



Mortality of Public Sector Scheme Pensioners

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Topics covered

- Schemes analysed
- Comparison of mortality with ALT 00-02
- Comparison of mortality by scheme
- Comparison of mortality by income
- Mortality improvements
- Implications
- Questions/comments



Schemes analysed

- State Super Scheme (NSW)
- State Superannuation Fund (Victoria)
- Government Employees
Superannuation Fund (WA)
- Public Sector Superannuation
Scheme/Commonwealth
Superannuation Scheme (Comm)



Scheme commutation options

- NSW – up to 100% at retirement or 60
– special offer in late 90's
- Vic – up to 100% at retirement or 65
– special offer in 2000/01
- WA – none
- Comm – none (CSS)
– up to 100% at retirement age
(PSS)

Exposed lives (2002-2005)

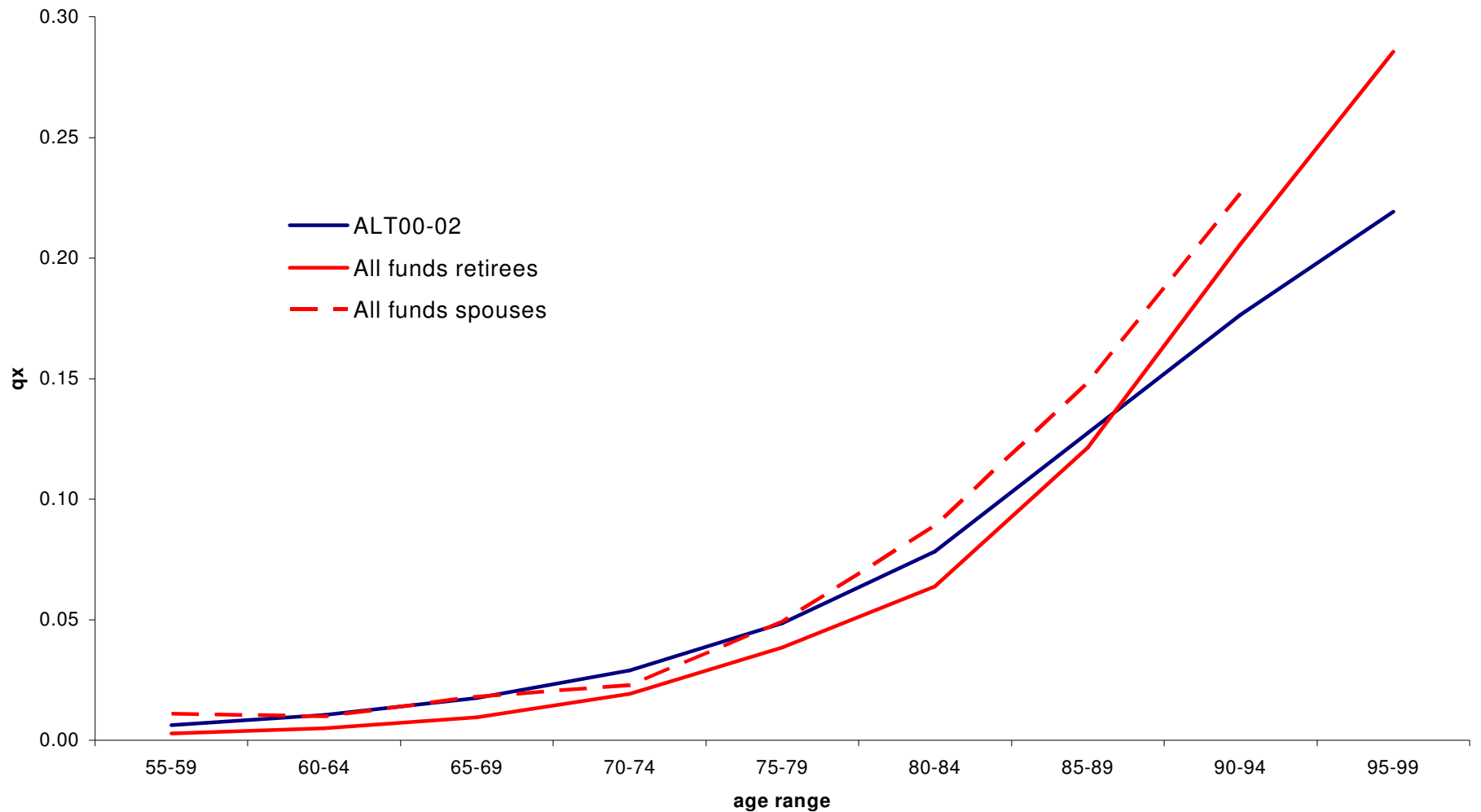
Age range	Male retirees	Female retirees	Male spouses	Female spouses
55-59	47,992	23,931	633	11,492
60-64	53,735	24,515	612	19,524
65-69	44,025	18,535	718	18,765
70-74	40,200	15,084	917	22,837
75-79	45,383	13,397	916	32,380
80-84	31,598	8,485	664	31,056
85-89	12,320	3,450	249	19,560
90-94	4,019	1,398	66	9,086
95-99	631	365	3	2,220
100+	46	19	-	238
Total	279,948	109,178	4,778	167,158



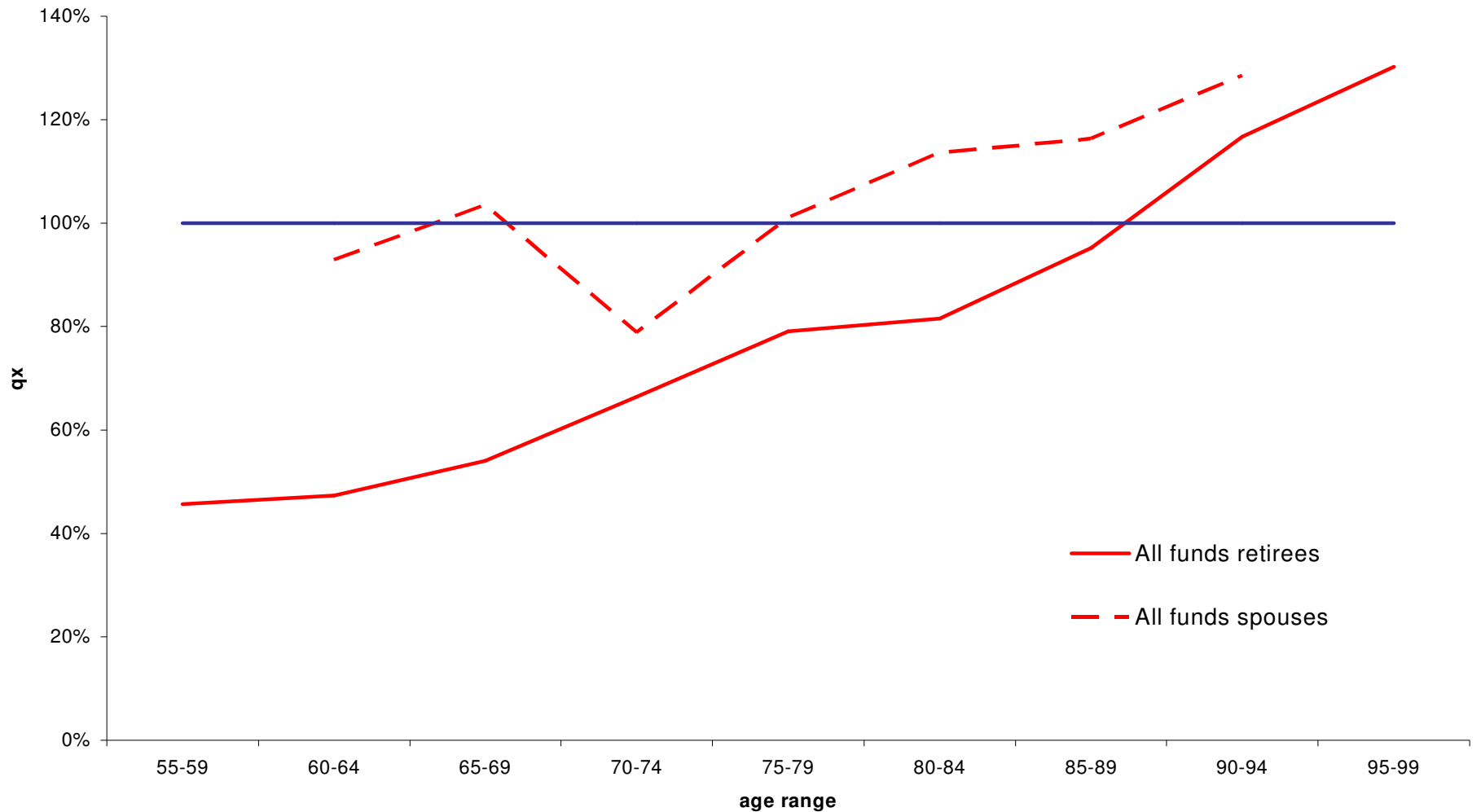
Comparison of mortality with ALT 00-02

- Considered male and female separately
- Considered retirees and spouses separately
- Mortality $<$ ALT 00-02 under 85
- Mortality $>$ ALT 00-02 over 85
- Spouse mortality generally higher than retiree mortality for same age

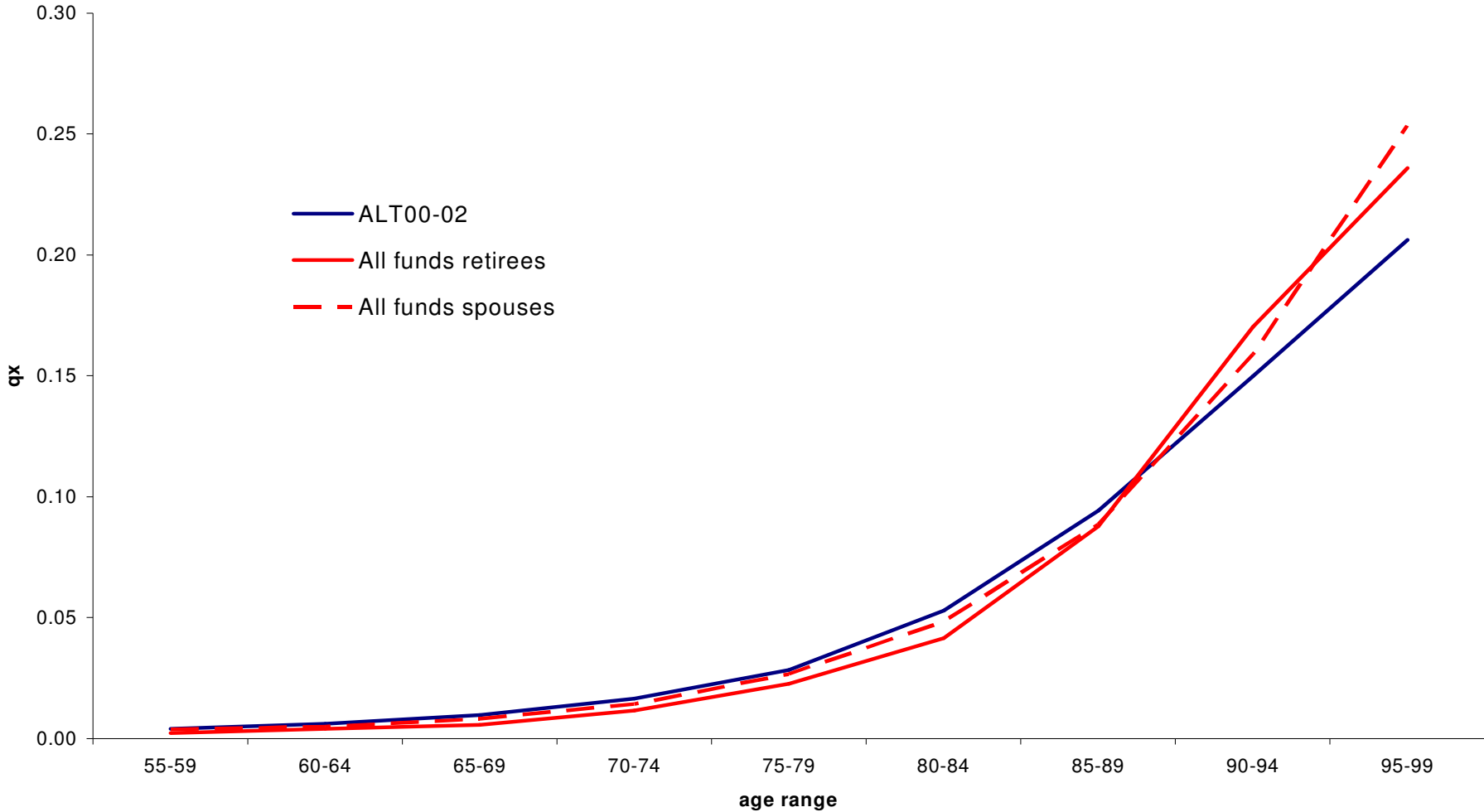
Male mortality v ALT 00-02



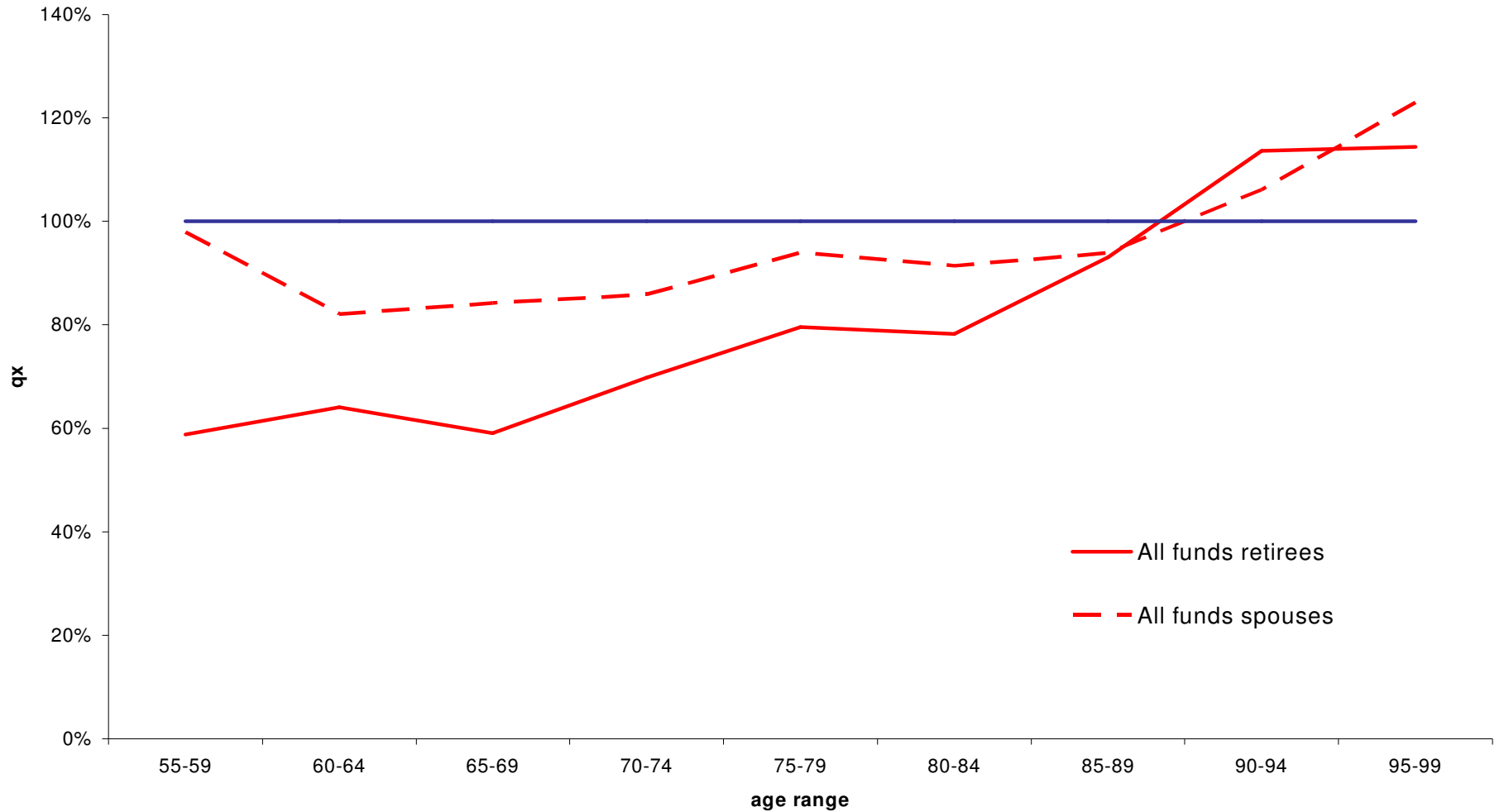
Percentage of male ALT 00-02



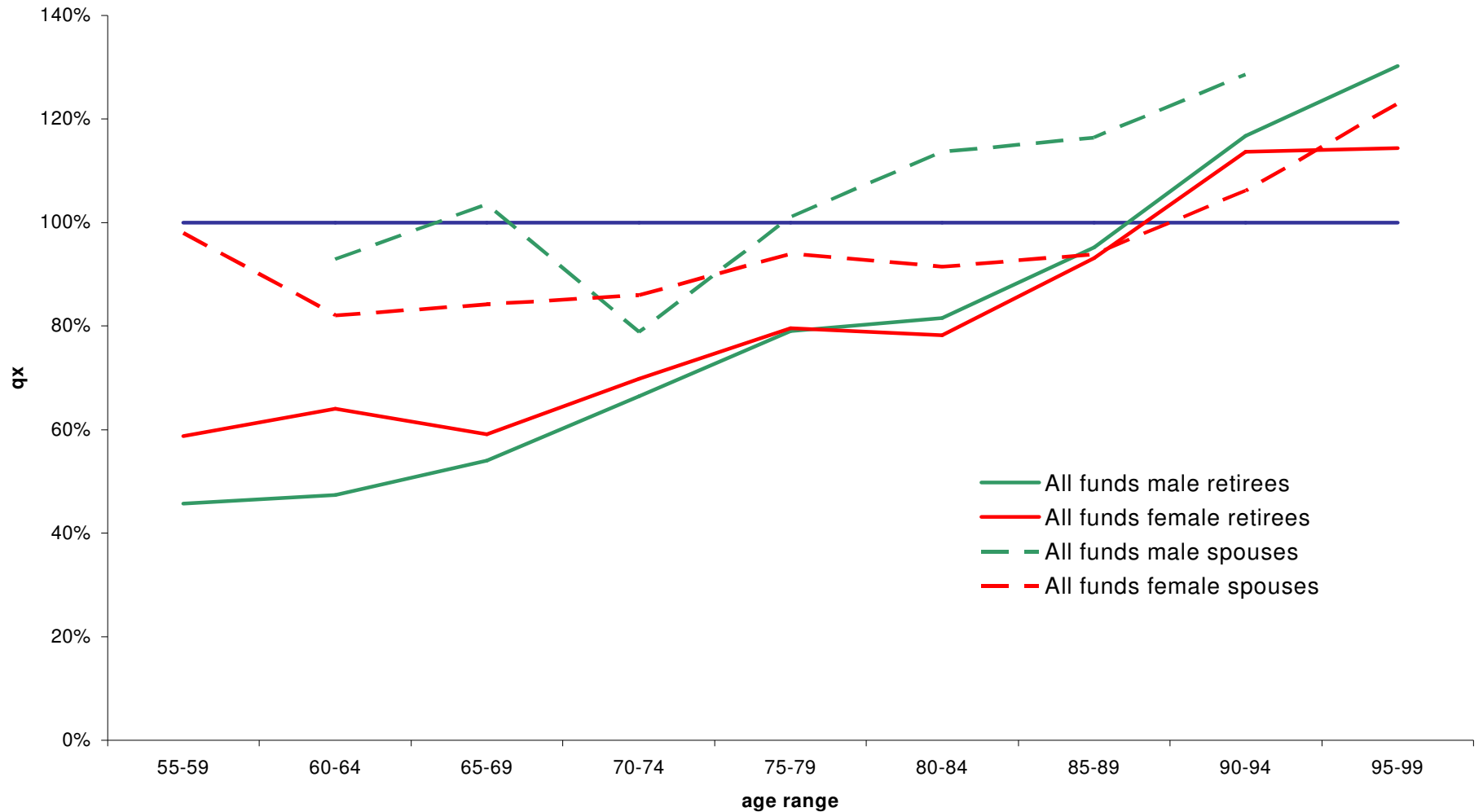
Female mortality v ALT 00-02



Percentage of female ALT 00-02



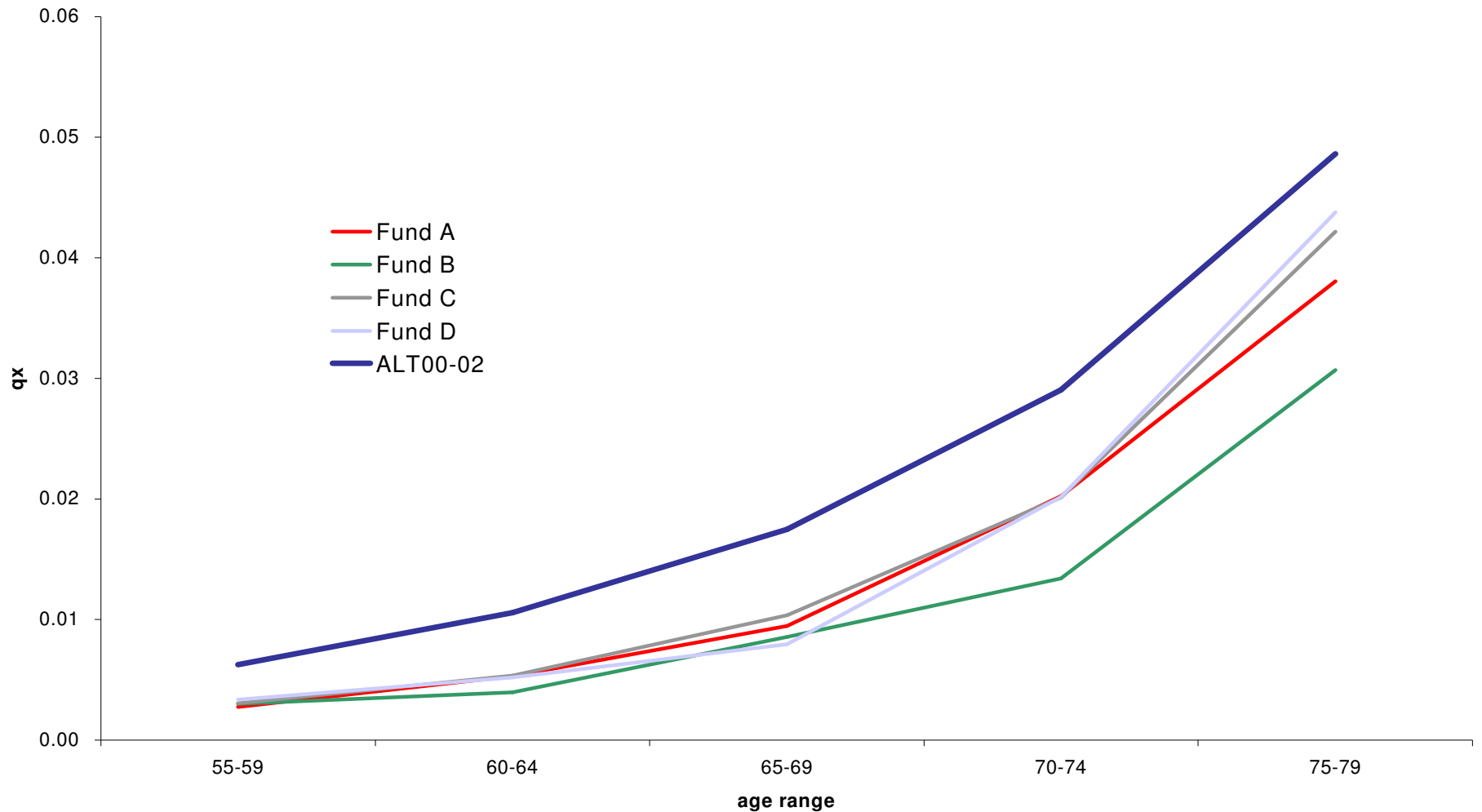
Percentage of ALT 00-02



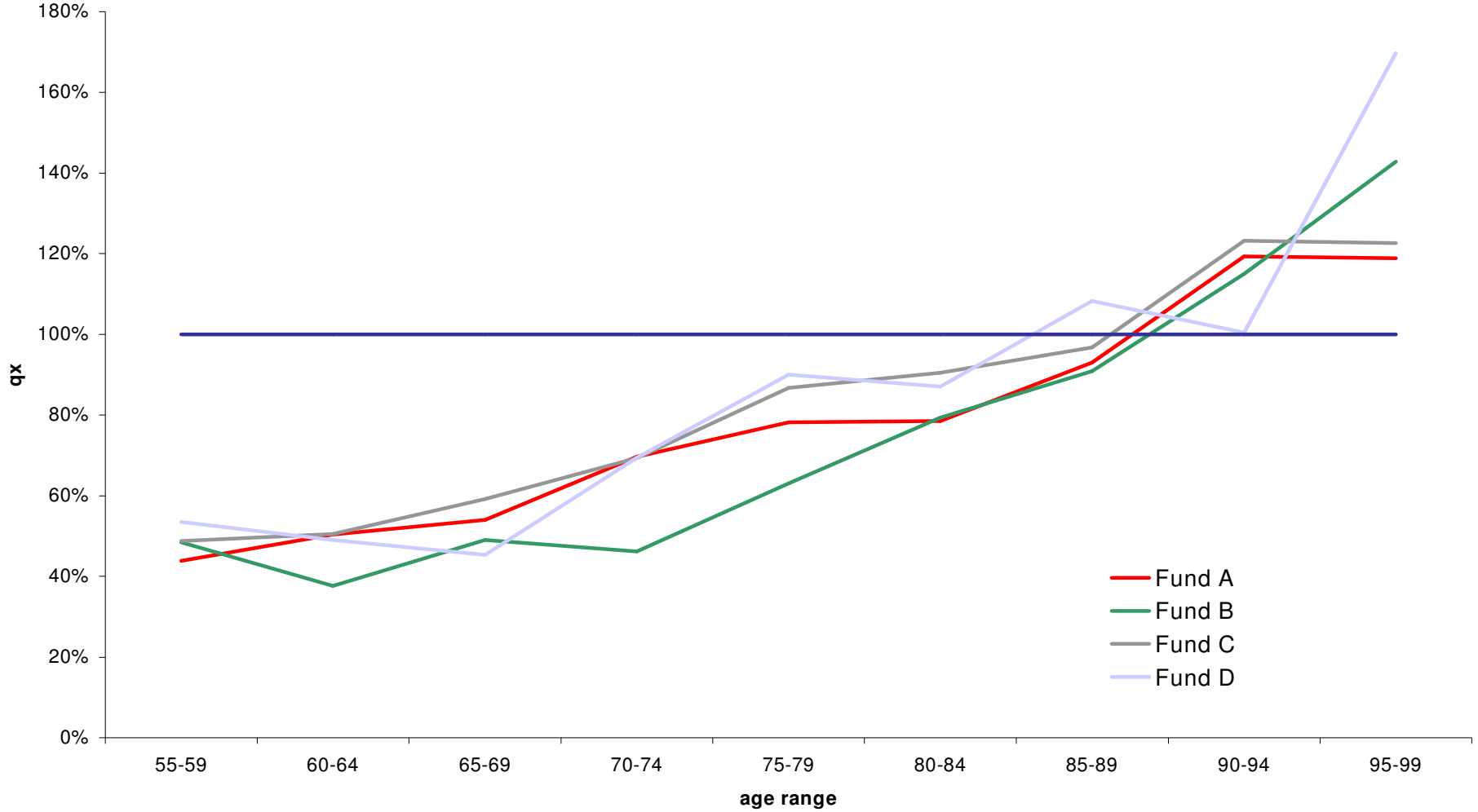
Comparison of mortality by scheme

- Considered male retirees, female retirees, female spouses separately
- Differences impacted by commutation options

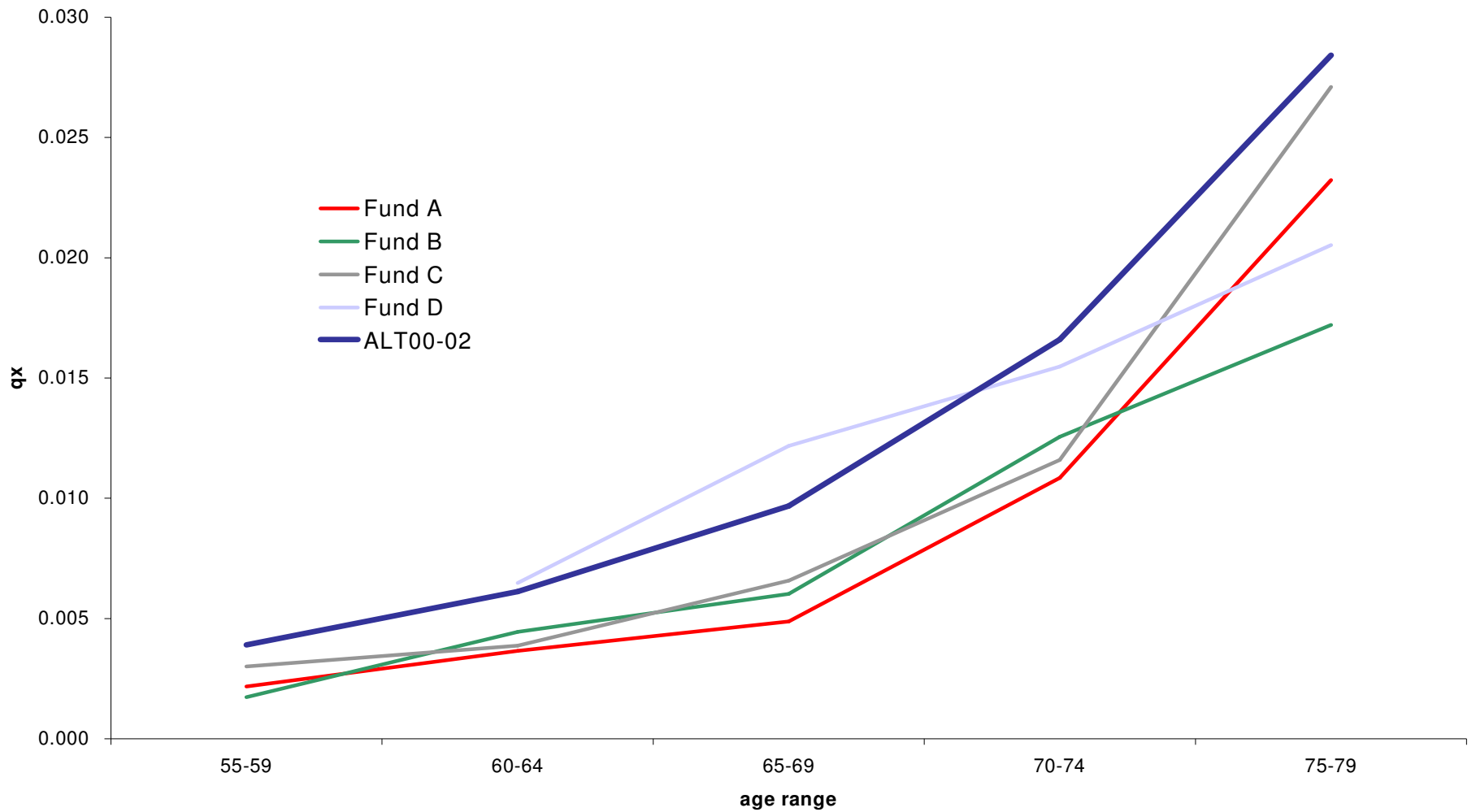
Male retiree mortality v ALT 00-02



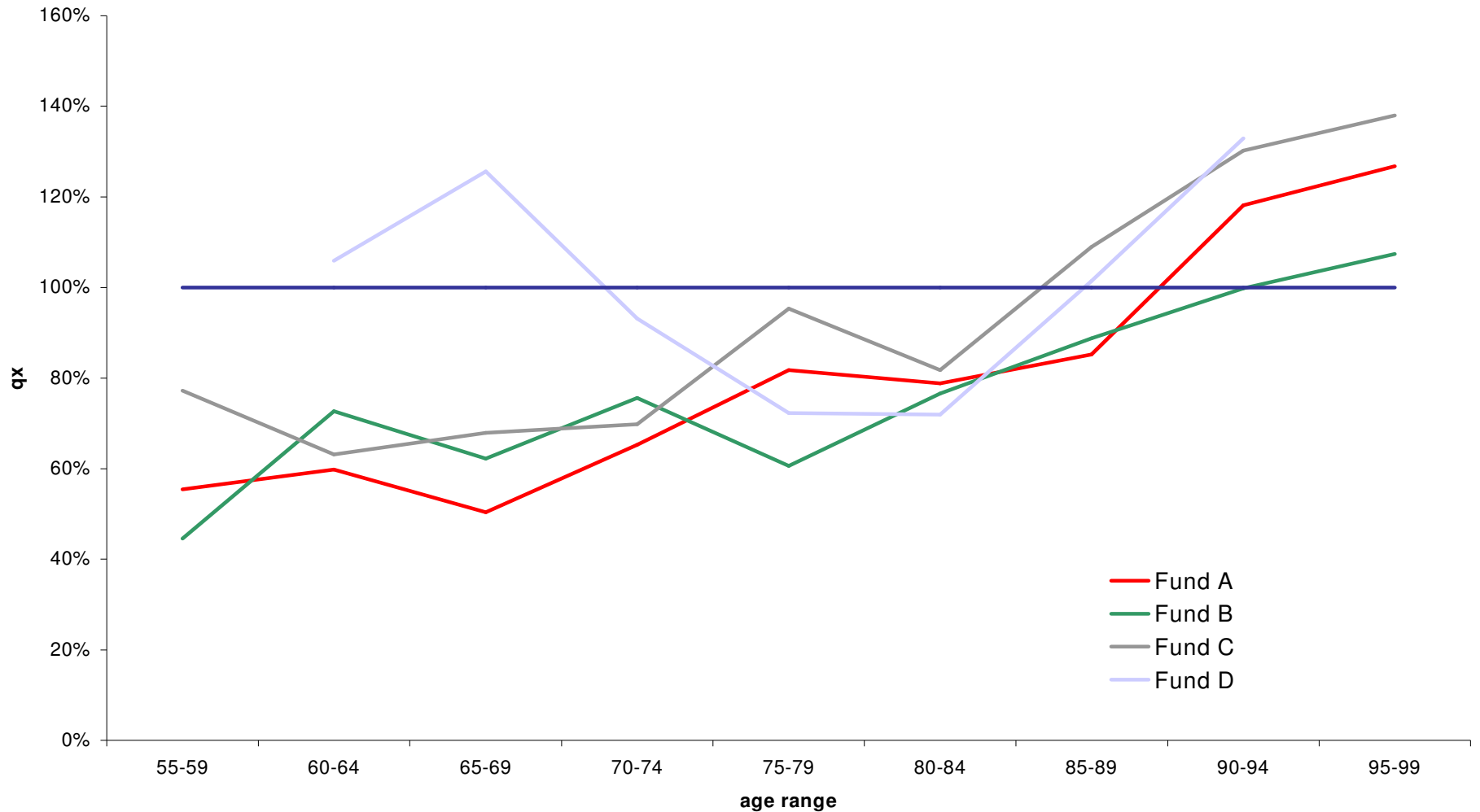
Male retiree mortality as % of ALT 00-02



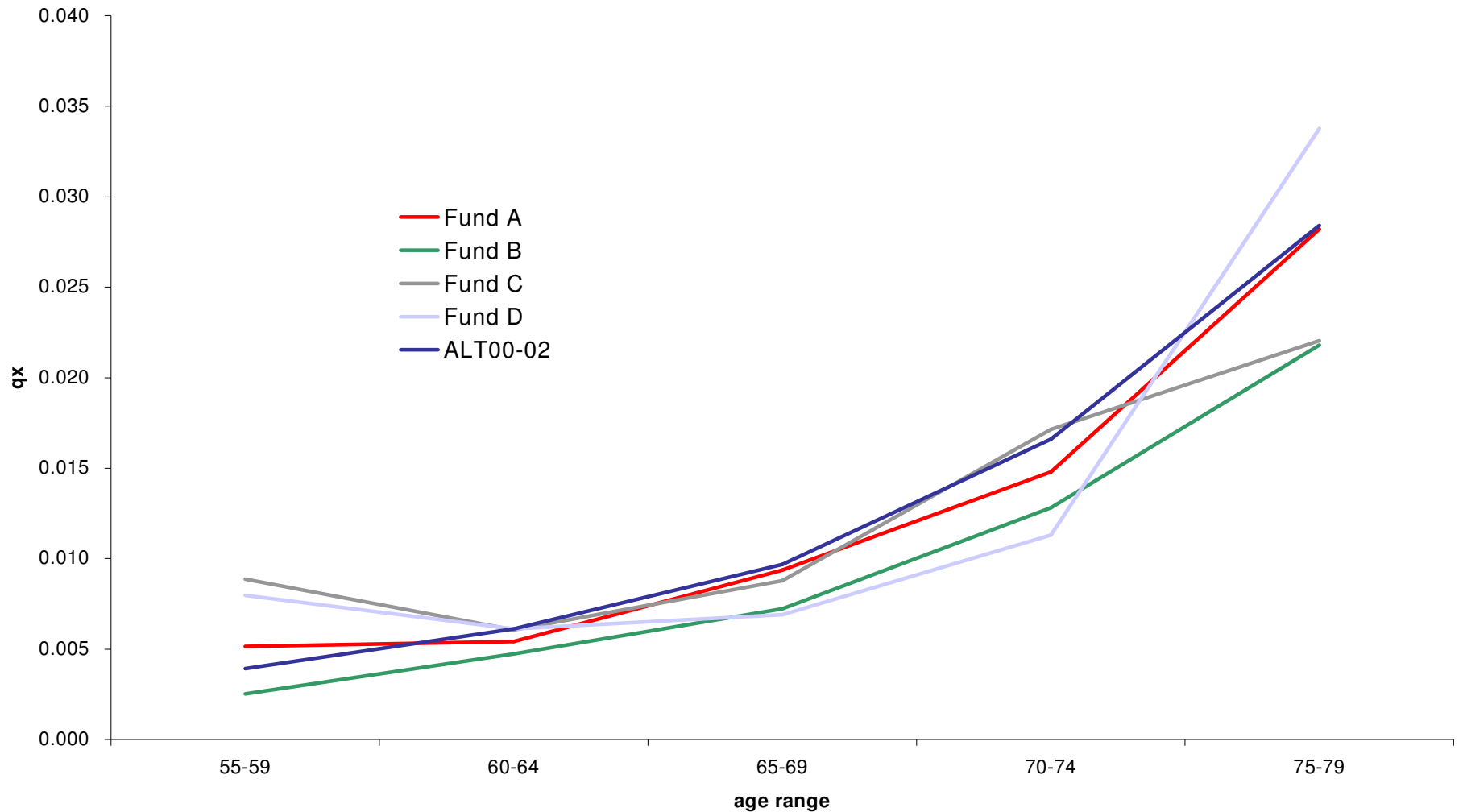
Female retiree mortality v ALT 00-02



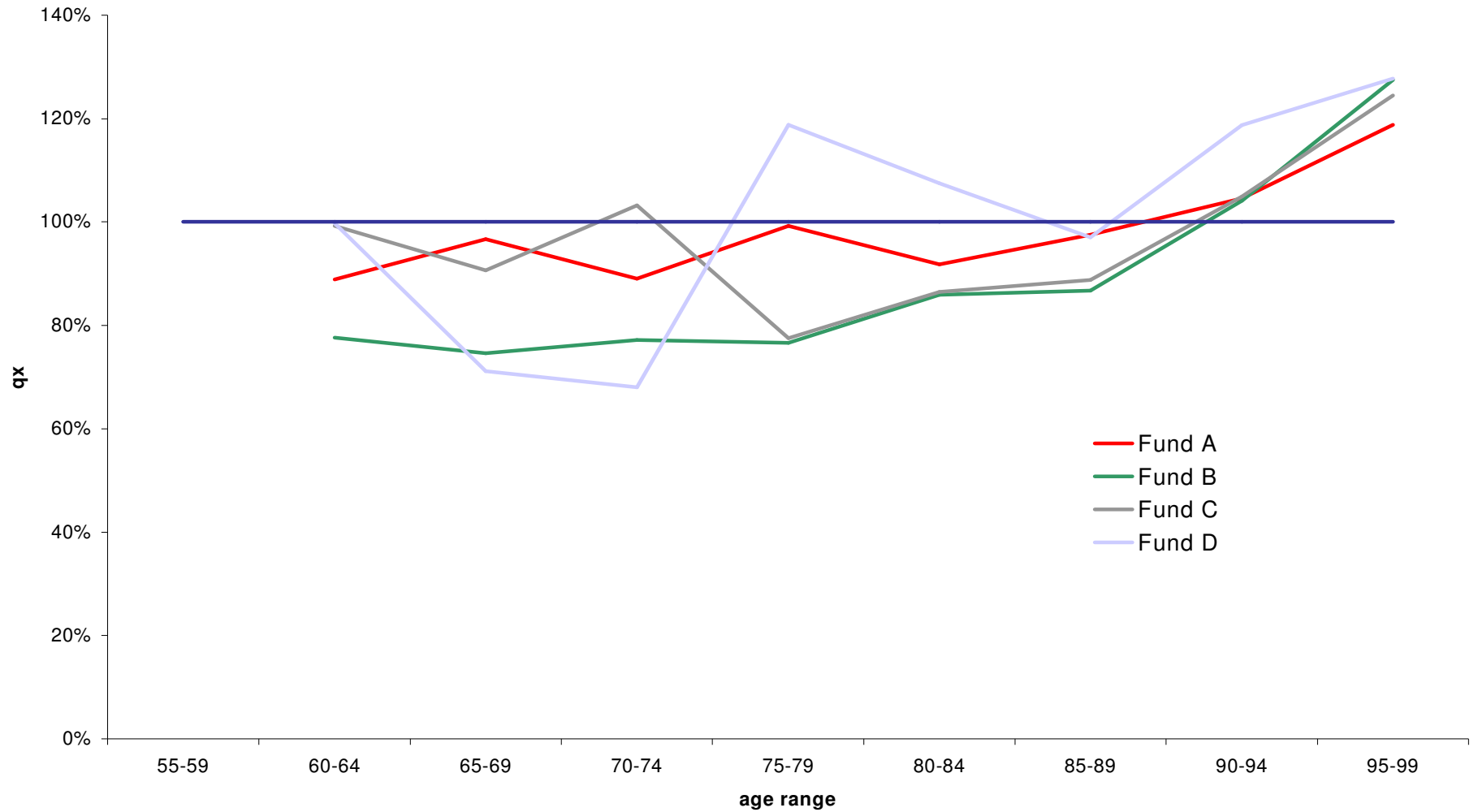
Female retiree mortality as % of ALT 00-02



Female spouse mortality v ALT 00-02



Female spouse mortality as % of ALT 00-02

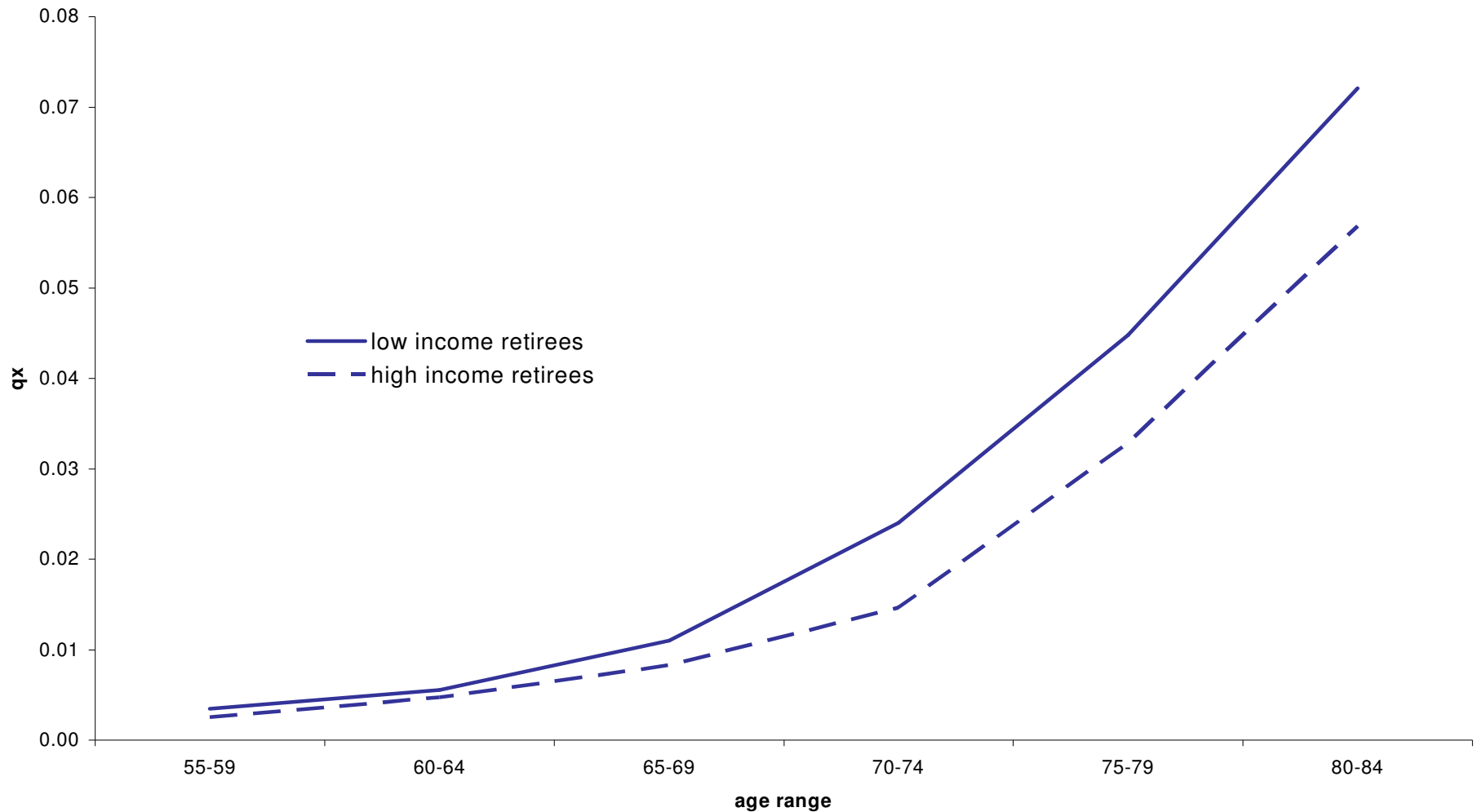




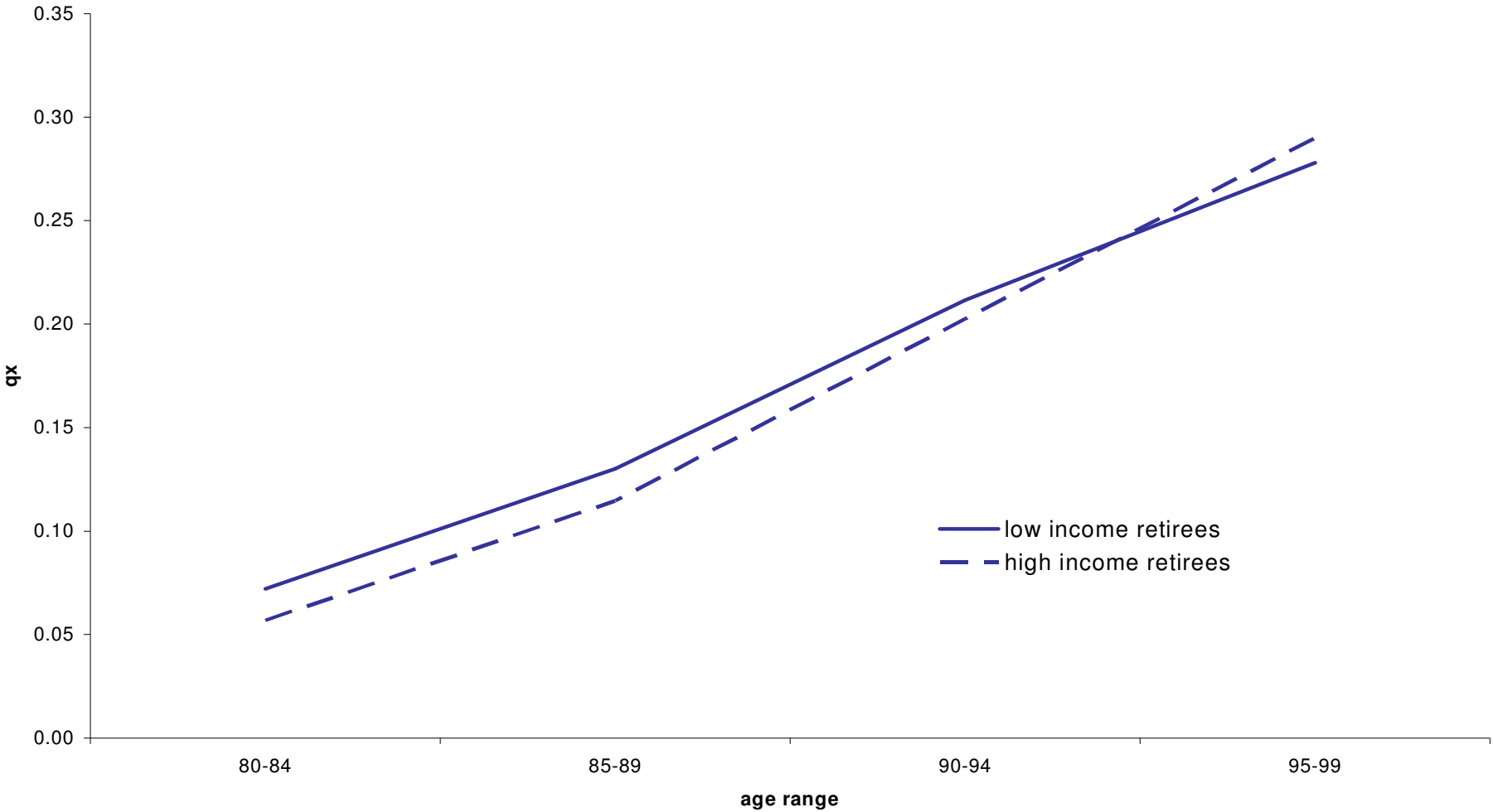
Comparison of mortality by income

- Used pension size as proxy to income
- Indexed pensions with CPI to 2005
- “Low” income - <\$20,000 pension pa
- “High” income - >\$20,000 pension pa
- Low income mortality > high income mortality
- Exception for some female retirees

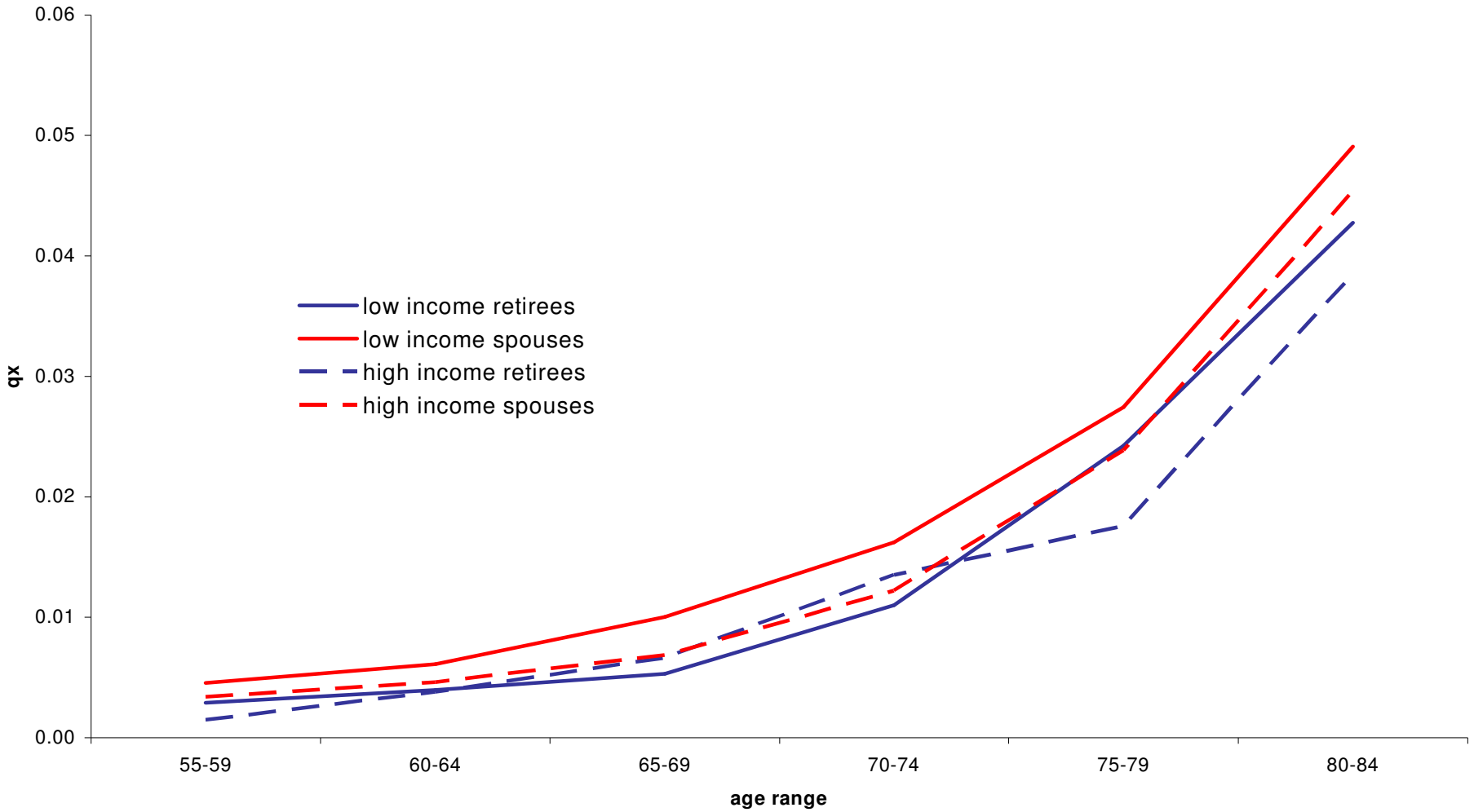
Male mortality low v high income



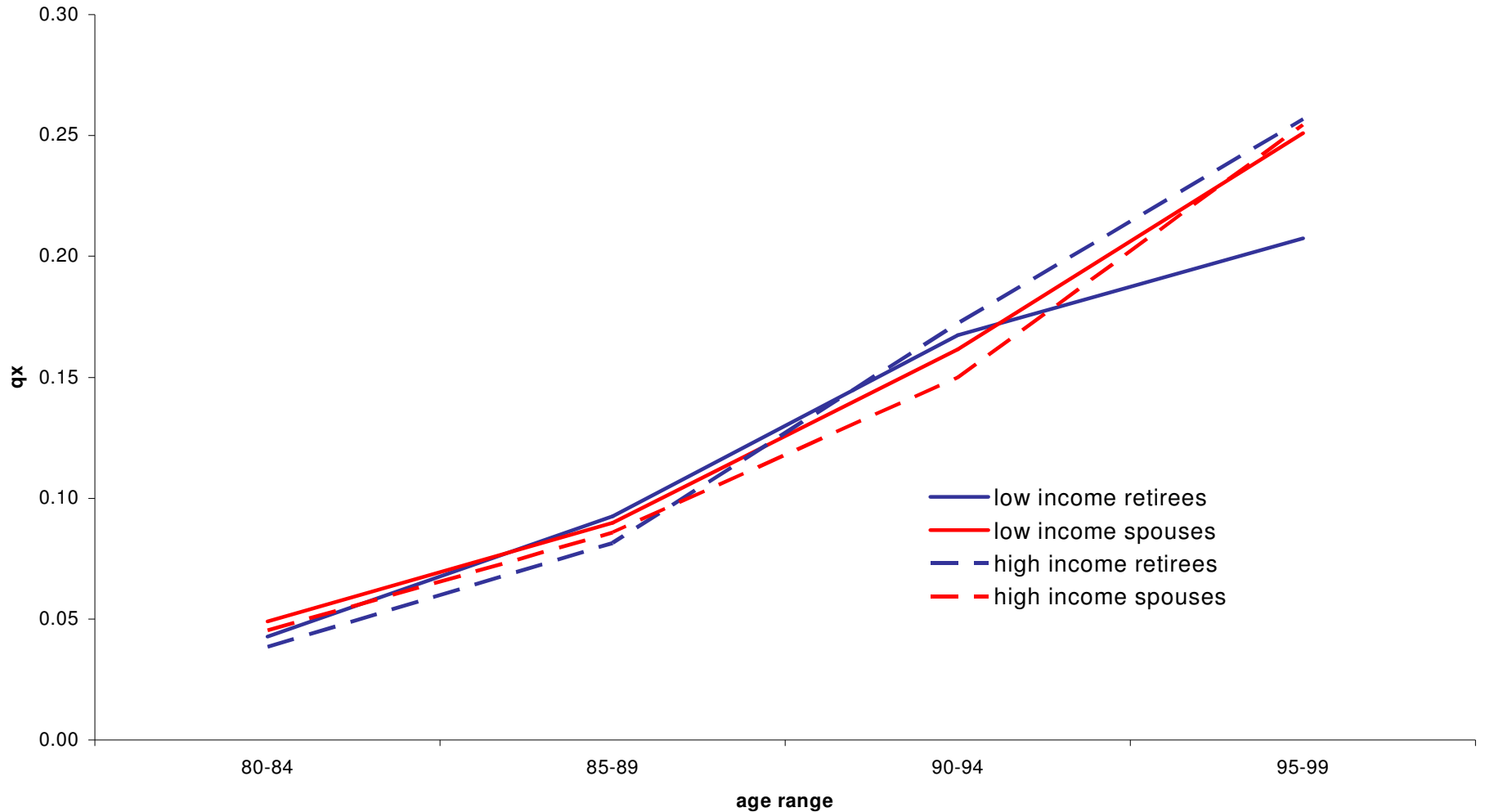
Male mortality low v high income



Female mortality low v high income



Female mortality low v high income





Mortality improvements

- Compared mortality in 1999-2002 with 2002-05
- Compared improvement rates with ALT 00-02 25-year averages
- Retiree mortality improvements generally greater than ALT 00-02 under age 75 (but less for ages over 75)

Mortality improvements

Age range	Male retirees		Female retirees		Female spouses	
	Experience	ALT 00-02 25-year average	Experience	ALT 00-02 25-year average	Experience	ALT 00-02 25-year average
55-59	3.7%	3.4%	2.7%	2.5%	-15.1%	2.5%
60-64	2.4%	3.2%	5.1%	2.5%	-1.7%	2.5%
65-69	5.5%	2.9%	8.6%	2.5%	1.7%	2.5%
70-74	4.0%	2.6%	3.8%	2.3%	3.1%	2.3%
75-79	-0.5%	2.3%	-3.3%	2.3%	-1.9%	2.3%
80-84	2.5%	1.9%	1.6%	2.0%	0.6%	2.0%
85-89	0.3%	1.5%	-3.8%	1.6%	0.3%	1.6%
90-94	-0.5%	1.3%	-4.2%	1.3%	-0.5%	1.3%
95-99	-1.2%	1.1%	3.5%	1.1%	0.4%	1.1%



Implications

- Heavier mortality than population at older ages
- Spouse mortality $>$ retiree mortality
- Mortality rates varying by pension size (particularly for male retirees)
- Consider scheme specific factors (eg commutation options)



Questions/comments



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