THE TWO GENERATION URBANITE HYPOTHESIS REVISITED

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Abstract—It is generally accepted that socioeconomic differentials in fertility are minimal among urban couples with nonfarm origins—two generation urbanites. In this paper, we replicate Duncan’s (1965) analysis to see if the two generation urbanite hypothesis holds for more recent cohorts of American women. In four cohorts of women, drawn from three recent fertility surveys, we find no support for the two generation urbanite hypothesis. It appears that the links between farm background, socioeconomic status and fertility were different for the low fertility cohorts of women born in the early 1900s and the more recent cohorts of women who experienced the baby boom.

INTRODUCTION

As formulated by David Goldberg (1959, 1960), the two generation urbanite hypothesis posits both low fertility levels and minimal socioeconomic differentials among urban couples who had no farm background. The observed inverse relationship between socioeconomic status and fertility levels in urban areas, Goldberg argued, was due to the presence of the farm reared population in urban areas. Farm to urban migrants had marked socioeconomic differentials in fertility and were also concentrated along the lower socioeconomic strata of the urban social structure. This latter factor combined with the generally higher fertility of farm to urban migrants contributed to the overall inverse relationship of socioeconomic status and fertility among the total urban population.

In his studies of women with completed fertility in Detroit in the 1950s (Goldberg, 1959) and in Indianapolis in the 1940s (Goldberg, 1960), Goldberg found consistent empirical support for his hypothesis. Socioeconomic differentials in fertility were not completely erased among couples with a nonfarm background, but the relationship was attenuated to modest levels.

In replications among national samples, Freedman and Slesinger (1961) and Duncan (1965) generally confirmed the validity of the two generation urbanite hypothesis, and the hypothesis became an accepted empirical generalization. After noting Duncan’s results, Goldberg (1965) observed, “As we move toward the present, the declining proportion of couples with farm backgrounds may, to some extent, be accounting for the contraction of socioeconomic differentials in fertility” (p. 141).

But there have been hints in the literature that the generalization may not have found complete support. In his first paper on the topic, Goldberg explained the rationale for limiting his study to women age 40 and above—“younger couples were excluded not only because they had not yet completed their families, but because the relationship between status and fertility has been undergoing considerable change in younger generations” (Goldberg, 1959, p. 215, emphasis added). The possibility that these findings may be time-specific (or applicable to only certain cohorts of women) is the focus of this paper. Similar observations have been made by other investigators.

While Freedman and Slesinger’s (1961)
analysis of women from the 1955 Growth of American Families Survey was generally supportive of Goldberg’s hypothesis, the differences were rather small and were found to be conditional on marital duration. Among couples married longer than 10 years, the negative association between wife’s education (as a measure of SES) and fertility (both actual and expected) was equally as strong for the indigenous nonfarm population as for the farm migrant group. A positive association with status appeared only among the indigenous nonfarm population who had been married less than 10 years. Freedman and Slesinger note the differences in the age composition of their sample and Goldberg’s studies and observed, “we may be studying the effects on farm migration on fertility differentials when the influence is growing quite small. Larger differences between the farm migrants and the indigenous urban population may be found in the earlier phases of urbanization” (1961, p. 173). In another study based on data from the 1955 and 1960 Growth of American Families Surveys and the 1965 National Fertility Survey, Bumpass said, “Although among earlier cohorts, negative differentials in fertility were observed for couples with, but not for couples without, farm background, this difference by farm background is not evident for women who were 30–39 in 1965. Perhaps this intercohort change is due to a contraction of rural-urban differences in general” (1969, p. 50). In an explicit effort to extend research on the impact of rural and urban background on fertility differentials, Ritchey and Stokes (1971) found no support for the two generation urbanite hypothesis. In their sample of women, age 35–44 in the 1967 Survey of Economic Opportunity, Ritchey and Stokes found the inverse relationship between socioeconomic status and number of children ever born was substantial among both the urban origin and rural origin population living in urban areas. Faced with unexpected results, Ritchey and Stokes suggested that “it may be due to a convergence of rural-urban differentials” (1971, p. 377).

The present study attempts to unravel some of the contradictory evidence by testing the two generation urbanite hypothesis for a series of successive birth cohorts. It is possible that a pattern that characterized fertility differentials at one time may have shifted in the transition from the low fertility cohorts of women born in the early 1900s to later cohorts that experienced the baby boom. Since Duncan’s (1965) study provides the strongest evidence for the two generation urbanite hypothesis, our study is an explicit replication of his work.

**DATA AND METHODS**

In this study, we analyze data from three national fertility surveys, The 1960 Growth of American Families (GAF) survey and the 1965 and 1970 National Fertility Surveys (NFS). Each of these were national probability samples which gathered extensive data on the fertility and contraceptive attitudes and behavior of adult women. The samples differed in both size (1960 GAF N = 3332, 1965 NFS N = 5600, 1970 NFS N = 6752) and in coverage. For details on the sample design and questionnaire content of the three surveys, see Whelpton et al. (1966), Ryder and Westoff (1971), and Westoff and Ryder (1977).

To make consistent comparisons across surveys, the samples used in this analysis are limited to currently married white women with spouse present, above age 35, with completed or nearly completed fertility. Specifically, the following age groups from the different surveys were selected to represent different birth cohorts of women.

<table>
<thead>
<tr>
<th>Survey</th>
<th>Age Group</th>
<th>Birth Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965 NFS</td>
<td>35–44</td>
<td>1911–1920</td>
</tr>
<tr>
<td>1960 GAF</td>
<td>35–44</td>
<td>1916–1925</td>
</tr>
<tr>
<td>1965 NFS</td>
<td>35–44</td>
<td>1921–1930</td>
</tr>
</tbody>
</table>

For several reasons, this choice of successive cohorts is less than optimal. Be-
cause the cohorts overlap with each other, it is somewhat difficult to detect inter-cohort differences. (Five-year cohorts would not have provided sufficient cases for reliable estimates.) The first cohort of 1911–20 is based upon a 45–54 year old sample while the others pertain to women age 35–44, when fertility may still be incomplete for some women. (This fact was taken into consideration in the construction of the dependent variable.) The restriction of the analysis to white women is necessary because of the limited coverage of black women in the 1960 GAF, and because the interactions of farm background, socioeconomic status and fertility may be different for black and white women. In spite of these differences, we think that a comparison of these different cohorts with each other and the 1962 Occupational Change in a Generation (OCG) sample (the data used by Duncan, 1965) will provide a fair assessment of changes in the relationship between farm background and fertility in different cohorts.

The dependent variable for this study will be the number of children ever born per woman. While most fertility has been completed by age 35–44, the dependent variable also includes any current pregnancies at the time of interview.

The two independent variables are: (1) the educational attainment of the woman (as a measure of SES) and (2) a farm background classification based upon current farm residence and prior farm residence of the husband and wife. Current residence of the couple is based upon a similar question in all surveys, “Are you living on a farm now?” Farm background is measured somewhat differently in the three fertility surveys and the 1962 OCG. The 1962 OCG survey (Duncan) measured farm background by reference to the occupation of the wife’s (and husband’s) father when the respondent was about sixteen years old. If the person’s father was a farmer, she (he) is classified as farm origin. The 1965 National Fertility Survey and 1970 National Fertility Survey asked whether the respondent (and her husband) grew up on a farm (about age 6–16). The 1960 GAF inquired about the type of place of longest residence before marriage. These different measures of farm origins should be roughly comparable.

**DUNCAN’S MODEL**

Our model of analysis is a direct replication of Duncan’s (1965) dummy variable regression equation of farm residence and background on cumulative fertility. Rather than include all possible combinations of current farm residence, wife’s farm origins, and husband’s farm origins (eight categories), Duncan specified a parsimonious model in terms of the additive effects of the three components in the following equation:

\[ Y = a + bR + cHR + dWR \quad (1) \]

where,

- \( Y \) = number of children ever born per woman
- \( R \) = dummy variable for current farm residence
  
  (1 = nonfarm, 0 = farm)
- \( H \) = dummy variable for husband’s farm background
  
  (1 = nonfarm, 0 = farm)
- \( W \) = dummy variable for wife’s farm background
  
  (1 = nonfarm, 0 = farm).

In this equation, nonfarm background of the husband or wife can only have an effect for those who are currently nonfarm residents. (For a study that considers the effects of urban origins on rural residents, see Ritchey and Stokes, 1971.)

The estimated effects of farm residence and farm background as specified in Model 1 are presented for different cohorts of women in Table 1. In addition to the four overlapping birth cohorts from 1911–20 to 1926–35, Table 1 also includes Duncan’s results based upon the cohort of women born from 1900–19 (his sample is of all married couples). The stub of Table 1 identifies the birth cohort of women,
Table 1.—Comparison of Predicted Mean Fertility by the Parsimonious Model and Observed Mean Fertility of White Married Women, Spouse Present, by Detailed Farm Background Classification

<table>
<thead>
<tr>
<th>Birth Cohort (Age at Data Collection)</th>
<th>Data Source</th>
<th>Current Nonfarm Residence</th>
<th>Current Farm Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Husband and Nonfarm Background</td>
<td>Husband Farm Background</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wife Nonfarm Background</td>
<td>Wife Farm Background</td>
</tr>
<tr>
<td>1900-19 (42-61)</td>
<td>(1962 OCG)</td>
<td>2.20 (2.21)</td>
<td>2.53 (2.49)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.45 (2.40)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1911-20 (45-54)</td>
<td>2.36 (2.41)</td>
<td>2.85 (2.60)</td>
</tr>
<tr>
<td></td>
<td>(1965 NFS)</td>
<td>2.53 (2.25)</td>
<td></td>
</tr>
<tr>
<td>1916-25 (35-44)</td>
<td>(1960 GAF)</td>
<td>2.83 (2.84)</td>
<td>3.06 (3.12)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.71 (2.87)</td>
<td></td>
</tr>
<tr>
<td>1921-30 (35-44)</td>
<td>(1965 GAF)</td>
<td>2.91 (2.91)</td>
<td>3.20 (3.18)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.95 (2.93)</td>
<td></td>
</tr>
<tr>
<td>1926-35 (35-44)</td>
<td>(1970 NFS)</td>
<td>3.03 (3.02)</td>
<td>3.14 (3.15)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.95 (3.00)</td>
<td></td>
</tr>
<tr>
<td>Change</td>
<td>(1900-19) - (1926-35)</td>
<td>0.83 (0.81)</td>
<td>0.61 (0.66)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.50 (0.60)</td>
<td></td>
</tr>
</tbody>
</table>

Note: These results are based upon the ordinary least squares equation: \( Y = a + bR + cH + dW + eR \) where: \( Y \) is the number of live births of the women (plus current pregnancies)
\( a = \) the intercept
\( R = \) current residence, \( R = 1 \) if nonfarm, \( R = 0 \) if farm
\( H = \) husband’s farm background, \( H = 1 \) if nonfarm, \( H = 0 \) if farm
\( W = \) wife’s farm background, \( W = 1 \) if nonfarm, \( W = 0 \) if farm.

1965 National Fertility Survey.
their age at time of interview, and the data source for each.

These results indicate a fairly close fit between the predicted effects of farm background and the actual observed levels. The widest differences are less than .3 of a child, and most differences are less than .1 of a child. It seems that this parsimonious model adequately captures the variation that would be represented in five variables (or five categories). We now turn to the elaboration of this parsimonious model of farm background which includes the effects of socioeconomic status and the interactions of socioeconomic status and farm background in a test of the two generation urbanite hypothesis.

**TESTING THE TWO GENERATION URBANITE HYPOTHESIS**

The basic question to be addressed is whether there are socioeconomic differentials in completed fertility among urbanites without farm background and whether this relationship has changed across successive birth cohorts of American women. This question can be formally addressed by a comparison of two models: (1) an additive regression model of farm background and wife's education on fertility, and (2) an expanded model that allows for differential (interaction) effects of education for those with and without farm background.

The first additive model is:

\[ Y = a + bR + cHR + dWR + f_iFE_i \]  

\[ \text{for } i = 1, \ldots, n \]  \hspace{1cm} (2)

where all terms are defined as in Model 1 and \( E_i \) represents a series of dummy variables for each category of wife's educational attainment. In Model 2, the effects of education are assumed to be equivalent across the population, regardless of farm background.

The two generation urbanite hypothesis, however, suggests that there will be an interaction of education (a measure of SES) and farm background effects on completed fertility, namely that education will have an effect on those with a farm background, but none (or at least less) for those with a nonfarm background in urban areas. The interactive model used to test this hypothesis includes the following elements:

\[ Y = a + bR + cHR + dWR + g_iFE_i \]  

\[ \text{for } i = 1, \ldots, n \]  \hspace{1cm} (3)

\[ + h_iFE_i \]  

\[ \text{for } i = 1, \ldots, n \]

where all terms are defined as in Model 1, but there are also two sets of educational dummy variables. The first set \((FE_i)\) specifies the educational effects for those couples who have never lived on a farm (two generation urbanites). The second set of educational variables \((FE_i)\) pertain to all couples with either farm residence or some degree of farm background. A comparison of the two sets of educational coefficients in Model 3 and a test of the increment in variance explained from Model 2 to Model 3 will provide evidence on the validity of the two generation urbanite hypothesis.

Table 2 presents the results of the least squares estimate of Models 2 and 3 for each of five overlapping birth cohorts of currently married white women, including Duncan's (1965) published results. While Duncan's educational classification included seven categories ranging from 0–4 years of schooling to 16 or more, we have created a smaller five-fold educational classification [0–8, 9–11, 12, 13–15, and 16 or more years of schooling] due to the smaller samples in the GAF and NFS surveys. The only effect of this classification appears in the attenuation of the regression coefficient for the lowest category of educational attainment of the wife.

In Table 2, Duncan's published results provide the strongest empirical support for the two generation urbanite hypothesis. The basic additive model (Model 2) shows the expected inverse relationship between education and fertility, net of the co-variates of farm residence and farm background. But Model 3, with separate coefficients for those with and without
Table 2.—Comparison of Additive Models With Models Including Wife’s Education and Farm Background Interaction Terms in Predicting Completed Cohort Fertility of Currently Married White Women With Spouse Present

<table>
<thead>
<tr>
<th>Birth Cohort</th>
<th>Metric Regression Coefficients</th>
<th>Wife’s Educational Attainment Expressed as Deviations of the Grand Mean</th>
<th>( R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grand Mean</td>
<td>R</td>
<td>HR</td>
</tr>
<tr>
<td>1900-19 (1962 OCG)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>3.20</td>
<td>-.56</td>
<td>-.23</td>
</tr>
<tr>
<td>Model 3 Nonfarm</td>
<td>3.17</td>
<td>-.54</td>
<td>-.23</td>
</tr>
<tr>
<td>Farm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1911-20 (1965 NPS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>2.67</td>
<td>-.17</td>
<td>-.31</td>
</tr>
<tr>
<td>Model 3 Nonfarm</td>
<td>2.67</td>
<td>-.07</td>
<td>-.61</td>
</tr>
<tr>
<td>Farm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1916-25 (1960 GAF)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>3.02</td>
<td>-.82</td>
<td>-.19</td>
</tr>
<tr>
<td>Model 3 Nonfarm</td>
<td>3.02</td>
<td>-.92</td>
<td>.10</td>
</tr>
<tr>
<td>Farm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1921-30 (1965 NPS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>3.08</td>
<td>-.60</td>
<td>-.20</td>
</tr>
<tr>
<td>Model 3 Nonfarm</td>
<td>3.08</td>
<td>-.63</td>
<td>-.13</td>
</tr>
<tr>
<td>Farm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1926-30 (1970 NPS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>3.07</td>
<td>-.26</td>
<td>-.08</td>
</tr>
<tr>
<td>Model 3 Nonfarm</td>
<td>3.07</td>
<td>-.36</td>
<td>.13</td>
</tr>
<tr>
<td>Farm</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

a = Only includes those with a current nonfarm residence and nonfarm background for both wife and husband.

b = The number of unweighted cases in the appropriate sub-sample in each of the surveys (excluding cases with missing data). For the 1911-1919 cohort (age 45-54 in the 1965 NPS) the appropriate weighted sample was used in the analysis.

* = The increase in variance explained \( (R^2) \) from Model 2 to Model 3 is statistically significant at the .05 level.

Source: Same as Table 2.

farm backgrounds, shows a quite different pattern. For those with a farm background (residence or either spouse having farm origins), there is a difference of almost 2.4 children between those in the lowest and highest educational categories. For those with no farm background (neither wife nor husband), only slight educational effects on fertility are evident. While women with post-secondary
Figure 1.—Partial Unstandardized Regression Coefficients of Education on Fertility for Women by Farm and Nonfarm Background for Selected Birth Cohorts

Schooling do have slightly lower fertility, the differential is less than half a child. If socioeconomic differentials among two generation urbanites had not disappeared entirely, they appeared to be greatly attenuated. The interaction terms (farm background by wife's education) added a statistically significant increment to the variance explained (compare $R^2$ in Model 3 and Model 2).

The results from the four other cohorts of women are much less supportive of the
two generation urbanite hypothesis. While these samples only include white
women, analysis based upon all women (currently married with spouse present)
showed similar results. In all cases, an inverse relationship between education
and fertility was evident both for women with a farm background and without a
farm background.

This does not mean that the education-fertility relationship is identical for farm
and nonfarm background women. (In fact, Model 3 adds a statistically signifi-
cant increment to $R^2$, relative to Model 2, for several of the cohorts.) But the in-
crement to $R^2$ appears to be the result of different patterns of fertility, not because
of the absence of an inverse relationship among nonfarm background women.
These patterns are not monotonic, and sometimes it is only one category (usually
0–8 years of schooling) that provides the inverse relationship for nonfarm women.
For the most recent cohorts of women, the inverse relationship, although of lesser
magnitude, remains evident for both farm and nonfarm women.

Figure 1 presents these patterns in a more concise form. There is no consistent
pattern of farm-nonfarm differences in the slopes of education on fertility. While the
first cohort, 1900–19, based upon Dun-
can's analysis, clearly supports the two
generation urbanite hypothesis, the other
cohorts provide more ambiguous evi-
dence. While there may be modest sup-
port from the 1911–20 cohort or perhaps
the 1921–30 cohort, the evidence for his
hypothesis seems to decline with succeed-
ing cohorts.

DISCUSSION

Earlier research by Goldberg (1959,
1960), Freedman and Slesinger (1961),
and Duncan (1965) has suggested that one
of the most salient factors in accounting
for a reduction in differential fertility has
been the decline of the farm and farm
origin population. As farm families with
their traditionally larger families grew
fewer in number, the larger family also
was to become a rarity. Moreover, the
large flow of farm migrants to urban areas
contributed to the substantial socioeco-

nomic differential in fertility in urban
areas. Indeed, the results of these earlier
studies showed that two generation ur-
banites—urban residents with no farm
background—had negligible fertility dif-
ferentials by socioeconomic status.

However, these studies were all based
upon cohorts of women whose child-
bearing careers were largely completed
prior to the baby boom years of the post-
war era. Subsequent studies by Bumpass
(1969) and Ritchey and Stokes (1971)
based upon later cohorts of women en-
countered findings at odds with the two
generation urbanite hypothesis.

Our study, in an explicit replication of
Duncan's (1965) study, has examined the
two generation urbanite hypothesis for a
series of successive birth cohorts ranging
from 1911–20 to 1926–35 based upon
three fertility surveys taken in 1960, 1965,
and 1970. In no subsequent cohort do we
find unequivocal support for the hypothe-
sis. If the discrepancy were limited to one
survey, one might attribute these findings
to differences in samples, question word-
ing, or some other related measurement
issue. Our findings indicate a shift in the
relationship between farm background,
education, and fertility across birth co-
horts of American women.

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