



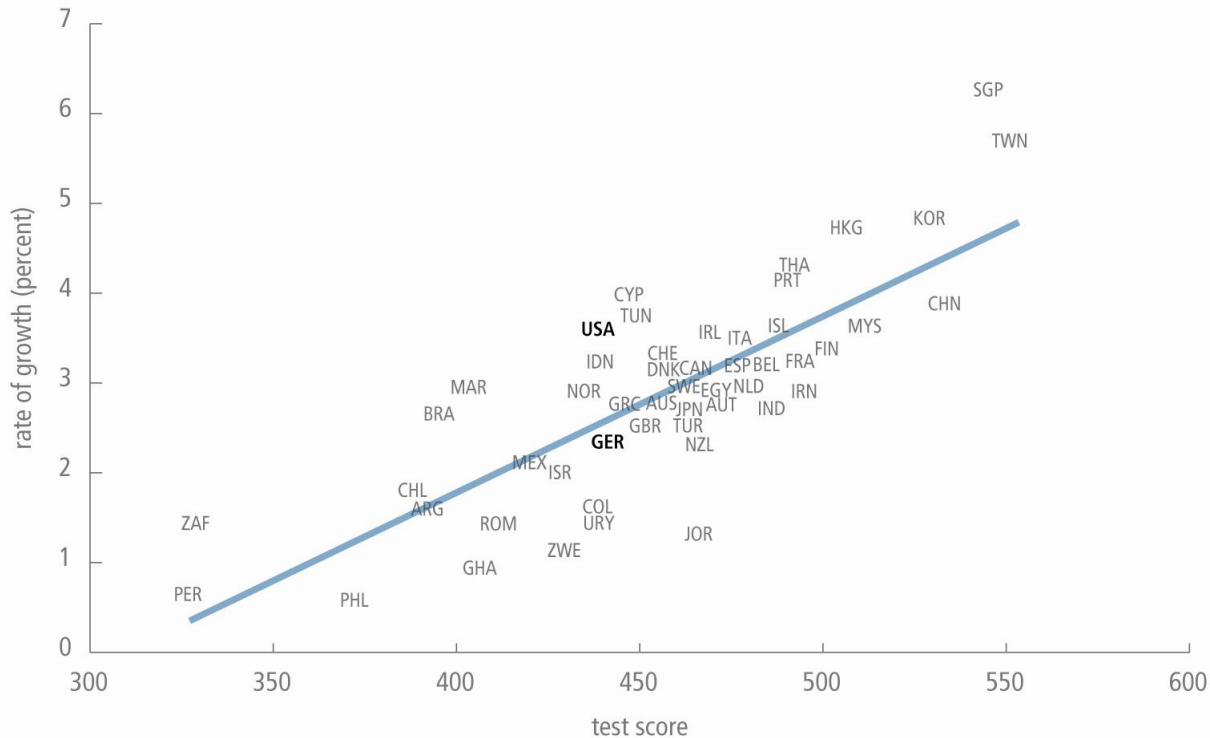
**Growth through Education**  
**Jörg Dräger**

Washington, 22<sup>nd</sup> April 2010

# The key insight: Better education leads to growth

Based on: Hanushek, Eric A. and Ludger Woessmann: The Role of Cognitive Skills in Economic Development, Journal of Economic Literature 46 (3), 2008.

Cognitive skills and economic growth

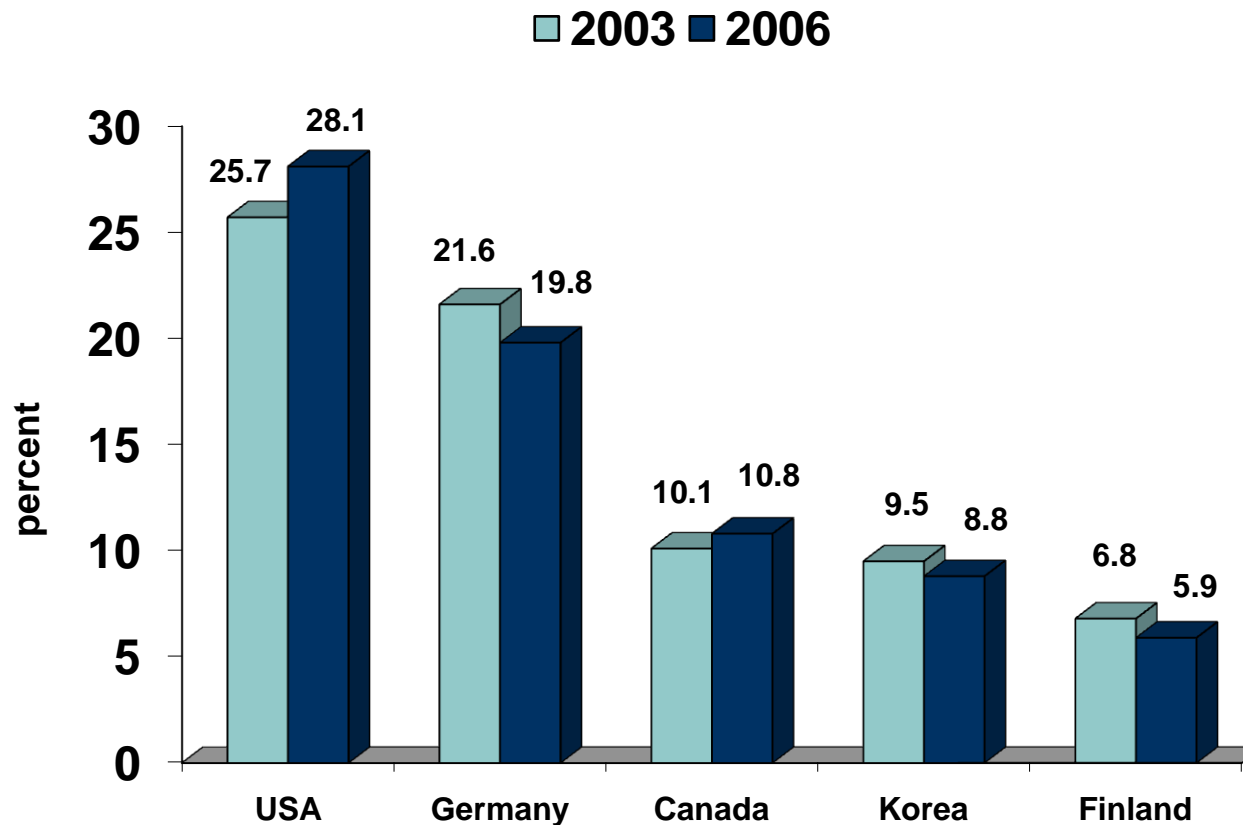


Relationship between average test scores on international student achievement tests (1964 to 2003) and average annual rate of growth of real GDP per capita (1960 to 2000) in a cross-country analysis – after allowing for other determinants of economic growth.

Source: Bertelsmann Stiftung: Was unzureichende Bildung kostet, Gütersloh 2009. (Authors of the study: Ludger Woessmann and Marc Piopiunik).

## Both the US and Germany have a serious problem: Too many children are lost to inadequate education

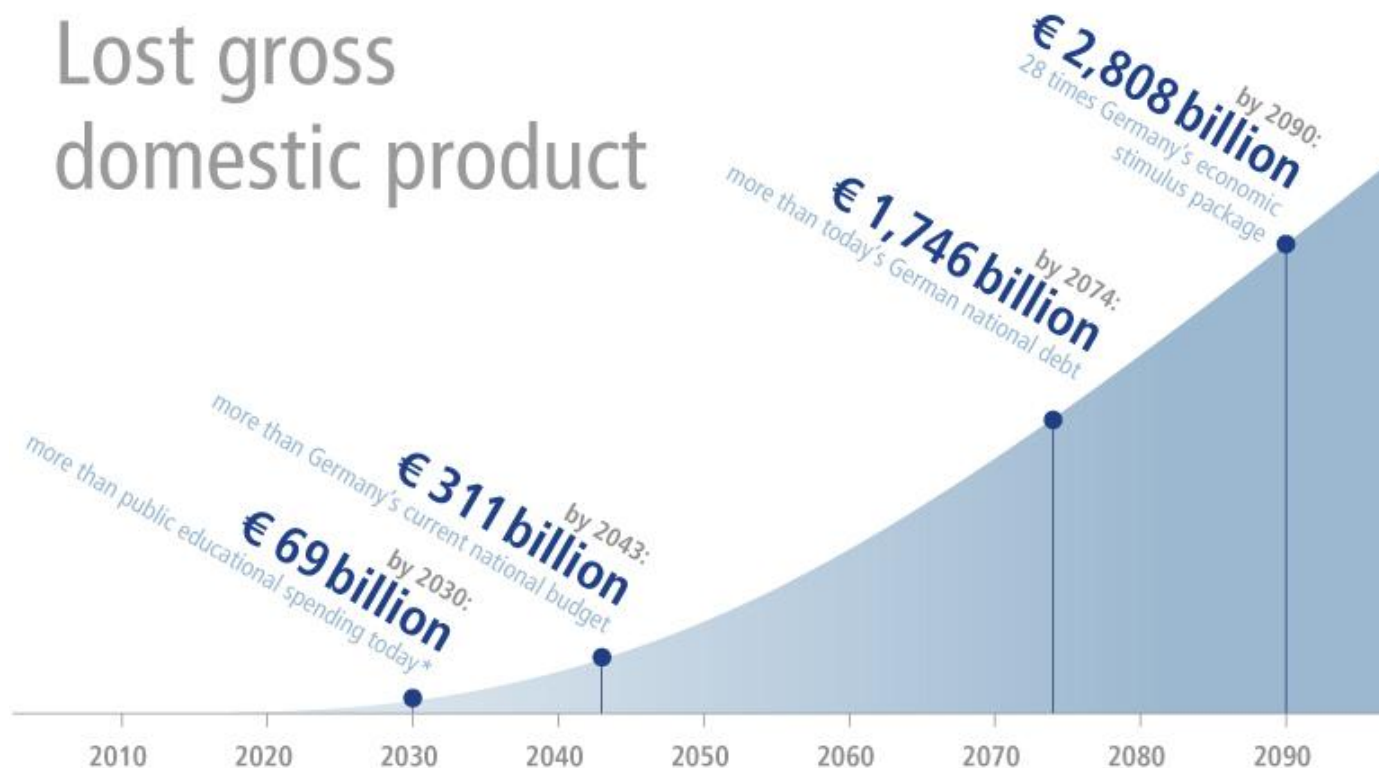
### Share of students below minimum mathematic skills (PISA)



Source: PISA 2003 and 2006

## Study: Inadequate education means growing inequity - and a huge economic loss

Figure 1: Costs of inadequate education resulting from lost economic growth in Germany



The costs of inadequate education as a sum of the GDP lost each year, if the extent of inadequate education is not reduced by 90 percent through educational reform, discounted to reflect present values.

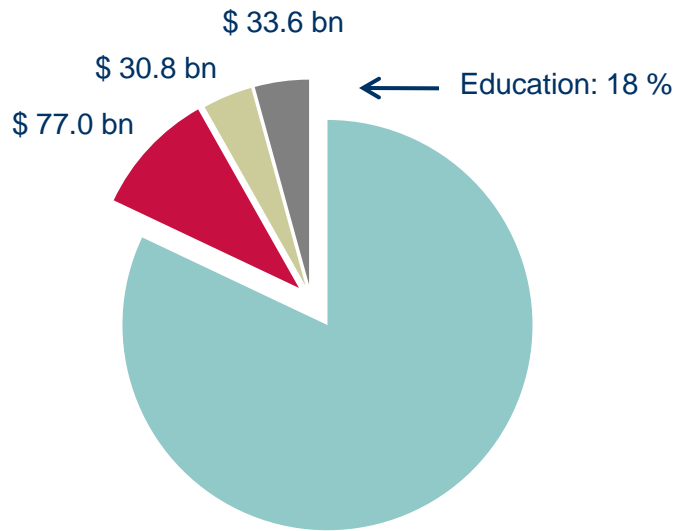
\* Public spending on elementary and general education secondary schools.

Source: Bertelsmann Stiftung: Was unzureichende Bildung kostet, Gütersloh 2009.  
(Authors of the study: Ludger Woessmann and Marc Piopiunik).

# Germany has not used the crisis as an opportunity for growth: Short-term stimulus instead of long-term growth through education

## Economic Stimulus Packages in the US and Germany (2009/2010)

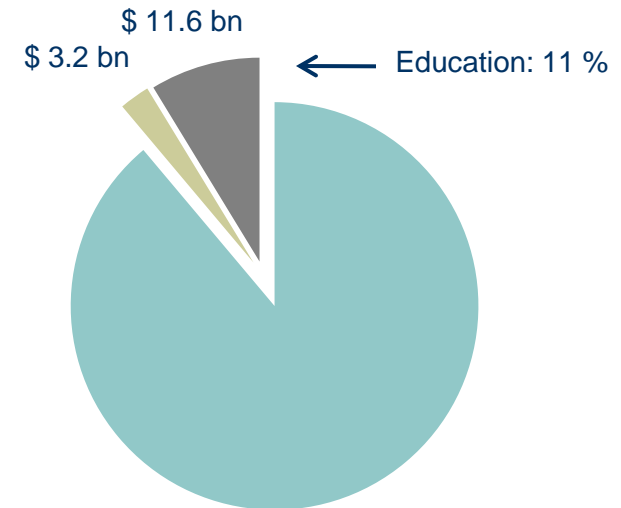
### US – US\$ 787 billion



- Education reforms
- College affordability
- Modernization / infrastructure

Source: US Department of Education 2009

### Germany – US\$ 133 billion



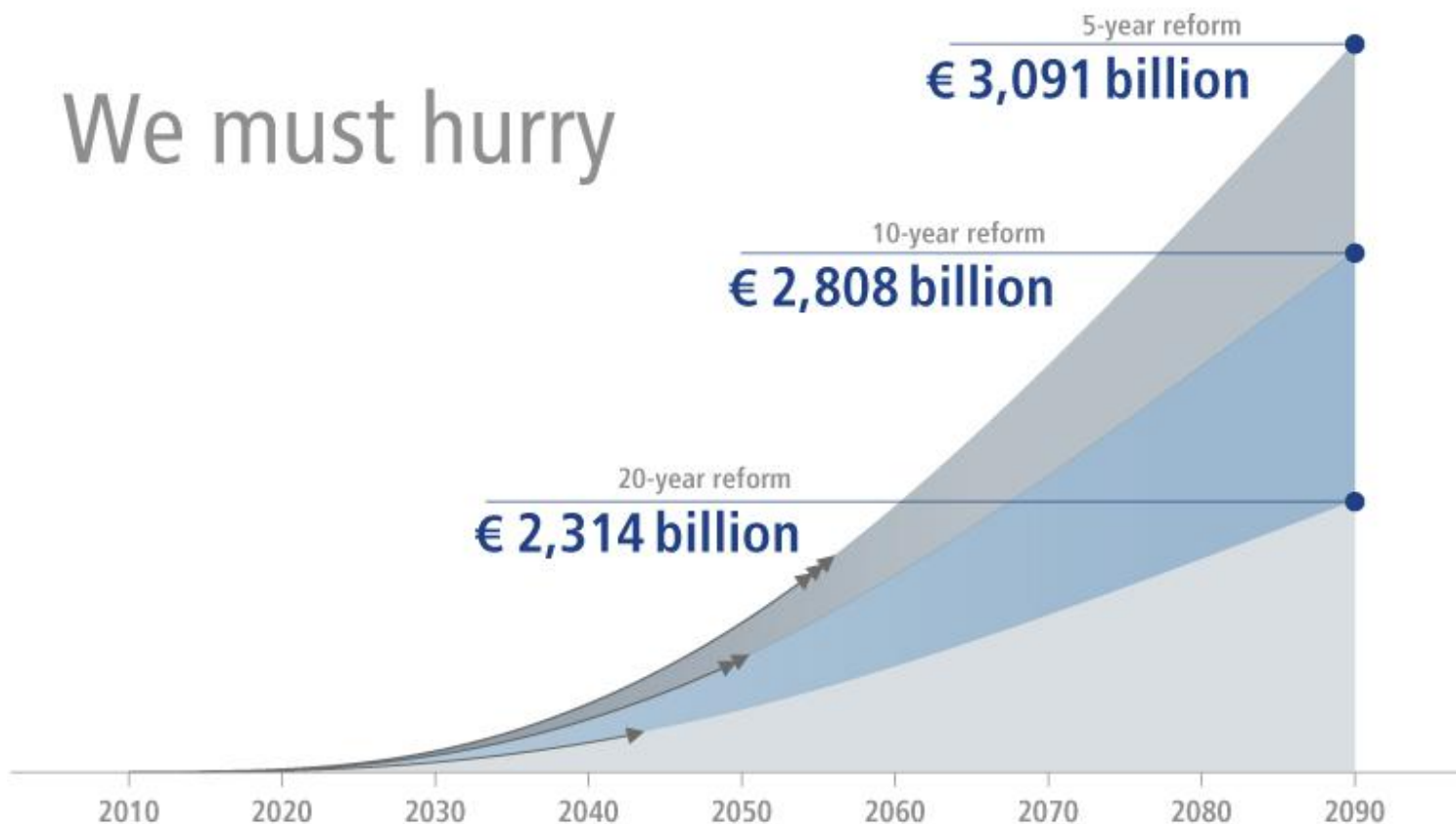
- Further education
- Modernization / infrastructure

Source: German Federal Ministry of Finance 2009

# Future growth is dependent on fast education reform

Figure 3: Benefits of educational German reform based on length of implementation

We must hurry



Sum of increased GDP growth achieved through each year listed, discounted to reflect present values.

Source: Bertelsmann Stiftung: Was unzureichende Bildung kostet, Gütersloh 2009.  
 (Authors of the study: Ludger Woessmann and Marc Piopiunik).