

**An Examination of the Relationship
between
Utility Terminations, Housing Abandonment, and Homelessness**

**Energy Coordinating Agency of Philadelphia
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I. Introduction

The Energy Coordinating Agency of Philadelphia (ECA) is a non-profit corporation, established in 1984 to effectively address Philadelphia's persistent energy poverty problem. To a significant degree, ECA was created in response to the crisis resulting from extremely high numbers of residential gas terminations in the early 1980s. The number of annual residential gas terminations in Philadelphia rose from under 10,000 to over 30,000 in just five years from 1979 to 1984. Thus terminations have become one of the highly visible, easily quantifiable indicators of the energy poverty problem. Since its inception one of ECA's underlying objectives has been the reduction of utility terminations.

This research into the relationship between utility service termination, housing abandonment, and homelessness intends to provide a more complete understanding of the social and human costs of utility service terminations. This understanding may in turn inform public policy in both housing and energy, as well as utility policies regarding low income customers.

Philadelphia, like much of the rest of the nation, currently confronts growing social problems in the face of shrinking resources. In this environment it becomes imperative for policy makers to understand the interrelationships among social problems and the consequences as well as the costs of exercising policy options designed to either prevent or remedy a specific problem.

Tremendous opportunities exist for maximizing the effective application of existing resources to address the energy poverty problem. Many of these opportunities lie in the development of real linkages between energy and housing programs, as well as in the improvement of individual services. It is with an eye to increased interdisciplinary collaboration and to increased cooperation between the public and private sectors in resolving the energy and related housing problems of low income people that this research has been undertaken.

II. Dimensions of the Problems: Energy, Housing Abandonment and Homelessness

A. Energy and Poverty in 1990

Thousands of low income Philadelphians are threatened every year with the loss of basic utility services, because they can no longer afford to pay their fuel bills. Very simply, the current energy poverty crisis is a product of two converging trends: energy prices have risen rapidly during the last decade, while for a growing segment of the City's population, real incomes have declined. The energy price increases in the first half of the decade were primarily those of heating fuels: gas and oil which doubled between 1980 and 1984. During the second half of the decade, it has been electricity and water prices which have rapidly escalated. Water and sewer rates have risen 85% during the decade, while electricity rates for the average residential customer have risen 77% since 1980. Between 1979 and 1985, the price of household fuels in the Philadelphia area went up 73 percent. Between 1986 and 1991 they have climbed an additional 22%.

Philadelphia has among the highest rates in the nation for all three basic utilities: electricity, gas, and water. The cost per kilowatt hour is now 14 c compared to the national average of 8 c, a therm of natural gas is now 8 c compared to an average of 5 1/2 c and water and sewer charges are now \$49.25 per 1,500 cubic feet compared to the national average of \$34.37. The combination of high energy costs and low incomes has the predictable result of high delinquency and termination levels.

From 1984 through 1990 Philadelphia experienced an average of 60,000 residential terminations every year. During the same period each year the three utilities report only half that number of reconnections of residential accounts. (See Figure 1) While Philadelphia has only 15% of the state's population it has more than half of its annual utility terminations.

In 1980, more than one-fifth of all Philadelphians had incomes below the federal poverty standard; by 1983, the incidence of poverty was one out of four. By 1986 an estimated 220,000 households had incomes below 150 percent of poverty - the eligibility level for energy assistance programs such as the Low Income Home Energy Assistance Program and the Weatherization Assistance Program.

As the population of Philadelphia has declined steadily from a peak of over 2 million in 1950 to the current 1.6 million in 1990, (U.S. Census of Population), an increasing percentage of residents are minority and/or poor. The 1990 census found that 42.3 % of Philadelphia residents are now members of minority groups. An estimated 220,000 households, or 28%, are low income, at or below 150% of the federal poverty level.

B. Housing Abandonment

Approximately 20,000 homes are currently abandoned in Philadelphia. (1987 Survey by the Department of Licenses and Inspections) These properties are distinct from vacants in that they are not actively for sale, are usually tax delinquent, and have been standing vacant at least three years. The number of abandoned properties has remained relatively constant over the last several years. While hundreds, and perhaps thousands of properties become abandoned each year, a roughly comparable number are either demolished or rehabilitated and reoccupied.

Records on abandonment are becoming increasingly inexact as the City can no longer afford to do an annual survey of properties. This survey process was discontinued in 1988.

In defining the current housing problem, Cushing Dolbeare summarizes the problem in this way:

"Philadelphia is fortunate in one respect: it has enough units to house its population. Indeed, the number of units has been increasing while population has declined. The problem is not that there is a housing shortage, but that housing costs too much and is deteriorating. The gap between what decent housing costs to live in and what low income Philadelphians can afford to pay for it is at the root of homelessness and much of the city's housing deterioration. At least 100,000 low income households in Philadelphia are paying more than half their incomes for housing."

Indeed...there are now almost fifteen times as many renter households with incomes below \$5,000 as there are units renting at 30% of this income level (gross rents of \$125 monthly or less: 71,000 households and only 5,000 units.

Even rent- or mortgage-free housing is unaffordable for many. Housing costs not only include the monthly rent or mortgage payment but also the cost of essential utilities, which is often larger...

("Housing in Philadelphia" Dolbeare, June 1988)

As energy prices continue to rise and real incomes of low income people gradually decline, an increasing percentage of that income is claimed by utility bills. In Philadelphia in 1991, the average energy bill is \$ 1719. For homeowners the price of water and sewer services is \$421, bringing the total annual energy bill to \$ 2140. Figure 2 shows the average yearly energy and water bill that a low income Philadelphia household now faces. For the 125,000 families in Philadelphia earning \$5,000 a year or less, energy costs now claim at least 40% of their income. For the average low income household earning \$7,500 a year, energy costs account for 27% of income.

C. Homelessness

According to "Homelessness in Philadelphia: Roots, Realities and Resolutions", (Goldstein, Bartelt and Ryan, July 1989), there were approximately 5000 homeless persons residing in Philadelphia shelters on the night of their comprehensive census, January 28, 1988. While it is extremely difficult to develop an accurate count of the number of homeless families and individuals in a given year, the authors provide a count of between 33,433 and 35,922 homeless episodes during 1987. A homeless episode is the experience of homelessness by an individual or family regardless of its duration. The authors therefore estimate that approximately 35,000 persons, a count which includes duplication of individuals as a result of multiple episodes, experienced homelessness in 1987.

"Homelessness in Philadelphia" provides a wealth of information on the demographics of homeless persons. When compared to the general population of the city, single persons and minorities, particularly African Americans are disproportionately represented. Figures 3, 4, 5, and 6 illustrate the household and racial composition as well as gender of homeless persons.

"Data on the racial composition of homeless persons indicate that 87.5% of the homeless Philadelphians for whom race was known were of minority status (i.e., African American, Hispanic, Asian, etc.) This is more than twice that of the general population." A full 55.7% of the homeless are minority males, more than three times their representation in the general population. ("Homelessness in Philadelphia")

The second most populous group are minority females, who comprise 31.8% of the homeless, contrasted with their 22% representation in the general population. Conversely, both white males and white females are significantly underrepresented among the homeless. (See figure 4)

Roots of Homelessness

Homelessness is caused by a large number of factors, economic, social and personal. However the significant loss of manufacturing and other entry level employment, combined with the escalation of the cost of housing and declining real incomes have significantly contributed to the growth of homelessness both in Philadelphia and in other cities.

Realities

The scale and severity of homelessness have continued to worsen over the past ten years. Not only have the number of individuals becoming homeless rapidly increased, people are remaining homeless for much longer periods of time. The average length of stay in shelter has steadily climbed from two weeks in

the early 1980's to the current average of six months. (Office of Services to Homeless Adults)

The process of becoming homeless almost always occurs in stages. When a family or individual lose their residence they first call on family and friends for help. Indeed the phenomenon of families doubling up is extremely common. Many of these extended families, or two or even three family households, can in fact be quite stable. It is extremely common to find a low income homeowner, often elderly, having taken back one or more adult children and their offspring.

Only after they have exhausted their personal resources will most people ask for help from private or public agencies. The City of Philadelphia now has approximately 133 emergency shelter facilities, ranging from boarding homes, to hotels, to churches, to large dormitory style shelters. The largest of these providers is the city itself which houses 2,600 individuals on a given night in 55 facilities under contract to the Office of Services to Homeless Adults (OSHA).

OSHA maintains a computerized database of its clients, which now contains 14,500 records, dating back to December 21, 1989. While encompassing only approximately 30% of the persons who became homeless during that period, this is the only computerized database of homeless persons in Philadelphia.

III. Methodology

This research is the result of a collaboration of the Energy Coordinating Agency and Temple University's Institute for Public Policy Studies.

In order to assess the relationship between utility terminations and housing abandonment, this study draws on the available data from two of the three local utilities, the Philadelphia Electric Company and the Philadelphia Gas Works for the years 1986 through 1990. Both of these utilities perform an annual survey, referred to as the winter survey, of accounts which have been terminated in the previous year. This door to door survey is performed in the early fall in order to have the opportunity to reconnect the accounts before winter.

In addition a door to door survey of households which had been previously surveyed and still remained off even after the winter of 1989 -'90 had begun, was conducted by ECA in February, March and April of 1990. Unlike the utility surveys, this effort was conducted by trained social workers whose principal objective was to provide outreach and intake services for fuel assistance programs in order to restore utility service whenever possible.

1980 Census data has been analyzed to determine the geographical correlation between terminations and a number of factors including abandonment and homelessness.

In assessing the relationship between terminations and homelessness, ECA utilized two databases: the Philadelphia Electric Company's winter surveys from 1988 and 1989, and the Office of Services to Homeless Adults' client database for 1989. A computer matching routine was performed to determine how many PECO customers who had lost their electric service during those two years had become homeless and received services through OSHA during the second of this two year period.

Finally, ECA has analyzed the records of fire deaths for 1988 and 1989 available from the Philadelphia Fire Department.

Additional analysis to be performed

Currently in process is the matching of the Philadelphia Gas Works' winter survey data, with the OSHA homeless records. Since our first matching routine was performed, OSHA has added 7,500 additional records of homeless persons. Thus the PECO terminations records need to be matched again with this expanded OSHA data set.

Additional analyses which ECA plans to undertake are to determine what percentage of abandoned properties which have lost utility service were owner occupied versus tenant occupied. This is important to developing the most appropriate policy and programmatic responses.

Secondly, ECA plans to determine whether certain fire deaths are in fact related to the loss of energy service.

Limitations of the analysis and of the databases

Water is widely considered to be the most essential of the three basic residential energy sources, heat, electricity and water. That is, people who lose their gas service can use alternate sources of heat such as kerosene or electric space heaters. While it is more difficult to live without electricity, it is arguably even more difficult to live without water. Thus a correlation between water shutoffs and homelessness may be stronger than between the other two utilities.

Unfortunately, the Philadelphia Water Department does not conduct surveys of its terminated accounts, and has no database comparable to that of PGW and PECO.

As mentioned previously, the OSHA database is the only computerized database of homeless persons in Philadelphia. However, its 14,500 records of persons served in 1989 and '90 represent only approximately 30 % of the total number of the homeless.

Furthermore, the utility record may well be in the name of a household member who is other than the person receiving services through OSHA. For example, the utility account could be in the husband's name, while shelter services could be sought by the wife and children, or vice versa.

As in all studies utilizing preexisting data, an additional limitation of the data which was analyzed is its quality. The address field in the OSHA database did not correspond to that in the PECO data, which may have further reduced the number of exact matches by name and address.

IV. Findings

A. Relationship between Utility Service Termination and Housing Abandonment

1. Utilities' Winter Surveys

A very strong relationship exists between utility service termination and housing abandonment. Every year when the gas and electric companies conduct their winter surveys they find that a significant number have become abandoned. Figure 7 provides annual figures for the five years between 1986 and 1990. The exact percentage varies from year to year. For the Philadelphia Gas Works, the lowest percentage since 1986 was 13%, which occurred in 1990 and the highest was 41% which occurred in 1986. The number of accounts surveyed in a given year also varies between 2,700 and 7,100.

For the Philadelphia Electric Company the percentage of homes found to be abandoned also varied from a low of 24% in 1989 to a high of 38% in 1987. There is a similar variation in the number of accounts surveyed from 2,400 to 6,700.

Interestingly, the average percentage of homes abandoned over this five year period is significantly higher for electric terminations than for gas: 32% compared with 22.4%. One might assume that if water is even more essential to habitability than electricity, that the percentage of water terminations resulting in abandonment would be higher still.

2. ECA's Winter survey in 1989 - '90

During an unusually cold snap in the month of December, there was a rash of fatal fires in Philadelphia in the winter of 1989 and '90. A significant number of these were in homes which had lost one or more of their utility services and which were resorting to makeshift arrangements, such as running electricity with extension cords from a neighbor's home, or using candles for light. Homes without gas for heating, cooking, and hot water,

will often utilize kerosene and electric space heaters, and/or hot plates.

The rash of energy related fires in the early part of the winter of 1989 - '90 was so dramatic it was decided to conduct a special outreach effort to customers of both the gas and electric utilities who remained without service.

In an effort to reach these customers, living through the winter without gas and/or electricity service, and to restore their utility service, ECA conducted a door to door survey with the help of several local social service organizations. These surveyors, all of whom were trained social workers, made a very concerted effort to speak with the occupants and to provide intake to the Low Income Energy Assistance Program and referral to other energy services whenever possible.

Of the 869 homes visited between February and April of 1990, 202, or 23% were vacant. These are all homes which had been surveyed by the utilities earlier in the fall of 1989, and were found to be occupied at that time.

2. Geographic Correlation between Terminations and Abandonment

Another way to examine the relationship between these two factors is to determine whether there is a statistically significant relationship between them geographically. As the utility data is organized by zip code, the analysis was performed on the 35 zip code areas of the city using the 1980 census data.

Pearson's product-moment correlation was utilized to measure the correlation between termination rate and thirty five different demographic factors, including income, race, years of schooling, and average home value. In order of the strength of their correlation, with +1 being a perfect positive and -1 being a perfect negative correlation, utility terminations correlated most strongly with the following eight factors.

1. Percent Hispanic population (.804)

Several factors may be at work here: low percentage of home ownership among Hispanics, and underutilization of energy assistance services due to language barriers.

2. Percent Homeless (.790)

Utility shutoffs were measured by the number of PECO shutoffs per zip code in 1988. Homelessness was measured by the number of homeless persons originating from a zip code area between December 1, 1989 and July 31, 1990.

3. Percent Vacant units in a zip code (.733)

This factor would be even higher if the census data distinguished between vacant and abandoned units. Nonetheless it reflects a very strong geographic correlation between vacancy and shutoffs.

4. Median Income (-.714)

There is an inverse relationship between terminations and income, indicating that terminations are closely associated with low income.

5. Percent of households with 6 or more persons (.676)

This correlation may be indicative of the "last stage" phenomenon, in which persons affected by terminations move into other households temporarily.

6. Percent belonging to minority groups (.576)

This indicates high risk due to low income and low education levels, as well as limited employment opportunities.

7. Percent under five years old (.575)

This may well be an indicator of single female headed households, a single mother with children.

8. Annual income in 1980 less than \$5000 (.563)

This is yet another indicator that low income is a significant risk factor.

B. Relationship between Terminations and Fire Deaths

Needless to say makeshift arrangements such as using kerosene heaters for space and water heating, or candles for lighting can be extremely dangerous. Fire deaths increased from 78 in 1987 to 104 in 1988 and 103 in 1989. With the exception of 1985, the year of the infamous MOVE debacle in Philadelphia, in which eleven people died in that fire, deaths by fire have averaged 85 each year for the seven year period between 1980 and 1987.

The Philadelphia Fire Department keeps a record of each case, providing the age, race and sex of the victim as well as the cause of the fire. Of their categories of causes, five are related to the loss of utility service in the home: "kerosene heater", "electric space heater", "electric wiring", "cooking equipment", and "open flame". While not absolutely guaranteeing that the alternative energy source is being utilized because utility service has been shut off, there is a strong likelihood that this is the case. The Fire Department does not report whether or not the home has had one or more utility services

terminated.

During 1988, 46% of the 104 fire deaths in Philadelphia were in these five categories related to the loss of utility service. In 1989, 38% of the 103 fire deaths fell into the same categories. ECA plans to match these residences with the utility terminations records to determine whether utilities had been terminated prior to the fire.

Table 1

Energy Related Fire Deaths in Philadelphia

| <u>Cause of Fire</u> | <u>1988</u> | <u>1989</u> |
|---------------------------------|--------------------|--------------------|
| Open flame | 10 | 15 |
| Heaters, Portable Kerosene | 8 | 9 |
| Heaters, Portable Electric | 2 | 2 |
| Electrical Wiring | 24 | 9 |
| Cooking Equipment | <u>4</u> | <u>4</u> |
| Energy related subtotal | 48 | 39 |
| Total fire deaths | 104 | 103 |
| Energy related as % of total | 46% | 38% |

Fatal fires in Philadelphia consistently and disproportionately take the lives of children. Of the 47 people dying in energy related fires in the fourteen and a half month period between January 1, 1989 and March 15, 1990, 52% were children under ten years of age. As might be expected, minorities are also disproportionately represented in these grim statistics. Of these 47 persons, 64% or 30 were African Americans, 20%, or 10 were Hispanic, 9% or 4 were Asian, and 6% or 3 were Caucasian. (Philadelphia Fire Department, Fire Prevention Division)

C. Relationship between Terminations and Homelessness

To attempt to determine the extent of the correlation between loss of utility service and homelessness, ECA conducted a match of the 7,889 records of Philadelphia Electric Company's winter survey accounts in 1988 and 1989 with the individuals receiving shelter services through the Office of Services to Homeless Adults (OSHA) between December 1, 1989 and July 31,

1990.

A simple matching of names found that 117 of the 1472 homeless Philadelphians listed in the OSHA data set, had lost their electric service. However, a number of these name matches were of persons with very common first and last names, and thus could be considered coincidental.

To attempt to determine how many of these matches are truly the same person, a manual review of the files of these 117 persons was performed in order to determine how many had the same first and last names and the same address. Unfortunately, one cannot determine what percentage of the matched names were actually the same people because the addresses were not recorded in some cases on either the PECO or the OSHA data files, and because the OSHA file contained only the last two addresses of the homeless person. As stated earlier, the process of becoming homeless almost always involves moving in with family and friends before resorting to the shelter system. Even then, the City funded shelter system is for many the last resort, after utilizing the privately funded shelters. Thus address matches of persons who were previously paying their own utility bills and within one year were being sheltered in the City system, would not be expected to be high. Nonetheless of the 117 name matches, 22 were confirmed to be the same individuals by matching both name and address. This represents 1.49 percent of the 1472 persons in the OSHA data file who were Philadelphia residents prior to becoming homeless.

Given the demographic data available in the OSHA file, some additional information on these 22 customers is known: ten of the 22 had children. The total number of children in these ten families is seventeen. Of the 22 customers, 19 were single, 18 were female, 16, or 73%, were African American and one was Hispanic. Ten of these customers were between 30 and 39 years of age, six were between forty and forty-nine, three between fifty and fifty-nine and one was over sixty. The other two were between twenty and twenty nine years of age.

2. Statewide Survey of Homeless Persons and Emergency Shelters

Another method of attempting to determine the correlation between terminations and homelessness is available for roughly the same period in Pennsylvania. During 1988, the Coalition on Homelessness in Pennsylvania (CHIP) performed a survey of homeless persons and of emergency housing providers.

In its statewide survey, CHIP asked emergency shelter providers what were the primary reasons for homelessness in their areas. Among the dominant housing-related reasons for homelessness, utility terminations were cited as the cause 7.9% of the time. The two most common housing related reasons are also cost related: "Lack of housing in income range (19.7%) and Eviction

for non-payment" (18.5%). These three categories total 46.1%.

In its survey of emergency housing providers in Philadelphia, CHIP administered a written survey of 133 providers, ranging from boarding homes to private shelters. Almost half, 49%, of the 53 respondents stated that a precipitating cause of homelessness of their clients was frequently or sometimes the loss of utility service. The balance, 50.9%, stated that utility service termination was rarely a cause.

Survey question: " There are many factors contributing to homelessness. How would you rank the following factors as they apply to the people that you serve? ...

Loss of utility service"

| <u>Response</u> | <u>Number</u> | <u>Percentage</u> |
|-----------------|---------------|-------------------|
| Frequently | 6 | 11.3% |
| Sometimes | 20 | 37.7% |
| Rarely | 27 | 50.9% |

("Homelessness in Pennsylvania: How Can this Be?" Ryan, Goldstein and Bartelt, Published by the Coalition on Homelessness in Pennsylvania and the Institute for Public Policy Studies, Temple University, 1988)

The CHIP study also provides some information toward another important question in this relationship, which is "How many home owners lose their utility services and subsequently become homeless?" Of the total number of households in emergency housing in Pennsylvania on the night of January 28, 1988, 8.5% had come from the home they owned. The largest cohort, 25.2% came from a rented apartment or room. The vast majority or 66.3% came from a shared housing situation with family, friends, or another shelter or temporary arrangement, including cars or the street.

V. Summary and Recommendations

The evidence linking utility terminations to abandonment is strong, consistent over a five year period and across two utilities, gas and electric. The utility survey results in Philadelphia suggests a stronger relationship between the loss of electric service than that of gas. The evidence also suggests that the percentage of units which have experienced termination and become vacant increases over time. As time passes, the occupants must find it increasingly difficult and/or undesirable to live without utility service.

The research also found a direct relationship between terminations and homelessness, both by matching utility terminations and emergency shelter client databases, and through surveys of emergency shelter providers. As anticipated, the relationship is discernible, but terminations cannot be considered to be a major cause or contributor to homelessness. High utility costs, along with other housing costs of rent or mortgage and taxes, can often put a family over the edge. More research is needed to more accurately determine the degree to which loss of utility service is the key contributing factor in homelessness as opposed to one of many, related, contributing factors.

The principal policy implications of these findings bear on utility policies regarding collections and terminations practices, payment agreements, and conservation programs for low income customers, and federal, state and municipal housing and energy policies for low income households.

The cost of energy is clearly prohibitive for many low income households. Yet housing and energy policies at all levels fail to recognize the social and true financial cost of that fact.

Within the public policy arena at all levels of government, this research would support:

1. **Financial investment in programs which stabilize low income people in their existing homes**, including weatherization, conservation, fuel assistance, and major home repair which is energy related;

2. **Linkage of housing and energy programs to increase affordability.** As existing low income housing stock ages, and real incomes of the poor decline, deferred maintenance creates substandard conditions. Fully 40% of the applicant for weatherization in Philadelphia must be rejected because their homes are too deteriorated to weatherize.

3. **Expansion of the parameters of the existing Weatherization Assistance Program to include conservation of residential electricity and, where appropriate, water.**

4. **Rigorous energy efficiency and energy affordability standards and specifications for all low income housing**, both new construction and rehabilitated housing, including that which is subsidized by the Department of Housing and Urban Development as well as that which is financed privately and publicly.

5. **Prevention of homelessness** rather than the current extremely costly (in both human and economic terms) system of trying to reconstruct the homeless individual or family.

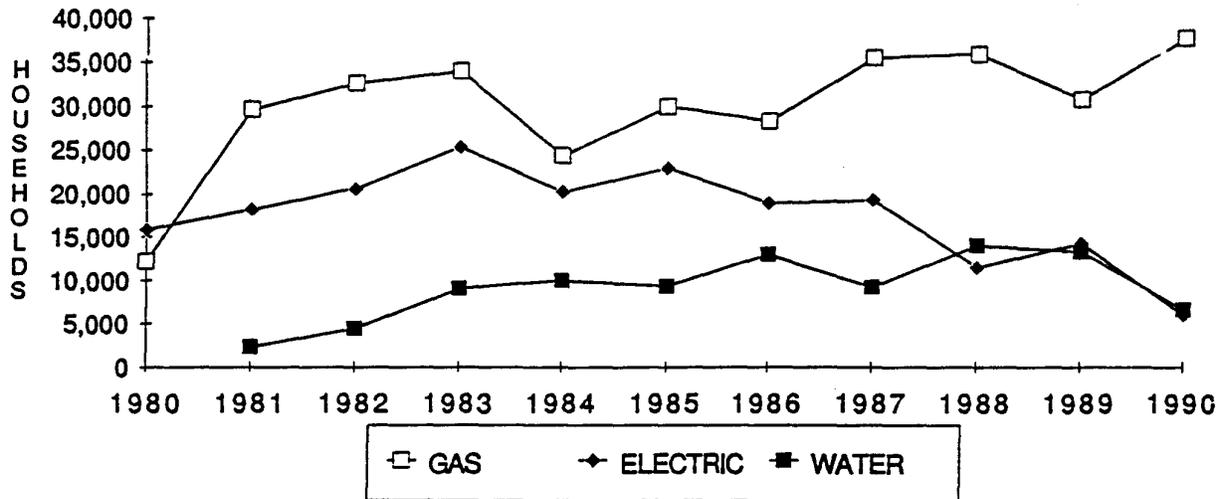
This research would also suggest that utilities must begin

to factor in the social cost of terminating low income customers who truly cannot afford their energy use. **Utilities must begin to thoroughly explore the most cost effective means of reducing terminations.** Many utilities are currently investing in program activities such as conservation, flexible and affordable payment agreements, arrearage forgiveness, and budget counselling. In evaluating these efforts it would be well to examine their impact on the termination rate of the utility and the longevity of the investment as well as its cost effectiveness to all ratepayers and impact on utility revenue and writeoffs.

FIGURES

FIGURE 1

**RESIDENTIAL UTILITY TERMINATIONS DUE TO NON PAYMENT,
Philadelphia, 1980-1990**



**Utility Service Terminations in Philadelphia
1980 - 1990**

Shutoffs due to non payment and Reconnections by year
(Numbers in Thousands)

| | PGW * | | PE ** | | PWD *** | |
|------|-------|-------|-------|-------|---------|-------|
| | Shut | Recon | Shut | Recon | Shut | Recon |
| 1980 | 12.2 | 9.6 | 15.8 | 7.2 | N/A | N/A |
| 1981 | 29.6 | 11.0 | 18.1 | 7.4 | 2.3 | N/A |
| 1982 | 32.6 | 18.5 | 20.6 | 10.5 | 4.4 | N/A |
| 1983 | 33.9 | 18.4 | 25.2 | 12.0 | 8.9 | N/A |
| 1984 | 24.3 | 13.5 | 20.2 | 9.0 | 10.0 | 5.8 |
| 1985 | 29.8 | 18.0 | 22.8 | 12.5 | 9.3 | 6.9 |
| 1986 | 28.2 | 17.2 | 18.9 | 9.8 | 12.9 | 9.4 |
| 1987 | 35.4 | 20.2 | 19.2 | 7.8 | 9.3 | 7.7 |
| 1988 | 35.7 | 22.5 | 11.4 | 2.4 | 13.9 | 6.5 |
| 1989 | 30.6 | 20.2 | 14.2 | 3.1 | 13.2 | 12.1 |
| 1990 | 37.6 | 23.6 | 6.0 | 1.8 | 6.6 | 5.3 |

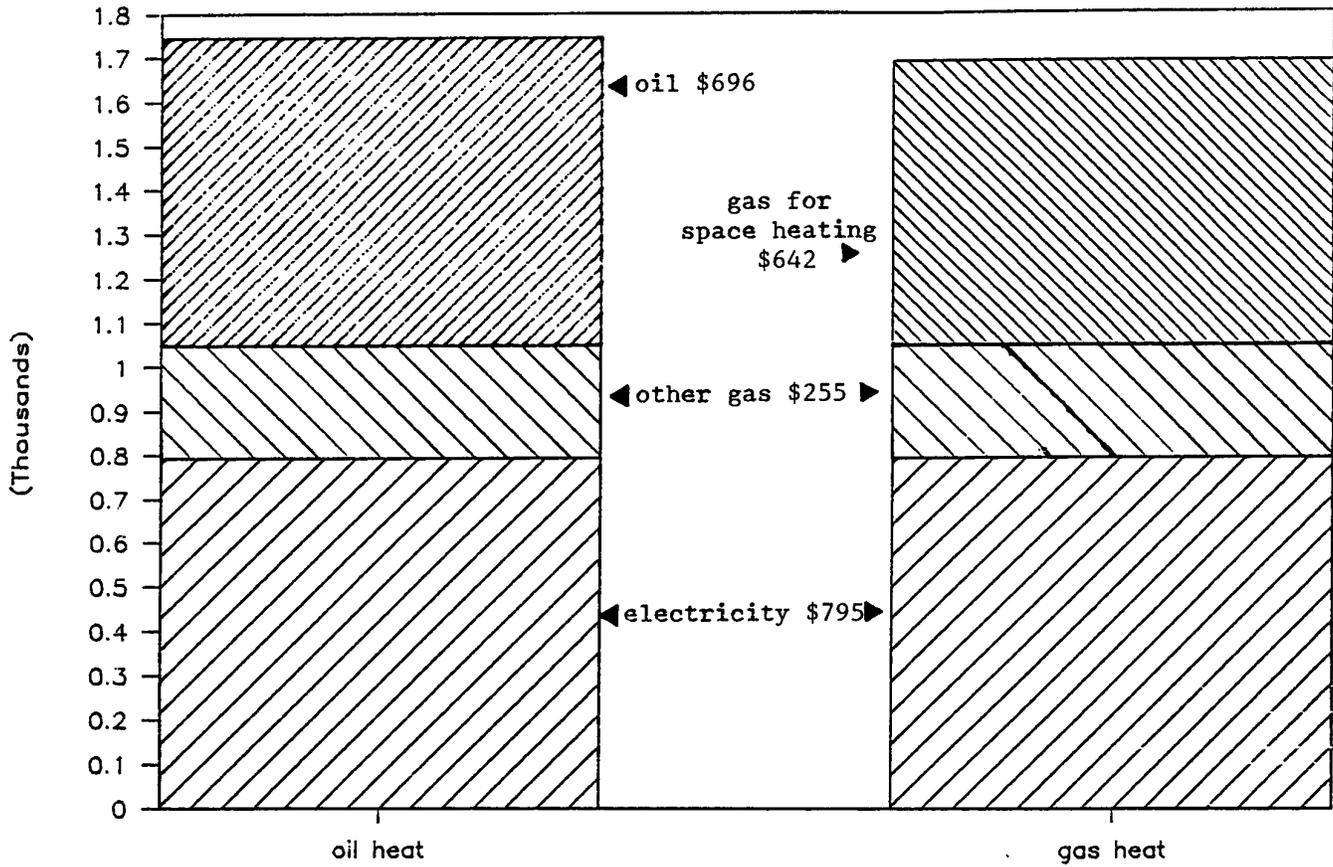
Data Sources:

- *Philadelphia Gas Works
- **Philadelphia Electric Company
- ***Philadelphia Water Department

FIGURE 2

AVERAGE ENERGY COST IN 1991

FOR LOW INCOME HOUSEHOLDS: PHILADELPHIA



OIL-HEATED HOUSE
total energy: \$1,746
including water: \$2,167

GAS-HEATED HOUSE
total energy: \$1,692
including water: \$2,113

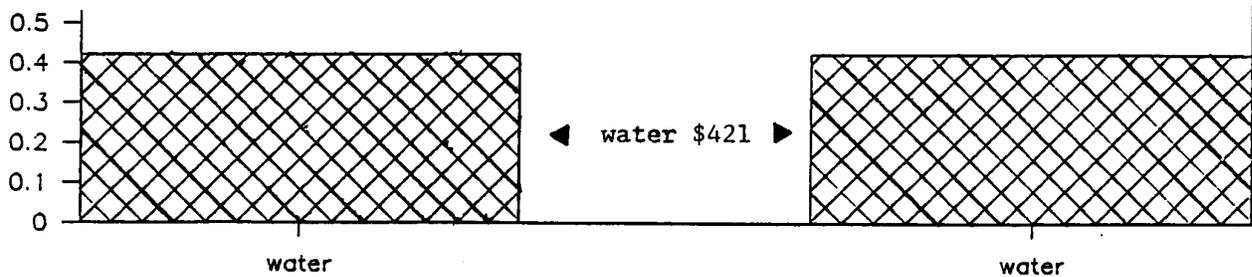
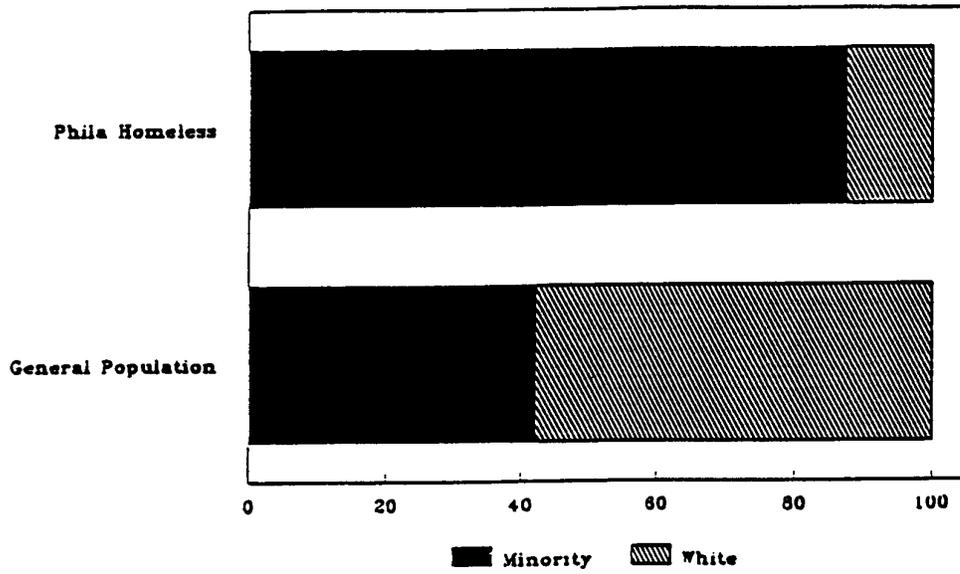


Figure 3: Racial Composition of Homeless Philadelphians

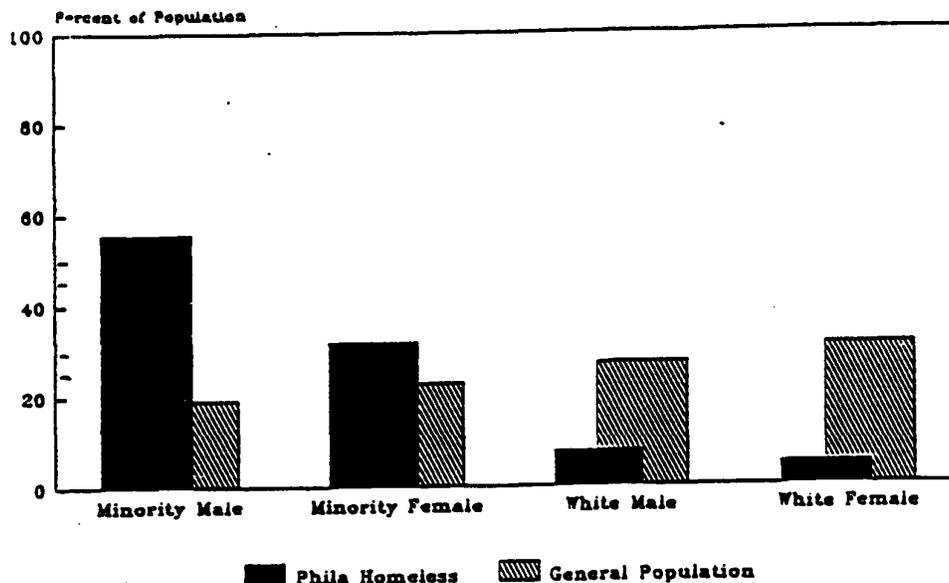


Racial Composition of Philadelphia Homeless

| | <u>Homeless</u> | | | |
|----------|------------------|----------------------|-----------------------|-----------------|
| | <u>City-Wide</u> | <u>Phila-delphia</u> | <u>Other Counties</u> | <u>Total PA</u> |
| Minority | 42.1 | 87.5 | 32.7 | 69.1 |
| White | 57.9 | 12.5 | 67.3 | 30.9 |

Source: "Homelessness in Philadelphia: Roots, Realities and Resolutions", 1989

Figure 4: Race/Gender Composition of Homeless Philadelphians

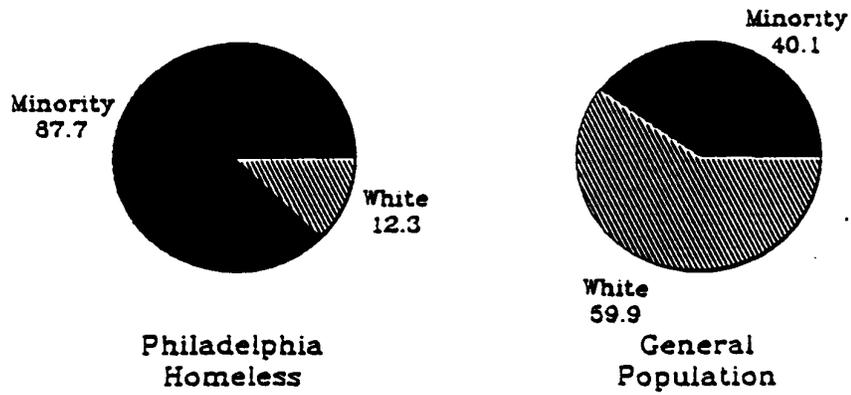


Race/Gender Composition of Philadelphia Homeless

| | Homeless | | | |
|-----------------|-----------|---------------|----------------|----------|
| | City-Wide | Phila-delphia | Other Counties | Total PA |
| Minority Male | 19.2 | 55.7 | 16.9 | 42.6 |
| Minority Female | 22.8 | 31.8 | 15.2 | 26.2 |
| White Male | 27.2 | 7.7 | 36.1 | 17.3 |
| White Female | 30.8 | 4.9 | 31.7 | 13.9 |

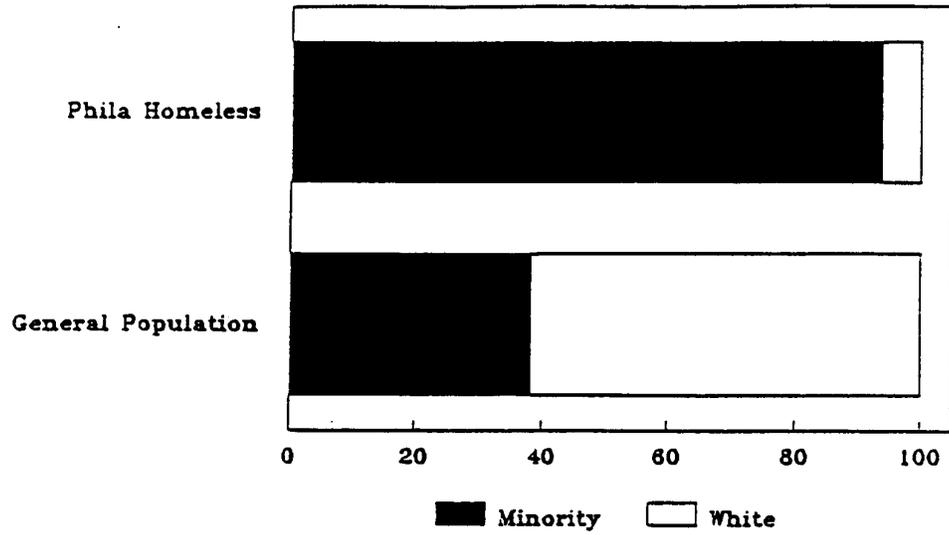
Source: "Homelessness in Philadelphia: Roots, Realities and Resolutions", 1989

Figure 5: Race of Single Homeless
Philadelphians; 18 - 45 Years of Age



Source: "Homelessness In Philadelphia: Roots, Realities and Resolutions", 1989

Figure 6: Race/Ethnic Status of Single With Children Homeless



Note: Singles with children are 18 years of age and over.

Source: "Homelessness in Philadelphia: Roots, Realities and Resolutions", 1989

FIGURE 7

% of Utility Terminations Abandoned

Within one Year

