

New Technologies and the fundamental principles for official statistics –Palestine experience

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ABSTRACT

The world became a small village due to the booming of the population worldwide and the dramatic development in technology; through a very short process and within a click, a huge amount of information can be obtained on any issue or place or whatever. Once come to assess such information, it is vary in term of its quality and the extent of reliability as it depends on the tools and the measurements methodologies. No doubt of the importance of the information for the economic, investment and other developmental areas.

Within this context and for the purpose of organizing the utilization of the statistical data, in particular the official statistics, UN adopted in 1994 what called the ten fundamental principles for official statistics which characterized the professional codes of obtaining it including the data transparency, equity, accountability confidentiality for the individual data, avoiding misuse of data...etc.

The statistical community applied these principles for more than two decades as it was accordance to the classic tools of data collection and dissemination. When come to using the new technologies, many questions had been raised on the impact of using it on the official statistics.

In Palestine, one remarkable factor not only encourage using new technologies in statistics, but also force using it is the Israeli occupation by the blockade policy and the

lack of access to movement that shorten the ability to the physical access to all areas under the closure. The Palestinian Central Bureau of Statistics (PCBS) tries to find out alternative means for this situation as a solution, accordingly, starting 2011 the new technologies became the main tool for data collection.

Despite using such technology, still, main challenges are standing ahead; data protection and convince the respondents, additionally we are still using the 2G. In the meaning time PCBS is willing to promote the quality of the data

these challenges.

What PCBS did and what progress made so far in this regard with the need to answer the main question of : is it positive or negative trend?

Keywords: Official statistics, New technologies, Data security.

Acknowledgements:

To all who have contributed to the introduction of new technologies to strengthen the Palestinian Statistical System.

Palestine in figures

Indicator	Year	Value
Population mid-year (Million)	2016	4.3
Sex ratio	2016	103.3
Media age	2016	20.0
Life expectancy at birth: Males	2016	72.1
Life expectancy at birth: Females	2016	75.5
Population density (person/km2)	2016	800
Unemployment Rate (15 years and over)	3rd quarter, 2012	28.4
Literacy Rate (15 years and above)	2015	96.7
Poverty rates among individuals	2011	25.8
GDP per capita (US\$)	2015	1,744.5

STATISTICAL LAW

In all countries of the world there is Law that provides for the existence of a statistical system undermines the data collection and dissemination in accordance with the regulations and instructions.

in March 1993 the PLO has decided to create the Palestinian Central Bureau of Statistics ,

In 2000 His Excellency, President Yasser Arafat, ratified on 08/06/2000 the General Statistics Law no (4) for 2000, out of his belief in the important position official statistics occupies as a basic pillar in any civic system in any democratic society, owing to the importance of statistics for development decision makers and planners in any country. In accordance with the directions of His Excellency, the General Statistics Law no (4) for 2000 was based on the statistical experiences of many developed countries, taking into account that this law is among the basic factors for securing Palestine's membership in the international statistical community

The mission of PCBS is to develop and enhance the Palestinian official statistical system based on legal grounds that organize the process of data collection and utilization for statistical purposes. (**Article (2) of the Law**)

Article (3) in the law has summarized the main functions of PCBS, below are the main:

1. Create a comprehensive and unified statistical system it serves as a tool at the disposal of the Palestinian ministries and institutions guidance for diagnosing problems and assess progress.
2. Provide accurate official statistics, about the situation demographic, social, economic and environmental trends to serve the Palestinian community.
3. collecting vital statistics, which publishes about Palestine and the Palestinians by any country or international organization and analysis of these statistics.

Article (4)

All individuals have the right to obtain official statistics collected, processed and disseminated by the Bureau in accordance with the adopted rules and instructions, taking into consideration the honouring of data confidentiality and individuals' privacy.

The main task

To establish a comprehensive and unified statistical system to serve Palestinian authorities as an instrument of guidance for diagnosing problems and evaluating progress made, and to serve the instrumental needs of businesses and their organizations for statistical information on states and trends

The basis of any planning and construction statistics which must be provided with the accuracy and quality standardised loses its importance. Now there were many sources of data and figures (facebook, twitter, linkedin, whatsapp ...). Big data became a preoccupation for many, social networking sites have become the primary source of information.

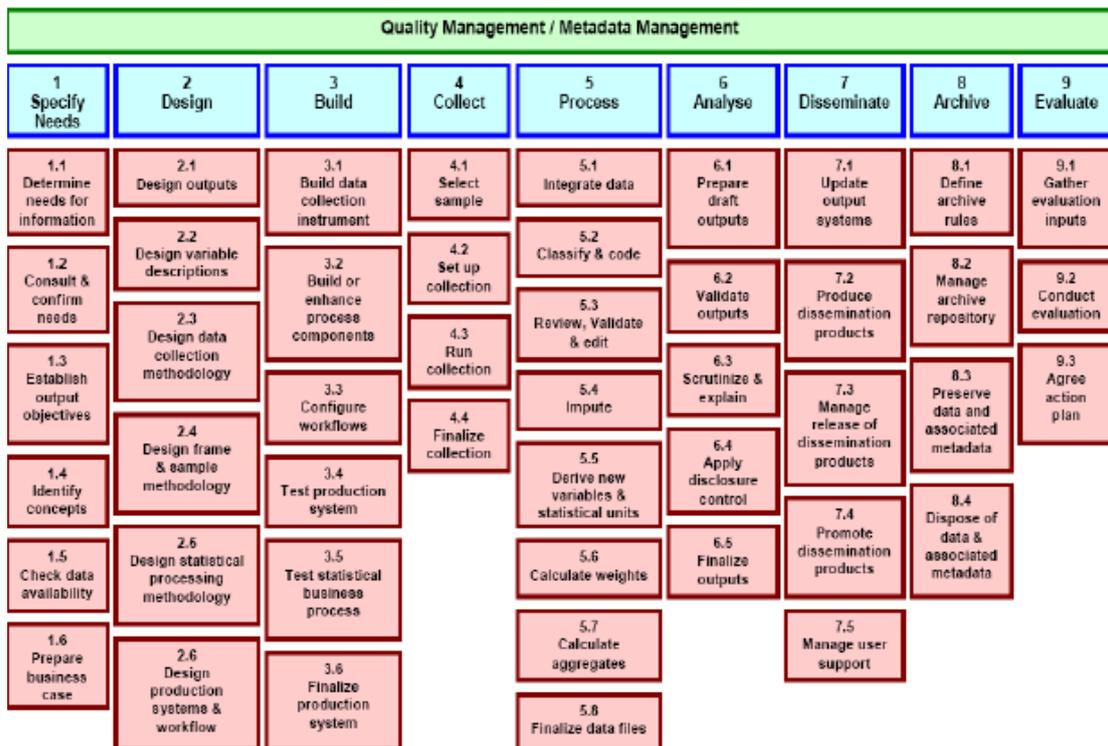


Social networking sites have worked to transform its user from the recipient of the information, as in the traditional media to product information and participant according to their ideas and collected social networking sites for the first time between the written text and visual section considers these sites prefer the means used by whom He will to disseminate news and views freely to express their views view so you can use them in many educational, cultural and news services.

"The Web site," The New York Mag " that Facebook has contributed to the rise of Trump to power by promoting false news contributed to mislead voters

It believes that social media has greater than the power of money, and said that the popularity of these sites contributed to the victory ... Donald Trump

Denounced the CEO of Facebook, Mark Zuckerberg, the accusations, describing them as "crazy." Since then, Zuckerberg pledged to focus on the fight against fake news, with keenness to preserve the freedom of expression on the world's largest social networking



Fundamental principles of official statistics

Recognizes the fundamental principles of official statistics listed below, as adopted by the Commission) 2 statistic) in 1994 and reaffirmed in 2013, and approved by the Economic and Social Council in its resolution 2013/21 of July 24, 2013

Developed the basic principles of official statistics at CES, which was held in 1992, and ratified by the Statistical Commission of the United Nations in 1994. The ten principles are: the importance of official statistics, fairness and equality of access, standards and professional ethics, accountability and transparency, to prevent improper use of statistics, sources of official statistics, confidentiality laws (legislation), coordination, international standards, international cooperation.

These principles are intended to establish internationally agreed rules in the field of statistics. These principles and organizing statistical work of the various aspects including the impartiality of statistics and Equal viewed by everyone possibilities, adherence to standards and professional ethics, accountability and transparency, not to misuse of statistical data, to benefit from the various data sources, coordination at the national level, the confidentiality of data, as well laws and national legislation to regulate the work of the statistical system.

The challenges of the Palestinian census

Occupation is the main challenge facing our work; Do not live in normal circumstances of our country is occupied and all the procedures associated with Israel are in control of most aspects of life, we cannot go to the processions of global development in all areas, but we insist that prove to the world that we love life and ready to be alongside evolution in various fields whether we Applying the or familiar. till now, do not we still use 2G, which went into use in 1992, 2001 and ended up developed to 3G and now we are in the year 2017 and the world arrived LTE, 4G and soon 5G. The technology has become the basis for any development of commercial, industrial, agricultural my services in all areas.

Palestinian census carries a "message" to stand on the needs of data users and try to meet them through the production, promotion and dissemination of statistical information in an easy and friendly way for the user, timely and with a high degree of precision and style my services.

The challenge can we provide statistical figures upon which the planning and decision-making under the various measures which we live? And the answer is always yes.

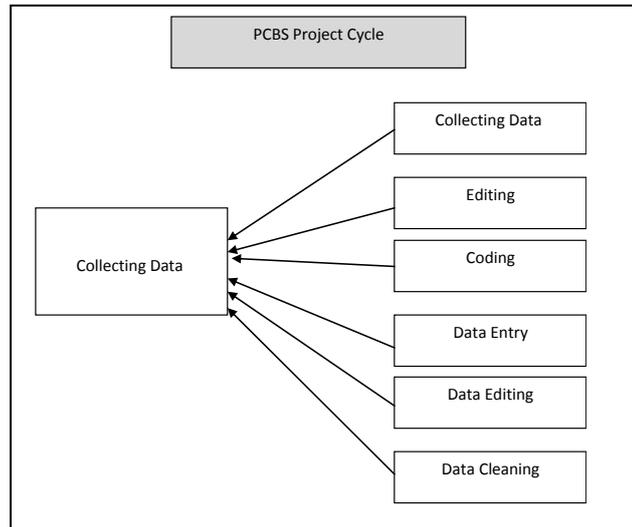


Principle V: considered cost

"May obtain data for statistical purposes from any source, whether it's from surveys statistical or administrative records. The statistical agencies should be while the source chooses to take into account the elements on the quality, timeliness, costs and the burden on the shoulders of the respondents."

The use of modern technology in data processing, combining the accuracy of the data and timeliness and reduce the cost of collection so that merged five stages in a single stage, a data collection and provided the biggest technician to examine the data and increase the accuracy of the time.

When we started using the technology in the data collection in 2011 it was looking to keep pace with evolving technology of its own accuracy and quality of data and the temporary provision in addition significantly influenced positively on the cost consideration was canceled four stages in the processing of data, namely:



- **Audit:** After collecting the data, there was a crew working on the audit data to examine the consistency and completeness of the form data and Asjt data collection process with modern technology, including data validation tests charged to the program so that is not allowed to move or terminate the form in the event of an error or a lack of data consistency.

- **Coding:** coding applied during data collection using the style of the tree or search for the text so that gets a researcher at the exact description of the profession, activity or any other fields requires encoded stage and this enhances the experience of the workers typing Questions related coding to get more accurate coding according to other variables associated to determine the code more accurate.

- **Data Entry:** Data collected through new technology is the foundation so that trains the researcher to collect data declare variables, terminology and fundamentals of scrutiny and clear explanation for each question and the mechanism of scarves and the extent of the answer choices, or if there is a choice of multi.

- **Editing:** Do not store the forms unless completed Questions Browsing through load testing and checking and cleaning rules and any imbalance or contradiction in the answers is noon error message directly.

- Data cleaning: using modern forms of technology applied by sending checks audit data cleaning.

In addition to delete other activates from projects cycle in using paper

Printing questioner, quid's, manual
Cost Transfer questioners
Storing cost
Transportation

Table Compared number of employees - labour force survey

NO.	Stage	Paper No. Emp	New Technology No. Emp
1.	Collecting Data	23	23
2.	Editing	6	0
3.	Coding	2	0
4.	Data Entry	4	0
5.	Data Editing	2	0
6.	Data Cleaning	2	0
7.	Total	39	23

1. PRINCIPLE VI: THE SECRET (PRIVACY)

"WE HAVE TO COMPLETELY CONFIDENTIAL DATA ON INDIVIDUALS COLLECTED BY STATISTICAL AGENCIES FOR STATISTICAL COMPILATION, WHETHER RELATING TO NATURAL OR LEGAL PERSONS, AND SHOULD NOT NECESSARILY BE USED FOR STATISTICAL PURPOSES."

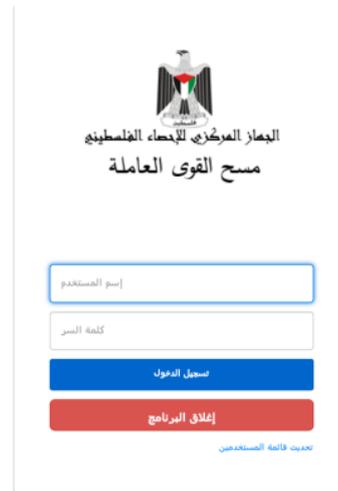
Use a paper questionnaire makes it available for anyone can see whats in it , whether employee or spy, 3 years at least we need to destroy the questionnaire in law, the danger we afraid what may be happen in between working on and transfer between work stages and Cities.

What confronts us in Palestine is the most dangerous check points where the Israeli army makes inspection forms are subject to takeover and access to information it was the main objective of our approach to modern technology is to overcome Israeli checkpoints and maintaining the privacy of the data collected.

To avoid the risks we do the following

- Screen User ID and password can not see the data, but by going to the input program in accordance with the powers given by the admin with determining the powers of the data by region, date, or annual data can be found.

- Data on the device cannot read or interpreted only through the data entry program. No one can read the data file by any other program



Name	Date modified	Type	Size
hhtracking	03/01/2017 09:05 ص	DLL File	17 KB
TrackLog	03/01/2017 09:05 ص	SQL Server Comp...	184 KB
WPI	03/01/2017 09:05 ص	Application	293 KB
WPI	03/01/2017 09:06 ص	SQL Server Comp...	15,252 KB

- Recorded data to answer choices on the device and is not identified until after the load on the main server to read them and turn them into understandable information

- The data on your tablet does not mean anything as long as the program is closed

- Send data with encrypted within the protection of the transferred over wi-fi, sim data.

```
'J 0
!! !! 2016124054424220201 9@
€€!! !! !! 2016124054724230501
{ €€!! !! !! 2016121559716000301
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Conservative on privacy and confidentiality of the data applied at all stages of work

This part is a special application of modern technology to maintain secrecy and there are other mechanisms applied in other departments Tdt and follow privacy and confidentiality be compatible with what we're doing to adjust during the data collection or after the publishing process and qualifying data

CONCLUSIONS

Adherence to international standards positively affect the provision of service and quality, so not controlled or directed a look or mood of a person.

- Adherence to international standards increases the quality of output
- It should be a law governing the obligation to provide static figures
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