



# Issues in Administrative Data

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## Introduction

1. Issues with admin data
2. Quality Assurance
3. Solutions
4. Coverage (ABS)
5. Resources



# Common Issues

- Collection Issues – compliance
- Legislation
- Differences in definitions of variables
- Stability of Data
- Metadata availability
- System
- Timeliness
- Political issues
- Large Volumes of Data
- Linking of records
- Confidentiality and consent



# SBR Admin data issues

- Births and Deaths
  - Duplicates on the Register
  - Units are not updated or deceased
- 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



## SBR Admin data issues

- Clerical Processing and Maintenance
  - Industry coding might be clerical or system based/ auto-coded.
  - 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.
  - Admin data is a complex process



## SBR Admin data issues

- These impacts can be seen;
- Admin record data errors
  - Missing information
  - Incorrect information
  - Clerical coding/processing quality
  - Validation of data entry/updates
  - Quality of business process logic for derivations



# Quality Assurance

## 1. Know the data

- Understand the administrative process of the data supplier.
- Collection forms / process
- Purpose of collection
- Collection cycle (tax, billing etc)
- Engage with the provider



# Quality Assurance

## 2. Analyse Unit Record Changes

- All data should be reviewed in detail
- Focus on units with changes
- Check errors
- Detailed management information
- Validate data
- Micro level
- Macro level



# Quality Assurance

## 3. Clearance Processes

- Quality gates
- Quality measures
- Times series
- Counts
- Aggregates
- Clearance meetings



# Quality Assurance

- 4. Profiling
  - Is a quality assurance process
  - Focus on the important units
  - Collect your own data (Forms / Calls)
  - Resource intensive



## Possible Solutions

- Editing and transformation
- Collect your own data
- Outlier the results
- Data imputation
- Data integration
- **Influencing the collection**



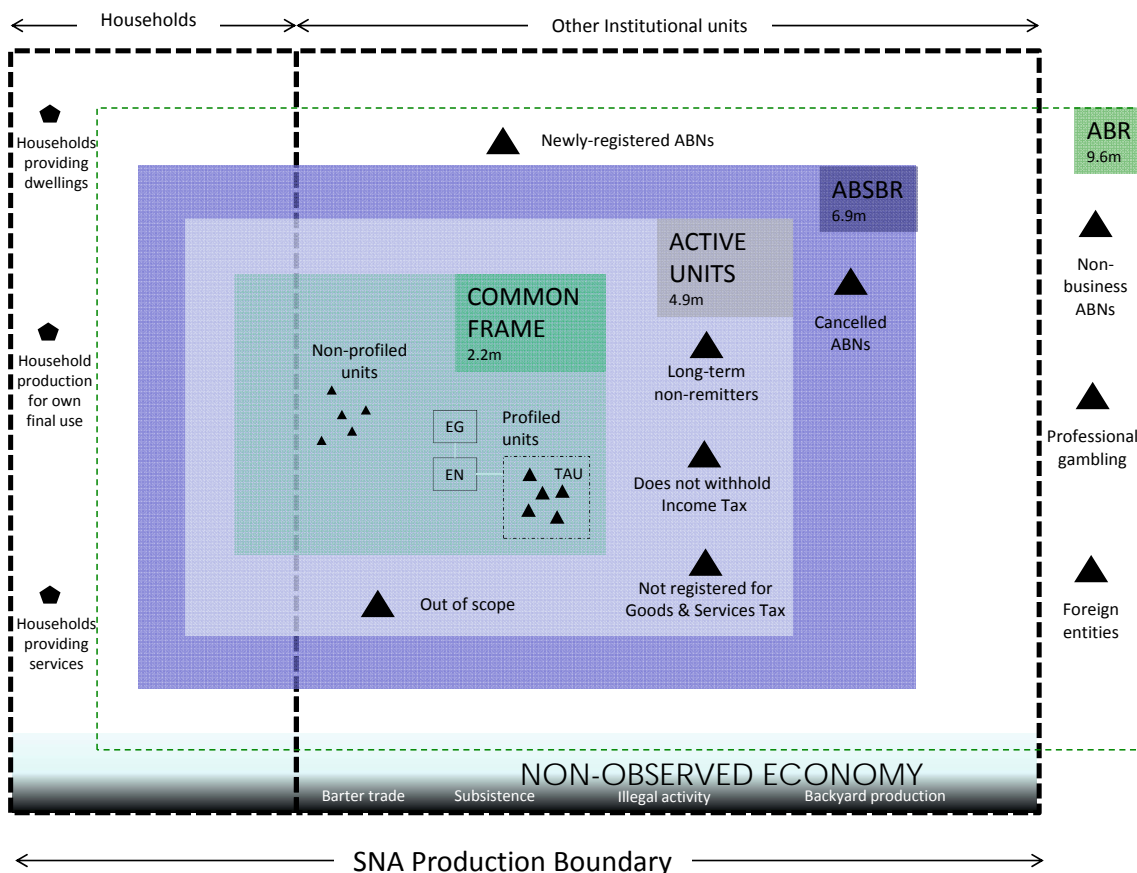
## Long term solutions

- The number one solution is to influence the collection process
  - Political support
  - Collaboration
  - Justify and convince
- Influence the key maintenance statistical priorities and updating of that information.
  - Priorities around stratification variables



# Coverage

- What you want to measure?
- The economy
- Many solutions:
  - Cover all establishments
  - Cover all Legal Entities
  - Household surveys
- ABS example



## Resources

- Using Administrative and Secondary Sources for Official Statistics: A Handbook of Principles and Practices (UN ECE)
- [ABS Cat No 1522.0 Quality Management of Statistical Outputs Produced from Administrative Data](#)



## Q&A

- Thank you!

