



Early stages of fertility transition accompanying educational expansion: Muslim women in Israel

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Research goals

- Describe how cohort fertility transition proceeds in tandem with educational expansion among Muslims in Israel
- Estimate educational gradients in cohort fertility (CF), parity progression
- Suggest how educational gradients change over the transition



Research contribution

- Use large-scale data to fill in gaps in knowledge regarding levels and trends in CF, parity progression among 1940s thru 1960s birth cohorts
- Examine cohort fertility as related to educational expansion



Background

- Arabs who live inside the State of Israel are a heterogeneous but largely disadvantaged minority
 - we focus today on the Muslim Arab population.
- Demographic aftermath of the 1948 War
- Military administration 1948-1966
- Declines in agricultural sector
- Discrimination - Residential and occupational segregation; labor markets
- Continued strength of patriarchal, extended family system (*hamulot*) during early decades of Statehood



Educational expansion

- Expansion of the Arab educational system following Statehood
 - Separate educational system, instruction in Arabic
 - New laws providing for compulsory primary education (1949)
 - Increasing birth cohorts
- Co-educational system → reductions in gender gaps in primary education



Theoretical considerations: Mass education and fertility transition (e.g. Caldwell 1980)

- Changes in “family economy” are the root causes of fertility transition
- But transformation of “family morality” - relationships between family members – is key to the timing of fertility transition
- Schooling “speeds up cultural change and creates new cultures” of family relationships
- Mass education triggers fertility transition within one or two generations :
 - “Educated mothers usually see to it that their children obtain a larger share of the family pie, and justify this to their husbands or older generation” (p. 229)
- Educational differentials in fertility marked in early stages of transition



Variables and Data Sources

- Data Sources:
- Cohorts 1940-44, 1945-49 and 1950-54: 1995 Census
- Cohorts 1955-59, 1960-64 and 1965-69: 2008 Census (latest available)

- Variables:
- Children ever born to woman
- Number of years of woman's schooling
- Religion (recorded in official government records)

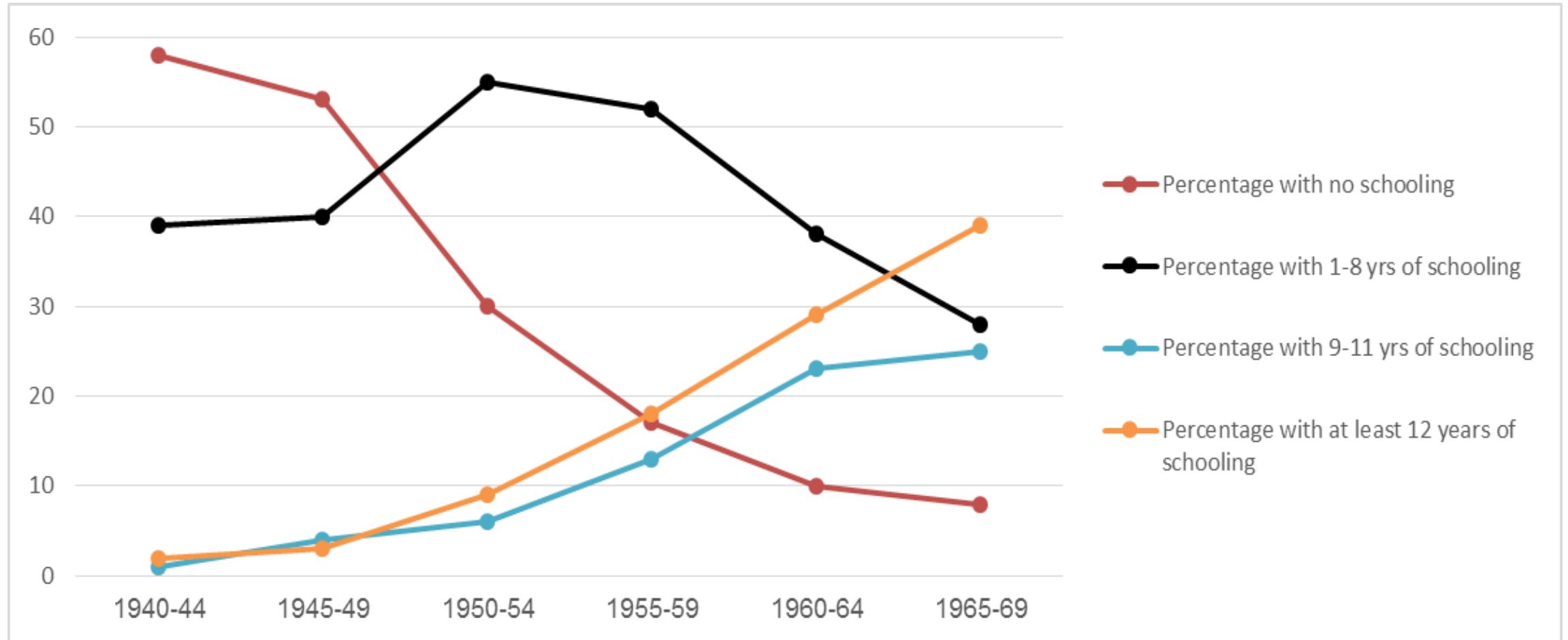


Data problems

- Undercount of the Bedouin population in 1995 (Abuhazira 2010) → underestimates of CF among earlier cohorts.
- Possible underestimate of children who died → underestimates of CF especially among earlier cohorts.
- Education is overstated with time since educational completion (Okun and Friedlander 2005) → underestimate of the size of the educational gradient
- In terms of estimating trends in educational gradient, no consistent pattern of bias because we switch censuses in the 1955 cohort.



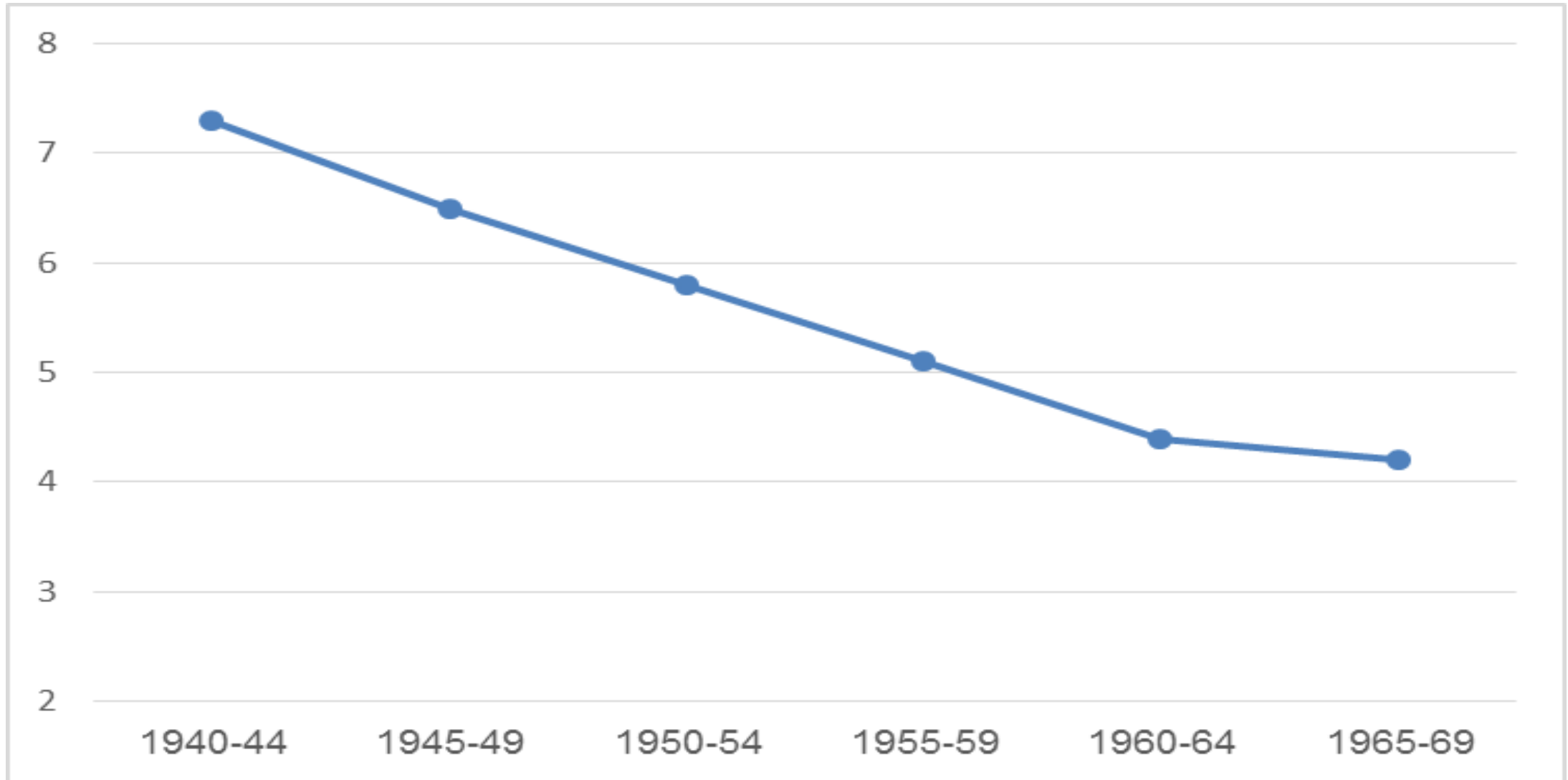
Educational Expansion by birth cohort, Muslim women



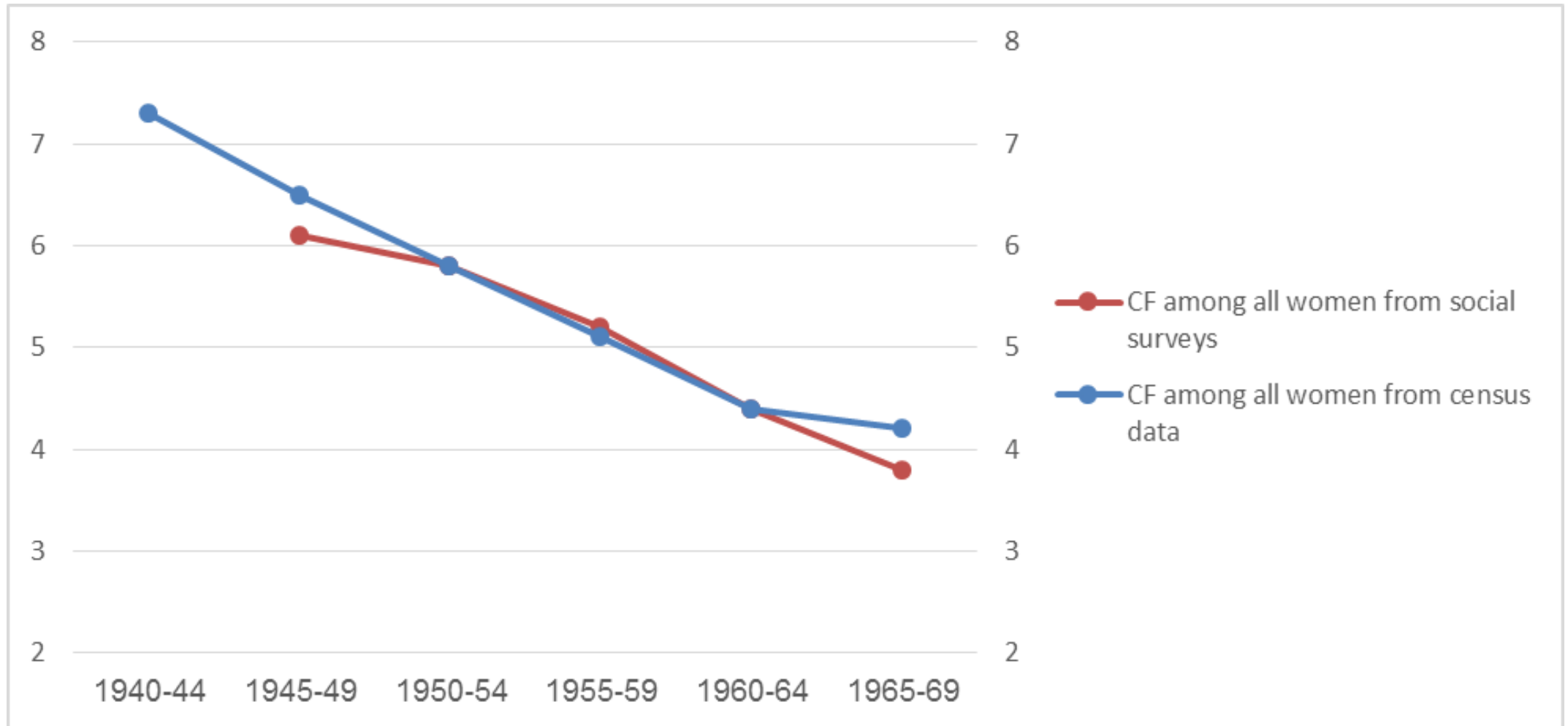
Source: Okun and Friedlander 2005



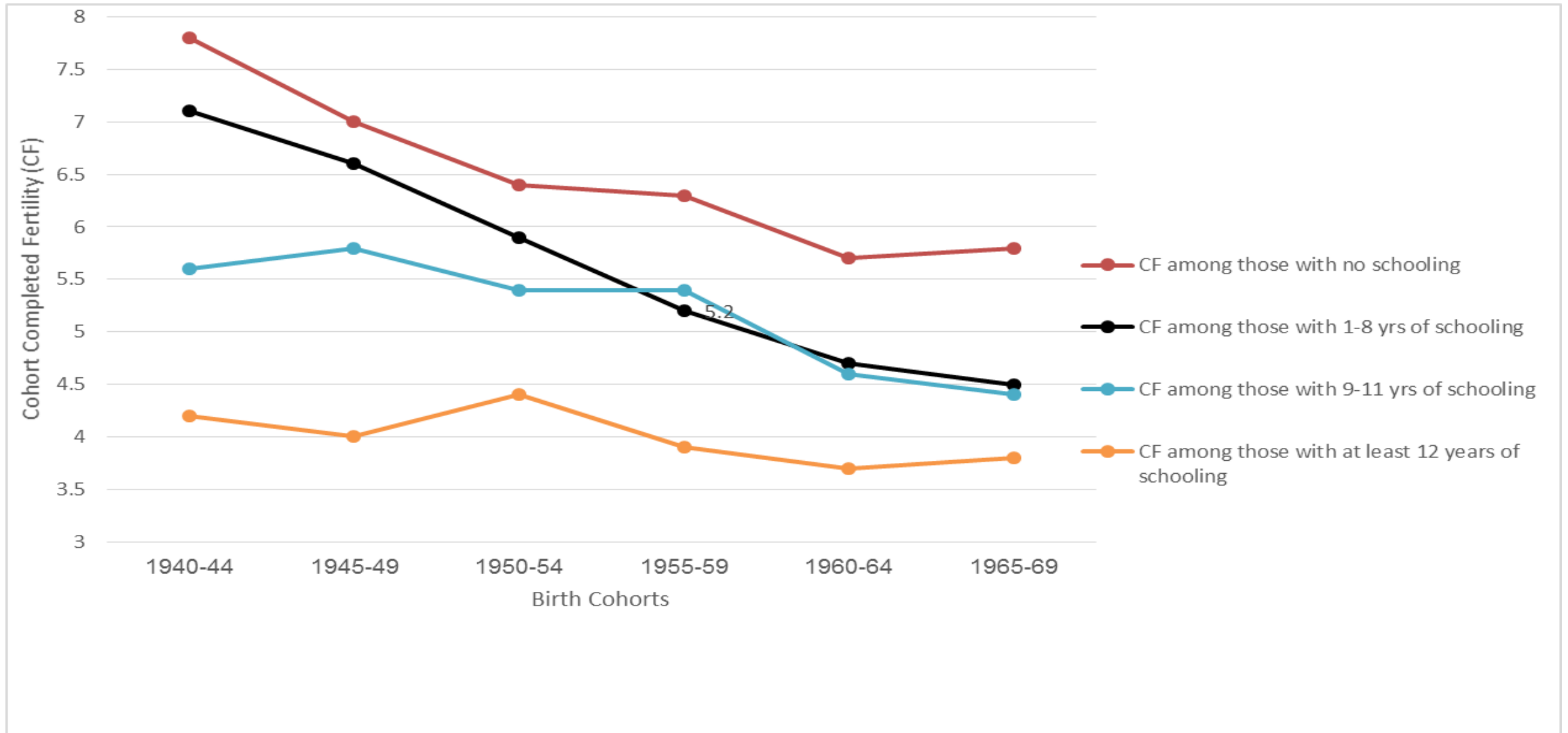
Cohort Completed Fertility (CF)



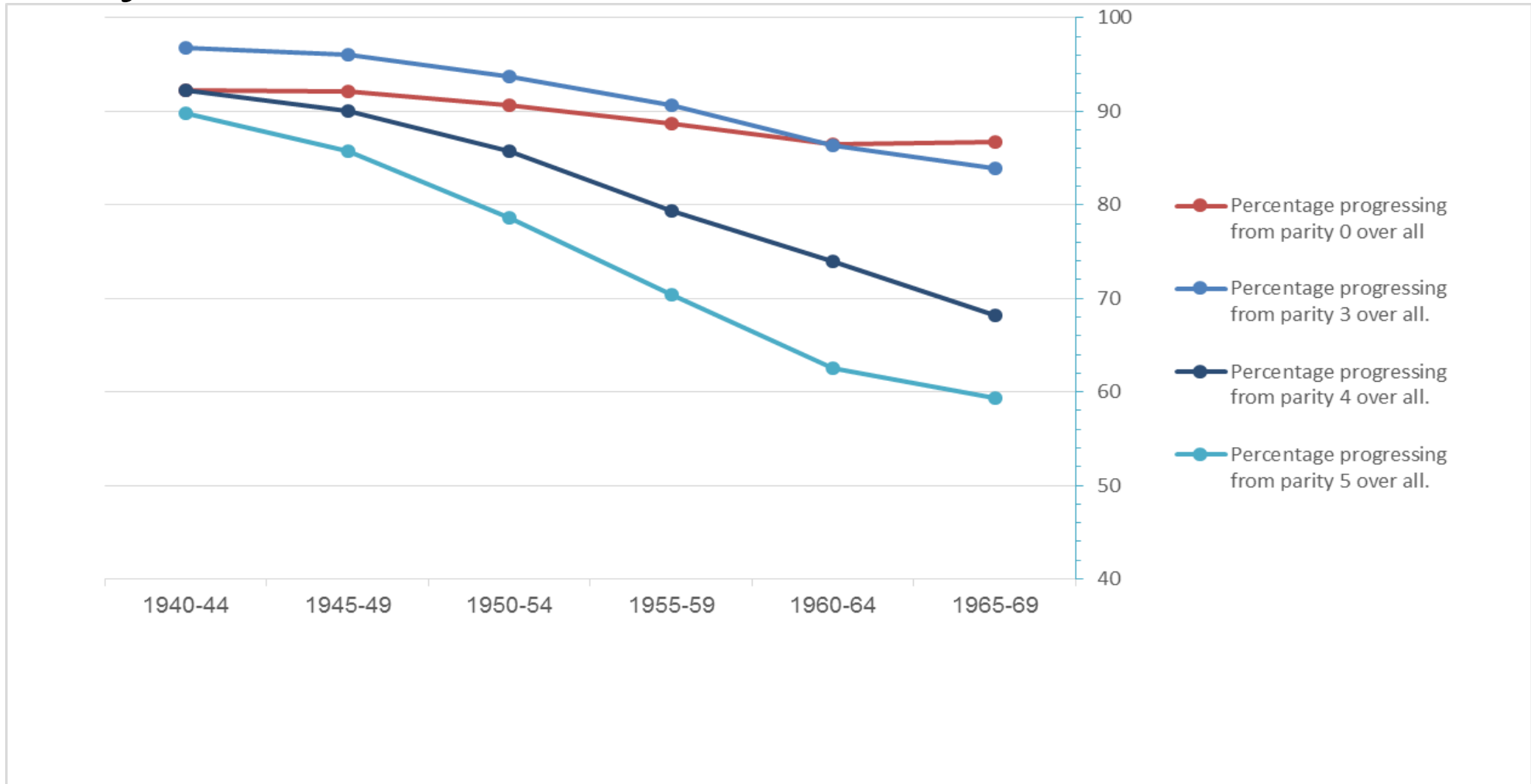
Cohort Completed Fertility (CF): Census data vs. Survey data



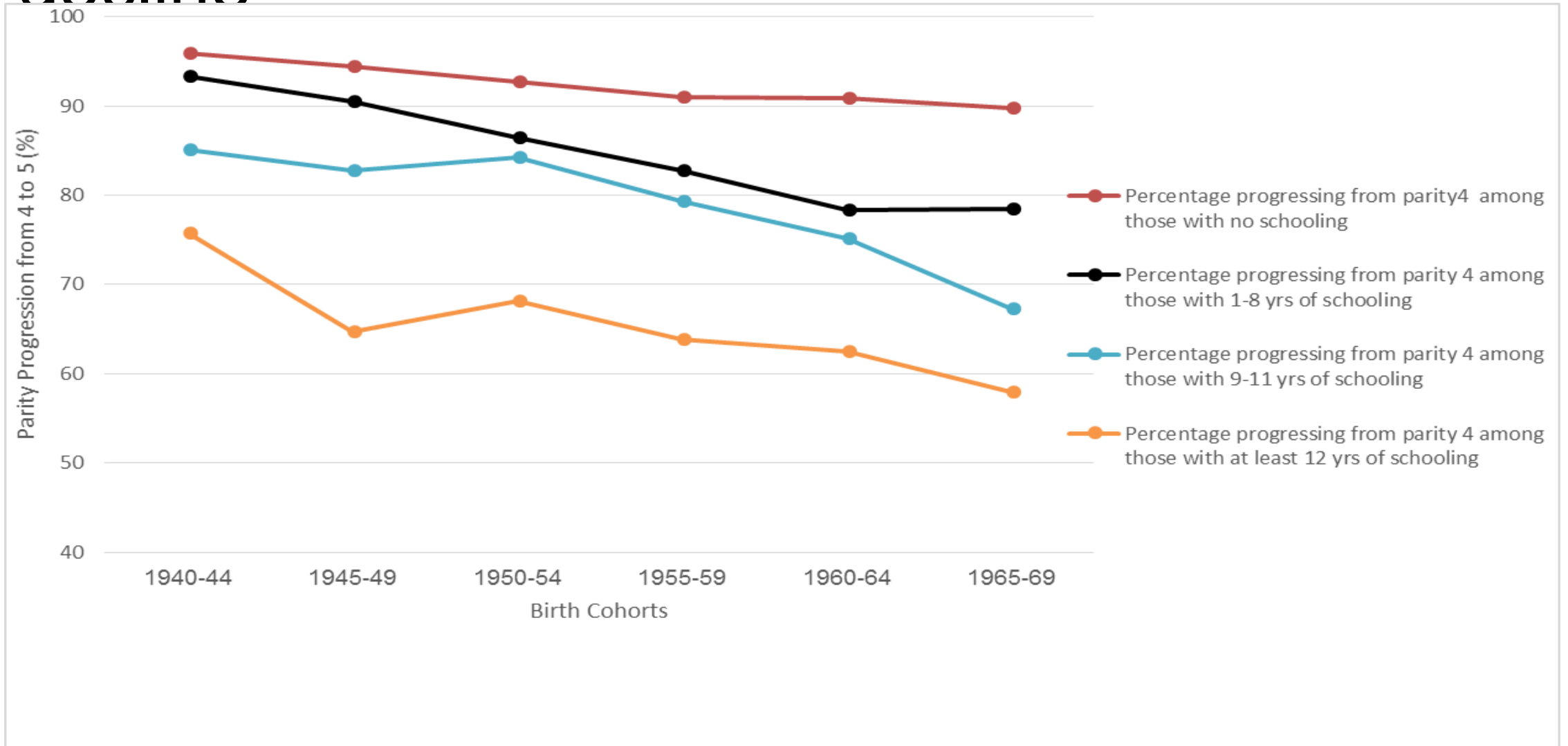
Cohort Fertility by women's schooling



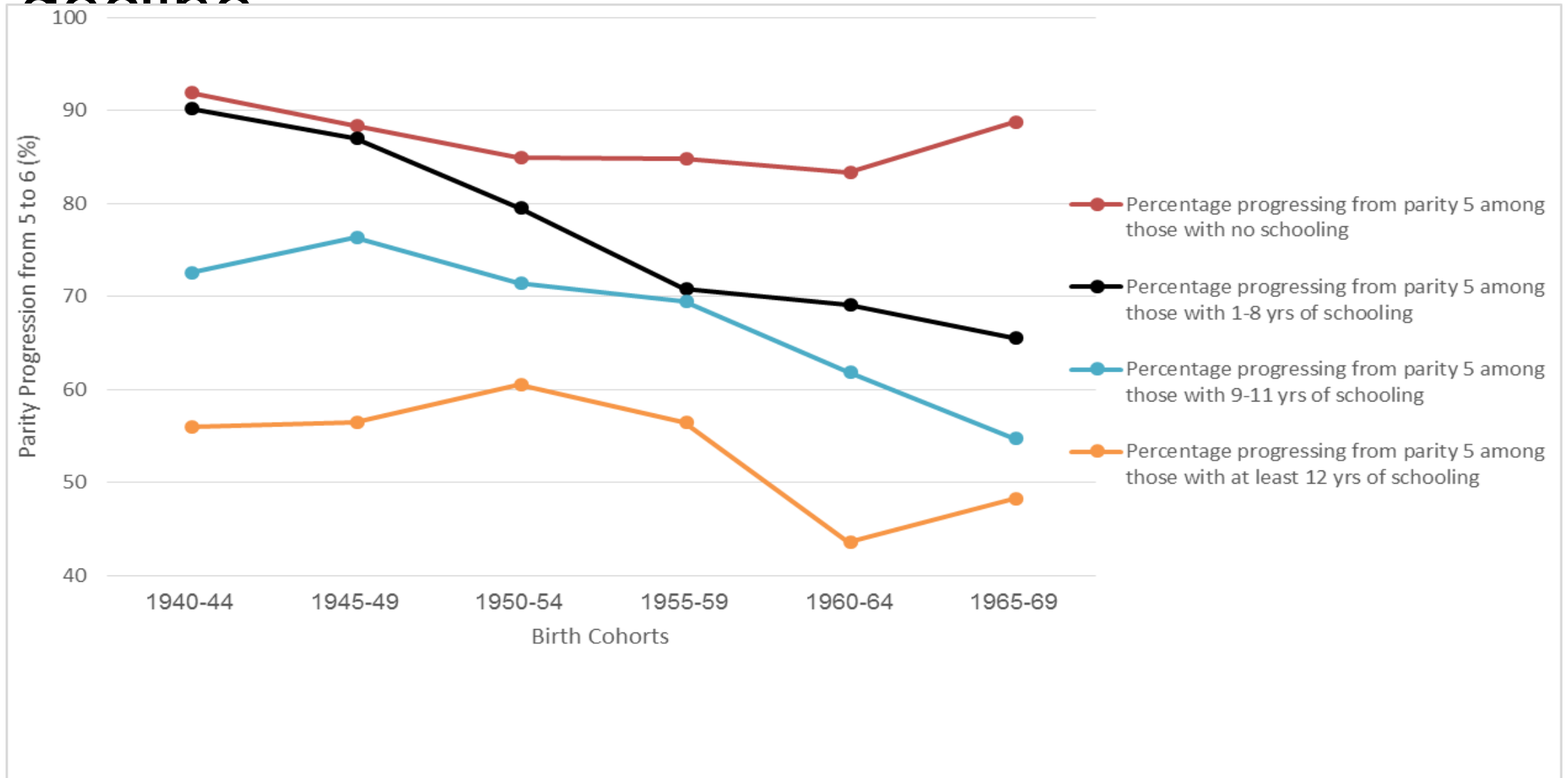
Parity progression ratios decline at each parity



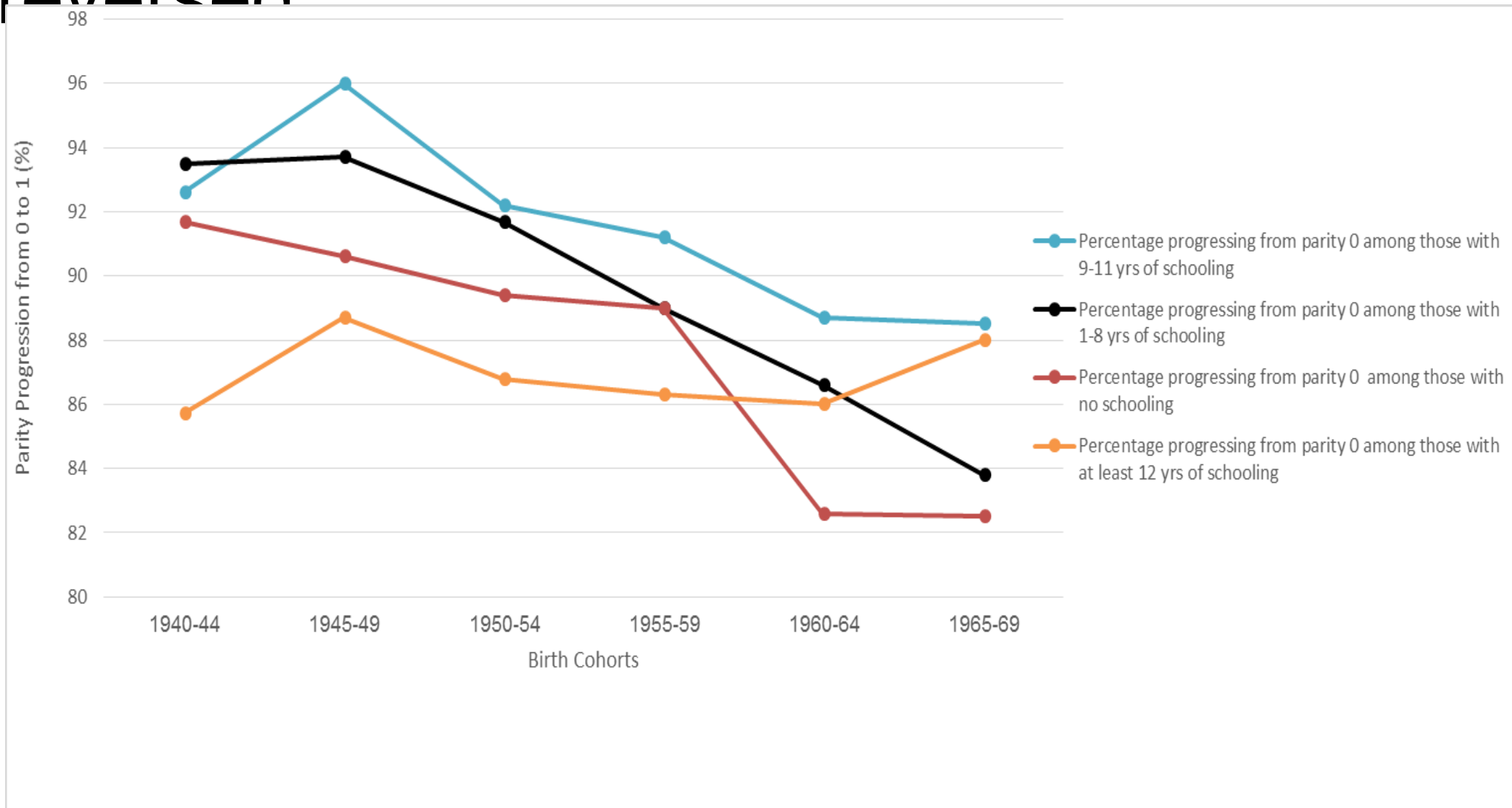
Parity progression from 4 to 5: Negative educational gradients throughout decline



Parity progression from 5 to 6: Negative educational gradients throughout decline



Parity progression from 0 to 1: Negative educational gradients nearly reversed



Descriptive conclusions

- Negative educational gradient in parity progression and CF evident even among earliest cohort, during early stages of fertility transition
- Most educated appear to have been the leaders in fertility transition
- Smallest absolute and percentage decline among the most educated – those with some primary education did a lot of “catching up”
- Convergence in CF to levels closer to those of the most educated, with exception of those with no education (increasingly selective)
- Educational gradients in parity progression and CF remain negative – with the exception of transition to first birth



Future research

- Decomposition of CF decline into changes in population composition by educational level, as well as changes in CF for each level of education
- Decomposition of CF decline into PPR, by education.
- Consider trends and differentials with and without the Bedouin population. Bedouins probably make up about 10% -15% of the population in the relevant cohorts. Their education is low, fertility is high, and reporting is probably poor. Unclear how the issue of reporting affects estimation of differentials and trends.
- Compare trends in census estimates of cohort fertility with those from population registry (Ahmad shows us a little of this)
- Link census records with those in population registry to update information on CF to 1970s cohorts.
- Compare and reconcile period and cohort measures of fertility during fertility transition



- Thank you!