

The National Educational Panel Study (NEPS) IEA – DPC contributions

IEA General Assembly

October 4 - 6

Gaborone, Botswana



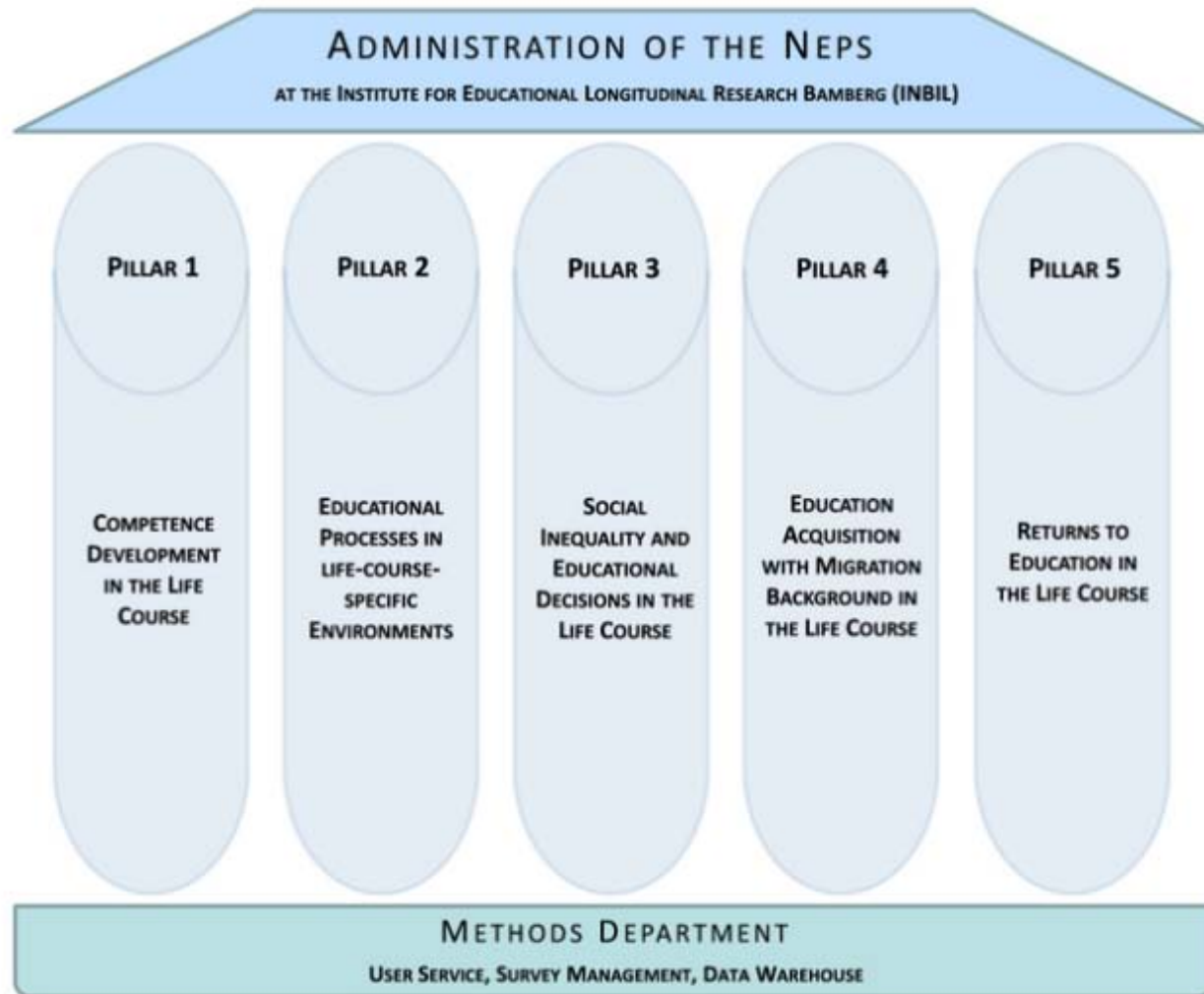
Leading Institution and Funding

- Institute for Educational Longitudinal Research at the University of Bamberg (Bavaria)
 - Administration and overall coordination
 - Methods department
- Principal investigator: Prof. Hans Peter Blossfeld
- Most universities and research institutes in Germany are involved
- Funded through the Federal Ministry of Education and Research (BMBF)
- Ambitious and challenging enterprise

Major Goals and Design

- Make relevant data on educational transitions and pathways available as quickly as possible
- Achieved by dividing educational biographies into **eight stages** with a particular **focus on critical transitions**.
- Make it possible to describe and analyze long-term developments in educational pathways within theoretically coordinated dimensions that are called "pillars"
- Stages and pillars result in a matrix design

The Pillars



Pillar 1 – Competence Development in the Life Course

- Formulate structural models that can be used to build up a consistent and coherent picture of which competencies are relevant to education, how strong they are, and how they are acquired throughout life.
- Focus on those competencies that are considered to be particularly crucial for educational pathways and participation in society
- Longitudinal measurements of reading competence, auditory comprehension, math competence, and science competence
- Two major tasks of the competence pillar
 - Develop framing concept that will describe and operationalize the main competence domains that have to be measured
 - develop appropriate test instruments.
- Develop computer-assisted and Internet-based competence test in order to optimize the possibilities for a more efficient longitudinal testing of representative samples.



Pillar 2 - Education Processes in Learning Environments

- Addressing education processes in the various formal, nonformal, and informal as well as familial learning environments in which an individual is embedded both synchronically and across the life span.
- It conceives learning environments as providers of learning opportunities that can or must be taken up by the learner, and that thereby lead to an accumulation of learning experiences.

Pillar 3 - Social Inequality and Educational Decisions in the Life Course

- Focus on the extent of and the reasons why educational decisions (choice of school, choice of career, study course, continuation of academic career, or participation in occupational further training) vary across different groups.
- Class-specific differences in educational decisions can still be observed even when achievements (e.g., grades, competencies, certificates) are comparable -> clarify the significance of class-specific educational aspirations, motivations, expectations of success, and assessments of costs.
- Gender-specific genesis of the subject choice in educational careers (vocational training, choice of study subject).

Pillar 4 - Education Acquisition with Migration

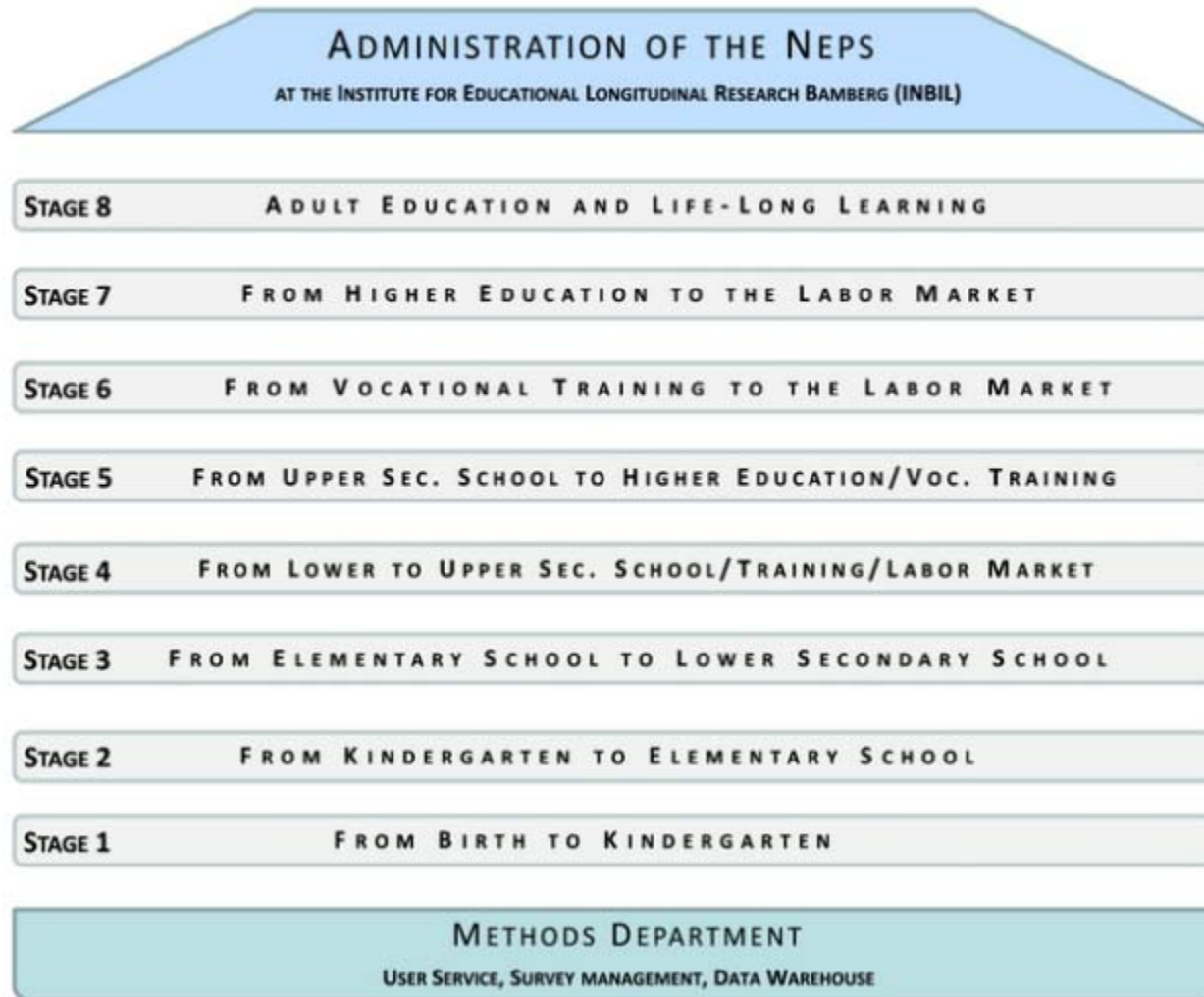
Background in the Life Course

- Characteristics associated with an ethnic background (e.g., the language spoken in the family, relations to the country of origin, integration in ethnic communities and networks, religious orientation) exert a further influence on the acquisition of competencies and on education decisions that goes beyond mechanisms of social inequality
- Focus on
 - assessing migration-specific characteristics that are relevant to education.
 - assessing the knowledge and competencies of students in the language of their parents' country of origin, because characteristics of first- and second-language acquisition provide a major approach for explaining success in education and on the labor market.

Pillar 5 - Returns to Education in the Life Course

- NEPS does not just conceive returns to education in terms of qualification-specific remuneration and labor-market opportunities
- It views them in a broader sense
 - political participation
 - active involvement in society
 - physical and mental health
 - opportunities for seeking a partner and starting a family
 - subjective well-being.
- Some of these returns, such as physical and mental health or a student's active involvement in society, can be assessed long before entry onto the labor market. As a result, these can also be documented and analyzed in terms of their life-course-related development.

The Stages



Stage 2 - From Kindergarten to Elementary School

- Longitudinal cohort starting with 4-year-olds attending Kindergarten (N=3000)
- Assessments will be carried out with the children (as target persons), their parents, Kindergarten staff and managers, and, later, the class teachers and head teachers in the children's elementary schools
- Major research questions in this stage refer to
 - the development of competencies and education careers in this age group;
 - Kindergarten, elementary school, and family as learning environments and the opportunities for learning in nonformal/informal settings;
 - the transition from Kindergarten to elementary school and the accompanying decisions on education;
 - the extent and the significance of social and ethnic disparities in Kindergarten and elementary school;
- early returns to education.



Stage 3 - From Elementary School to Lower Secondary School

- Starting with grade 5 students (N=15000)
- How do competencies develop during elementary school? Which factors strengthen or reduce the relation of social and ethnic origins to competencies attained over time?
- How far are the education decisions of parents at the end of elementary school the outcome of their child's academic performance ("primary origin effects" and school effects), parental resources and education goals ("secondary origin effects"), or the institutional framing conditions ("parental free choice," types of school available, etc.)?
- Which strategies and decisions can be observed when a child's academic performance fails to match the parents' education aspirations?
- What influence does the more homogeneous composition of school classes in the differentiated school system compared with elementary school have on the school and classroom climate, the academic self-concept, and the development of competencies in the child?

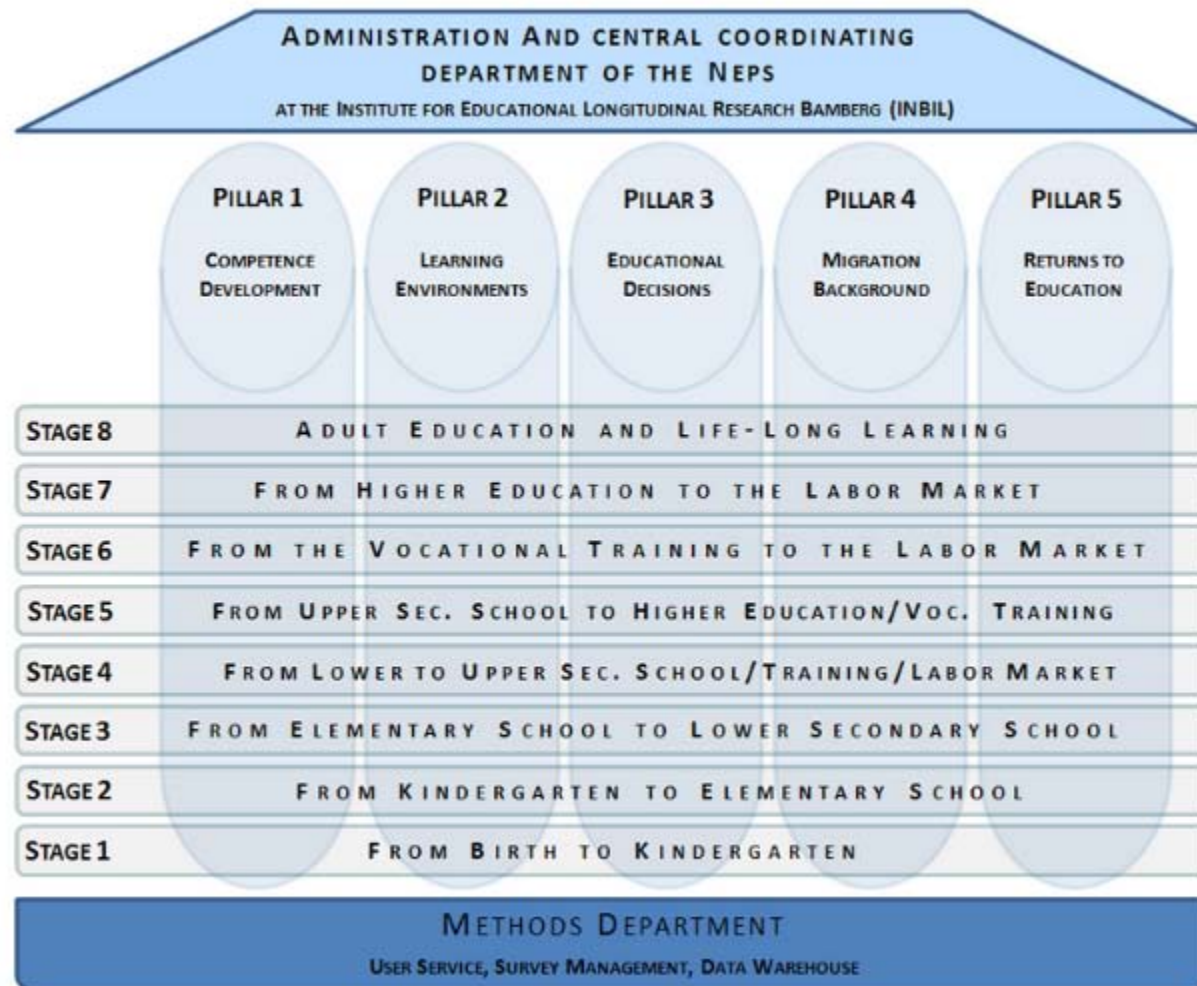
Stage 4 - From Lower to Upper Secondary School

- Starting sample : N=30000
- Lower secondary school (Sekundarstufe I) is a critical bridge between elementary school and either the general educational or vocational higher secondary domain (Sekundarschulbereich II) or direct entry into the labor market.
- Research questions
 - How far do the competencies of students correspond to the type of school selected or recommended?
 - How do their competencies develop as a function of the type of school they attend?
 - How often transfer children from one type of school to another?
 - What determines these transfers?
 - How does having to repeat a school year impacts on educational careers and success?

Stage 5 - From Upper Secondary School to Higher Education/ Occupational Training/ Labor Market

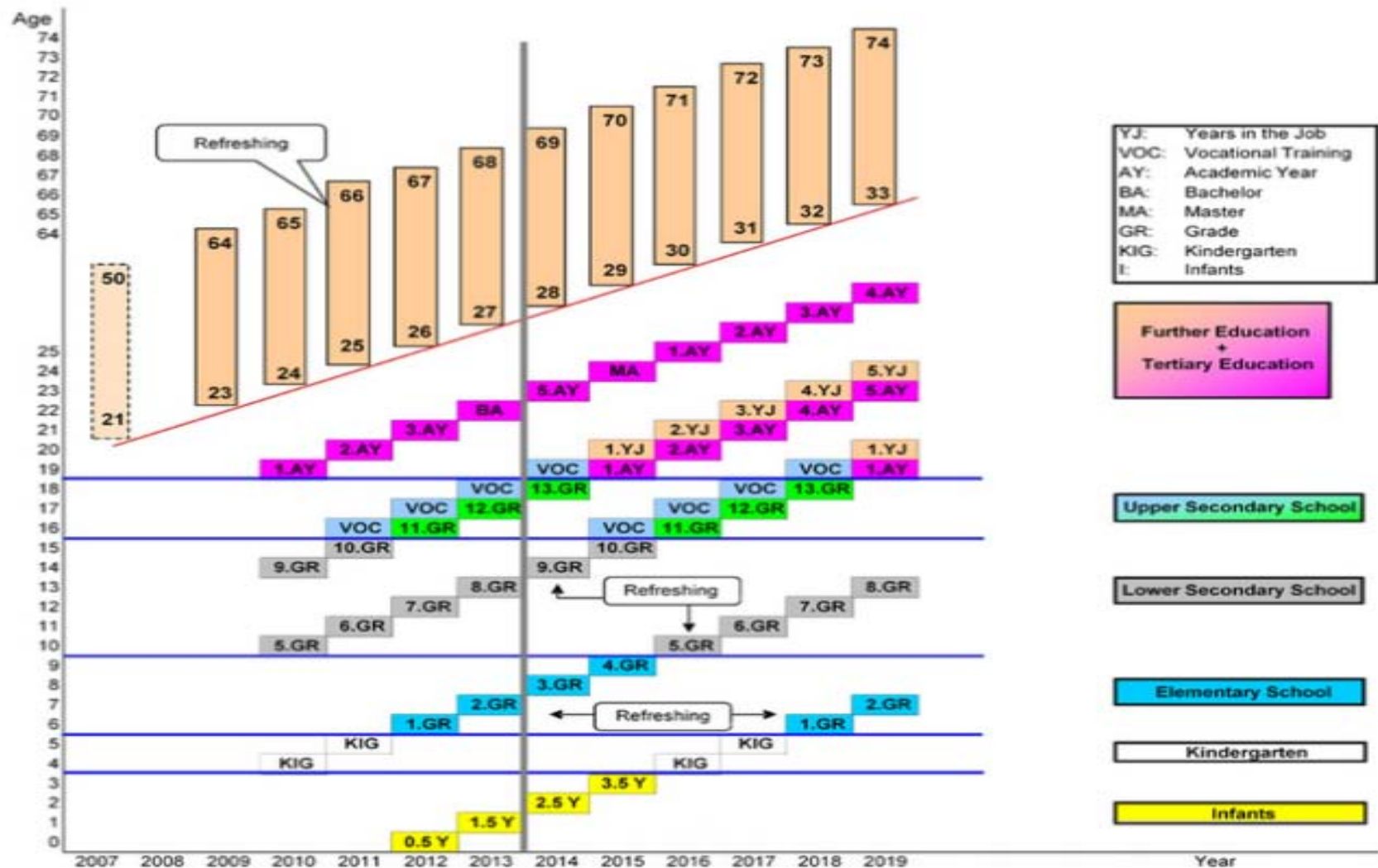
- Starting sample: N=3000
- NEPS will specifically document the effects of the structural reforms to the upper grades of Gymnasium currently being introduced in many of Germany's federal states. Planned studies will examine how reducing the time spent at Gymnasium from 9 to 8 years impacts on the academic achievement and motivation of students.
- Monitor the consequences of the move in most federal states to abolish the traditional basic courses and advanced courses.

The Matrix



Multicohort Sequence Design

MULTICOHORT SEQUENCE DESIGN



Starting Samples: The Multicohort Sequence Design

- NEPS is based on a multicohort sequence design
- To obtain relevant data as quickly as possible, three starting cohorts will be recruited in 2010 through the DPC
- The representative starting cohorts are composed of
 - 4-year-olds attending Kindergarten
 - 5th-grade students (10- to 11-year-olds)
 - 9th-grade students (14- to 15-year-olds)
- To gain additional information on target persons in the stages bridging the time between infancy and 9th grade, the NEPS will also survey their parents, selected preschool teachers, school teachers, and school



principals

Cohort Succession

- In order to successfully document and analyze historical changes in how people pass through transitions (e.g., transitions from school to vocational training as a function of available apprenticeships or of the effects of educational reforms), new starting samples will be recruited in later years (cohort succession).

Institution-Based Versus Individual Samples

- To assess the structural and compositional features of institutional learning environments, cluster samples will be recruited in the domains of Kindergarten, school, and (applied or theoretically oriented) higher education institutions.
- All children in a Kindergarten group or all students in a school class will be recruited as participants in the NEPS.
- In subsequent years, all these participants will be followed up - even when they are no longer members of the same group or class,
- This will extend documentation to cover the educational pathways of children who have to repeat a school year or who change the type of school they attend and those individuals who drop out of school or studies, thus making it possible to analyze, for example, the educational careers of risk students.
- For neonates and for adults in the domains of vocational training and further training, institution-based samples are either impossible or too difficult to recruit. Here, preference will be given to individual samples, or, alternatively, all students in the cluster samples will be followed up individually after their transition from the general education system to occupational training.

Special Schools for Students With Learning Disabilities

- As in international studies, the NEPS will also cover special schools for students with learning disabilities. Such students can participate as long as they are able to complete the competence tests that are so central to the NEPS. To make this possible, competence tests will be shortened and revised so that their level of difficulty corresponds to the ability level of special school students.

Oversampling

- To also permit specific analyses of people with a migration background, these groups will be oversampled. For at least two groups, namely, people whose families came originally from Turkey and from families of German descent who have recently come to Germany from the former Soviet Union (Spätaussiedler), a sufficient number of cases will be recruited to permit group-specific analyses. Special schools will also be oversampled.

IEA DPC Involvement

- Sampling of schools
- Approval procedures for data protection with all state agencies
- Classroom sample
- Preparation of letters and manuals
- Communication with schools
- Recruitment, training and coordination of test administrators
- Organization of printing and dispatch of all test material
- Data entry, data processing and data documentation



... not only in the Main Data Collection

- Between 2009 and 2013 more than 90 “projects” need to be managed
- Main data collections for all three stages
- Pilot studies
- Developmental studies for instrument and procedure development

Thank you!

