

Classifications in the Modern World

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Overview

- ▶ Classifications are the cornerstone of statistics and provide a connection point for integration of data and information
- ▶ Principle 9 of the UN Fundamental Principles of Official Statistics - *“The use by statistical agencies in each country of international concepts, classifications and methods promotes the consistency and efficiency of statistical systems at all official levels”*
- ▶ They should be methodologically sound, adhere to best practice principles of classification theory and statistics, and are designed for the sole purpose of producing official statistics.
- ▶ Competition exists between the statistical, non-statistical or administrative, and legislative needs, and getting consistency in the data is the challenge
- ▶ Should all these competing needs be accommodated in one classification or is it time to change the process and integrate and leverage of other content and process

Challenges - General

- ▶ Classifications are not just there to enable production of numbers or data
- ▶ Classifications have concepts, definitions and categories which describe the topics and units for which information and data is needed but these are not always consistent
- ▶ There is the developed versus developing country divide and the impact for how content is presented and described
- ▶ International adoption and implementation is not consistent with resourcing, capability and strategic directions for NSOs or regional organisations
- ▶ The amount of content in a classification and the supporting tools and guides vary based on the importance of the classification or scope of topic
- ▶ Statistical agencies are not subject matter experts
- ▶ The use of classifications in the wider global data system is often beyond the primary purpose of the classification as times have changed

Case Study: Occupation

- ▶ Occupation classifications for official statistics:
 - ▶ provide limited definitions on tasks and skills for jobs
 - ▶ enable data to be produced for analysis of a labour market or workforce from a census or labour force survey
- ▶ Occupation classifications may also be used:
 - ▶ to structure job-matching or career pathways
 - ▶ for vocational assessment of persons returning from injury to the workforce
 - ▶ as a proxy for measuring labour market skills
 - ▶ for assessment of residency and work visa applications
- ▶ How far should their wider use influence the development?
- ▶ Should the approach change to enable better information for users

Case Study: Occupation Visualisation New Zealand proposal

These arrows represent the link between existing and the new occupational framework. Existing 6 digit occupations will be brought into the new framework as appropriate. For example, Cotton Grower is country specific and may not be brought across in a national instance.

These arrows represent the link between the new occupational framework and admin using apis. Occupations in the new framework will be linked to the relevant admin category to read content only.

- Existing Occupational Framework**
- 121111 Aquaculture Farmer
 - 121211 Cotton Grower
 - 121212 Flower Grower
 - 121213 Fruit or Nut Grower
 - 121214 Field Crop Grower
 - 121215 Viticulturist
 - 121313 Dairy Cattle Farmer

- New Occupational Framework**
- Aquaculture Farmer
 - Flower Grower
 - Fruit or Nut Grower
 - Field Crop Grower
 - Viticulturist
 - Dairy Cattle Farmer

- Admin Source Classification**
- T00035 Aquaculture farmer and manager
 - T00037 Orchard farmer and manager
 - T00034 Crop farmer and manager
 - T00036 Viticulturist
 - T00031 Dairy farm manager
 - T00032 Sharemilker

- Admin Major Groups**
- 11 Construction and infrastructure
 - 12 Science
 - 13 Factories and manufacturing
 - 14 Sales, hospitality and tourism
 - 15 Arts, media and design
 - 16 Business and information technology
 - 17 Government, law and safety
 - 18 Health
 - 19 Community and education
 - 20 Engineering, technology and maintenance
 - 21 Transport and supply
 - 22 Farming, fishing, forestry and mining

Concordances

ISCO08	US SOC
	NOC

Concordances

ISIC	ANZSCO	CPC
ISCO08	US SOC	

Output View

Admin Content Platform

- Farming, fishing, forestry and mining**
- Farming, fishing, forestry and mining includes growing and producing food and resources, extracting and processing minerals, and monitoring and protecting the environment.
- Food processing
 - Growing, gardening and forestry
 - Environment and sustainability
 - Animal health and care
 - Quarrying and mining
 - Farming and fishing

Farming, fishing, forestry and mining includes growing and producing food and resources, extracting and processing minerals, and monitoring and protecting the environment.

Case Study: Occupation - Benefits

- ▶ Not replacing one framework with another just integrating available information
- ▶ Leveraging off other content and processes to simplify the statistical classification development - remove duplication of effort
- ▶ Provides a more dynamic updating of categories and content via non-statistical sources
- ▶ Reduces cost in time and resource for the statistical agency and allows wider use of technology e.g. apis, semantic web
- ▶ Provides integration of like platforms holding same or similar content enabling a more federated data system
- ▶ The model can be used for any classification e.g. industry, products or commodities and is more dynamic and less resource intense

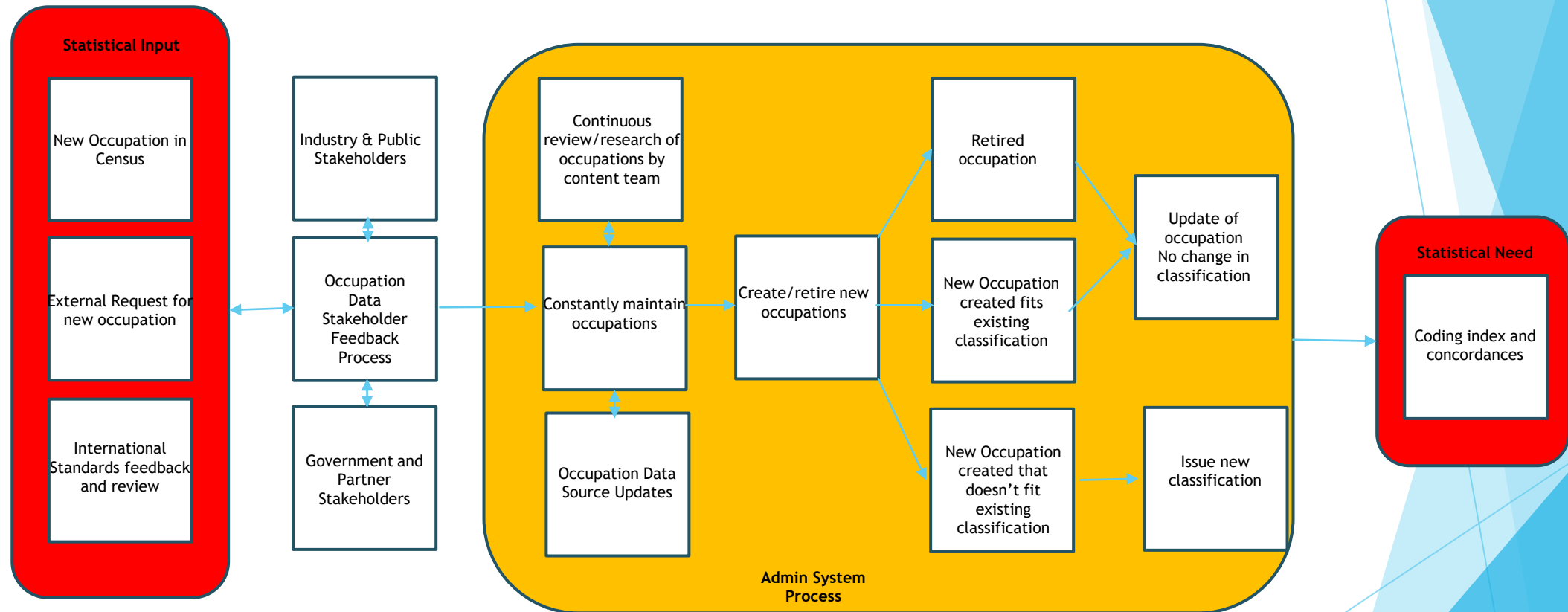
Challenges - Consistency

- ▶ Ideally everyone should be on the same page, doing the same thing in the same way
- ▶ Invariably there are differences caused by resourcing, legislative, political or regulatory needs
- ▶ Are we all using the same version of ISIC or CPC for example
 - ▶ New Zealand - EU Free Trade Agreement 1 July 2023 references CPC but defines it as the Provisional Central Product Classification (Statistical Papers Series M No. 77, Department of Economic and Social Affairs, Statistical Office of the United Nations, New York, 1991)
- ▶ What about the regional adaptations or variants e.g. NACE, NAICS or ANZSIC
- ▶ International standards are often more bridges for data reporting than actual usable classifications in many respects
- ▶ Need consistency of shared data and information as opposed to rigid, conceptual and structural adherence at all costs to a statistical classification

Governance

- ▶ Governance structures impose a restriction on how and when classifications can be revised
- ▶ Governance impacts the amount of time taken not only for the development cycle but the implementation process.
- ▶ Legislative or regulatory processes in addition to the statistical need lends itself to leaving things alone for as long as possible
- ▶ Revision cycles influenced by statute or regulation means that statistical classifications may be less suitable or reflective of the statistical needs
- ▶ For international standards it is the CEISC, then the UN Statistical Commission, and/or custodian governance processes
- ▶ But the revision cycles for each classification vary - e.g. HS is 5 yearly, BEC or SITC when it suits, ISCO currently on a 20-year cycle
- ▶ NSOs need to become stakeholders and trusted advisors in a process, rather than the leaders and drivers if consistency is the goal

Case Study: Occupation Process Flow New Zealand proposal



A few questions going forward

- ▶ What is the purpose and role of an international statistical classification?
- ▶ How important is a traditional revision cycle process with advances in technology?
- ▶ Should regulatory or legislative processes drive or influence revision cycles and classification content?
- ▶ Why are statistical agencies scared of working with administrative agencies to share and integrate i.e. moving away from the them and us?
- ▶ Can we as a classification's community be more willing to leverage of each other's work rather than always do our own thing?
- ▶ How do we improve implementation processes and get countries on the same footing at the same time, and do we need to.

Conclusion

- ▶ Statistical classifications have a wider role in the modern global economy as policy and data needs expand to reflect the dynamic changes in the real world
- ▶ Static classifications reviewed on a cyclical process will always be out of date on release so why bother
- ▶ Technology and a change in thinking on what classifications can do, and a change in the role of statistical agencies to be equal stakeholders or advisors with administrative agencies is more sensible
- ▶ New thinking around the purpose and value of international statistical classifications needs to be introduced
- ▶ Leveraging off existing content, integrating platforms and working collaboratively across a data system is the way forward
- ▶ Hierarchic statistical classifications as we know them have had their day
- ▶ Let's not duplicate effort and work more collaboratively

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