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What is the value of official statistics and how do we communicate that value?

How to communicate the value of official statistics ?

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Summary

The status of public statistics is fragile because of the growing complexity of our economies and societies, the increasing demands of our users and the pressure that besieges them from all sides, plus the cloud of distrust hanging over all official communication. The voice of public statistics has trouble making itself heard.

Insee has come up with a many-pronged plan to advocate for public statistics. Some actions are one off while others are long-term. They are aimed at decision makers, researchers and the general public. The paper will present these actions and show how they work toward securing the status of public statistics in our society.

This paper is presented for discussion to the Conference of European Statisticians seminar on “What is the value of official statistics and how do we communicate that value?”.

I. Introduction

1. Thanks to the internet, more and more data are disseminated. With the web 2.0, every one can produce data and disseminate to everyone on the Web. Moreover, with the development of big data tools, companies or organisations are able to analyse all these data and produce new data by combining those published by others. So there is a risk for official statistics to be swallowed up in the enormous flow of data: people would not know that these official statistics do exist or might take the combined statistics for autonomous statistics.

2. Official statistics do have a value, which distinguishes them from other data. They are designed using methods and guidelines that give them many advantages (reliability, comparability, etc.) and guarantee their reliability.

3. Statisticians must be able to assess the value of official statistics and explain it. This paper provides indications as to how to initiate this communication.

4. Before explaining how we communicate about the value, we should explain the value of official statistics. According to recent studies, the (added) value of official statistics (V) can be quantified by using the following expression: $V = S \cdot M \cdot A \cdot R \cdot T \cdot L$ where

S represents the number of official **S**tatistics that are produced.

M is the performance of the **M**edia used to reach our audience.

M is for how the Media used to reach our audience performs

A stands for the number of people who need official statistics, i.e. the potential **A**udience. The product of how the media used by the potential audience performs provides the number of users who find these statistics.

R is the **R**elevance of official statistics provided to the users. It represents the quality of these statistics from the users' point of view.

T represents the **T**rust that individuals have in official statistics

L is for statistical and economic **L**iteracy, i.e. the ability to reason with numbers and other mathematical concepts and with economics¹. It shows to what extent the users understand and use statistics correctly.

5. So the value of official statistics depends on these six factors. If one of these factors is null, then the value is null.

II. What we can communicate about the value of official statistics

6. In this section, we will examine what we can communicate about the value of official statistics. If we want to communicate about the value of statistics, we have to communicate on one or more of the six factors of the value : SMARTL (number of statistics, media, potential audience, relevance, trust and literacy) and on the elements that consolidate these factors : for example, the independence of the statistical office which reinforces the trust in the office.

7. (S) We can communicate about the number of official **S**tatistics that are produced and disseminated. This is not an easy task because there are many kinds of official statistics. We can communicate on :

- the themes covered by official statistics (unemployment, population, poverty, etc.)
- the type of data that are disseminated (tables presenting the main indicators, databases, etc.)
- the size of the data that are disseminated (in mega-bytes or giga-bytes)

8. (M) We can communicate about the **M**edia we use to disseminate our data :

- non-specialized media : our website, publications, applications for Smartphone, web-applications and social media (Twitter...),
- specialized media : press conferences and press releases for journalists; conferences and meetings for expert users, etc.
- media from other organisations: other websites (data.gov, Ministry of Education, website of partners), newspapers, exhibitions, museums, etc.

¹ Numeracy and statistical literacy include therefore ease in dealing with numbers and quantitative problems, in understanding basic mathematical ideas and patterns, statistical reasoning and the importance of thinking in terms of probability, the importance of data production and presentation, as well as the omnipresence, quantification and explanation of variability.

9. (A) It is difficult to measure and communicate about the potential Audience, but we can communicate about the real audience, i.e. results from the potential audience and the performance of the media we used ($M * A$). For example, it is possible to communicate about:
- some figures regarding hits on our website : the number of visits, visitors, downloaded gigabytes
 - some figures about social media : number of followers on Twitter

10. (R) To communicate on the Relevance of official statistics, we must first measure it. And to do so, we must collect feedback from our users.

But with the internet, it is a difficult task because we do not meet our users most of the time. For efficiency, and because collecting feedback improves statistics first and then communication, it is better to

- (a) collect feedback on precise topics, and on new topics each year,
- (b) work with colleagues who are experts in the fields,
- (c) interview different users : expert users and novice users, and if possible potential users ; teachers, local authorities, national institutions, researchers, students, journalists, private companies, associations and individuals.
- (d) use one or several methods to collect feedback linked with the topic of the feedback: online survey with a pop-up window on our website, online survey via e-mailing, focus groups, individual interviews, telephone interviews, analysis of questions we receive, analysis of our website statistics ...

11. (T) To communicate about the Trust that individuals put in official statistics, we must first measure it by asking people about their trust in statistics.

It is important to interview at least two groups of people each year : the general public and visitors of our website because they provide different feedbacks. Visitors are more expert in statistics than the general public. And it is possible to interview other groups when needed : for example, a group of journalists if there is a specific issue with them or if the statistical office strategy is planning an operation with them.

And because these interviews improve statistics first, it is very interesting to ask them at least the following questions:

- (a) A general question on statistics, for example *“In general, would you say that you put trust in figures and data published on the economic and social situation in France?”*
- (b) If there is mistrust towards figures and data which are published on the economic and social situation in the country, some questions to know the reasons why, such as: *“These figures correspond neither to what I experience, nor what people around me experience”, “Politicians use them to express what they want”, “I do not know what they correspond to, nor how they are produced”*
- (c) Then some questions about several individual indicators like the unemployment rate, growth rate or the index of consumer prices : *“For each of the following data, indicate to what extent it reflects, according to you, what is actually happening in France in the given field ? (Reflects very well, Reflects rather well, Reflects rather poorly, Reflects very badly)”*
- (d) At the end, questions about the institute in general : *“And can you tell me if you have a very good, rather good, rather bad, or a very bad opinion of Insee?”* and some more like *“Insee is a useful organization”, “Insee is an organisation which provides information on its activities”, “Insee is an independent organization”, .*

12. (L) It is very difficult to measure statistical and economic Literacy. We are actually initiating a survey regarding some definitions (median, GDP...). The results are expected in a few months.

13. Concerning the six factors, it is easy to communicate as to the first three (numbers of statistics, media, audience) and very difficult (even impossible?) to do so on the last one (literacy). It is not easy but very important to communicate as to the fourth and fifth ones: relevance and trust.

14. The formula V=SMARTL is general and can be used for a specific public. Indeed, the value of the official statistics is not the same for the general public as for an expert public because they do not have the same needs. The R factor, relevance, depends on this need. The formula can be used for official statistics regarding a specific theme or for one specific indicator too: for example for statistics on housing or for the unemployment rate.

III. How to communicate the value

15. In the previous part, we examined what content to communicate as to the value of official statistics. In this section, we will see how to communicate on this content.

16. The way to communicate as to the value of official statistics depends on the global communication strategy of the institute that defines which population and which indicators are priority. In France, Insee selects the priority population according to its importance/size and its opinion on statistics. There are three priority populations Insee wants to communicate to: the media, the local and central (national?) authorities and the general public. It is necessary to maintain good relations with the media and national officials/ leaders of. The general public was added five years ago because it has a far less good opinion of statistics than the other populations. And Insee chooses the priority indicators by crossing two criteria: which are the most general, and which are the least trusted. The result is the prices index and the unemployment rate as top priority.

17. When both the population and the subject are chosen, one more choice remains: the media through which you communicate. The media depend on the populations, subjects and the global communication strategy. In France, in order to strengthen the image of indicators, Insee made a list of short and medium-term actions which need to be carried out, as follows:

- ◆ ‘proximity’ because people who are close to Insee have a better image of the institute and the indicators; and many people want to know more about Insee's activities;
- ◆ ‘pedagogy’ because one factor of mistrust towards indicators is that people do not know how they are produced;
- ◆ ‘proof’ because another factor of mistrust towards indicators is that they do not seem to correspond to reality. Many people would like these figures and data to better reflect their personal conditions and those of their immediate circle.

18. Some examples of communication about the value of statistics are as follows: annual report, kit of communication tools, testimony of a user, meetings, pedagogic tools, etc....

19. The annual report, especially for local and national authorities, is a good medium to talk about the value of statistics through five of the six SMARTL factors : type of official **S**tatistics, main and new **M**edia we use to disseminate our statistics, **A**udience of our website and Twitter and main results of our survey about **R**elevance and **T**rust.

For example in our annual report for 2012, one could read:

On www.insee.fr, users can now find millions of data of many kinds: framework data and key figures; historical data and time series; localized data for regions, municipalities, and neighborhoods; and microdata at the individual level, anonymized to comply with statistical confidentiality requirements. www.insee.fr has thus become Insee's dissemination medium of choice. The number of visits has risen steadily from 10.8 million in 2004 to 25 million in 2012. However, while surveys indicate high satisfaction with the wealth of information available, visitors still report trouble locating the data they need. We are therefore preparing a new redesign, notably to improve navigation. [...]

120,000 visits to www.insee.fr daily

30 000 subscribers to "Insee-Net Actualité" (newsletter)

10 000 Twitter subscribers

11 press conferences in 2012 [...]

The press and audiovisual media are a vital link for the dissemination of Insee statistics and studies.

On average, our work is referred to in 60 media stories a day.

20. Every year, Insee produces a kit with three communication tools on an indicator (CPI, unemployment rate, growth rate...) to show the general public how the institute designs the indicator, who uses it and for which purpose. The three tools are: a pedagogic paper entitled "Understand..." (eight pages with many illustrations), a short video entitled "... in questions" (less than five minutes) and a quiz (ten questions, with multiple choice questionnaires) about the pedagogic paper and the video. These tools are used, inter alia, to communicate as to the **Relevance** of data.

We use Twitter first to tweet the main indicators and results but also to tweet these tools.

21. In 2013, in order to strengthen trust in official statistics, the National Council for Statistical Information (NCIS) and Insee organised several actions.

NCIS acts as a forum for consultations between producers and users of official statistics, ranging from identification of areas to be covered to evaluation of surveys performed. It is responsible for informing citizens through its own publications. Thus, NCIS organised with Insee several operations promote trust in official statistics, the general theme being "Official statistics and democracy: what is the use of figures?". The main purpose of these operations is to make the media, the local and national authorities, and the general public aware of the value of official statistics.

Four operations have been undertaken:

- Every year, in November, « Days of Economics » are organised in Lyon. A wide range of users participate in this event. In November 2013, experts at Insee and Cnis promoted the value of official statistics through studies on measuring well being, and on company founders.
- A seminar « media and statistics », organised with the « *École supérieure de journalisme* » (School of journalism) in Lille was held in December 2013. Cnis and Insee participated in this seminar in order to inform future journalists of the value of official statistics in this period of "data journalism".
- Insee, in cooperation with an association called « *les petits débrouillards* » ("crafty kids") which specialises in promoting scientific culture with children and teenagers, developed teaching tools which will be used all over the country and will help to strengthen the trust in official statistics.
- A key moment in this approach was a national conference organised at the end of January, 2014. A wide range of statistics users are invited: researchers, decision makers, public players and journalists. The theme of this conference is « the usefulness of statistics ».

22. We intend to increase our communication significantly through our website as to the value of our statistics in order to reinforce Trust and Relevance. For example we plan to:

- Develop a section on our website to give the main results of our satisfaction surveys.
- Communicate information that is not data but about the value of data: the elements we described in points 17-20 on our home page
- Quote/ Include in some publications or press releases, as testimony, a sentence from a public decision maker explaining how he/she uses the results and indicators that are published

23. 17 to 21 are examples of operations we have prepared, some of them are in response to a question or an event to prevent harmful discussion on the value of official statistics in general, on Trust in statistics or on one indicator. We have main three ways to catch current potential questions or discussions about statistics and our institute: monitoring the internet and the social media, the press and the questions that are sent through user support. Each year we choose websites that are interesting/instructive to look at in order to monitor the internet and the social media,: they must deal with our topics and have a significant audience (both in quantity and quality).

In general, we do not have to respond to a question or an event. When it is necessary, we do it with the appropriate media: a press release, tweet, commentary in the blog of one of our users, personal

mailing, etc. But it is not easy to know when it is necessary and which media is appropriate: we are planning to analyse many cases and then define a strategy.

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