

Regional Course on Statistical Business Registers: Making a Business Case for an Operational Statistical Business Register

26 – 30 January 2015
Sungkai, Perak, Malaysia

3.3 – Handling changes in demographic & linkage characteristics



Demographic events

- * A demographic event is defined as an event that has an impact on the existence of a statistical unit, or on links between statistical units
- * General typology of demographic events is based on two distinct types of events:
 - * events involving existential changes, i.e. the emergence or disappearance of combinations of production factors – birth or death;
 - * events involving distributional changes, i.e. changes in the distribution of production factors between enterprises – continuation.

Birth

- * The creation of a combination of production factors with the restriction that no other enterprise is involved in the event
- * Handling a birth – creating a new unit, i.e. an unit with a new identification number
 - * Date of birth: date on which first financial commitments for investments are made
- * Typically detected through a signal in administrative source(s), i.e. the appearance of a new unit
- * Caution: not every new administrative unit results in the birth of an enterprise – see continuity

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Death

- * The dissolution of a combination of production factors, where no other enterprises are involved
- * Handling a death – deletion of a unit / identification number
 - * Deletion: not a physical deletion, but indication of the unit as 'deleted' in order to keep track
- * Typically detected through survey activities and through the disappearance of units from an administrative source

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Other demographic events

- * Change of ownership
 - * New legal unit takes over the activities of an existing unit – change in linkage characteristics
 - * Not affecting the continuity of the unit and, therefore, should not cause the creation or deletion of a unit
 - * In administrative sources it usually results in the death of an administrative unit and birth of another one
- * Restructuring within an enterprise
 - * Does not affect the continuity of the enterprise, can affect establishments
 - * Usually detected through profiling

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Other demographic events (cont'd)

- * Concentration – merger & takeover
 - * Event involving more than one legal unit before the event and only one legal unit after the event
 - * Results in deletion of old enterprises and creation of a new one (merger), or continuation of one enterprise and deletion of others (takeover)
- * De-concentration – split & break
 - * Event involving one legal unit before and more than one legal unit after the event
 - * Original legal unit dies and all the legal units after the event are new (break), or original legal unit continues and other legal units are new (split)

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Handling of demographic events

- * Define rules under what circumstances a unit is deemed to:
 - * Be born (created)
 - * Have died (permanently inactive or defunct)
 - * Continue (replaced by a new enterprise)
- * Mostly detected after reception of signals in the administrative data that are used to maintain the SBR
- * Additional information may be needed, either directly collected or from other sources, such as profiling

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Handling of demographic events (cont'd)

- * Rules need to define how to:
 - * detect every possible change of a unit;
 - * reflect the legal and administrative signals in demographic changes of statistical units.
- * What needs to be taken into account:
 - * the source of the signal
 - * the maintenance group to which the unit belongs
 - * the ways in which changes can actually be detected

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Summary

| Event | Real, observable world | | SBR | |
|---------------------|--------------------------------------|-------------------------------------|------------------|------------------|
| | No. of units <u>before</u> the event | No. of units <u>after</u> the event | No. of creations | No. of deletions |
| Birth | - | 1 | 1 | - |
| Death | 1 | - | - | 1 |
| Change of ownership | 1 | 1 | - | - |
| Merger | N | 1 | 1 | N |
| Takeover | N | 1 | - | N-1 |
| Break-up | 1 | N | N | 1 |
| Split-off | 1 | N | N-1 | - |