PARALLEL SYSTEMS OF GRADUATE CAREER TRACKING IN HUNGARY
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Institutional Data Module

Tasks of correspondents
HE institutions
Methodological centre (Educatio Non-profit LLC)

Population
Graduates from 2010, status 2 years after graduation

Database
From 2010 data collection of 30 higher education institutions
2010: 20,000 graduates of 2007, 2009 (response rate = 26%)
2011: 25,000 graduates of 2008, 2010 (response rate = 15%)
2012: 20,000 graduates of 2007, 2009 (response rate = 20%)
2013: 24,000 graduates of 2008, 2010 (response rate = 16%)

Comparison of methods

Data collection method
- Online access
- Linking existing administrative databases

Error types
- Type error
- Exposure error
- Time error
- Expenditure error
- Data collection error
- Maintenance error
- Homogeneity error
- Characteristic of data
- Data collection error
- Data integration error
- Data availability error

Limitations of using survey or administrative data

Survey data
- Unit or item nonresponse
- Limitation of the questionnaire length
- Higher cost
- Difficult to collect random data
- Lower sample size

Administrative data
- Higher respondent burden
- Lack of coverage, administrative “incomplete” groups
- Lack of variables (e.g., social background, induction variables)
- Change over time
- Partially and non-coded content and questions

Possibilities of linking survey and administrative data

Administrative data and data integration module covers the same population
Both of them are anonymized without unique ID
Contains overlapping variables in the same time

It is possible to use the probabilistic record linkage method to link the matching records

Results of linking administrative and survey data
- Identification and correction measurement errors:
  - Coverage error
  - Sampling error
  - Nonresponse error
  - Reporting error

Compensate the weaknesses of the different type of data

Data Integration Module

Involves databases
- Higher Educational Information System
- Educational career track
- National Tax Office
- National Health Insurance Fund

Methodology
- Data linking at individual level (allowed by the hungarian law for the governmental leaders)
- Based on personal identification code
- Anonymization process by HASH algorithm

Database
- 35,000 persons (May, 2012)

Output – Data Integration Module (example)

- Total gross monthly income and vertical matching of degree and job by study field (%)
- 35,000 persons (May, 2012)

Topics for further research
- Degree benefit
- Professional success
- Professional satisfaction
- Vertical and horizontal matching of study and work
- Transition period – from school to work
- Life-long learning tendencies, learning patterns and plans
- Socio-demographic background (inequality, (self) selection)
- International mobility (working/learning)
- Drop out

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