



U N I V E R S I D A D
C O M P L U T E N S E
M A D R I D

Towards a global education in Official Statistics

Session number 19

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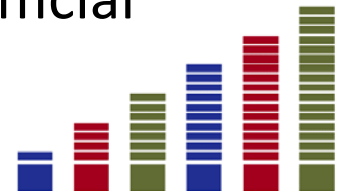


Madrid, May 31 - June 3

Towards a global education in OS

Objective of this talk: to stress the relevance of designing a **global educational strategy** towards Official Statistics.

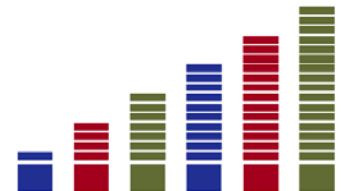
- Implying all levels of education.
- As a key need in modern **democratic Societies**.
(particularly within the European Union)
- Taking into account the increasing demand for new **data management professionals** (particularly within Official Statistics)



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Outline of this presentation:

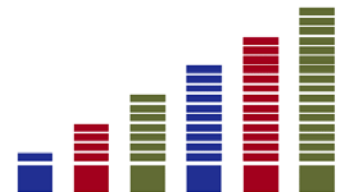
- 1.- Introduction.
- 2.- Education in **Science**.
- 3.- Education in **Statistics**.
- 4.- Education in **Official Statistics**.
- 5.- **Master** in Official Statistics at Madrid.
- 6.- Conclusion.



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1.- INTRODUCTION.

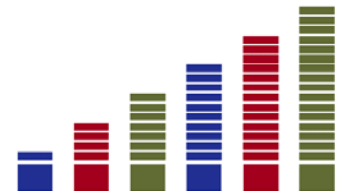
- The future of any Society highly depends on **Education, Organization and Infrastructures**, all of them requiring **time** to be implemented by **people**. A previously defined strategy about their **skills** is therefore needed.
- Data **harmonization** is particularly needed in order to support decisions in complex Societies.
- Our future official statisticians should also be ready to take advantage of all those **data collectors** being implemented in modern Societies.



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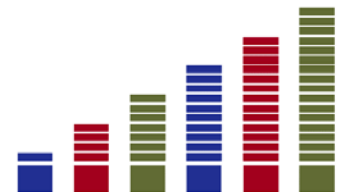
2.- EDUCATION IN SCIENCE.

- A main characteristic of modern Societies is the increasing **role of Science.**
- Science in **health and technology**, but also in **Social Sciences.**
- Education in Science allows people to understand the need of the strategic **investment in Science** and its associated **innovation spirit.**



3.- EDUCATION IN STATISTICS.

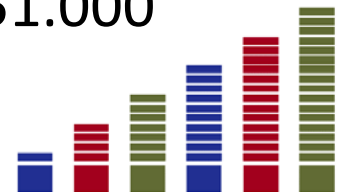
- A scientific approach to social problems require **managing information**, in numerical format or any other format (linguistic, graphical, photos, pictures, videos, etc.)
- Modern (democratic) Societies need people educated in Statistics in order to allow them **founded opinions**.
- Statistics is a basic skill for improvement in almost any **profession**, but also people can be easily **manipulated** without statistical knowledge (*mathematical illiteracy*).
- More efforts are needed in **Secondary Education**.



3.- EDUCATION IN STATISTICS.

Some Complutense initiatives focused in Secondary students, in collaboration with the National Institute of Statistics, the National Society of Statistics and other mathematical associations:

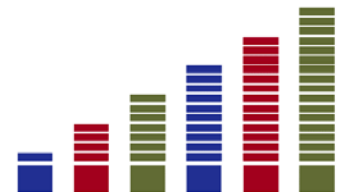
- ***Statistical Olympic conquest*** (now in its 4th edition), for the promotion of Statistics at basic levels of education.
- ***Incubator of surveys and experimentation conquest*** (now in its IX edition), for the elaboration of statistical surveys.
- ***Mathematical Spring conquest***, with more than 51.000 participants in its 2016, 20th edition.
- Other initiatives.



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4.- EDUCATION IN OFFICIAL STATISTICS.

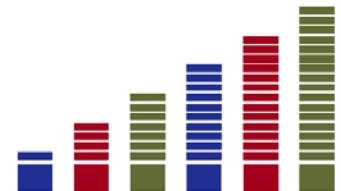
- Official Statistics are the **foundation** of most key social and economic public policies.
- In a democratic society people have the right to know main data, parameters and arguments that **justify** those policies.
- But **understanding** implies basic education in several fields.
- Particularly in Official Statistics (from basic Secondary Education to top specific professionals).
- **EMOS program** launched by EuroSTAT.



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5.- MASTER IN OFFICIAL STATISTICS AT MADRID.

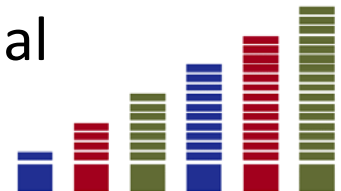
- New 2-years master launched at **Complutense University** of Madrid (around 80.000 students, 2.000 ERASMUS out and 1.500 ERASMUS in).
- **“Official Statistics and Social and Economic Indicators”**.
- A **multidisciplinary master** involving 8 Faculties: Economics, Mathematics, Statistics, Sociology, Psychology, Geography, Computer Sciences and Law.



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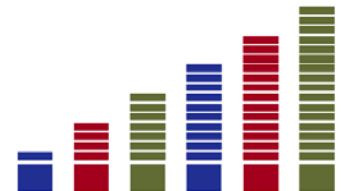
- **Leveling courses.**
- Specialized courses towards the future **data scientists** needed for Official Statistics (not and other frameworks).
- Social science courses focused on **social, economic and demographical indicators** and their analytical tools.
- Including courses about the **legal context** of Official Statistics.



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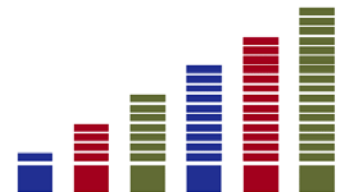
- **EMOS module** in English language and fully compatible with a ERASMUS experience in other European Universities within the EMOS program.
- **Mandatory internship** at the National Institute of Statistics or some other Official Statistics institution in Spain.
- **Master thesis** simultaneously supervised by an Official Statistics institution and Complutense University.
- **Complementary training courses**, conferences and meetings.



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5.- MASTER IN OFFICIAL STATISTICS AT MADRID.

- In addition, an **annual meeting in Official Statistics** will be organized, starting this year (May 18), with the participation of top persons at key Official Statistics institutions in Spain.
- The main objective is to bring Official Statistics closer to **Society**, and at the same time attract **best students** into this key field.



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6.- CONCLUSION.

- Official Statistics in modern Society comes **with Science** and its efforts to rationalize opinions and justify policies.
- Official Statistics in modern Societies needs an important effort in the **education of Statistics** at all levels of education, so people can understand the foundation of public policies.
- Official Statistics in modern Societies comes with the need of **standardized procedures**.
- Official Statistics in modern Societies needs an association with the **Big Data and Data Scientist paradigm**.



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THANKS FOR YOUR ATTENTION!

