

Katharina Frosch:

The Innovative Capacity of an Aging Workforce

Beiträge zur Personal- und Organisationsökonomik,

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In times of sweeping demographic changes, policy makers and business executives in mature economies perceive workforce aging as one potential threat to the capacity for innovation and technological progress. However, evidence for age-dependency in innovative performance is still scarce. Pressing questions in this context are for example:

- Does workforce age affect the innovative capacity of firms and regions, and if so, how and through which transmission channels do these effects occur?
- What are the sources of possible age-dependency in innovative performance, in particular with respect to innovation-relevant human capital?
- What are the policy implications of the interplay between workforce age and the capacity to produce technological advances in times of future workforce aging?

Starting from a comprehensive survey and critical discussion of existing studies about the interplay between workforce age and innovation, this book suggests a new conceptual framework to study the age-dependency of innovation. Based on this, three empirical studies investigate how the age composition of a workforce affects inventive performance in European regions, to what extent certain staffing patterns experienced by German firms boost innovative performance and how a region's entrepreneurial capacity relates to the age composition of its working-age population.

Key words: aging workforce, innovation, entrepreneurship, human capital, demographic change

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To Elisabeth and Karl,
and all others, who brighten my life

Contents

1	Introduction	2
1.1	Motivation	2
1.2	Workforce age and workforce aging	5
1.2.1	<i>Population aging</i>	5
1.2.2	<i>Workforce age composition and workforce aging</i>	6
1.2.3	<i>Workforce aging driven by labor market determinants</i>	8
1.3	Innovation.....	13
1.4	Outline	15
2	Survey of the literature	18
2.1	Introduction	18
2.2	Worker’s ages and innovation: Individual level.....	18
2.2.1	<i>Summary of findings</i>	18
2.2.2	<i>Discussion of findings: Caveats and ways out</i>	20
2.3	Age-performance profiles at the aggregate level	22
2.3.1	<i>Methodological basis and selected findings</i>	23
2.3.2	<i>Estimation issues</i>	24
2.4	Workforce age and innovation in firms and regions	28
2.4.1	<i>Firm-level evidence on the age dependency of innovation</i>	28
2.4.2	<i>Age diversity and innovative capacity at the firm level</i>	30
2.4.3	<i>Aging and technological change in countries and regions</i>	32
2.5	Summary and Discussion	35
3	Perspectives on workforce age and innovation.....	42
3.1	Scope and research objectives.....	42
3.2	Age effects on innovation – some starting points	43
3.2.1	<i>Obsolescence of human capital over workers’ careers</i>	43
3.2.2	<i>Updating and accumulation of human capital over the career</i>	45
3.2.3	<i>Cohort effects in the endowment with human capital</i>	46
3.2.4	<i>Summary</i>	47
3.3	Framework: Transmission channels	47
3.3.1	<i>Firm’s research and development activities</i>	48
3.3.2	<i>Age-specific employment as a knowledge filter</i>	49
3.3.3	<i>Endogenous entrepreneurship as a way out?</i>	50

3.3.4	<i>Summary</i>	51
3.4	Opportunities and limitations of the approach	51
3.5	Empirical case studies	54
4	Workforce age and inventive performance	58
4.1	Introduction	58
4.2	Age and regional knowledge production.....	59
4.2.1	<i>Skills as a main ingredient for knowledge production</i>	59
4.2.2	<i>Age effects on skill inputs in regional knowledge production</i>	60
4.2.3	<i>Incorporating age effects into the knowledge production function</i>	62
4.2.4	<i>Propositions</i>	63
4.3	Empirical implementation	64
4.3.1	<i>Estimation equation and estimation issues</i>	64
4.3.2	<i>Data</i>	65
4.3.3	<i>Variables</i>	66
4.4	Results and discussion.....	69
4.4.1	<i>Descriptive evidence</i>	69
4.4.2	<i>Age and knowledge effects in regional innovation</i>	72
4.4.3	<i>Age-of-knowledge effects in regional innovation</i>	75
4.4.4	<i>Discussion</i>	78
4.5	Summary and conclusions.....	80
5	Age-specific staffing strategies and innovation	84
5.1	Introduction	84
5.2	The age dimension in firms' staffing decisions.....	86
5.2.1	<i>Firms' age-related staffing strategies</i>	86
5.2.2	<i>Strategic staffing patterns, employment growth and dominant firms</i>	89
5.3	Approach	92
5.3.1	<i>Data</i>	92
5.3.2	<i>Relating staffing patterns of German firms to innovation</i>	92
5.4	Results	95
5.4.1	<i>Overview</i>	95
5.4.2	<i>Strategic staffing patterns in German firms</i>	97
5.4.3	<i>Is innovative performance related to age-specific staffing patterns?</i>	101
5.5	Conclusions and future research.....	104
6	Regions' age and start-up activity	110

6.1	Introduction	110
6.2	Age effects on regional start-up activity	112
6.2.1	<i>From the individual to the regional level</i>	112
6.2.2	<i>Policy-relevant causes of age effects in regional firm formation</i>	113
6.2.3	<i>Research propositions</i>	116
6.3	Empirical implementation	117
6.3.1	<i>Estimation strategy</i>	117
6.3.2	<i>Data</i>	118
6.3.3	<i>Variables</i>	119
6.3.4	<i>Estimation issues</i>	122
6.4	Results	123
6.4.1	<i>Descriptive evidence on age and regional firm formation</i>	123
6.4.2	<i>Age effects on regional firm formation</i>	127
6.4.3	<i>Exploring the sources of age effects on regional firm formation</i>	130
6.4.4	<i>Simulation</i>	136
6.5	Conclusions	138
7	Summary and conclusions	142
7.1	Summary.....	142
7.2	Integration and discussion of findings.....	143
7.3	Implications and future directions	145
	References	147
	Appendix A	164
	Appendix B	169
	Appendix C	171
	Appendix D	174

List of Tables

Table 1: Demographic structure and changes in the working-age population	7
Table 2: Changes in age group 50-64: Decomposition (in mill. people).....	12
Table 3: How existing studies cope with methodological challenges (part I).....	37
Table 4: Descriptive statistics for main indicators.....	71
Table 5: Age and knowledge effects on regional patenting activity.....	73
Table 6: Equality of parameters in the quality-knowledge aggregate	76
Table 7: Innovative performance, dominance and growth	96
Table 8: Workforce structure and flows by dominance and growth regime	98
Table 9: Strategic staffing patterns by dominance and growth regime	100
Table 10: Innovative performance and different staffing patterns	102
Table 11: Selected descriptive statistics, regional level	125
Table 12: Age effects on regional firm formation	128
Table 13: Human capital, opportunity costs and new firm formation	131
Table 14: Age-specific migratory flows and new firm formation	134
Table 15: Firm formation under average aging 2010-2030	137
Table A.1: Assumptions on employment rates by scenario.....	167
Table A.2: Workforce aging under scenarios I to IV	168
Table B.1: Regions and periods covered in the analysis	169
Table B.2: Age-of-knowledge effects in patenting activity.....	170
Table C.1: Selected firm and workforce characteristics	171
Table C.2: Minimum, maximum and percentiles for innovative performance	172
Table C.3: Results of wage regression to determine dominance regime.....	172
Table C.4: Potential confounding factors with respect to staffing patterns.....	173
Table C.5: Strategic staffing patterns in full sample	173
Table D.1: Potential sources of age effects in regional firm formation.....	177
Table D.2: Indicators and their definition.....	178
Table D.3: Descriptive statistics for indicators used in regression analysis.....	179

List of Figures

Figure 1: Workforce size, workforce aging and future trends	10
Figure 2: Quality knowledge aggregate	61
Figure 3: Patenting activity and age of S&T workforce by country	70
Figure 4: Spatial pattern of age and firm formation in West Germany	124
Figure 5: Driving factors of regional firm formation and age in 2004	126
Figure D.1: Business registrations in West Germany 2002-2006	176

Abbreviations

EPO	European Patenting Office
EU	European Union
EU-15	The 15 member states of the European Union before 1 May 2004
FE	Fixed effects
GMM	General method of moments
GVA	Gross value added
HR	Human Resource
IAB	Institut für Arbeitsmarkt- und Berufsforschung (Research Institute of the German Federal Employment Agency)
IABS	Employment Sample provided by IAB
ILO	International Labour Organisation
IPC	International Patenting Classification
IV	Instrumental variable (IV estimation = Instrumental variable estimation)
LFS	(European) Labor Force Survey
LIAB	Linked employer-employee panel dataset for Germany provided by IAB
NUTS	Geocode standard (nomenclature d'unités territoriales statistiques)
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Squares regression
RIS	Regional Information System of the German Federal Statistics Office
R&D	Research and development
SOEP	Socio-Economic Panel
S&T	Science and technology
UN	United Nations
US	United States of America

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Chapter 1

Introduction

The benefits of an ageing workforce. Older workers bring many benefits to your business. For instance, people who have been at a company or even just within an industry for a long period of time will, obviously, bring so much valuable experience and knowledge of a firm's products and services. This expertise can be shared among older members of staff to individuals who are just taking their first tentative steps into the world of work. Having workers from different age brackets also offers a wider variety of views. This diversity should deliver a company with plenty of fresh perspectives, a wh

Aging workforce challenges & solutions

The impact of the aging workforce

FAQ. Aging workforce statistics.

First off, a couple of aging workforce statistics to give you an idea about the extent of the problem. In the US alone, 10 000 baby boomers turn 65 every day. According to an article by Arlene S. Hirsch, M.A., LCPC, for SHRM, this is something that started in 2011 and will continue until 2030. Since the average retirement age of a baby boomer lies somewhere between 61 and 65, it's not hard to see that this so-called silver tsunami is going to create some serious challenges for HR; the It will help you to consider simple changes in the work environment to keep aging workers safe, healthy and productive to learn how to reduce the shortage of skilled workers by keeping mature workers employed to understand how a safe and healthy work environment benefits workers of all ages to connect with further resources and obtain additional information.

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Capacity for extended physical labour is reduced. Changes do not usually affect normal work. Lessened blood flow to outer parts of the body reduces heat loss from skin surface in hot conditions. The aging of the American population has had wide-ranging impacts on the economy—not all of them obvious. As the baby-boom generation retires, slower workforce growth is constraining the economy's potential growth rate. Demographic shifts may also impact the pace of wage growth, inflation, layoffs and new business formation. Instead of signaling weakness or stagnation, these developments may simply reflect the reality of America's changing population. As large numbers of baby-boomers retire, the effects may spread beyond workforce and GDP growth rates. This mass exodus of employees may also be