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A remote access solution The Lissy System at LIS Asbl

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**Workshop on Microdata Access
NEW DEVELOPMENTS AND A WAY FORWARD**



AGENDA

Luxembourg Income Study (LIS) asbl

Who can access the data and how

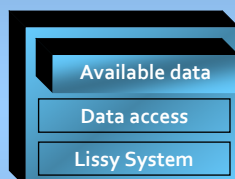
Lissy – the LIS Remote Access System

Luxembourg Income Study (LIS) Who are we ?



- A **Research center and Microdata archive** founded in 1983. Governed by an international board of researchers. Directed by **Janet C. Gornick**, a political economist and sociologist based in the NYC (USA), and a Researcher Director **Markus Jantti**, an Finnish economist
- The main work is to collect, harmonize, and make accessible household microdata to the Social Sciences Research Community in order to **promote international comparative research on the economic and social wellbeing** of populations across countries
- We are committed to easy the use of microdata to **Social Science Researchers**, both technically and administratively, allowing them to access the data under **privacy restrictions** at their remote locations

Luxembourg Income Study (LIS) A vast databank



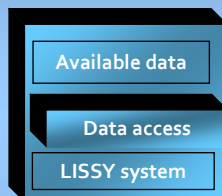
LIS -- Luxembourg Income Study database

- The LIS database currently includes nearly **200 anonymized microdatasets** from **32 countries**. The datasets are organized into 7 time periods (known as waves) spanning the years **1968 to 2004**.
- Micro-data from **household surveys** with a main focus on a **detailed** breakdown of **household & individual income** variables and an **extensive set of labor market** data
- The datasets come mostly from Europe and North America, but also include Australia, the Middle East and Asia. In the beginning of 2009, LIS will include **5 Latin American** countries.

LWS -- Luxembourg Wealth Study database

- In December 2007, LIS put the new LWS database online. It includes **13** wealth datasets from **10** countries

Access to LIS data Three pathways available to Researchers

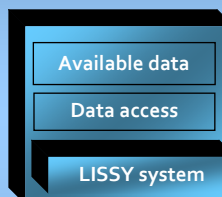


- Use of the data is **restricted to social science research purposes only**. No private or commercial use is permitted
- Access is limited to Researchers affiliated with an **academic** (incl. Ph.D. Students & undergraduate Students), **governmental** or **supra-national organization** (WB, ILO etc...) research departments

Three main pathways

- The **Web Tabulator** allows registered users to design **cross-national tables**, using keywords without programming
- The LIS website hosts a set of **Key Figures**, which includes measures of **inequality and poverty** as well as a set of **gender-disaggregated indicators** focused on recent data
- The **Lissy System (remote-system access)** is the primary means of access. Researchers send to LISSY their own codes (SAS, STATA or SPSS). Results are *automatically* returned to them

LISSY - A Remote Access System What for ?



- Needs of **individual information** in order to test the effectiveness of policy and to set new policies implies to obtain access to individual and possibly sensitive data
- A **remote access system** offers researchers the possibility to analyze microdata **from their remote location** by submitting statistical queries. Microdata **are not physically distributed** remaining under the control of LIS, while the users of the system can perform analyses at their own place of work
- The trade-off between an **operational and user-friendly system** and a **safe system** is evidently present for remote access systems since disclosure control limits the details of the output. The challenge consists in defining the appropriate **administrative, legal and technical** processes to provide researchers with the best trade-off.

LISSY - A Remote Access System Getting access

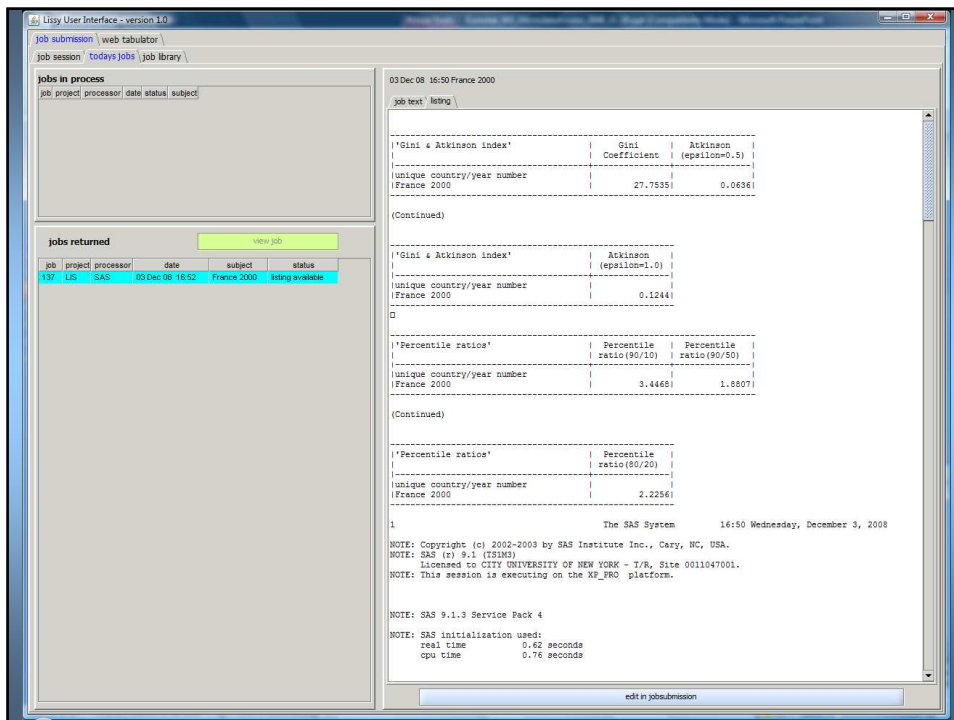
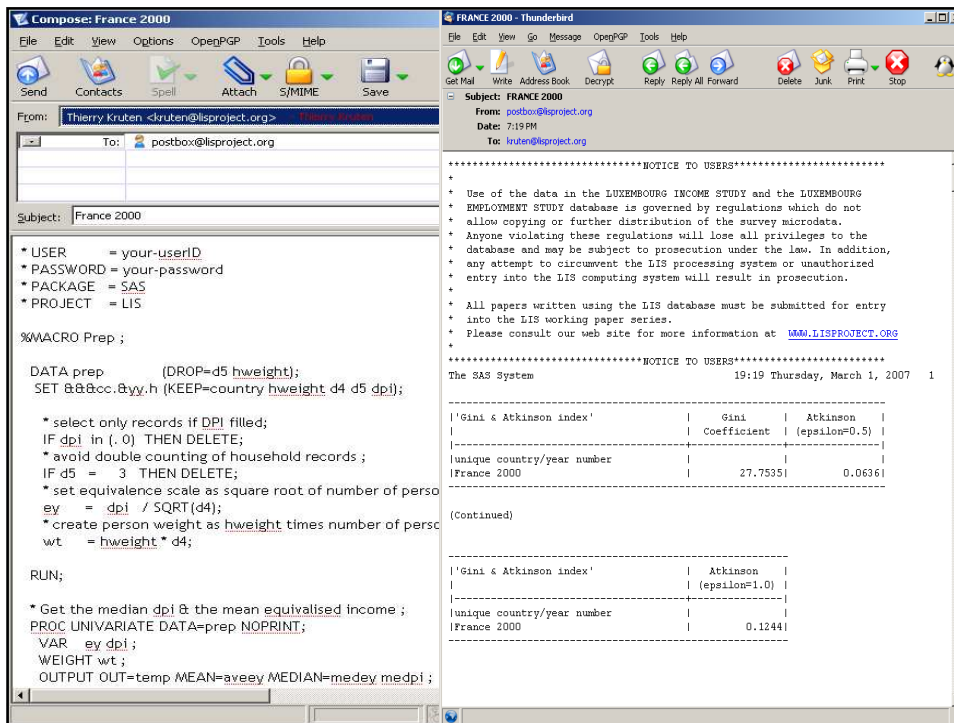


- Users **must register** with the LIS and **sign a pledge** to obey the rules governing the use of the data
 - ✓ **Applicant information** (coordinates, supervisor information, project etc...) → check the affiliation
 - ✓ **Pledge** in which are defined the terms of the agreement and the rules on security and confidentiality. **Must be signed** → **legal contract**
 - ✓ Based on the data providers' legal constraints
- LIS grants access to databases for a limited period (1 year) renewable annually → **Updated information on users**
- Registered users receive an **user account** (id and password) that are **strictly personal** → **Unique identification**

LISSY - A Remote Access System How it works

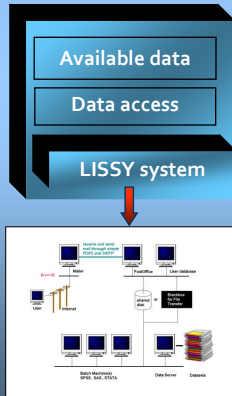


- **Fully automated** system running **24 h a day / 7 d a week** returning outputs in average within a couple of minutes
- The users submit their statistical requests under the form of specific statistical package programs to LISSY via the **Internet mailing system** or a **secure GUI**
- LISSY prepares these requests for processing by **checking for all security issues** like clearly **identifying** a user, filtering the **use of illegal statistical commands** → **Confidentiality check**
- LISSY will **automatically process jobs** and **ONLY** return the outputs to the e-mail address given during the registration process → **Access cannot be shared**
- LISSY sends **suspicious output** to the review queue for **manual review** instead of returning results to the user



LISSY - A Remote Access System

Its Implementation towards security issues (1/2)



Data providers legal constraints

Luxembourg Income Study (LIS)



THANK YOU FOR YOUR ATTENTION

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