High Level Seminar on the Future of Economic Statistics for the Arab Region

Agenda Item 2

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New Data Sources, Methods, Roles and Services

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Michael Smedes
This Presentation Will Cover:

• Drivers of Change

• New data sources and methods – ‘Big’ and Administrative

• New statistical products

• New roles for the NSO
Drivers of innovation and modernization

Data revolution
- Digital transformation
- New data sources
- Competition among data providers

New metrics
- Globalisation
- Sustainable development
- Geo-referencing

Cost of statistics
- Quality vs. resources
- Reduced budgets
- Reducing response burden

Emerging demands
- Differentiation of users
- Targeted Policies
- Timeliness
New data sources and methods

• Scanner (Transactions) Data – Well Established
  • CPI
  • SUT and IOT

• Card Payments Data – Pioneer Project
  • BOP – Services and off-shore internet purchases

• Payroll Data – Investigations and research
  • Administrative data also continues to evolve
  • ‘Real-time’ admin is now becoming available
Scanner Data

- Now provides the majority of price observations in the CPI
- Weekly delivery of data from major retailers
- Covers all geographic regions, all product groups, all transactions

- Starting to use in the Supply-Use Tables
- CPI will be annually reweighted based on these Tables
- Product level detail with both expenditures ($ and quantities

- Developments facilitated by UN Global Platform
UN Global Working Group on (Big) Data for Official Statistics

• Genesis

• Statistical Commission 2014 mandates
GWG Global Platform Architecture
GWG Global Platform
- what will be delivered?

A federated technical infrastructure which will allow **Trusted Partners** to access and collaborate with:

- **Trusted Data**
- **Trusted Methods**
- **Trusted Learning** materials

A series of **Data Collaboratives** have been set up to facilitate the development and sharing of new analytical methods, initially based on the GWG Task Teams
New statistical products

- Engage with users both bilaterally and through established user groups
  - Economic Statistics User Group
  - Labour Statistics User Group, Environmental Statistics User Group etc

- Identify gaps and priorities
  - See the Accounts as one key mechanism for meeting these priorities
  - Reuse data, methods, systems etc
Macro Accounts – Coherent and Complete

1. NO POVERTY
2. NO HUNGER
3. GOOD HEALTH AND WELL-BEING
4. QUALITY EDUCATION
5. GENDEREquality
6. CLEAN WATER AND SANITATION
7. PEACE, JUSTICE AND STRONG INSTITUTIONS
8. DECENT WORK AND ECONOMIC GROWTH
9. ECOLOGICAL BALANCE
10. REDUCED INEQUALITIES
11. SUSTAINABLE CITIES AND COMMUNITIES
12. LIFE ON LAND
13. CLIMATE ACTION
14. LIFEbelowWATER
15. LIFEONWATER
New Types of Accounts

• System of Environmental-Economic Accounts

• Distributions of Incomes, Consumption and Wealth

• Satellite Accounts to meet specific needs:
  • Tourism
  • Digital
  • Cultural & Non-Profits
  • Health

• Labour Accounts
Four quadrants

- **Jobs**
  - The Jobs quadrant describes the number of jobs, both filled and vacant.

- **Persons**
  - The Persons quadrant provides statistics on persons employed, persons looking and available for employment and persons with potential for further employment.

- **Labour Volume**
  - The Labour Volume quadrant describes the relationship between the hours of labour that are supplied by individuals and the hours of labour that are used or demanded by businesses.

- **Labour Payments**
  - The Labour Payments quadrant describes the relationship between the incomes paid by business to households and the incomes received by households from employment.
### Labour Account Identities

<table>
<thead>
<tr>
<th>JOBS</th>
<th>PERSONS</th>
</tr>
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<tbody>
<tr>
<td>Filled Jobs = Number of Main Jobs + Number of Secondary Jobs</td>
<td>Employed Persons = Number of Main Jobs (Total Economy Level)</td>
</tr>
<tr>
<td>+ Job Vacancies</td>
<td>+ Unemployed Persons + Underemployed Persons = Underutilised Persons</td>
</tr>
<tr>
<td>= Total Jobs</td>
<td>= Labour Force</td>
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### VOLUME

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<tr>
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<tr>
<td>Hours Paid For = Hours Sought by Unemployed + Hours Actually Worked</td>
</tr>
<tr>
<td>= Ordinary Time Hours Paid for + Additional Hours Sought by Underemployed</td>
</tr>
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### PAYMENTS

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| Overtime Hours Paid for = Average Hours worked per Job                                          |
| - Employment Subsidies = Average Labour Income per Employed Person                            |

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New Role

• Data Custodian: Managing Data as a Service

• Whole of Government Initiative: Data as an Asset

• Unit Level (Micro) Linked Data: Data is Secure and Private

• Research and Policy Making Studies: Data is Accessible
Microdata – Integrated and Accessible
Date Is Safe: Five Safes Approach
Challenges and Opportunities

• Extraordinary high demand for this service. How to scale while maintaining security and trust? Need to industrialise currently bespoke processes

• Work out how to use this data in ‘traditional’ statistical products. Complementary rather than competing activity