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RESEARCH

Sex differences in life expectancy and lifespan dispersion: long-term patterns and emerging crossovers

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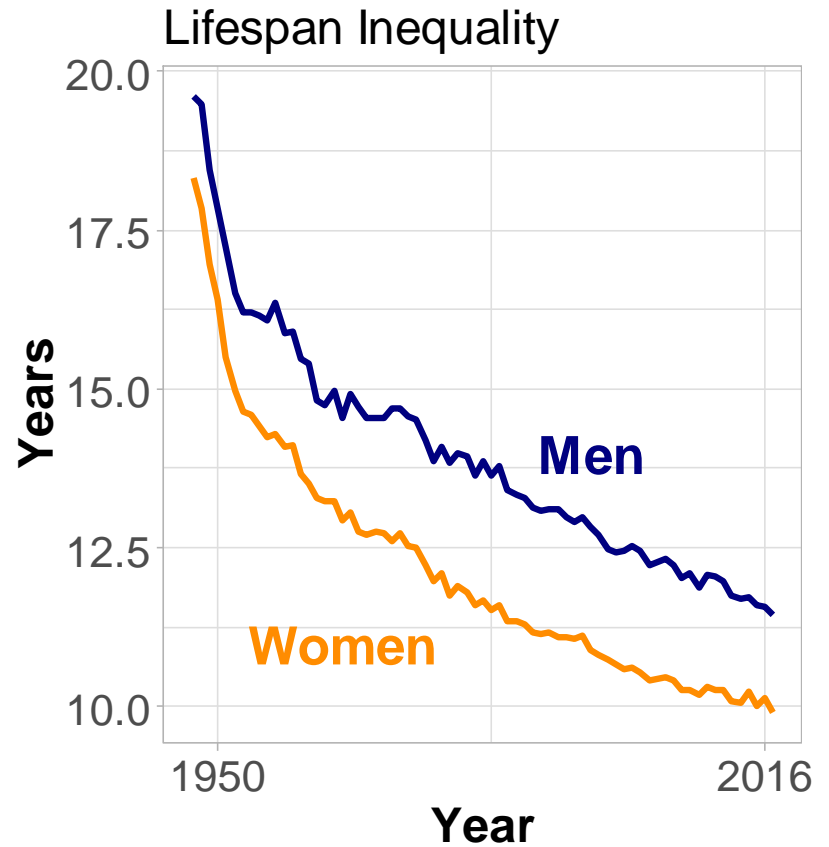
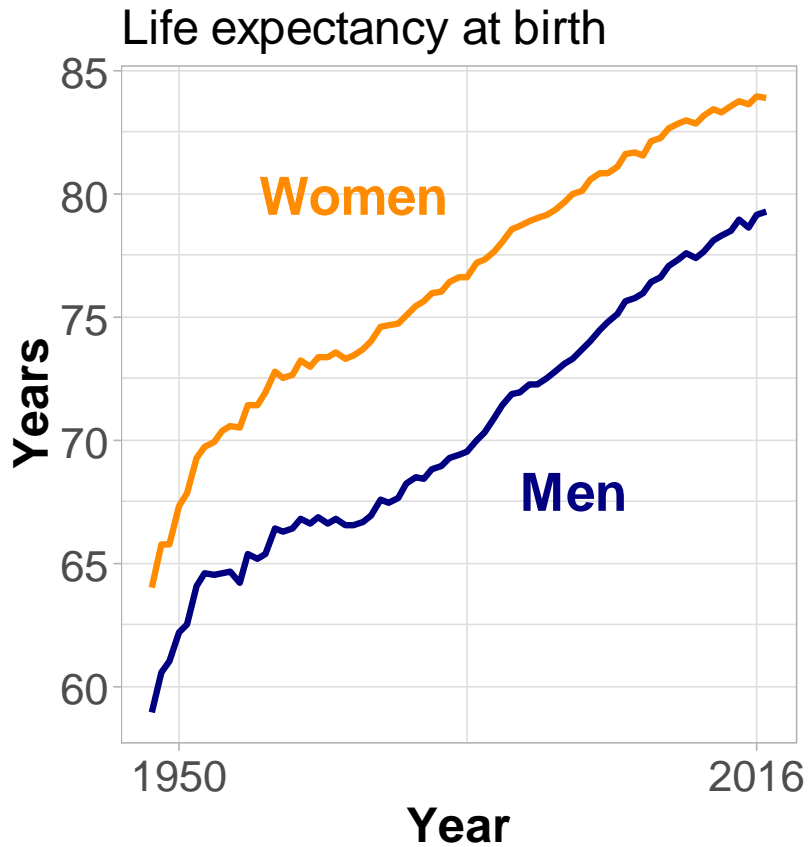
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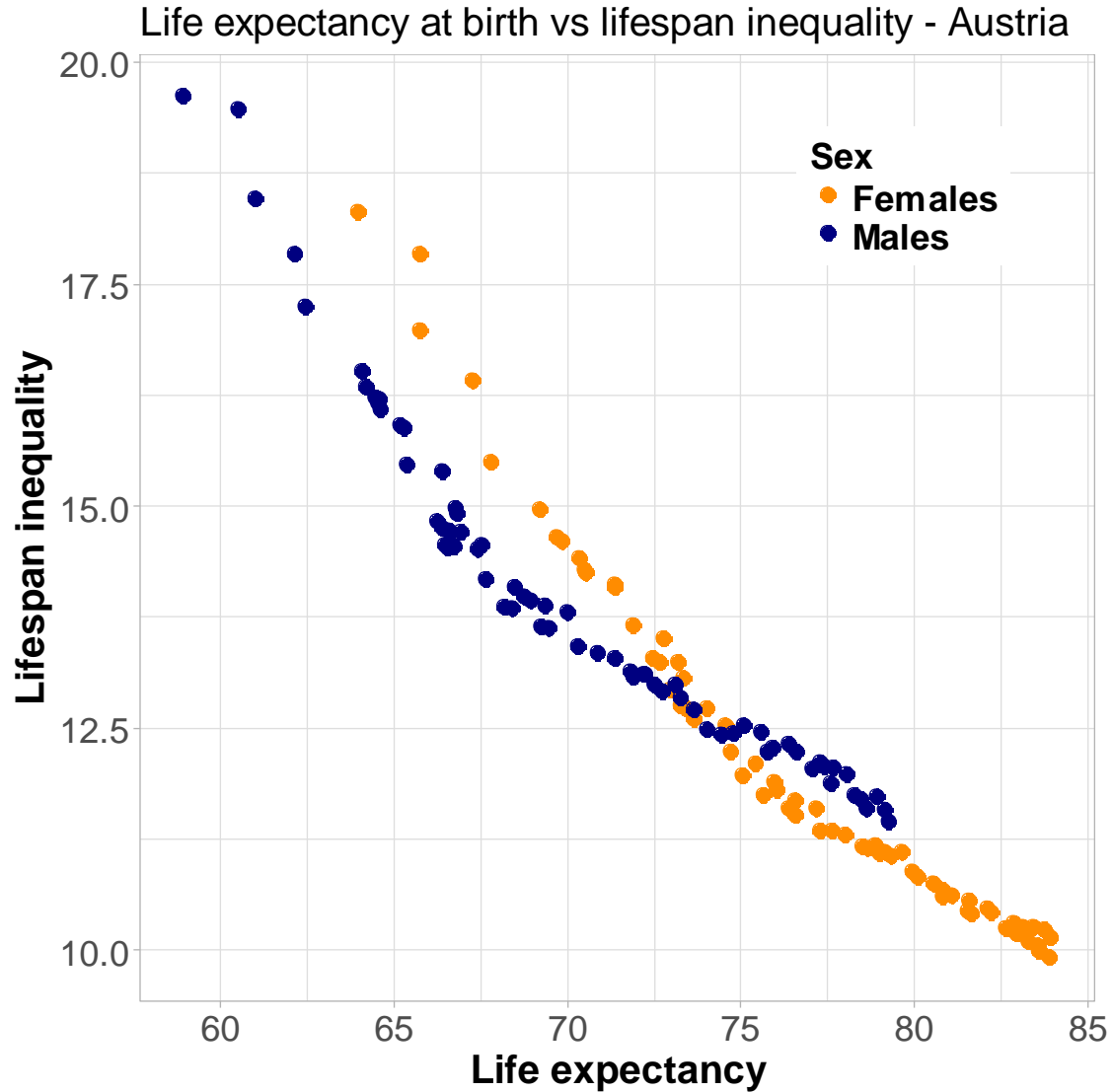


Mortality trends by sex in Austria





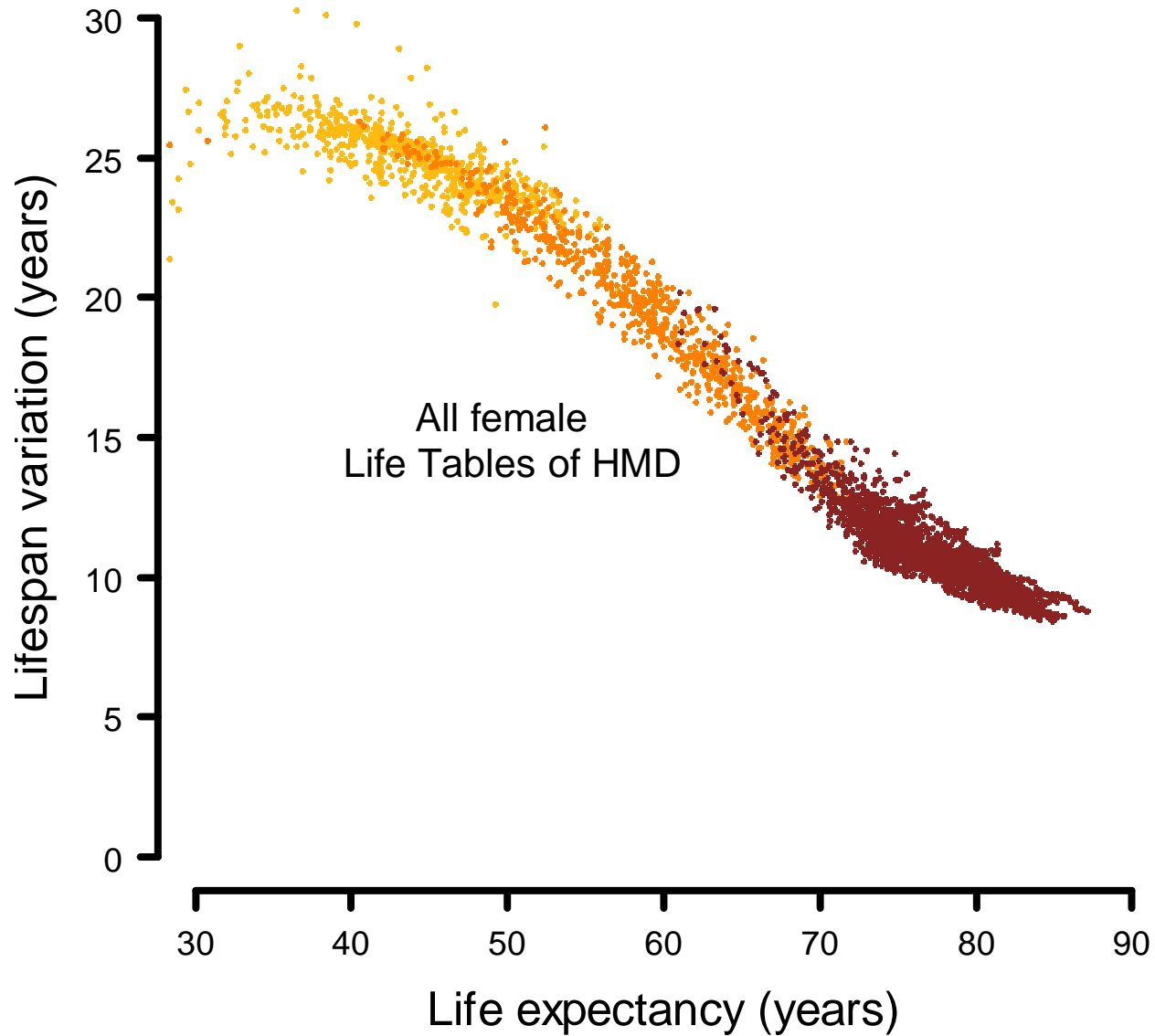
Dropping the time dimension



Is this what we would expect?

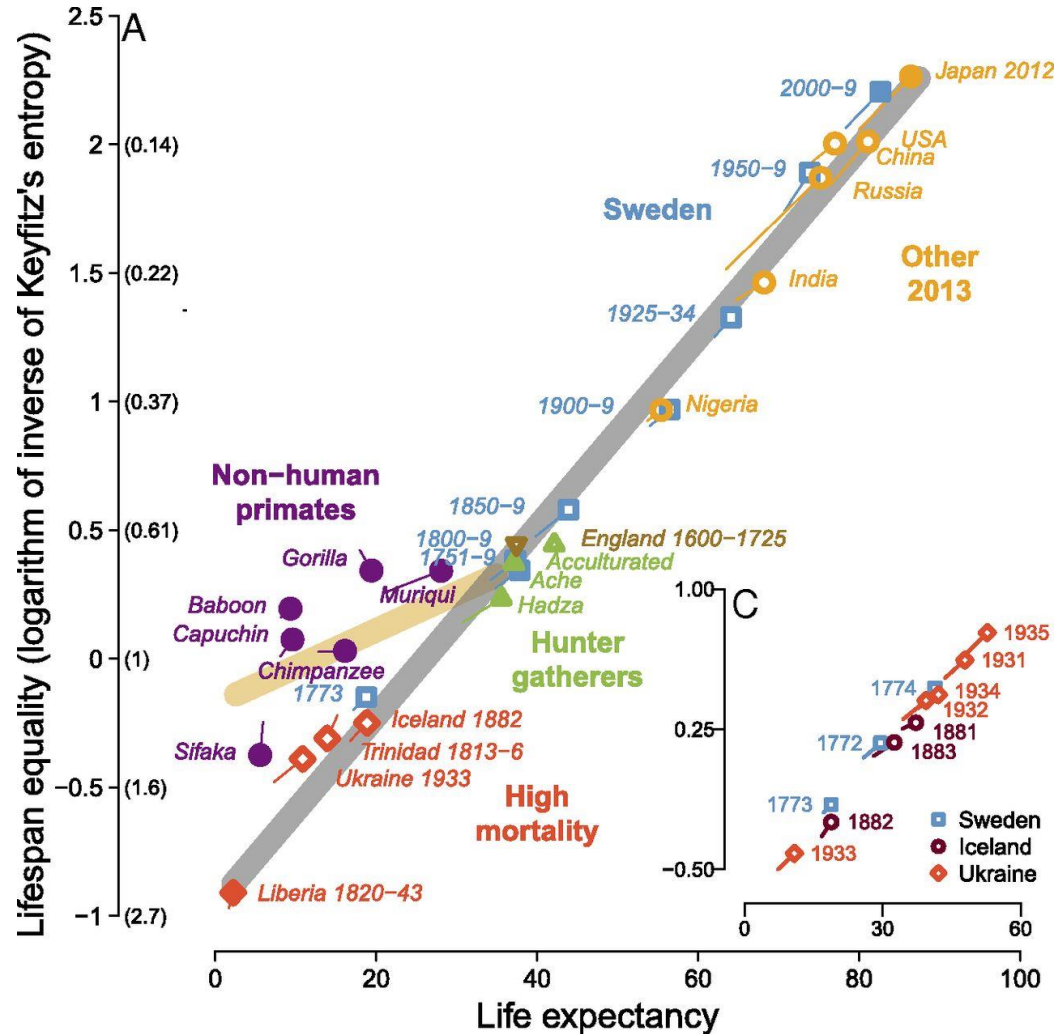


Life expectancy and disparity



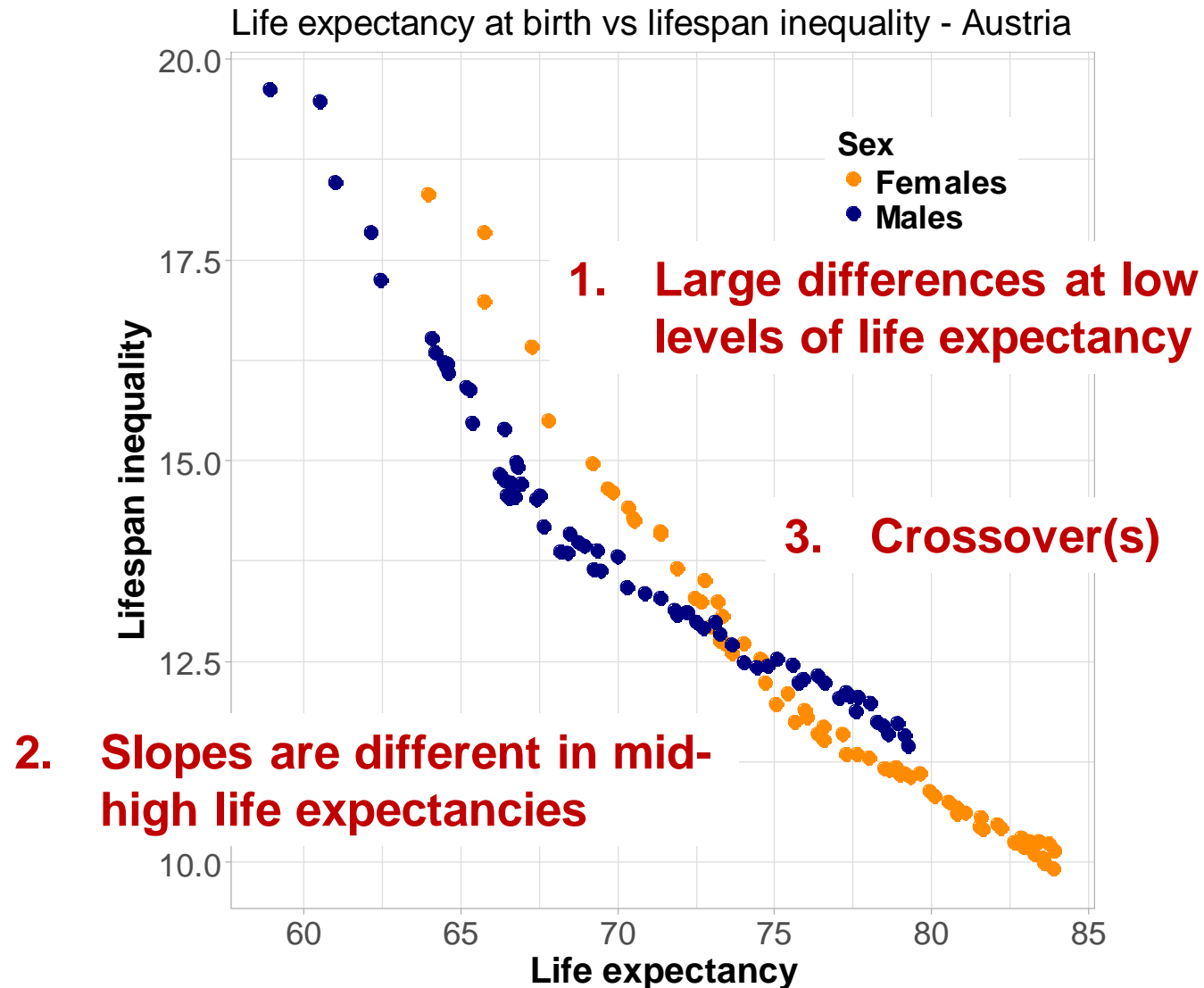


Negative correlation seems to hold over sex, and across different mortality regimes



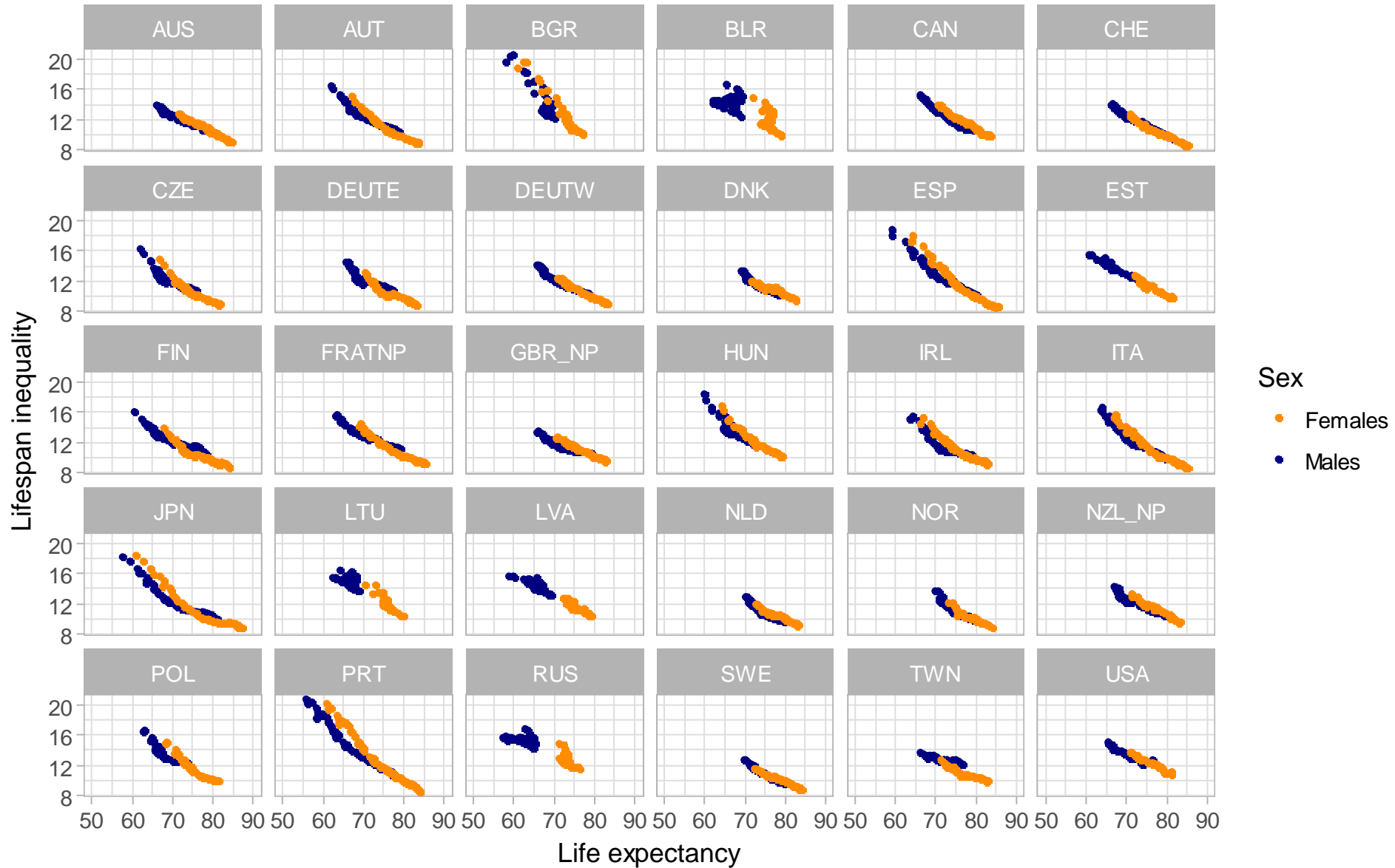


Sex differences in life expectancy and disparity



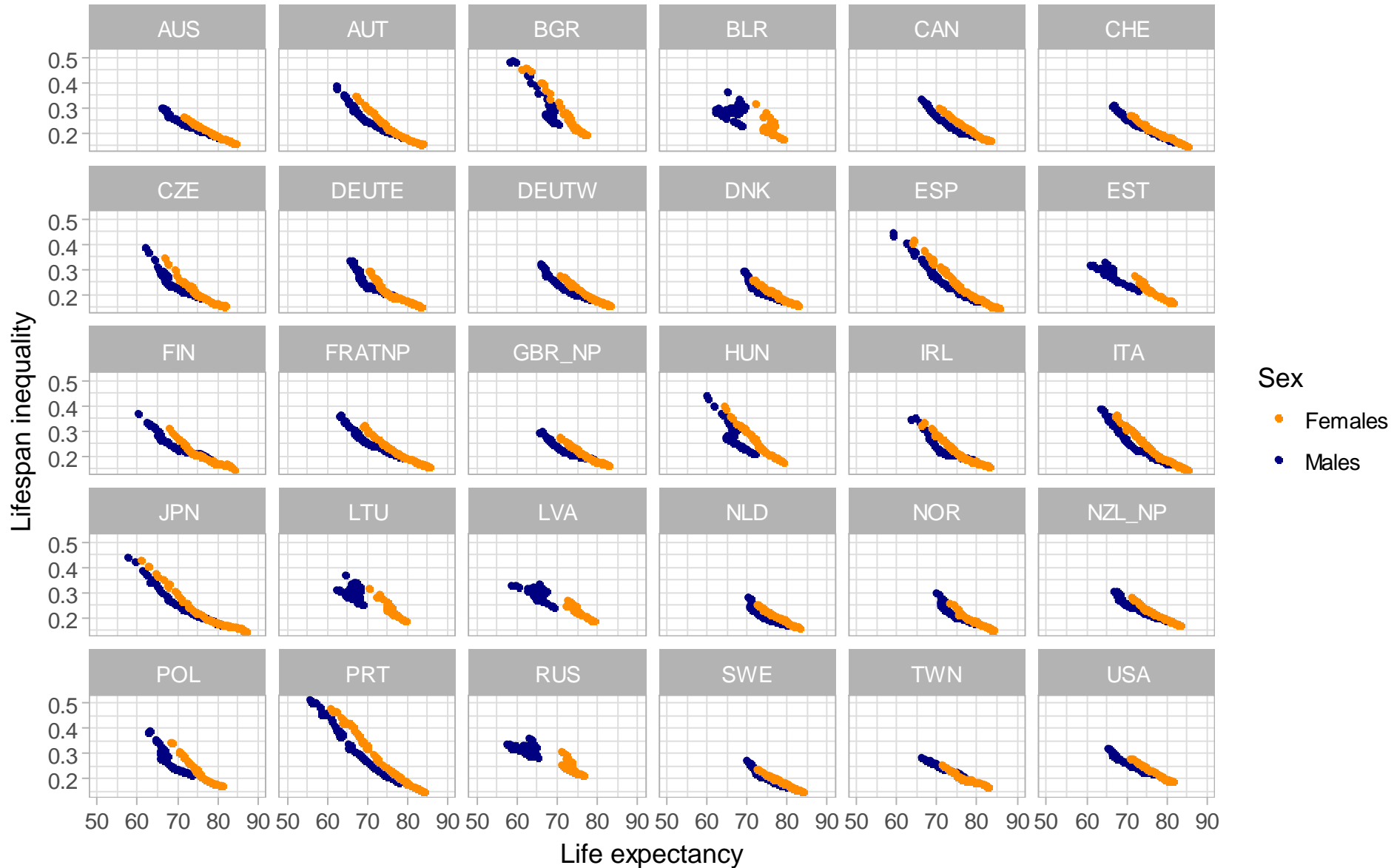


30 HMD Countries

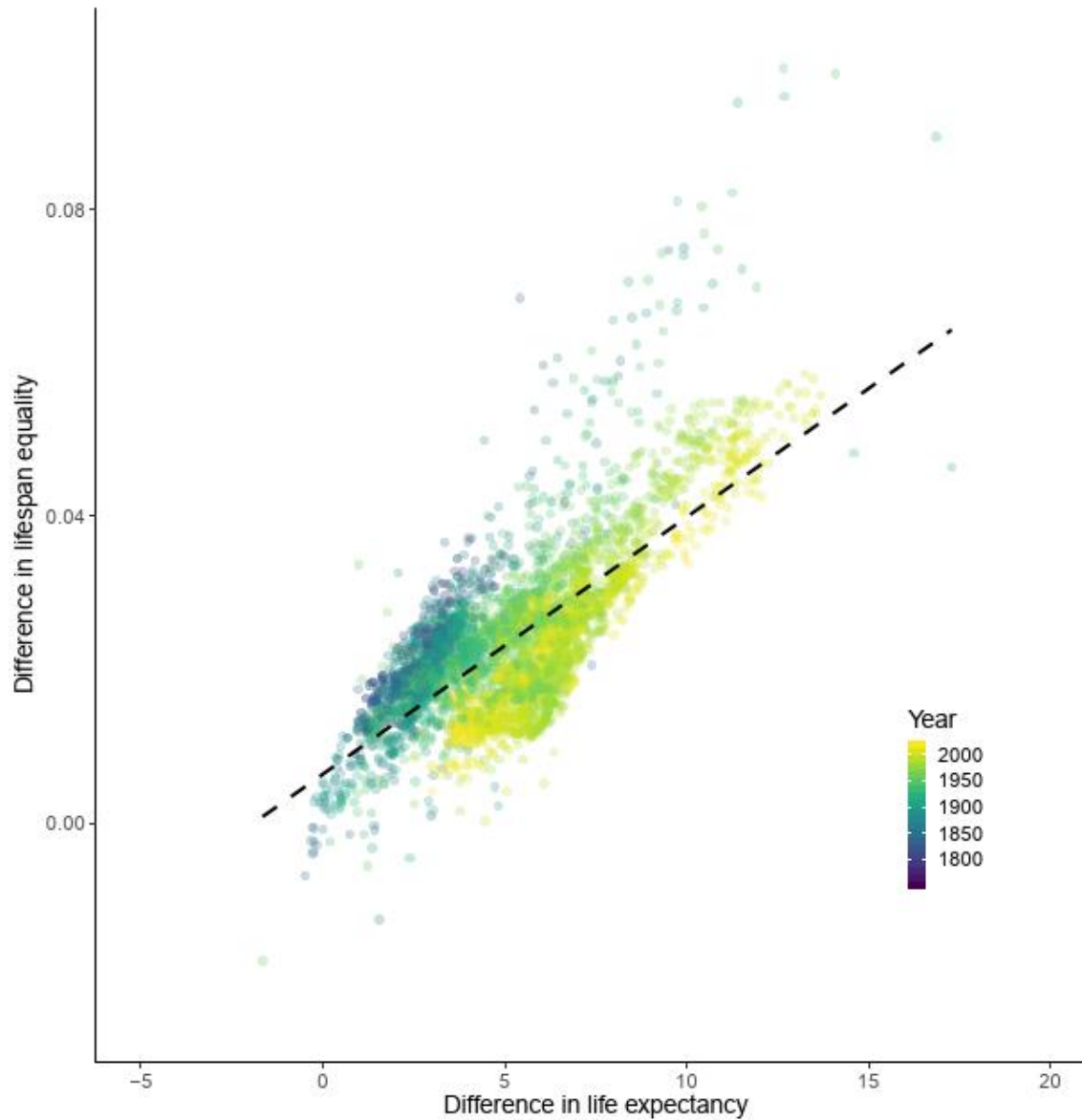




Coefficient of variation

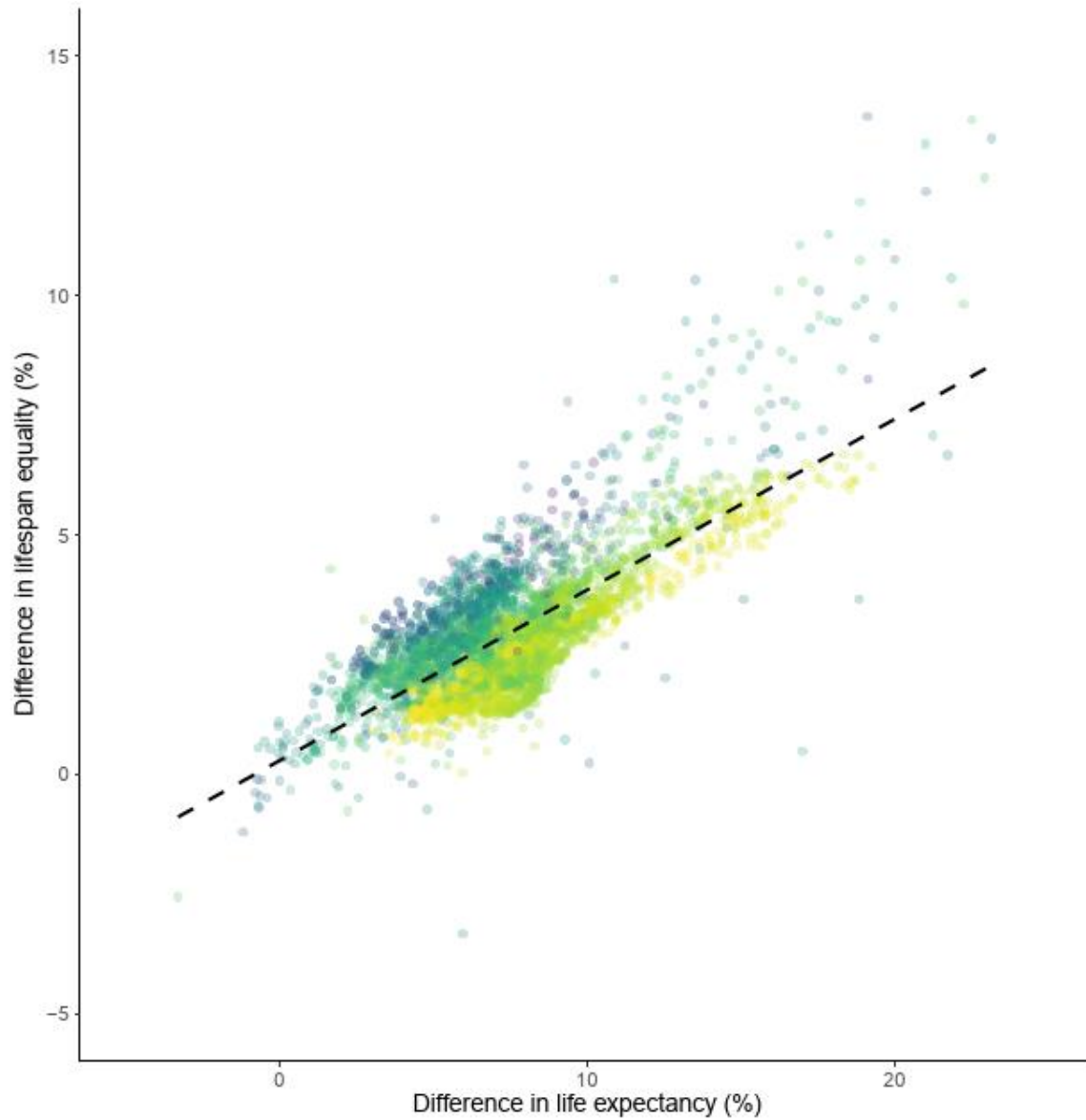


Absolute female advantage in e_0 and lifespan equality





And on a relative scale



Why is this happening?

Do these trends matter?

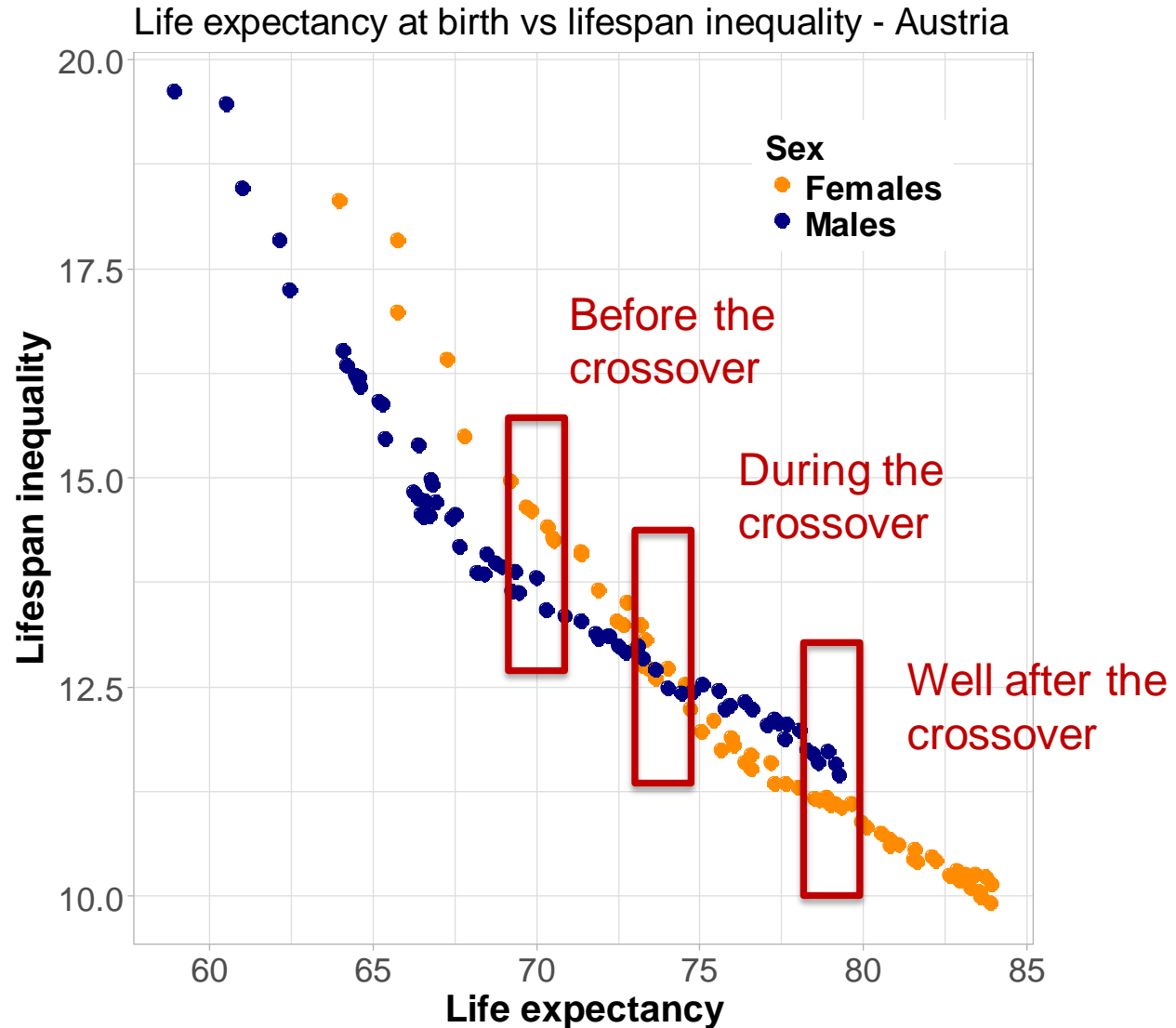


Hypotheses for the crossover and beyond

- **Period explains everything**
 - Declining influence of infant mortality
 - Men always had greater variation in adult mortality
- **Behavioural differences**
 - Emerging then declining male disadvantage caused by emerging then declining midlife mortality differences
- **Female survival advantage at old ages**
 - Potential 2nd crossover

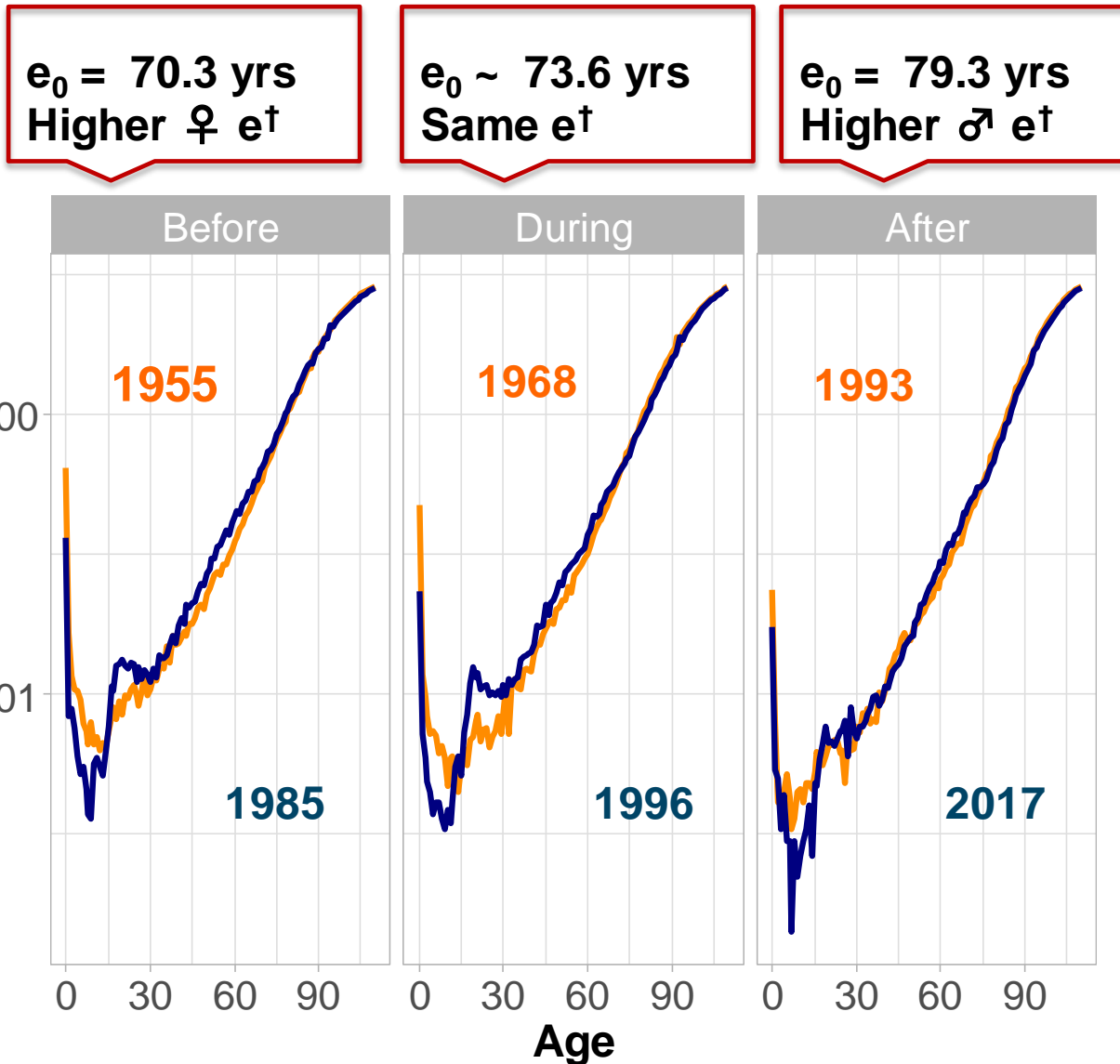


Age Decompositions





Comparing mortality patterns before, during, and after crossover



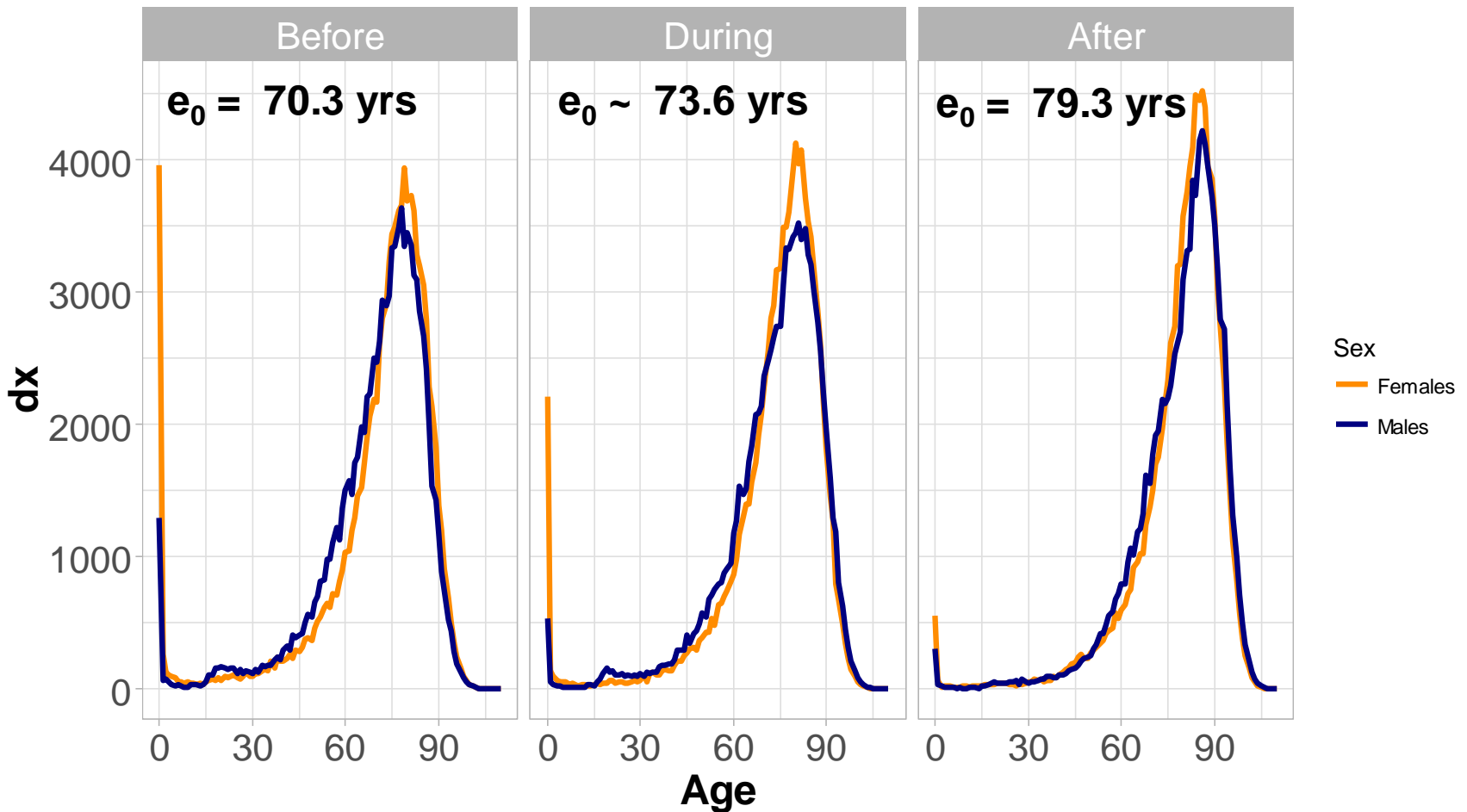


Comparing mortality patterns before, during, and after crossover

♀ $e^{\dagger} \sim 14.4$
♂ $e^{\dagger} \sim 13.4$

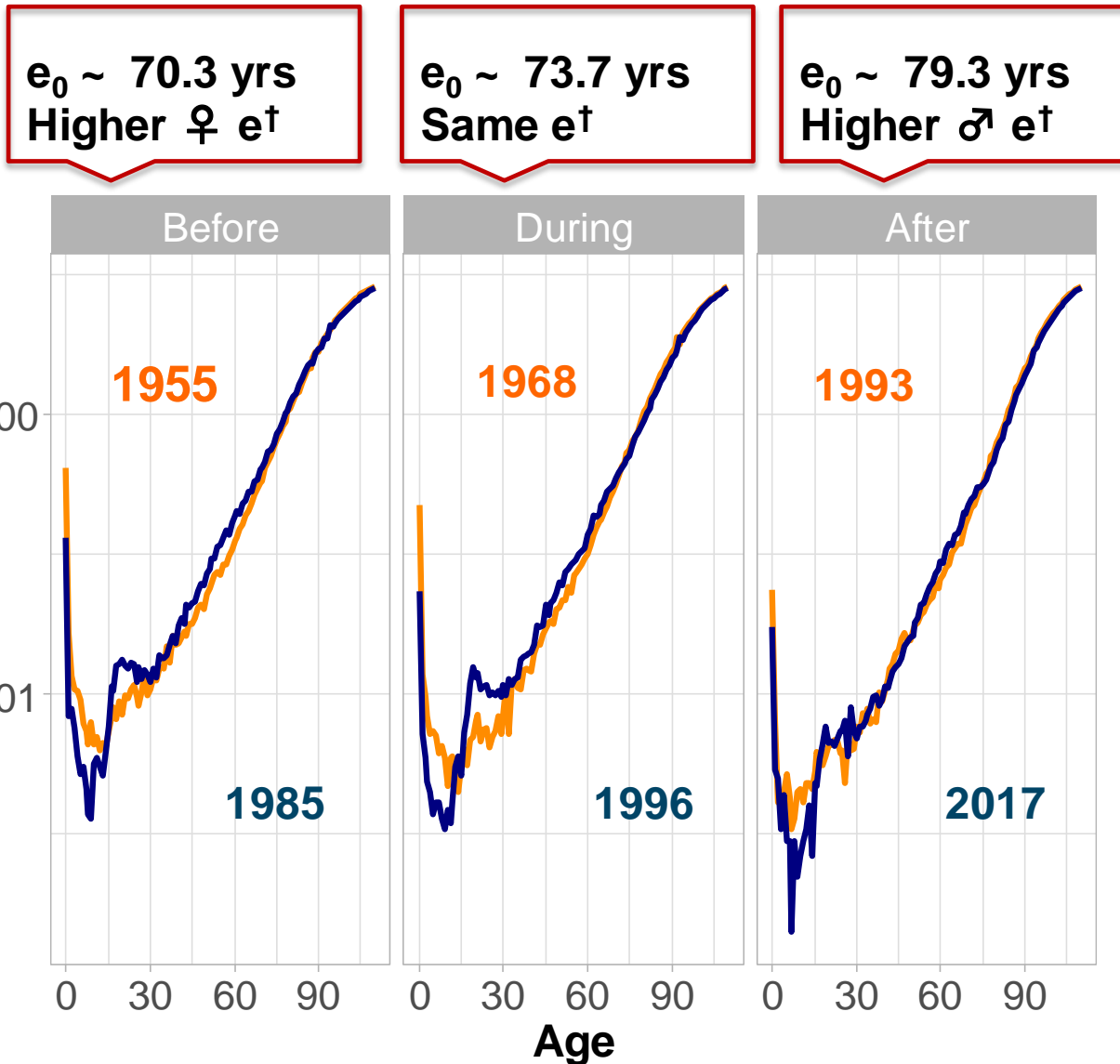
♀ $e^{\dagger} \sim 12.7$
♂ $e^{\dagger} \sim 12.7$

♀ $e^{\dagger} \sim 11.1$
♂ $e^{\dagger} \sim 11.4$



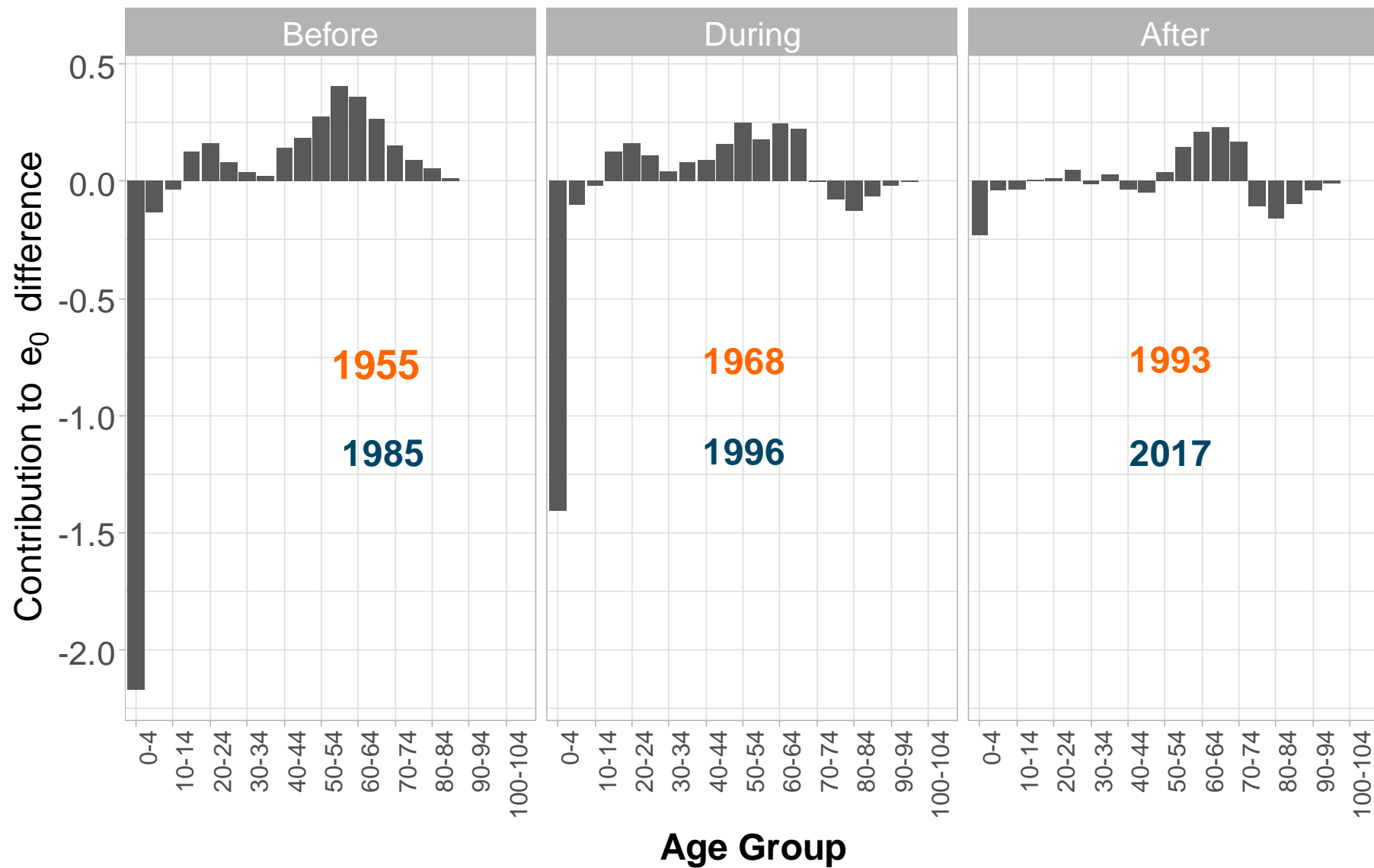


Comparing mortality patterns before, during, and after crossover



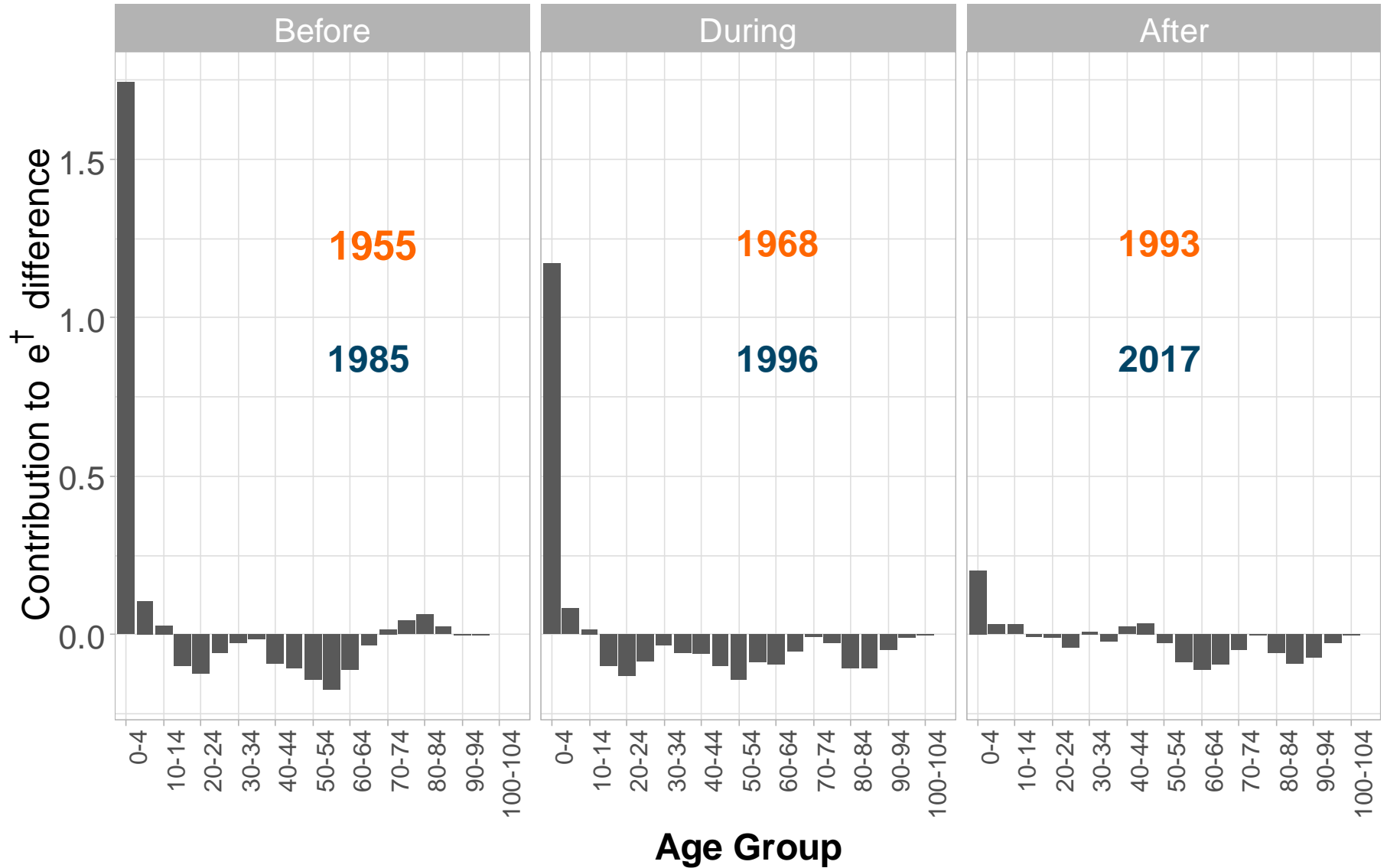


Decomposition of life expectancy








Decomposition of life disparity





Hypotheses for the crossover and beyond

- Period explains everything 
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- Behavioural differences 
 - Emerging then declining male disadvantage caused by emerging then declining midlife mortality differences
- Female survival advantage at old ages
 - Potential 2nd crossover 



Summary

- Different shape of mortality for men and women
 - To large extent, already known
- But: (1) illustrates the importance of considering the period when thinking about the life expectancy & disparity relationship
- (2) Another argument for why we need to monitor variation

Thank you for your attention

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This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant no. 716323 - LIFEINEQ)



European Research Council
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