political reforms and their effects on, for example, the acquisition of competencies or equal opportunity in the education system. In sum, the NEPS is expected to decisively improve the framing conditions for empirical education research in Germany, provide an empirical basis for advising policymakers, make a major contribution to promoting the careers of young scientists, and lead to a marked improvement in the international standing of German education research.

For more information on the NEPS please visit our homepage at http://www.bildungspanel.de. Further information can also be obtained from the project team at contact.neps@uni-bamberg.de.

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The refreshing of the design of Latvian Labour Force Survey (LFS) 2010 has been done. LFS is organised as continuous survey since 2002 in Latvia. The two stage sampling design is used for the survey. Census counting areas are selected as primary sampling units (PSU) with stratified systematic sampling with probabilities proportional to PSU size. Dwellings are selected as secondary sampling units with simple random sampling in each selected PSU. Households and individuals eligible to the LFS are selected in each sampled dwelling.

One of the main reasons of refreshing the design was necessity to update the sampling frame of primary sampling units. During the period 2002 – 2007 the 1st stage sampling frame was not updated. The over-coverage and under-coverage errors for census counting areas in sampling frame have emerged during this period. The size of census counting areas was measured as number of households from population census 2000. The size of PSUs has changed since 2000 because of the migration of population. Several improvements were done for the sampling frame of PSUs.

There were dwellings in sampling frame with no assignment to any census counting area. Typically these were dwellings built after the last population census. These dwellings contributed to the under-coverage of the frame. All those dwellings were assigned to the closest census counting area. The closest counting area was detected by measuring distance between a dwelling and all centres of census counting areas in stratum. Geographical coordinates of dwellings were used to compute the distances between dwellings and centres of counting areas. It was possible to use the geographic coordinates because of the matching of two administrative data sources – the population register and the register of buildings. Geographic coordinates were used for the first time to assign dwellings to census counting areas.

The size of all PSUs was updated using the latest information from the population register. Census counting areas without any occupied dwelling were deleted from the PSU frame. Dwellings with small number of private dwellings were merged to neighbour census counting areas. Some of the census counting areas have significantly increased by size. There were two counting areas each split in three smaller PSUs.
The PSUs were re-ordered in “serpentine” order in each stratum according to the latest reform of administrative territories in Latvia. Ordering of PSUs in “serpentine” order and using systematic sampling results in implicit stratification of sampling units by geographical breakdown.

New sample of PSUs was drawn using the updated sampling frame. The self-rotating sampling design was used. The goals set for the sampling design are:

- Rotation of PSUs according to the specific rotation pattern. The PSU selected in sample for the first time are kept in a sample for eight quarters – so each PSU is sampled eight times with intervals of 13 weeks. It is possible to draw different samples of dwellings in one PSU.
- Uniform distribution of areas over space. It provides possibility to get estimates by different geographical breakdowns.
- Uniform distribution of areas over time. It provides possibility to get estimates for different time periods – quarters, half-years and years. It is possible to shift an estimation period by any number of weeks. For example it is possible to estimate yearly statistics for time period starting in October and ending in September (shifted year estimates are common in some surveys).
- Easy management of PSUs in a sample. The sample of PSU can be prepared for several years in advance. It allows timely planning of the work for interviewers.
- The possibility to coordinate different continuous household samples. Currently there is a coordination of LFS, Household Budget Survey (HBS) and Survey of Domestic Travellers (SDT). The PSU samples of HBS and SDT are sub-samples of LFS PSU sample. One interviewer can manage to do all three surveys in a PSU with low travel times. The coordination allows to keep the total costs of three surveys low.
- The possibility to use the PSU sample for other ad-hock sample surveys.
- The possibility to use simple approximation methods for variance estimation (re-sampling techniques).

The rotating panel is used in LFS. The scheme 2-(2)-2 is used in Latvia (“Labour Force Survey in the EU, Candidate and EFTA countries - Main characteristics of the 2008 national surveys”, Eurostat, 2010). It means the part of the sample for year 2010 are already selected in 2008 and 2009. The total sample for 2010 are combination of sample selected before 2010 (old sample) and sample selected from 2010 (new sample). This was a challenge to select the new sample to minimize the overlap between old and new sample.

In a result we have made several improvements for Latvian Labour Force Survey and other coordinated surveys so that we can expect lower coverage errors and smaller sampling errors.

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