



## Working with the LIS and LWS Databases

Training Session on the LIS and LWS Databases  
Stone Centre on Socio-Economic Inequality in Asia  
University of Hong Kong, March 26, 2026

**Teresa Munzi**

# CONTENTS

1. LIS DATA COVERAGE
2. KEY CONCEPTS
3. METHODOLOGICAL CHOICES
4. ACCESS AND DOCUMENTATION



# 1. THE LIS AND LWS DATABASES



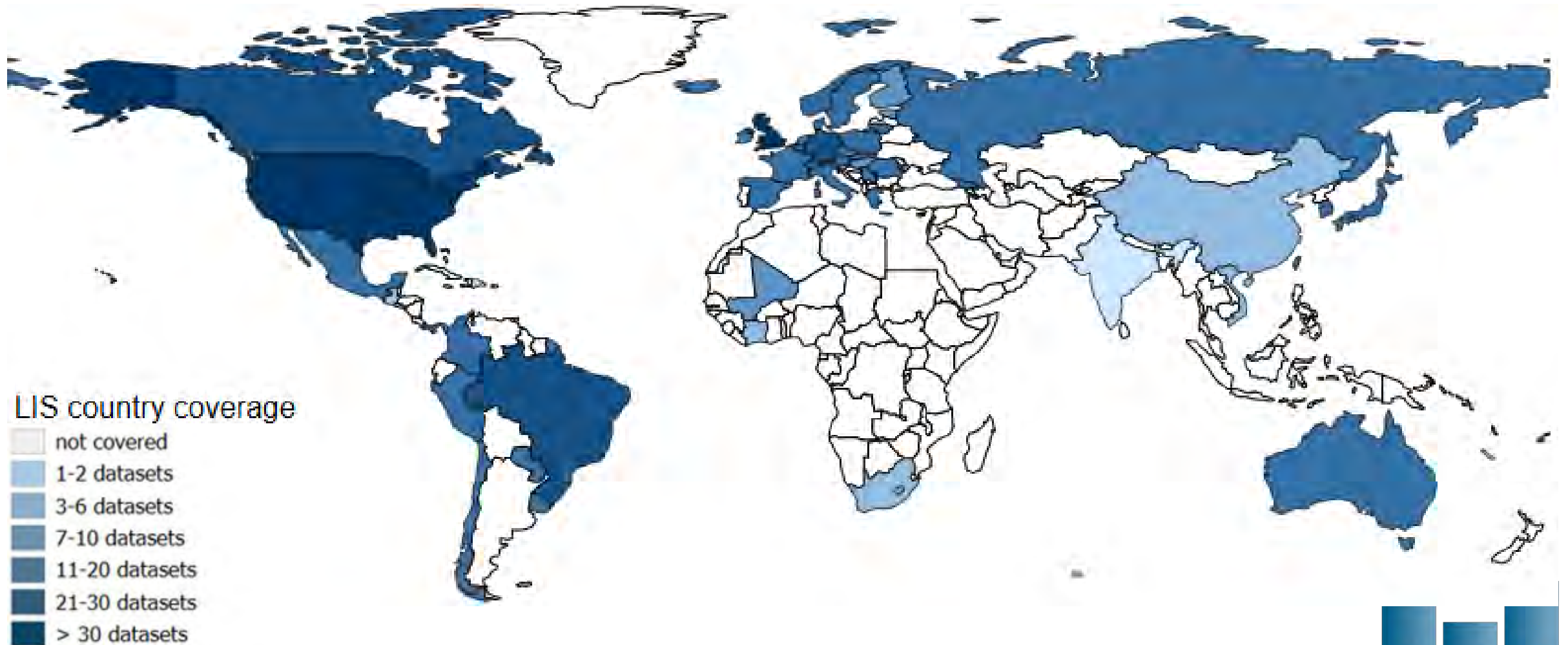
# Overview of the *LIS Databases*

- Two cross-national harmonised databases that allow international comparative research using micro-data:
  - **Luxembourg Income Study Database - LIS** (focus on **income**): **1,022** datasets from **53** countries – from the late 1960s to 2024
  - **Luxembourg Wealth Study Database - LWS** (focus on **wealth**): **134** datasets from **24** countries - from 1991 to 2024
- Under construction:
  - **Luxembourg Consumption Study Database - LCS** (focus on **consumption**): public release in 2027



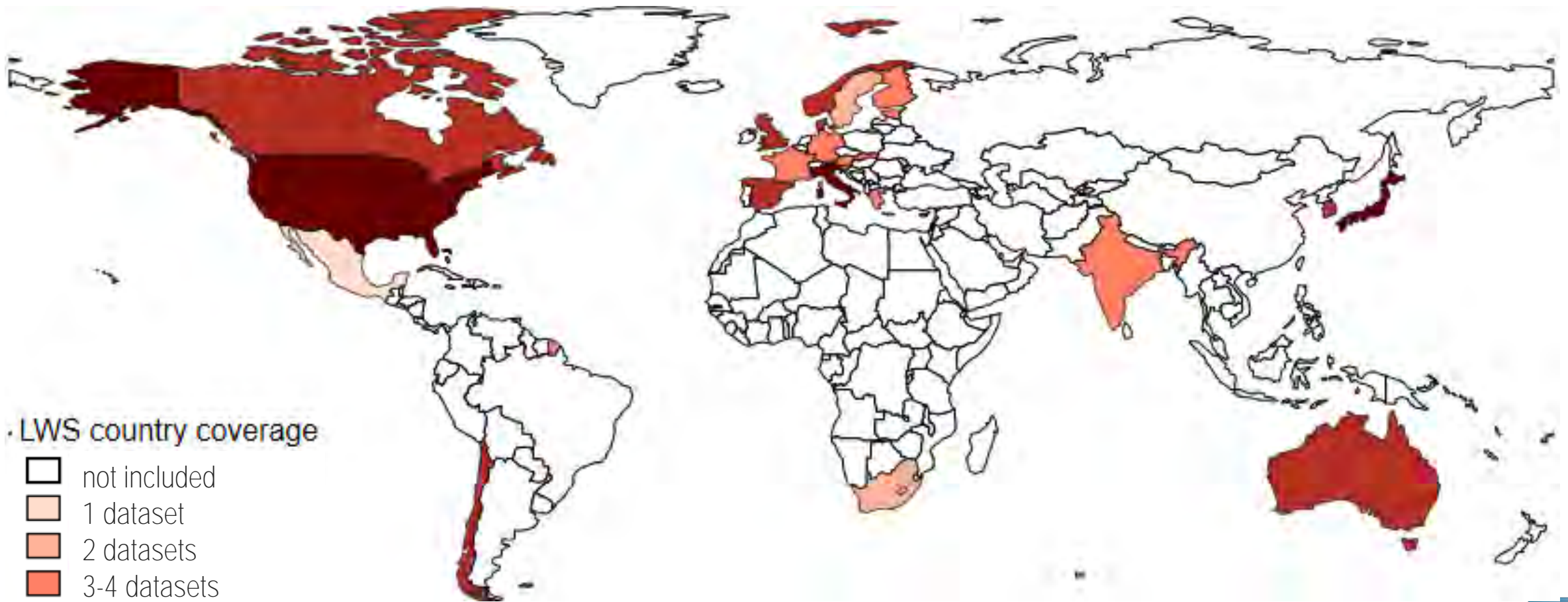
# Luxembourg Income Study (LIS) Database

Country coverage by March 2026



# Luxembourg Wealth Study (LWS) Database

Country coverage by March 2026



· LWS country coverage

- not included
- 1 dataset
- 2 datasets
- 3-4 datasets
- 5-9 datasets
- >9 datasets

# LIS Database

# Temporal structure

# LWS Database

| COUNTRIES      | HIST. DATA           | WAVE I (~1980)               | WAVE II (~1985)                      | WAVE III (~1990)                     | WAVE IV (~1995)                      | WAVE V (~2000)                       | WAVE VI (~2004)      | WAVE VII (~2007)     | WAVE VIII (~2010)    | WAVE IX (~2013)      | WAVE X (~2016)       | WAVE XI (~2019)        | WAVE XII (~2022)     | WAVE XIII (~2025) |
|----------------|----------------------|------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|------------------------|----------------------|-------------------|
| Australia      |                      | AU81                         | AU85                                 | AU89                                 | AU95                                 | AU01                                 | AU03<br>AU04         | AU08                 | AU10                 | AU14                 | AU16                 | AU18<br>AU20           |                      |                   |
| Austria        |                      |                              |                                      |                                      | AT94<br>AT95<br>AT96<br>AT97         | AT98<br>AT99<br>AT00                 | AT03<br>AT04<br>AT05 | AT06<br>AT07<br>AT08 | AT09<br>AT10<br>AT11 | AT12<br>AT13<br>AT14 | AT15<br>AT16<br>AT17 | AT18<br>AT19<br>AT20   | AT21<br>AT22<br>AT23 |                   |
| Belgium        |                      | BE85                         | BE88<br>BE92                         | BE95<br>BE97                         | BE00                                 | BE03<br>BE04<br>BE05                 | BE06<br>BE07<br>BE08 | BE09<br>BE10<br>BE11 | BE12<br>BE13<br>BE14 | BE15<br>BE16<br>BE17 | BE18<br>BE19<br>BE20 | BE21<br>*BE22<br>*BE23 | *BE24                |                   |
| Brazil         |                      | BR81<br>BR82                 | BR83<br>BR84<br>BR85<br>BR86<br>BR87 | BR88<br>BR89<br>BR90<br>BR92         | BR93<br>BR95<br>BR96<br>BR97         | BR98<br>BR99<br>BR01<br>BR02         | BR03<br>BR04<br>BR05 | BR06<br>BR07<br>BR08 | BR09<br>BR11         | BR12<br>BR13<br>BR14 | BR15<br>BR16<br>BR17 | BR18<br>BR19<br>BR20   | BR21<br>BR22         |                   |
| Bulgaria       |                      |                              |                                      |                                      |                                      |                                      | BG07<br>BG08         | BG09<br>BG10<br>BG11 | BG12<br>BG13<br>BG14 | BG15<br>BG16<br>BG17 | BG18<br>BG19<br>BG20 | BG21<br>BG22           |                      |                   |
| Canada         | CA71<br>CA73<br>CA75 | CA77<br>CA79<br>CA81<br>CA82 | CA84<br>CA85<br>CA86<br>CA87         | CA88<br>CA89<br>CA90<br>CA91<br>CA92 | CA93<br>CA94<br>CA95<br>CA96<br>CA97 | CA98<br>CA99<br>CA00<br>CA01<br>CA02 | CA03<br>CA04<br>CA05 | CA06<br>CA07<br>CA08 | CA09<br>CA10<br>CA11 | CA12<br>CA13<br>CA14 | CA15<br>CA16<br>CA17 | CA18<br>CA19<br>CA20   | CA21<br>CA22         |                   |
| Chile          |                      |                              |                                      | CL90<br>CL92                         | CL94<br>CL96                         | CL98<br>CL00                         | CL03                 | CL06                 | CL09<br>CL11         | CL13                 | CL15<br>CL17         |                        |                      |                   |
| China          |                      |                              |                                      |                                      |                                      | CN02                                 |                      |                      | CN13                 |                      | CN18                 |                        |                      |                   |
| Colombia       |                      |                              |                                      |                                      |                                      | CO01<br>CO02                         | CO03<br>CO04<br>CO05 | CO06<br>CO07<br>CO08 | CO09<br>CO10<br>CO11 | CO12<br>CO13<br>CO14 | CO15<br>CO16<br>CO17 | CO18<br>CO19<br>CO20   | CO21<br>CO22<br>CO23 |                   |
| Czechia        |                      |                              | CZ92                                 | CZ96                                 | CZ02                                 | CZ04<br>CZ05                         | CZ06<br>CZ07<br>CZ08 | CZ09<br>CZ10<br>CZ11 | CZ12<br>CZ13<br>CZ14 | CZ15<br>CZ16<br>CZ17 | CZ18<br>CZ19<br>CZ20 | CZ21<br>CZ22<br>CZ23   |                      |                   |
| Denmark        |                      | DK87                         | DK92                                 | DK95                                 | DK00                                 | DK04                                 | DK07                 | DK10                 | DK13                 | DK15<br>DK16<br>DK17 | DK18<br>DK19<br>DK20 | DK21<br>DK22           |                      |                   |
| Dominican Rep. |                      |                              |                                      |                                      |                                      |                                      | DO07                 |                      |                      |                      |                      |                        |                      |                   |
| Estonia        |                      |                              |                                      |                                      | EE00                                 | EE04                                 | EE07                 | EE10                 | EE13                 | EE16                 |                      |                        |                      |                   |
| Finland        |                      | FI87                         | FI91                                 | FI95                                 | FI00                                 | FI04                                 | FI07                 | FI10                 | FI13                 | FI16                 |                      |                        |                      |                   |
| France         | FR70<br>FR75         | FR79                         | FR84                                 | FR90                                 | FR96<br>FR97                         | FR98<br>FR99<br>FR00<br>FR01<br>FR02 | FR03<br>FR04<br>FR05 | FR06<br>FR07<br>FR08 | FR09<br>FR10<br>FR11 | FR12<br>FR13<br>FR14 | FR15<br>FR16<br>FR17 | FR18<br>FR19<br>FR20   | FR21<br>FR22         |                   |

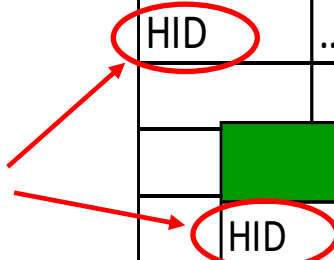
| COUNTRIES    | WAVE II | WAVE III | WAVE IV | WAVE V               | WAVE VI | WAVE VII     | WAVE VIII            | WAVE IX              | WAVE X               | WAVE XI              | WAVE XII     | WAVE XIII | WAVE XIII |
|--------------|---------|----------|---------|----------------------|---------|--------------|----------------------|----------------------|----------------------|----------------------|--------------|-----------|-----------|
| Australia    |         |          |         |                      | AU04    |              | AU10                 | AU14                 | AU16                 | AU18<br>AU20         |              |           |           |
| Austria      |         |          |         |                      |         |              | AT11                 | AT14                 | AT17                 |                      | AT21         |           |           |
| Canada       |         |          |         | CA99                 | CA05    |              |                      | CA12                 | CA16                 | CA19                 | CA23         |           |           |
| Chile        |         |          |         |                      |         | CL07         |                      | CL14                 | CL17                 |                      | CL21         |           | CL24      |
| Denmark      |         |          |         |                      |         |              |                      | DK15<br>DK16<br>DK17 | DK18<br>DK19<br>DK20 | DK21<br>DK22         |              |           |           |
| Estonia      |         |          |         |                      |         |              | EE13                 | EE17                 |                      | EE21                 |              |           |           |
| Finland      | *FI87   | *FI88    | *FI94   | *FI98                | *FI04   |              | FI09                 | FI13                 | FI16                 | FI19                 |              |           |           |
| France       |         |          |         |                      |         |              | FR09                 | FR14                 | FR17                 | FR20                 |              |           |           |
| Germany      |         |          |         | DE02                 |         | DE07         |                      | DE12                 | DE17                 |                      |              |           |           |
| Greece       |         |          |         |                      |         |              | GR09                 | GR14                 |                      | GR18                 | GR21         |           |           |
| India        |         | IN91     |         | IN02                 |         |              |                      | IN12                 |                      | IN18                 |              |           |           |
| Ireland      |         |          |         |                      |         |              |                      | *IE13                |                      | *IE18<br>*IE20       |              |           |           |
| Italy        |         |          | IT95    | IT98<br>IT00<br>IT02 | IT04    | IT06<br>IT08 | IT10                 | IT12<br>IT14         | IT16                 | IT20                 | IT22         |           |           |
| Japan        |         |          |         |                      | JP04    |              | JP09<br>JP10<br>JP11 | JP12<br>JP13<br>JP14 | JP15<br>JP16<br>JP17 | JP18<br>JP19<br>JP20 | JP21         |           |           |
| Luxembourg   |         |          |         |                      |         |              | LU10                 | LU14                 |                      | LU18                 | LU21         |           |           |
| Mexico       |         |          |         |                      |         |              |                      |                      |                      | MX19                 |              |           |           |
| Norway       |         |          |         |                      |         |              | NO10                 | NO13                 | NO16                 | NO19<br>NO20         | NO21<br>NO22 |           |           |
| Slovakia     |         |          |         |                      |         |              | SK10                 | SK14                 | SK17                 |                      | SK21         |           |           |
| Slovenia     |         |          |         |                      |         |              | SI14                 | SI17                 |                      | SI21                 |              |           |           |
| South Africa |         |          |         |                      |         |              |                      |                      | ZA15<br>ZA17         |                      |              |           |           |

# Structure of the LIS/LWS Databases

LIS Database

| LIS Household File (H) |     |     |     |
|------------------------|-----|-----|-----|
| HID                    | ... | ... | ... |
|                        |     |     |     |
| LIS Person File (P)    |     |     |     |
| HID                    | PID | ... | ... |
|                        |     |     |     |
|                        |     |     |     |
|                        |     |     |     |

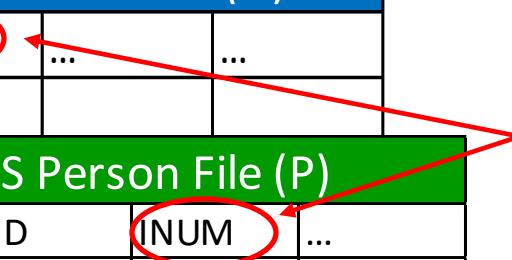
Merging ID



LWS Database

| LWS Household File (H)         |      |      |     |
|--------------------------------|------|------|-----|
| HID                            | INUM | ...  | ... |
|                                |      |      |     |
| LWS Person File (P)            |      |      |     |
| HID                            | PID  | INUM | ... |
|                                |      |      |     |
|                                |      |      |     |
| LWS Replicate Weights File (R) |      |      |     |
| HID                            | ...  | ...  | ... |
|                                |      |      |     |
|                                |      |      |     |
|                                |      |      |     |

Multiple imputation



# *The LIS and LWS Variables*

## **Contextual information variables**

- Most “contextual” variables (household composition, socio-demographic, labour market) are **common to LIS and LWS Datasets**
- In addition **LWS datasets** have a set of wealth–related and behavioural variables

## **Flow variables (income and consumption)**

- Income, consumption, deductions and transfers, are **common to LIS and LWS datasets**

## **Stock variables (wealth)**

- Asset and liability variables are **only available in LWS datasets**



# Contextual information variables

|  | H-FILE   | P-FILE    |
|--|----------|-----------|
| <b>TECHNICAL VARIABLES</b>                           |          |           |
| household identifier                                 | hid      | hid       |
| person identifier                                    |          | pid       |
| unique country/year number                           | dic      | did       |
| country/year identifier                              | dname    | dname     |
| country name   | cname    | cname     |
| 2-letter country abbreviation                        | iso2     | iso2      |
| 3-letter country abbreviation                        | iso3     | iso3      |
| reference year                                       | year     | year      |
| data wave  | wave     | wave      |
| weight   | hpopwgt  | ppopwgt   |
| normalised weight                                    | hwgt     | pwgt      |
| additional weight                                    | hwgta    | pwgta     |
| currency units                                       | currency | currency  |
| gross/net income information                         | ytosnet  | grossnet  |
| implicate number                                     | inum     | inum      |
| <b>GEOGRAPHY AND HOUSING</b>                         |          |           |
| region: country specific                             | region_c |           |
| rural area   | rural    |           |
| size of locality: country specific                   | locsz_c  |           |
| type of area: country specific                       | area_c   |           |
| main residence tenure status                         | own      |           |
| type of dwelling                                     | dwelling |           |
| number of rooms available to the household           | numrooms |           |
| <b>HOUSEHOLD COMPOSITION AND LIVING ARRANGEMENTS</b> |          |           |
| household composition (discontinued)                 | hitype   |           |
| household type                                       | typehh   |           |
| reference person living with partner                 | hpartn   |           |
| number of household members                          | nhhmem   |           |
| number of household members 65 or older              | nhhmem65 |           |
| number of household members 17 or younger            | nhhmem17 |           |
| number of household members 13 or younger            | nhhmem13 |           |
| number of household members 6 or younger             | nhhmem6  |           |
| number of household members with labour income       | nearn    |           |
| relationship to household reference person           |          | relation  |
| living with partner                                  |          | partner   |
| living with parents                                  |          | parents   |
| number of own children living in household           |          | nchildren |
| age of youngest own child living in household        |          | ageyoch   |
| lone parent  |          | oneparent |
| dependent child                                      |          | depchild  |
| pointer to the mother                                |          | momnum    |
| pointer to the father                                |          | dadnum    |
| pointer to the partner                               |          | partnum   |
| <b>SOCIO-DEMOGRAPHIC CHARACTERISTICS</b>             |          |           |
| <i>Demographic characteristics</i>                   |          |           |
| age in years   |          | age       |
| gender   |          | sex       |
| marital status                                       |          | marital   |
| <b>Health</b>  |          |           |
| indication of disability                             |          | disabled  |
| subjective health status: country specific           |          | health_c  |

|   | H-FILE  | P-FILE     |
|---|---------|------------|
| <b>Immigration</b>                              |         |            |
| immigrant                                       |         | immigr     |
| citizenship                                     |         | citizen    |
| country of birth                                |         | ctrybirth  |
| years since arrived in country                  |         | yrresid    |
| ethnicity: country specific                     |         | ethnic_c   |
| internal migration: country specific            |         | migrat_c   |
| other immigration information: country specific |         | immigr_c   |
| <b>Education</b>                                |         |            |
| education (3-category recode)                   |         | educ       |
| highest completed education level               |         | educlev    |
| highest education level: country specific       |         | educ_c     |
| enrolled in education                           |         | enroll     |
| years of education                              |         | ed yrs     |
| illiterate                                      |         | illiterate |
| education of mother: country specific           |         | edmom_c    |
| education of father: country specific           |         | eddad_c    |
| <b>LABOUR MARKET</b>                            |         |            |
| <i>Labour market activity</i>                   |         |            |
| employed  |         | emp        |
| employed (ILO definition)                       |         | emp_ilo    |
| labour force status                             |         | lfs        |
| farming activity                                | farming |            |
| informal activity                               |         | informal   |
| maternity/paternity/parental leave              |         | parleave   |
| worked full-year full-time                      |         | fyft       |
| total weekly hours worked                       |         | hourstot   |
| annual weeks worked                             |         | weeks      |
| annual weeks worked full-time                   |         | weeksf1    |
| multiple jobs holder                            |         | sejob      |
| years of total work experience                  |         | weixpl     |
| <b>Characteristics of main job</b>              |         |            |
| status in employment                            |         | status1    |
| economic activity (3 categories)                |         | inda1      |
| economic activity (8 categories)                |         | indb1      |
| economic activity (ISIC rev. 3.1: major groups) |         | indc1      |
| economic activity (ISIC rev. 4: major groups)   |         | indd1      |
| economic activity: country specific             |         | ind1_c     |
| public sector                                   |         | public1    |
| occupation (3 categories)                       |         | occa1      |
| occupation (ISCO-88: major groups)              |         | occb1      |
| occupation (ISCO-08: major groups)              |         | occc1      |
| occupation: country specific                    |         | occ1_c     |
| temporary employment                            |         | temp1      |
| part-time employment                            |         | ptime1     |
| weekly hours worked in main job                 |         | hours1     |
| monthly wage                                    |         | wage1      |
| hourly wage                                     |         | hwage1     |

|  | H-FILE | P-FILE      |
|--|--------|-------------|
| <b>WEALTH RELATED VARIABLES</b>                      |        |             |
| <i>Contingent assets and liabilities</i>             |        |             |
| expects to receive inheritance/gift                  |        | eil         |
| amount of expected inheritance/gift                  |        | eia         |
| expects to give inheritance/gift                     |        | etg         |
| home equity line of credit (dummy)                   |        | ehc         |
| amount of home equity line of credit                 |        | eha         |
| non-home equity lines of credit (dummy)              |        | ehc         |
| amount of non-home equity lines of credit            |        | eha         |
| <i>Assets acquired in the past</i>                   |        |             |
| purchase price of principal residence                |        | ppr         |
| year of purchase of principal residence              |        | ppy         |
| inheritance/gift received (dummy)                    |        | pir         |
| amount of inheritance/gift received (1/4)            |        | pir1/4      |
| year inheritance/gift received (1/4)                 |        | py1/4       |
| type of inheritance/gift received (1/4)              |        | pit1/4      |
| from whom inheritance/gift received (1/4)            |        | piw1/4      |
| household member who received inheritance/gift (1/4) |        | piwh1/4     |
| <i>Additional information</i>                        |        |             |
| years of contributions to social security system     |        | ssyc        |
| business indicator/type of business (1/3)            |        | bus(1/3)_c  |
| <b>BEHAVIORAL VARIABLES</b>                          |        |             |
| <i>Attitudes toward household finance</i>            |        |             |
| savings behaviour                                    |        | basb        |
| savings purpose (1/9)                                |        | basp1/9     |
| financial risk taking (1/3)                          |        | baf1(1/3)_c |
| financial planning (1/2)                             |        | bafp(1/2)_c |
| financial literacy (1/4)                             |        | balf(1/4)_c |
| financial information (1/5)                          |        | bafi(1/5)_c |
| <i>Other behavioral variables</i>                    |        |             |
| possession of credit cards (dummy)                   |        | b0pc        |
| number of credit cards                               |        | b0nc_c      |
| amount needed to cover unexpected expenses           |        | b0ue        |
| ability to get emergency financial aid (dummy)       |        | b0ea        |
| loan consolidation (dummy)                           |        | bale        |
| objective credit constraints (1/2)                   |        | b0cc(1/2)_c |
| subjective credit constraints                        |        | b0ps_c      |
| constraints in debt repayment (1/2)                  |        | b0cd(1/2)_c |
| expectations about household finances                |        | b0ef_c      |
| expectations about the economy (1/2)                 |        | b0ec(1/2)_c |

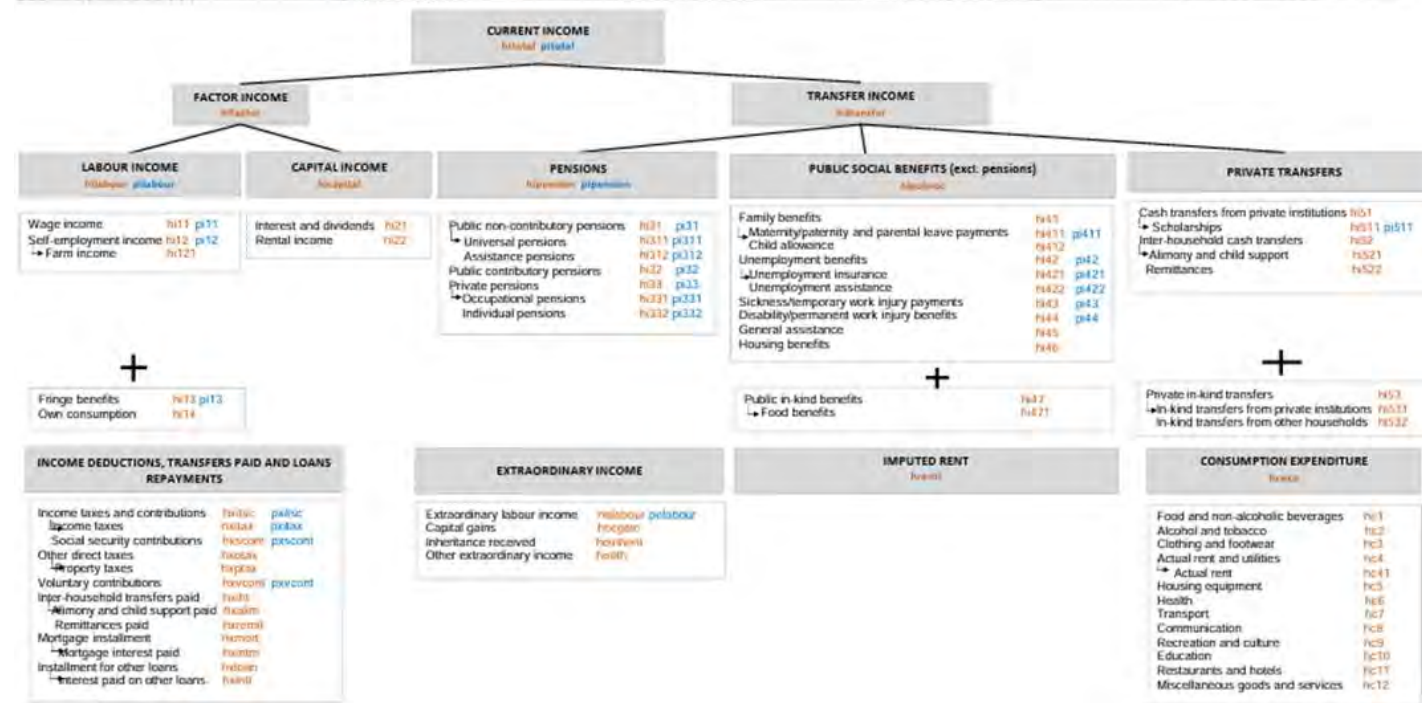
LWS only

# Income, consumption and wealth variables

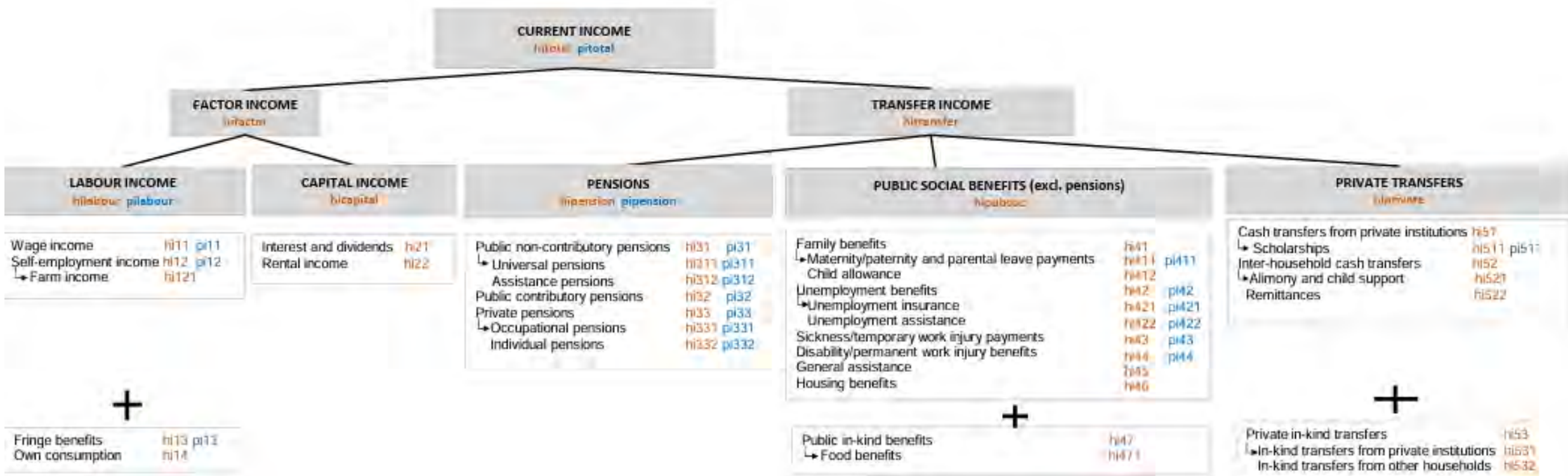
LWS only

| ASSETS AND LIABILITIES                           |  |
|--|--|
| ASSETS   | LIABILITIES  |
| Non-financial assets                             | Main breakdown of liabilities (by purpose)         |
| Real estate                                      |  |
| Principal residence                              | Real estate liabilities                            |
| Other real estate                                | Principal residence loans                          |
| Non-housing assets                               | Other real estate loans                            |
| Business equity                                  | Non-housing liabilities                            |
| Consumer goods                                   | Investment loans                                   |
| Vehicles   | Consumer goods loans                               |
| Other durables and valuables                     | Vehicle loans                                      |
| Other non-financial assets                       | Other loans for goods and consumption              |
| Financial assets (excl. pensions)                | Education loans                                    |
| Deposit accounts and cash                        | Other non-housing liabilities                      |
| Transaction accounts and cash saving accounts    | Alternative breakdown of liabilities (by security) |
| Financial investments                            |  |
| Bonds and other debt securities                  | Institutional loans secured by real estate         |
| Stocks and other equity                          | Secured by principal residence                     |
| Publicly traded stocks                           | Secured by other real estate                       |
| Unlisted shares and other equity                 | Loans not secured by real estate                   |
| Investment funds and alternative investments     | Guaranteed institutional loans                     |
| Other non-pension financial assets               | Non-guaranteed institutional loans                 |
| Money owed to household                          | Informal (non-institutional) loans                 |
| Pension assets and other long-term savings       |  |
| Life insurance and voluntary individual pensions |  |
| Life insurance accounts                          |  |
| Individual voluntary pension accounts            |  |
| Occupational pensions                            |  |
| Occupational pensions (DB schemes)               |  |
| Occupational pensions (DC schemes)               |  |
| Social security pension entitlements             |  |
| Social security (DB schemes)                     |  |

| MAJOR ECONOMIC AGGREGATES        |                 |  |
|----------------------------------|-----------------|--|
| <b>Income aggregates</b>         |                 |  |
| Total current income             | $ni001 + pi001$ | $= ni1factor + ni1transfer$            |
| Disposable household income      | $dhi$           | $= ni1total - ni1esc$                  |
| Value of goods and services      | $fv01gds$       | $= ni12 + ni14 + ni17 + ni13$          |
| Disposable household cash income | $dnci$          | $= ni1total - fv01gds - ni1esc$        |
| Factor income                    | $ni1factor$     | $= ni1labour + ni1capital$             |
| Transfer income                  | $ni1transfer$   | $= ni1pension + ni1ubsoc + ni1private$ |
| Public transfers                 | $ni1public$     |  |
| Insurance transfers              | $ni1pub_i$      |  |
| Universal transfers              | $ni1pub_u$      |  |
| Assistance transfers             | $ni1pub_a$      |  |
| <b>Consumption aggregates</b>    |                 |  |
| Consumption expenditure          | $fv01exp$       | $= fc1 + \dots + fc12$                 |
| Housing costs                    | $fv01housing$   | $= hc4 + hc1tax + hc1mort$             |
| <b>Wealth aggregates</b>         |                 |  |
| Total assets                     | $na$            | $= non + na1 + na2$                    |
| Total liabilities                | $nl$            | $= fl + fln$                           |
| Disposable net worth             | $anw$           | $= na - na1 - na2$                     |
| Adjusted disposable net worth    | $anw1$          | $= anw + na1$                          |
| Integrated net worth             | $inw$           |  |
| Total net worth                  | $nw$            | $= anw + na1 + na2$                    |



# LIS income variables



# LIS other flows

| INCOME DEDUCTIONS, TRANSFERS PAID AND LOANS REPAYMENTS   | EXTRAORDINARY INCOME   | IMPUTED RENT<br><i>hc201</i> | CONSUMPTION EXPENDITURE<br><i>hc202</i>   |
|--|--|------------------------------|---|
| <ul style="list-style-type: none"> <li>Income taxes and contributions. <i>ixitisc</i> <i>pxitisc</i></li> <li>↳ Income taxes <i>ixitax</i> <i>pxitax</i></li> <li>  Social security contributions <i>ixsocial</i> <i>pxsocial</i></li> <li>Other direct taxes <i>ixordx</i></li> <li>↳ Property taxes <i>ixptax</i></li> <li>Voluntary contributions <i>ixvcont</i> <i>pxvcont</i></li> <li>Inter-household transfers paid <i>ixitx</i></li> <li>↳ Alimony and child support paid <i>ixalim</i></li> <li>  Remittances paid <i>ixremil</i></li> <li>Mortgage installment <i>iximor</i></li> <li>↳ Mortgage interest paid <i>iximtm</i></li> <li>  Installment for other loans <i>ixioan</i></li> <li>↳ Interest paid on other loans <i>ixilnt</i></li> </ul> | <ul style="list-style-type: none"> <li>Extraordinary labour income <i>helabour</i> <i>pelabour</i></li> <li>Capital gains <i>hecgain</i></li> <li>Inheritance received <i>heinherit</i></li> <li>Other extraordinary income <i>heothr</i></li> </ul> |                              | <ul style="list-style-type: none"> <li>Food and non-alcoholic beverages <i>hc1</i></li> <li>Alcohol and tobacco <i>hc2</i></li> <li>Clothing and footwear <i>hc3</i></li> <li>Actual rent and utilities <i>hc4</i></li> <li>↳ Actual rent <i>hc4r</i></li> <li>Housing equipment <i>hc5</i></li> <li>Health <i>hc6</i></li> <li>Transport <i>hc7</i></li> <li>Communication <i>hc8</i></li> <li>Recreation and culture <i>hc9</i></li> <li>Education <i>hc10</i></li> <li>Restaurants and hotels <i>hc11</i></li> <li>Miscellaneous goods and services <i>hc12</i></li> </ul> |

# Assets

| ASSETS   |        |        |
|--|--------|--------|
| ha   |        |        |
| Non-financial assets                             | han    |        |
| ↳ Real estate                                    | hanr   |        |
| ↳ Principal residence                            | hanrp  |        |
| Other real estate                                | hanro  |        |
| Non-housing assets                               | hann   |        |
| ↳ Business equity                                | hannb  |        |
| Consumer goods                                   | hannc  |        |
| ↳ Vehicles                                       | hanncv |        |
| Other durables and valuables                     | hanned |        |
| Other non-financial assets                       | hanno  |        |
| Financial assets (excl. pensions)                | haf    |        |
| ↳ Deposit accounts and cash                      | hafc   |        |
| transaction accounts and cash                    | hafct  |        |
| saving accounts                                  | hafcs  |        |
| Financial investments                            | hafi   |        |
| ↳ Bonds and other debt securities                | hafib  |        |
| ↳ Stocks and other equity                        | hafis  |        |
| publicly traded stocks                           | hafiss |        |
| unlisted shares and other equity                 | hafiso |        |
| Investment funds and alternative investments     | hafii  |        |
| Other non-pension financial assets               | hafo   |        |
| money owed to household                          | hafom  |        |
| ↳ Pension assets and other long-term savings     | has    | pas    |
| Life insurance and voluntary individual pensions | hasi   | pasi   |
| Life insurance accounts                          | hasil  | pasil  |
| Individual voluntary pension accounts            | hasip  | pasip  |
| Occupational pensions                            | haso   | paso   |
| ↳ Occupational pensions (DB schemes)             | hasodb | pasodb |
| Occupational pensions (DC schemes)               | hasodc | pasodc |
| Social security pension entitlements             | hass   | pass   |
| ↳ Social security (DB schemes)                   | hassdb | passdb |

**Non-financial assets**

**Financial assets**



## LIABILITIES

hl

### Main breakdown of liabilities (by purpose)

|                                       |      |
|---------------------------------------|------|
| Real estate liabilities               | hlr  |
| ↳ Principal residence loans           | hlrp |
| Other real estate loans               | hlro |
| Non-housing liabilities               | hln  |
| ↳ Investment loans                    | hlni |
| Consumer goods loans                  | hlnr |
| ↳ Vehicle loans                       | hlnv |
| Other loans for goods and consumption | hlnr |
| Education loans                       | hlnr |
| Other non-housing liabilities         | hlnr |

### Alternative breakdown of liabilities (by security)

|  |       |
|--|-------|
| Institutional loans secured by real estate | hlrs  |
| ↳ Secured by principal residence           | hlrsp |
| Secured by other real estate               | hlro  |
| Loans not secured by real estate           | hlrn  |
| ↳ Guaranteed institutional loans           | hlrng |
| Non-guaranteed institutional loans         | hlrnn |
| Informal (non-institutional) loans         | hlrni |

Liabilities by purpose  
grouped by purpose for which  
the debt was taken (e.g. car,  
principal residence, etc.)

Liabilities by security  
grouped by secured status of  
debt (e.g. whether or not  
debts are secured against  
assets and type of asset held  
as security)



## 2. MAIN INCOME AND WEALTH CONCEPTS



# Conceptual framework for LIS/LWS income variables

|                                      |                         | <b>CASH</b>                              | <b>NON CASH</b>           |
|--------------------------------------|-------------------------|--|---------------------------|
| <b>LABOUR INCOME</b>                 | Dependent employment    | <i>Wages, salaries, bonuses</i>          | <i>In-kind earnings</i>   |
|                                      | Self-employment         | <i>Profits and losses</i>                | <i>Own consumption</i>    |
| <b>+ CAPITAL INCOME</b>              | Financial investment    | <i>Interest and dividends</i>            | -                         |
|                                      | Real estate investment  | <i>Rental income</i>                     | <i>Imputed rent</i>       |
| <b>+ PENSIONS</b>                    | Non-contributory        | <i>Universal and assistance</i>          | -                         |
|                                      | Contributory            | <i>Work-related insurance</i>            | -                         |
|                                      | Private                 | <i>Occupational and individual</i>       | -                         |
| <b>+ PUBLIC BENEFITS</b>             | Family benefits         | <i>Maternity, children</i>               |                           |
|                                      | Unemployment benefits   | <i>Insurance and assistance</i>          | <i>STIK</i>               |
|                                      | Sickness and disability | <i>Sick pay, work injury, disability</i> |                           |
|                                      | Housing                 | <i>Housing, heating</i>                  |                           |
| <b>+ PRIVATE TRANSFERS</b>           | General                 | <i>Minimum income guarantee</i>          | <i>In-kind assistance</i> |
|                                      | Private institutions    | <i>Scholarships, charity</i>             | <i>In-kind assistance</i> |
|                                      | Inter-household         | <i>Alimony, remittances</i>              | <i>Gifts</i>              |
| <b>= TOTAL GROSS INCOME</b>          |                         |  |                           |
| <b>- DEDUCTIONS</b>                  |                         | <i>Income taxes</i>                      |                           |
|                                      |                         | <i>Social security contributions</i>     |                           |
| <b>= HOUSEHOLD DISPOSABLE INCOME</b> |                         |  |                           |

# Flow variables: LIS harmonization practices

## ❑ Annualised amounts

- *independent of unit of collection, the income/consumption reference period in LIS is **standardised to 12 months***

## ❑ Currency

- *amounts expressed in units of **current national currency** – to be used for relative measures*
- ***PPP** and **CPI** indexes are available to compare absolute measures*

## ❑ Net versus gross datasets

- *income variables should be **gross of taxes and social security contributions***
- *however, in some datasets incomes are collected net of taxes and contributions*
- *note that while this impacts the comparability of the income subcomponents, the final disposable household income is unaffected by the difference*



# Conceptual framework for LWS assets and liabilities variables

|  |  |
|--|--|
| NON-FINANCIAL ASSETS                               | Real-estate<br>Non-housing assets  |
| + FINANCIAL ASSETS                                 | Deposit accounts and cash<br>Financial investments<br>Other non-pension financial assets |
| - TOTAL LIABILITIES                                | Real estate liabilities<br>Non-housing liabilities                                       |
| <b>= DISPOSABLE NET WORTH</b>                      |  |
| + LIFE INSURANCE AND VOLUNTARY INDIVIDUAL PENSIONS |  |
| <b>= ADJUSTED DISPOSABLE NET WORTH</b>             |  |
| + OTHER PENSIONS                                   | Occupational pensions<br>Social Security pension entitlements                            |
| <b>= TOTAL NET WORTH</b>                           |  |



# Wealth variables: some notes

## ❑ Pension assets

- *very difficult to measure value of assets based on PAYG systems (as against funded systems), especially if defined benefit → social security and occupational pension entitlements often not collected*
- *differences in the measurement of pension assets → breakdown in individual, occupational, and social security pensions as well as DB vs. DC schemes*
- *if pension assets are not collected or computed, the corresponding variables are set to 0:*
  - *→ comparisons between countries are very much dependent on different pension systems, and reforms*

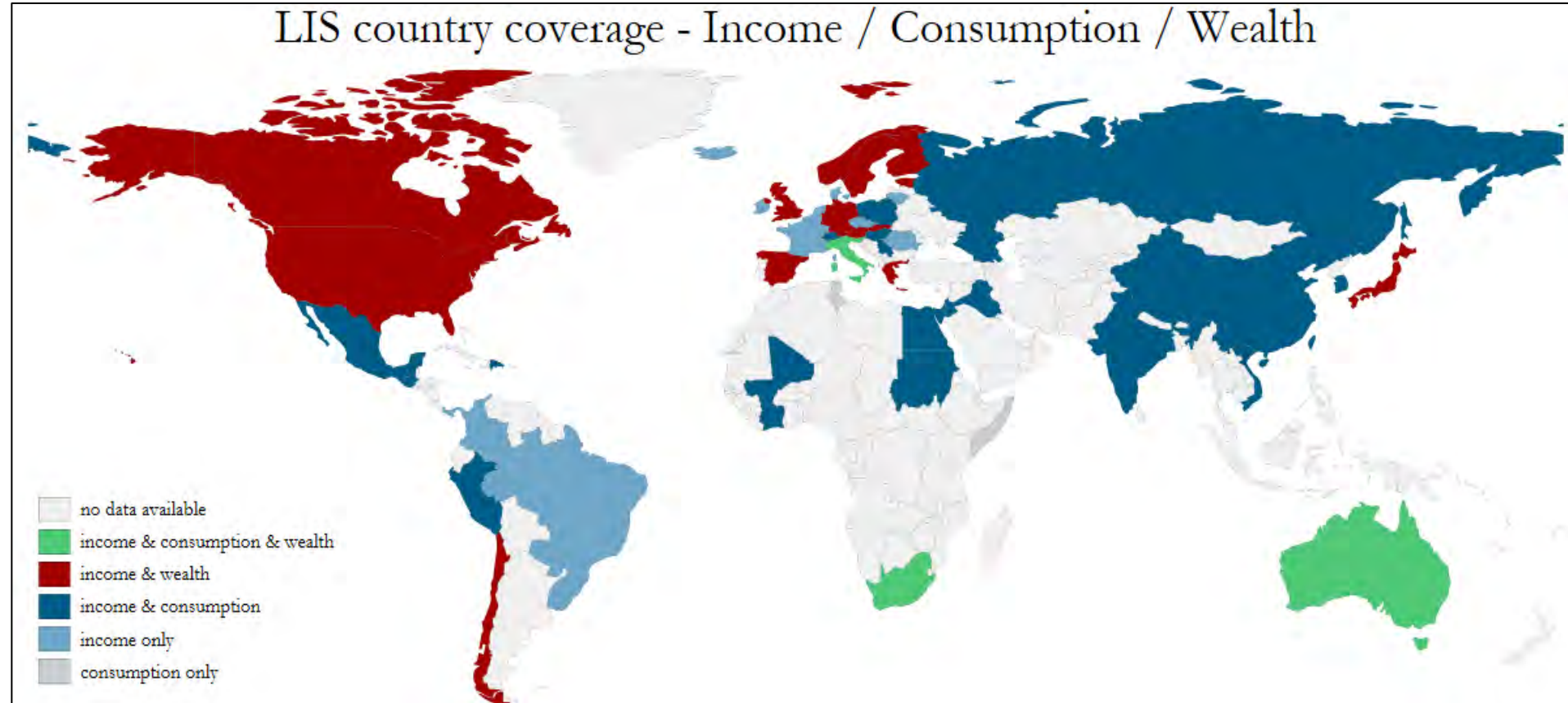
## ❑ Liabilities

- *Liabilities by purpose grouped by purpose for which the debt was taken (e.g. car, principal residence, etc.)*
- *Liabilities by security grouped by secured status of debt (e.g. whether or not debts are secured against assets and type of asset held as security)*



# Income, wealth, and consumption data in the LIS/LWS data

|                               |              |  |
|-------------------------------|--------------|--|
| income & consumption & wealth | 4 countries  | AU IT SI ZA  |
| income & wealth               | 15 countries | AT CA CL DE EE ES FI GR JP LU NO SE SK UK US                         |
| income & consumption          | 23 countries | CH CI CN DO EG GE GT HU IL IN IQ JO KR ML MX PE PL PS RS RU SD TW VN |
| income only                   | 14 countries | BE BR CL CO CZ DK FR IE IS LT NL PA PY RO UY                         |
| consumption only              | 2 countries  | SO TN  |



### 3. SOME METHODOLOGICAL CHOICES



# Working with the LIS/LWS microdata

## ❑ Choice of **welfare aggregate**

- **Income:** before or after deduction of taxes and contributions, extended with imputed rent, reduced by pre-committed costs
- **Wealth:** assets vs net worth, real vs financial, with or without pension wealth
- **Consumption:** expenditures vs consumption, treatment of the durables, with/out health/education

## ❑ Choice of the **unit of analysis** (household or person)

- employment and earnings are generally studied at the person level
- income is generally studied at the household level
- wealth is generally studied at the household level

## ❑ Choice of **equivalence scale** (to adjust for household size)

- household income should be equivalized (per capita, square root of the number of household members, OECD scale)
- no internationally agreed equivalence scale exist for wealth

## ❑ Choice of **weight** (to make the analysis representative of the whole population)

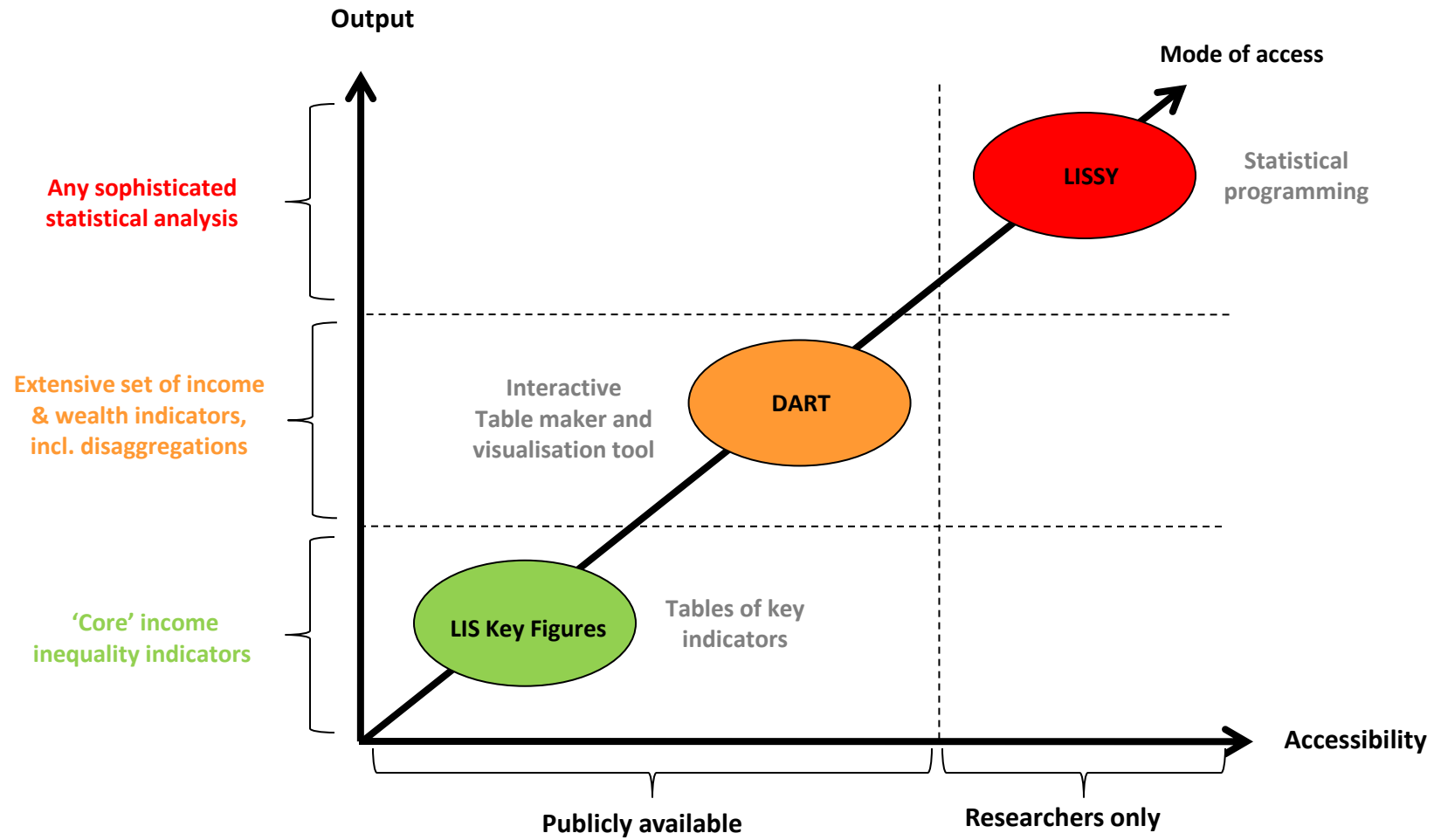
- household vs. individual weight



## 4. DATA ACCESS AND DOCUMENTATION



# Data access



# 1. LIS Key Figures

## LIS Key Figures – table tool for measures of inequality and poverty

- Inequality measures (Gini and Atkinson indices, percentile ratios)
- Relative poverty rates (different thresholds and by age groups)
- Mean and median disposable household income in local currency

### LIS Inequality Key Figures

#### Key Figure(s) (selected on 2021-Jun-30, 13:36:30)

poorAll4 - Relative Poverty Rates - Total Population (40%)

poorAll5 - Relative Poverty Rates - Total Population (50%)

poorAll6 - Relative Poverty Rates - Total Population (60%)

poorK4 - Relative Poverty Rates - Children (40%)

poorK5 - Relative Poverty Rates - Children (50%)

poorK6 - Relative Poverty Rates - Children (60%)

poorE4 - Relative Poverty Rates - Elderly (40%)

poorE5 - Relative Poverty Rates - Elderly (50%)

poorE6 - Relative Poverty Rates - Elderly (60%)

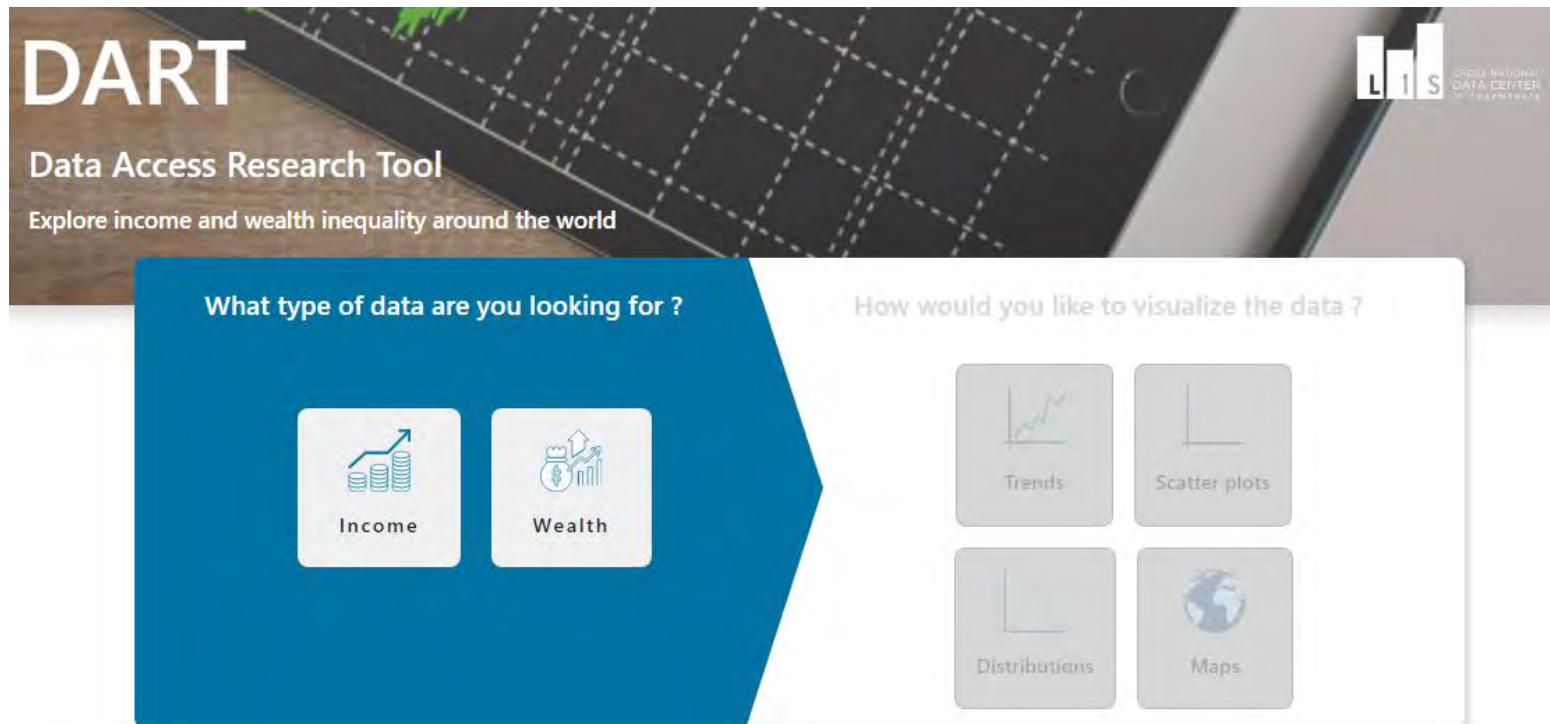
| DATASET(S) | POORALL4 | POORALL5 | POORALL6 | POORK4 | POORK5 | POORK6 | POORE4 | POORE5 | POORE6 |
|------------|----------|----------|----------|--------|--------|--------|--------|--------|--------|
| BR16       | 14.222   | 20.341   | 26.725   | 24.300 | 33.016 | 41.025 | 1.934  | 4.369  | 8.986  |
| CO16       | 13.670   | 19.679   | 26.365   | 18.077 | 26.074 | 34.678 | 17.938 | 23.450 | 29.013 |
| MX16       | 10.819   | 16.868   | 23.854   | 13.277 | 20.581 | 29.117 | 13.548 | 20.851 | 28.172 |
| PA16       | 16.527   | 21.884   | 27.662   | 23.228 | 29.678 | 36.569 | 16.844 | 25.260 | 31.764 |
| PY16       | 15.852   | 21.925   | 28.453   | 19.496 | 26.649 | 34.828 | 20.651 | 28.752 | 35.515 |
| PE16       | 18.975   | 24.011   | 29.416   | 21.953 | 28.182 | 34.733 | 31.371 | 36.872 | 41.996 |
| UY16       | 6.734    | 13.004   | 20.738   | 10.193 | 19.218 | 29.602 | 4.506  | 9.986  | 18.441 |



## 2. DART

### DART – visualisation tool for income and wealth indicators

- Various income & wealth aggregates that can be disaggregated by selected individual & household characteristics
- Four types of charts, line charts, scatter plots, distributions, maps



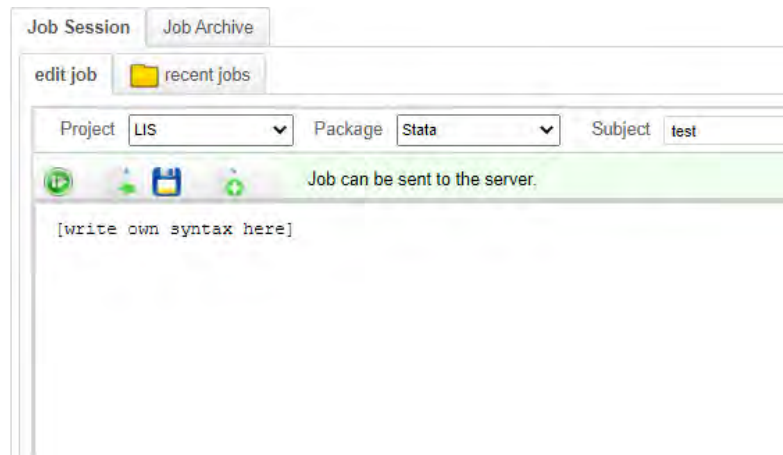
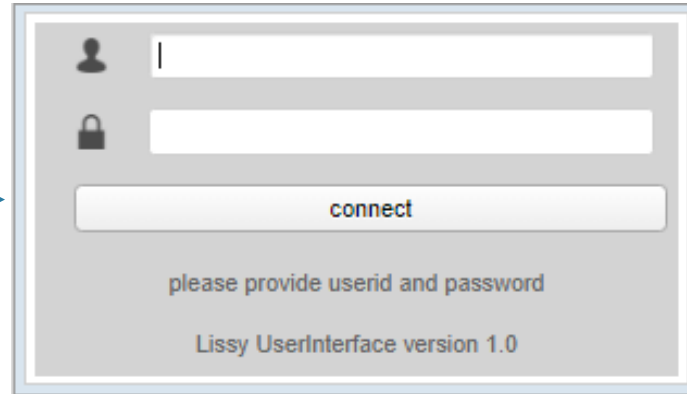
# Data Access Research Tool (DART)



### 3. LISSY

- LISSY is a remote execution system that provides secure access to LIS/LWS microdata
- Access is granted for registered users for a period of one year, renewable annually
- Once logged in, you can:
  - **Write** and **submit** statistical requests in R, SAS, SPSS and Stata (Job Session Pane).
  - **Track** job status and view both **job request** and **resulting listing** (Recent Jobs Pane).
  - **Manage** (view, clean and search) all job requests you ever sent (Job Archive Pane).
- Log of each job is sent to user email

# LISSY



# LISSY

```
use $la12h
gen wt=hpopwgt*nhhmem
gen dhi_pc=dhi/nhhmem
qui sum dhi_pc [aw=wt], de
gen poor60_dhi_pc=(dhi_pc <r(p50)*0.6)
tabstat poor60_dhi_* [aw=wt], stat(mean) column(stat)
```

```
##### NOTICE TO USERS #####

. use $la12h
(la07: version created on 4 Dec 2020 10:35)

. gen wt=hpopwgt*nhhmem
(6 missing values generated)

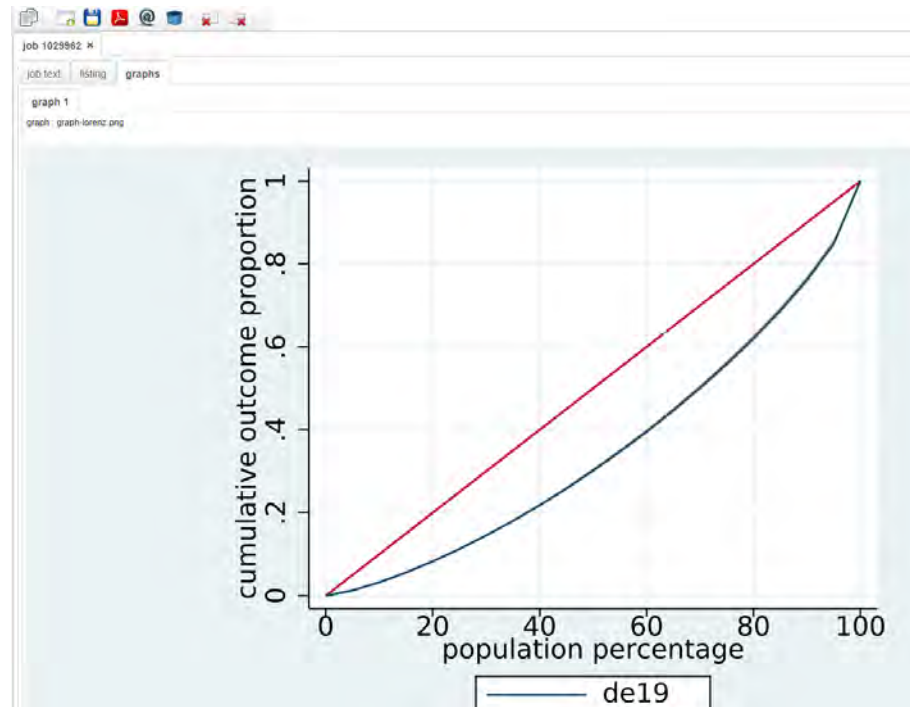
. gen dhi_pc=dhi/nhhmem

. qui sum dhi_pc [aw=wt], de

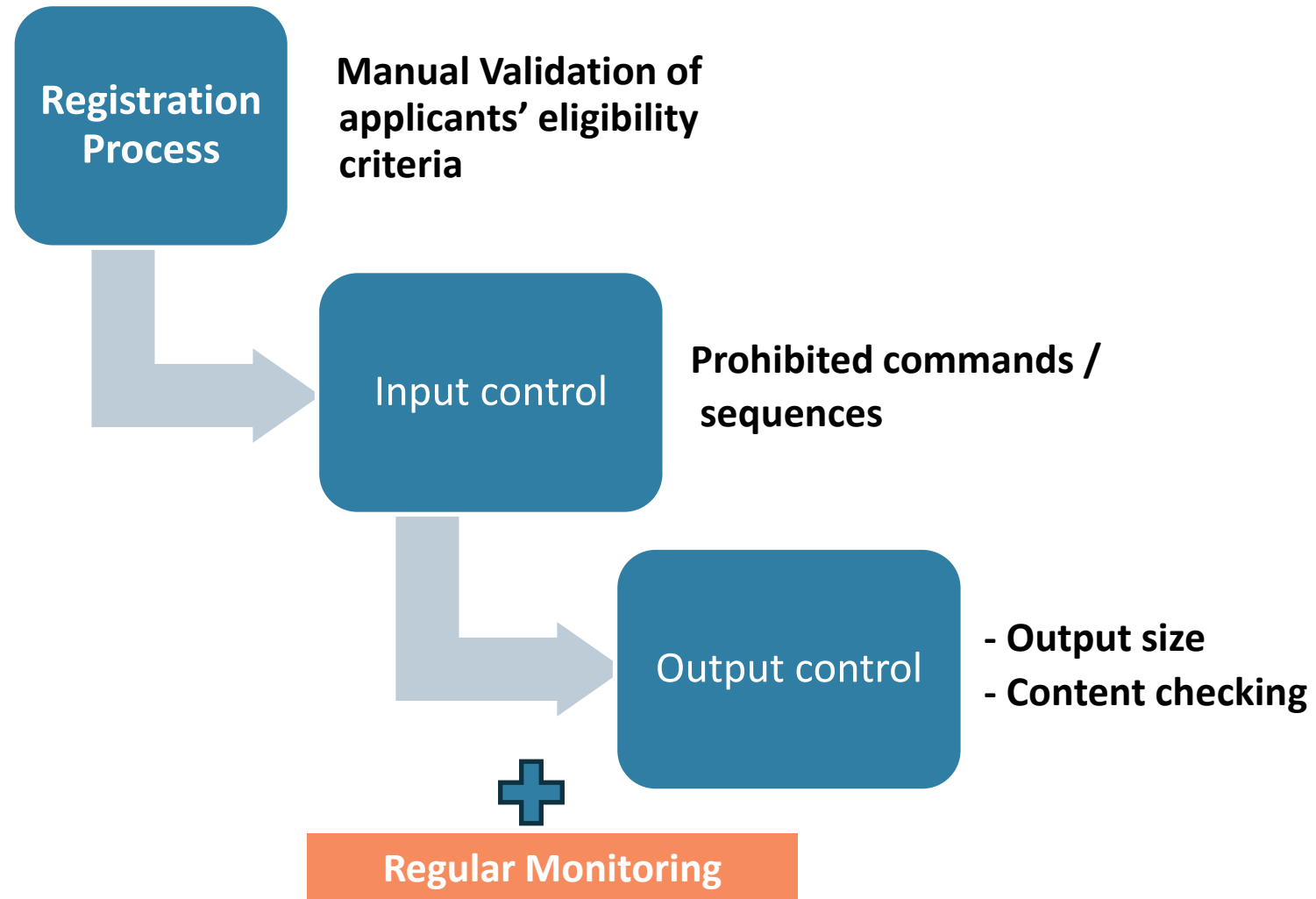
. gen poor60_dhi_pc=(dhi_pc <r(p50)*0.6)

. tabstat poor60_dhi_* [aw=wt], stat(mean) column(stat)

      variable |      mean
-----+-----
poor60_dhi~c |   .2701103
```



# LISSY Security measures



# Data Documentation Tools

## 1. METIS

[METadata Information System \(METIS\)](#) enables **browsing** and **exporting** LIS/LWS/ERFLIS Databases

documentation tailored to the users' needs before conducting any empirical analysis

**Basket Content**

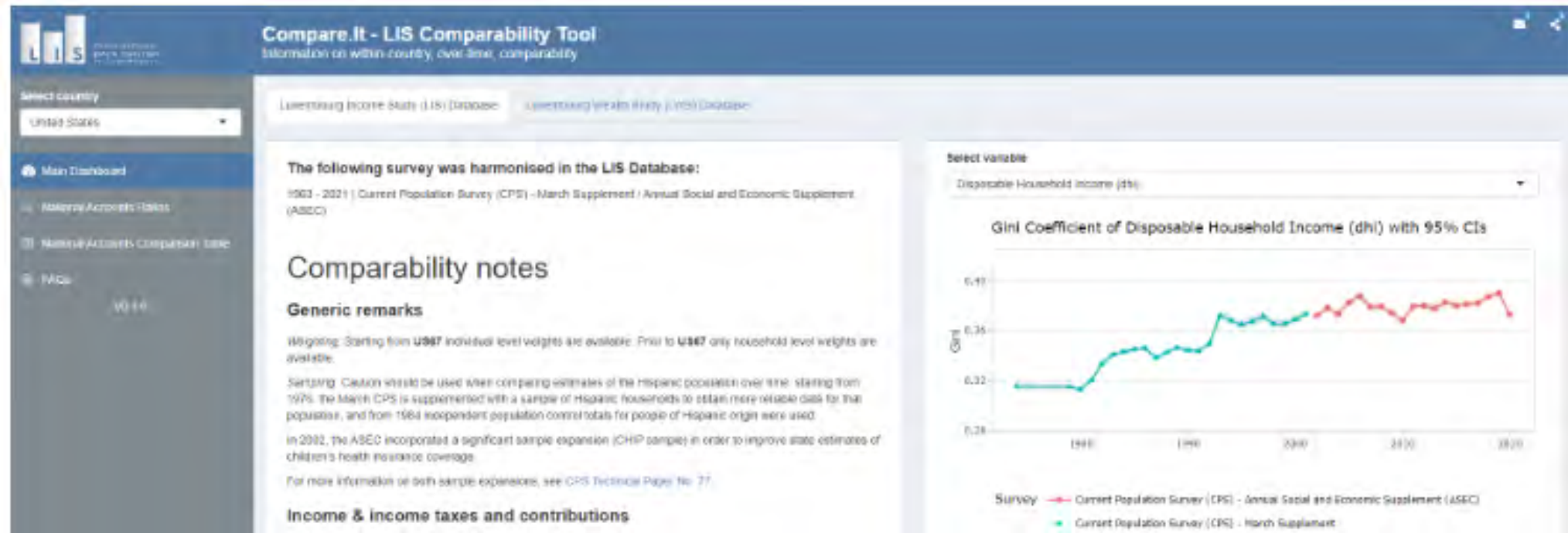
| Datasets  | Variables  |
|---|--|
| <input type="checkbox"/> AT17 2017 - Austria        | <input type="checkbox"/> [own] owned/rented housing                  |
| <input type="checkbox"/> CA16 2016 - Canada         | <input type="checkbox"/> [hhtype] household composition              |
| <input type="checkbox"/> FI16 2016 - Finland        | <input type="checkbox"/> [relation] relationship to household head   |
| <input type="checkbox"/> DE17 2017 - Germany        | <input type="checkbox"/> [educlev] highest completed education level |
| <input type="checkbox"/> NO16 2016 - Norway         | <input type="checkbox"/> [basb] savings behaviour                    |
| <input type="checkbox"/> SK17 2017 - Slovakia       | <input type="checkbox"/> [pilabour] labour income, person            |
| <input type="checkbox"/> ZA17 2017 - South Africa   | <input type="checkbox"/> [han] non-financial assets                  |
| <input type="checkbox"/> ES17 2017 - Spain          | <input type="checkbox"/> [hanr] real estate                          |
| <input type="checkbox"/> UK17 2017 - United Kingdom | <input type="checkbox"/> [haf] financial assets (excluding pensions) |
| <input type="checkbox"/> US16 2016 - United States  | <input type="checkbox"/> [hl] total liabilities                      |

[inpartner] head living with partner (dummy)  
[nhmem] number of household members  
[nhmem65] number of household members 65 or older  
[nhmem7] number of household members 7 or younger  
[nhmem15] number of household members 15 or younger

# Data Documentation Tools

## 2. Compare.It

Compare.It → inform users of country-specific data comparability-related issues in a concise way



Thank you!  
Any questions are welcome !



[munzi@lisdatacenter.org](mailto:munzi@lisdatacenter.org)

For question regarding LISSY or data support please contact:  
[usersupport@lisdatacenter.org](mailto:usersupport@lisdatacenter.org)

