

Hewlett Foundation Special
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Comments on Four Presentations
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1. James Phillips and coauthors: “Long Term Fertility Impact of the Navrongo Project in Northern Ghana”

- Social Experiment started in 1994 to 2007 with initial population of 48,036 women
- Four Survey Cycles from 1995 to 2007
- Four Regional Treatment Cells:
 - Culturally designed family planning support program oriented toward men (Zurugela)
 - Field worker nurse delivery of family planning services
 - Both treatments
 - Neither treatment

Multivariate analysis of 90 day parity progression rates (Table 4)

- Controlling for age, four seasons, with and without controls for background characteristics, and interaction with female education (three nested regressions)
- Combined treatment (cell 3) reduces fertility by 10 percent with background characteristics
- Effect relative to the comparison is more significant for Zurugela alone than the field Nurse, at least among the uneducated majority of the population (Table 5)

Importance of focusing analysis on fertility and not on contraception

- Poor reporting of contraception and traditional methods of birth control, such as abstinence
- Substitution of contraception for traditional birth spacing methods
- Concerns that use of contraception is said to be for birth spacing and not birth stopping

Transition to lower cohort fertility may initially involve longer spacing

- The social experiment in family planning in Matlab, Bangladesh was also questioned in terms of its impact because many adopters of modern birth control indicated it was for spacing, but led to stopping
- Welfare gains may occur when contraception replaces abstinence, which might well encourage continued use and consequently limiting family size

Navrongo Social Experiment is located in perhaps the most difficult African environment of the Sahel

- Modest declines of 10 percent in Fertility over 14 years are a critical achievement
- Navrongo is the only family planning social experiment I know of in Africa, and second only to that in Matlab, Bangladesh for which Phillips was a major organizer
- The field of reproductive health and family planning urgently needs other program evaluation efforts to get at reliable fertility effects and long term effects on women and children

If the population field is to compete for donor and government funding, a high priority is to collect and analyze micro socioeconomic data from Africa to evaluate population programs of this social experimental form,

- This suggests to me that the Navrongo Project would be an ideal location for a health and socioeconomic survey, such as NIH funded in Matlab in 1996, but the data must be deposited for public research use with ICPSR at Michigan or a similar open source on the internet
- The lack of African program evaluation data in the public domain is a critical limitation on the strengthening of the health and family planning field. We do not know what works, where, and why.

2. Baschiero, and coauthors: “ The women “work-fertility” link in Africa”

- 18 African DHS are examined at national, rural/urban, regional and eventually projected for study at individual levels
- However, the association between fertility and female employment cannot be interpreted as a causal relationship
 - Because of circularity, or influences in both directions
 - Also both fertility and employment are affected by many unobserved constraints and preferences, which could bias attempts to view correlation as causal

How to identify the potential causal effects behind this association ?

- The researcher must specify a force affecting one variable, such as family planning access which affects fertility, and then use this program access to measure the cross effect on employment, as might be possible in Navrongo
- Alternatively, a regional irrigation or industrialization program might be investigated that affects female (and male) employment, and allows the researcher to assess how female employment spills over to influence fertility

Without a methodology for identifying a causal effect, are there other research strategies?

- Adding more controls if they are independent and not subject to individual or family control does not eliminate bias or mistaken association, though it could be informative
- Adding community averaged variables for fertility or employment to explain these same outcomes among individuals is even less likely to clarify causal relationships, because unobserved variables affect both individual and community averaged variables in the same direction, without clarifying any causal relationship

The relationship between fertility and female employment is thought to be an important factor in the fertility transition, but is rarely studied

- Factors outside of the family and not subject to family choice are required to decompose this form of causal relationship
- Without the guidance of a theoretical framework or a social experiment, the associations in the DHS do not extend our knowledge of the fertility transition, and the DHS lacks the information that might be useful : wage rates, time allocation, employment structure by industry and job type.

3. John Casterline, “Fertility Desires and the Prospects for Fertility Decline in Africa

- Presents a vast amount of information on evolving patterns of age specific and parity specific fertility from the African DHS within each country
- And then these fascinating birth rates are decomposed into wanted and unwanted total fertility rates.
- Suggestive evidence is presented consistent with Caldwell’s hypothesis that spacing of births is an African mechanism for initiating the fertility transition
- If family planning programs could reduce unwanted births, how far would that take us in terms of reducing fertility in Africa?

Changes in the demand for family planning is equivalent to (-) changes in the demand for children, if birth control technology is unchanging

- One estimate of the demand for family planning would be the fertility effect of providing convenient birth control
- Lacking agreement on how to estimate this demand, demographers have created new concepts of **unwanted births, desired fertility, and unmet need for contraception**
- Are these concepts what we want, and do they provide the answers we seek in order to evaluate programs in reproductive health and family planning?

Analysis should be redirected to measuring the effect of population programs on age-specific fertility rates and other family outcomes

- A woman who “did not want a conception that occurred” is not telling us what family planning services would have led her to avoid that conception or have fewer births.
- Fecund women who say they “want no more births, and yet do not use birth control when exposed” may not practice effective birth control even when women are locally offered modern methods at no monetary cost.
- “Desired number of births” does not tell us what fertility would have occurred if the person had local access to a specific family planning program.

- We are asking people to describe their reactions to subjective hypothetical situations, and fail to describe a “counterfactual” with and without a program, which could help us set priorities for establishing such programs given their real public and private cost
- The basic challenge of program evaluation is to understand in a replicable framework the diversity and intensity of *demand for number of children* in various socioeconomic settings in the world, with and without convenient access to specified social service programs

- The program evaluator should focus on the rate of fertility, since to forecast how fertility will perhaps change with desired fertility, unwanted fertility, or even past fertility (parity) requires forecasting, a task demographers have not excelled in.
- I would urge Casterline to analyze age specific birth rates, with the goal to explain their level and change in Africa in terms of regional availability of reproductive health services and family planning.

- Controls in such a program evaluation framework should be limited to those variables that women and their families do not have a hand in choosing, or are set independently and are thought to constrain their choice of fertility
- Estimated of program effects on fertility can then be compared with the public and private costs of those health inputs and birth control, and this disciplined approach has been employed in only a few family planning programs, such as Matlab.

4. John Bongaarts : “Population Growth and Policy Options in Sub-Saharan Africa”

- A demographic decomposition of population growth in Africa into mortality and fertility trends from 2005-2050, and helps to frame policy options to slow population growth in the continent
- I will focus on his decomposition of fertility into wanted and unwanted, and his suggestion that family planning can most directly contribute to reducing the unwanted component of fertility, female schooling and child survival are also determinants of wanted fertility.

- I hope Bongaarts would go further and explain the evolution of wanted and unwanted fertility by the key determinants he notes of female schooling by age, child mortality, and access to family planning and reproductive health services.
- This extension of his exercise could measure program effects, and motivate estimates of the public costs of investments in female schooling, maternal and child health, and family planning as means to slow population growth and modify other development objectives.
- A cost-effectiveness framework could guide policy makers, who might, for example, opt for family planning today in a setting such as Kenya; and stress in Navrongo female schooling and child health as precursors to changing demands for number of children; and possibly reduce urban subsidies for family planning in Capetown, if they were shown to have no effect on fertility or family welfare.

- These social welfare programs might lead to more than declines in fertility, such as improvements in women's health and productivity, intergenerational gains in human capital in children, through early fetal development, healthy birthing, improved nutrition, and protection from infectious and inflammatory diseases, all of which appear to impact later child health and cognitive development, schooling, productivity and late life mortality of the mature child.
- I am clearly describing a research agenda that will not be readily pursued at the national level of observation, but require fitting relationships at the individual level of women, their families, and community policies, though these analyses will be very difficult to execute without social experiments.

Conclusions: Setting priorities in population policy in Sub-Saharan Africa

- The shift in international donor population assistance from family planning and even reproductive health to other development priorities is partly due, I suspect, to the lack of convincing program evaluations in the field, contrasted with the rising standards of program evaluation in low income countries generally, based increasingly on randomized experiments.
- Turning our attention to unwanted births, desired fertility, and unmet needs side-steps the central challenge of accounting for actual fertility, and how realistic programs help women reduce their births voluntarily, achieve more with their lives, and enhance the lives of their children, in terms of health, schooling and economic opportunities.