

Institute for
Fiscal Studies

Incentives, shocks or signals: labour supply effects of increasing the female state pension age in the UK

Jonathan Cribb, Carl Emmerson and Gemma Tetlow

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Introduction

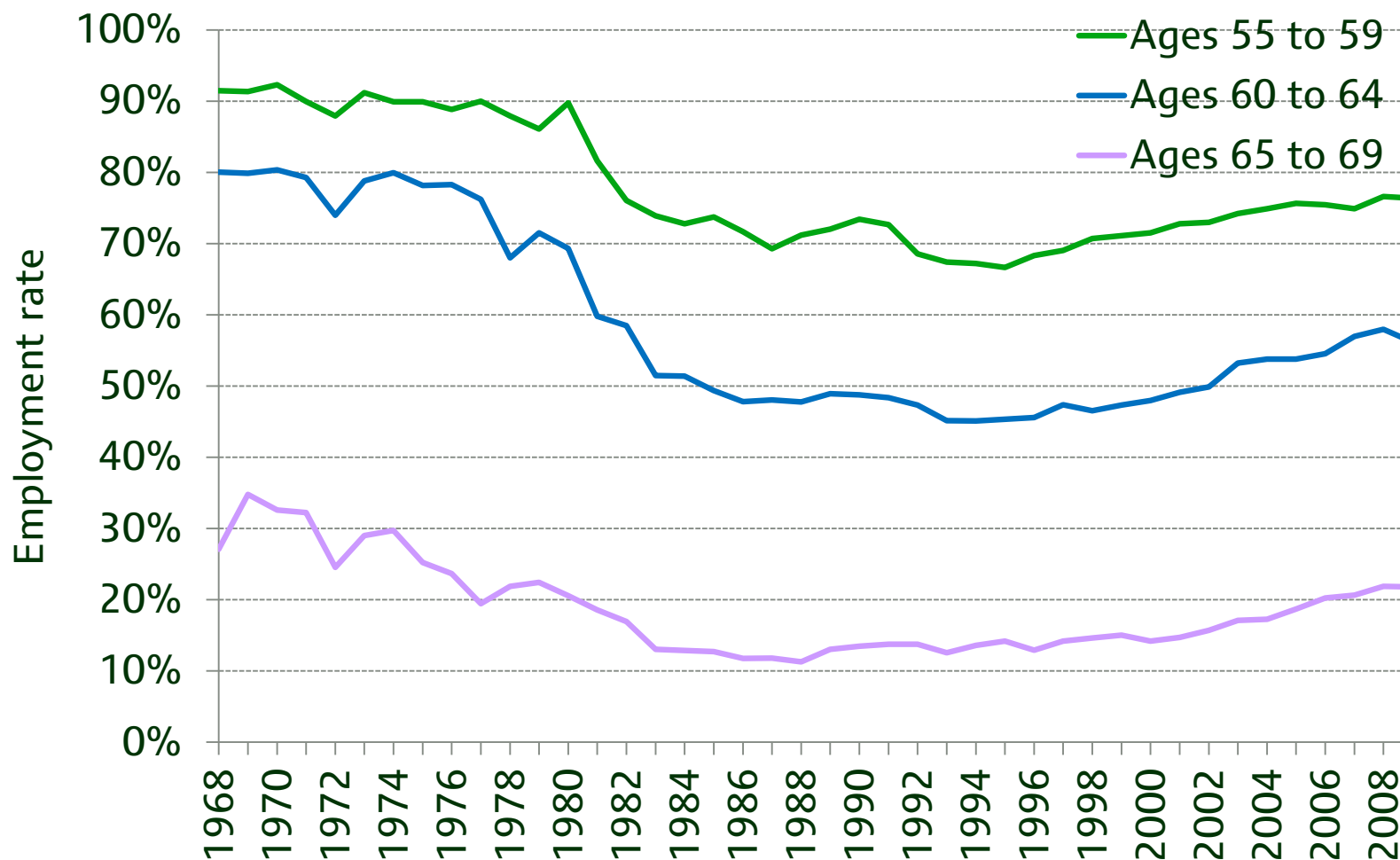
- Research funded by the Nuffield Foundation and the IFS Retirement Saving Consortium:



Motivation

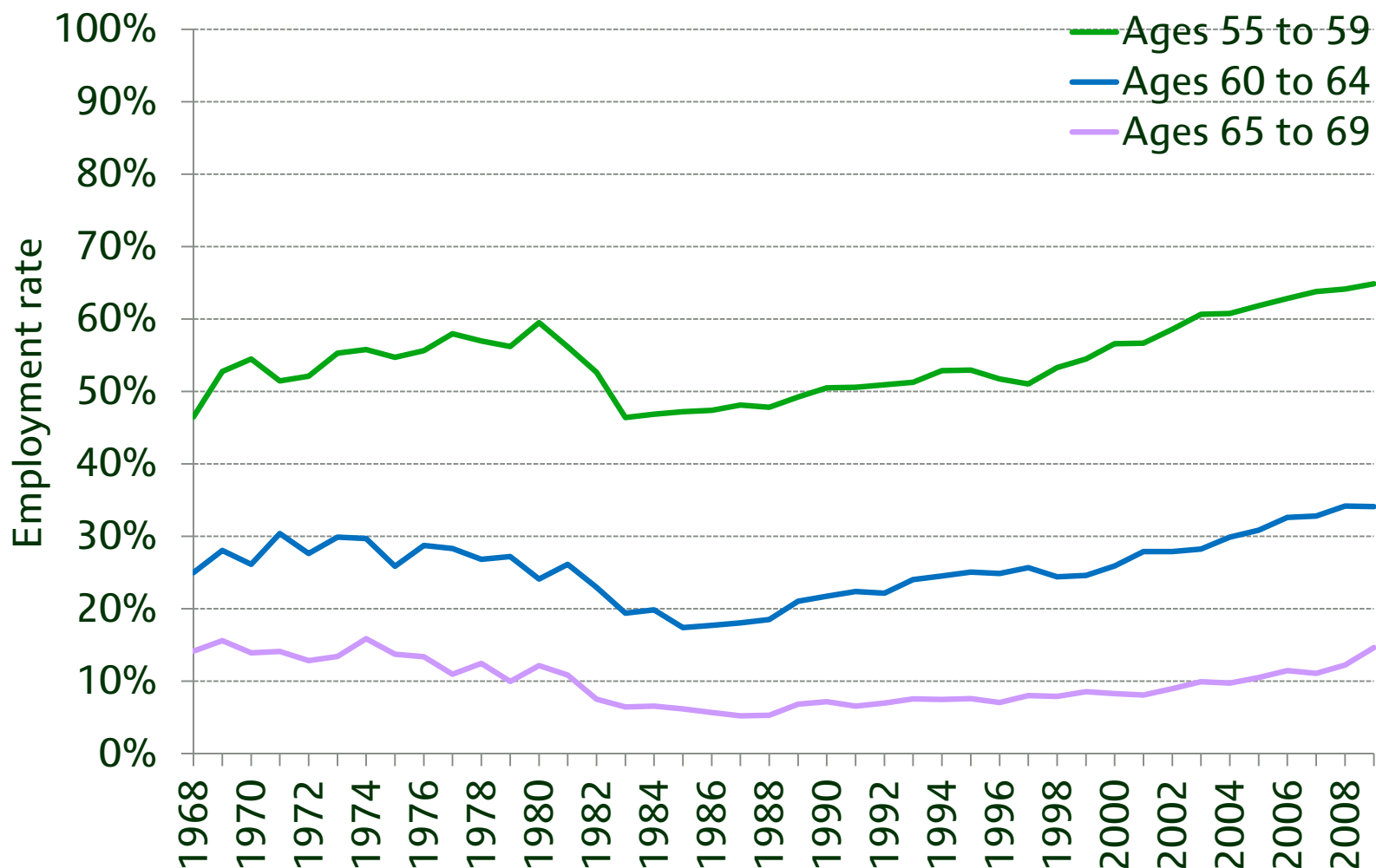
- Legislation in 1995 increased female state pension age from 60 to 65 between 2010 and 2020
 - Motivated by equalising male and female SPA
- More recent legislation increased SPA further for men and women
 - In order to reduce pressure on public finances and funding a more generous state pension
- What impact will such reforms have on individuals' income and wellbeing and on the public finances?
 - Depends on how labour supply responds
- There is a spike in retirement at SPA but most people retire at other ages- unclear what happens when SPA is increased
- We use data from 2009 to 2012 to estimate the impact of increasing the female state pension age from 60 to 61

Male employment rates (1968-2009)



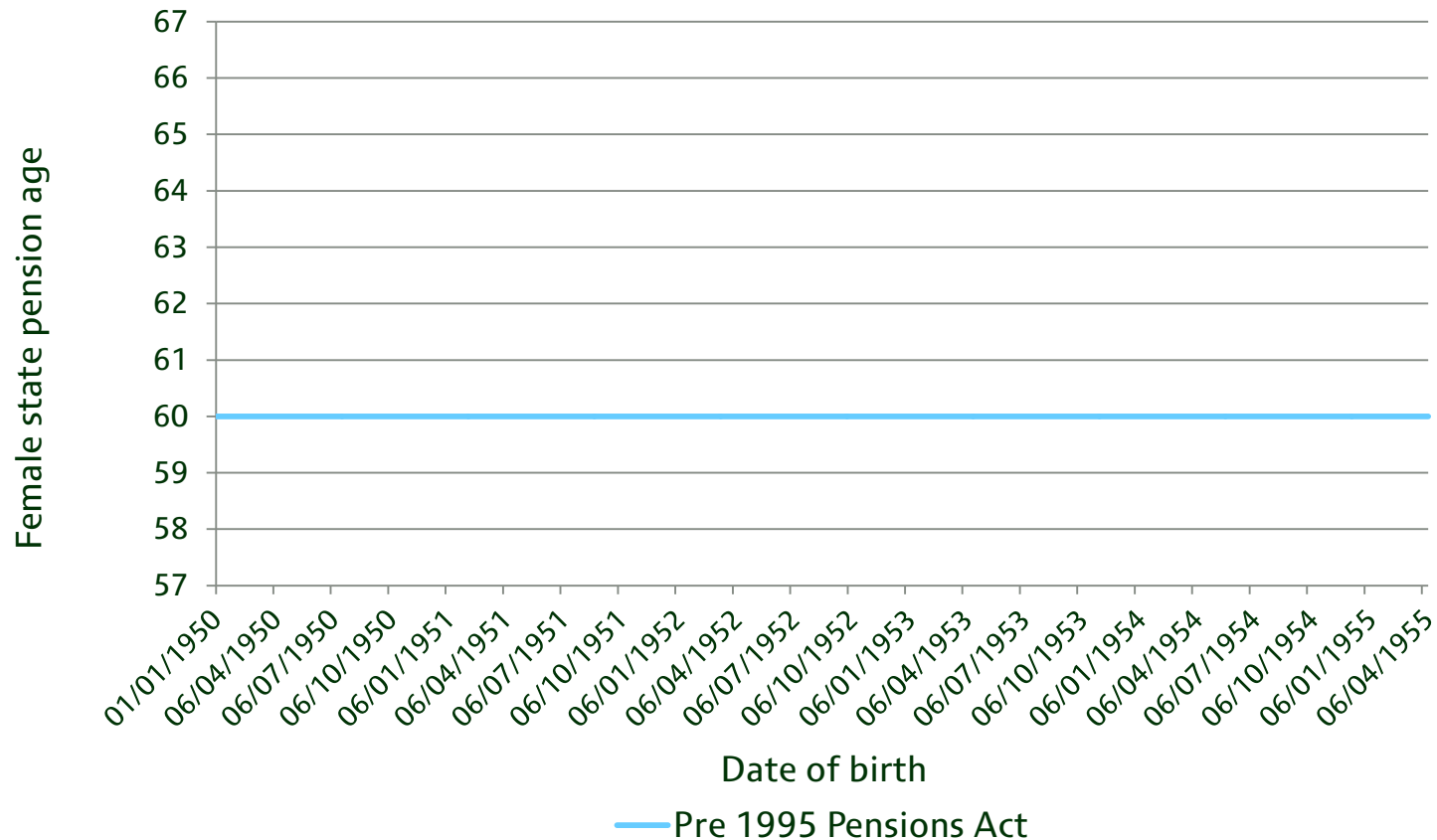
Sources: 1968 to 1983 Family Expenditure Survey; 1983 onwards Labour Force Survey.

Female employment rates (1968-2009)

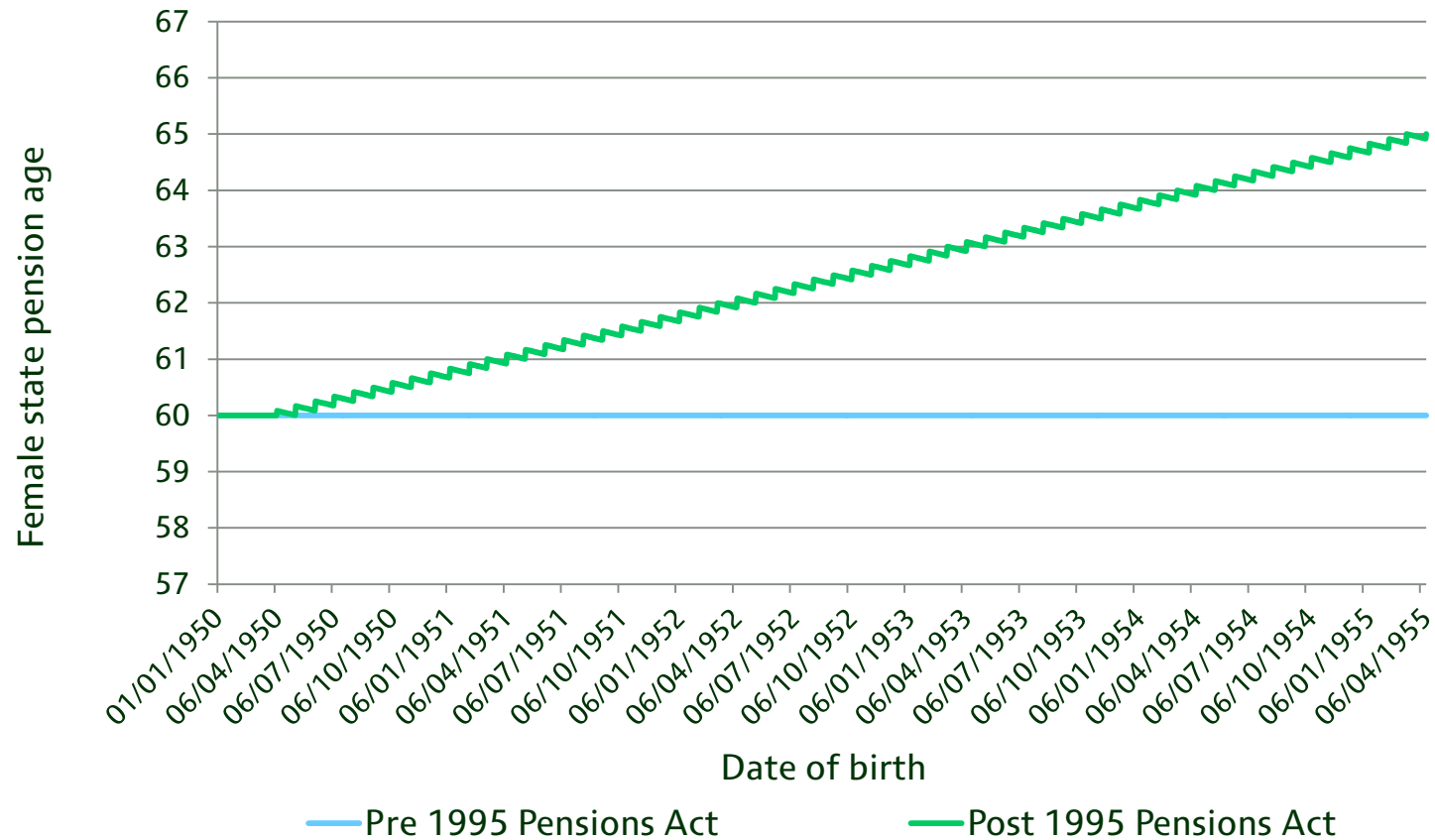


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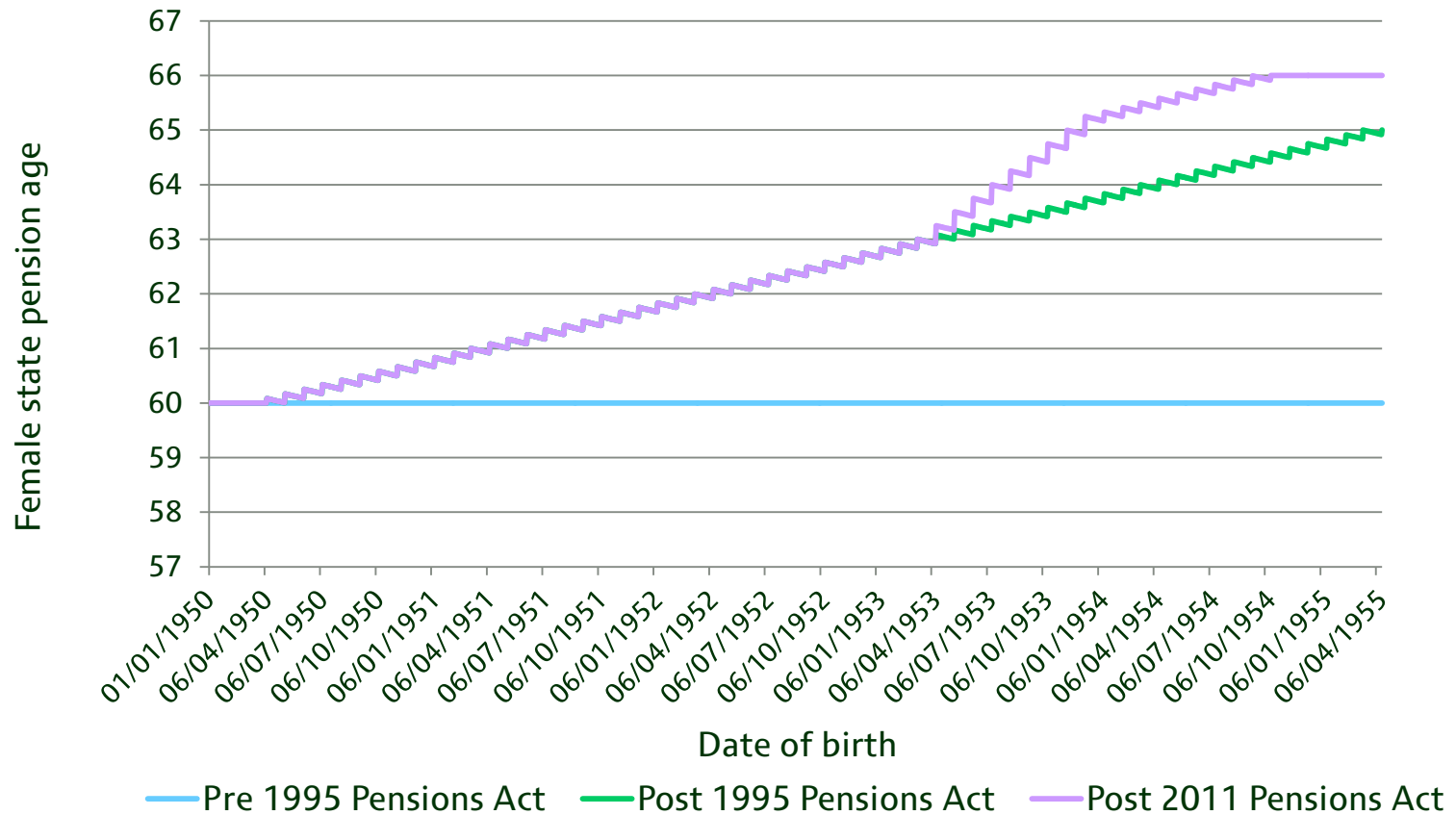
Increases in the female state pension age



Increases in the female state pension age



Increases in the female state pension age



What happens at the state pension age?

- State pension age is the earliest age at which an individual can claim a state pension
 - Basic state pension: maximum of £107.45 per week in 2012–13
 - Second tier pension (SERPS/S2P) worth maximum of £161.94 per week
- No earnings test for state pension income
- Tax and benefit system changes at state pension age
 - Pensioners are eligible for more generous benefits with less conditionality
 - Employee National Insurance contributions cease

Employment effects of increase in state pension age

1. Social norms
2. Credit constraints
3. Wealth effect
4. Marginal financial incentives

Employment effects of increase in state pension age

1. Social norms

- State pension age may anchor social norms
- These norms provide a signal about when it is appropriate to retire
- Increasing state pension age leads to people delaying retirement

Employment effects of increase in state pension age

1. Social norms

2. Credit constraints

- 60 year old women previously eligible for state pension
- Lower income to fund daily expenditures
- May want to draw down savings or borrow to fund spending
- If this is not possible (i.e. they are “credit constrained”) they may continue to work for longer

Employment effects of increase in state pension age

1. Social norms

2. Credit constraints

3. Wealth effect

- Richer people tend to retire earlier to consume more leisure
- Increasing state pension age delays receipt of pension
- Decreases lifetime wealth of affected cohorts
- Expect people to work more

Employment effects of increase in state pension age

1. **Social norms**
2. **Credit constraints**
3. **Wealth effect**
4. **Marginal financial incentives**
 - Must pay employee National Insurance contributions under the SPA: net return to work lower
 - Not eligible for Pension Credit Guarantee, potentially eligible for Job Seeker's Allowance or Employment Support Allowance
 - JSA/ESA are less generous with more conditionality requirements: net return to work higher
 - Overall: ambiguous effect

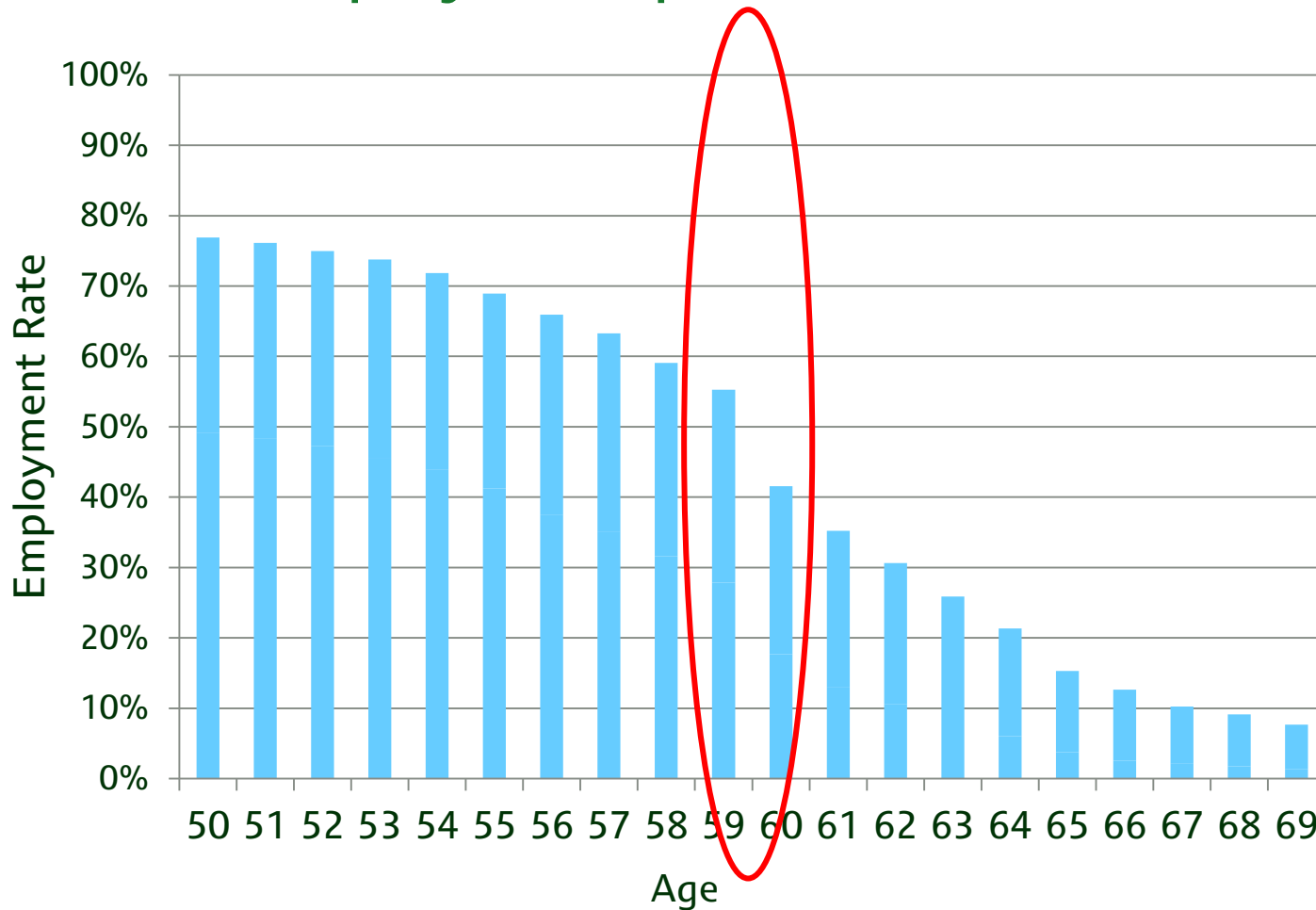
Employment effects of increase in state pension age

1. Social norms
 2. Credit constraints
 3. Wealth effect
 4. Marginal financial incentives
- **Husbands of affected women** may increase labour supply:
 - An alternative margin to respond to loss of pension wealth
 - Husbands and wives may want to retire together

Data

- Labour Force Survey data
 - Household level survey with around 100,000 individuals per quarter
 - Observing month and year of birth allows calculation of state pension age
- Use data from one year prior to rise in the SPA (2009Q2) up to 2012Q2
 - Use one cohort unaffected by the reform and three affected cohorts
 - For analysis of husbands' behaviour: restrict attention to partners aged 55 to 69
 - Sample sizes of 30,297 women and 18,776 husbands

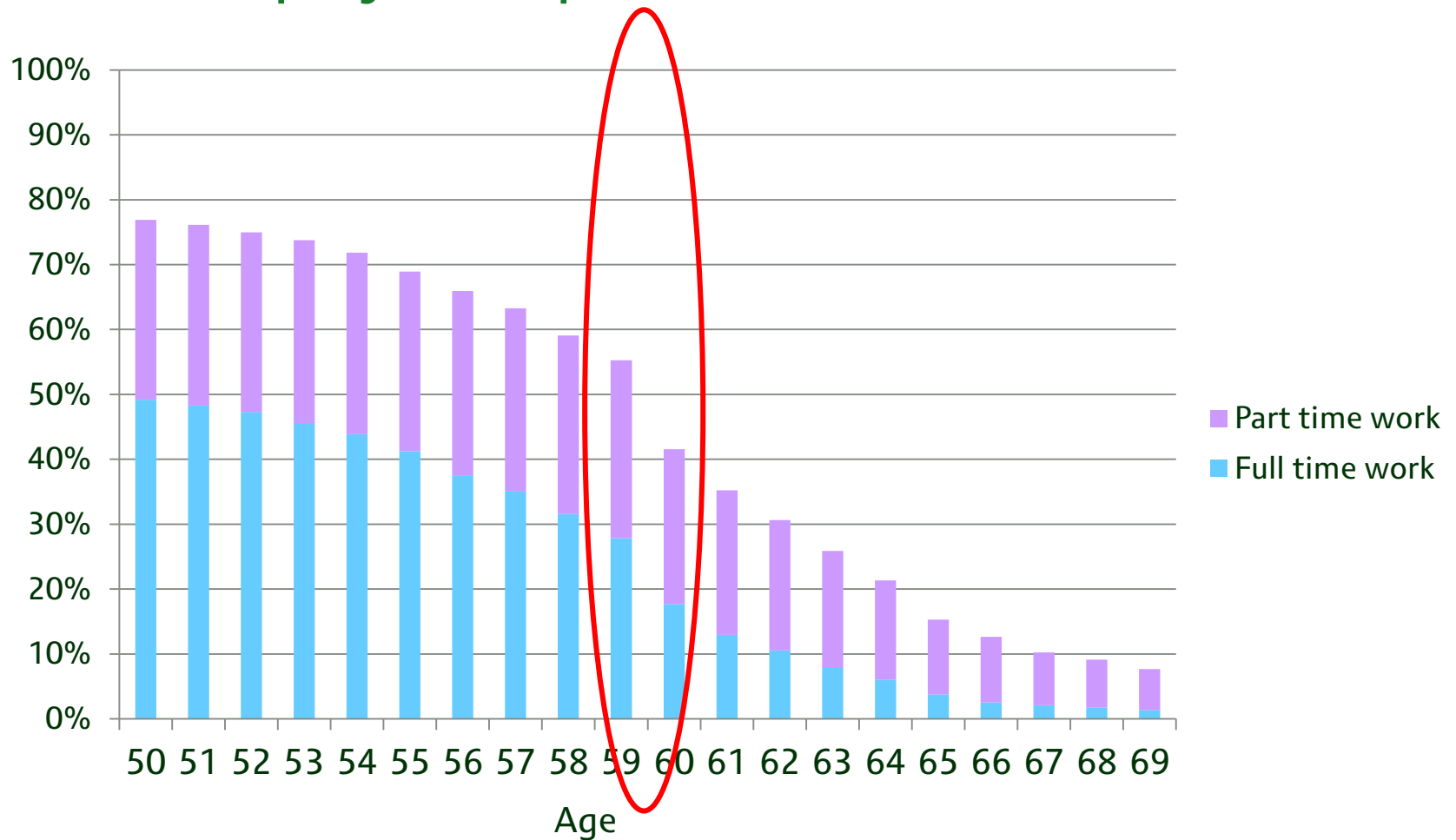
Female employment prior to SPA increase



Source: Figure 2.1. of Cribb, Emmerson and Tetlow (2013)

Notes: Pooled averages over the period 2003 Q1 to 2010 Q1. Based on 404,428 observations.

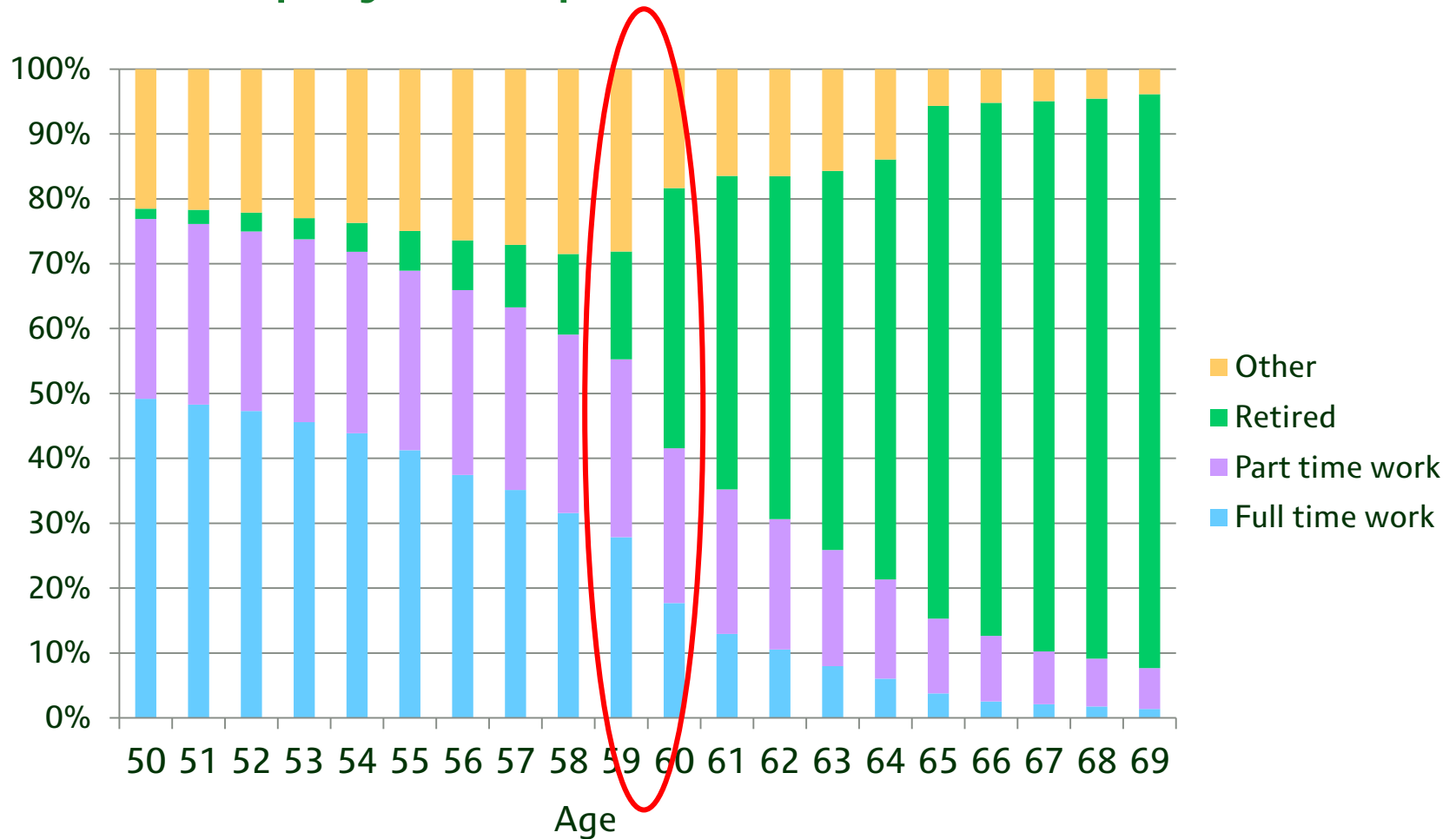
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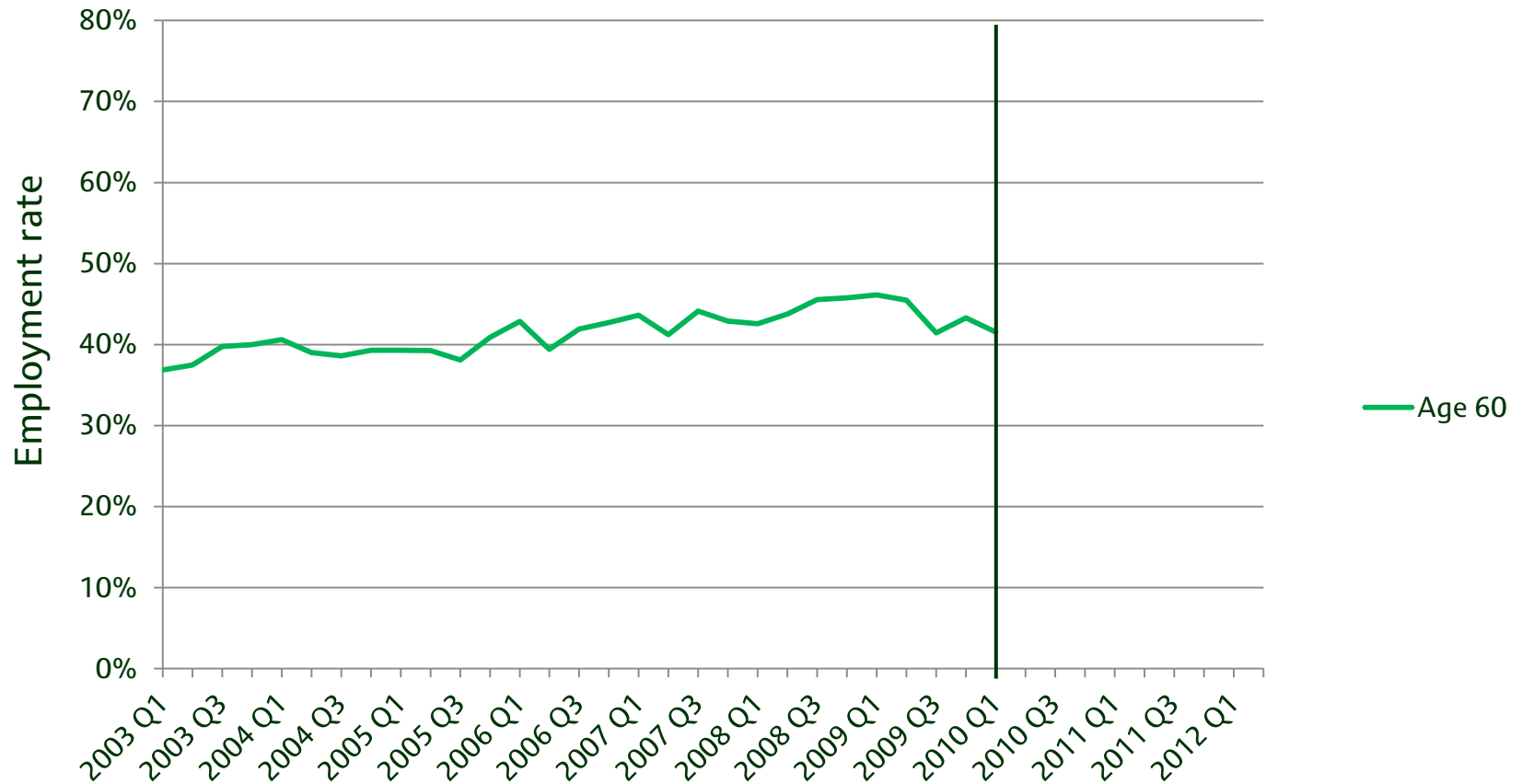
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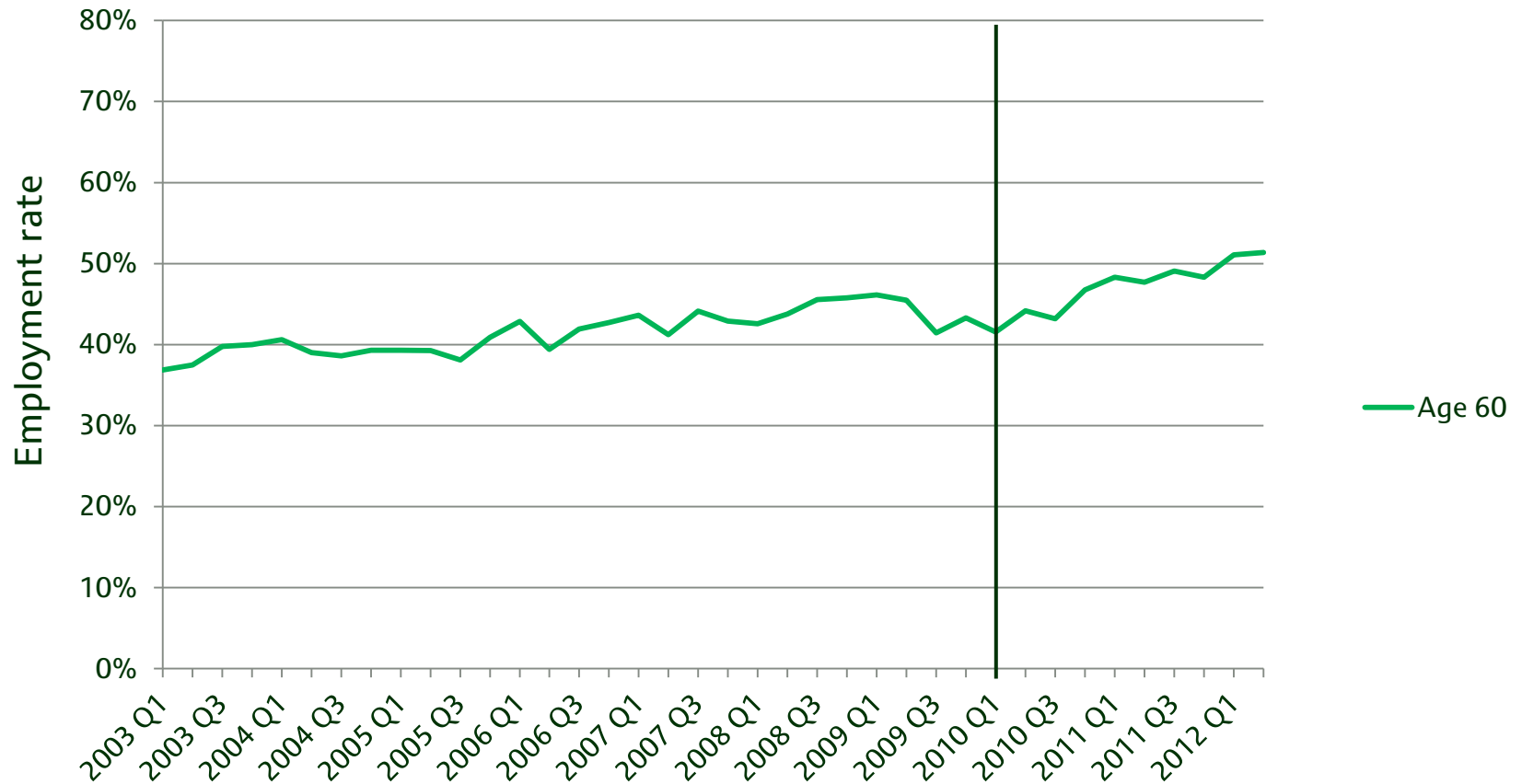
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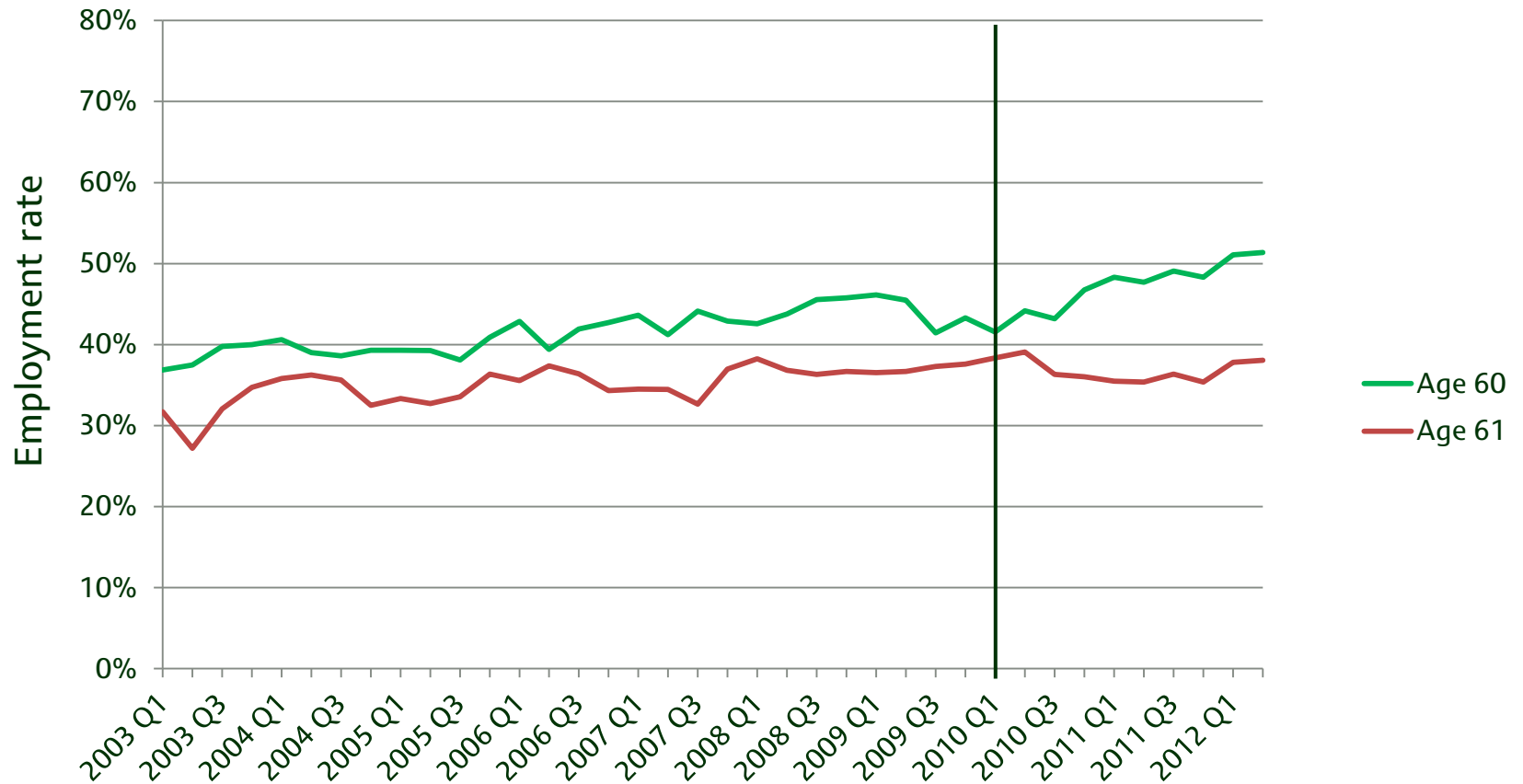
Employment of 60 year old women has risen



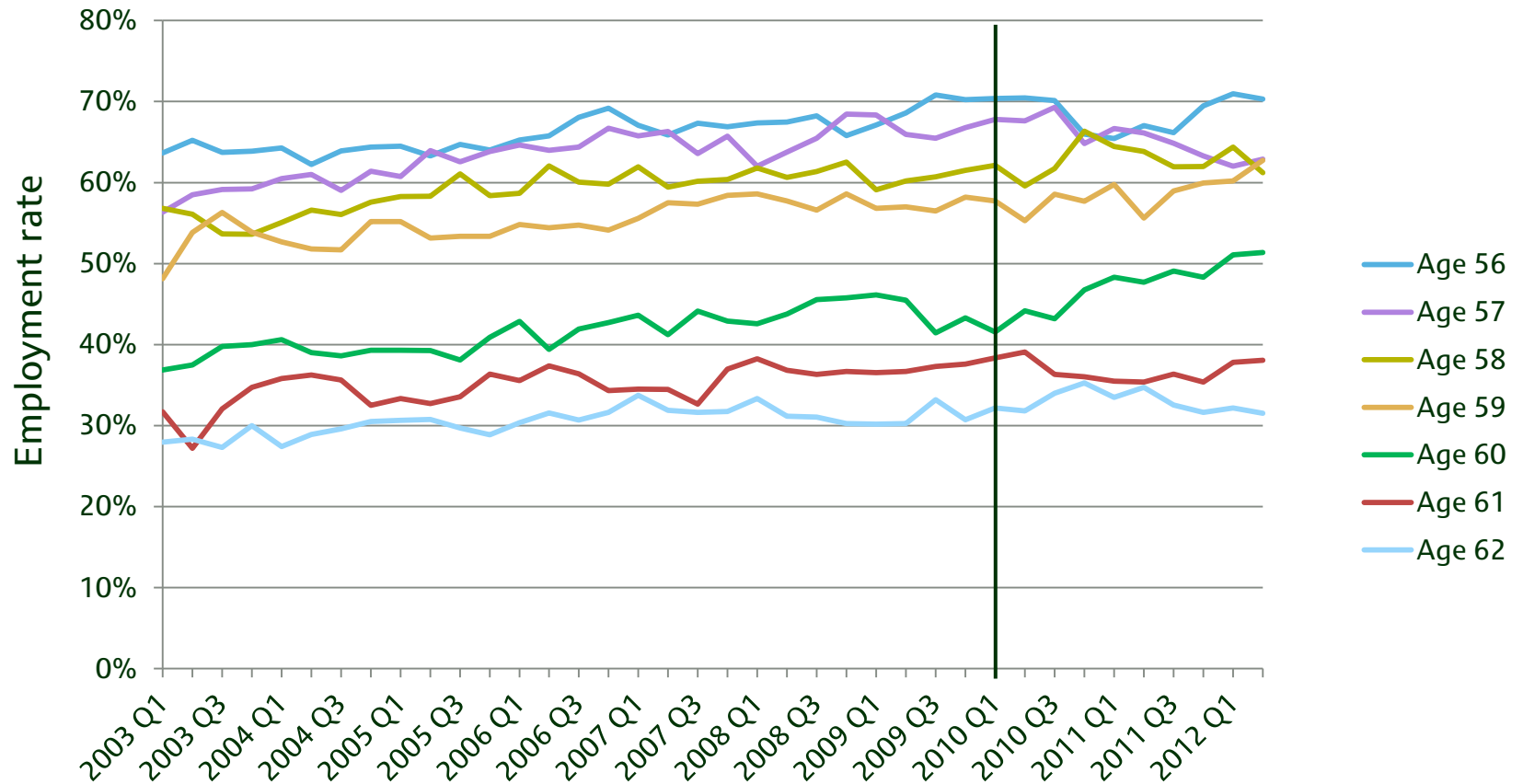
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Employment of 60 year old women has risen



Empirical Methodology

- “Difference-in-differences” methodology to identify the effect of raising the state pension age
- This method compares otherwise similar people who have slightly different state pension ages
- Controls in a flexible way for:
 - time trends
 - underlying differences between cohorts
 - differences in employment at different ages not driven by SPA
- Also controls for: education, housing tenure, relationship status, ethnicity, partner’s age, partner’s education

Effect of SPA rise on female employment

	Percentage point effect of being under SPA	Standard Error
<i>Specification 1</i>		
In work	+7.3***	[1.9]

Notes: *** denotes that the effect is significantly different from zero at the 1% level, ** at the 5% level and * at the 10% level. Specification 1 is the results from a probit model, while specifications 2 and 3 are results of multinomial probit models. All models are estimated using Maximum Likelihood Estimation. Source: Tables 4.1 and 4.3 of Cribb, Emmerson and Tetlow (2013)

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<i>Specification 1</i>		
In work	+7.3***	[1.9]
<i>Specification 2</i>		
Full time work	+4.3**	[1.7]
Part time work	+3.0*	[1.7]
Out of work	- 7.3***	[1.9]

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Out of work	- 7.3***	[1.9]
<i>Specification 3</i>		
In work	+6.0***	[1.9]
Retired	- 9.6***	[1.7]
Sick or disabled	+1.3	[1.2]
Unemployed	+1.3***	[0.4]
Other	+1.0	[1.1]

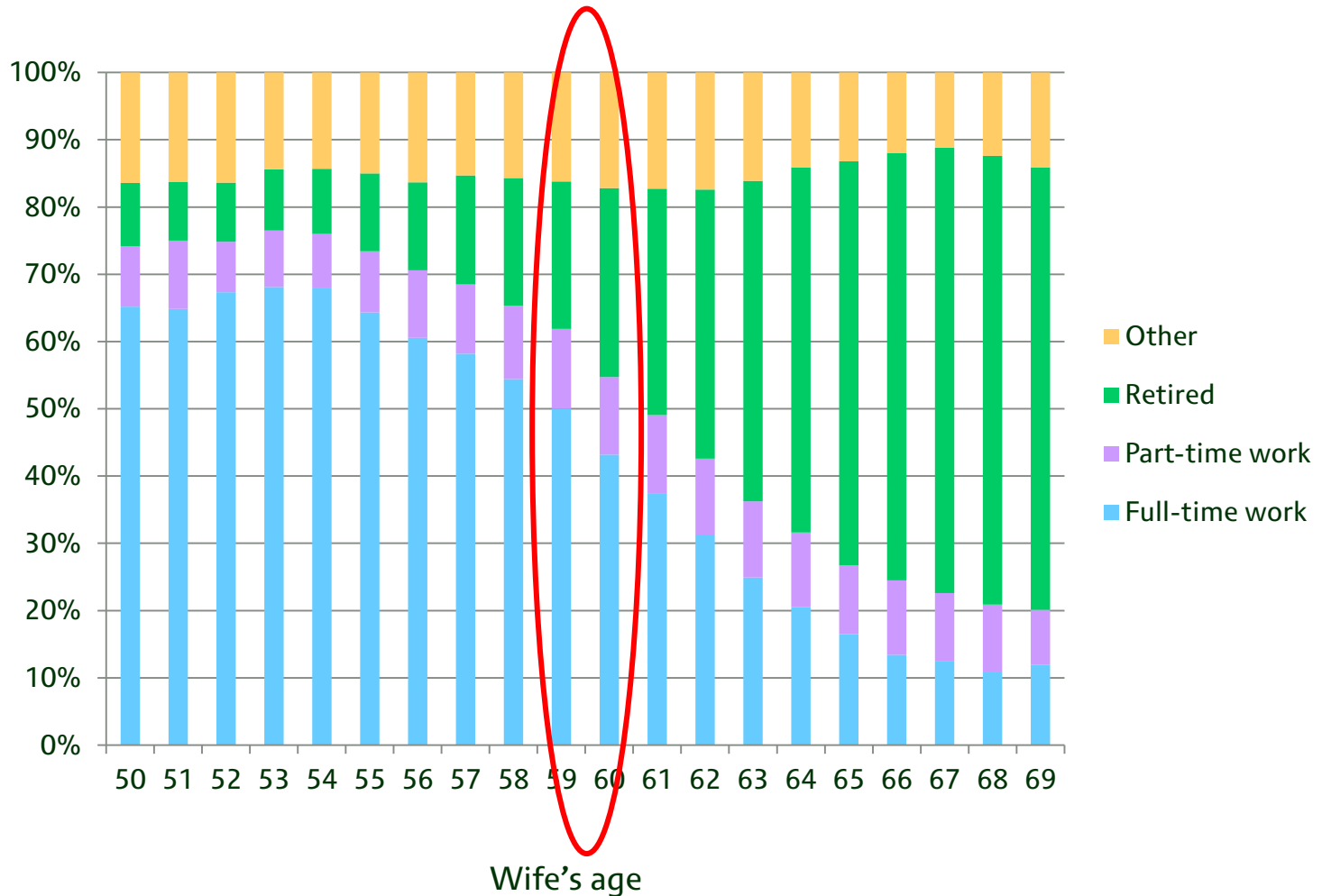
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Different impacts by subgroup

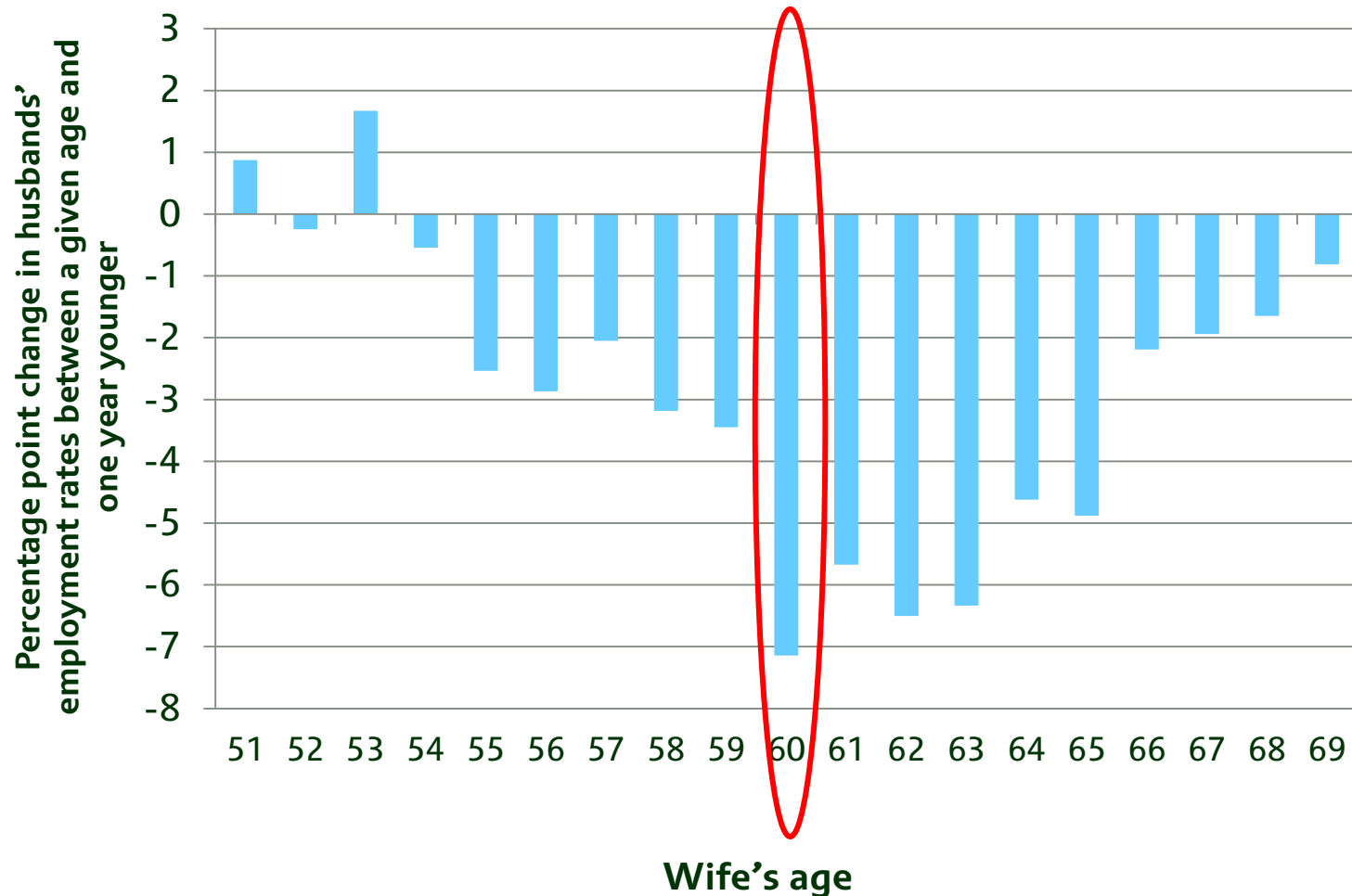
- Estimated impact is larger for single women than women with a partner
 - But difference is not statistically significant
- No difference between renters and owners
 - Implies credit constraints are unlikely to be a major driver of response
- Higher impact for those with (at most) secondary school qualifications than those with less or more education
 - If marginal financial incentives were important, we would expect higher responses among low educated and renters
- Implies the response is driven by wealth effect or social norms

Husbands' response to increase in female SPA

Husbands' employment prior to SPA increase



Men more likely to leave work when wife is 60



Effect of female SPA rise on husbands' employment

	Percentage point effect of wife being under SPA	Standard Error
<i>Specification 1</i>		
In work	+4.2**	[2.2]

Notes: *** denotes that the effect is significantly different from zero at the 1% level, ** at the 5% level and *at the 10% level. Specification 1 is the results from a probit model, while specifications 2 and 3 are results of multinomial probit models. All models are estimated using Maximum Likelihood Estimation. Source: Table 4.4 of Cribb, Emmerson and Tetlow (2013)

Effect of female SPA rise on husbands' employment

	Percentage point effect of wife being under SPA	Standard Error
<i>Specification 1</i>		
In work	+4.2**	[2.2]
<i>Specification 2</i>		
Full time work	+3.7*	[2.2]
Part time work	+0.8	[1.5]
Out of work	- 4.5***	[2.2]

Notes: *** denotes that the effect is significantly different from zero at the 1% level, ** at the 5% level and *at the 10% level. Specification 1 is the results from a probit model, while specifications 2 and 3 are results of multinomial probit models. All models are estimated using Maximum Likelihood Estimation. Source: Table 4.4 of Cribb, Emmerson and Tetlow (2013)

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In work	+4.2**	[2.2]
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Full time work	+3.7*	[2.2]
Part time work	+0.8	[1.5]
Out of work	- 4.5***	[2.2]
<i>Specification 3</i>		
In work	+4.4**	[2.1]
Retired	- 2.6	[1.7]
Sick or disabled	- 2.4	[1.4]
Unemployed	+0.3	[0.7]
Other	+0.4	[0.6]

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Raising the state pension age from 60 to 61

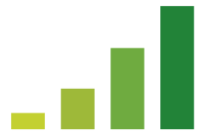
- By 2012Q2, no 60 year old women are eligible for the state pension
- With state pension age risen from 60 to 61, our results suggest there are:
 - 27,000 more women in work
 - 8,000 more men in work
 - 5,000 more unemployed women

Effect of female SPA increase on public finances

- Estimate the impact on public finances of an increase in the female SPA from 60 to 61
- Impact assuming no labour supply response:
 - Fewer state pension payments: saves £2.0 billion p.a.
 - Additional effects:
 - Benefits: fewer payments of Pension Credit Guarantee and more payments of Job Seekers Allowance and Employment Support Allowance
 - Employee National Insurance contributions: now charged to women aged 60 who are employed
 - Lower income tax payments on state pension income
 - Lower indirect tax receipts from spending of state pension income
 - Revenue raised (no labour supply response): £1.9 billion p.a.
- Revenue raised due to labour supply response:
 - Additional NICs, income tax and indirect taxes as people work and earn more: £190 million p.a.
- Total response: £2.1 billion Exchequer saving per annum (0.14% of GDP)

Conclusions

- Increasing the female state pension age has had a significant effect of women's and men's labour supply
 - Increased employment rates of 60 year old women by 7.3 percentage points
 - Increased husbands' employment rates by 4.2 percentage points
 - Increased proportion of 60 year old women who are unemployed by 1.3 percentage points
- Overall Exchequer saving of a one year increase in female SPA: £2.1 billion
- What drives this effect?
 - Little evidence of credit constraints or strong change in marginal financial incentives
 - More likely driven by wealth effects or social norms



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