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1999

# Assessing Relative Risk for Homeless Shelter Usage in New York City and Philadelphia

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## **One-year rates of public shelter utilization by race/ethnicity, age, sex and poverty status for New York City (1990 and 1995) and Philadelphia (1995)**

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**Abstract.** This study calculates public homeless shelter utilization rates by sex, race/ethnicity and age status for New York City (1990 and 1995) and Philadelphia (fiscal year 1995) to determine the relative risk for shelter use among different demographic groups in these cities. The resulting shelter utilization rates reveal large disparities among age groups and across racial/ethnic groups, as well as showing different trends in shelter utilization among the two cities. Among the results reported, the rate of shelter utilization declined by 11% in New York City over this period, while the overall utilization rate in Philadelphia has increased to where it is 40% higher than that of New York City. Children under age 5, at a rate of 0.0248, have the highest shelter utilization rate among the age groups studied and the overall rate for blacks is 2.3 times that of the overall population. And while shelter utilization rates among single men have decreased by 30% in New York City, a similar decrease has not occurred among women of early childbearing ages or among young children. Finally, policy implications related to these findings are discussed.

**Keywords:** Homeless people, New York City, Philadelphia, Poverty

### **Introduction**

It has often been observed that certain demographic groups appear to be over-represented in the homeless population as compared to their presence in the overall population. For example, the assertion that families, primarily single women with children, are the fastest growing group among the homeless population has been oft repeated in both the research and the advocacy literature on homelessness, and suggests that families are becoming increasingly susceptible to experiencing homelessness. Similarly, surveys have consistently shown homeless populations to contain high proportions of black persons (Hopper & Milburn 1996; Blasi 1994), suggesting that blacks, as a racial group, experience homelessness at rates higher than other racial or ethnic groups.

This study examines to what extent demographic disparities in the sheltered homeless population reflect increased risks among different demographic

groups in the general population for experiencing a homeless shelter stay. Specifically, this study determines relative risk for shelter use among demographic subgroups – broken down by race, sex, and age – in New York City and Philadelphia by determining, for each subgroup, the proportional representation of the sheltered homeless population in the local population and, for New York City, in the local poverty population. Differences in relative risks, both across subgroups and over time, are reported and policy implications of these findings will be discussed.

## **Background**

The analysis of administrative data permits researchers and homeless program administrators to routinely monitor changes in public shelter use by specific subpopulations of shelter users. The present study uses data collected from New York City to calculate one-year rates of public shelter use for two one-year periods (1990 and 1995), by race/ethnicity, sex, age and, in 1990, by poverty status, and compares the most recent complete year of data with that from a similar period in Philadelphia (fiscal year 1995). Previous research based on these data has found a disproportionate rate of shelter use by persons of black race, by poor persons, and by children (Culhane et al. 1994). However, this study presents such risk in much greater detail, calculating rates by race/ethnicity, sex, age and poverty status simultaneously. In so doing, this study will be useful for determining the relative risk for shelter admission by population subgroup.

Administrative data on shelter utilization is but one of several newly applied research methodologies that can estimate the number of homeless persons in the USA over extended time periods (Culhane & Metraux 1997), and that have generated convergent estimates of the period prevalence of homelessness. Household surveys of the general population (Novacek et al. 1991; Toro & McDonell 1992; Link et al. 1994), as one such approach, have assessed the degree to which the housed population self-reports a prior episode of homelessness over given periods of time. For example, Link et al. (1994), in a national telephone survey, found that 3.2% of 1,507 households surveyed reported a prior episode of 'literal' homelessness (staying in a shelter or sleeping in public spaces) in the previous five years. Similarly, a housing survey in New York City (Stegman 1992) found that 3% of respondents reported an episode of homelessness in the previous five years.

The analysis of administrative data on public shelter utilization has yielded findings consistent with those from the household surveys. These findings include a 3.2% rate of public shelter utilization over five years (1988–1992) in New York City, and a 2.7% rate over three years (1990–1992) in Philadel-

phia (Culhane et al. 1994). Likewise Philadelphia and New York City appear, despite their size, to be comparable to other cities. These two cities' annual rates of homelessness, approximately 1%, have been found to be within the middle of a range of rates reported for seven other jurisdictions in the USA that also have some automated capacity for unduplicating shelter users over time (Burt 1994).

Using administrative data, instead of data collected from the point-prevalent methods that had been previously relied upon to estimate the size of homeless populations (see Burt 1992), enables a more detailed comparison of the sheltered homeless population to more general populations. Administrative data can collect data on almost the entire shelter-using population of an area and, as previously mentioned, can do so over extended time periods. These features allow this study to go beyond merely examining demographic characteristics within a point in time sample of the homeless population to determining how the composition of the homeless population reflects disparities in the risk for homelessness among subgroups in the corresponding general population.

## Method

Administrative databases for New York City's and Philadelphia's municipal shelter systems are used to collect comprehensive rosters of all persons who stayed in a public shelter at any point over the years 1990 and 1995 (New York City) and fiscal year 1995 (Philadelphia). This creates one-year prevalence groups of the *sheltered* homeless population, which is a subset of those conventionally considered to constitute the overall homeless population (see Burt 1992). Studies have found that a large majority of homeless persons use shelters on a given day (Dennis 1993; Burt & Cohen 1989), and that the proportional coverage of the homeless population afforded by the enumerating the sheltered homeless increases in an expanded time frame like the one used in this study. While an undetermined but significant group of homeless persons (mostly single adults) use makeshift living accommodations in places such as parks and abandoned buildings instead of shelters, circumstances will lead many of these persons to seek public shelter at some point during the course of a year.

Information from the public shelter database kept by the New York City Department of Homeless Services (DHS) was retained for all persons with a stay record of at least one day in a public shelter. Individuals in the two shelter systems that DHS maintains, a single adult shelter system and a family shelter system, are already unduplicated within each system, and the records are further unduplicated across the two systems by comparing social security

numbers and a unique identifier constructed from parts of an individual's first and last name, sex, and day and month of birth.

In the two resulting datasets, one from 1990 and the other from 1995, each record has information on gender, age at time of stay, and race/ethnicity. The means for collecting this data reflects a combination of respondent self-report, interviewer observation, and corroborating documentation from pieces of identification such as driver's licenses, birth certificates, etc. that are presented at the respondents' intake interviews. Racial/ethnic designations in particular are subject to interviewers' and respondents' assessments, with black, white, and Hispanic representing mutually exclusive categories. Records that have missing data for race/ethnicity, sex or age have been discarded, and due to the very small percentages of other racial and ethnic groups among the sheltered homeless population (see Table 1), only persons in the black, white, and Hispanic categories were retained for this study. Each person who has stayed in a DHS shelter, regardless of the number of stays he or she compiled, will have one record in this study's dataset.

Philadelphia's shelter system has one dataset with all stay records and another with more detailed demographic information. Neither of these is a comprehensive record of all persons who stayed in the shelter system, given that persons who request shelter after the scheduled intake hours, and who stay for brief periods, may not be recorded. With the data available, records for twelve month prevalence could only be collected by combining these datasets, and then only for the most recent twelve month period in the database, from August 1994 through July 1995, due to an automation procedure that overwrites prior intake dates with more recent intake dates. Any record that indicates a stay date or an intake date during this period was placed into one set and duplicate records were subsequently discarded through a process of matching social security numbers, names, and birthdates. Like in the New York City datasets, one record is maintained for each individual shelter user. Age, sex, and race/ethnicity data is also collected in a similar fashion as was previously described for New York City. In some cases, however, age information is not available for children, and thus only one age group, 0 to 17, is constructed for children. Despite difficulties with coverage and children's ages, Philadelphia provides a dataset comparable to New York City that contains information on sex, race and age at entry for persons utilizing shelters during a twelve month period.

To compare this data to the overall New York City and Philadelphia populations, this study modifies estimates from the 1% public-use microdata samples (PUMS) from the Census Bureau's 1990 enumeration and data from the 1994 population estimates. The 1% PUMS data yield estimates consistent with the census enumerations for large populations such as Philadelphia and

Table 1. Population sizes and percentages used for determining shelter utilization rates

	Total	Race/Ethnicity			Sex		Age group		
		White	Black	Hispanic	Male	Female	0–18 yrs	18–49 yrs	50+ yrs
1990 NYC Population	7,559,132	3,195,897	1,986,986	1,836,745	3,573,007	3,986,125	1,757,082	3,834,869	1,967,181
1990 NYC Poverty Population	1,471,385	298,479	485,792	600,681	630,273	841,112	521,433	663,767	286,185
1994 NYC Population	7,600,372	2,925,219	1,985,935	2,097,455	3,605,172	3,995,210	1,868,857	3,801,575	1,929,940
1990 NYC Shelter Population	81,342	4,545	52,578	22,684	45,904	35,438	27,584	49,285	4,473
1995 NYC Shelter Population	72,994	4,218	44,353	22,879	37,861	35,133	28,870	39,899	4,225
1994 Phila Population	1,578,662	752,639	626,940	96,897	739,345	839,317	396,591	755,554	426,517
8/94 thru 7/95 Phila Shelter Pop.	21,078	1,080	18,355	814	11,375	9,703	9,101	11,014	963
1990 NYC Population	7,559,132	42.3%	26.3%	24.3%	47.3%	52.7%	23.2%	50.7%	26.0%
1990 NYC Poverty Population	1,471,385	20.3%	33.0%	40.8%	42.8%	57.2%	35.4%	45.1%	19.5%
1994 NYC Population	7,600,372	38.5%	26.1%	27.6%	47.4%	52.6%	24.6%	50.0%	25.4%
1990 NYC Shelter Population	81,342	5.6%	64.6%	27.9%	56.4%	43.6%	33.9%	60.6%	5.5%
1995 NYC Shelter Population	72,994	5.8%	60.8%	31.3%	51.9%	48.1%	39.6%	54.7%	5.8%
1994 Phila Population	1,578,662	47.7%	39.7%	6.1%	46.8%	53.2%	25.1%	47.9%	27.0%
8/94 to 8/95 Phila Shelter Pop.	21,078	5.1%	87.1%	3.9%	54.0%	46.0%	43.2%	52.3%	4.6%

New York City, and have the advantage of flexibility in permitting special tabulations that fit both the shelter data and the geographic boundaries of the two cities (Census Bureau 1992). The Census Bureau's 1994 numbers reflect updated estimates from its 1990 enumeration.

Additional upward adjustments were made to these population estimates to compensate for two sources of likely undercounting in the Census enumeration. First, this study adjusts the PUMS results, for both cities' general and the poverty populations, through applying estimated rates of undercount for specific age, sex, and racial groups among cities in the Northeastern US with more than 100,000 population (Hogan, personal communication; Hogan 1992) and adding these numbers to the population estimates used in this study. Second, in estimating the poverty population, used to compare with the 1990 New York City sheltered homeless count, another form of undercounting potentially occurs with persons counted among the 'Group Quarters' enumeration in the 1990 census but who are not included among the poverty population. These groups, including those in local incarceration facilities, psychiatric hospitals, and halfway houses, are at high risk of becoming both poor or homeless upon leaving these institutions, and so are added to the poverty estimates (they are already included in the overall census) in a second adjustment for undercounting (Coder, personal communication).

To recapitulate, the formula used to derive the general population estimates for this study are:

$$P = \sum (n_{abc})(r_{abc})$$

where  $n$  equals the population estimates from the 1% PUMS and  $r$  equals the adjustment rate. Values  $r$  and  $n$  are different for each combination of sex ( $a$ ; male and female), racial/ethnic group ( $b$ ; white, black, Hispanic), and age group ( $c$ ; 0–4, 5–9, 10–17, 18–29, 30–39, 40–49, 50–61, 62+ in New York City and 0–17, 18–29, 30–39, 40–49, 50–61, 62+ in Philadelphia). The total population estimate  $P$  is the sum of 54 demographic subgroups in New York City and the sum of 36 demographic subgroups in Philadelphia. For estimating the poverty population to compare to the 1990 New York City sheltered homeless population, modifications were made to the above formula so that:

$$V = \sum [(t_{abc})(r_{abc}) + g_{abc}].$$

Here  $a$ ,  $b$ , and  $c$  and  $r$  are the same as in the above formula. But to calculate the estimate of the general poverty population ( $V$ ),  $t$ , or the 1% PUMS estimates of the number in poverty for each subgroup  $abc$ , replaces  $n$ ; and  $g$ , the number of persons in group quarters at risk for poverty for each subgroup

$abc$ , is added to this product for each subgroup.  $V$ , like  $P$ , is the sum of the subgroups. Values of  $r$  and  $g$  for each subgroup  $abc$  are shown in the appendix, and the total  $P$  and  $V$  values are on Table 1. These estimation methods lead to more inclusive frameworks for estimating New York City's and Philadelphia's populations and thus provide more conservative denominators to assess the relative proportional risks for experiencing a shelter stay among demographic groups.

Determining relative risk involves comparing estimates of general population size to the sheltered homeless population counts for the combinations of age, sex and race/ethnicity. This yields a proportion whereby one can compare the rates at which persons in the various subgroups experience homelessness. The formula for establishing this relative risk proportion is:

$$R_{abc} = S_{abc}/P_{abc}$$

or

$$R_{abc} = S_{abc}/V_{abc}.$$

In the former formula,  $R_{abc}$ , the relative risk proportion within a subgroup sharing a common age group, sex, and race/ethnicity, is calculated by dividing the number of persons who experienced a shelter stay in the given year ( $S_{abc}$ ) by the overall size of this subgroup ( $P_{abc}$ ). In the latter formula,  $R_{abc}$  can be calculated to control for differences in the prevalence of poverty among these different demographic subgroups by using  $V_{abc}$ , or the size of a subgroup's poverty population, as the denominator instead of  $P_{abc}$ . Relative risk proportions according to these formulas are calculated for New York City in 1990 and in 1995, and for Philadelphia during fiscal year (FY) 1995 (August 1994 through July 1995).

Comparing these relative risk ratios provides a reference point from which to compare the relative impact of shelter stays on different demographic groups. This method, however, also has limitations. While the shelter data reflects annual prevalence, any estimate based on the 1990 census reflects a point prevalent count that does not take into account migration and population turnover over the course of a year. Similarly, the number of persons who are below poverty income guidelines at some time during a twelve-month period would also exceed any point in time count of this group. Comparing this sheltered homeless group with the overall population would, therefore, likely overstate the absolute rate whereby persons become homeless. But, by virtue of getting measures of different sheltered homeless groups in proportion to their respective sizes in the general population, relative risks for different population groups nonetheless afford an accurate basis for comparison.



There are further limitations to interpreting the risks for experiencing a shelter stay among the general population that is under the poverty guidelines. First, though assumed as such in this paper, all persons who are staying in a homeless shelter are not necessarily under the poverty income guidelines. Second, the official poverty level is not adjusted for differential living costs by geographic area, and could be considered low for urban areas such as New York. Finally, while some accommodations have been made to include persons in special populations, there are other populations for which there are no data available but who are a high risk for poverty and homelessness, such as persons paroled from state or federal prisons and returning to the city. Given these limitations, and the additional adjustments that would have to be made to compare 1995 shelter counts to 1990 poverty numbers, a comparison of sheltered homeless to overall poverty population is only made for the 1990 New York City sheltered homeless count.

## Results

Table 1 shows the numbers of sheltered homeless persons and overall population estimates for New York City and for Philadelphia. Based on this data, Tables 2 and 3 show the rates of public shelter utilization by sex, race, age, and poverty status in New York City for 1990 and 1995 respectively. The annual rate of public shelter utilization declined from 0.0108 in 1990 to 0.0096 in 1995, reflecting an 11% decline in annual prevalence rates over this time period. This decline is primarily attributable to a 30% drop in shelter utilization among men between the ages of 18 and 49. This decline, when adjusted for changes in the overall population, leads to drops in rates of shelter utilization that are most pronounced among the younger men in this group, as shelter utilization rates dropped 35% among men between 18 and 29 years of age, 31% among those between 30 to 39 years old, and 17% among the 40 to 49 age group.

This sizable decline in shelter use among men in New York City, both in numbers and as a rate of the overall population, is not reflected in women's shelter utilization. The annual raw number of women, in the 18 to 49 age group, staying in shelters decreased at a much lower 4% rate. This decline fluctuates among specific age groups; while the 18 to 29 age group drops 4%, those in the 30 to 39 age group drop 9%, and those in the 40 to 49 age group actually increase by 9%. However, shelter utilization *rates*, adjusting for changes in the overall population, show a 5% *increase* for the 18 to 29 age group, an 11% decrease for the 30–39 age group, and no change for the 40–49 age group. Given the declines in men's shelter utilization rates, women of early childbearing ages have the highest rates of shelter utilization among *adults* in 1995 in New York City.

Table 2. 1990 NYC sheltered homeless population as a percent of the 1990 NYC general and poverty NYC populations, by subgroups

Age group	White		Black		Hispanic		Total	
	Overall	Poverty	Overall	Poverty	Overall	Poverty	Overall	Poverty
<i>Men</i>								
0-4	0.0013	0.0108	0.0531	0.1486	0.0281	0.0646	0.0261	0.0869
5-9	0.0011	0.0065	0.0323	0.0973	0.0175	0.0391	0.0158	0.0508
10-17	0.0006	0.0045	0.0165	0.0591	0.0088	0.0206	0.0083	0.0299
18-29	0.0021	0.0229	0.0310	0.1271	0.0119	0.0493	0.0125	0.0712
30-39	0.0033	0.0422	0.0566	0.2986	0.0185	0.0973	0.0195	0.1424
40-49	0.0037	0.0510	0.0364	0.2328	0.0145	0.0674	0.0141	0.1091
50-61	0.0029	0.0530	0.0186	0.1149	0.0079	0.0407	0.0072	0.0649
62+	0.0009	0.0132	0.0062	0.0412	0.0022	0.0093	0.0019	0.0176
Total	0.0022	0.0257	0.0332	0.1438	0.0139	0.0491	0.0128	0.0728
<i>Women</i>								
0-4	0.0017	0.0142	0.0510	0.1532	0.0246	0.0560	0.0244	0.0832
5-9	0.0011	0.0075	0.0298	0.0899	0.0172	0.0371	0.0159	0.0501
10-17	0.0006	0.0058	0.0166	0.0535	0.0102	0.0229	0.0094	0.0318
18-29	0.0009	0.0094	0.0354	0.1379	0.0171	0.0488	0.0154	0.0730
30-39	0.0011	0.0134	0.0247	0.1045	0.0096	0.0281	0.0098	0.0502
40-49	0.0009	0.0124	0.0088	0.0490	0.0040	0.0131	0.0039	0.0237
50-61	0.0006	0.0077	0.0031	0.0174	0.0011	0.0042	0.0014	0.0094
62+	0.0001	0.0011	0.0009	0.0030	0.0004	0.0011	0.0003	0.0017
Total	0.0007	0.0071	0.0210	0.0822	0.0108	0.0299	0.0089	0.0421
<i>Totals</i>								
0-4	0.0015	0.0124	0.0520	0.1508	0.0263	0.0601	0.0252	0.0851
5-9	0.0011	0.0069	0.0310	0.0935	0.0173	0.0381	0.0158	0.0505
10-17	0.0006	0.0051	0.0166	0.0560	0.0095	0.0218	0.0088	0.0309
18-29	0.0015	0.0159	0.0334	0.1330	0.0145	0.0490	0.0140	0.0722
30-39	0.0022	0.0276	0.0392	0.1822	0.0138	0.0508	0.0145	0.0870
40-49	0.0023	0.0315	0.0212	0.1250	0.0087	0.0328	0.0087	0.0590
50-61	0.0017	0.0254	0.0094	0.0547	0.0042	0.0181	0.0041	0.0309
62+	0.0005	0.0044	0.0027	0.0113	0.0011	0.0038	0.0009	0.0061
Total	0.0014	0.0152	0.0265	0.1082	0.0123	0.0379	0.0108	0.0553

*Table 3.* 1995 NYC sheltered homeless population as a proportion of the overall 1994 NYC population, by subgroups

Age group	White	Black	Hispanic	Total
<i>Men</i>				
0–4	0.0018	0.0522	0.0235	0.0250
5–9	0.0010	0.0286	0.0151	0.0150
10–17	0.0005	0.0146	0.0088	0.0080
18–29	0.0020	0.0167	0.0092	0.0081
30–39	0.0033	0.0362	0.0124	0.0134
40–49	0.0040	0.0301	0.0115	0.0117
50–61	0.0029	0.0171	0.0068	0.0066
62+	0.0008	0.0052	0.0020	0.0017
Total	0.0022	0.0252	0.0115	0.0105
<i>Women</i>				
0–4	0.0018	0.0523	0.0221	0.0247
5–9	0.0011	0.0277	0.0153	0.0150
10–17	0.0007	0.0164	0.0091	0.0088
18–29	0.0011	0.0354	0.0173	0.0161
30–39	0.0008	0.0204	0.0090	0.0087
40–49	0.0008	0.0087	0.0040	0.0039
50–61	0.0007	0.0032	0.0018	0.0017
62+	0.0001	0.0009	0.0005	0.0004
Total	0.0007	0.0200	0.0104	0.0088
<i>Totals</i>				
0–4	0.0018	0.0522	0.0228	0.0248
5–9	0.0010	0.0281	0.0152	0.0150
10–17	0.0006	0.0155	0.0089	0.0084
18–29	0.0015	0.0266	0.0133	0.0122
30–39	0.0021	0.0274	0.0106	0.0110
40–49	0.0023	0.0177	0.0074	0.0076
50–61	0.0018	0.0087	0.0041	0.0040
62+	0.0004	0.0024	0.0011	0.0009
Total	0.0014	0.0223	0.0109	0.0096

The highest *overall* rates of shelter utilization in both years, however, is for young children, and these rates remain relatively unchanged from 1990 to 1995. These high rates for young children, along with rates that show women ages 18 to 29 to have twice the risk for shelter admission in 1995 than do men in the same age group, indicate the continued vulnerability for shelter stays among young families. It is worth noting that, in general, the risk for shelter admission drops during adolescence and then again drops sharply after the age of 50. However, as shown in Tables 2–4, this trend does not carry through all racial and ethnic groups. Among persons of black race in both New York City and Philadelphia, adolescents have shelter utilization rates that are higher than the overall rate, and black men's shelter utilization rate only falls under the overall rate once they are age 62.

Collapsing across age categories, the differential rate of risk by race/ethnicity observed in previous research is confirmed in the more recent data from New York City. Persons of black race are 2.3 times as likely as the general population to use a public shelter, and are sixteen times more likely to do so as compared to persons of white race. Black children under the age of 5 are 29 times as likely as white children under age 5 to stay in a public shelter. Hispanic persons are slightly (1.1 times) more likely to stay in a public shelter than the general population. The age pattern described above is similar among Hispanic persons, with young children (0 to 4 years) having the highest rate of shelter admission across age categories (0.0275). This extreme discrepancy in relative risk between persons of black race and persons of white race is reduced, but not explained, by adjusting for the disproportionate representation of black persons in poverty. Even when controlling for poverty in 1990, poor black persons still stay in shelters at 7.1 times the rate of poor white persons, and poor black children still have 12.2 times the rate of shelter use as poor white children.

In general, the Philadelphia results for FY 1995, shown in Table 4, yield a pattern similar to that from New York City. However, a 40% higher proportion of Philadelphia's population as New York's stayed in a public shelter in 1995, representing a 38% increase in the number of persons staying in shelter compared to 1992 (the last year for which an unduplicated count is available for Philadelphia; from Culhane et al. 1994). Among adults, the highest risk period is for persons in their 30's (0.0191). Missing birthdates for many children's records make age breakouts within 0–17 unreliable; however, collapsing across children's ages in New York City reveals that New York City children (0.0164) have a 28% lower rate of risk than Philadelphia children (0.0229%). Again, the risk for shelter admission is greatest among children of black race, with a rate 0.0408 staying in a public shelter in FY 1995.

*Table 4.* FY 1995 Philadelphia sheltered homeless population as a proportion of the overall 1994 Philadelphia population, by subgroups

<i>Men</i>				
Age group	White	Black	Hispanic	Total
0–17	0.0024	0.0412	0.0106	0.0230
18–29	0.0014	0.0219	0.0053	0.0110
30–39	0.0020	0.0524	0.0104	0.0248
40–49	0.0017	0.0329	0.0117	0.0159
50–61	0.0015	0.0163	0.0090	0.0075
62+	0.0003	0.0030	0.0022	0.0012
Total	0.0015	0.0321	0.0090	0.0154
<i>Women</i>				
0–17	0.0024	0.0404	0.0098	0.0229
18–29	0.0015	0.0327	0.0083	0.0158
30–39	0.0019	0.0266	0.0059	0.0138
40–49	0.0015	0.0112	0.0037	0.0062
50–61	0.0013	0.0045	0.0016	0.0027
62+	0.0001	0.0010	0.0006	0.0004
Total	0.0013	0.0234	0.0069	0.0116
<i>Totals</i>				
0–17	0.0024	0.0408	0.0102	0.0229
18–29	0.0015	0.0275	0.0069	0.0134
30–39	0.0019	0.0381	0.0081	0.0191
40–49	0.0016	0.0206	0.0074	0.0106
50–61	0.0014	0.0092	0.0053	0.0049
62+	0.0002	0.0017	0.0013	0.0007
Total	0.0014	0.0273	0.0079	0.0134

Adults in Philadelphia also have a higher rate of risk for shelter admission than adults in New York City, a rate that is 85% higher among men in their 30's. Once again, the risk for shelter use among adults is concentrated among black men, and, to a significant, though lesser extent among black women. Black men in their 30's have a 0.0524 rate of shelter admission in Philadelphia in 1995. Among adult black women, the highest rate is among women aged 18 to 29 (0.0327) who are most often accompanied by young children, and

the rates for this group of women is comparable to the corresponding group in New York City.

Some of the differential rate of risk by race is also observed in Philadelphia, with black persons being 2 times as likely as the general population to stay in a public shelter in 1995, and 19.5 times as likely as white persons. However, in contrast to the New York City findings, Hispanic persons are not at greater risk of staying in a public shelter in Philadelphia compared to the general population, and have 72% the rate of risk for staying in a public shelter than Hispanic persons in New York City. This result is consistent with other research that has observed a high degree of racial homogeneity in the Philadelphia shelter system.

### **Discussion and Conclusion**

New York City and Philadelphia, at the time of these shelter enumerations, both had policies to provide shelter on demand for persons presenting themselves as homeless, and their system capacities adjusted to the level of demand for shelter. As such these cities are well suited for measuring the 'natural' prevalence of persons within a population who seek shelter. With this in mind both the divergence in the rates of growth for both cities' shelter systems, as well as the differences between the different demographic subgroups presented in this study, are noteworthy and call for further examination.

For New York City, this study shows the relative risk for experiencing a shelter stay among the general population as declining from 1990 to 1995. Women ages 18–29 and young children, who are the age groups most prevalent in the family shelters, showed little change in their relative risk for experiencing a shelter stay in this time period. Adult men, however, the group most likely to frequent the single adult shelters, showed considerable declines in their relative risk ratios during this time. Overall, from 1990 to 1995 the results from this study show the relative risk ratio in New York City to have decreased by 11%, from 0.0108 to 0.0096. This is due both to an increasing general population and a decreasing sheltered homeless population. Other studies corroborate this trend where shelter utilization has increased among families in New York City and decreased among single adults. After the 32% increase in family shelter use between 1988 and 1992, the rate of increase among families over the 1990 to 1995 period increased by only 2.4%. Single adult shelter use started its decline in 1989 and decreased 31% over the 1990 to 1995 period (Culhane, Metraux & Wachter 1998).

Philadelphia shows a different story. Comparing data from this study to Culhane et al. (1994) shows the rate of shelter utilization among families and single adults to have increased 58% and 27%, respectively, by FY 1995 over

the average annual rate from 1990–1992. While there is only one time period available for Philadelphia results, the overall relative risk ratio of 0.0134 is considerably higher than that of New York City. Furthermore, in contrast to New York City, this ratio can be assumed to have grown since 1990 given evidence that the sheltered homeless population size increased over the same time that the general population size decreased.

One possible explanation for the divergent trends in these two cities is that the greater increase in utilization of shelter among families in Philadelphia may in part be a function of expanding the supply of family shelter accommodations there, particularly after the supply was cut in half between 1988 to 1990 (Culhane 1992). New York City, in contrast, slowed the expansion of its family shelter system in the 1990 to 1995 period after increasing its family shelter space and its housing placement opportunities in the preceding period (Culhane, Metraux & Wachter 1998). This means that, while both cities maintained shelter on demand policies for families, the quality of available shelter accommodations and the possibility of housing placement following a shelter stay may influence the decisions by households who live in substandard conditions or ‘doubled up’ in relatives’ or friends’ residences to seek family shelter.

Looking at the changes in population size for the single-adult population, one possible explanation for New York City’s declining rate comes from two major housing development programs for special needs populations during this period – the New York/New York supported housing program for homeless people with mental disabilities, and the Division for AIDS Services supported housing programs for people with AIDS. Shelter among single adults is not subject to the latent demand that is present for family shelter, and housing the most chronic single-adult shelter users, as these supported housing programs undertook to do, can potentially make large reductions in the demand for shelter. Looking at Philadelphia, it is possible that the higher rate of shelter utilization in Philadelphia is partly a function of newly enacted General Assistance restrictions in Pennsylvania in 1994 and 1995. These restrictions reduced cash assistance to adults over the age of 45, and nearly eliminated the program for people under the age of 45 (Culhane et al. 1997).

The combined race, age, gender and, for 1990 in New York City, poverty-specific rates reported here show for the first time the risk ratios for shelter use by these specific population subgroups. Two types of households stand out: black children and their mothers, and black men in their 30’s and 40’s. Although rates calculated as a percentage of the poverty population should be interpreted with caution, given that some shelter users may not have been below the poverty line in the year of their shelter use, they suggest that shelter use may be a relatively common experience among some subpopulations of

poor persons. The differential impact by race, in particular, deserves further study. Recent research on the geographic correlates of shelter admission in these two cities suggests that the rate of shelter admission by census tract is related to the racial isolation and high poverty concentrations of poor, African American neighborhoods, and to differentially distressed housing markets (Culhane, Lee & Wachter 1996). In more general terms, homelessness may be one among the array of interrelated social problems that is intensified by the geographic isolation of urban black poverty (Massey & Denton 1993; Wilson 1996).

Another striking finding is the high rates of shelter utilization among young adult women and pre-school children. This supports previous findings that show higher incidences of pregnancy and young children in households seeking shelter than in housed, AFDC households (Weitzman 1989). Such high rates of young families may highlight the destabilizing qualities that pregnancy and young children have both on precarious housing situations, where families are already living 'doubled up' in other households, and on economic self-sufficiency, as the pregnancy and/or the presence of pre-school age children negatively impact the employment prospects of a single mother. In a tight housing market, shelters in both Philadelphia and New York City may represent a relatively expedient means to obtain subsidized housing for young, impoverished parents. Whatever the reasons, however, the high relative risk of young children experiencing homelessness is concerning, as research has demonstrated a range of physical, emotional and developmental problems displayed by homeless children, and leads to questions concerning their future vulnerability for experiencing homelessness as adults.

Although the present study period preceded many recent federal and state welfare and housing policy changes, the results have identified the groups at highest risk for shelter utilization, and call for monitoring of the impact of spending cuts on these populations. Future research could monitor these trends as policy changes take effect, and measure both the impact on admissions to shelter, and on rates of discharge. As similar administrative information systems are implemented in other jurisdictions, the capacity for monitoring shelter utilization over time and by specific subpopulations will increase, and research such as this can be replicated elsewhere.

### **Acknowledgments**

The authors wish to thank Jim Baumohl, Annetta Clark-Smith, John Coder, Howard Hogan, Kim Hopper, John Long, and Signe Wetrogen for their assistance. This research was supported by a grant from the Edna McConnell Clark Foundation Program for New York Neighborhoods.



## Appendix

Adjustment rates to 1990 census enumeration by race/ethnicity, age, and sex<sup>a</sup>

Age group Group	White		Black		Hispanic	
	Male	Female	Male	Female	Male	Female
0–4	0.0059	0.0059	0.0662	0.0662	0.0526	0.0526
5–9	0.0059	0.0059	0.0662	0.0662	0.0526	0.0526
10–17	0.0059	0.0059	0.0662	0.0662	0.0526	0.0526
18–29	0.0484	0.0328	0.1583	0.1291	0.0432	0.0687
30–39	0.0064	0.0119	0.1031	0.0989	0.0939	0.0625
40–49	0.0064	0.0119	0.1031	0.0989	0.0939	0.0625
50–61	0.0302	–0.0529	–0.0419	0.0126	0.0981	0.0126
62+	0.0302	–0.0529	–0.0419	0.0126	0.0981	0.0126

Institutional populations not included in poverty universe and judged at risk for becoming homeless<sup>b</sup> – New York City

Age group	White		Black		Hispanic		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
0–4	4	0	80	87	0	0	84	87
5–9	20	3	88	23	18	0	126	26
10–17	255	103	1,436	265	356	35	2,047	403
18–29	1,398	270	6,868	1,125	1,544	299	9,810	1,694
30–39	1,471	283	3,471	664	935	276	5,877	1,223
40–49	444	201	1,297	152	433	60	2,174	413
50–61	182	184	182	101	150	82	514	367
62+	229	535	142	126	29	32	400	693
Total	4,003	1,579	13,564	2,543	3,465	784	21,032	4,906

<sup>a</sup> Unpublished table provided by Hogan (personal communication; see also Hogan 1992).

<sup>b</sup> Unpublished table done as special tabulation of 1990 Census Bureau enumeration by Coder (personal communication). Groups identified as ‘at risk for becoming homeless’ include those in:

- Juvenile institutions for neglected, abused, dependent, and delinquent children;
- Group homes – maternity, mentally ill, mentally retarded, runaway, drugs/alcohol, ‘other’;
- Correctional institutions – halfway houses, local jails, police lockups;
- Hospitals settings for drug/alcohol abuse and mental illness;
- Rooming and boarding houses.

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