Cross-National Comparative Studies

Examples from Aging

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# Uses of Cross-national Comparisons

<table>
<thead>
<tr>
<th><strong>Motivation</strong></th>
<th><strong>Data Needs</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Disturb complacency; motivate reforms</td>
<td>Outcome data at aggregate levels</td>
</tr>
<tr>
<td>Learn something distinctive about causal mechanisms</td>
<td>Individual level data with harmonized measurement</td>
</tr>
<tr>
<td>Evaluate policies</td>
<td>Individual data with enough variation and good info on policy and institutional context</td>
</tr>
</tbody>
</table>
US life expectancy at age 50 falling behind rest of developed world

Life expectancy at age 50 for men and women in 10 industrialized nations since 1950.

Source: Glei, Mesle, and Vallin, 2009.
Prevalence of Chronic Disease and Disability among People Aged 50-74 in the US, England, and 10 Other European Nations: 2004

Source: Adapted from Avendano, Glymour, Banks, and Mackenbach, 2009.
Exploring why Costa Rica outperforms the United States in life expectancy: A tale of two inequality gradients

Luis Rosero-Bixby\textsuperscript{a,1} and William H. Dow\textsuperscript{a,b}
Variation in cognitive functioning as a refined approach to comparing aging across countries

Vegard Skirbekk\textsuperscript{a,b,1}, Elke Loichinger\textsuperscript{a,b,c}, and Daniela Weber\textsuperscript{a,b}

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\textbf{Source:} Skirbek et al., PNAS, 2012:770-774
Mental Retirement

The long-run effect of maternity leave benefits on mental health: Evidence from European countries

Mauricio Avendano \textsuperscript{a,b,c,*}, Lisa F. Berkman \textsuperscript{b,c}, Agar Brugiavini \textsuperscript{d}, Giacomo Pasini \textsuperscript{d,e}
Expression of Anger and Ill Health in Two Cultures: An Examination of Inflammation and Cardiovascular Risk

Shinobu Kitayama, Jiyoung Park, Jennifer Morozink Boylan, Yuri Miyamoto, Cynthia S. Levine, Hazel Rose Markus, Mayumi Karasawa, Christopher L. Coe, Norito Kawakami, Gayle D. Love, and Carol D. Ryff
Harmonizing individual-level longitudinal data

“Harmonizing” not “homogenizing”

Enabling multilevel cross-national comparative studies

Requires considerable effort through networks – crosswalks, concordances, test-retests

Learning goes both ways; not a hub-and-spokes arrangement
Harmonization of HRS International Aging Studies

This project established a research network for the harmonization of cross-national studies of aging with the Health and Retirement Study (HRS). This network supports the development of new international studies with harmonized data, maintains harmonization and data development among existing comparable studies, and develops a cross-national research agenda.

Goals

The goal of this project, funded by the National Institute on Aging (NIA) through a Research Related Grant (R-24) from the Behavioral and Social Research program, is to encourage the harmonization of survey content and subject matter in Health and Retirement Study (HRS) aging studies around the world. To achieve this goal, this project has convened a set of meetings with the principal investigators of all of the HRS-family studies, and has sponsored small-scale pilot studies to encourage comparability and harmonization. Another goal of the project is to help develop a cross-national research agenda on aging.

http://www.rand.org/labor/projects/harmonization-international-aging.html
Welcome

The Biomarker Network is a National Institute of Aging sponsored project to develop an interdisciplinary group of scientists dedicated to improved measurement of biological risk for late life health outcomes in large representative samples of populations. Activities of the network include designing and carrying out a series of focused meetings, interactive activities, workshops, and pilot projects to harmonize and develop measurement of biological risk in populations.

Biological risk represents objective measurement of major dimensions of population health. The level of risk can indicate the health of the population, need for health care treatment in a population, and the effectiveness of that treatment in controlling risk or delaying disease progression, and death. The measurement of biological risk in large populations often requires adoption of methods not used in laboratory settings. This project will improve the methods of measuring health used in populations and improve comparability of results over time and across studies, which is important for monitoring population health.

The Biomarker Network is funded through the National Institute on Aging (NIA) grant 5R24AG037898-02.

http://gero.usc.edu/CBPH/network/
Integrative Analysis of Longitudinal Studies of Aging (IALSA)

An International Collaboration for Reproducible Longitudinal Research on Lifespan Determinants of Change in Cognitive and Physical Capabilities, Health, Personality, and Well-Being

The study of aging and health-related change demands an integrative life span / life course developmental framework, involving interdisciplinary collaborations and advanced methodological approaches for understanding how and why individuals change with age, in both normative and idiosyncratic ways. Results from longitudinal studies also provide a basis for the early detection of change related to neurodegenerative disorders and the identification of periods in the lifespan when interventions will potentially have their greatest impact.

IALSA and Reproducible Research. A major feature of the IALSA network is the evaluation of the reproducibility of results from longitudinal and life course studies. The replication of longitudinal research is challenging as there are many ways that results can differ. Evidence for lack of replicability can include differences in age range, birth cohort, culture, health and education of individuals in the sample, differences across measurements and study design, and choice of statistical analysis, including the selection of covariates, treatment of rates of response, attrition, and mortality selection within and across studies. IALSA projects each include multiple studies for the evaluation of the reproducibility of results and publically available analysis scripts that

http://www.ialsa.org/
Aging researchers are likely to be more interested in education research

Growing literature on effects of early-life events on late-life outcomes

Strong (and in the US, growing) education gradient in mortality at older ages

Early-life educational attainment protects against dementia...and cohort changes in educational attainment may account for recent decline in dementia incidence.

Bleak outlook for improvements in the US => interest in remediation at adult ages
The US IS NOT EXPECTING IMPROVEMENT IN EDUCATIONAL ATTAINMENT

BUT THE REST OF THE WORLD IS

CHINA

ITALY

INDIA

MEXICO

Source: Wittgenstein Centre for Demography and GLobal Human Capital
(Lutz,Butz, and Samit, 2014)
Lessons from aging research?

Most of the payoff comes from analyses at the individual level.

Harmonization is hard work... not only for psychosocial variables like “expression of anger” and “conscientiousness” but also for more medical ones like “C-reactive protein” and “dementia”

Much of what we know about social determinants of health at older ages really deserves to be checked in other populations.

We have a remarkable capacity to ignore national rankings in health outcomes, at least in the health sector.