’ of official statisticians.

At the same time, the existence of a trust fund and the mode of ‘feeding’ it with funds as proposed above provide *distance in terms of political involvement* in the allocation of resources to the NSO. This is because, first,

¹¹However, there can still be pressure even in the first years after the multiannual budget has been adopted as law. Pressure on official statisticians can be exerted in many ways, a discussion of which goes beyond the purview of this paper. Here, let us just mention that pressure can inter alia be ‘internally’ generated. In this case it would depend on how official statisticians handled themselves before the multiannual budget was approved. If they actually succumbed to the pressure and manipulated statistics in some way to accommodate political interests, then the need to *avoid cognitive dissonance* will produce ‘internal’ pressure for them to continue to manipulate the statistics even in the years after the multiannual budget is adopted as law. This effect can operate at both the institutional and the personal level. State agencies in general will drive for consistency between what they had done in the past and what they are currently doing. This is particularly strong in the area of official statistics, as changes in statistical approach cannot be easily explained away as ‘acceptable’ changes in policy thinking. Thus, institutions that produce official statistics (and the people that work there) and have produced a false statistical picture with certain techniques will experience an ‘internal’ pressure to continue manipulating statistics so as to avoid the juxtaposition and contradiction with the past and the consequences this may have for the institution, its leadership and its staff.

¹²‘Cooperative behavior’ or being ‘team players’ are euphemisms of what is all too often demanded from official statisticians. These expressions are commonly used by politicians seeking to have influence on statistical figures.

¹³One might express concern that on year t it is being decided what funds will be needed a number of years later (e.g., year $t+11$) and that this would reduce flexibility in responding to society’s needs for statistical products. However, such a concern would be overstated. First, the budget would be approved for the total of six years, not for each year, and thus redistribution between years would be possible. Second, as the trust fund would be fed to be in surplus, it would be possible to allow for some institutionalized, well-reasoned and transparent flexibility in allocations – by the relevant committee – out of the trust fund beyond the total that was envisaged in the approved multiannual budget. This could be the case if, say, an extraordinary need (e.g., new statistics to deal with a new pandemic or with unanticipated environmental or social developments) arose, which was not foreseen in the multiannual statistical program on which the multiannual budget was based. Specifying further the relevant institutional mechanisms and processes would go beyond the purview of this short paper.

¹⁴Elections are assumed here to take place every four years; thus the five year lag. A somewhat shorter lag could be used, as long as it is understood that a shorter lag means potentially more pressure felt by official statisticians and greater association – in these statisticians’ minds – of the politicians in power with ‘masters’.

the trust fund itself provides the possibility for greater remoteness from political/policy processes and actors than some policy process which is the mandate of a government ministry/department. Second, this distance/remoteness is further reinforced by the *pre-determination* (at the time of the adoption of the 6–8 year multiannual budget) of the flows feeding the trust fund: part of the flows would be a difficult-to-change percentage of the receipts of an existing tax and the rest would be specific magnitudes of transfers from the annual government budget.

Further increasing the *distance in terms of political involvement* in the allocation of resources to the NSO would be the existence of the proposed committee that would decide on the annual lump sum allocation from the trust fund to the NSO. The committee, which would be representative of the national and international users of the official statistics produced by the NSO and would control the annual allocation to the NSO's annual budget, is aimed to make society¹⁵ as a whole – and not the national politicians in power – that which official statisticians should have allegiance to.

Finally, full financial autonomy of the NSO is essential in augmenting the *distance in terms of political involvement in the use of resources* in statistical production. Thus, this autonomy further impedes the reintroduction of political masters – and the 'cooperative behaviors' and 'team playing' by official statisticians 'masters' stimulate and reinforce – through the back door of involvement in the *use* of resources available to the NSO.

Summarizing, the above temporal aspects of our proposal are aimed at addressing the need to lengthen the *distance in terms of time* between political decision on the provision of funds and statistical production. Moreover, the above procedural/institutional aspects of the proposal are aimed at addressing the need to lengthen the *distance in terms of political involvement* in the use of resources to produce official statistics. We believe that together these aspects could go a long way towards transforming politicians/policy makers from 'masters' of official statisticians to 'stewards' for the long-term of official statistics.

5.3. Important complementary steps

To support the implementation of the above proposal

on funding official statistics production, national law¹⁶ should also provide:

- that the NSO must have adequate human capital (both in terms of numbers of staff and skills of the staff) and other material resources (e.g., IT)
- that the NSO has a mandate to hire its own staff, with external review of such hiring by an independent international auditor
- that long-term government commitments on NSO staffing are consistent with the multiannual budget and corresponding multiannual program, specifying the minimum and maximum staff numbers and skill sets
- that compensation and benefits of the NSO staff be determined by a distinct public sector process involving an independent compensation and benefits committee, which would make public, reasoned recommendations to the government
- that the funds for official statistics production cannot be used for other purposes; that performance of nonstatistical work/tasks by the staff of an official statistics producer is prohibited
- for penalties for impeding use by the NSO of lawfully available to it resources
- against giving any authority and responsibility in the administration (including financial administration) of the NSO to individuals that are not exclusively and fully officials of the statistics producer

With a legislated multiannual budget and a trust fund set up to fund official statistics production, there is a need to make certain there is *transparency and accountability to ensure efficiency and good financial management* in the allocation and use of the resources provided by society to official statistics. It is very important that society has multiple ways to check if its resources that are devoted to the production of official statistics are used efficiently, lawfully and ethically. A composite of well-functioning accountability setups and processes *addressing all four main pillars of the allocation and use of resources* (I through IV above) should be in place and provided for in law with the explicitly stated aim of achieving good financial management, efficiency and

¹⁵Society is meant here in the widest sense of the word, given the *global public good* nature of official statistics.

¹⁶Most appropriately that would be, in most cases, the national statistical law.

accountability.¹⁷ It should inter alia include:¹⁸

- External audits and their publication
- Internal audits and their publication
- Audits and public reports by the Court of Auditors/ Government Accountability Office
- Parliamentary oversight and hearings
- International assessments (various)¹⁹
- Annual financial reports and their publication
- Annual budget adopted by the NSO and its publication

5.4. *Effects of the proposal*

If the proposal outlined above were to be implemented, the effects would arguably include the following:

- **Decoupling** of the annual funding of the NSO from the annual political process of proposing, adopting and implementing a specific government's budget

¹⁷The law should specify various administrative and criminal penalties for corrupt or otherwise unethical financial management, including for obstructing transparency and accountability. This could, admittedly, be a tricky matter as such legal provisions could be abused to serve political interests in the latter's quest to influence official statistics production. Nevertheless, on balance, such explicit legal provisions would be essential, as leaving any room for abuse of the system by corrupt, self-serving or otherwise unethical managers of resources for official statistics production would be immensely damaging in various ways. A democratic political system with well-functioning checks and balances (including a truly independent judiciary) ought to be able to adopt such legal provisions in appropriate form as well as have them applied in ways consistent with the integrity of official statistics production.

¹⁸Some of these actions would concern a number of the institutions involved. For example, the Court of Auditors could audit and produce public reports on the operation of the trust fund, on the workings of the committee making annual lump sum allocations out of the trust fund, and on the NSO regarding the way it exercises its autonomy to use the resources available to it. Other actions, such as internal audits, would be relevant only for the NSO.

¹⁹Assessments by international entities that are made public would usually be helpful in ensuring transparency and thus accountability. This is because international entities may be less burdened by conflicts of interest than national entities carrying out such assessments. This is because of the often-close relationship or tacit alignment of public as well as private entities within a country with dominant political forces. Yet, international entities can still be subject to conflicts of interest. That is why, it would be advisable to have more than one type of international assessment taking place. For example, international assessments could be carried out (i) as periodic assessments by transparently appointed teams of well-reputed foreign experts (with expertise spanning statistical, legal and auditing/accounting fields), (ii) as periodic audits by reputable international auditing firms and (iii) as assessments by international and supranational institutions with an appropriate mandate and expertise.

- **Increase in distance** between the political decision to provide funds (and other resources) to official statistics production and the use of resources by the NSO to produce official statistics – both in terms of distance of involvement (process/actors) and distance in terms of time
- **Increase of adequacy and certainty** of (financial and other) resources for long term planning of official statistics production with high quality
- **Increase in capacity of statisticians** to control and use (financial and other) resources available to the NSO
- **Making politicians/policymakers more long-term 'stewards' and less 'masters'** of the societal resource that is the information in official statistics, given that politicians/policymakers are facing a fundamental conflict of interest²⁰ when they control the funding of those that produce the information on the basis of which their performance is judged. The risks are decreased, but not eliminated
- **Assurance of accountability of statisticians** on the use of funds and other resources for official statistics production – not exclusively to politicians/policy makers facing conflicts of interest – to society, reflecting the global public good nature of official statistics
- **Increase in institutional independence** of official statistics production and, as a consequence, a **strengthening of application of principles and ethics**: professional independence, impartiality and objectivity, and quality in general

6. Some additional reflections²¹

The proposal outlined above, and specifically the creation of a trust fund that would be fed by predetermined government transfers and a portion of an existing tax and the allocation of funds from the trust fund to the NSO on an annual basis, can sound to some interlocutors as unrealistic and unfeasible. Yet, we believe this impression may not be justified.

²⁰This fundamental conflict of interest and its implications for official statistics is discussed in some detail in [9].

²¹The additional reflections here are the author's responses to comments directed to him during the Invited Paper Session in the ISI2021 World Statistics Congress, in which the present paper was one of those presented. The author is grateful to have received these important comments and for the opportunity to address them.

Systems with some similar elements to the one proposed above already exist for certain (non-statistical) institutions in advanced Western countries. An example is the Patient-Centered Outcomes Research Institute (PCORI) in the United States.²² PCORI's purpose is to study how different medications and treatments compare, so patients and their caregivers have the *information* – there is some similarity here with the aim of official statistics – they need to choose the health care and treatment options that are best for them.²³ It has been funded since the fiscal year 2010 in a way that is analogous in some aspects to our proposal above. The source of PCORI funding is the PCOR Trust Fund (PCORTF). There are two annual contributory sources to the PCORTF: (i) the US Treasury's general fund, transfers from which are decided upfront for the following ten years; and (ii) the PCOR fee, which is a small (2.66–2.79 USD) amount per insured person that is paid by issuers of specified health insurance policies and the plan sponsors of applicable self-insured health plans. The specifics of these funding flows are adopted by the US legislature every ten years [12]. The example of PCORI is not provided here for copying it in official statistics, but to provide a sense that the kind of institutional arrangements discussed in our proposal are not impossible to realize.

Another issue that can be raised by some interlocutors is that “elections have consequences”. The argument would be that the above proposal for funding official statistics, if implemented, would not allow the democratic process to determine what happens in official statistics production. We have two counterpoints to make regarding this important point:

First, the political representatives that get elected to power could always pass legislation that would require the NSO to produce a certain statistical product, such as new health statistics, they deem necessary given their assessment of societal needs, say, on account of an unanticipated pandemic. Therefore, politicians coming to power after an election would still be able to determine **‘what’** statistical information is produced, and this is fully consistent with the principled understanding that politicians determine ‘what’ is to be produced

by official statisticians, while the latter determine the **‘how’**. The existence, as we propose, of a trust fund fed to be in surplus would in principle be able to accommodate such additions to the multiannual statistical program that may already be in place.

In principle, a government newly elected to power could even pass legislation to *discontinue* production of an existing statistical product. For example, if a new government, hostile to climate change views and policies, wanted to stop the flow of information conveyed by greenhouse gas emissions and other climate-change-relevant statistics it could in principle pass legislation that the production of such statistics be discontinued. However, it would *not be able to do that by taking the funding away* from the NSO and would need to take *full political responsibility* for its decision to stop that statistical information from reaching society. In our view that would be more consistent with transparency, accountability and the democratic process.

Second, it is true and – in our view – appropriate that “elections have consequences”; however, elections should not weaken statistical ethics. If elections result in a weakening of statistical ethics, then soon the democratic nature of the elections themselves will be undermined. This is because a pillar of a liberal democratic system is the availability of *information* on the state of society and on the policies undertaken by political representatives in office (and the effects of their policies). Such *information* is an important basis for functioning checks and balances among separate branches of government and for democratic accountability to the electorate. And this *information* is to a large extent depicted in and made available to all in society through official statistics, if, of course, these statistics are produced in accordance with statistical principles and ethics.

Thus, as “democracy dies in darkness”²⁴ and – as we would further add – *democracy demands data*, the system of providing resources to official statistics production has to be set up in such a way so that it cannot be exploited and abused by those democratically elected to office to undermine democracy itself! The goal of this paper has been to show how to set up such a system. Such a system would inter alia also be in the best interest of liberal democracy.

References

- [1] Georgiou A. Towards a global system of monitoring the implementation of UN fundamental principles in national official

²²PCORI is an independent, non-profit, nongovernmental organization in the United States authorized by the Patient Protection Affordable Care Act of 2010 (ACA) and then reauthorized in 2019.

²³PCORI does this by funding comparative clinical effectiveness research as well as supporting work that will improve the methods and infrastructure used to conduct such studies [10]. The amounts have been significant: In fiscal years 2010 to 2017, PCORI made commitments of about 2 billion USD in awards [11].

²⁴“Democracy Dies in Darkness” is the logo of the US newspaper The Washington Post.

- statistics. *Statistical Journal of the IAOS* 33. 2017. Available from: <https://goo.gl/R8NKzU>.
- [2] Georgiou A. The Manipulation of Official Statistics as Corruption and Ways of Understanding it. *Statistical Journal of the IAOS*. 2021; 37(Issue 1). Available from: <https://content.iospress.com/articles/statistical-journal-of-the-iaos/sji200667>.
- [3] United Nations Fundamental Principles of National Official Statistics. UN Statistics Division website. Accessed March 23, 2022 from: <https://unstats.un.org/unsd/dnss/gp/fundprinciples.aspx>.
- [4] European Statistics Code of Practice. Eurostat website. Accessed March 23, 2022 from: <http://ec.europa.eu/eurostat/documents/3859598/5921861/KS-32-11-955-EN.PDF/5fa1ebc6-90bb-43fa-888f-dde032471e15>.
- [5] Principles and Practices for a Federal Statistical Agency. National Academy of Sciences website. Accessed March 23, 2022 from: <https://www.nationalacademies.org/our-work/7th-edition-of-principles-and-practices-for-a-federal-statistical-agency>.
- [6] Code of Practice for Statistics. UK Statistics Authority website. Accessed March 23, 2022 from: <https://code.statisticsauthority.gov.uk/wp-content/uploads/2018/02/Code-of-Practice-for-Statistics.pdf>.
- [7] International Statistical Institute Declaration on Professional Ethics. International Statistical Institute website. Accessed March 24, 2022 from: <https://www.isi-web.org/about/policies/professional-ethics/isi-declaration>.
- [8] Ethical Guidelines for Statistical Practice. American Statistical Association website. Accessed March 23, 2022 from: <https://www.amstat.org/your-career/ethical-guidelines-for-statistical-practice>.
- [9] Georgiou A. The production of official statistics needs to be a separate branch of government. *Statistical Journal of the IAOS*. 2018; 34, 149–160. Available from: <https://content.iospress.com/articles/statistical-journal-of-the-iaos/sji170399>.
- [10] PCORI Factsheet. Friends of PCORI Reauthorization website. Accessed March 19, 2022 from: <https://reauthorizepcori.org/about-fopr/factsheet/>.
- [11] Comparative Effectiveness Research: Activities Funded by the Patient-Centered Outcomes Research Trust Fund. GAO-18-311. Published: Mar 23, 2018. Publicly Released: Mar 23, 2018. Government Accountability Office website. Accessed March 19, 2022 from: <https://www.gao.gov/products/gao-18-311>.
- [12] Authorizing legislation. PCORI website. Accessed March 19, 2022 from: <https://www.pcori.org/about-us/governance/authorizing-legislation>.