

# **The Consequences of the Missing Girls of China**

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# Overview

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- Motivation: The ‘Missing Girls’ of China → ‘Bare Branches’
- Summary of Results
- Detailed Results
  - Section 1: Marriage Rates in China, Past and Future
  - Section 2: HIV in China and the ‘Bare Branches’
  - Section 3: Population aging and the Unmarried Elderly
  - Section 4: Marital Status and welfare
- Summary and Conclusions

# Summary of Results

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1. Marriage market problems emerge around 2015, and 13% of men age 25+ failing to marry.
2. Prostitution and HIV will increase, if current hazards by age X sex X marital status persist.
3. Rapidly aging population – 10% elderly in 2000, 40% around 2050. Around 15% of the men will be childless.
4. Failure to marry associated with bad outcomes – correlation or causation? Either way, it's a problem
5. Should China relax the One Child Policy?

Section 1  
**Marriage Rates in China**  
**Past & Future**

# Historical Trends in Marriage

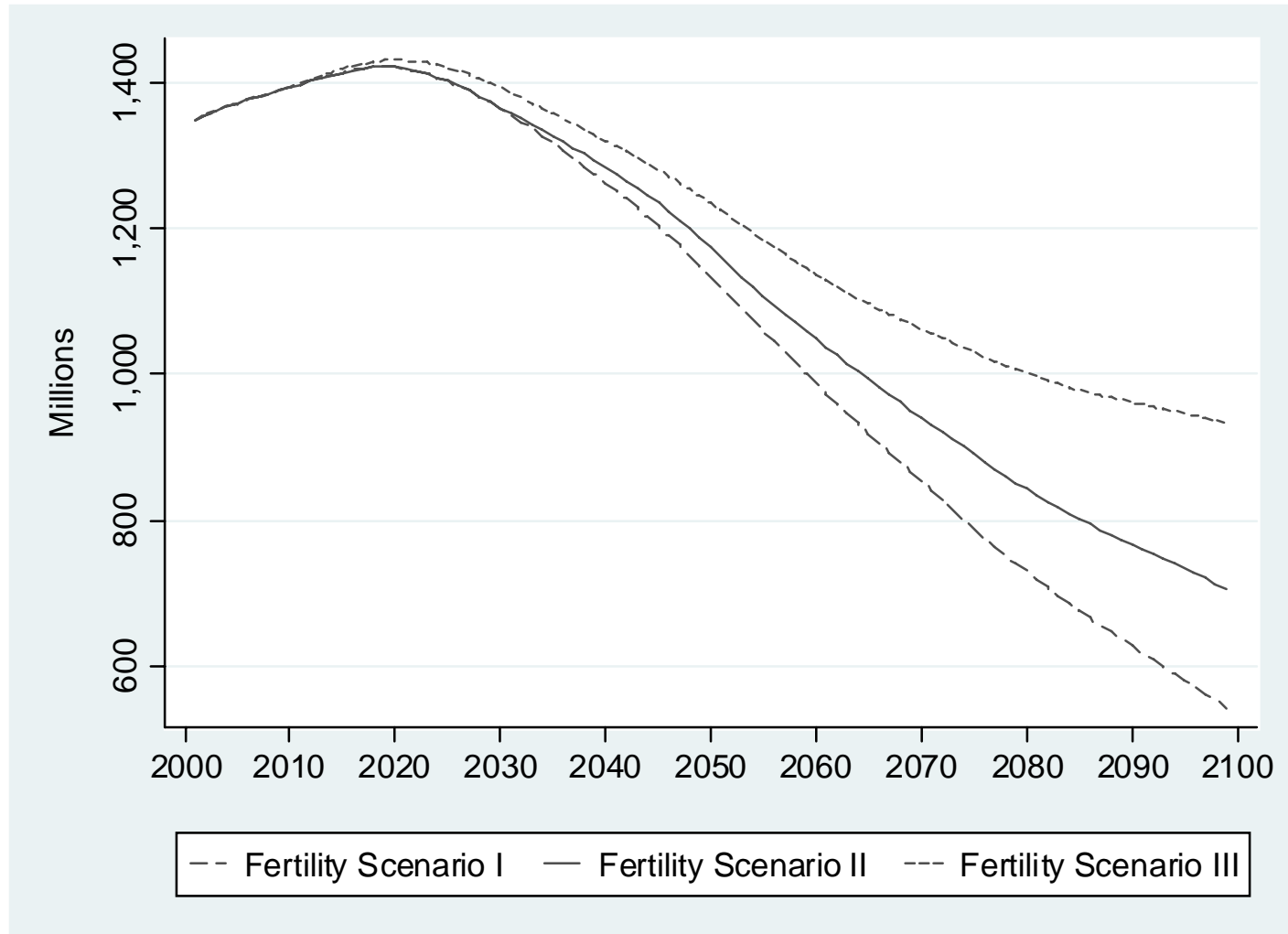
Table 1: Marriage Patterns in China

	Cohorts Born		Cohorts Born		Cohorts Born	
	1935-1944		1945-1954		1955-1964	
	Men	Women	Men	Women	Men	Women
Share Never Married	5.88%	.18%	5.49%	.29%	3.82%	.38%
Sex Ratio of Cohorts	1.14		1.08		1.04	
Share Illiterate, Ever Married Men	20.8%		7.7%		1.1%	
Share Illiterate, Never Married Men	48.6%		33.3%		12.7%	

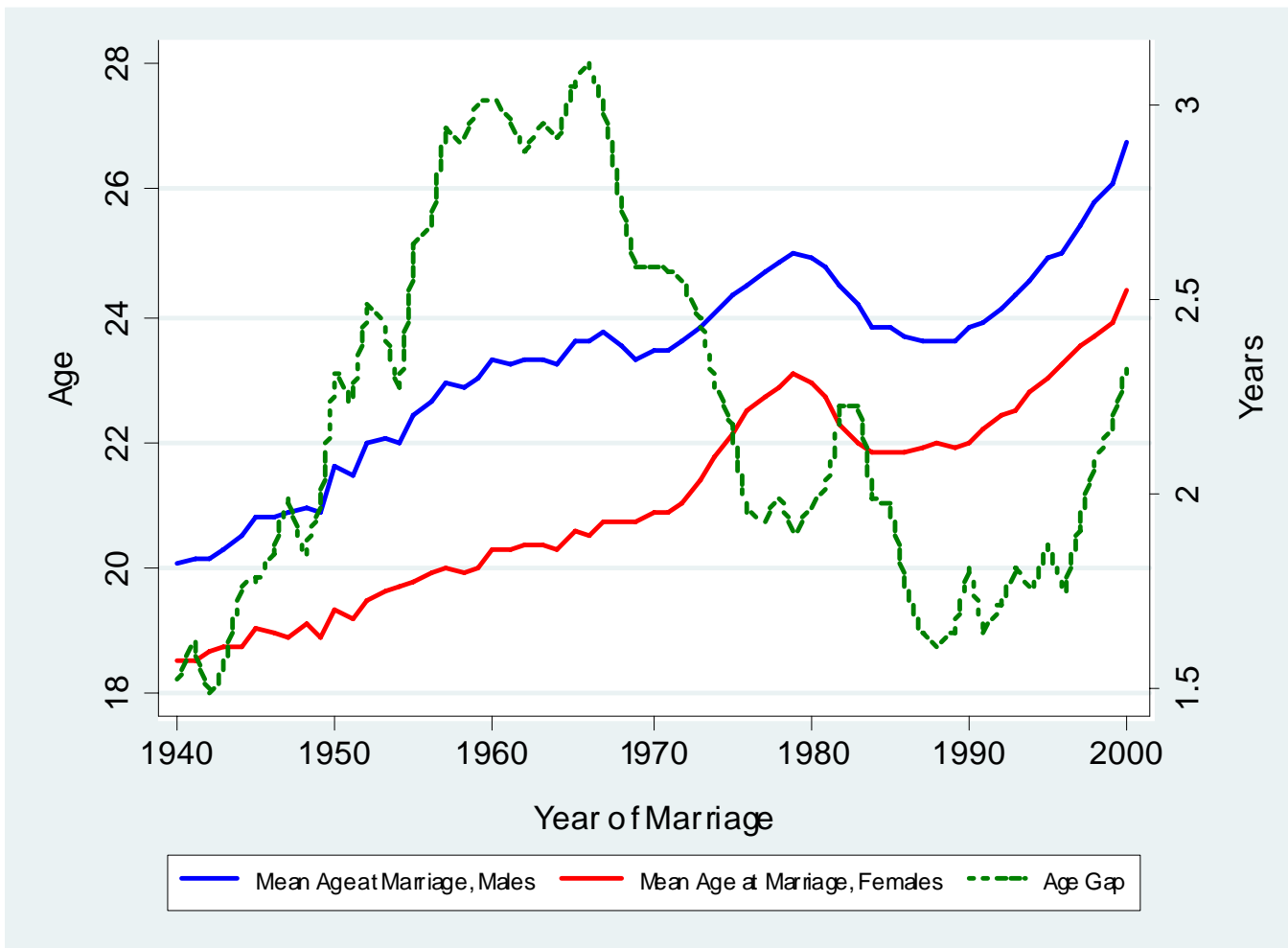
- 1. This is an “old” problem and the sex ratio imbalance affects marriage rates**
- 2. Poor men fail to marry**

# Population of China Will Shrink

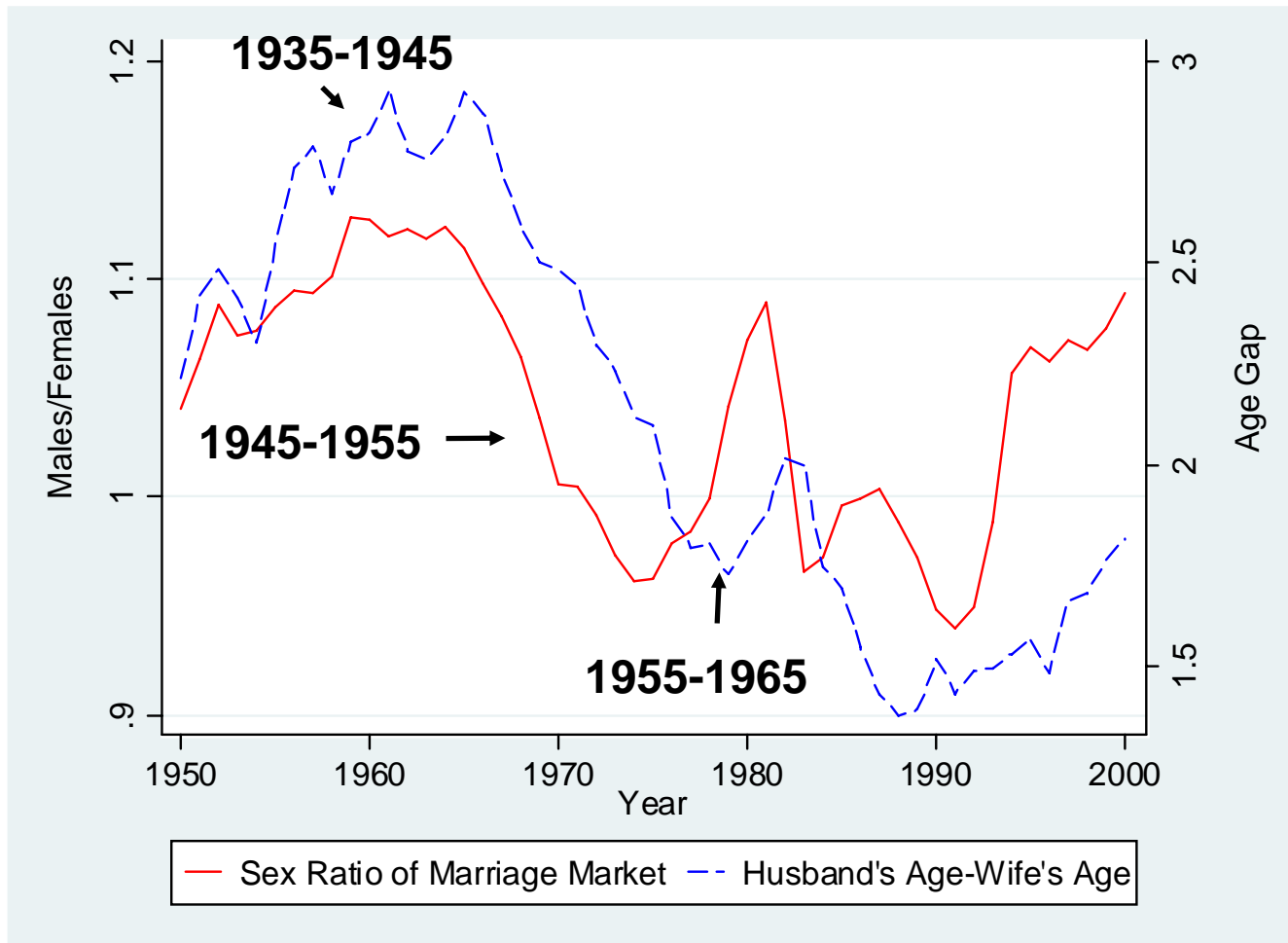
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# Sex Ratios and Spousal gaps

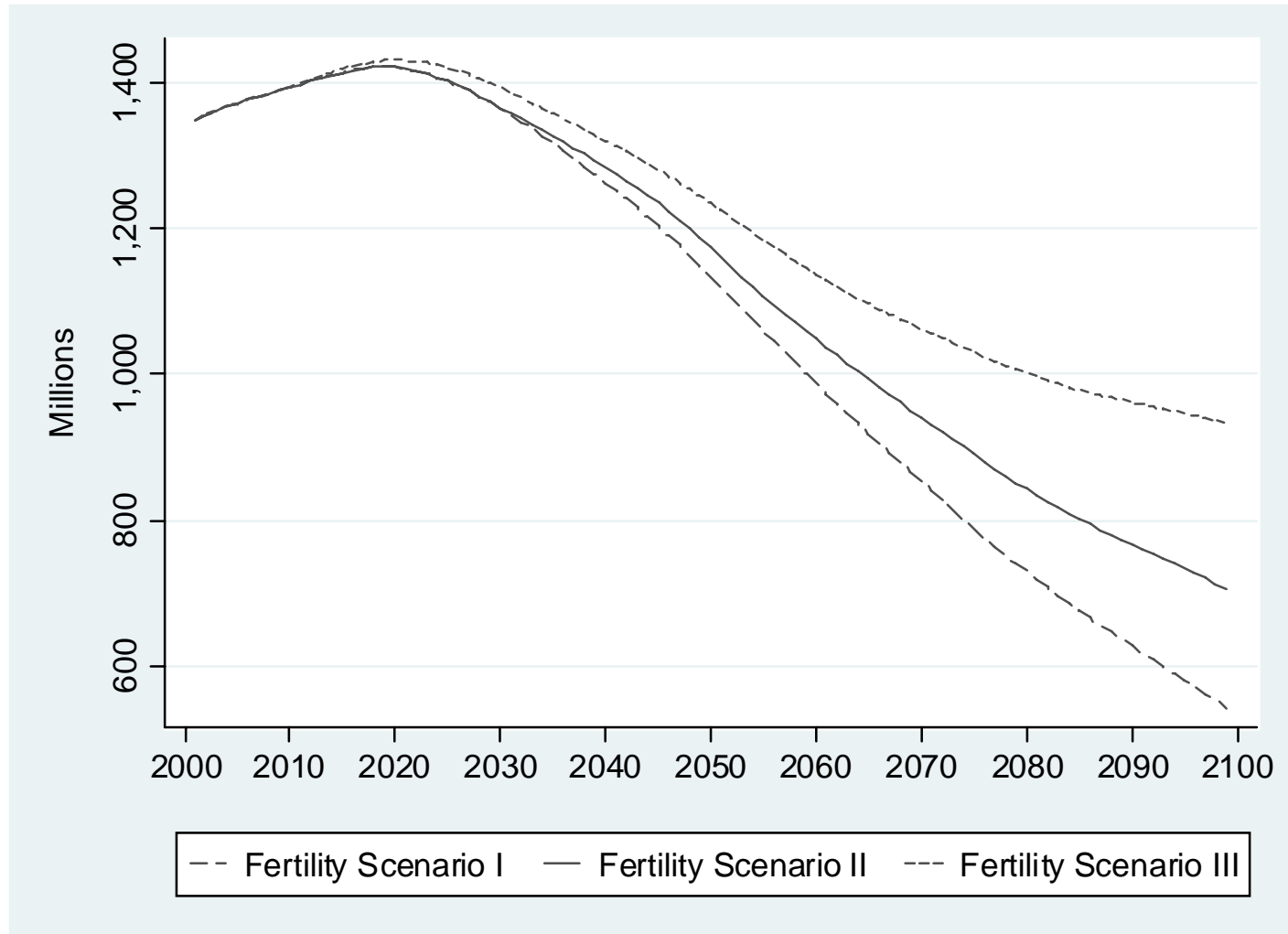


# Sex Ratios and Spousal gaps



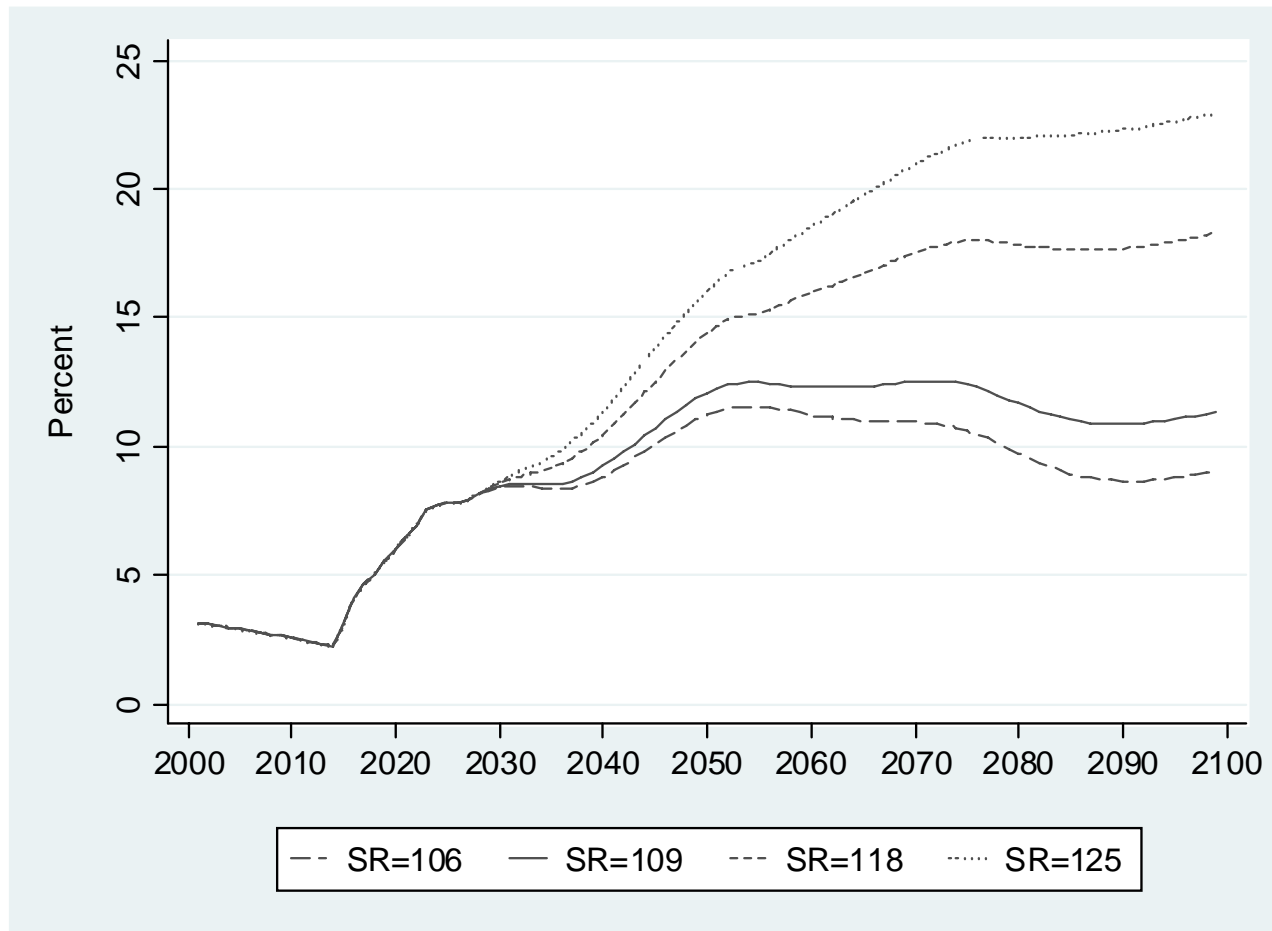
# Population of China Will Shrink

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# 'Bare Branches' on the Horizon

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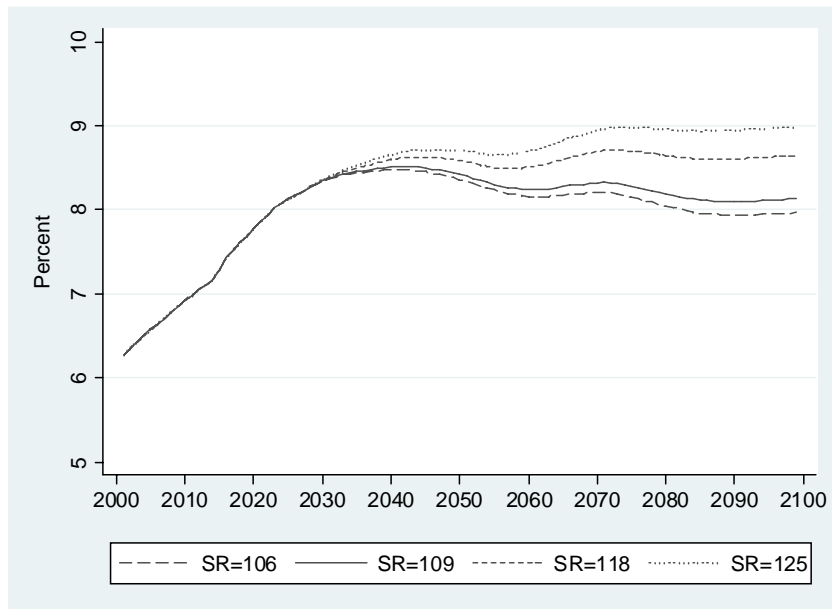
Section 2  
**HIV and Marital Status**

# Why worry about the Sex Ratio & HIV?

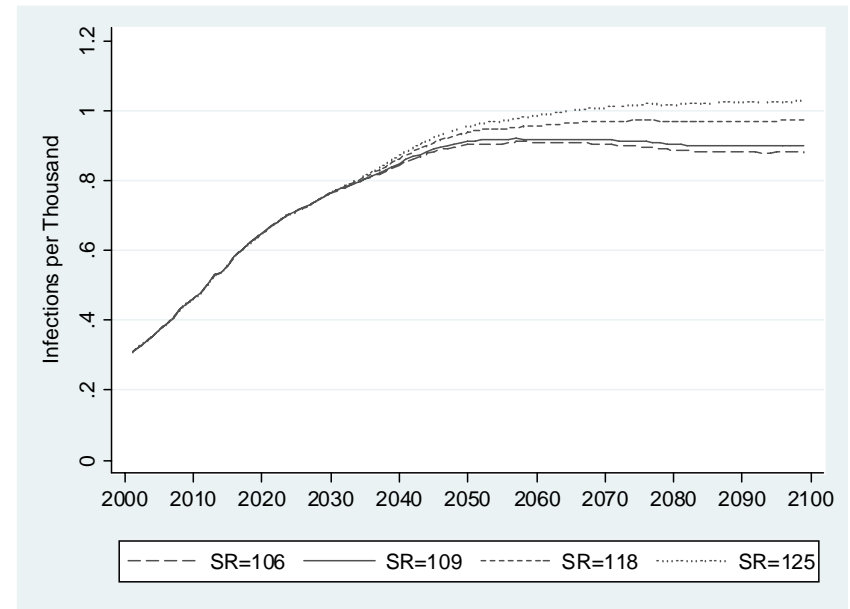
1. Evidence that young single men are more likely to pay for sex:  
14.7% of singles, 7.3% of married men (CHFLS 2000)
2. Evidence that young single men are more likely to be HIV+:  
odds ratio 1.4 (single to married) and 1.7 (male to female)  
[Tucker et al 2005]
3. How big could this effect be? What if the only change observed  
in China in these phenomena is driven by demographic  
change?

# Rising Prostitution/HIV?

## Men 25+ Paid for Sex



## Simulated HIV Rate



**(These are not 'predictions')**

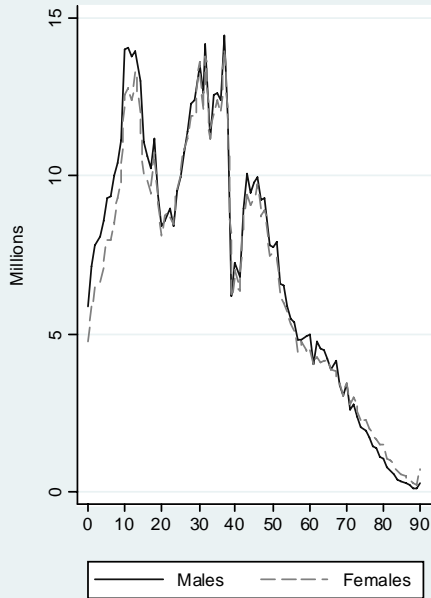
Section 3  
**Old Age Support of the  
Childless Elderly**

# Age Distribution

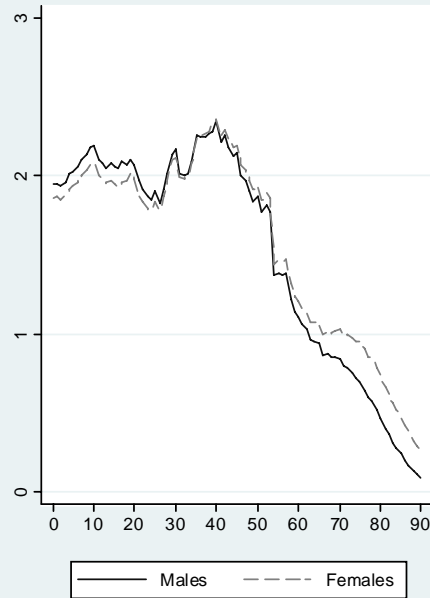
2000

2050

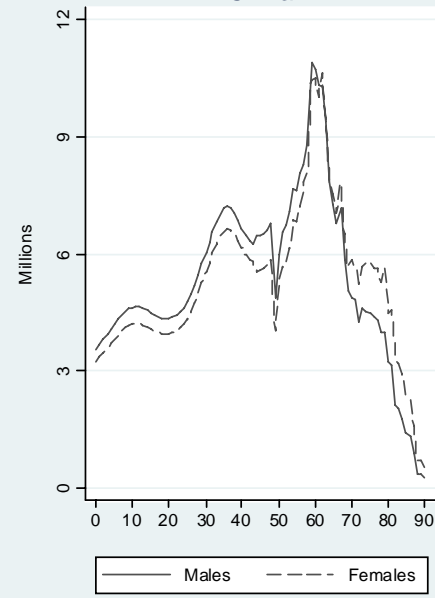
China



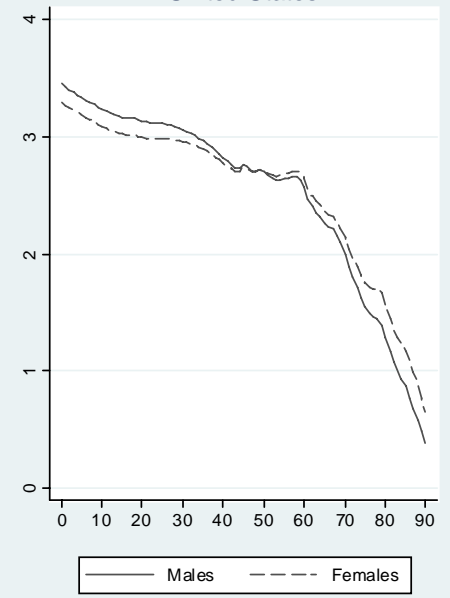
United States



China



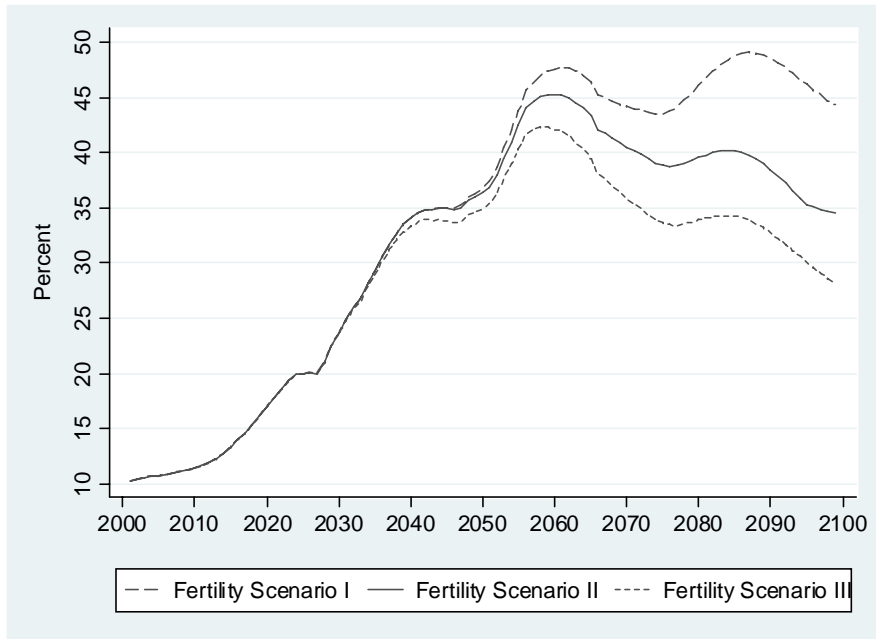
United States



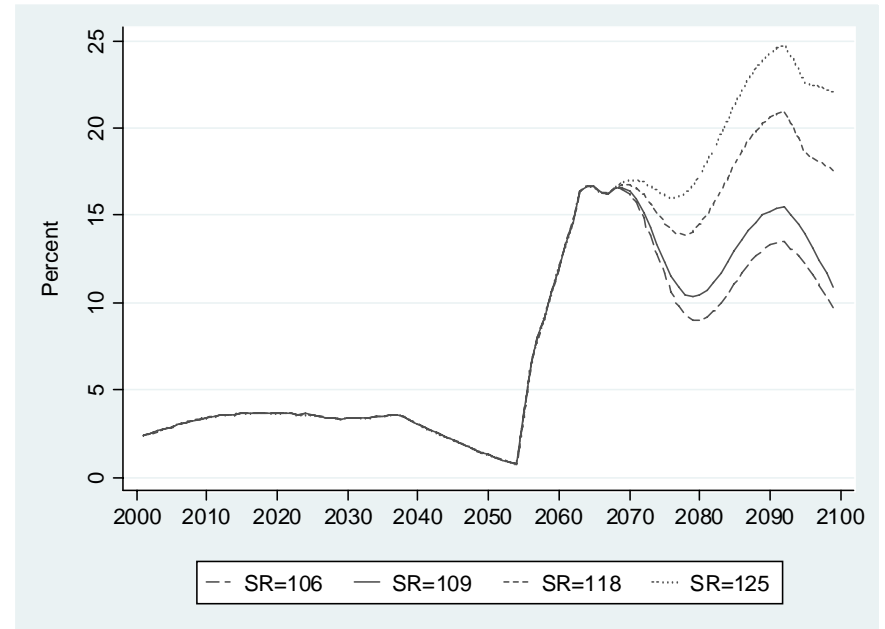
**Point: The Chinese will be very old.**

# Aging and Childless

## Share of Population 65+



## Share of Men 65+ Never Married



**Point: When the Chinese are old, there will be men who will need social support**

# Old, Poor, and Childless

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1. Emerging population of unmarried males who are from bottom of distribution of income.
2. Very limited programs for old age insurance.
3. No children, and so intra-household transfers limited as well.

Section 4  
**Marital Status and Welfare**

Table 6: Marital Status and Welfare Outcomes

	(1)	(2)	(3)
	Personal Income	Financial Assets	Good Health
Never Married	-760.2*** (261.960)	-3,686** (1,685.664)	-0.105*** (0.027)
Age	-44.0*** (3.528)	25.2 (22.701)	-0.011*** (0.000)
Years of Education	230.2*** (15.722)	529.3*** (101.168)	0.009*** (0.002)
Minority	30.5 (219.562)	-1,221 (1,412.844)	0.024 (0.023)
Constant	7,801.9*** (371.892)	56,119*** (2,393.058)	1.108*** (0.039)
Observations	10,033	10,033	10,033
$R^2$	0.26	0.37	0.16
Sample Average	2,184	24,085	0.76

Standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

Table 7: Marital Status and 10-Year Mortality Rates

Age Group	Ever Married	Never Married	Difference
55-59	14.3%	15.2%	-.009%
60-64	25.7%	39.1%	-13.4%
65-69	41.3%	51.3%	-10.0%
70-74	59.6%	67.5%	-7.88%
75-79	77.1%	86.1%	-8.98%

Source: The mortality rates are calculated by comparing the number of individuals in the 1990 and 2000 census data by marital status, and the rates are reported by the age of the cohort at the time of the 1990 census. The ratio of observations observed between the census years is the survival rate, and the mortality rate is 1 minus the survival rate.

# Policy Implications

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- Welfare implications of high sex ratios affect men as well
- Problem is exacerbated by population aging
- Should the One Child Policy be revised?
  - More fertility may lower the SRB
  - May mitigate effects of population aging.

**THE END**

# Acknowledgements

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