

CAMBRIDGE ACTION TO SAVE HEAT:  
A CASE STUDY OF A WEATHERIZATION PROGRAM

by  
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## CONTENTS

ABSTRACT

|                            |    |
|----------------------------|----|
| I. INTRODUCTION            | 1  |
| II. DESCRIPTION OF PROGRAM | 5  |
| III. THE PARTICIPANTS      | 9  |
| IV. RESULTS                | 23 |
| V. ANALYSIS OF RESULTS     | 24 |
| VI. RECOMMENDATIONS        | 28 |

BIBLIOGRAPHY

END NOTES

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ABSTRACT

This thesis was written to assist the weatherization program's, Cambridge Action to Save Heat (C.A.S.H.), effort to recruit a larger sector of Fuel Assistance participants in their program. The central question I looked at was what do Fuel Assistance participants perceive as the obstacles to undertaking a weatherization program and what incentives do these people need to undertake weatherization programs.

Despite the consensus of experts on the importance of energy conservation, the number of residents in Massachusetts making substantial investments in energy conservation remains small. To better understand these previously low levels of participation from the perspective of the Fuel Assistance participants, I thought it best to ask the user how he perceives the weatherization program. I used fifteen people who have participated in or are eligible to participate in C.A.S.H. as case studies to learn from.

By speaking with these participants and discovering what they felt were the important issues concerning weatherization, I hoped to have developed a list of criteria by which to evaluate other energy programs with more sensitivity to the user.

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## INTRODUCTION

This thesis looks at what obstacles have prevented low-income people from weatherizing their homes, and what incentives do these people need to undertake weatherization programs. These questions came out of a concern for how low-income people keep themselves warm given their difficulty in meeting other basic costs of living.

Analysts and policy makers agree the most sensible way to decrease the residential sector's dependency on a scarce energy resources is to encourage conservation measures. Proponents argue that only by attacking the causes, particularly energy inefficient housing, will we be able to mitigate the energy cost from the poor. These claims are supported by a number of studies (Berman and Cooper, 1981: CBO Study 1981: DOE/FOMAC Report 1981 and statewide evaluation studies.<sup>1</sup> Massachusetts Fuel Savings Evaluation, 1982: MCAF Evaluation, 1981<sup>2</sup>). By and large these reports have documented both the efficacy and the potential of weatherization and low cost/no cost energy programs. Low cost/no cost is defined as energy conservation steps which require infiltration of cold air into the house in order to receive significant energy savings.

Despite the consensus of experts on the importance of energy conservation, the number of residents making substantial investments in energy conservation remains small. Currently there is a proposal in Massachusetts to request

the shifting of funds from fuel assistance to low-cost weatherization programs. With the assumption that just the greater availability of funds is not sufficient incentive to motivate the user, it is important to better understand these previously low levels of participation from the perspective of the fuel assistance participants; therefore, I thought it best to ask the user how he perceives weatherization programs. I decided to use people who have participated in a particular weatherization program as case studies to learn from. I interviewed fifteen people who have either participated or are eligible to participate in the C.A.S.H. (Cambridge Action to Save Heat) weatherization program.

I selected C.A.S.H. as the organization I would work with because it had a good reputation, is located in one of the largest cities in Massachusetts and was truly interested in the findings of my study to improve their own effectiveness.

Of those interviewed, all were participants in the Fuel Assistance program and ranged from people who had never had contact with the C.A.S.H. program to people who had made substantial weatherization investments. By speaking with these participants and discovering what they felt were the important issues concerning weatherization, I hoped to have developed a list of criteria by which to evaluate other energy programs with more sensitivity to the user.

### STUDY METHODOLOGY

The main source of data was the fifteen interviews. The selection of these fifteen participants followed several informal interviews used to familiarize myself with how clients would respond to questions. The participants I selected were all within the fuel assistance eligible guidelines (see chart on p. ) and represented a range of people: Elderly, female head of household, and handicapped. It should be noted that people who have taken the initiative to weatherize their homes do not represent the most needy sectors of the population. They are a select group within the larger population in need. Therefore this study will only address the issue of access for people who already have a means to enter the weatherization programs. However, the C.A.S.H. staff note that the number of Fuel Assistance participants as well as weatherization participants has been growing over the years.

Together with the director of C.A.S.H., Don Falk, I have developed a list of questions to ask participants. The structure of the interview was open because each person's story was documented as a distinct case study, not a sample or a statistic. I conducted the interviews in person and by phone, depending on the person's preference. As a result, most interviews were conducted by phone.

The questions I asked people who had had some contact with C.A.S.H. were the following:

CAMBRIDGE ENERGY PROGRAMS  
INCOME ELIGIBILITY STANDARDS

| PROGRAM                       | CASH          | NORTH<br>CAMBRIDGE | WEATHERI-<br>ZATION |        |
|-------------------------------|---------------|--------------------|---------------------|--------|
| Income<br>guidelines          | Fuel<br>Ass't | HIP<br>Moderate    | MWAP                | DOE    |
| household<br>size             |               |                    |                     |        |
| 1                             | 8,190         | 16,240             | 8,190               | 5,850  |
| 2                             | 10,885        | 18,560             | 10,885              | 7,775  |
| 3                             | 11,640        | 20,880             | 13,580              | 9,700  |
| 4                             | 13,950        | 23,200             | 16,275              | 11,625 |
| 5                             | 16,260        | 24,650             | 18,970              | 13,550 |
| 6                             | 18,570        | 26,100             | 21,665              | 15,475 |
| 7                             | 20,880        | 27,550             | 24,360              |        |
| 8                             | 23,190        | 29,000             | 27,055              |        |
| each<br>additional<br>person: | 2,310         |                    | 2,695<br>*          | 1,925  |

\* Note: AFDC and SSI recipients qualify automatically for MWAF and DOE weatherization.

1. How did you first hear about C.A.S.H.?
2. When was that?
3. What services have you taken advantage of?
4. Of the measure you have taken advantage of, what results have you noticed?
  - a. monetary
  - b. differences in comfort
5. Do you feel the program was worthwhile?
6. Why or why not?

The questions I asked people who were fuel assistance eligible but had not had contact with C.A.S.H. were the following:

1. Has someone from the C.A.S.H. (Cambridge Action to Save Heat) office been in touch with you?
  - a. If no, can I tell you about the program?
  - b. If yes, perhaps you would be interested in participating in the program. Can I tell you how the program works? If no, would you mind telling me why?

#### DESCRIPTION OF PROGRAM

Cambridge Action to Save Heat is a program created to assist Cambridge residents in their "plight to stay warm." Specifically, they provide a variety of low cost/no cost weatherization programs for residents and homeowners. The program began in 1981 as one of the 29 pilot programs in the first statewide energy program which was initiated by the Massachusetts Conservation Assistance Fund (MCAF) programs. One of the program's primary goals was to make



"citizens more independent in matters of energy conservation."<sup>3</sup> The hope was that low cost conservation could reduce the money spent on home heating, particularly by those dependent on fuel assistance.

With the assumption that an individual community could conduct a community-wide energy conservation program successfully with its own resource, the funding for C.A.S.H. came through a sub-contract granted to the Cambridge Community Development Office. Along with Offices of the City Government, Community Action Agencies and independent community agencies or coalitions also administered the MCAF projects. The program was successful in educating many citizens but without the financial support from the state and federal resources, its ability to assure the participation of low income households and provide adequate coordination, was limited. As a result, there now exists, in every state with a provision in the Fuel Assistance Block Grant, that up to 15% of Fuel Assistance funds can be allocated for energy conservation measures.<sup>4</sup>

C.A.S.H. began with a full-time staff of two, eight volunteers, and a budget of \$30,000 (plus a supplementary budget of \$20,000). This original program sought to provide: training, in basic low cost/no cost conservation measures, simple materials for installation for program participants, heating system improvements and repairs would be referred to the appropriate agency. The training in conservation

measures was available to all citizens, while the material and heating system improvements were targeted to fuel recipients only.<sup>5</sup>

At present, C.A.S.H. has four full-time staff, fifteen volunteers, and a budget of \$100,000 (plus \$50,000 from additional sources). C.A.S.H. actively recruits volunteers from universities, church groups, and community groups to supplement their paid staff.<sup>6</sup> With the growth of the program and the increasing financial as well as political support for the program, C.A.S.H. has been able to expand to a full-scale weatherization program. The program entitled the Cambridge Weatherization Assistance Program (WAP) provides trained crews and contractors to insulate walls, attics, basements; install storm windows and doors; and repair heating systems. Other programs which are sponsored by C.A.S.H. in cooperation with the Community Development Department are: The Burner Tune-up and Repair Program, Home Improvement Program (for Cambridge Home-owners), North Cambridge Neighborhood Energy Project (specifically geared to organize North Cambridge residents into weatherization programs).

Weatherization is the process of preventing heat from escaping from the building structure. Heat escapes in two ways. One, by blowing directly through the material the house's exterior or "shell" is made out of (conduction). Secondly, by flowing in air currents through cracks, joint

seams, in the shell (infiltration). Conduction can be reduced by insulating the exterior walls, roof, attic and floors and by installing storm windows and doors. Infiltration can be reduced by caulking and weatherstripping all seams and joints that allow air to pass through and sealing all openings in the shell that are not in use. For example, plugs in the wall, closets.

At present C.A.S.H. offers the following services to deal with the above mentioned problems:

They provide for workshops which demonstrate simple energy saving techniques and common sense methods of saving money and fuel.

Distribute free weatherization kits to people who are receiving fuel assistance, who come to a workshop to get a home energy audit. Materials in the kit are worth up to 100 dollars and include: Rope caulk, plastic storm windows.

C.A.S.H. will install free weatherization kits in the homes of people who are elderly or disabled.

C.A.S.H. will arrange energy audits for people's homes to show where heat is being lost. The service is free for people who are fuel assistance eligible and costs ten dollars for everyone else. Audits are conducted by Massachusetts SAVE.

Additional services include:

1. Full scale weatherization, such as installation of storm windows, insulation.
2. Emergency Repairs for heaters and oil burners.

#### TIME SCHEDULE

C.A.S.H. operates on a year round basis. Their schedule is largely determined by the flow of funds. Since fuel assi-

stance recipients usually receive their checks around the beginning of December, most outreach is done prior to this time. Workshops are more effective when the weather is still cold and savings due to infiltration measures are best realized. Measures such as caulking, glazing, structural repairs, and installing water devices, are more conveniently done in the summer. Because of the cyclical demand in the heating oil business, few dealers will even consider doing tune-ups during the heating season. They rely on such work to keep them busy during the summer. Therefore, burner repairs are saved for the spring and summer to prepare participants for the following winter.

#### THE PARTICIPANTS

In this chapter I will introduce the sample of people used in my study and explain why I chose those particular people. I categorized people into groups according to the services they used, summarized my findings for each group and analyzed my results in relation to findings reported in previous studies.

Since all the participants were Fuel Assistance eligible, most were dependent on some form of public assistance, such as AFDC, SSI, and social security. Therefore most people not only qualified for free materials but also for assistance installing the materials. This means that most of the people I interviewed were not

required to spend any financial or physical effort to participate in the program. The participants ranged from age 30-95, with most people falling in between. All but four people were renters in apartments of multifamily houses. There was a noticeable absence of minorities among the C.A.S.H. participants I observed. This seemed peculiar since there are a large percentage of blacks and Hispanics in Cambridge. Moreover, minorities comprise a disproportionate percentage of those on public assistance. There seems to be a gradual recognition of the problem; Mass SAVE has just begun a Portuguese audit. Portuguese speakers constitute the largest non-English speaking group in Cambridge.

The people I interviewed were broken down into groupings according to their level of participation in the program, Fuel Assistance eligible, audit completed only, some level of weatherization completed (see chart on p.11). The amount of work they had done was grouped according to C.A.S.H.'s categorization of their services, as explained by the charts on pp. 12-14.

## PROFILE OF CHARACTERISTICS

| PERSON INTERVIEWED        | ELIGIBILITY     | OWNER/ RENTER | APPLICATION DATE | PHONE/ IN PERSON |
|---------------------------|-----------------|---------------|------------------|------------------|
| GROUP A (Fuel Assistance) |                 |               |                  |                  |
| Mr. Barnes                | Elderly         | R             |                  | Phone            |
| Ms. Lee                   | AFDC            | R             |                  | Phone            |
| Ms. Kane                  | Elderly         | R             |                  | Phone            |
| Ms. Saunder               | Elderly         | R             |                  | Phone            |
| GROUP B (Had Audit)       |                 |               |                  |                  |
| Mr. James                 | Income eligible | R             | 82               | Person           |
| Ms. Walter                | "               | R             | 81               | Phone            |
| Mrs. Lucci                | Elderly         | R             | 81               | Phone            |
| GROUP C (Had Tier 1)      |                 |               |                  |                  |
| Ms. Arnold                | AFDC            | R             | 81               | Person           |
| Ms. Baxter                | SSI             | R             | 81               | Person           |
| Mrs. Martin               | Elderly         | R             | 81               | Person           |
| Mrs. Lewis                | Income eligible | R             | 81               | Person           |
| Ms. Pines                 | Elderly         | R             | 82               | Phone            |
| Ms. Smith                 | Elderly         | O             | 82               | Phone            |
| GROUP D (Had Tier 2)      |                 |               |                  |                  |
| Mr. Stein                 | Elderly         | O             | 81               | Phone            |
| Mrs. Crane                | Social Security | R             | 82               | Person           |

LIST OF MATERIALS NEEDED FOR  
INSTALLATION OF TIERS 1, 2, & 3

TIER ONE

1. Rope Caulk (Moretite brand)
2. Plastic Storm Windows (packs of four)
3. Double Sided Carpet Tape
4. Glass Patch
5. Clear Tape
6. Outlet and Switch Gasket Packs
7. Shopping Bags

TIER TWO

1. Door Weatherstripping  
(aluminum & vinyl)
  2. Door Weatherstripping  
(wood feltstick)
  3. Door Sweeps
  4. Hack Saws
  5. Tube Caulk
  6. Caulking Guns
  7. Putty Knives
  8. V-Strip Seal
- (continued)

LIST OF MATERIALS NEEDED FOR  
INSTALLATION OF TIERS 1, 2, & 3

CONTINUED...

9. Roll Felt
10. Faucet Aerators
11. Hot Water Tank Jackets
12. Sash Locks
13. Radiator Reflectors
14. Shower Heads
- 15a. Hot Water Pipe Insulating Wrap (tube)
- 15b. Hot Water Pipe Insulating Wrap (tape)
- 15c. Duct Tape

TIER THREE

1. Glazing Compound
2. Mortar Mix
3. Wire (20 Gauge only)
4. Flat 2" L Brackets (for window corners)
5. Steam Radiator Vents
6. Spring Bronze
7. Vinyl Heating Duct Wrap
8. Exterior Spackle
9. Plastic Trash Bags
10. Paper Towels
11. Fiberglass Insulation (continued)



LIST OF MATERIALS NEEDED FOR  
INSTALLATION OF TIERS 1, 2, & 3

12. Spot Sash Cords (#7 & #9)
13. Linseed Oil
14. Parting Beads
15. Window Stops
16. Strapping Wood
17. Butane Tanks
18. Hardware (all of it!)
  - a) Flat Wood Screws:
 

|             |
|-------------|
| 6 x 7/8"    |
| 6 x 1 "     |
| 6 x 1 1/4 " |
| 6 x 1 1/2 " |
| -----       |
| 8 x 7/8"    |
| 8 x 1 "     |
| 8 x 1 1/4 " |
| 8 x 1 1/2 " |
  - b) Storm Window Screws:
 

|          |
|----------|
| 6 x 7/8" |
|----------|
  - c) Nails:
 

|      |
|------|
| 6 D  |
| 8 D  |
| 10 D |
| 12 D |
  - d) Carpet Tacks (#10 gal.)
  - e) Staples
  - f) Chisels (3/4" & 1/2")
  - g) Sandpaper: (Medium & Coarse)
  - h) Nails:
 

|                   |
|-------------------|
| 1 1/4" (17 Guage) |
| 1 1/4" (18 Guage) |
  - i) Utility Knives
  - j) Yard Sticks

The following is the grouping of the participants:

- group A People who were participating in the Fuel Assistance program but had not participated in any phase of the C.A.S.H. program.
- group B People who had had an energy audit; the first step in the weatherization process, prior to having work done on their home.
- group C People who had had work done in the first tier.
- group D People who had had work done in the second tier.

GROUP A

The people in this category were particularly significant because they represented a large sector of the population which could potentially be drawn into the weatherization program. At present, C.A.S.H. contacts fuel assistance participants by going through the computer print-out lists given to them by the Fuel Assistance Office.

In 1981-1982 approximately 160,000 households in Massachusetts were served by the Fuel Assistance program. The average household received between \$450 and \$500, approximately one third of the average fuel bill for a Massachusetts household. It is estimated that 40% were elderly and an equal number were SSI or AFDC recipients.<sup>8</sup>

The four people I interviewed were comprised of: An elderly man, an AFDC recipient, and two elderly women. Of the four people, only the elderly man, Mr. Barnes, was

not interested in participating in the program. Mr. Barnes told me, "I'm 95 years old. I'm too old to bother. I won't be around long enough to appreciate it." The others were interested in finding out more about the program and having an audit scheduled for them. Unfortunately, I could not schedule the audit on the spot.

One of the four said they had heard of the program before. Ms. Lee, a single parent who receives AFDC, was on record as having received some materials (caulking cord and carpet tape and plastic) from C.A.S.H. previously but she claimed she had never heard of the program. She was interested in persuing the energy audit. Mrs. Kane, an elderly woman, who lives alone in an apartment she rents, said she had heard of C.A.S.H. when she applied for Fuel Assistance in October 1982. When I asked her why she had not pursued it, she told me it had totally slipped her mind. I did not want to probe the woman any further since it may have only provoked responses from guilt. The other two participants had not heard of C.A.S.H. before but they did know what weatherization was. When I asked Ms. Saunders, a woman who lives on social security, if she was interested in learning more about C.A.S.H., she asked if this had to do with caulking and weatherstripping. When I told her yes, she said she would be interested.

GROUP B

The participants in this group were comprised of a Haitian man, who lived with his family in the Haitian section of Cambridgeport, a single mother who lived with her child, and an elderly woman. All of these participants lived within walking distance to the C.A.S.H. office.

All four of the people in this group had heard of C.A.S.H. through the Fuel Assistance Office. In most cases, a year or more had passed since the audit occurred. When I asked people what had happened since the audit (why had they not done anything to pursue the weatherization program?) they usually gave me one of two responses: They expected a C.A.S.H. representative to call them or they had forgot to call C.A.S.H. The director of the program told me this confusion occurs because in the past, auditors have often promised that a C.A.S.H. representative would call the client but at the same time fail to notify C.A.S.H. of this promised follow-up. It is now C.A.S.H.'s policy that the client must contact C.A.S.H. himself after the audit.

One participant in this group who was disappointed by this delay was Mrs. Lucci. Mrs. Lucci not only had an audit but also had contacted C.A.S.H. to begin proceedings for arranging the installation of weatherization materials. She was very disappointed with the program because "they promised many things and never did anything. They spent many hours talking to me and never did anything. I am not

interested anymore." Mrs. Lucci was an elderly woman and she confided to me that she felt uncomfortable having strangers in her house. I suspected she felt invaded by a group of people she perceived as dishonest and irresponsible.

This feeling was confirmed by another woman I shall call Mrs. X, because I did not include her in my sample. She was so discontent she would not even let me complete the interview. As soon as I identified myself as being affiliated with C.A.S.H., she said, "No, I don't want people in my house anymore. They didn't do anything. They didn't fix my door."

The Haitian, Mr. James, was the most eager of this group to receive assistance from C.A.S.H. He had first learned of the program when he went to the Fuel Assistance Office to inquire about a problem he was having with his heater. Mr. James told me, "I've been in this country for seven years but I don't understand the heating system. In my country (Haiti) they do not have these problems." When he turned the heater on, it was extremely hot. When he turned the heater off, it was freezing. He was advised by the Fuel Assistance representative to contact the weatherization office which he did. He was not sure what went wrong with the heater; the auditor did not make the problem any clearer to him. Despite the wait, the confusion of the problem, Mr. James is interested in

pursuing the program. His only obstacle is whether or not his landlord will let him stay in his apartment.

#### GROUP C

This group represented the largest sample of people who had taken measures to weatherize their home. They were people who had the first tier of low cost infiltration measures installed.

To the question, "How did you first hear about the C.A.S.H. program?" two out of six answered they had heard of the program when they applied for Fuel Assistance. Two of the women classified as elderly could not remember how they had heard of the program. Four of the people who are now using the program let a year or more pass between when they first heard of the program and the time when they applied.

To the second question "When was that?" half the people said, two years ago (the year the program began). The others said, last year. Some people were informed by friends or neighbors about the program. The time the applicants applied for weatherization usually corresponded to the year they became dependent on public assistance.

To the question, "What services have you taken advantage of?" most people responded caulking and weatherstripping, then storm windows (tier one). Half of the people were waiting to have additional work done on their home.

Two of the most actively involved participants were strikingly different in their circumstances and in what motivated them to their involvement in the program. Ms. Baxter was a black woman of 55 years who had multiple sclerosis. She lived with her elderly mother and daughter in a small apartment in Central Square. Although on public assistance now, and eligible for a maximum amount of assistance from C.A.S.H., she has done some of the work herself. With measures such as installation of storm windows which require lifting, she had to have assistance. In addition, she got her landlord and other tenants in the building involved in the program.

Ms. Baxter's disease makes her particularly sensitive to slight changes in temperature. Her doctor advised her not to expose herself to extreme cold or hot temperatures. He suggested she keep the heat on at all times. Although she receives Fuel Assistance, the fuel bill exceeds the amount of assistance she receives. Therefore, she requested caulking and weatherstripping from C.A.S.H. to prevent drafts from coming in. Soon after, C.A.S.H. installed storm windows. She has found the storm windows particularly helpful in cutting down on drafts. However, due to leakage upstairs that damaged her apartment's ceiling and walls she had to have the storm windows removed. She is currently waiting for assistance to reinstall the windows. If Ms. Baxter was not burdened with her handicap and had someone

to assist her, she would not have to wait for C.A.S.H. She told me that until recently she had worked full-time to support her family. It is only because of the illness that she could not do the work herself.

In contrast, Mrs. Martin, owns a spacious two family house in North Cambridge, where she lives with her son and his family. Mrs. Martin was very apologetic for how nicely furnished her house was and she was aware that most other people on public assistance do not live at the same level of comfort. This could be explained by the fact that she and her husband had worked for many years receiving a moderate income and allowing them to live comfortably. Seven years ago her husband died and several years after she retired. These changes had forced her to apply for public assistance, fuel assistance and then weatherization.

#### GROUP D

Since the program is only two years old and not all the participants I interviewed applied at its beginning, C.A.S.H. did not have a significant number of people in this category.

I interviewed two people in this group, Mr. Stein and Mrs. Crane. Mr. Stein was 75 years old, retired and living with his wife in a house he owned. Mrs. Crane lived in the first floor of a house she rented. She lived there with her son who had cerebral palsy. They both



receive social security. In addition, Mrs. Crane has arthritis which has made it difficult for her to lift things. Despite the pain she experiences when using her hands, she lifts her son's wheelchair herself. She likes to think of herself as an independent person. She told me "I never ask help from anyone." Prior to her involvement in C.A.S.H. she used tape to caulk the windows. However, her arthritis bothered her too much for her to put in the weatherization materials this year. Other services she requested were metal and felt stripping, copper stripping on the windows, and the hot water heater blanketed. She said, "the house does feel warmer." She is happy with the program because she likes the one-on-one contact. "they listened to me."

Mr. Stein first found out about C.A.S.H. when they contacted him through his Senior Citizen's Group. That was two years ago. As a spokesperson for that group, he went to C.A.S.H.'s workshop and thoroughly investigated the program. He was very satisfied and proceeded to have the first tier of work put in. He did much of this work himself. Over the years, he has had storm windows installed, attic insulation put in through a DOE program.

Mr. Stein was very enthusiastic about the program, although he did not site noticeable differences. He explained this by saying that fuel prices have gone up by 17%, the weather was warmer this winter, and his house is

over 100 years old.

Mr. Stein struck me as an unusually self-reliant person. He understood the program as well or better than any C.A.S.H. employee. Although 75 years old, he installed quite a few items himself, and he organized many other people into the program. He thinks most people expect services to be handed to them on a silver platter. In his mind, assistance should not be expected, therefore he welcomes any help. He believes the program should not be criticized because they are doing something about the problem.

#### RESULTS

Although each case was a different person's story, there were responses common to all participants.

1. Most people had first heard of the program through the Fuel Assistance Office.
2. Usually, this was in the past year and a half.
3. Most people were in the process of having work done or waiting to have work done on their home.
4. Most of the people I interviewed, particularly the elderly, had difficulty remembering the answers to some of the questions.
5. Most people did not respond to the question, "What results have you noticed?" until I prompted them.
6. Despite uncertainty about what results people noticed, overall people thought the program was worthwhile.
7. When I asked people why they thought the program

was worthwhile, most people said they were anticipating benefits in the future, or they were appreciative that someone was trying to assist them.

### ANALYSIS OF RESULTS

In this chapter I will offer some analysis of my results. In particular, what distinguished the people who took action from those who did not. For those who took no action, what were the obstacles they perceived to investment and what implications does this have for C.A.S.H.?

The responses from people with no involvement (group A) seem to indicate that these people did not differ significantly in their characteristics (age, income level of need, and all pay for their own heat). Their responses seem to show that they could potentially be drawn into the program without much difficulty. Most of them were interested in receiving further information and possibly applying for the program. Since none of these people had heard of the program before they did not have preconceived notions about it.

This receptivity toward my phone call and toward future participation in C.A.S.H. may indicate that with more personalized outreach, more Fuel Assistance participants would become involved in the program. Also, since most people heard of the program through the Fuel Assistance Office but none of these people remembered hearing of

the program, this indicated the need for greater coordination between the Fuel Assistance Office and the C.A.S.H. Office.

In the group that had had the audit (Group B), people were also receptive to the idea of greater participation in the C.A.S.H. program. However, it is questionable to me whether they would have followed up on what they said. A year or more had passed since they had the audit and all lived within walking distance of the C.A.S.H. office.

The main reasons given for not having pursued the program were the following: C.A.S.H. had not called back or the participant had not called C.A.S.H. As explained earlier in the thesis, this confusion is partially due to the lack of coordination between the audit program and C.A.S.H. In addition, the audit is only an evaluation of a home's energy efficiency. The auditor is often unaware of the extent to which C.A.S.H. assists people to deal with their landlords, explain energy saving measures or offer labor assistance. Thus, the auditor's checklist of deficiencies may leave the tenant or homeowner overwhelmed.

However, the participant must also be made to understand that C.A.S.H. is not invincible. They are a small organization which is understaffed, short of resources, and the more dependent a person is on their services, the slower the process will be. Although C.A.S.H. offers labor assistance to the elderly and handicapped, many of these

people have done the work themselves. In the case of Mrs. Lucci, she probably could not have done the work alone but with the help of a relative or friend, she could have picked up the materials and finished the work.

The results of my findings for groups C and D show that the level of services a person used does have to do both with individual resourcefulness and the resources available to that person. This is not to say that a person's circumstance is necessarily a predictor of their response to the program. For example, some of the most destitute people (in terms of resources available to them), were some of the most motivated. The prime example being Ms. Baxter, the woman who had multiple sclerosis and lived with her elderly mother and daughter.

For the most part I would agree with the experts who say that the services offered in tier three make more sense for the homeowner than for the renter. Insulation, new window sashes, glazing mortar compounds around the windows require additional investment, take longer to install and the payback period is longer. Therefore cost and time considerations are not a priority unless these renters plan to buy their apartments.

Moreover, with the difficulty it takes to get people into the program, getting them to make greater investments is not likely. The longer term solutions that tier three offers will not be made a priority by Fuel Assistance parti-

participants until more people's homes obtain a basic level of energy efficiency.

A response that kept reoccurring during the interview process was the participants embarrassment at being dependent on public assistance, particularly since a person's dependency was made public by a C.A.S.H. employee coming to that person's house. As mentioned in the summary of group C's participants responses, several people had made a point of telling me they did not want to be on public assistance, it was only because they were ill, too old or without adequate income that they had decided to apply for assistance. For people with this attitude toward public assistance to apply for weatherization, they would have to perceive their situation as urgent or desperate. Perhaps, this perception indicates that many people perceive the program to be too much of a giveaway and would like to be more actively involved in earning the subsidy they are receiving.

### RECOMMENDATIONS

One way of dealing with the participants' embarrassment is to put their subsidy into programs which require the participant to invest time or money in return for some savings on their fuel bill or improvement in the building's energy efficiency. One example of this kind of program is the Citizen's Energy Corporation, created by Joseph Kennedy.

The Citizen's Energy Corporation is a non-profit energy company formed in response to the energy crisis. It buys crude oil directly from Venezuela and other foreign countries, has it refined, and delivers it at reduced prices. The Citizen's Energy Corporation has a subsidiary, Citizen's Conservation Corporation, which assists tenants with a revolving loan. The Conservation Corporation arranges for the tenant and landlord of a building to pay the Corporation the projected cost of heating fuel for the next five years. In return, the Corporation pays the fuel bills while making energy conserving improvements in the building. As a result of those energy savings, the Corporation is able to rebate money left over after the year's heating bill is paid.

The project is an attractive model for two reasons. First, it has proven to provide concrete benefits (in terms of savings). As the results of my study show, most people are unclear about whether or not weatherization has made any concrete differences, and they do not know how to

measure benefits in the future. The overall positive responses toward the program may have been largely due to their gratitude for assistance and the belief that the program would help in the future. Second, the program contains a hidden subsidy which induces people to undertake the program without feeling they are depending on public assistance.

A second recommendation would be greater coordination among the various agencies (e.g. Low-Income Energy Assistance Program, MCAF, WAP). At present, the various programs differ in their objectives, regulatory requirements, fiscal cycles, staffing patterns. These variances make it more difficult to provide "one-stop" service to eligible households. Better coordination would enhance the agencies' ability to merit additional support and assistance.



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END NOTES

- <sup>1</sup> Berman and Cooper. CBO Study (1981) pp. 24-26.
- <sup>2</sup> Cowell, Stephen and Dunn, Debra. Summary and Evaluation of the Massachusetts Conservation Assistance Fund, (Massachusetts Executive Office of Communities and Development, 1981). pp. 12-14.
- <sup>3</sup> Cowell and Dunn, p. 4.
- <sup>4</sup> Cowell and Dunn, p. 17.
- <sup>5</sup> Cowell and Dunn, p. 18.
- <sup>6</sup> Cambridge Office of Communities and Development, C.A.S.H. Brochures.
- <sup>7</sup> C.A.S.H. Brochures.
- <sup>8</sup> Personal interview with Don Faulk, January 15, 1983.