One Country, Two Systems: Evidence on Retirement Patterns in China

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Introduction

- China is facing the challenge of rapid population aging, which threatens to slow economic growth
- The projected sharp rise in the old-age dependency burden can be alleviated if the working life can be extended
- The length of working life depends on many factors, labor supply (health, preferences and wealth), demand (mainly firm behavior), and institutions

Intro (cont)

- This paper focuses on institutions, whose role is most evident when comparing the retirement patterns of urban and rural residents
- This paper utilizes nationally representative data and takes a closer look at different features of institutions that cause retirement patterns to diverge
  - Urban worker's retirement policy
  - Long-standing economic and social policies that put rural residents at great disadvantage relative to their urban counterparts

Outline

- Data and description of retirement patterns
- Institutions: retirement policy for urban workers
  - Hazards of retirement
- Institutions: economic resources
  - Pension coverage and generosity
  - Economic divide (discussed in the paper)
    - Wealth gap
    - Children gap
  - Expectations on sources of elderly support

Data: China Health and Retirement Longitudinal Study (CHARLS)

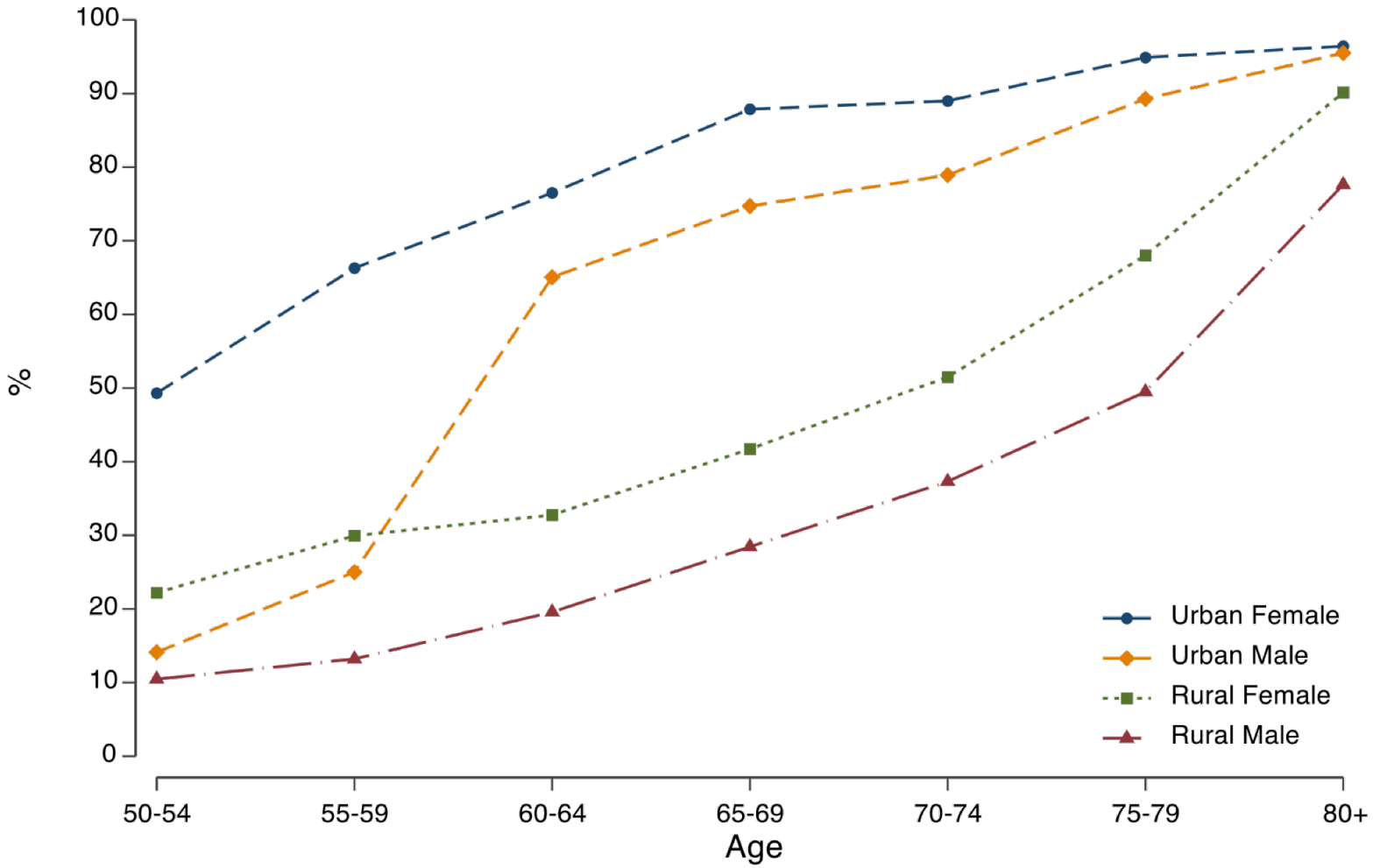
- HRS-type survey
- Biennial/triennial panel: the 2018 wave for this paper
- Nationally representative of population over age 45
- Multi-stage PPS random sampling
  - Counties, Villages, Households, Persons
- Pilot survey in 2008: Zhejiang and Gansu
- Baseline survey in 2011-2012: 10,257 households, 17,708 respondents
  - 150 counties in 28 provinces
  - Tibet, Hongkong, Macau and Taiwan were excluded
  - Hainan and Ningxia had no counties sampled

RETIREMENT PATTERNS

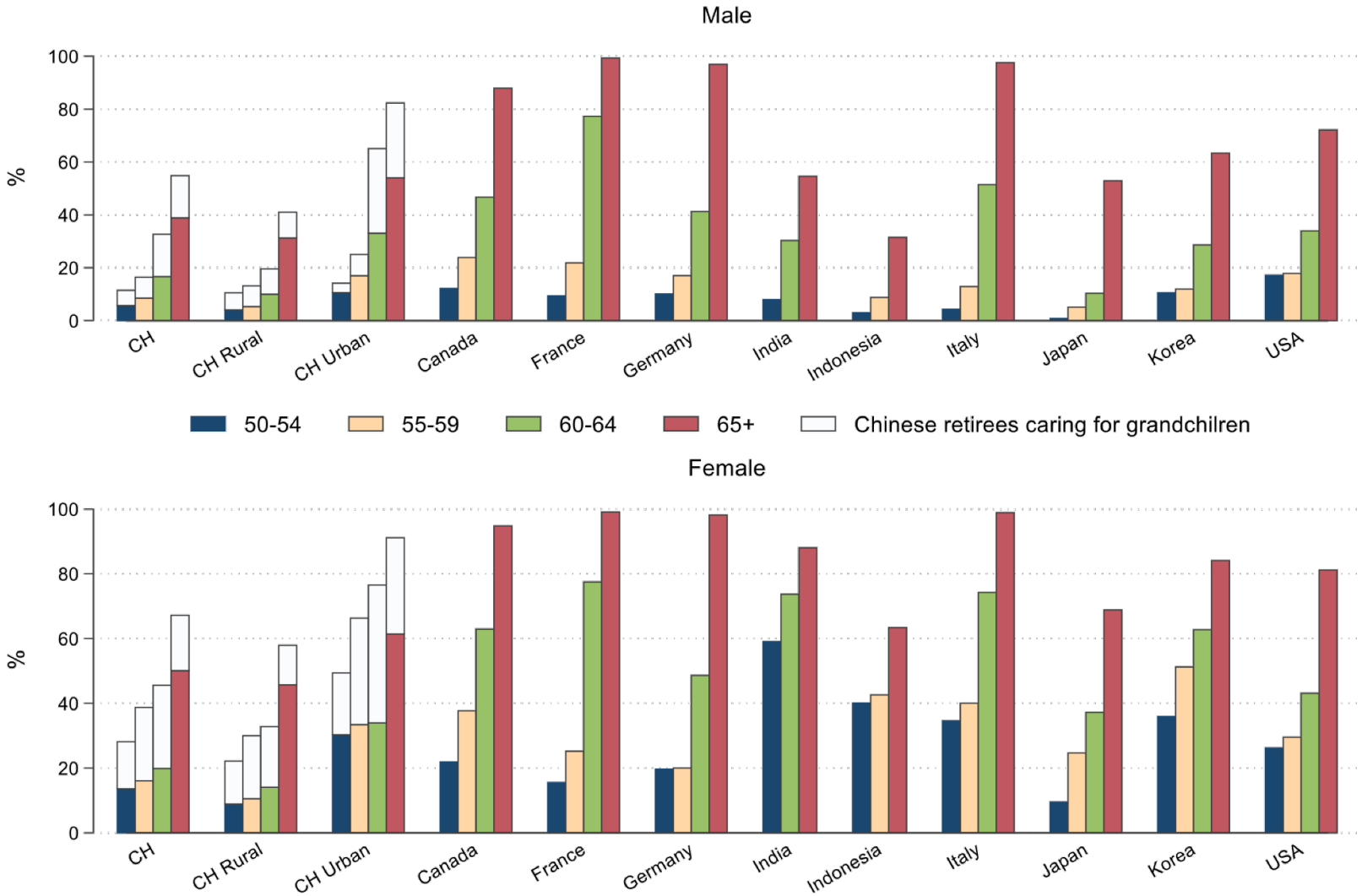
Key Concepts

- Define retirement
  - An individual is retired if once worked but is not currently active in any of these economic activities: farming, employed, self-employed and unpaid family business, unemployed, and other employments (includes part-time job).
  - Including the unemployed while the unemployment rate of older Chinese is lower than 1%
- Mandatory retirement age for urban workers
  - 60 for men
  - 50 for blue-collar women and 55 for white-collar women

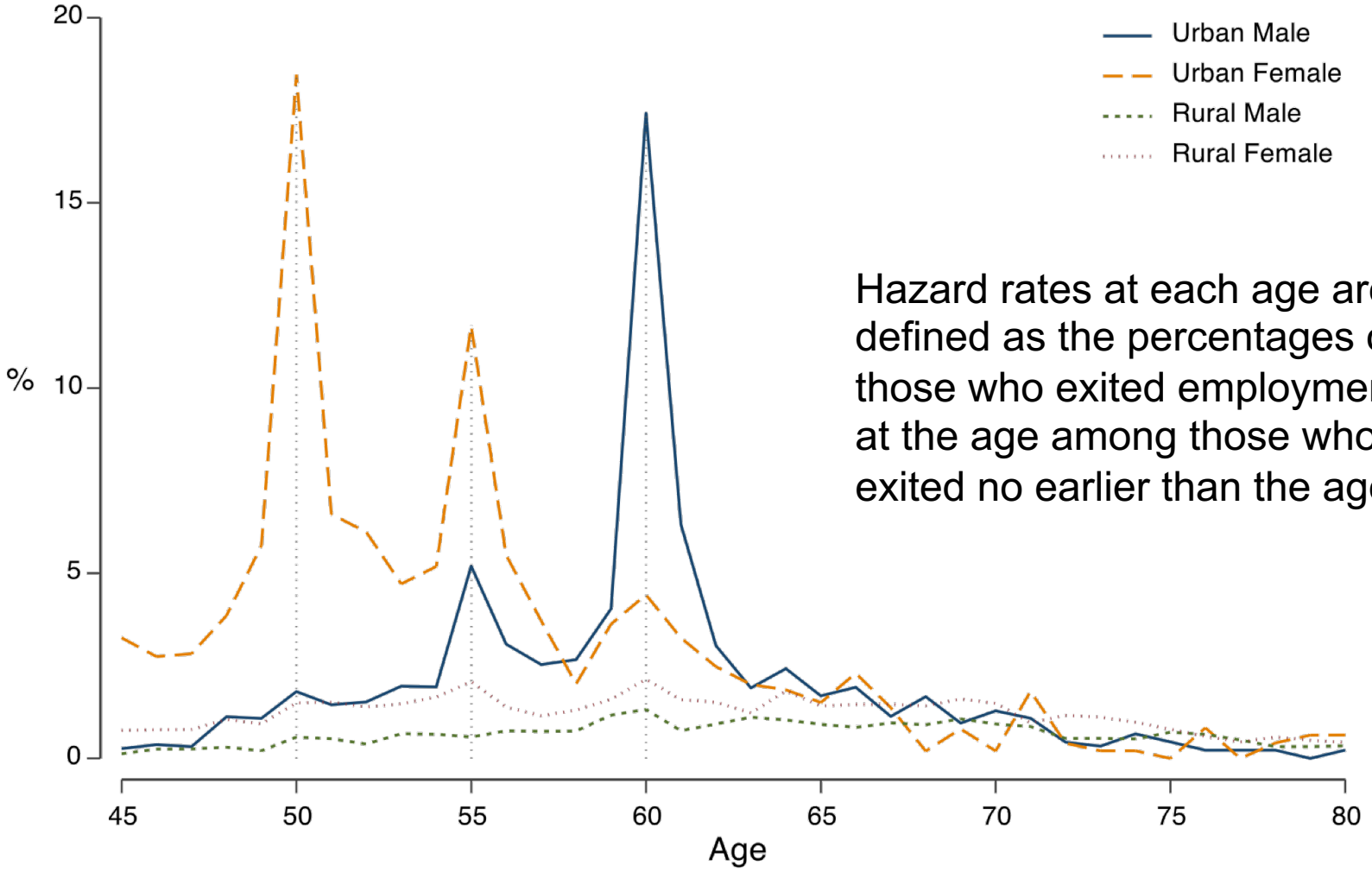
Work Status: Retirement Rates



International Comaprison: Retirement Rates



Unconditional Retirement Hazard Rates



Hazard rates at each age are defined as the percentages of those who exited employment at the age among those who exited no earlier than the age.

Pension Type, Coverage (%) and Monthly Receipt (Yuan): ages above 60

Pension Type	Urban	Rural	Total	Receipt
Employee Pension	78.8	4.8	26.9	2,880
Firm's Pension	59.1	3.5	20.2	2,600
Government or Institutions' Pension	18.5	0.8	6.1	4,000
Resident Pension	20.3	84.3	65.1	95
New Rural Social Pension	2.3	62.4	44.4	90
Urban Residents' Pension	5.3	1.1	2.3	1,000
Urban and Rural Residents' Pension	5.6	17.6	14.0	100
Conmmercial Pension	5.3	2.4	3.3	500
Other Pension	3.1	3.9	3.7	900
Any Pension	94.4	88.3	90.1	125

Monthly Pension income by Hukou, Gender and Age (median)

	Total		Male		Female	
Age Group	Urban	Rural	Urban	Rural	Urban	Rural
60-64	2,600	97	3,200	100	2,300	92
65-69	2,600	90	3,000	90	2,246	89
70-74	2,800	85	3,000	90	2,100	85
75-79	3,000	90	3,000	92	2,591	85
80+	3,000	90	3,500	100	2,500	90
Total	2,700	90	3,048	95	2,300	90
N	2,246	6,985	1,221	3,315	1,025	3,670

ASSOCIATIONS OF PENSION RECEIPT, HEALTH STATUS AND OTHER CHARACTERISTICS WITH EMPLOYMENT

Employment and Pension Receipt

Linear probability regression with the dependent variable Working (0/1)

	Urban		Rural	
Selected explanatory variables	Men	Women	Men	Women
Age	-0.066***	-0.038*	0.021**	-0.001
	(0.021)	(0.022)	(0.010)	(0.013)
Number of HH members under 6	0.008	-0.060	-0.003	-0.041***
	(0.037)	(0.041)	(0.013)	(0.015)
Number of ADL/IADL difficulties	-0.037***	-0.016***	-0.054***	-0.039***
	(0.004)	(0.004)	(0.003)	(0.002)
Receiving Employee Pension	-0.190***	-0.206***	-0.058*	-0.119***
	(0.040)	(0.031)	(0.033)	(0.038)
Receiving Resident Pension	-0.088*	-0.068**	0.004	0.022
	(0.050)	(0.035)	(0.020)	(0.016)
Spousal # of ADL/IADL difficulties	0.006	0.003	0.011***	0.021***
	(0.005)	(0.005)	(0.003)	(0.003)
Observations	1685	1458	5757	6619
R-squared	0.519	0.410	0.333	0.294

- Receiving an employee pension is associated with a 19 and 20.6 percentage point (43% and 78%) reduction in employment for urban men and women.
- Receipt of the resident pension is associated with 8.8 and 6.8 percentage point (21% and 26%) reductions in employment for urban men and women, but is not associated with a change in work status in rural areas.

Employment and Health Status

Linear probability regression with the dependent variable Working (0/1)

	Urban		Rural	
Selected explanatory variables	Men	Women	Men	Women
Age	-0.066***	-0.038*	0.021**	-0.001
	(0.021)	(0.022)	(0.010)	(0.013)
Number of HH members under 6	0.008	-0.060	-0.003	-0.041***
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Observations	1685	1458	5757	6619
R-squared	0.519	0.410	0.333	0.294

- Lower health status, as measured through the count index of difficulty performing ADLs and IADLs, is strongly associated with reductions in employment.

Employment and Spouse Health Status

Linear probability regression with the dependent variable Working (0/1)

	Urban		Rural	
Selected explanatory variables	Men	Women	Men	Women
Age	-0.066***	-0.038*	0.021**	-0.001
	(0.021)	(0.022)	(0.010)	(0.013)
Number of HH members under 6	0.008	-0.060	-0.003	-0.041***
	(0.037)	(0.041)	(0.013)	(0.015)
Number of ADL/IADL difficulties	-0.037***	-0.016***	-0.054***	-0.039***
	(0.004)	(0.004)	(0.003)	(0.002)
Receiving Employee Pension	-0.190***	-0.206***	-0.058*	-0.119***
	(0.040)	(0.031)	(0.033)	(0.038)
Receiving Resident Pension	-0.088*	-0.068**	0.004	0.022
	(0.050)	(0.035)	(0.020)	(0.016)
Spousal # of ADL/IADL difficulties	0.006	0.003	0.011***	0.021***
	(0.005)	(0.005)	(0.003)	(0.003)
Observations	1685	1458	5757	6619
R-squared	0.519	0.410	0.333	0.294

- The magnitudes of the added worker effect are not large: coefficient estimates of 0.006 and 0.003 for men and women in urban China, and it is not statistically significant for women, and 0.011 and 0.021 in rural areas.

Employment and Family Care Provision

Linear probability regression with the dependent variable Working (0/1)

	Urban		Rural	
Selected explanatory variables	Men	Women	Men	Women
Age	-0.066***	-0.038*	0.021**	-0.001
	(0.021)	(0.022)	(0.010)	(0.013)
Number of HH members under 6	0.008	-0.060	-0.003	-0.041***
	(0.037)	(0.041)	(0.013)	(0.015)
Number of ADL/IADL difficulties	-0.037***	-0.016***	-0.054***	-0.039***
	(0.004)	(0.004)	(0.003)	(0.002)
Receiving Employee Pension	-0.190***	-0.206***	-0.058*	-0.119***
	(0.040)	(0.031)	(0.033)	(0.038)
Receiving Resident Pension	-0.088*	-0.068**	0.004	0.022
	(0.050)	(0.035)	(0.020)	(0.016)
Spousal # of ADL/IADL difficulties	0.006	0.003	0.011***	0.021***
	(0.005)	(0.005)	(0.003)	(0.003)
Observations	1685	1458	5757	6619
R-squared	0.519	0.410	0.333	0.294

- The presence of an additional child under age six in the household is associated with 6 and 4.1 percentage point reductions in the probability that urban and rural women work, respectively.

Conclusions

- Retirement patterns are very different in urban and rural China
  - Rural people “work until dropping”
- The retirement patterns are possibly explained by
  - Mandatory retirement policy applicable to urban workers
  - Greater coverage and generous pension in urban areas
  - A big urban-rural gap in economic resources
- Policy implications
  - Urban and rural China need different policies regarding retirement
  - While urban young older people should be encouraged to stay on the labor force, rural older people should be given the freedom to retire

The health capacity to work at older ages in urban China

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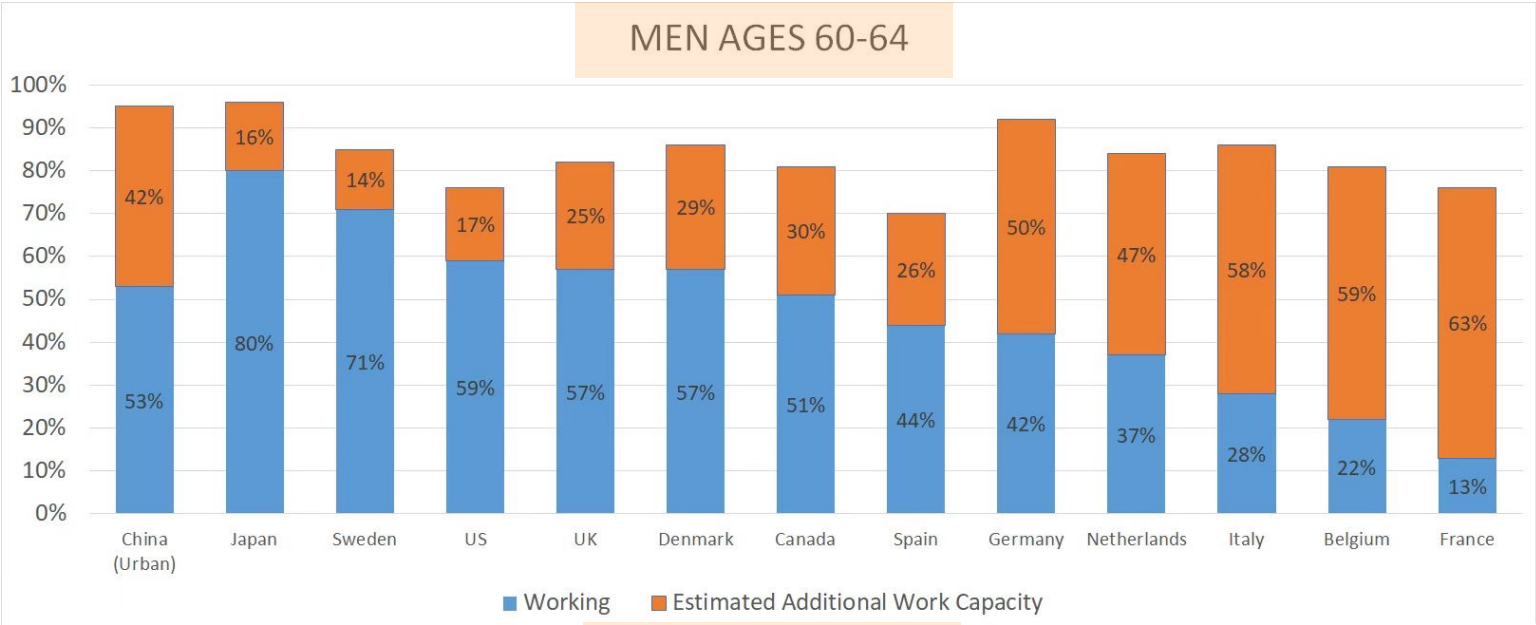
Method

- CHARLS Data: 2011, 2013, and 2015
- Construct a health index (PVW) from all health variables to avoid multi-collinearity and measurement errors
- Use rural adults to estimate the health impact on employment and exclude those with PVW<10% from the regression sample
- Simulate employment outcomes for urban people in the same five-year age group
- The difference between simulated and actual employment is interpreted as excess capacity.


MEN AGES 60-64
100%
90%
80%
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40%
30%
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42%
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14%
17%
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29%
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57%
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51%
44%
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37%
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13%
China (Urban)
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UK
Denmark
Canada
Spain
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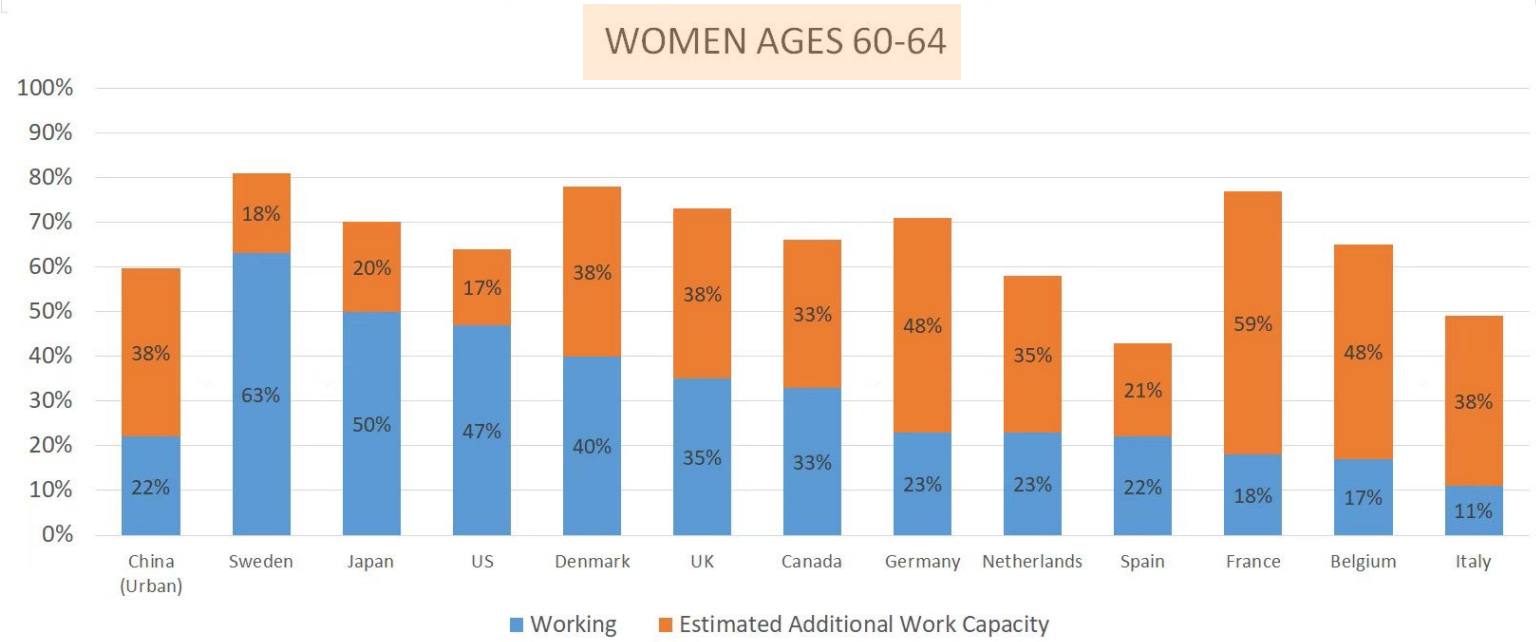
Netherlands
Italy
Belgium
France
Working
Estimated Additional Work Capacity


WOMEN AGES 60-64
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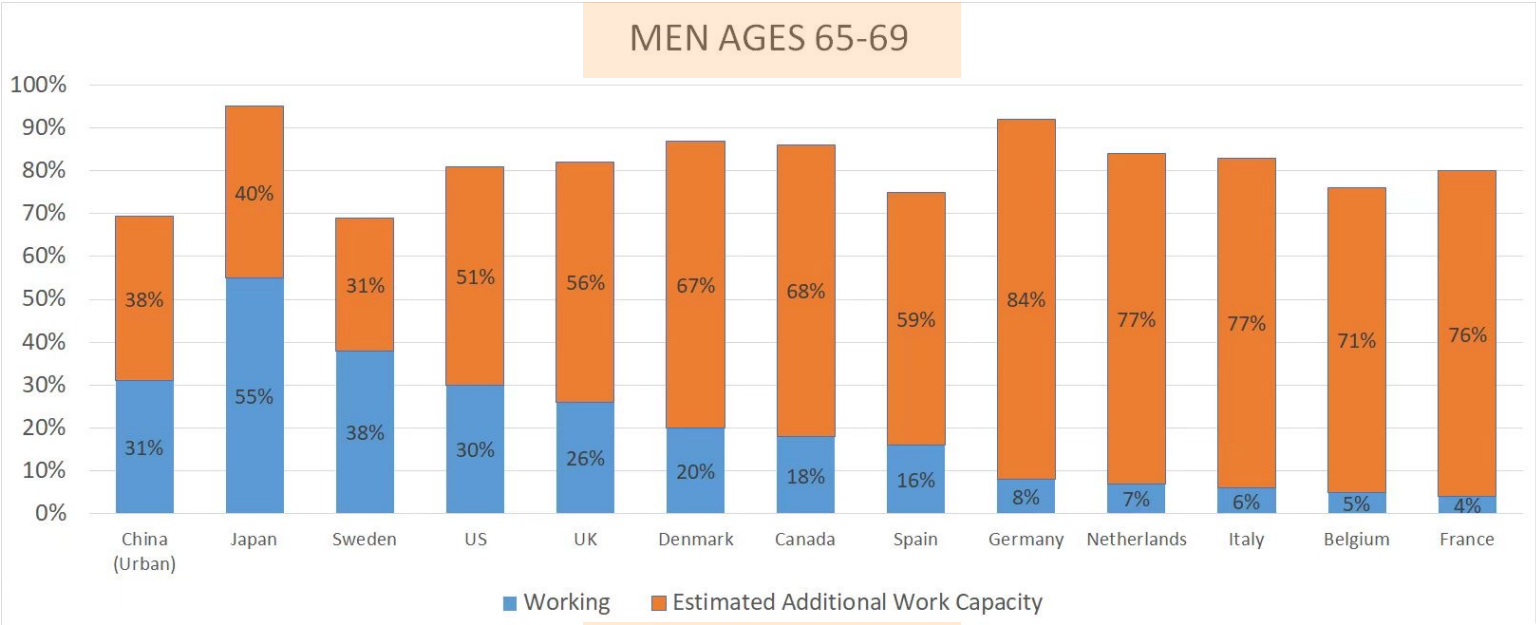
Estimated Additional Work Capacity


MEN AGES 65-69
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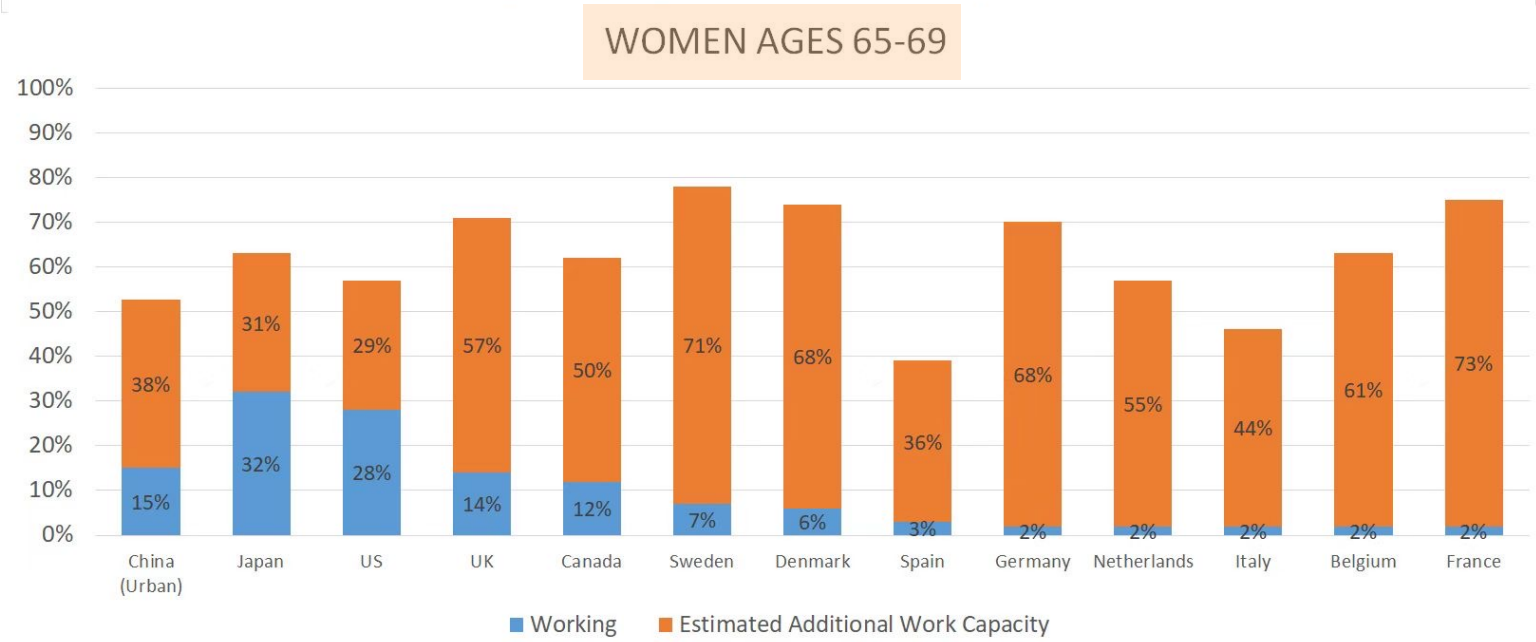
France
Working
Estimated Additional Work Capacity


WOMEN AGES 65-69
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55%
2%
44%
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61%
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73%
2%
China (Urban)
Japan
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Canada
Sweden
Denmark
Spain
Germany
Netherlands
Italy
Belgium
France
Working
Estimated Additional Work Capacity

Thank You!