

## Female Status and Infant and Child Homicide Victimization in Rural and Urban Counties in the U.S.

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### **Abstract:**

Studies consistently show that female labor force participation is a correlate of infant and child homicide victimization. Research and theory supports the notion that as women's economic status improves, children are safer. Yet few existing studies make use of feminist perspectives to explain child homicide. Further, homicide studies have focused heavily on urban areas leaving a lacuna of understanding in the literature regarding rural areas. This study explores the connection between absolute and relative female economic status and infant and child homicide victimization in both rural and urban U.S. counties. Results show that absolute female economic status is positively associated with infant and child homicide in urban areas, but not in rural areas. I argue that in rural areas, stronger collective sentiment and less differentiation diminishes the effect of women's status on child homicide. While rural areas are characterized by harsh economic realities, these realities are nevertheless shared among men and women, decentering the link between child victimization and women status.

**Keywords:** Gender | Women | Children | Child homicide victimization | Rural areas | Urban areas | Economic status

### **Article:**

#### **Introduction**

Macro-level studies of homicide are beginning to incorporate demographic and space dimensions into their analysis, but few of these studies disaggregate homicide victimization rates by age. The small body of literature on age specific homicide victimization shows that the correlates of homicide tend to be different for different age groups, and that infant and child homicide victimization rates display patterns that depart markedly from those of adult homicide victimization rates [16, 17, 48]. One of the more intriguing and consistent findings that emerges in studies on infant and child homicide victimization is that the status of females is influential in

predicting the homicide rates of infants (aged 0–1) and children (aged 1–5). Female labor force participation positively predicts infant homicide victimization,<sup>1</sup> and to a lesser extent child homicide victimization, at the cross-national [9, 15, 21, 22, 26], country [14], and state level [6]. While this relationship has demonstrated stability across samples that incorporate a variety of time and geographic parameters, the link between female economic status and infant and child homicide remains, in many ways, a black box. The specific aims of this study are to (1) continue the inquiry into the relationship between female economic status and the victimization of children, (2) broaden the terrain of geographic inquiry by testing this relationship in both urban and rural areas, and (3) employ feminist perspectives to explain this relationship.

This analysis is the first to examine differences in infant and child homicide victimization across rural and urban areas. The data employed in this analysis are infant (age 0–1) and child (age 1–5) homicide victimization data in rural and urban counties in the U.S. from 1998 to 2002, taken from the FBI's Supplemental Homicide Reports. I employ negative binomial regression to answer (1) Is the absolute and relative economic status of females' status related to infant and child homicide victimization in urban areas? and (2) Do these relationships hold in the rural model? A feminist framework is evoked to interpret the results.

## **Background**

### **Infant and Child Homicide Victimization**

Homicide researchers have increasingly refined the demographic and situational categories of homicide. We have disaggregated homicide by race, age, and gender of offenders and victims, and disaggregation by the type of homicide: intimate partner, stranger, and intraracial [3, 4, 23, 41, 42, 52]. But the homicide of infants and young children has been largely ignored. Relative to their populations, infants and young children are a particularly "at risk" age group, especially infants. Of the estimated 2,000 children in the U.S. under the age of 18 who die of child abuse and neglect each year, approximately 40% are less than 1-year old, and the majority is younger than 5 years [32].

The risk of homicide is clearly connected to age, but we do not fully understand why. Infant and child homicide differs in a number of ways from other age groups, which indicates that they should be analyzed separately [16, 33, 48]. When victims of homicide are children, there is tremendous parity among the gender of the victim, which is a pattern unique only to this age group. Older child victims are overwhelmingly male dominated. With homicide of children in particular, men and women are about equally likely to be the perpetrators [42]. There are other reasons to study the homicide victimization of infants and children exclusively. Research reveals weak correlations between infant and child homicide victimization rates and adult homicide victimization rates [48]. And when infant and child homicide rates are plotted on a graph their levels and trends often behave differently from those of other age groups [16]. Researchers know that at the aggregate level infant and child homicide victimization rates often behave

independently of adult homicide rates and in multivariate analyses they often respond to different sets of predictors.

As mentioned earlier, the economic status of women influences the likelihood of child homicide victimization. Multivariate analyses shows that female labor force participation positively predicts infant homicide, and in some cases, child homicide [6, 9, 14, 15, 21, 22, 26]. This does not mean that women who work outside the home are more likely to kill their kids. Instead, the researchers who have uncovered the relationship between female labor force participation and child homicide interpret it as a guardianship issue or an economic stress issue. Since women still tend to be primary caregivers of children, increased female labor force participation could signal reduced guardianship of children, leaving children more vulnerable to victimization. Female labor force participation can also be an indicator of economic hardship, a condition frequently found to be connected to violence and victimization.

In sum, existing research shows that (1) infant and child homicide victimization is unique enough to warrant study independent of other age groups, (2) at the structural level, infant and child homicide victimization is a function of women's economic status, and (3) this relationship holds across a variety of spatial configurations. We need a fuller empirical and theoretical understanding of the link between infant and child homicide victimization and the economic position of women.

#### The Study of Homicide Victimization in Rural Versus Urban Areas

Macro-level research on homicide has focused almost exclusively on urban areas. Only recently have researchers confronted this "urban bias" and begun exploring variation across rural and urban lines. Recent research has compellingly demonstrated that rural homicide and urban homicide have different correlates [29,30, 31, 34, 53], leading researchers to conclude that results based on urban areas cannot be generalized to the entire country [30].

A study of rural homicide challenges traditional paradigms in homicide research in several ways. Rural communities exhibit social characteristics that often differ from those of urban communities. For example, racial heterogeneity and income inequality are often included in models of macro-level homicide in urban areas, but rural areas tend to be racially homogenous and the range of income is narrower [27]. Rural inhabitants are more likely to have close-knit social networks that are stronger than their urban counterpart [18]. Further, cultural norms may differ in rural environments (e.g. acceptability of physical discipline) compelling researchers to explore the implications of how these differing structural and cultural environments shape victimization. Gender and family dynamics differ in rural and urban areas as well. Rural areas in the U.S. can be characterized as having traditional family structures that are more intact, enduring, and larger than in urban areas [38]. The difference in gender systems between rural and urban areas has the potential to inform the theoretical and empirical link between women's social position and the victimization of children.

## Theoretical Perspective

While there is no doubt a confluence of structural factors that affect homicide, research has shown that the status of females has important implications for a variety of types of homicide [4, 36, 50, 51, 54]. Homicide [8] studies employing gender stratification as the explanatory framework are typically concerned with the victimization of women. Yet gender inequality theories are useful in uncovering the structural dynamics that underlie child homicide victimization as well. Indeed, feminist perspectives have the potential to explain violence of multiple forms [12, 54].

The current study extends a gender stratification framework to explain infant and child homicide victimization based on the following logic: first, at the country level as women's status improves, infant mortality and child well being also improve [19, 28, 45]. Second, in multivariate analyses female labor force participation positively predicts infant homicide, and in some cases, child homicide [6, 9, 14, 15, 21, 22, 26], further indicating that the economic position of females, as a social condition, is intertwined with child risk and survival. Third, the value gender systems assign to females runs in close parallel with the value assigned to children. Clearly, the devaluation of women is a barometer for the devaluation of children. Finally, the victimization of infants and children share a number of characteristics with the victimization of women. Most notably, the victimization of both females and children is likely to take place in the family by a member of close relation. Given that the value, well-being, and survival of children are inextricably bound to the structural position of females, it is reasonable to assume that children's risk of violence is conditioned by gender specific social forces.

Feminist perspectives are useful in determining how female status is bound up with infant and child homicide victimization in a several ways. First, the absolute economic status of women ultimately affects power dynamics in the home. The home is the locus of the victimization of children. Women's economic status impacts their power at the household level since lack of income control means women have less control over fertility practices, and overall decision making in the home [7]. Family decision making, family safety, and control over family resources are bound to the economic power women possess. When the economic status of females is low, it can cause a ripple effect that affects the well-being of children [7].

Second, the relative economic status of women indirectly shapes the social climate that leaves children with varying degrees of vulnerability. Gender inequality theories take as given a certain amount of antagonism between the sexes. Such theories also assume that, as the gender inequality gap narrows, these antagonisms abate.<sup>2</sup> As gender antagonisms attenuate, overall family discord would be less likely [1]. Indeed, child victimization has been linked to tension in the home and spousal disagreement [5]. As the status of females relative to males improves, this equalization would reduce family friction resulting in a safer environment.

## Rural–Urban Differences

Women's status in rural areas is paradoxical. While women's absolute status in rural areas is worse than in urban areas, rural families experience more stability and interdependency than do urban families [46, 55]. Rural women are less likely than urban women to be college educated. Rural women make, on average, a lower hourly wage than urban women and rural women are more likely to be mothers. Fertility rates are higher in rural areas and rural women are less likely than urban women to have elective abortions [2]. Marriages in rural areas are more stable, and rates of divorce and female headed households are less frequent in rural than in urban areas. Women in rural areas marry and bear children earlier than in urban areas [38]. The higher fertility rates, lower age of childbearing, and lower abortion rates may suggest that childbearing may be status enhancing in rural areas [47].

Rural men are also more likely to occupy lower economic status than their urban counterparts. Like rural women, rural men are, overall, undereducated and underpaid, resulting in a shorter economic distance between males and females in rural areas. It could be that this very homogeneity surrounding disadvantage results in a kind of gender stability. Gender ideology in rural areas is likely more rigid and traditional than in urban areas, but is nevertheless stable. Following the logic of gender stratification theories, the narrow gap between men's and women's social position should result in less status frustration.<sup>3</sup> It follows that this homogeneity would result in strong collective sentiment surrounding traditional gender ideology, solidifying gender relations, and rendering gender systems entrenched and stable. In communities where the structural position of males and females is similar, where both males and females occupy low social status, social cohesion will be high. The paradox is that while rural areas are characterized by harsh economic realities, these realities are nevertheless shared, decentering the link between child victimization and women's status.

It is likely that the victimization of children in rural areas is connected more to general social factors than gender specific ones. Female disadvantage in rural areas is likely tempered by broader homogeneity, where divisions among social groups are less tenable. Indeed, Emile Durheim argued that greater social integration results in a dilution of gender differences [13]. The stronger the collective identity, the less differentiation there is between males and females. Conversely, where there is a greater complexity of economy, social life, and division of labor, there will be greater gender differentiation, as in urban areas. That is, the influence of women's economic position is more elaborate in larger, complex societies.

In sum, research and theory supports the notion that as women's absolute and relative economic status improves, children become safer. While this relationship is no doubt universally true, the effect is likely mediated by different types of gender systems. Specifically, the link between women's economic status and child homicide victimization is expected to be accentuated in urban areas due to the greater differentiation of gender roles and weaker collective sentiment in such areas. In rural areas, stronger collective sentiment and less differentiation diminishes the effect of women's status on child homicide. Since the structural position of women in more

differentiated communities should have a greater impact on infant and child homicide victimization, it is expected that:

### *H1*

Gender equality will have an ameliorative effect on infant and child homicide victimization. This effect will be stronger in magnitude in urban than in rural areas.

### *H2*

Absolute female economic advantage will have an ameliorative effect on infant and child homicide victimization. This effect will be stronger in magnitude in urban than in rural areas.

## **Sample and Measures**

The units of analysis in this study are rural and urban counties in the U.S. The U.S. census reports that there are 3,141 counties in the U.S. The final sample in this study was  $N = 3,137$ , after omission of counties lacking a population aged five or less. Homicide data were collected from the FBI Supplemental Homicide Reports (hereafter SHR). SHR data are widely used in homicide research. The merits and limitations associated with the use of official data have been widely discussed and will not be repeated here [24].

County data are more complete than for any other geographical unit and are becoming increasingly common in macro-level research on violence (see review in 53). Counties tend to have distinct government and economic structures. County level data capture residents living outside cities and yet are small enough to retain intercounty variation. When larger units of analysis are used, such as states or SMSAs, the different context of “rurality” is washed away at such levels of aggregation.

There is currently not complete agreement on what constitutes a rural area. A review of the literature on urban and rural homicide shows that “rural” and “urban” are classified differently from study to study. Most studies set the rural cutoff at 20,000 or 25,000 county inhabitants [36]. Others set the boundary at 100,000 and account for other defining characteristics like proximity to urban centers [10, 40]. This line defining rurality is still arbitrarily drawn, and yet it is a matter of great importance since researchers have noted that the way in which “rural” is defined may influence the results [29]. Because there is not yet a clear precedent for determining a rural county, and because researchers have found that the way in which rural is defined affects the outcome of the analysis, I divide the counties in this analysis into four categories, all of which follow previous studies: urban, rural, most urban and most rural. Urban consists of counties that are equal to or greater than 100,000 people. The Rural set of counties includes a population of 99,999 or less. The most urban category is set at 250,000 or more, and the most rural division is 20,000 persons or less.

The use of quartered models explores the possibility that rural and urban areas need to be classified by “degrees of rurality and urbanity.” In a 2001 Report on Community Health in Rural and Urban Areas, the U.S. Department of Health and Human Services reported that the highest death rates and unhealthiest lifestyles for children and young adults were in the most rural and most urban counties. So, the issue may not be just a matter of rural versus urban, but the degree of rural and urban; the extremes of which possibly constitute the most criminogenic, high-risk environments.

The dependent variable used in this analysis is homicide counts of infants aged 0–1 and children age 0–5. These counts were aggregated across the 5-year period, 1998–2002. In the case of rare events such as infant and child homicide, aggregating homicide counts increases the sample size [34, 52].<sup>4</sup> While homicide data are generally considered to be the most valid of all crime data, infant and child homicide in particular is likely to be underestimated. This underestimation occurs because it may be difficult to separate infant and child homicides from accidents. In the case of neonaticide, death may never come to the attention of the police if a pregnancy was hidden or if family and community members were unaware of the birth. An additional concern is the extent to which gender equality may affect the reporting and detection of infant and child homicide. In areas where gender equality is greater, social service and criminal justice institutions may be sensitized to abuse and social disruption in the family where infant and child homicide would be more likely to come to the attention of officials.

Independent variables were collected from census 2000 summary tape file 3 (SF3). The key conceptual categories are: female economic status relative to males, female economic status, population heterogeneity and poverty. Drawing on previous literature, three measures of female economic status were identified: percent of females with a college degree, percent of divorced females, and percent of females in the labor force. Female economic status relative to males was measured by the ratio of females to males in professional and managerial positions. Population heterogeneity was measured by the percent of the population that is non-white. Poverty was measured by the percent living below the poverty line. A dummy variable for south was also included. Because the risk of homicide will be greater in counties that have larger populations of children, I have adjusted for the number of children who are at risk in each county by including in each model the log of the population of children aged 0–5. Multicollinearity diagnostic tests were examined by running an OLS procedure. All VIF values were below 4, the conventional threshold in the literature.

## Analysis

Analysis of homicide at the county level typically employs ordinary least squares regression. Since the dependent variable in this study, infant and child homicide victimization, involves counts of rare events, calculating rates would yield unstable measures. Yet the counts alone are highly skewed, violating the assumptions of OLS. Poisson distributions are frequently used for rare and unlikely events [37]. The probability of a count is determined by a Poisson distribution,

where the mean of the distribution is a function of the independent variables [37]. Since the most basic Poisson model, the conditional mean, is equal to the conditional variance, a negative binomial regression model is used to correct for this. Negative binomial regression is the most appropriate fit for this type of data [See 35, 39].

## Results

Table 1 displays descriptive statistics for the variables in the analysis. A few features of this table are of note. The average female divorce rate is higher in urban areas, and women in urban areas are much more likely to be college educated. Poverty is much higher in rural areas, but there is greater variation in poverty in rural areas, as indicated by the higher standard deviation. For this reason, the poverty variable was logged for analyses in the rural and most rural models. Urban areas are more racially diverse than rural areas and women are only slightly more likely to be in the labor force in urban areas than in rural counties. While the ratio of females to males in professional and managerial positions is similar in both rural and urban lines, there is greater variation in this value across rural counties.

**Table 1** Descriptive statistics

	Rural					Urban				
	<i>N</i>	Min	Max	Mean	SD	<i>N</i>	Min	Max	Mean	SD
Total counts of infant and child homicide victims	2,615	0	21	0.21	0.744	522	0	153	4.34	11.126
Southern state	2,615	0	1	0.45	0.498	522	0	1	0.36	0.481
Percent non-white	2,615	0	95.01	14.57	16.675	522	2	79	20.63	14.755
Percent of persons living below poverty	2,615	3	57.21	14.74	6.623	522	2.12	35.87	11.189	5.0115
Percent divorced females	2,615	0	19.55	9.547	2.197	522	5.66	16.52	10.951	1.781



Ratio of females to males employed in professional and managerial positions	2,615	0.51	2.51	1.142	0.204	522	0.77	1.46	1.021	0.08694
Percent of college educated females (associates degree or higher)	2,615	7.85	63.16	20.76	6.862	522	14.7	60.97	30.459	8.626
Population aged 0–5	2,615	17	11,120	2,053	1,844.32	522	5,407	886,580	33,678.29	56,557.22
Percent females in labor force	2,615	0.69	77.19	50.06	6.759	522	10	69.94	54.442	6.218

Table 2 presents the negative binomial regression results predicting infant and child homicide victimization. Model 1 shows results for the urban sample. Model 2 shows the results for the rural sample and models 3 and 4 report results for the most urban and the most rural, respectively.

**Table 2** Negative binomial regression models predicting infant and child homicide victimization counts<sup>a</sup> in rural, urban, most rural, and most urban counties in the U.S.

	<b>Model 1 urban</b>	<b>Model 2 rural</b>	<b>Model 3 most urban</b>	<b>Model 4 most rural</b>
South	-0.063 (0.109)	-0.108 (0.128)	-0.135 (0.147)	0.760 (0.310)**
Percent non-white	0.013 (0.004)**	0.014 (0.004)***	0.025 (0.006)***	0.013 (0.009)
Percent living below poverty level	0.032 (0.014)*	-0.190 (0.201)	0.040 (0.020)*	-1.6735 (0.522)***

Percent divorced	0.064 (0.028)*	0.048 (0.029)	0.051 (0.036)	0.075 (0.062)
Ratio of females to males in professional occupations	-0.395 (0.649)	0.009 (0.351)	0.233 (0.971)	-0.085 (0.590)
Percent of females with a college degree	-0.030 (0.008)***	0.004 (0.010)	-0.053 (0.012)***	0.000 (0.026)
Log population at risk	1.040 (0.069)***	0.966 (0.075)***	0.978 (108)***	0.610 (230)**
Percent of females in labor force	0.035 (0.012)**	-0.023 (0.012)	0.083 (0.021)***	-0.056 (0.026)*
$X^2$	383.99	269.61	175.02	41.66
$P$	0	0	0	0
-2LL	-1,071.3444	-1,273.2043	-614.98096	-319.8409
Pseudo $R^2$	0.152	0.0957	0.1246	0.0611

<sup>a</sup>Unstandardized regression coefficient with standard errors in parentheses

\* 0.05; \*\* 0.01; \*\*\* 0.001

The first hypothesis was gender equality will have an ameliorative effect on infant and child homicide victimization. This effect will be stronger in magnitude in urban than in rural areas. This hypothesis is not supported since the lone gender equality measure did not materialize as significant in any of the models. The second hypothesis stated: absolute female economic advantage will have an ameliorative effect on infant and child homicide victimization. This effect will be stronger in magnitude in urban than in rural areas. The results do support this hypothesis. Female labor force participation, percent of females divorced, and percent of females with a college degree were positive and significant in the urban model, but not in the rural model. The implications of these findings are discussed in the next section.

Looking at just the urban model, a number of control variables emerge as statistically significant. Percent non-white, and percent living below the poverty level both had a statistically significant effect in the expected direction. These findings are consistent with past literature and suggest that while the status of females may be a unique predictor of infant and child homicide, child homicide victimization is also determined to some extent by the same structural factors that we find in general homicide studies [9].

Only one indicator, percent non-white, was associated with rural infant and child homicide rates. This is also the only variable that is common to both the rural and urban sample. The results in the most urban model remained the same as the results in the urban model. However, there were

substantial differences between the most rural and rural model; results which also turned up a few unexpected relationships. The southern indicator, female labor force participation, and poverty were significantly associated with the dependent variable in most rural counties of less than 20,000 persons. Oddly, poverty, and the female labor force participation variable are in the negative direction.

Female labor force participation was positive in the urban model and negative in the most rural model. The connection between infant and child homicide victimization and female labor force participation is very likely either an economic stress issue or a guardianship issue when the relationship is positive. In the case of the most rural model, child homicide victimization declines as women's labor force participation increases. This very likely means that female labor force participation in the smallest communities signals improvement in female economic status. While in urban counties in the United States, female labor force participation is more a characteristic of hardship. Essentially, female labor force participation needs to be understood relative to the existing economic conditions in most rural and urban areas. According to these results presented here, when more women are in the labor force in the most rural counties in the United States, infant and child homicide declines. This could mean that since the most rural areas in the U.S. experience profound rural poverty, that when women enter the workforce it signals an overall improvement in economic conditions, alleviating economic stress and subsequently reducing the risk of victimization. Conversely, in urban areas, these results show that as female labor force increases, so does child homicide victimization. This relationship suggests that female labor force participation, as a social condition, impacts children victimization differently in urban areas, where female labor force participation is a barometer for greater economic stress and reduced guardianship of children.

The negative poverty effect in the most rural model is not entirely surprising, given that rural communities cope with poverty in unique and inventive ways that differ from urban coping strategies [46]. Economic disadvantage is an intuitive indicator of homicide victimization, yet most researchers are unable to uncover a straightforward relationship with poverty. This is probably due to the fact that poverty is not neatly distributed across space. Lee and Bartkowski [34] found, contrary to expectation, that an index of economic disadvantage only predicted homicide rates in urban areas, not rural ones. We know from the individual level descriptive literature that infant and child homicide victims tend to come from socially disadvantaged families [11, 44], but these findings almost always are derived from urban analyses. This negative result could also mean that in very small communities poverty increases the density of social networks, increasing oversight and guardianship of children.

These results echo a common finding in general homicide studies, that race is an important explanatory variable for infant and child homicide. The measure of racial heterogeneity, percent non-white, emerged as significant in both the urban and rural samples. This finding warrants an investigation of the importance of race and geographic area on infant and child homicide victimization. For example, Horton et al. [25] find that rural African Americans face greater

disadvantage than urban African Americans. Future research might explore this race specific effect in greater depth.

Finally, caution should be exercised in interpreting the results since the pseudo  $R^2$  measures are relatively low, particularly for the rural models. It should be noted, too, that pseudo  $R^2$  measures in negative binomial regression models are not equivalent to measure of  $R^2$  found in OLS models. The STATA software which performed this analysis produces a measure called McFaden's  $R^2$ . McFaden's  $R^2$  is a goodness of fit measure, also known as a "likelihood-ratio index." This measure compares the likelihood for two models: the intercept only model to the model with the predictors.

## **Discussion and Conclusion**

This study sought to explore the relationship between female economic status and infant and child homicide by employing both absolute and relative measures of female status and testing this relationship in rural and urban counties in the U.S. The goal here was to capture age, space, and gender dimensions simultaneously with an aim to understand how these dimensions work together to modify the risk of victimization. While homicide studies are beginning to disaggregate homicide data by age, very little is known about the macro-level correlates of infant and child homicide victimization. There is now precedent in the literature for disaggregating by age since unique patterns and characteristics repeatedly emerge in the homicide victimization data of infants and children [16, 21]. Further, researchers have known for some time that infant and child homicide is bound up with the status of women, but this relationship between women's status and the victimization of children has not been thoroughly explored empirically or theoretically [9, 15, 22, 26]. Finally, a body of literature has emerged that suggests that the structural correlates of homicide may vary by the degree of rurality and urbanity in geographic areas [20, 30, 31].

This research has contributed to studies on macro-level homicide victimization that are increasingly disaggregating by key theoretically meaningful demographic and geographic categories. The results of this study show that infant and child homicide victimization are impacted by the absolute status of females, but only in urban areas, and to a lesser extent in the most rural U.S. counties. The structural correlates of infant and child homicide differ between rural and urban environments. If infant and child homicide is rooted in the social organization of society and community, then comparing different types of societies allows us to isolate key crime producing features. This study contributes to a growing body of research that highlights the importance of studying violence across social space that is classified by degrees of rurality.

The two key hypotheses in this study proposed that the low economic status of females (absolute measure) would be positively associated with infant and child homicide victimization, while greater gender equality (relative measure) would have an ameliorative effect on the victimization of this age group. It was hypothesized that this effect would be stronger in urban areas, where

there is greater gender differentiation in social life, and weaker in rural areas where there is less differentiation. None of the gender specific measures emerged as significant in the rural model, while all absolute female status measures were significant and in the expected direction in the urban sample. In addition, many of the structural covariates that are commonly found to be associated with overall homicide were also important here. Prominent indicators found in the literature on general homicide, such as percent non-white and poverty were significant predictors in the urban sample. This suggests that while infant and child homicide may be affected by a unique set of structural conditions, there are forces associated with the homicides of this age group that are likely common to the general homicide rate.

The key indicators in this study, absolute and relative female status, suggest that studies concerned with infant and child homicide victimization should give careful attention to the status of females, particularly in urban areas. The results further suggest that the mechanisms through which rural homicide victimization occur may be more general and have less to do with the status of females and more to do with population heterogeneity and density of social networks. A growing body of research is increasingly supporting the finding that there are important differences in homicide by place and type of homicide. With infant and child homicide in particular if the structural features of this type of homicide vary along rural and urban lines, subsequent policy interventions might need to be tailored to this particular age group differently in rural and urban areas. Just as all crime is bound up with gender, infant and child homicide is particularly bound up with women's social positions.

This research yields a number of additional questions. Researchers have yet to find consistent predictors of homicide in rural areas. There are a number of possible unexplored conditions that may be uniquely connected to homicide in rural areas. Public service agencies may respond to social problems in different ways in rural and urban areas, affecting the likelihood of fatal outcomes. To the extent that infant and child homicide victimization is preceded by a history of abuse, criminal justice officials may be unresponsive to child abuse, perhaps regarding it as a private matter. Rural homicide may have more to do with lack of key services, social support, and institutional intervention.

This study is the first to consider the link between women's social location and infant and child homicide. Future research might build on some of the key findings of this study, as well as address the ways in which this work is limited. Race is a meaningful measure in each of the models presented here. Later research might focus on what happens when child homicide victimization rates are disaggregated by race, and explore the victimization nexus between female status, race, and place. Researchers need to continue to sort out the "problem of defining rural areas." Additional studies might also explore more fully the intersection of structural and ideological forces of gender systems in rural and urban areas. This research was solely concerned with structural conditions, but recent work in homicide studies have attempted to model ideology as well [43]. Gender equality measures need to be improved as well, capturing the relative position of males and females along several dimensions of social life. At the individual level,

future research might explore the changing shape of masculinities in rural and urban areas that are affected by different gender arrangements and values. For example, what type of masculinities emerge in response to extreme rural conditions? Policy and intervention strategies might approach infant and child homicide as a social problem linked to the economic realities of women. If children are safer in communities where women are thriving, then “child safe” policies might begin with alleviating economic stress among women. Further, since economic stress manifests differently across social space, intervention strategies should take into account the potentially differing economic needs of rural versus urban women.

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#### Footnotes

1 This relationship between female labor force participation and child homicide is a social condition. That is, this body of literature found a statistical association between rates of female labor force participation as a social condition, and child homicide as a social condition. This finding does not reveal anything about individuals, nor the motivations or characteristics of individual actors, but instead is a characteristic of social structures.

2 The backlash hypothesis is an alternate perspective frequently tested in empirical works on homicide victimization. The idea here is that as the gap between males and females narrows, men are threatened by increasing equality and try to regain power through the use of violence. There is some support for this thesis [see 54].

3 Gender equality theories also assume that as the economic margin between males and females grows smaller, the absolute status of females improves. That is, narrowing means that women are enjoying increasing economic prosperity and their rates are rising to meet the already higher rates of their male counterparts. While we know that men are universally advantaged over women, it is erroneous to assume that a narrowing of the economic gender gap translates to higher absolute economic status for women. In some social systems both men and women may be concentrated in poverty resulting in a situation where both the absolute economic status of women is low, as well as the economic distance between males and females. If there are indeed fewer antagonisms between men and women when the gender gap is narrow, then this is true whether economic gender gap is narrow at the poverty or the prosperity end of the spectrum.

4 Retained multiple victim homicides if one of the victims was less than 5-years old. Child deaths that were the result of the 2001 September 11th attacks were removed.