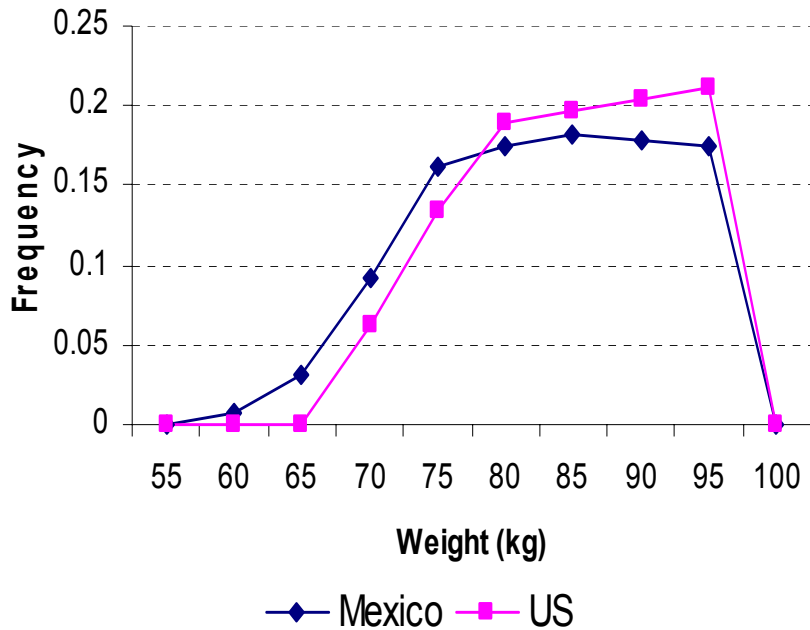


Health, Economic Growth, and Poverty Traps

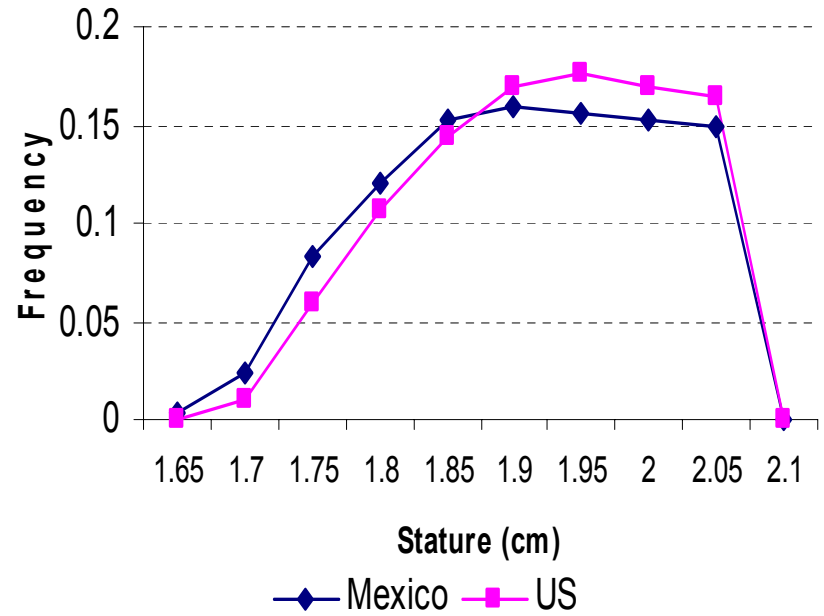
David Mayer
CIDE

Health and Soccer

Weight Histogram for Each Team



Stature Histogram for Each Team

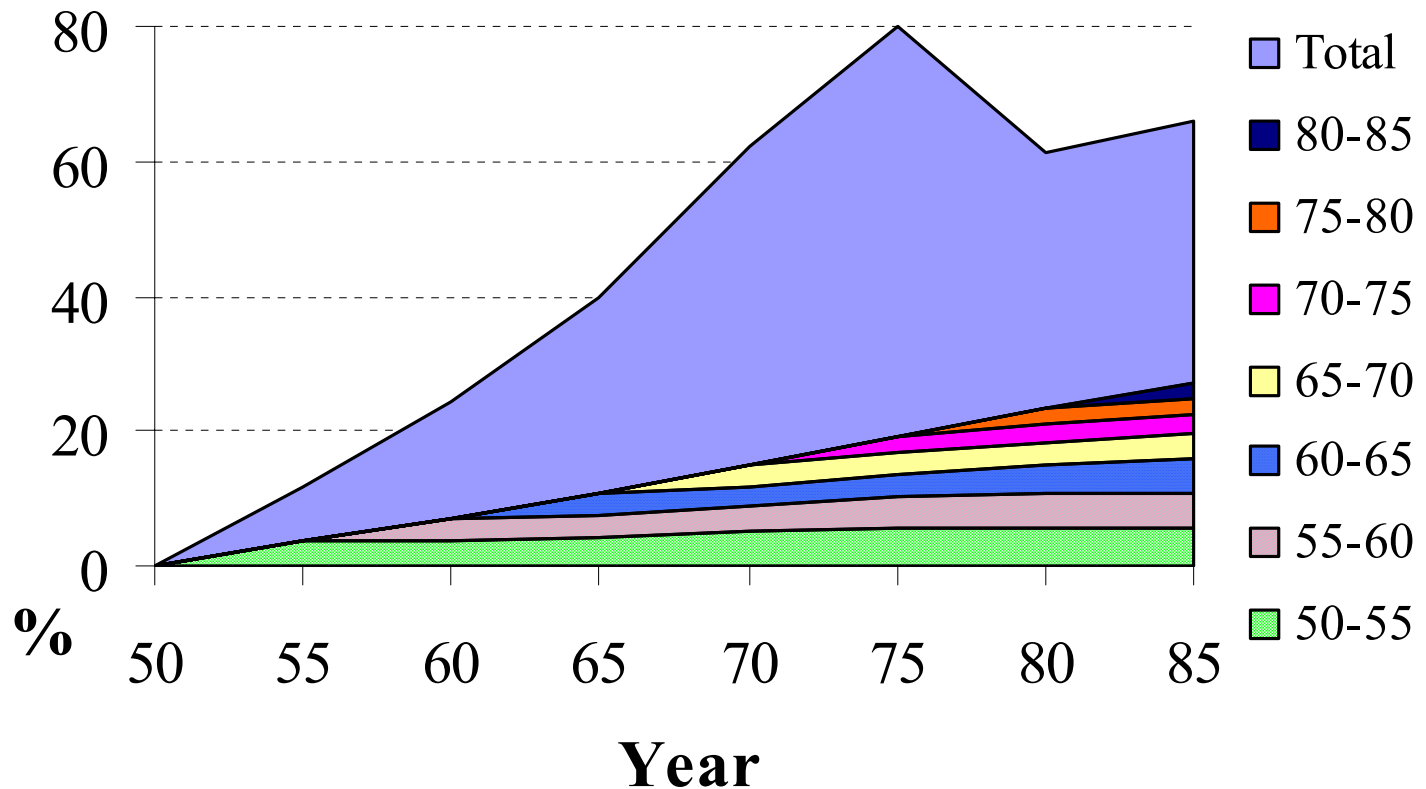


Nutrition and Health Promote Long-Term Economic Growth

- Fogel: increases in nutrition can account for about one third of the economic growth in England during the last two centuries.
- Arora: Over the last 100-125 years, health causes economic growth in 7 advanced countries.

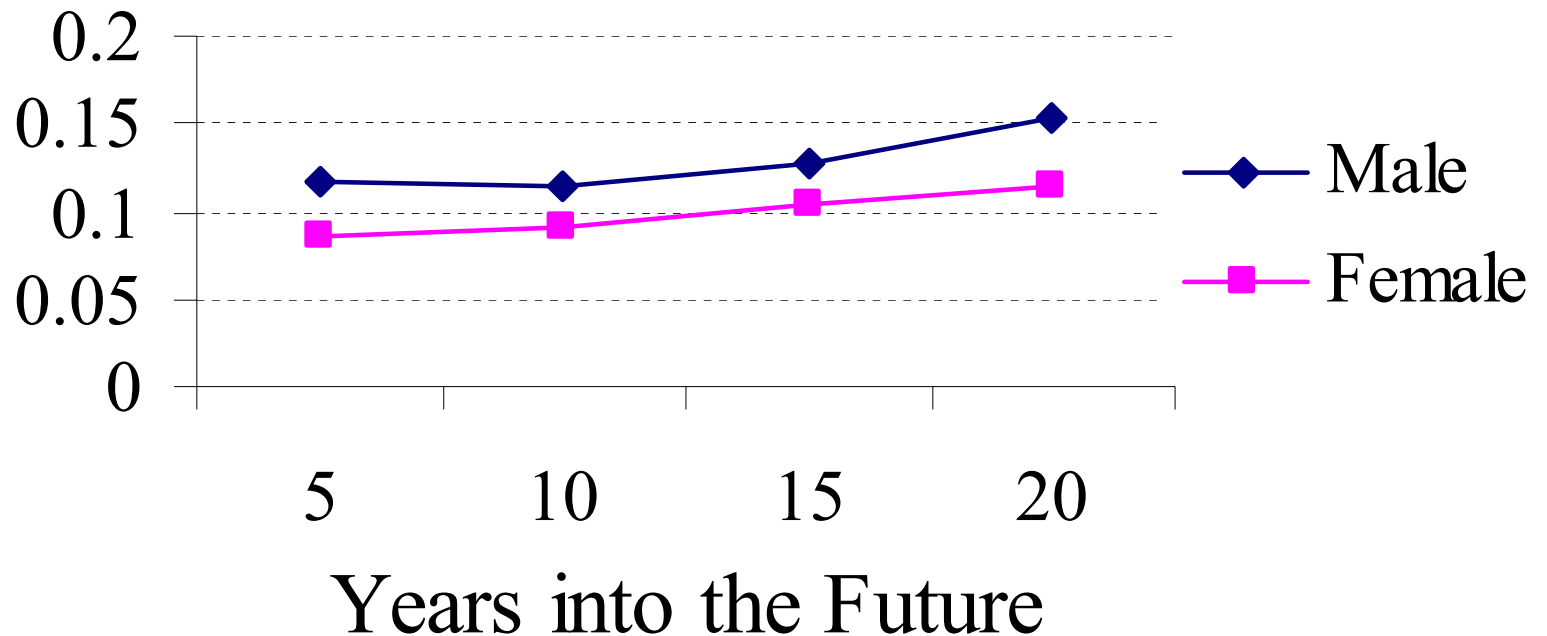
Life Expectancy and Economic Growth in Latin America

Contribution of Health to Income



Health and Economic Growth in Mexico

Correlation of Life Expectancy with
Future Income Growth in the Mexican
States



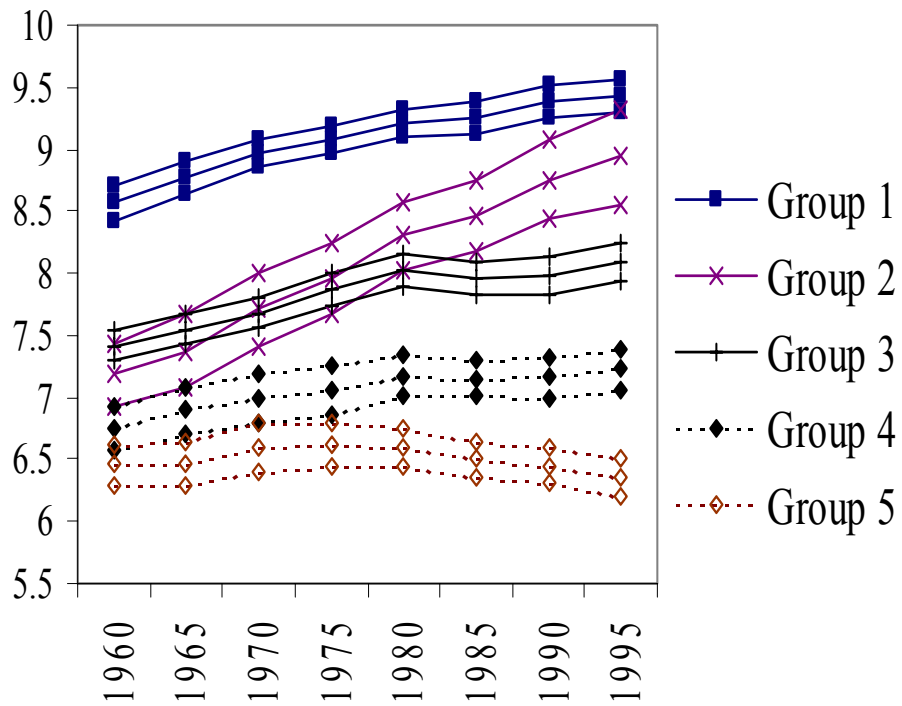
From Health to Income

- Health promotes income through:
 - Labor productivity
 - Educational productivity
 - Household productivity
 - Female labor participation

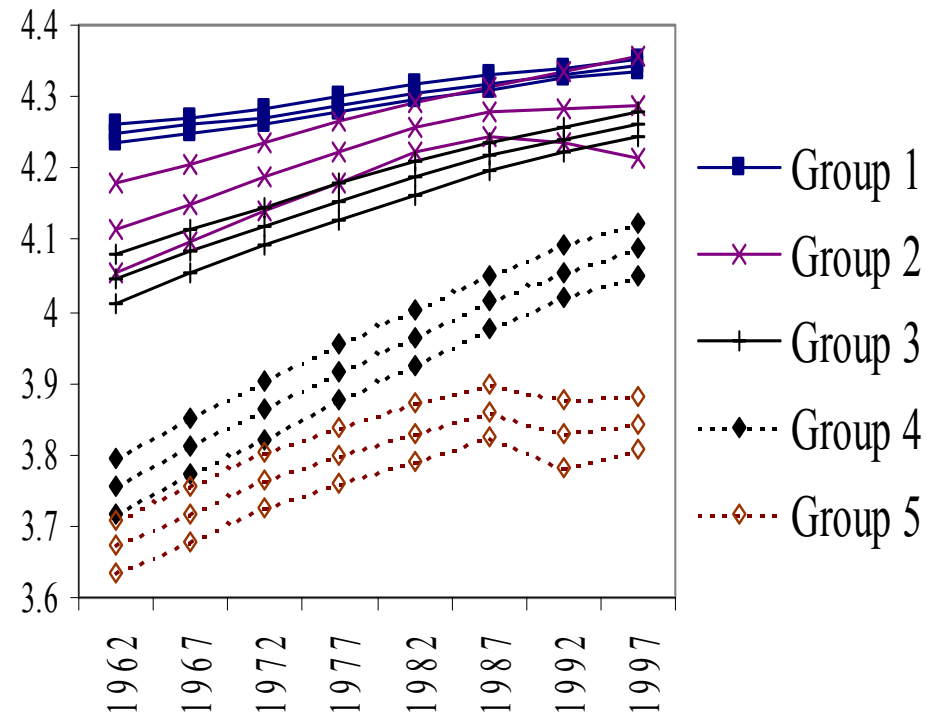
- Saving
- Investment

Health and Development

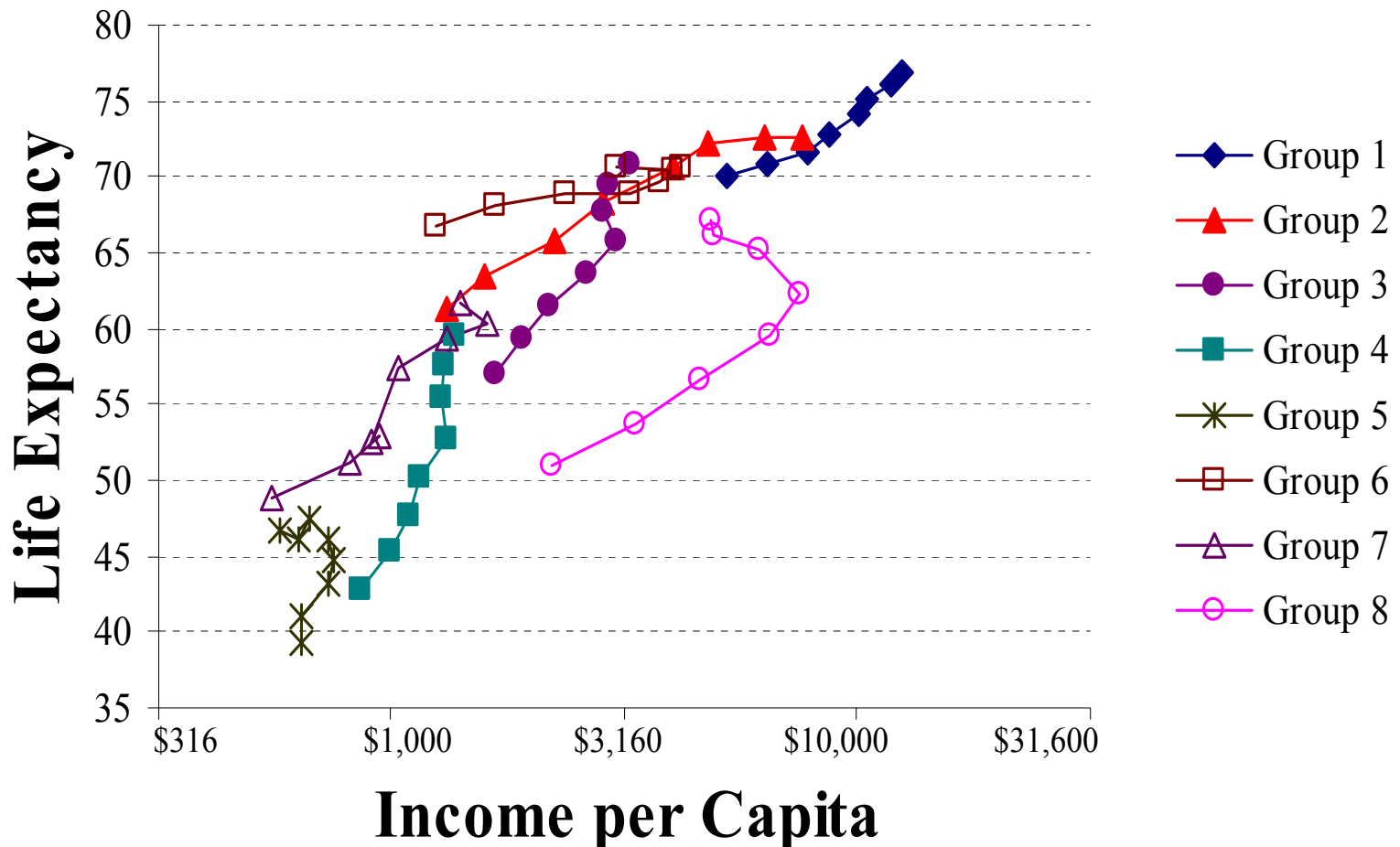
Income per Capita for 5 Groups of Countries



Life Expectancy for 5 Groups of Countries

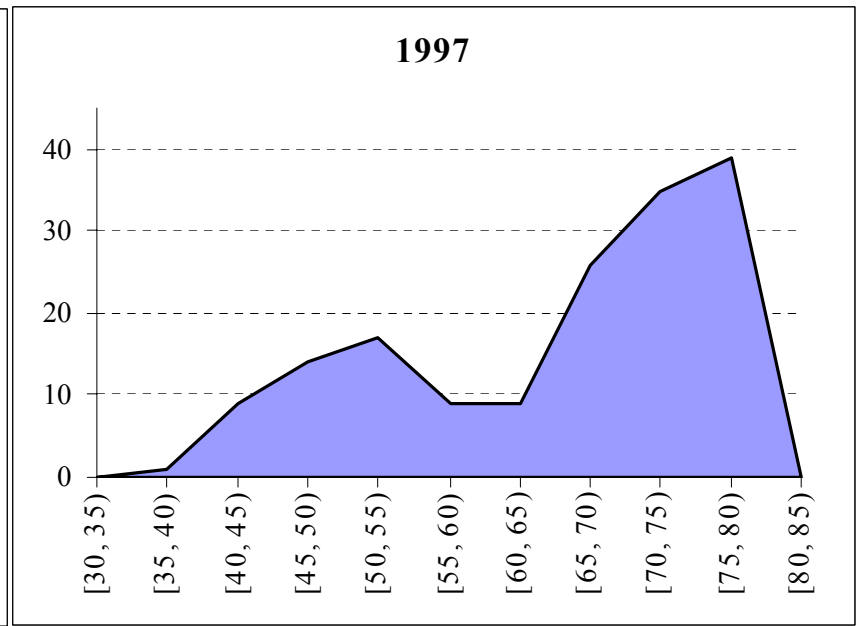
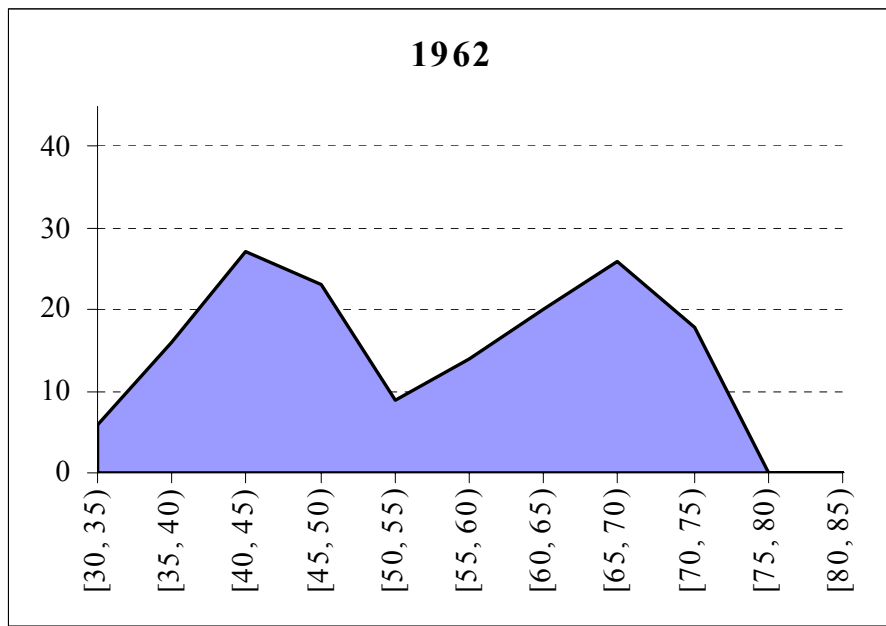


Income and Health by Groups of Countries

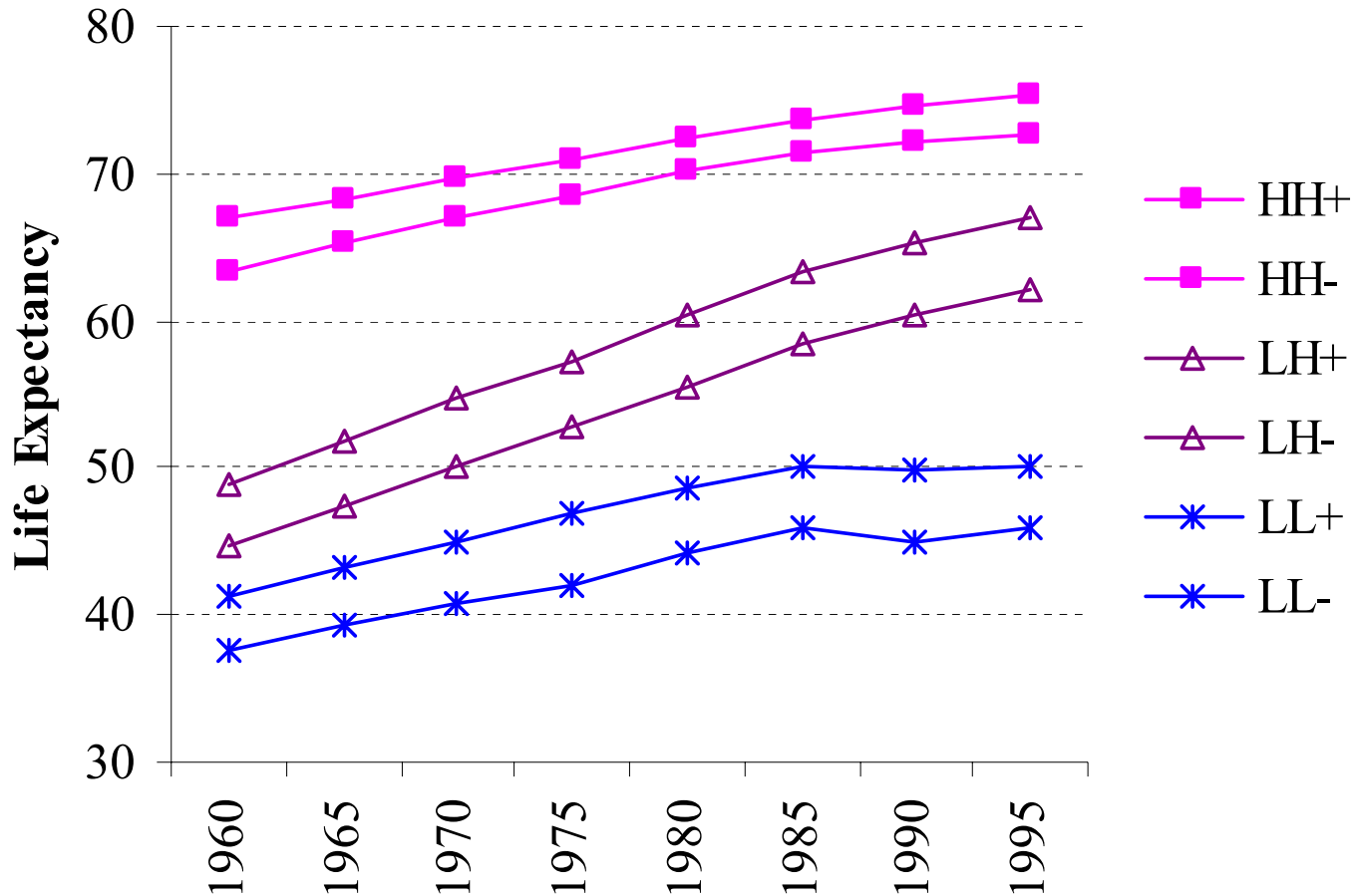


Are there Health-Related Poverty Traps?

Cross-Country Life Expectancy Histograms for 1962 and 1997



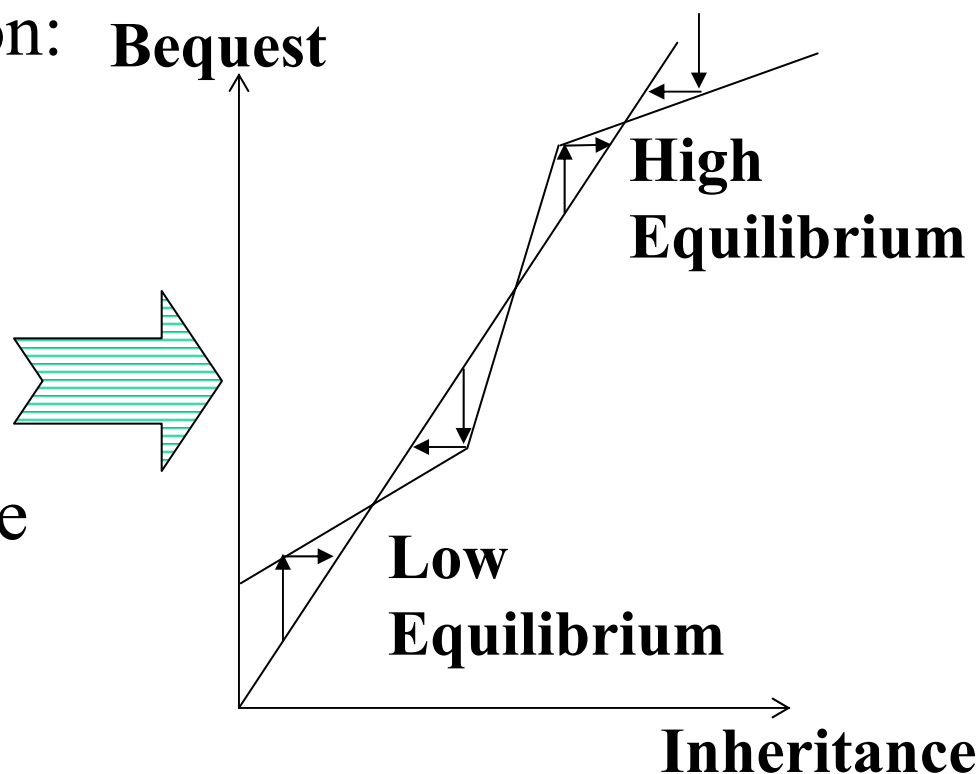
Life Expectancy Trajectories for Three Groups of Countries (3 standard deviation corridors)



Examples of Poverty Traps

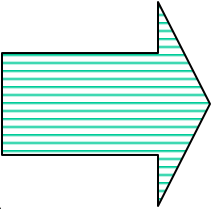
- Labor intensity depends on nutrition: efficiency wages.

- Investment in education requires funding that may be unavailable (Galor and Zeira, 1993)

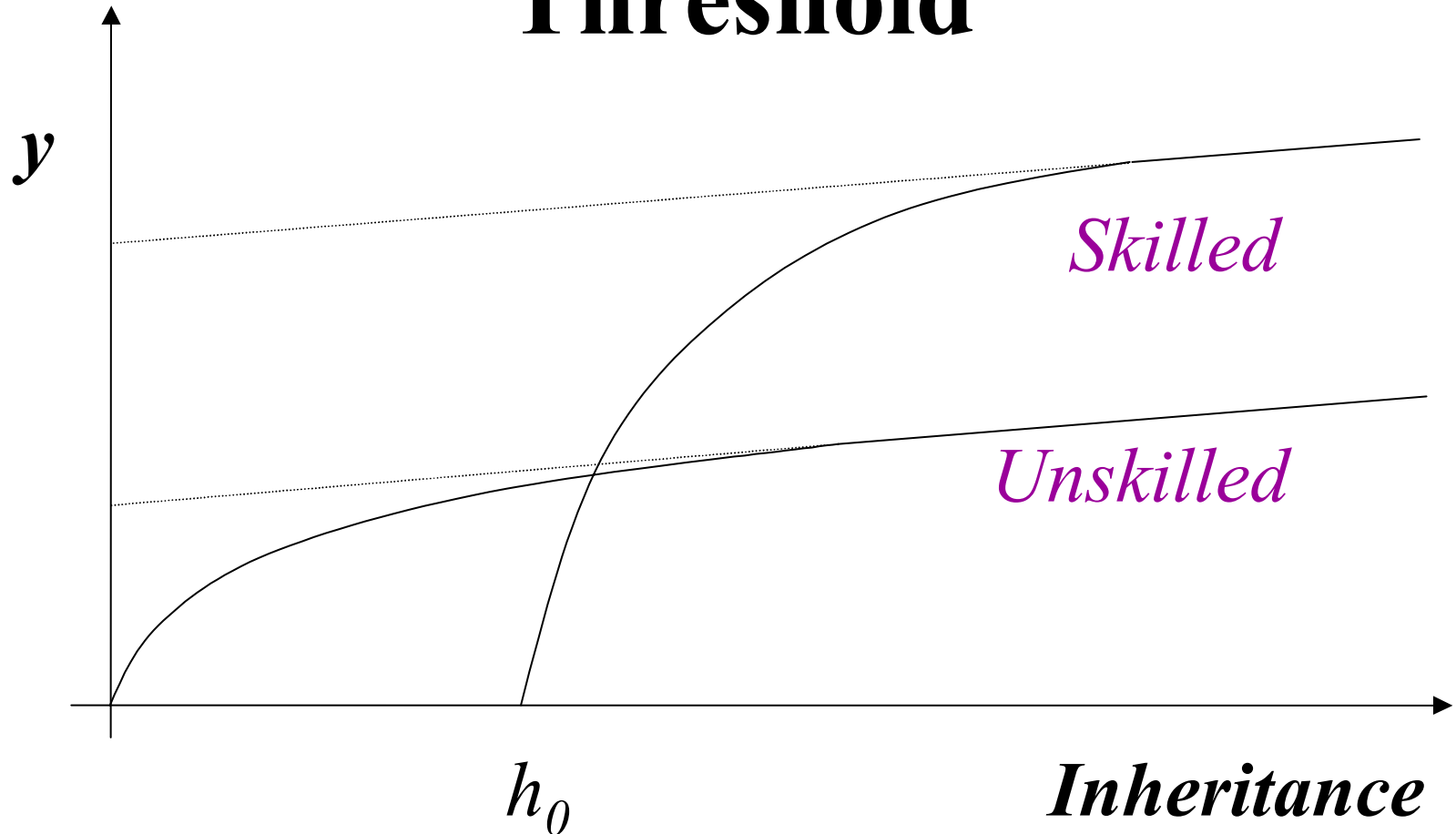


Obstacles to the Achievement of Child Quality

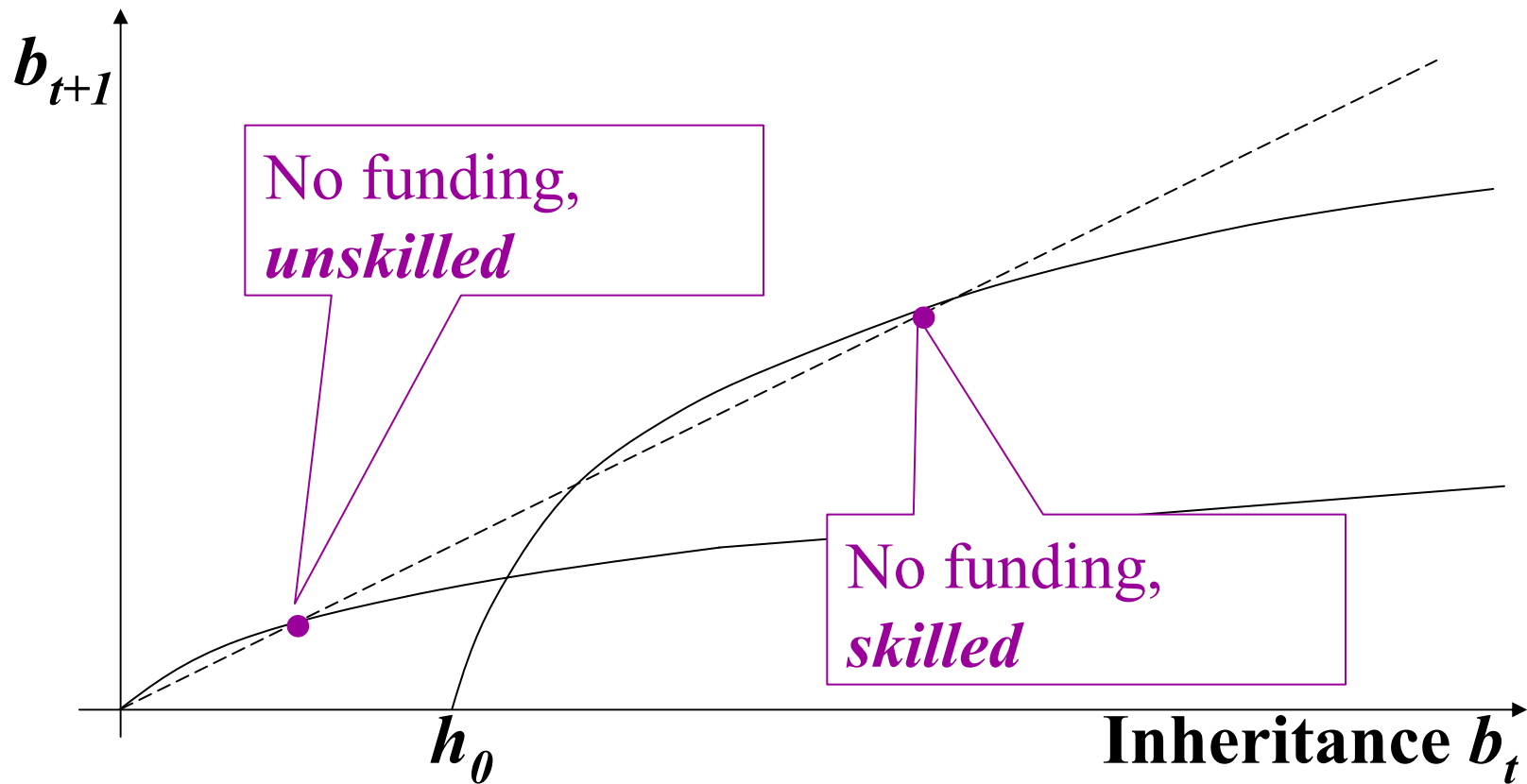
(Levinger, 1992; World Bank, 1993)

- temporary hunger
 - malnutrition
 - micronutrient deficiency disorders
 - parasite loads and infections
- 
- inattentiveness
 - poor cognitive and conceptual ability
 - psico-motor, mental, neurologic and eyesight problems
 - absenteeism, under-enrollement, and attrition

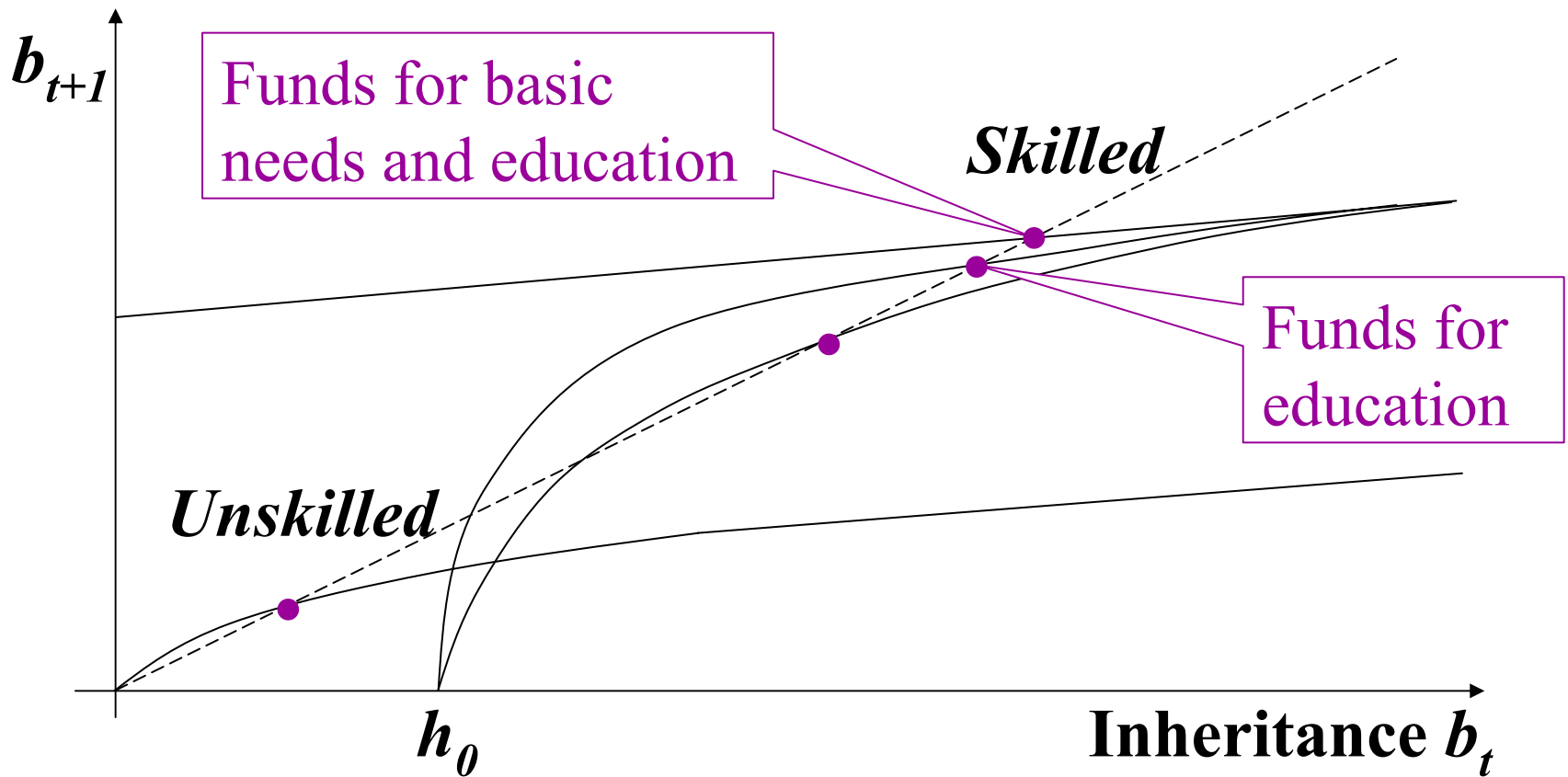
Family Wealth and Children's Education: Effect of a Basic Needs Threshold



Low-Nutrition, Low-Education Poverty Trap



Funding for Education Alone is not Enough



Conclusions I

- There is a long-term causal inter-relationship between nutrition, health and growth
- There may be health-related, human development barriers to growth at low income levels
- Malnutrition and poor health are linked to persistent educational inequalities and to the intergenerational transmission of poverty.

Conclusions II

- Health-related poverty traps may have important implications for:
 - Econometric studies
 - Poverty policy
 - Economic growth