Module 2: Key Design Considerations

Handling Issues in the Use of Administrative Registers

Types of Administrative Data Used by ABS

- Vitals
  - Births, Deaths, Marriages
- Migration and settlement
- Education
  - Schools, Students
  - Higher Education
- Health
  - Hospitals, Services
- Welfare payments
  - Pensions
- Crime and Justice
  - Recorded Crime and Courts.
- Motor Vehicle Register
- Building Approvals
- Customs - Imports, Exports, Value of Goods, Commodity
- Government Finance – Commonwealth, State and Local

Types of Administrative Data Used in the ABS Business Register

- Australian Taxation Office
- Australian Business Register – <u>Australian Business Number</u>
- Australian Securities and Investments Commission
  - Registration of a Company
- Australian Prudential Regulation Authority
  - Regulation of Financial entities
  - Superannuation
- Australian Charities
  - Not for profit sector
- Tourist Accommodation
  - Type of establishment and star rating
  - Listing is a private (non government) list.

Brief History of ABS Use of ATO and ABR Administrative Data

- ABS First Integrated Register of Businesses (1968-69)
  - **Australian Taxation Office**
    - Group Employer Registrations
      - Legislation was introduced to allow ATO to provide the data to ABS
      - Strong strategic relationship with ATO allowed for ABS to understand and maximise the benefits of the key changes that came through with the new Taxation system in 2000.

- The New Taxation System (2000)
  - **Australian Business Register**
    - Registration of a business entity with a unique Australian Business Number (ABN).
    - Agricultural activity, farms
    - Activity undertaken and industry coding
    - Employing and non employing units.
  - **Australian Taxation Office**
    - Goods and Services Tax introduced.
    - Business Activity Statements provided updates of business activity and inactivity.

Advantages of Administrative Data

- Authority and legislation to collect the information
- Institutional responsibilities around privacy and confidentiality
- Coverage and scope is clear
- Consistency in registration/collection process
- Consistency to enable integration of separate provincial collections through coordination activities.
- Consistency in maintenance of stock information

Other Uses of Administrative data

- Data validation
- Editing
- Imputation and substitution
- Reducing respondent burden
- Supplementary information on frame characteristics
- Weighting and estimation (creating benchmarks)
- Monitor longitudinal changes

Disadvantages

- Data capture
  - May not be based on a common collection instrument,
  - classifications and coding is inconsistent across collection points resulting in data quality being poor or compromised.
- Scope and coverage for registration
  - changes too frequently to allow for analysis of changes over time for example eligibility changes over time eg fuel rebate
- Registration is not compulsory or not legislated
  - omissions from frame.

Common Issues in Handling Administrative Data

- Births and Deaths
  - Duplicates on the Register
  - Units are not updated or deathed
- Data Items and Metadata
  - Conceptual differences in the administrative collection to statistical concepts.
  - Definitions are not the same across the collections or not readily available
- Database Systems and Business Rules
  - Systems and business rules for derived items are calculated differently
- Clerical Processing and Maintenance
  - Industry coding might be clerical or system based/ autocoded.
  - Update of stock information is irregular
- Extracts and Reports
  - Understanding the conceptual basis eg Output specifications may exclude some units eg cancelled units or inactive units.
  - Consistent time based snapshots vs ad-hoc generation of outputs. ABS uses the common frame – produced quarterly.

Other Issues

- Legislation
- Availability of Statistical Information
- Stability of Data
- Collection Issues
- Influencing the collection
- Metadata availability
- System issues
- Timeliness
- Political issues
- Large Volumes of Data
- Editing and Transformation
- Linking of records
- Confidentiality and Consent

Fit for Purpose

- Data Quality Framework (ABS)
  - Relevance, Accuracy, Timeliness, Interpretability, Coherence, Accessibility

- Institutional Reputation
  - Legislative
  - Adherence to international standards
  - Statistical capability and methodological scrutiny.

- The ABS as part of the National Statistical Service (NSS) created an online assistant called the Data Quality Online Tool to help people understand and utilise the ABS DQF. The Data Quality Online tool is found on the NSS website (www.nss.gov.au). It provides conceptual information in the form of questions for each of the seven dimensions of the ABS DQF to help you determine whether data is fit for your needs.

Opportunities for Linking

- Common Identifier
  - Australian Business Number
  - A complex Business Group may include many ABNs
  - Legal Name/Unit and link to ABN

Maintenance and Updates

- Understand the administrative process of the data supplier.
  - Cyclical processes, tax cycle.
- Influence the key maintenance statistical priorities and updating of that information.
  - Priorities around stratification variables
- Ensure the quality of the updated information.
  - Quality assure the changes eg change of industry activity or employment

Quality Assurance

- Quality of the administrative record
  - Missing information
  - Incorrect information
  - Clerical coding/processing quality
  - Validation of data entry/updates
  - Quality of business process logic for derivations
  - Accessibility, Privacy and Confidentiality

Relationship with Data Providers

- Opportunity to exchange views on data supply
- Engage on both operational and strategic changes that are being planned for implementation.
- Highlight areas of concern around data quality and potential improvements.
- Identify operational activities that may result in changes in data supply or quality eg. updating of data variables or through the deathing of units.

Governance and Memorandum of Understanding

- Manage the relationship with providers of administrative data.
- The MoU agreement usually covers:
  - Conditions for the supply of administrative data
  - Agreed timetable for supply of data
  - How data will be supplied, its format and quality
  - Confidentiality and security of data and its use
  - Engagement protocols around changes to data supply or systems changes.

Essential Statistical Assets

- Recent ABS initiative to identify the key statistical assets that form the statistical infrastructure for Australia.

- Refer to the two publications available on the ABS website:
  Essential Statistical Assets for Australia, 2013
  Essential Statistical Assets for Australia, 2014

- The Australian Business Register is an ESA

Resources

- ABS Cat No 1522.0 Quality Management of Statistical Outputs Produced from Administrative Data