

30th Year Anniversary!

GRADE

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The Education Effect on Social Development:

**Why It is Under-Appreciated
in Social and Public Health
Policy?**

Larger Context

**Under-appreciation of Education
Effect in Population Science and
Social policy**

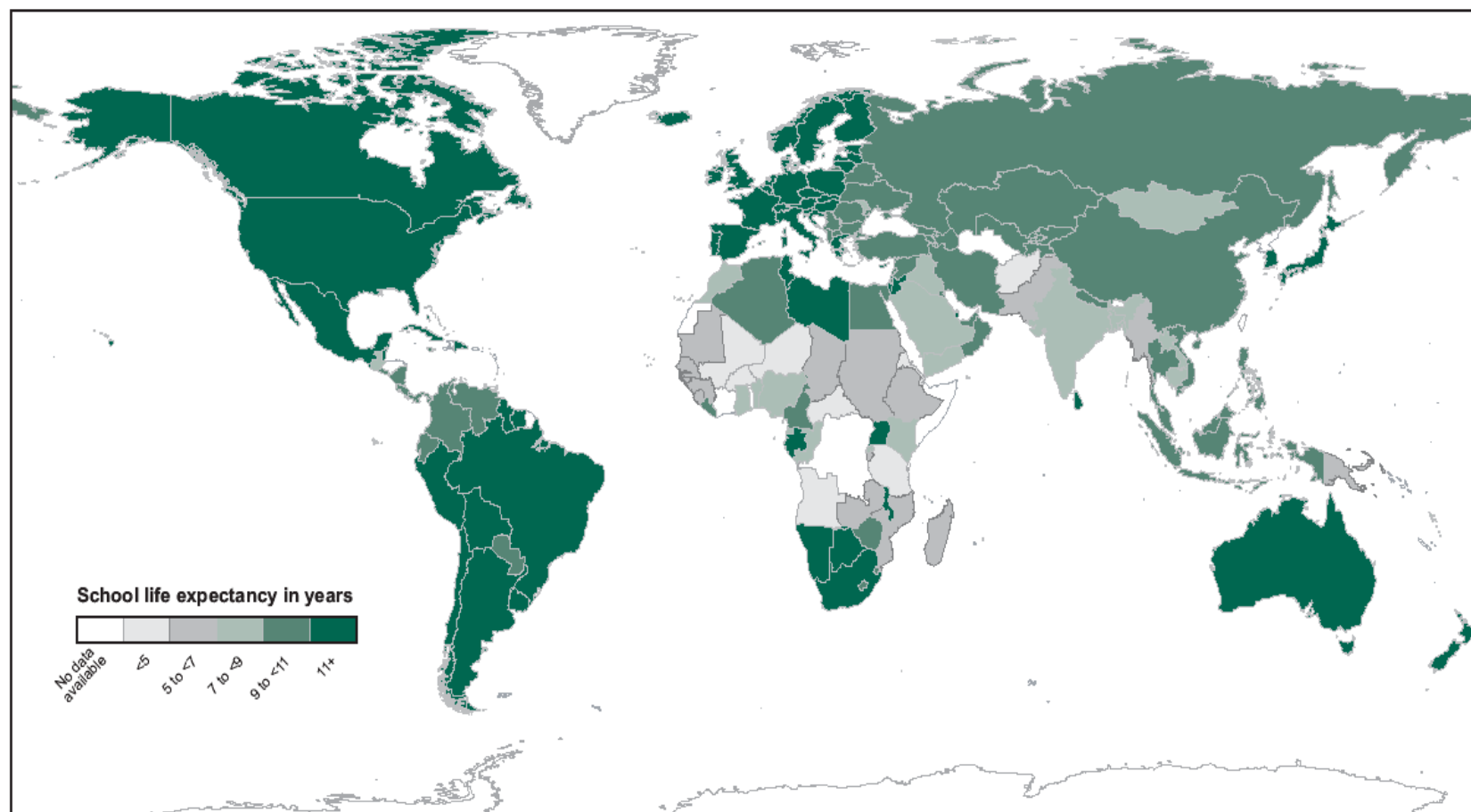
Many reported associations +

Weak Causal theory =

Under-appreciated effect (policy)

Figure 3. How long can children expect to stay in school?

Average school life expectancy in years for primary to secondary education by country, 2001



Source: UNESCO Institute for Statistics, Table 4.

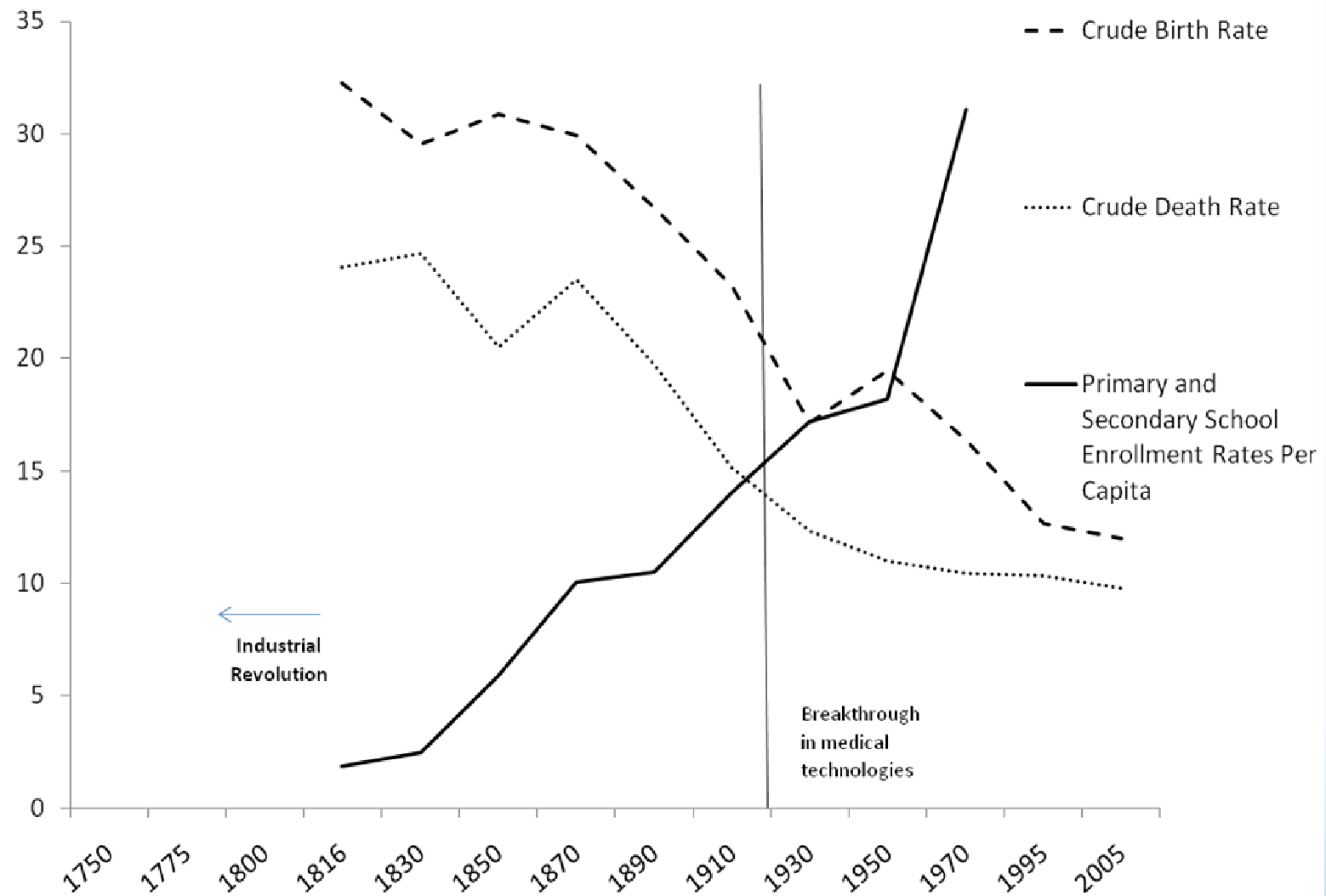
Notes: Data refer to 2001 for 133 countries, 2000 for 38 countries, and 1999 for 7 countries. For details see Table 4. For Central African Republic, Guinea, Madagascar, Mali, Morocco, Nigeria, Uganda and Yemen, UIS estimates were imputed with a margin of error sufficiently small for the presentation in this map, but too large for inclusion in Table 4.

Theoretical Issues

- Education as primary institution
- Institutional-macro effects *and*
- Individual-micro effects

Institutional Effect of Education

- **Anthological uniqueness of mass schooling (and recent)**
- **Historically one cause of modern society**
- **Isomorphism- effects likely uniform worldwide**
- **Domination of Social Stratification**



Given Education Revolution

Two Big Micro Questions:

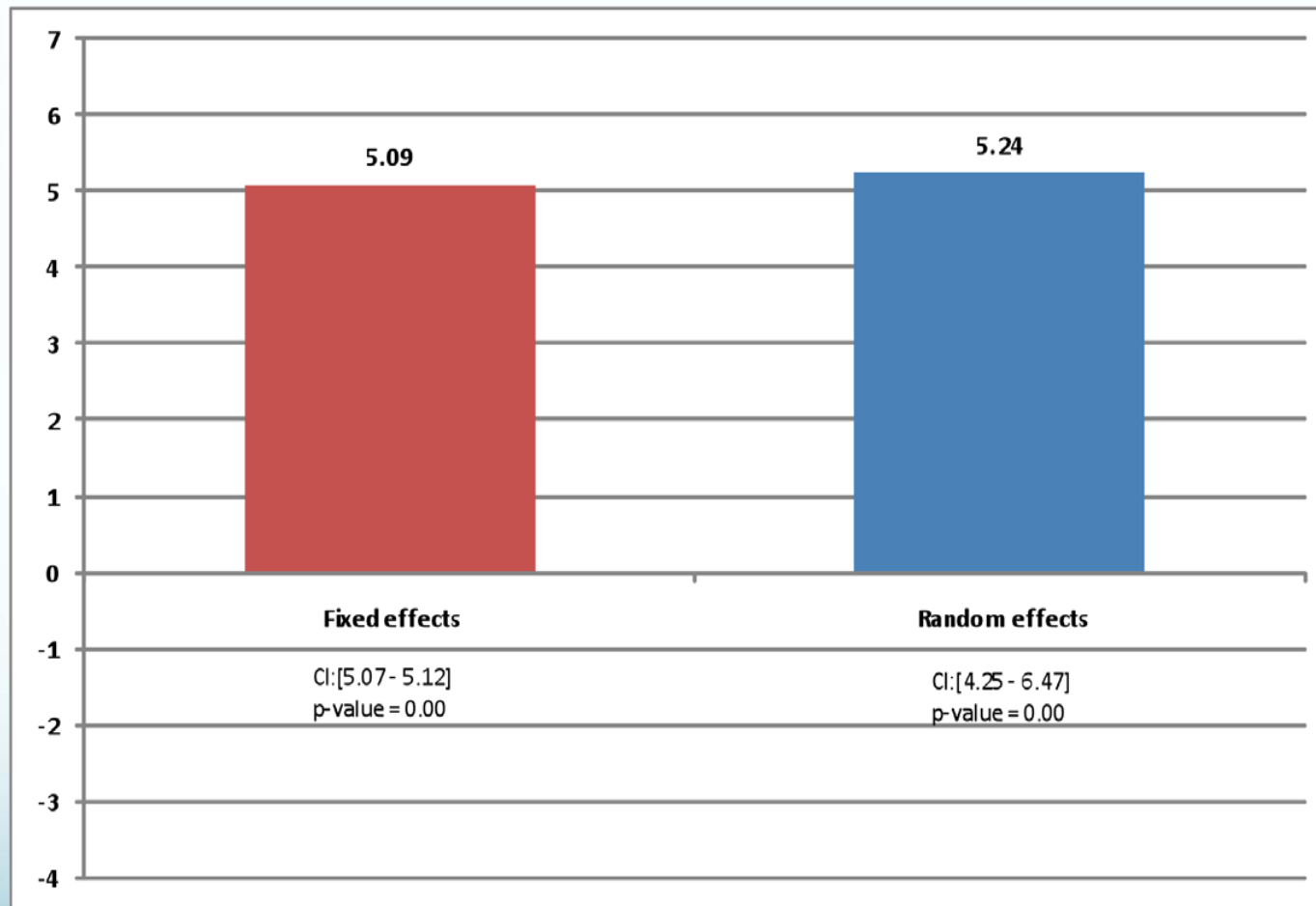
- **Is formal education an independent causal mechanism in major demographic and development processes, such as health?**
- **If so, what about education is the central causal agent?**

- ## What We Know So Far:

- **Education is a major associate of demographic and development processes**
- **After age, exposure to education is the dominating individual characteristic in population science and social development**
- **Even more than SES, really?**

- **Meta-analysis, 64 studies of all-cause mortality of adults-1995-2005, all regions of world, nationally rep. samples, 20 million subjects**
- **All studies conditioned on economic resources plus demographics, 90% sign. Ed. effect, no negative effects**
- **123 effect sizes: All more education longer life**
- **Education as “social vaccine”**

Fixed and random effects estimate of pooled effect sizes of education on mortality (odds ratio).



Common Ideas about How Education affects Micro-Development

When not assumed away as proxy of SES:

- Information Transfer (most common, NGO's) and literacy, human capital skill
- Positive Psych. State/attitudes (empowerment, self-efficacy, delayed gratification)

Toward a Cognitive Hypothesis about the Education Effect on Health

- **The Neurological and Cognitive Impact of Schooling**
- **Social Stratification plus Cognitive effect**
- **3 Conclusions from research:**

Toward an Improved Hypothesis about the Education Effect on Health

Conclusion 1:

Neuro-development of high-order cognitive skills occurs at least through late adolescence and is highly responsive to environmental stimulation, such as that which routinely occurs in formal education

Toward an Improved Hypothesis about the Education Effect on Health

Conclusion 2:

Exposure to schooling is monotonically and linearly associated with enhanced higher-order cognitive skills

Toward an Improved Hypothesis about the Education Effect on Health

Conclusion 3:

Higher-order cognitive skills are associated with better risk assessment, decision-making skills, and social skills

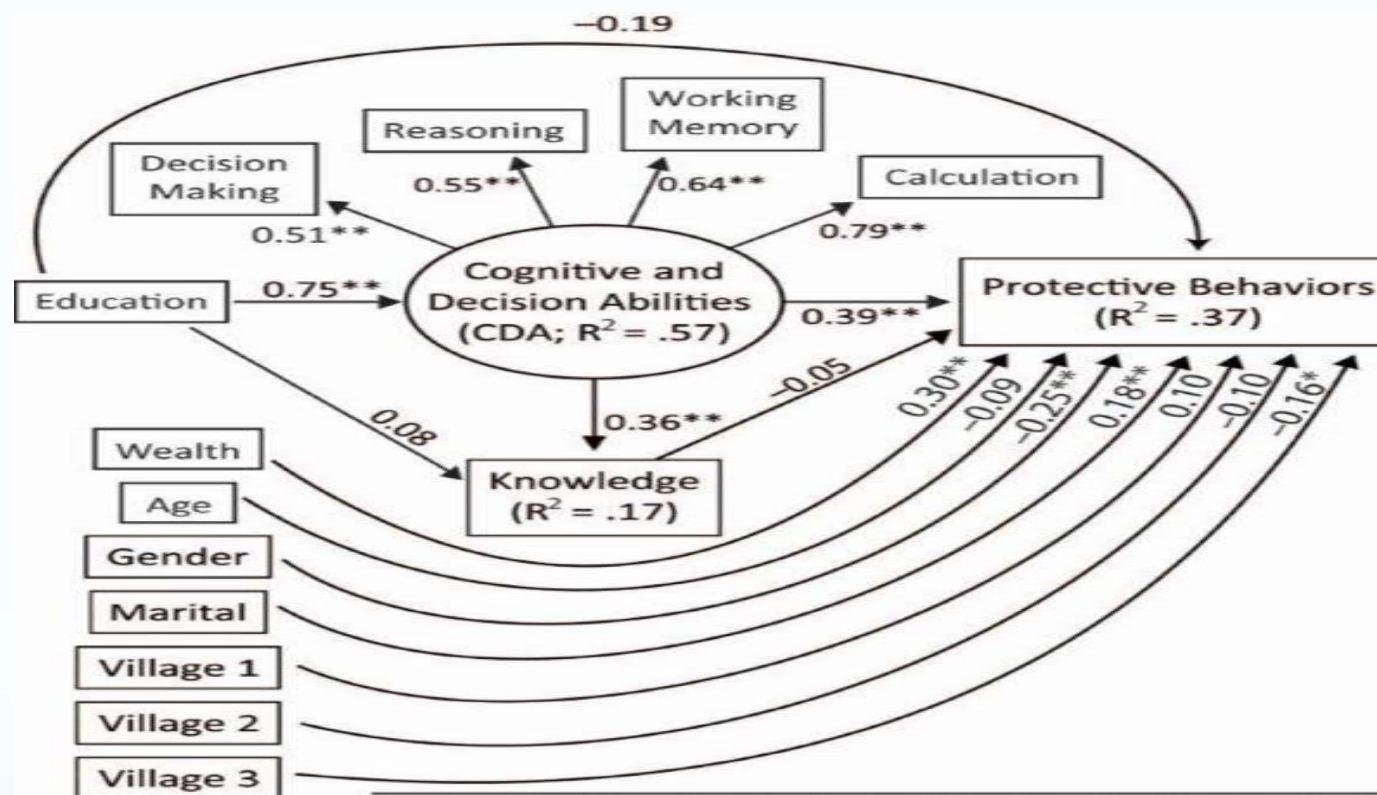
GRADE-PSU Research

- **Schooling Effects on Cognition**
- **Decision making health, farming, family etc.**
- **National Science Foundation funding**









	Wealth	Age	Gender	Marital	Village 1	Village 2	Village 3
Wealth	1						
Age	-.03	1					
Gender	-.06	-.07	1				
Marital	.13*	-.13*	-.33**	1			
Village 1	-.35**	-.22**	-.09	.06	1		
Village 2	-.13*	-.07	-.22**	.04	—	1	
Village 3	.18**	.01	.03	.07	—	—	1

Policy Consequences

- **Ed. Revolution is a primary factor in development**
- **Not over-education, micro effects are real**
- **Expansion and quality are essential**
- **Education development must capture significant proportion of state and NGO budgets**