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

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

• 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)

Sources: Israeli census data, 1995 and 2008
Survey estimates based on Okun (2013)
Cohort Fertility by women’s schooling

Sources: Israeli census data, 1995 and 2008
Parity progression ratios decline at each parity
Parity progression from 4 to 5: Negative educational gradients throughout decline

- Percentage progressing from parity 4 among those with no schooling
- Percentage progressing from parity 4 among those with 1-8 yrs of schooling
- Percentage progressing from parity 4 among those with 9-11 yrs of schooling
- Percentage progressing from parity 4 among those with at least 12 yrs of schooling

Birth Cohorts:
- 1940-44
- 1945-49
- 1950-54
- 1955-59
- 1960-64
- 1965-69
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!