

Update on sex-specific child mortality estimates

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Progress since Geneva meeting

- Calculated 5-year and indirect estimates by sex from DHS
- Assembled more comprehensive dataset
- Started testing estimation methods

Data by sex

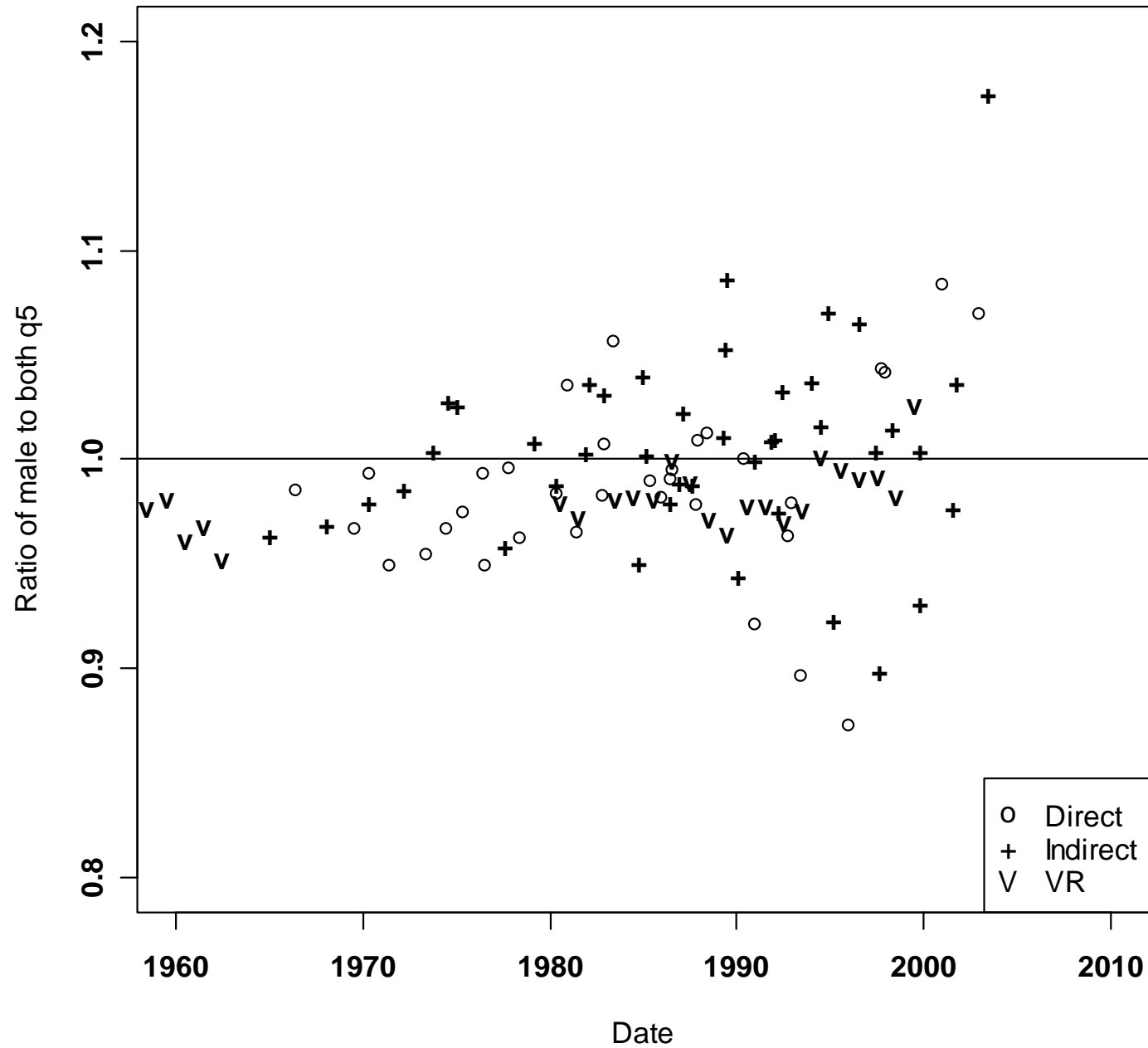
- DHS: Direct and indirect estimates
 - calculated from datasets
- MICS: Indirect estimates
- All other surveys and censuses: direct and indirect estimates as available
- Vital registration: 1q0 and 5q0 provided by WHO

Methods

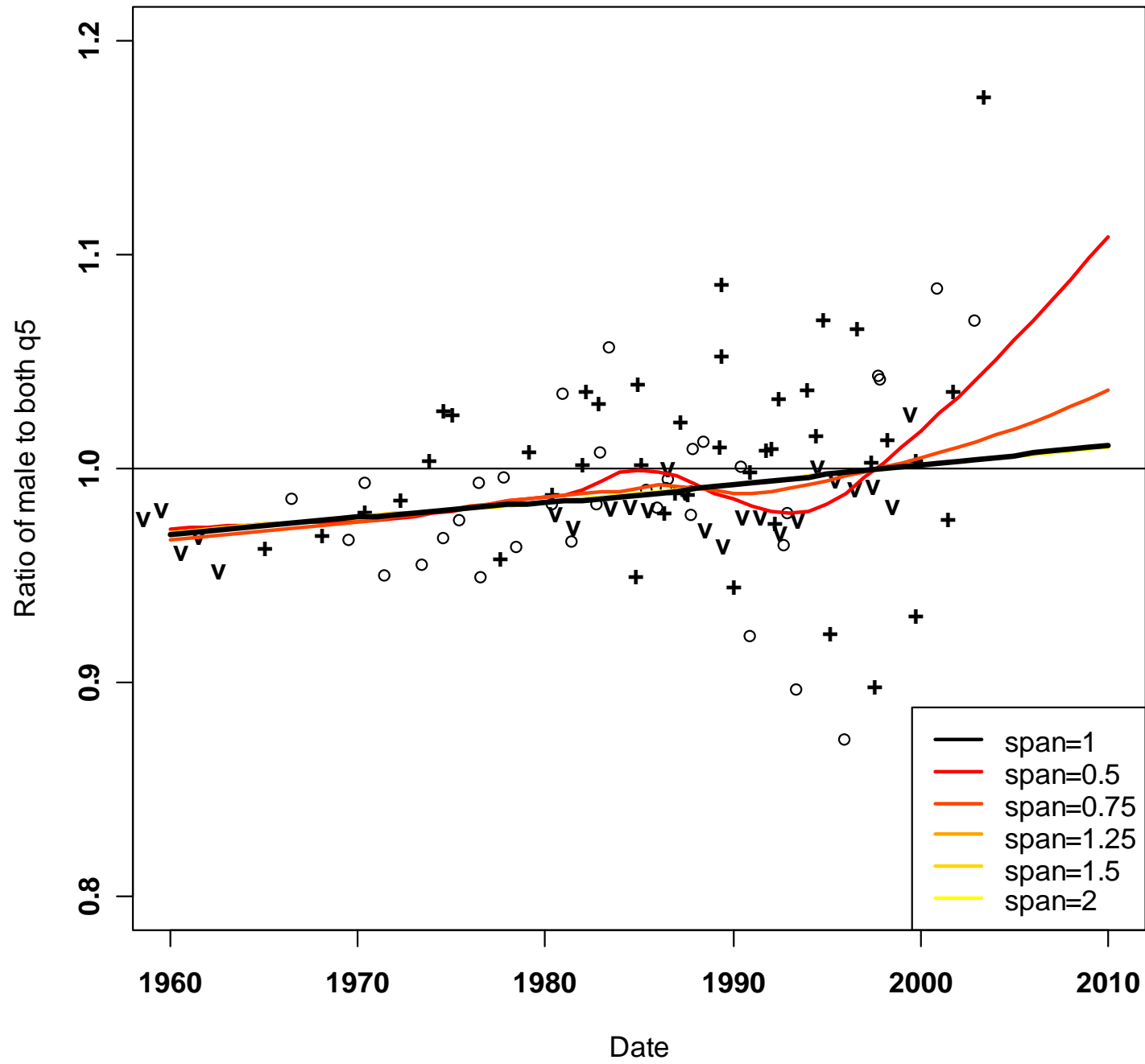
- Ratio of ${}_5q_0^{\text{male}}/{}_5q_0^{\text{both}}$
- Weight points according to UNICEF weights
- Fit curves to ratio
 - Loess
 - Spline
 - Linear
- Use predicted ratio to disaggregate ${}_5q_0^{\text{both}}$

Example: Egypt

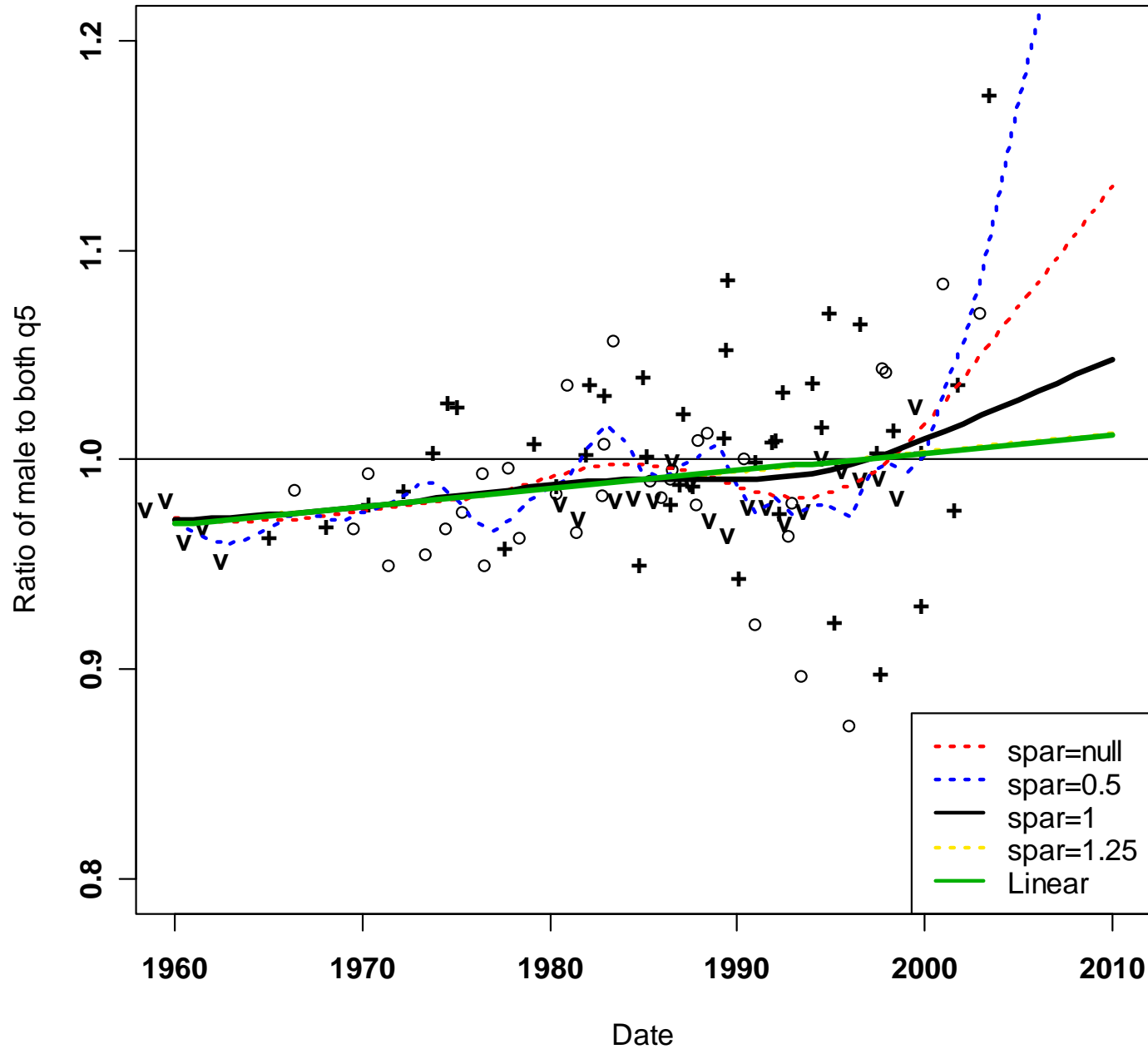
Ratio of male to both q5, Egypt



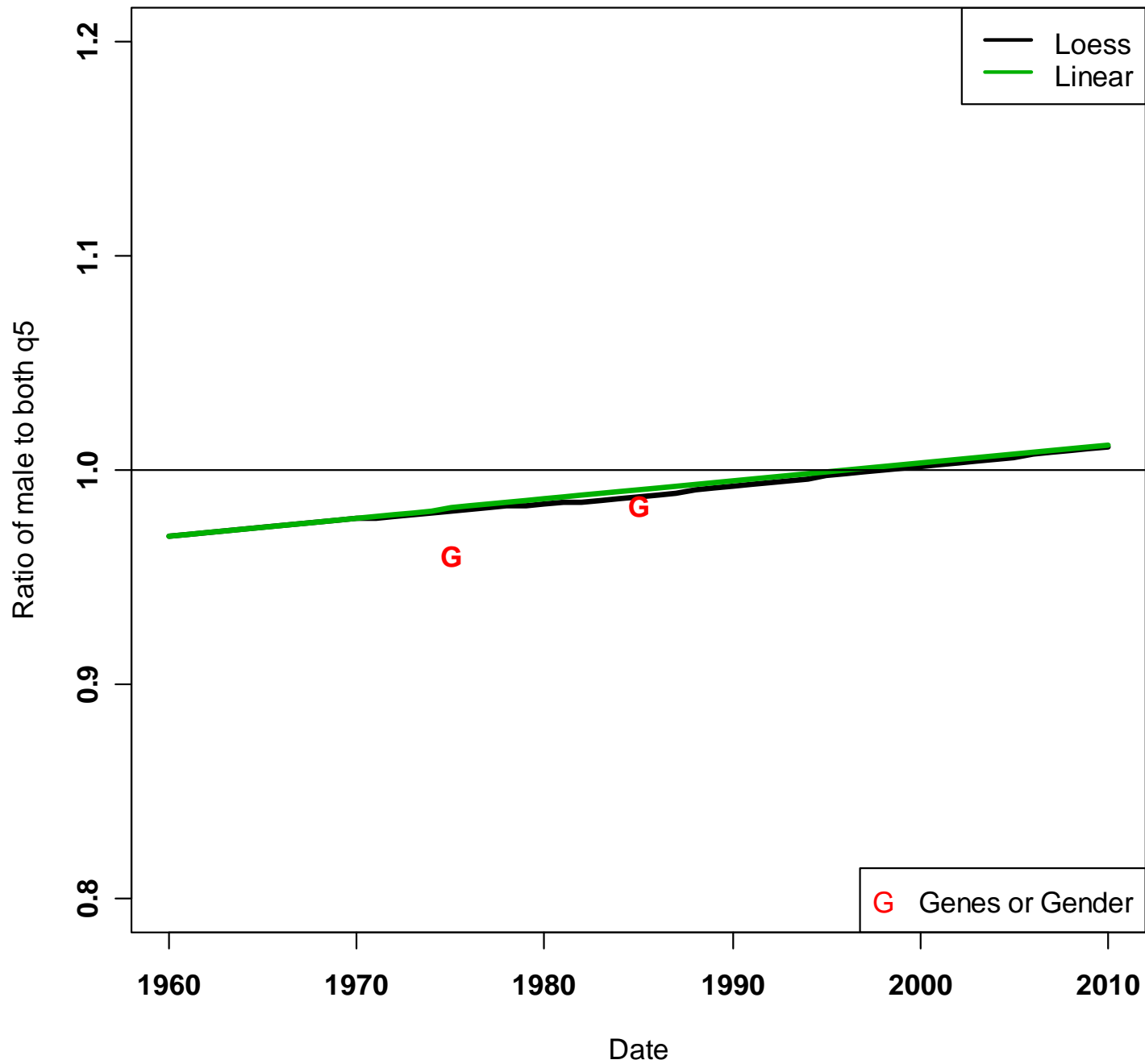
Loess fit to ${}_5q_0$ ratio, Egypt



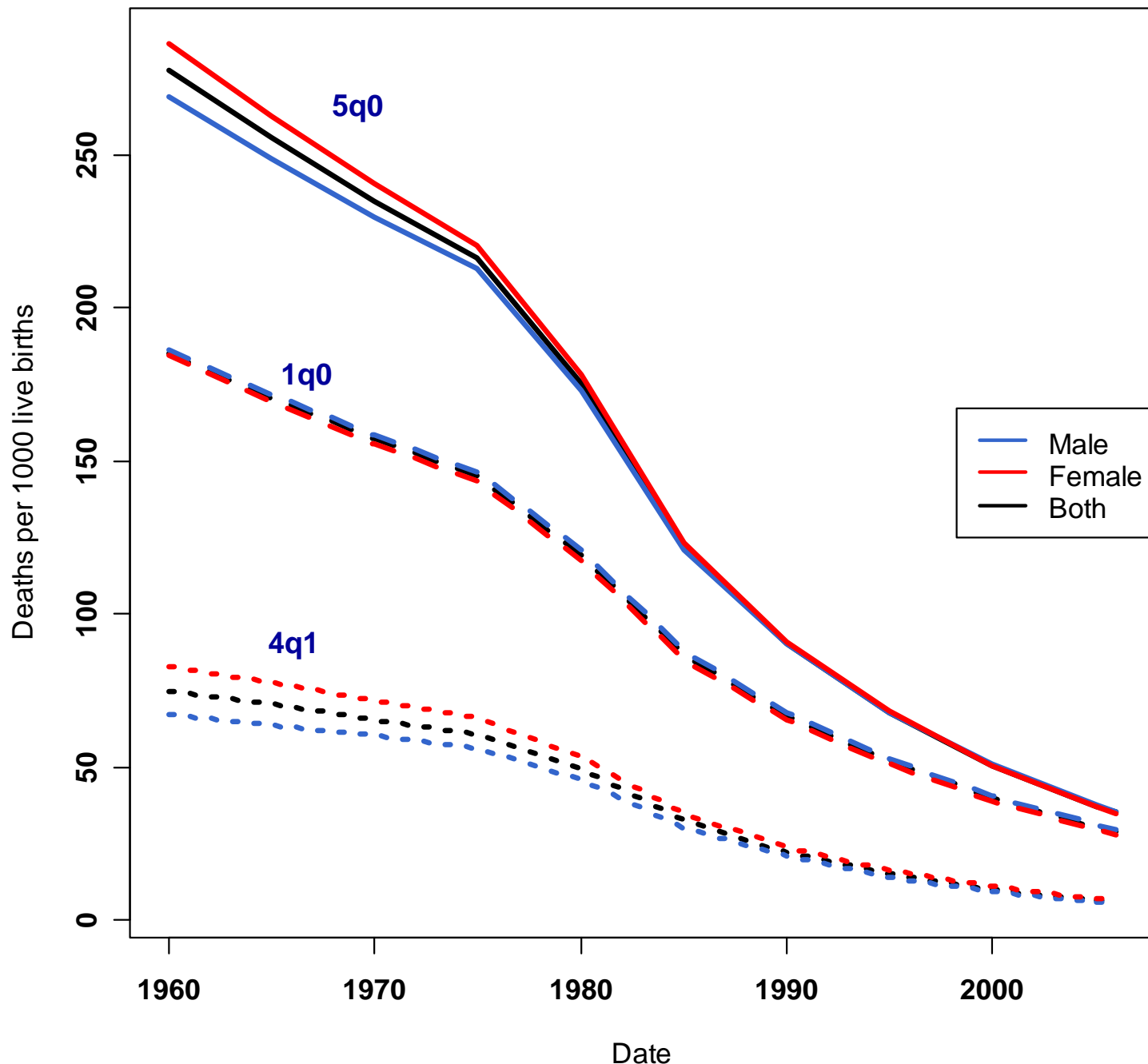
Spline and linear fits to ${}_5q_0$ ratio, Egypt



${}_5q_0$ ratio trend, Egypt

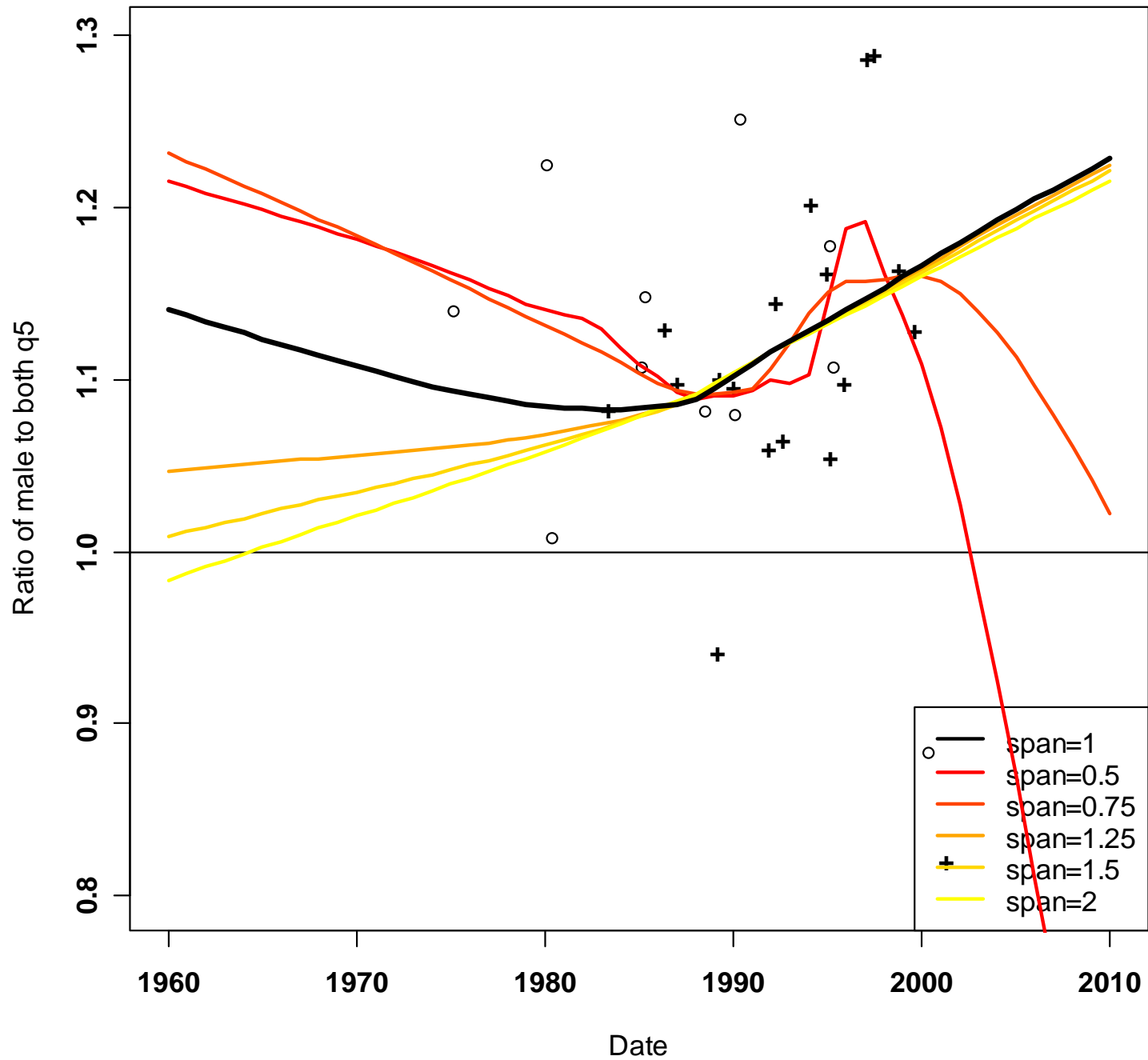


Predicted ${}_5q_0$, ${}_1q_0$ and ${}_4q_1$, Egypt

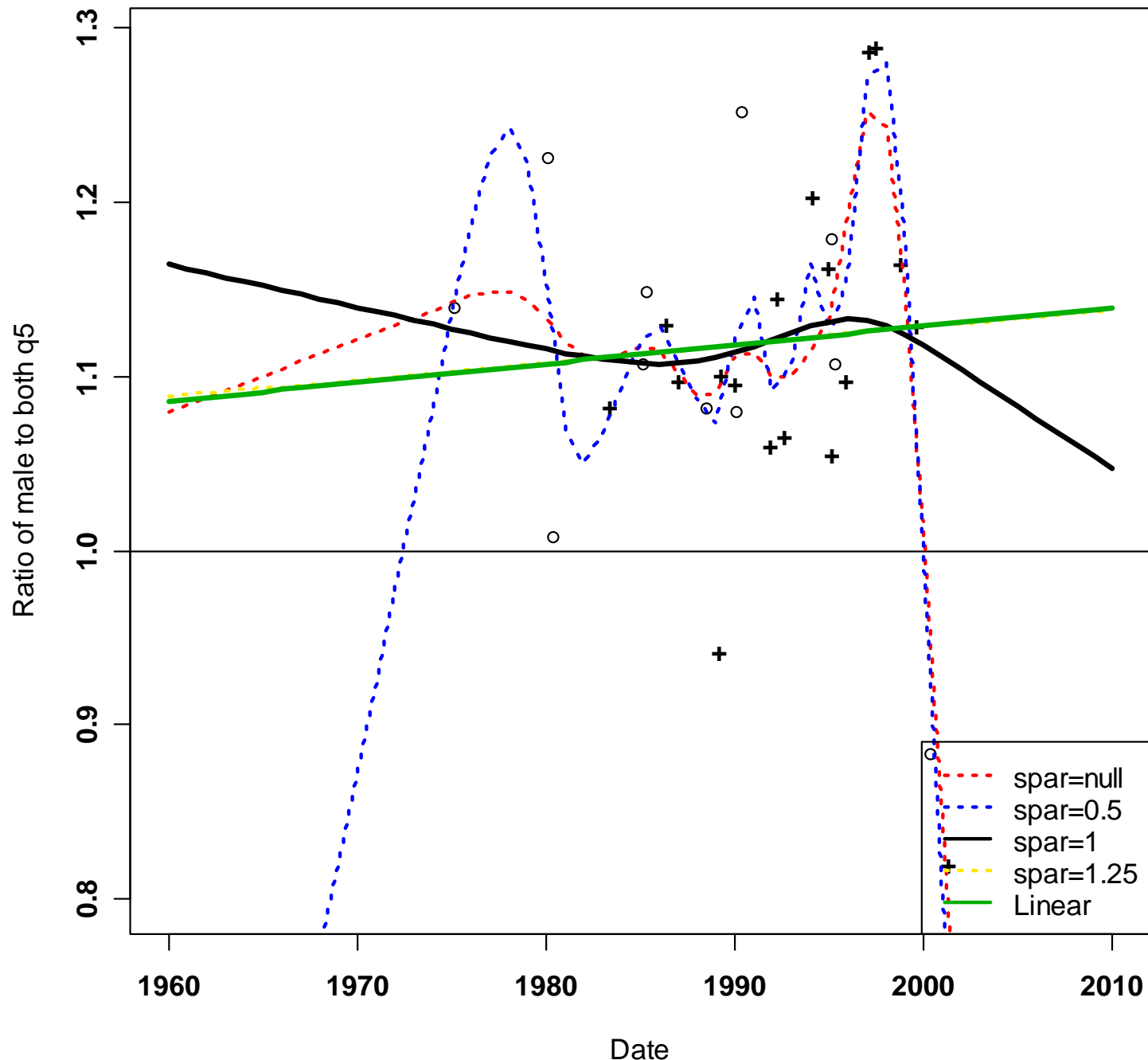


A messier example: Viet Nam

Loess fit to ${}_5q_0$ ratio, Viet Nam



Spline and linear fits to ${}_5q_0$ ratio, Viet Nam



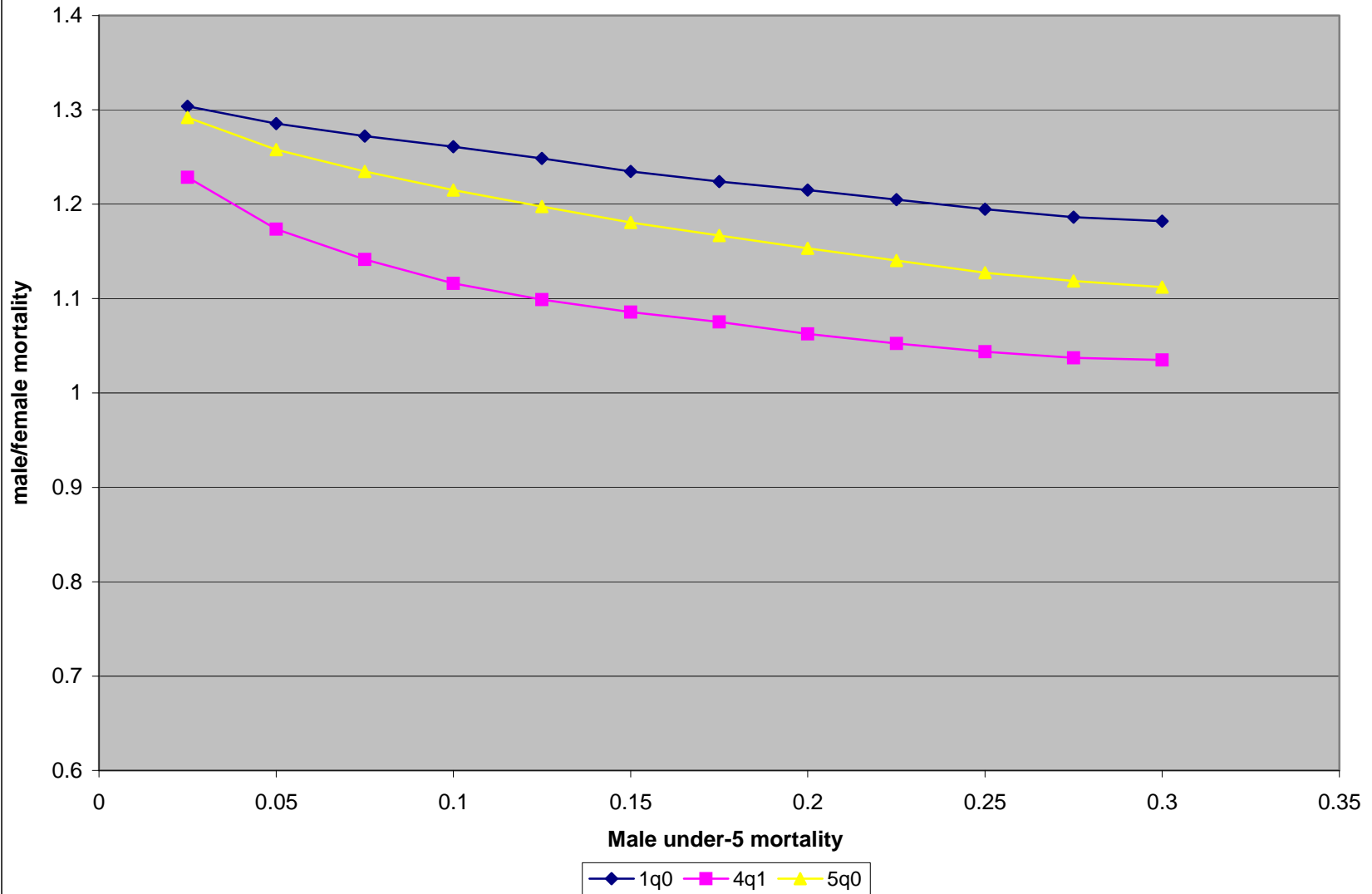
Issues

- Does loess or spline give a real advantage over linear fit?
- What to do when there are not enough data points to fit a trend
 - Simple average?
 - Develop regional models?
- $1q_0, 4q_1$

Future directions

- Country analysis
- Look at regional models
- Index of female disadvantage
- Prepare report by end of 2008

Expected sex ratios from Hill-Upchurch model (male/female)



Egypt vs. expected sex ratios from Hill-Upchurch model (male/female)

