

Research Data Centre (FDZ) of the German Federal Employment Agency (BA) at the Institute for Employment Research (IAB)

# Neue Entwicklungen beim Datenangebot im Forschungsdatenzentrum der BA im IAB

Institute for Employment Research Research Data Centre

Peter Jacobebbbinghaus

# Agenda

## Long-term perspective

#### News about:

- 1. Administrative data
- 2. Survey data
- 3. Data linkage
- 4. Data access

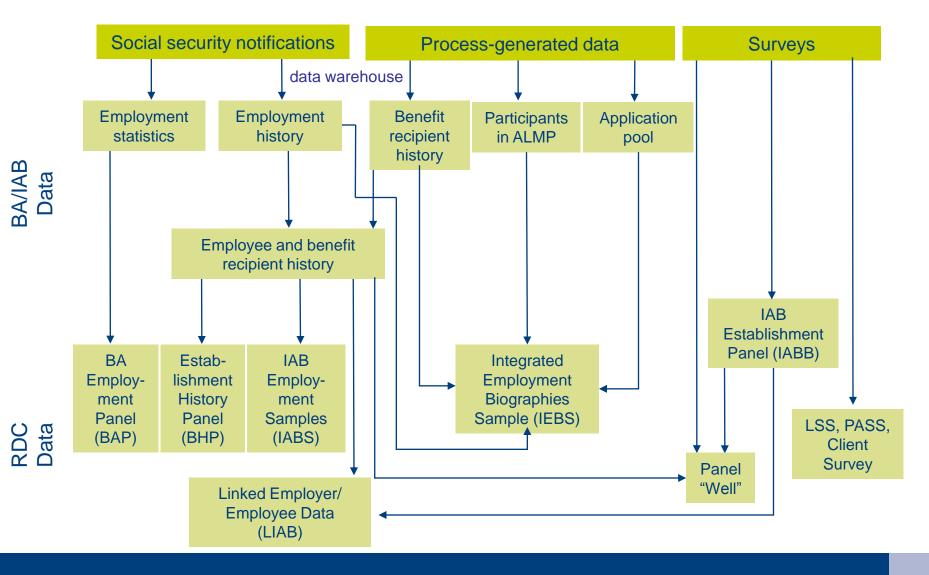
# Long-term perspective

- Micro data for German researchers
- Micro data for researchers from abroad
- Linkage of BA/IAB data
  - with one another
  - with other German data
  - with international data

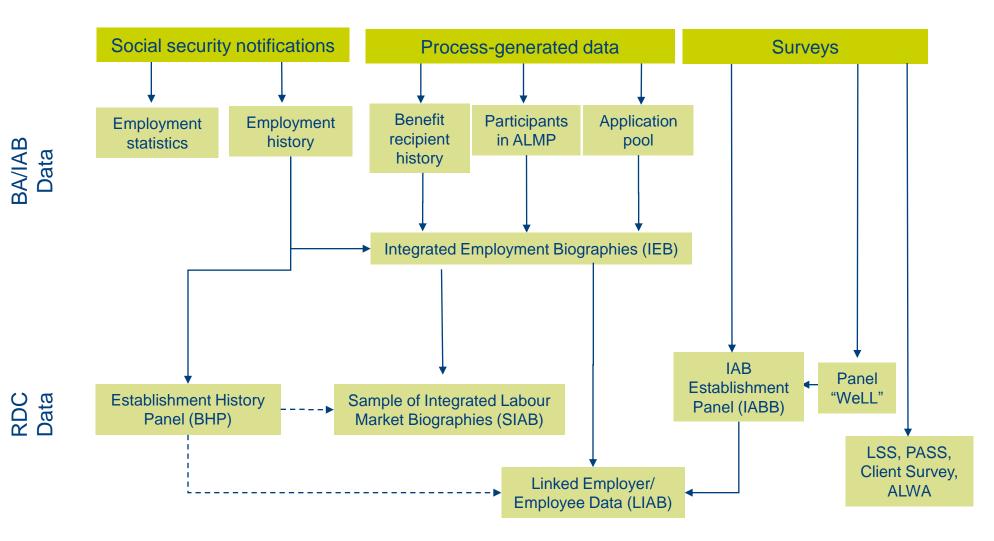
## 1. News about administrative data

- Harmonization of administrative datasets
  - all data based on the same data base (IEB)
  - standardized naming and coding of variables
  - data portfolio gets clear structure
  - easier to switch between different datasets

# BA/IAB data structure old



#### BA/IAB data structure new



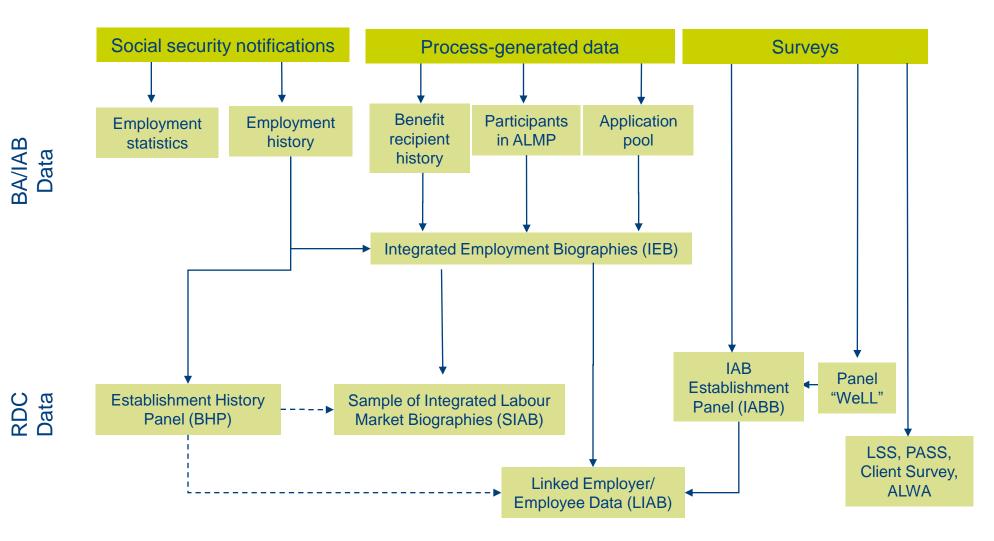
## 1. News about administrative data

- Sample of Integrated Labour Market Biographies (SIAB)
  - successor of IABS and IEBS
  - **1975-2008**
  - employment, benefits, job search, programme participation
  - wide range of establishment information based on BHP

## 1. News about administrative data

- Extension of Establishment History Panel (BHP)
  - 25% sample of German establishments with employees liable to social security
  - information on employment structure on 30 June.
  - **1975-2008**
  - employment flow data
  - classification of id changes
    - openings, closings, spin-offs
    - based on employment flows

### BA/IAB data structure new



- Working and Learning in a Changing World (ALWA - Arbeiten und Lernen im Wandel)
  - cohorts 1956-1988, more than 10.400 respondents
  - contains information about
    - education and employment trajectories
    - residential, partnership and parenthood histories
  - longitudinal analysis of
    - schooling and training decisions
    - labour market behaviour
    - processes of family formation and regional mobility.

- Panel WeLL Further Training as a Part of Lifelong Learning: 2nd wave
  - further vocational training since January 2006
  - socio-demographic information, retrospective employment biography since January 2006, job satisfaction, expectations, questions about the respondent and his/her household

- Panel WeLL Further Training as a Part of Lifelong Learning: 2nd wave
  - 149 establishments
  - 6404 employees 2007, 4894 employees 2008
  - RWI-Essen (Rheinisch-Westfälisches Institut für Wirtschaftsforschung e.V.), DIE (German Institute for Adult Education), IAB (Institute for Employment Research) and infas GmbH (Institute for Applied Social Sciences)

- PASS Panel Labour Market and Social Security: 2nd wave
- labour market, welfare state and poverty research
- two partial populations:
  - persons and households in receipt of Unemployment Benefit II
  - persons and households registered as residents of Germany

# PASS – Panel Labour Market and Social Security: 2nd wave

#### Wave 1:

Sample I: 9,386 individuals (6,804 households)

Sample II: 9,568 individuals (5,990 households)

#### Wave 2:

Sample I: 4,753 individuals (3,491 households)

Sample II: 6,392 individuals (3,897 households)

Sample III: 1,342 individuals (1,041 households)

# 3. Linkage of data

- In all new IAB surveys respondents are asked to consent to linkage with administrative data (WeLL, ALWA, PASS)
- In addition: projects on linkage with external admin. data
  - Patent data (DPMA)
  - KombiFiD
  - BasiD
- Commercial data (Bureau von Dyke)
- Multinational data
  - Commuters Denmark-Germany
  - RDC-in-RDC approach

# 3. Linkage of data: patent data

## German Patent and Trademark Office data (LMU Munich)

- all entries for 2002 by inventors name and address
- education information very reliable
- over 90% of inventors are in the social-security system
- 63,278 observations in 2002

# 3. Linkage of data: patent data

- Linkage
  - no identifier to link the data
  - record linkage by name+address (MTB 2004)
  - exact linkage: 60% declared matches
  - different Jaro-techniques: 12% matches
  - 45,782 (72%) inventors found
- Result: linked employer-employee-inventors data

# 3. Linkage of data: KombiFiD – Combined Firm Data for Germany

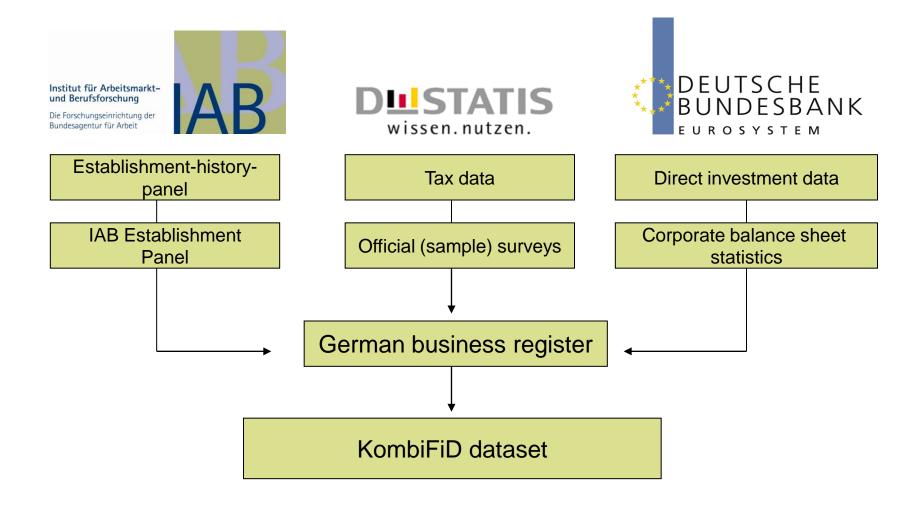
Combining firm datasets of different data producers for the first time in Germany; time horizon 1993 - 2006



New dataset for researchers with:

- a variety of variables,
- a variety of data generating processes
- a variety of economic sectors

Reduce respondent burden for the firms





# Matching Results: BHP and Business register (URS)

Year	Identified firms in BHP (%)
2003	96.20
2004	96.10
2005	95.70
2006	95.00
2007	94.40
2008	94.00

- 84% 88% of URS firms consist of one establishment
- around 99% of those identified in BHP

Source: FDZ-Methodenreport 01/2010, Anja Spengler, Kerstin Lorek (only in German)

#### 4. Data access

- Meta data
  - DDI 3 standard
  - web based search across datasets
  - tools suited for administrative and survey data
- JoSuA Job Submission Application
  - web tool to make the submission easier
  - provided by IDSC

#### 4. Data access: RDC-in-RDC

- Ways of data access at the FDZ:
  - on-site use
  - remote data execution
  - scientific use files
- Due to legal restrictions: no remote data access
- Problems:
  - on-site use: guest stays are costly and time consuming
  - remote data execution: researcher has to "program at random"
- Step towards remote data access: RDC-in-RDC approach

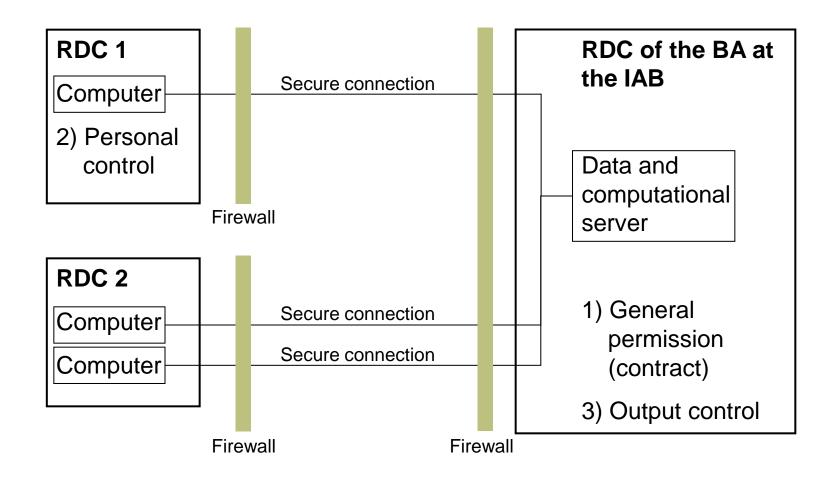
# 4. Data access: Conception of RDC-in-RDC

- Idea:
  - Comparable standards in nearly all RDCs over the world
- ⇒ Access to sensitive BA/IAB data from other RDCs or comparable institutions
- Locations:
  - Germany:
    - Statistische Landesämter (Statistical offices of the German states) Berlin, Bremen, Düsseldorf, Dresden
  - United States:
    - MiCDa Enclave, University of Michigan/Institute for Social Research, Ann Arbor

# 4. Data access: Conception of RDC-in-RDC

- Requirement: physical access control
  - Germany: comparable standards at the RDCs of the Statistische Landesämter ⇒ no on-site staff is needed
  - Sites abroad: (German) trained on-site staff is required
- Funding of the project: Grant from the Federal Ministery of Education and Research for three years
- Evaluation after two years

#### 4. Data access: RDC-in-RDC who does what?



## 4. Data access: RDC-in-RDC outlook

- Time schedule:
  - Fall 2010: start of technical implementation in Germany and Ann Arbor
  - Trial period as of the beginning of 2011
  - Regular operation after successful trial period
- Further sites are planned:
  - Germany
  - Italy (Rome)
  - UK (Colchester, University of Essex)

# Summary

- Micro data for German and foreign researchers
  - harmonization of administrative data
  - new surveys: ALWA, waves of WeLL and PASS
- Better access for researchers from abroad
  - RDC-in-RDC
- Linkage of BA/IAB data
  - Patent data
  - KombiFiD
  - ...

FDZ

Research Data Centre (FDZ) of the German Federal Employment Agency (BA) at the Institute for Employment Research (IAB)

#### Contact:

peter.jacobebbinghaus@iab.de

http://fdz.iab.de



- 1. Federal german business register (URS)
  - Implemented in late 90s
  - Regulated by european law (Council regulation No 2186/93)
  - Master file
  - Identifier:
    - Unique business identifier
    - All corresponding establishment identifiers
    - All corresponding tax numbers



# 2. Mix of official (sample) surveys

- Cost structure surveys
- Information about added value, turnover, subsidies,...
- Salary and wage-earning set up surveys
  Information about wages, salaries, working hours, vacation entitlement

#### 3. Tax data

- Turnover tax
- Corporate income tax

Institut für Arbeitsmarktund Berufsforschung

Die Forschungseinrichtung der Bundesagentur für Arbeit



## 1. Process generated data:

Personal data from the employment notification annual aggregation on establishment level (establishment number)

**Establishment-History-Panel (BHP)** 

# 2. Survey data:

#### **IAB Establishment Panel**

- Annual panel (10.000 establishments)
- Conducted by the IAB since 1993
- Information about various and changing topics (e.g. labour demand)



Die Forschungseinrichtung der Bundesagentur für Arbeit



## 1. Process generated data:

Personal data from the employment notification annual aggregation on establishment level (establishment number)

**Establishment-History-Panel (BHP)** 

# 2. Survey data:

#### **IAB Establishment Panel**

- Annual panel (10.000 establishments)
- Conducted by the IAB since 1993
- Information about various and changing topics (e.g. labour demand)



#### Process generated data:

- Microdatabase Direct Investment (MiDi)
  - Annual firm data on foreign direct investment stocks
  - Due to german trade and payment regulation
- Corporate Balance Sheet Statistics (Ustan)
  - Annual balance sheet statistics of non-financial enterprises
  - main economic sectors: manufacturing, construction, wholesale and retail trade



# First Matching Results: BHP - URS

Years of appearance	Rate of establishments in %	Rate of firms in %
1	10.89	3.06
2	9.06	3.34
3	6.13	3.11
4	6.45	4.55
5	7.15	6.30
6	60.32	79.65

⇒ High potential for longitudinal analysis

Source: FDZ-Methodenreport 01/2010, Anja Spengler, Kerstin Lorek (only in German)