# Household Structure and the Production of Urban Poverty: Findings from Outer Beirut

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**Abstract**

This study examines the link between family structure and income poverty, using recent household survey data from three 'impoverished' communities – two Lebanese suburbs and one refugee camp -- in the outskirts of Beirut. The survey, consisting of some 3300 households, is part of a larger study, Urban Health Study, currently being undertaken by the Center for Research on Population and Health (CRPH) at the American University of Beirut during. The paper begins by providing a profile of poverty using various measures of relative and absolute poverty as well as other forms of subjective deprivation. The paper then investigates the relative merit of household structure and family dynamics, human capital, and ethnicity on poverty incidence using a series of binomial regression models. The findings show that poverty is pervasive in outer Beirut, with estimates ranging from 24 to 40 percent depending on the measure used. Clear differences by community are also evident, with the camp population being the most vulnerable. The findings provide evidence for a strong link between poverty and human capital, but the picture concerning household structure and other demographic 'constraints' is mixed. . Household size tends to affect particularly the material well-being of members in the household. Loners tend to be better off while married couples with children 0-14 of age are especially vulnerable when controlling for other factors. The findings suggest also that the economically inactive, persons living with a less educated household head, the one spouse with children 0-14 of age, married couples with children aged 15 or more, persons living with presence of chronic diseases, and Palestinian refugees are vulnerable. Some policy implications of the findings for populations living in 'uncertain' urban environments are discussed.

## Introduction

Is household structure a significant predictor of poverty, or are households more likely to adapt to compostions that accommodate their economic circumstances? If household composition significantly determines economic deprivation, which types of households are more prone to such deprivations? Is the household even the appropriate unit of analysis or does collecting data at this level inherently lend itself to flawed analyses by clouding the disparate realities of individuals within the household structure? How do these relationships differ in the context of the 'new urban economy?'

Empirical studies that address these questions have yielded incosistent results. For example, while it has long been held that nuclear households display lower levels of poverty than extended households, this relationship does not necessarily hold true in the case of female-headship (p.11). A review of the literature by Haddad, Pena, and Slack concludes that in most cases, female-headed households tend to be poorer than male-headed households (p.11). Another review of 67 studies by Buvinic and Gupta (1994, p.12) found that in three-quarters of the cases, female-headed households tended to be poorer than male-headed households. With growing interest internationally on gender inequality within the household and its impact on living standards, such findings call into question the appropriateness of discussing household structure singularly. Is household structure an adequate predictor of economic well-being or is this outcome sufficiently confounded by other factors such as intra-household distribution of resources and gender inequality?

Furthermore, analysis based on simple household types can be misleading because they do not account for multiple earners. Increasingly, the 'new urban economy' makes it difficult for one-earner families with children to make ends meet. Families follow various paths for economic survival in these 'unfamiliar' urban environments, including reliance on secondary earners and acquisition of human capital such as education, health, and labor skills.

Cynthia Llyod's 1995 study on household structure and poverty critically examines the connection between household structure and poverty (ref). Using cross-country and cross-level data, Lloyd explores this relationship by taking into consideration two dimensions simultaneously: sex of head and complexity (nuclear vs. extended). She then examines the determinants of household formation and affiliation, the existence of economic links between households, and the distribution of resources between households to call into question the direction of association between household structure and poverty and to draw inferences about the nature of poverty within households. Llyod concludes "that there is nothing inherent in a household's structure that predicts poverty, or, alternatively, promises resource adequacy (p.26)." Further, she claims, "household structure is likely to adapt to economic circumstances and, in many cases, to be a dimension of individual welfare (ibid)." Finally, she recommends that poverty be assessed directly at the individual level rather than at the household level since "important differences between men and women and between adults and children, which bear fundamentally on issues of equity in society, are obscured using the household approach (p.27)."

We use Lloyd's research as a point of departure for our study. When both sex of head and complexity are taken into account in our sample population, do we arrive at similar conclusions regarding the insignificance of household structure as a determinant of poverty? If Lloyd's conclusions hold true, then we would expect no significant differences to be present between household type and poverty levels. We would predict similar levels of poverty among

varying household compositions, adjusting for other relevant factors such as household demographics, demographics of the head, human capital variables, and social context.

While our purpose is not to provide a comprehensive model of poverty determination, we do seek to test Lloyd's hypothesis that household structure is not a significant predictor of poverty when other appropriate factors are taken into account.

## The Context

Lebanon is a country of approximately 4 million people. About 90% of Lebanese live in urban areas, and the majority of these reside in metropolitan Beirut. Beirut is considered a 'big' city by United Nations standards (?), claiming over 1 million inhabitants, or roughly a quarter of the country's population. Though a relatively small country in terms of population size, Lebanon is particularly unique in its religious diversity, with Muslims, Christians, and Druze all well represented in society and government. The country has undergone many important demographic changes since its independence more than 50 years ago. In particular, major shifts took place during and after the civil war that lasted from 1975-1990. During this period, entire villages in the south were displaced, Palestinian refugees were excluded to a greater extent from the political arena, and overall living conditions in the country deteriorated.

More than 10 years later, many of the movements that took place during the war continue to be visible. In some cases, evidence from villages in rural parts of Lebanon or Palestine can be found in the names of neighborhoods, streets and buildings in the cities. This is particularly the case on the outskirts of Beirut where a large proportion of internally displaced families eventually settled down. Our study draws from three ethnically diverse communities in this section of Beirut: Naba'a, Hayy Sellom, and the Bourj el Barajneh refugee camp. Following is a brief description of each of these communities.

## Data and measures

The data come from a survey of 2,790 households in three underserved and rapidly changing communities in Outer Beirut: Naba'a, Hay el-Sollom, and the Bourj el-Barajneh refugee camp. Since no sampling frames were readily available at the initiation of the study, one was constructed using a stratified two-stage cluster sampling design. Fieldwork was implemented during the summer of 2002 by trained interviewers selected from within each of the three communities. The overall response rate was 88 percent, with good quality data collected.

Indicators were drawn from the household instruments covering demographics and migration, education, general health and insurance, income and work. In cases where individual level data were needed, the household head was chosen to represent the household.

### Constructing the poverty line using a relative measure

Conventional definitions of poverty identify the poor as those individuals who have insufficient income to maintain a minimum standard of living (insert refs here). While numerous attempts have been made to delimit what may be considered "minimum," there continues to be little agreement on this matter. One common approach is to establish a list of basic needs that includes, for example, food, clothing and shelter. Other lists also include items such as healthcare, education, and transportation. An absolute poverty line may then be calculated based

on the targeted living standard and defined as the level at which an individual in society is unable to meet this basic level of subsistence. Alternatively, 'the poor' may also be defined in relative terms. The most common method for accomplishing this end is to calculate the poverty line as 50% of the median income. Those who fall below this line are then identified as poor. We did just that.

Two measures of disposable income were available in this study: reported income from salary/wages and reported income from other sources including employer, household, street-vending, home-produced food, belongings or property, gifts from relatives in Lebanon or abroad, and gifts from organizations. These various income sources were computed to calculate total net income. Imputations were then made to correct for missing values using the hot deck method. Finally, total imputed income was adjusted using the OECD equivalence scale.

The poverty line for a household of (?insert ref hhold here?) is approximately 1,009,000 LL per year.

**Independent variables**

Our main independent variables are derived from household composition and household demographics. Since our primary interest is in testing the relationship between household structure and economic well-being, a detailed list of dummy variables is used to reflect various household types within these communities. In general terms, the three types of households analyzed are loner, nuclear, and extended. Nuclear households are broken down further to look at those with: one spouse and children 0-14 years only, one spouse with children 15+ years only, married couples only, married couples with children 0-14 years only, married couples with children 15+ years only, and married couples with any children 0-15+ years.

To measure household demographics, conventional indicators for gender and marital status of the household head are used, in addition to household size, number of earners, and percentage of dependents. Gender of the household head is measured as a dichotomous variable of female or male. Marital status is determined as either single, married, or divorced/widowed/separated. Household size is used as a dichotomous variable, comparing households with six or more members to those with less than 6 members. This was based on sample size considerations as well as evaluations of bivariate relationships to the outcome. Number of earners was grouped as zero, one, or two or more. The burden of dependence is measured as the percentage of household members who were less than 15 years or older than 65 years.

We use several measures of human capital, most of which are common in the literature. These include age, age squared, education level, labor force participation, occupation, presence of disease and presence of disability. In all cases, these measures reflect status of the household head only. Educational levels are distinguished as either none, elementary, intermediate, or secondary or more. ILO guidelines are used to determine labor force participation (ILO, 1990). For the purposes of this study, a dichotomous variable is used indicating household heads as either in or out of the labor force. An occupation variable is used to distinguish the skill level of economically active persons. Highly skilled occupations include "legislators/managers," "professionals," technicians and associate professionals," and "clerks." Skilled occupations include "service and sales workers," "crafts and related workers," "plant and machine operators," and skilled workers in "elementary occupations." Unskilled occupations include workers in "fishery or agriculture" or unskilled positions in "elementary occupations." Presence of chronic disease and presence of disability were each measured as dichotomous variables, with household heads indicating either "yes" or "no" for each of these conditions, respectively.

Finally, the context is captured by two variables: one a combined measure of nationality and religion, and the other a simple measure of community. The combined nationality-religion measure distinguishes between Lebanese Christian, Lebanese Muslim, Palestinian Muslim, and others. The three communities in this study are Hayy Sellom, Naba'a and the Bourj el Barajneh refugee camp, all located on the outskirts of Beirut.

**Findings**

*(General overview/summary)*

*Bivariate analysis*

Does household structure impact poverty levels in these communities? To answer this question, we began by exploring the associations between relative income poverty and various household types independently. Table 2 reports the poverty rates by household composition, household demographics of head, overall household demographics, human capital and social context indicators.

Overall, 27.8% of loner households, 23.8% of nuclear households and 20.3% of extended households fall below the poverty line, although the differences between these groups are not statistically significant. Disaggregating the data on nuclear households, however, reveals more complex dynamics. Among households categorized as nuclear, those composed of one spouse with children 0-14 yrs of age reported the highest levels of poverty (32.8%), followed by married couples with children 0-15+ yrs of age (30.6%). This constitutes significantly higher levels of poverty than the average for this category (23.8%). Married couples with no children made up the lowest levels of poverty, reporting only a 15.5% poverty rate, well below the average poverty level in these communities (24.1%). Differences between these groups were highly statistically significant.

Age of the household head had little bearing on poverty levels, though some slight differences can be seen between the oldest (65+ yrs) and youngest (up to 30 yrs) households, with a poverty level differential of about 6 percent. Female-headed households report only slightly higher levels of poverty than male-headed households (25.3% and 23.1%, respectively), although this difference is not statistically significant. The majority of widowed/divorced/ separated households are made up of women, however, and represent the highest level of poverty (27.8%) in this demographic group. Households headed by single individuals represent the lowest levels of poverty (17.7%).

As expected, household size plays a significant role in poverty levels, with nearly one third of all households containing 6 or more individuals falling below the poverty line as compared to about one-fifth of households with 5 or fewer individuals. This is likely due to the high rates of dependents in larger households who rely on a limited number of earners for subsistence. Households with dependency rates of fifty percent or more are 11% more likely to be poor than households with no dependents. Households with no earners are approximately twice as likely to be poor (40.2%) as those with one or two earners (22.0% and 20.3%, respectively).

Education reduces poverty among this sample, but not always. While the poverty rate is nearly 30% for heads with less than elementary education, it is nearly 15% for those with intermediate education as well. Income poverty seems common among the educated middle-class. Significantly, while participation in the labor force reduces poverty (10% lower rates for

those in vs. out of the labor force), nearly one fifth of households whose heads are employed still fall below the poverty line. Households with heads who are employed as skilled workers are as likely to be poor as households with heads that are employed as unskilled workers (22.6% and 20.0%, respectively). Households whose heads are in highly skilled positions are significantly less likely to be poor, with only 12.4% of this group falling below the poverty line. Presence of a chronic disease or disability in the household significantly predicts poverty status, perhaps due to the debilitating effect this phenomenon has on participation in the labor market.

Poverty varies significantly by ethnicity and community, with Palestinians faring the worst economically among the study population. This may be due to several factors, most prominent among them political exclusion, or the inability to acquire citizenship. Without formal access to the Lebanese labor market, this group is marginalized from most income-generating opportunities to support livelihood.

*Multivariate analysis*

**Summary and conclusions**

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