Modernisation of Statistical Classifications

Andrew Hancock

Chair, UN Committee of Experts on International Statistical Classifications

Background

International statistics have overlaps in concepts, definitions, classifications and metadata

Limited integration of the many standards, manuals and frameworks hampers responsiveness to emerging user demands

Real-world change is not easily incorporated into the traditional hierarchical structure of the current international standards

Changes for code patterns, revision cycles, best practice principles and new technology needs to be considered

Need to reconsider the purpose of the international classifications and International reporting requirements

Why have international classifications

There is a need for shared concepts, definitions and classifications to ensure a consistent approach to classifying data to support global policy initiatives

They provide a simplification of the real world and a framework for collection, organising and analysing data, both statistical and administrative, and are the cornerstone of official statistics

They provide a framework for international comparability and a basis for national development

They can be used for:

Collecting and organising statistical information in a standard way	Aggregating and disaggregating datasets in meaningful ways for complex analysis	Supporting policy and decision making	Assisting developed countries and their Official Statistics programs

What is modernisation?

- It is not solely about tools, platforms or web services – relevant as they are
- Understanding what a classification represents in the 21st century statistical world
- Moving away from one size fits-all hierarchies
- Developed country need has to be secondary to developing country need
- Reducing complexity in the existing international classifications
- Looking at other ways of delivering the same with reduced cost, time and process
- Keeping up with the real world and not producing classifications which are already out of date on release
- Working collaboratively across the global statistical system

Emerging Problems – Space (1)

ISIC Rev 5: No space to add new codes or categories – division level

- K Telecommunications, computer programming, consultancy, computing infrastructure, and other information service activities [3]
  - K61 Telecommunications [3]
  - K62 Computer programming, consultancy and related activities [3]
  - K63 Computing infrastructure, data processing, hosting and other information service activities [2]
- L Financial and insurance activities [3]
  - L64 Financial service activities, except insurance and pension funding [4]
  - L65 Insurance, reinsurance and pension funding, except compulsory social security [3]
  - L66 Activities auxiliary to financial service and insurance activties [3]

Emerging Problems – Space (2)

ISIC Rev 5: No space to add new codes or categories – class level

- **A012** Growing of perennial crops [9]
  - **A0121** Growing of grapes
  - **A0122** Growing of tropical and subtropical fruits
  - **A0123** Growing of citrus fruits
  - **A0124** Growing of pome fruits and stone fruits
  - **A0125** Growing of other tree and bush fruits and nuts
  - **A0126** Growing of oleaginous fruits
  - **A0127** Growing of beverage crops
  - **A0128** Growing of spices, drug and pharmaceutical crops
  - **A0129** Growing of other perennial crops

Emerging Problems - Revision Cycles

- Inconsistency in revision cycles for all major international classifications
  - CPC 1997, 2002, 2008, 2015, 2023/24
  - ISCED 1976, 1997, 2011/2013, 2025
  - ISCO 1968, 1988, 2008, 2028
  - ISIC 1948, 1958, 1968, 1989, 2002, 2006, 2023
  - SITC 1950, 1961, 1974, 1985, 2006
- Inconsistency in version control and nomenclature
  - CPC Prov, V1.0, V1.2, V2, V2.1, V3.0
  - ISCED76, ISCED97, ISCED-A, ISCED-P, ISCED-F, ISCED-T
  - ISCO68, ISCO88, ISCO08, ISCO28
  - ISIC 1948, Rev.1, Rev.2, Rev.3, Rev.3.1, Rev.4, Rev.5
  - SITC 1950, SITC Revised, Rev 2, Rev 3, Rev 4

Evolving range of classifications

- The changing nature of classifications beyond the traditional and purely statistical need impacts best practice and theory
- Differing rules are now needed to accommodate differing classification needs e.g. aggregated/derived views, alternative variations, analytical need, frameworks
- Examples of analytical classifications:
  - Classification of Statistical Activities
  - IUCN Global Ecology Typology
  - Broad Economic Categories
- Classifications frameworks such as the International Classification of Status in Employment
  - ICSE-18: Status in Employment
  - ICSE-18-A: Status in Employment according to type of authority
  - ICSE-18-R: Status in Employment according to type of economic risk
  - ICSaW-18: International Classification of Status at Work

Best practice principles

- These are based on traditional and historic classification theory and principles
- Have become restrictive as the world of classifications changes
- The current definition of a classification needs to change to reflect the reality:
  - *"A statistical classification is a set of categories which may be assigned to one or more variables registered in statistical surveys or administrative files and used in the production and dissemination of statistics. The categories are defined in terms of one or more characteristics of a particular population of units of observation. A statistical classification may have a flat, linear structure or may be hierarchically structured, such that all categories at lower levels are sub-categories of a category at the next level up. The categories at each level of the classification must be mutually exclusive and jointly exhaustive of all objects in the population of interest."*

    p5. Best Practice Guidelines for Developing International Statistical Classifications
- The fundamental components of a statistical classification are still needed but require reconfiguration to meet the data demands of the 21st century
- Hierarchies create complexity for best practice and for revisions

CEISC Research Agenda

- What is the purpose of an international statistical classification?
  - What do developing countries really need?
  - What are the international reporting requirements?
- Should international classifications be expanded to accommodate code issues?
  - More level 1 groups
  - More levels eg ISIC goes from 4 to 5 levels
- Are revision cycles still needed in the traditional sense?
  - Optimal timing
  - Alignment between like classifications
  - Clarity of scope
- How can better version control measures be introduced?
- Should the definition of a statistical classification be revised?
- How do we modernise best practice principles?

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