

Increasing Human Capital Fuels Increasing Life Expectancy and Optimism for the Future

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SHORT ABSTRACT

Dramatic reductions in mortality are reflected in strong increases in life expectancy particularly in industrialized countries. Previous analyses relate these improvements primarily to medical innovations and advances in health-related behaviors. This study examines to what extent the rising levels of life expectancy were caused by compositional changes in the populations related to the increase in educational attainment, in addition to the direct effect of reduced mortality risks. We decompose changes of the total populations' life expectancy at age 30 in Italy, Denmark, and the United States, over the 20-year period between 1990 and 2010 into the effects of education-specific mortality changes ("mortality effect") and changes in the populations' composition by education ("composition effect"). We use the replacement decomposition technique to further subdivide the mortality effect into the contributions by the individual education groups. We show that, while most of the increases in life expectancy were due to the direct mortality effect, a large proportion of improvements in longevity

can be attributed to the changing composition of the population by level of education in all three countries. Thus, this study demonstrates that investments in education and resulting improvements in human capital lead to substantial improvements in population health. The findings have several important policy implications for all societies of the world, particularly for newly industrializing countries and other populations of the global south, where education levels are projected to increase even more rapidly than in the industrialized world—suggesting that education policies should also be seen as indirect health policies.

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