DOE/CS-0209

The Weatherization Assistance Program

Annual Report For 1980

November 1980

U.S. Department of Energy
Assistant Secretary for Conservation & Solar Energy
Office of State & Local Programs
Office of Weatherization Assistance Programs
Washington, D.C. 20585

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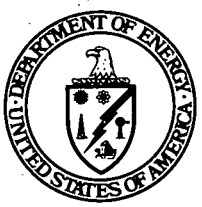

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EXECUTIVE SUMMARY

This report on Federal weatherization activities is required by Section 254 of the National Energy Conservation Policy Act (NECPA). It addresses three major areas of concern relating to weatherization activities: (1) the extent of progress being made toward achievement of national energy conservation goals; (2) the adequacy and costs of materials; and (3) the need for and desirability of modifying weatherization activities and of extending such activities to a broader range of income groups, including changes to the legislation necessary to accomplish these modifications. The report concentrates on the efforts of the Department of Energy's (DOE) program for Weatherization Assistance for Low-Income Persons, authorized by the Energy Conservation in Existing Buildings Act of 1976 (Title IV of the Energy Conservation and Production Act (ECPA)), as amended, but also includes available information on related activities of other Federal agencies.

Federal weatherization activities contribute to the achievement of national energy conservation goals by encouraging and funding energy conserving measures in dwelling units occupied by low-income owners and renters. From the inception of the first Federal program devoted to weatherization, early in 1975, through August 31, 1980, approximately 830,000 units have been weatherized. Operational difficulties in the program -- including shortages of labor, inadequacies in data collection, and delays in expenditure of program funds -- have resulted in a series of corrective initiatives. These include changes made by NECPA in 1978, and by the Energy Security Act in 1980, as well as by a series of amendments to the program's regulations, most recently an interim final rule issued by DOE on February 27, 1980. In addition, for four months (January through April) during 1980, the program was operated under the direction of the Department's Under Secretary, which enabled the program to implement a number of important changes on an expedited basis.

Among the most significant innovations introduced to the program in 1980 are: performance funding (granting funds on the basis of proven production capability), payment for labor and contractors, inexpensive interim measures, and more flexibility in determining eligibility for multi-family buildings. In addition, the program improved communications with the Department of Labor (DOL) and the Community Services Administration (CSA) as well as with representatives of the local program operators. Headquarters staffing was strengthened in 1980, and a management agreement was signed which clarified the respective responsibilities of the Assistant Secretary for Conservation and Solar Energy, the DOE Regional Representatives, and the Director of the Office of Weatherization Assistance Programs.

The costs of materials vary considerably among different areas of the country because of variations in factors such as transportation costs and purchasing procedures. Weatherization materials are generally available in adequate quantities, although certain items may be temporarily in short supply, especially in the busy seasons for weatherization activities.

DOE is presently reviewing a number of areas which could result in proposals for legislative modification to the program. These include: increasing the limitation on administrative expenses; raising the allowable expenditure per dwelling unit; and authorizing demonstrations to determine the effectiveness of innovative energy conservation approaches. The Department is in the process of implementing the series of legislative changes recently made to the program by the Energy Security Act, and is therefore making no legislative recommendations at this time. Such proposals will be forthcoming as appropriate. DOE believes that it would be inadvisable at this time to extend the program's activities to a broader range of income groups. There are an estimated 14 million households potentially eligible at the present income levels. Until all of these households have been surveyed, and assisted where necessary, DOE feels the program should continue to concentrate on the lowest income groups, who are most in need of assistance.

This study was prepared by the Department of Energy in consultation with the Departments of Agriculture, Commerce, Housing and Urban Development, Labor, and Health and Human Services, and the Community Services Administration.

I. INTRODUCTION

The Federal involvement with weatherization activities began as a response to the fuel shortages and price increases during the 1973 oil embargo. The need to conserve energy and to lessen the impact of rising energy costs on low-income Americans led to the establishment of a number of Federal programs. The first such program was begun in 1975 by the Office of Economic Opportunity (OEO), which used its Community Action Agencies (CAA's) as the delivery mechanism. OEO became the Community Services Administration (CSA), which continued the program through fiscal year 1978. The Federal Energy Administration (FEA, now part of DOE) began a similar program in fiscal year 1977, authorized in Title IV of ECPA, using for its local delivery mechanisms many of the same CAA's used by CSA. The DOE program became the sole Federal weatherization assistance effort beginning in fiscal year 1979. A number of other Federal agencies foster conservation by encouraging weatherization improvements as part of their overall missions.

II. PROGRESS TOWARD THE ACHIEVEMENT OF NATIONAL ENERGY CONSERVATION GOALS

In April 1977, the President announced his National Energy Plan which, among other things, set forth a series of goals for 1985. One of those goals was to make more energy efficient 90 percent of existing American homes.

The Federal Government's weatherization activities are involved in the achievement of that goal and of two broader goals: to "reduce the annual growth of total energy demand to below 2 percent,"* (from a projected 3 percent rate without new energy conservation initiatives) and to "reduce oil imports from a potential level of 16 million barrels a day (in 1985) to 6 million..."*

Conservation and fuel efficiency were major components of this Plan. Increased funding was proposed to "aid people with low-incomes to weatherize their homes."** The amounts appropriated were $130 million for fiscal year 1978, $198.95 million for fiscal year 1979, and $198.95 million for fiscal year 1980.*** The revised budget request for the DOE program for fiscal year 1981 is $188.95 million.

In May 1979, the National Energy Plan II was released. It re-emphasized the need for conservation and identified weatherization grants for low-income people as a crucial part of the Plan.

The Federal weatherization activities reviewed in this study have contributed toward achievement of National energy conservation goals. This contribution will increase substantially as more homes are weatherized and related programs focus more on weatherization activities. Current DOE estimates, based on a pilot study conducted by the Mid-American Solar Energy Center (MASEC) for the State of Minnesota, indicate that weatherizing results in an average fuel

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*The National Energy Plan, Executive Office of the President. Washington, D.C.: U.S. Government Printing Office, 1977, p. XIII.

**Ibid. p. 41.

***Funds were divided evenly between CSA and DOE in fiscal year 1978 ($65 million each); DOE received the entire weatherization appropriations in fiscal years 1979 and 1980.

savings of 14 percent per home,* which is the equivalent of approximately 2.5 barrels of oil per year per home. This represents an estimated savings of the equivalent of some 2,075,000 barrels of oil per year based on the approximately 830,000 homes weatherized as of August 31, 1980, under the CSA and DOE programs. (This assumes that "weatherization" in the early years of the Federal program achieved equivalent energy savings to the weatherization being done today, and that those savings continue to accrue. This assumption is highly questionable, since homes weatherized in the early years were done at a much lower cost. However, we have no better data on which to rely).

Energy savings has always been a difficult area in which to gather data, for a number of reasons. There are great variations in the types and conditions of dwelling units weatherized, in climatic conditions, and in the prices of fuels. Records of fuel purchases before and after weatherization are frequently not readily comparable. In addition, there may be some cases where weatherization activities may lead to short-term increases, rather than decreases, in energy use. Some people may open up more rooms in their homes, or may raise their thermostats, once the weatherization measures take effect and heating bills start to go down. However, the steadily rising price of fuels should serve as a long-term disincentive for such counter-productive activity. Therefore, while it may never be possible to provide exact figures, it appears clear that the weatherization effort is resulting in significant energy savings.**

A number of other Federal programs fund weatherization activities such as research, outreach efforts, and housing rehabilitation, but there is not sufficient data to quantify the amount devoted specifically to weatherization. The DOE and CSA weatherization programs and other Federal programs which include weatherization activities are described below.

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*This study, completed in December 1979, found an average savings of 13.43 percent per home. The savings in this study ranged from a high of 17.49 percent to a low of 9.37 percent. The results were based on a survey of 59 sample group and 37 control group homes representing the population of all weatherized and non-weatherized low-income homes in the State. The methodology used in this study was designed to have general applicability to other State programs. DOE is funding a follow-up to the MASEC study as a part of its program evaluation. The second-year study will attempt to validate the energy savings determined in the pilot survey.

**See Appendix C for more detailed information about the types of people served, number of homes weatherized, and expenditures for the DOE program.

A. The Department of Energy (DOE)

The Department of Energy's Weatherization Assistance Program provides for the installation of insulation, storm windows and doors, and other energy efficiency improvements to reduce heat loss and conserve energy in the homes of low-income people, especially the elderly and the handicapped. DOE has provided funds to 75 grantees: 49 States (all except Hawaii, which originally declined to participate but has recently asked to be included, in order to insulate hot water heaters), the District of Columbia, and 25 Native American tribal organizations. Starting in fiscal year 1981, Hawaii will also be participating in the program.

These funds can be expended for materials, administration, program support, training and technical assistance, and under certain circumstances, for labor and contractors. Labor to perform the actual weatherization work has generally been provided by the Department of Labor's Comprehensive Employment and Training Act (CETA) program, or by volunteers. To date, approximately 80 to 85 percent of weatherization workers in the DOE program have been paid by CETA. In most cases, local weatherization projects are operated by the same CAA's which perform a number of other services for low-income people. Those not operated by CAA's are run by other local non-profit organizations, including some operated by local governments or by the State.

DOE's Weatherization Assistance Program awarded its first grant in August 1977 and is now preparing its fifth round of funding, for fiscal year 1981. As of August 31, 1980, 430,000 homes had been weatherized under DOE's program.

Progress Made in 1980

The DOE Weatherization Assistance Program encountered significant operational problems which slowed anticipated production rates during the program's first three years. Legislative, administrative, and regulatory changes have been made to deal with these difficulties, including a number of significant changes made in 1980. The key changes in 1980 were introduced in the program's interim final rule published in the Federal Register on February 27, 1980, (44 FR 13028). Response to these changes has been generally positive. Preliminary studies on the impact of these changes and on the effectiveness of the program's present delivery mechanism, should be available by January 1981. The major regulatory changes are:

(1) Performance Funding

Prior to fiscal year 1980, the program's grantees were given annual allocations based on a formula which did not take into account utilization of funds previously awarded. Grantees which were capable of spending more than they were allotted could not get additional funds, and grantees whose funding far exceeded their ability to produce simply retained their allocations, unexpended. Very sizable amounts of prior year funds were carried over from year to year under this system.

In order to provide an incentive to grantees to produce at a more satisfactory level, the program's regulations were amended in 1980 to provide for giving additional funds to grantees which produce at a greater rate than their initial allocation can finance. This change enables the program to channel its limited resources to those grantees which prove best able to utilize them. Under this new system, performance and funding levels are reviewed each year, so adjustments can be made on a responsible and timely basis. In reallocating the funds, DOE takes into account funds available, and each State's demonstrated production capability.

The program anticipates continuing production at the rate achieved in the last quarter of FY 1980 through CY 1981, using carry-over funds from prior years plus the 1981 budget request. At that rate of production, all program appropriations through FY 1981 should be expended by December 31, 1981.

(2) Payment for Labor and Contractors

Shortages of labor to weatherize homes have frequently been a problem. The DOE program was designed to provide materials and program support for the weatherization effort and relied heavily upon labor provided by the DOL (through its CETA program) or by volunteers. There are, however, limitations to the extent to which the CETA program can respond to weatherization needs: it is designed as a short-term employment/training program, with strictly limited pay rates and tenure, and its funding is statutorily targeted to areas of high unemployment, whereas DOE's program funds are allocated on the basis of climate (heating and cooling degree-days) and number of low-income persons. In the past, some areas that qualified for DOE weatherization assistance have been unable to meet weatherization production goals, due in part to inadequate supplies of CETA labor or alternative volunteer resources.

DOE began experimenting with ways to improve program administration and with increased flexibility on the labor issue under the DOE/DOL/CSA "Action Plan" devised in the fall of 1979 (see the program's 1979 Annual Report for a more detailed discussion of this plan). Further flexibility was deemed necessary in 1980, and as a result the amended regulations issued on February 27, 1980, included provisions to permit the hiring of labor or contractors where CETA labor and volunteers are determined to be unavailable in sufficient numbers. A companion provision was also included to allow for increased expenditures per dwelling unit where labor or contractors must be paid for from DOE funds. The average cost of weatherizing a dwelling unit has risen steadily since the Action Plan took effect, from $490 in calendar year 1979 to $790 in August 1980. A large part of this increase is undoubtedly due to payments for labor or contractors. More precise data on this question will be available next year, once the monthly reporting form (discussed on page (9) has been implemented.

(3) Interim Weatherization Measures

DOE's program was originally designed to provide a one-time-only, complete weatherization job. However, considering the vast number of eligible dwelling units and the maximum production rates possible at present funding levels, it appeared appropriate to allow for the installation of interim measures as a preliminary to complete weatherization.

Therefore, the regulations were amended to allow for the installation of certain inexpensive interim weatherization measures as a separate effort to serve eligible households which might otherwise have to wait a period of time for any sort of weatherization assistance. DOE intends that a more complete weatherization of each dwelling unit will follow the installation of these interim weatherization measures. Dwelling units receiving interim measures are not considered "completed," and are not included in the program's production figures. Data on the expenditures and the number of units receiving interim weatherization measures is requested on the weatherization program's new monthly reporting form, and will be available in 1981. In addition to this regulatory change, DOE has entered into an interagency agreement with ACTION to sponsor a series of community-wide campaigns to install interim weatherization measures.

(4) Multi-family Rental Housing

For a variety of reasons rental dwelling units have not been weatherized as rapidly as single-family owner-occupied dwelling units. Although an estimated 56 percent of eligible households live in rental units, about 11 percent of the units completed in 1979 were rental units. In order to encourage the weatherization of multi-family rental buildings, the program's regulations were amended in 1980 to provide that such buildings could be weatherized if 66 percent of the dwelling units were eligible. The change also permitted vacant units to be weatherized where future occupancy is restricted to eligible tenants.

In addition to instituting these new flexibilities, DOE is continuing to fund a demonstration project in New York City to determine viable approaches to encouraging the weatherization of rental buildings in large urban areas. DOE hopes to have a clearer picture of the effect of the changed regulations on the weatherization of rental buildings by January 1981, after the completion of an impact analysis on the expansion of the definition of an eligible mutli-family dwelling unit.

Other 1980 - 1981 Initiatives

FY 1981 is seen as a year for the program to consolidate and evaluate gains made in the past two years, and to strengthen management and improve quality control, to enable the program to operate at maximum efficiency under its present legislative mandate and, perhaps, to broaden its perspective in future years.

(1) Record Keeping

Obtaining timely and accurate information about the progress of the program has been a continuing problem. In large measure, this difficulty arises from the need to collect data from 75 grantees and nearly 1,150 geographically dispersed local program operators. DOE has designed a new comprehensive monthly reporting form, to be implemented late in 1980, to gather timely and accurate information from its grantees. Specifically, the reporting form will collect data on number of homes weatherized, expenditures by allowable category, labor hours and expenditures, and number of people assisted. DOE is working to develop a standard methodology for determining energy savings. Once that is established, energy savings data will be required on the monthly reporting form. An automated data storage and retrieval capability is part of this system as well.

(2) Program Guidance

In order to assist the grantees in providing effective management of the program, DOE is developing a number of instruction instruments, including audit guidelines, training modules, and a State Program Manual. These should be available by early 1981.

(3) Information Transfer

Maintenance of effective communications with 75 grantees and nearly 1,150 subgrantees has also proven to be a difficult task. In its efforts to improve information flow and the administrative capabilities of the various grantees and subgrantees, DOE sponsored a pilot project in 1979 to develop a weatherization bulletin to disseminate information on administrative, legislative, technical, and management questions. The first issue in 1980 was published in July, and DOE is currently seeking approval from the Office of Management and Budget to publish this bulletin on a regular basis.

(4) Headquarters Management

For the first four (4) months of 1980 the program operated under the direction of the Under Secretary. This gave the program needed visibility and support from the highest levels of DOE. Besides publishing the interim final rule in February, the Department improved communications with DOL, CSA, and representatives of local program operators. In addition, headquarters staffing was increased and strengthened, and relations with the Regional Offices were clarified.

(5) Alternative Delivery Mechanisms

The program has, to date, limited itself to a single local program operator in any given area. A number of migrant farmworkers representatives have argued that this system neglects migrant farmworkers. In order to test possible alternative approaches, DOE is negotiating an interagency agreement with DOL to fund a

demonstration project to assist migrants directly. DOE will assess the relative cost-effectiveness of this new approach before seeking to expand it to additional sites and organizations.

(6) Energy Security Act

The Energy Security Act (Pub. L. 96-294 (June 30, 1980)) (ESA) made a number of important changes to the program, including raising the repair limitation (to $150 from $100); allowing States to pass through up to 10 percent of their grants to subgrantees for administrative expenses; changing the basis for selecting local agencies; requiring standards to achieve uniform results in similar climates; and permitting payment for the hiring of non-CETA labor under certain circumstances. DOE is in the process of developing a final rulemaking to implement the first two of these changes and is planning to seek public comments on the other three changes in a notice of inquiry, preparatory to isssuance of a notice of proposed rulemaking.

(7) Notice of Inquiry

DOE received many valuable comments in response to its interim final rule of February 27, 1980, many of which suggested changes to the program. In addition, ESA has mandated a number of changes, as discussed above. In order to give all interested members of the public a chance to comment on all aspects of the program, before changing the regulations further, DOE is planning to issue a Notice of Inquiry (NOI) seeking comments on a number of areas of particular concern (the ESA changes, plus other areas such as the list of permissible materials, the grant funding allocation formula, the installation of interim measures, the weatherization of multi-family rental buildings, cost averaging, Federal and State management roles, and training and technical assistance) as well as general comments. This NOI should be published in the Federal Register in the fall of 1980.

DOE will then combine the comments received in response to the interim final rule with those from the NOI, and will then prepare a notice of proposed rulemaking addressing all areas of the regulations deemed to need changing on the basis of all the comments.

(8) Improvements in Monthly Rates of Production and Expenditure

Monthly rates of production increased markedly in 1980, from 18,099 homes in January to 28,473 homes in August. By contrast, the rate for an average month in the first quarter of 1979 was approximately 9,300 homes, and for the third quarter of 1979 was approximately 12,300 homes. At the same time, expenditures increased from a monthly average of $3.6 million in the first quarter of 1979 to an average of $11 million in the first quarter, and $17 million in the second quarter of 1980. Expenditures for August 1980 were approximately $22.5 million, with an average cost per unit weatherized of $790.

The program is currently spending at an annual rate of $270 million, and anticipates weatherizing 310,000 homes in 1980. With currently available funds and the budget request of $189 million for FY 1981, the program estimates that an additional 300,000 homes will be weatherized in CY 1981. If the program continues at its current rate of production through 1981, all current and prior year funding is scheduled to be expended as of December 1981.

B. OTHER FEDERAL WEATHERIZATION ACTIVITIES

The Community Services Administration (CSA)

The Community Services Administration's Weatherization Program was the first Federal program to concentrate on weatherizing the homes of low-income persons and was part of a larger CSA program to assist people in coping with scarcer and more costly energy supplies. The CSA program provided funds directly to the local Community Action Agencies, rather than through the States, as DOE's program operates. CETA served as the primary source of labor for the CSA program as it does for DOE's program.

CSA's Weatherization Program was established at the end of fiscal year 1975, and funded weatherization projects through fiscal year 1978. CSA has reported that approximately 400,000 homes were weatherized under its 1975 to 1978 program.

A number of other Federal agencies sponsor programs which include weatherization activities similar to those in the current DOE and the former CSA programs. In general, weatherization is not the major function of any of these programs, but it does constitute an important side benefit. While separate weatherization statistics are not maintained for these programs, it is clear that they result in energy conservation benefits for the Nation. These programs are briefly described below.

The Department of Agriculture, Farmers Home Administration (FmHA)

The Farmers Home Administration (FmHA) is the largest Government direct housing lender, with $3.08 billion of its over $14 billion fiscal year 1980 budget available for Single Family Rural Housing Programs. FmHA has a series of loan and grant programs, administered through FmHA State Directors, and County Farmers Homes Offices, that can be used for energy conservation measures by rural homeowners.

FmHA 502 Rural Housing Loans - the Section 502 Loan Program provides funds for individual families to buy, build or repair a home for their own use. Homes financed under this program must meet minimum property standards including FmHA's more rigid thermal standards. The program includes a rural housing weatherization loan provision.

The objective of Section 502 loans is to provide eligible applicants the opportunity to obtain adeqate but modest, decent, safe and sanitary housing and related facilities. Applicants must be unable to obtain the needed financing from private lending institutions, and be of low or moderate income. The houses financed must be situated in rural areas. The 1980 funding level for this program was $3.08 billion. The budget request for 1981 was $2.77 billion.

FmHA Section 504 Loans and Grants - Section 504 loans and grants are made to assist very low-income owner-occupants in rural areas repair or improve their dwellings in order to make their homes safe and sanitary by removing hazards to the health and safety of the occupants and/or the community.

The maximum grant assistance is $5,500. To be eligible for a grant, an applicant must be 62 years of age or older and be unable to repay that part of the assistance received as a grant. Authorized purposes for a 504 loan or grant include insulation, storm windows, roof repair, adequate heating system, etc. A recent survey indicated that a majority of these loan and grant funds are used for weatherization purposes.

The funding 1980 levels for these programs were:

504 Loans	$24,000,000
504 Grants	$24,000,000

The 1981 budget request was:

504 Loans	$50,000,000
504 Grants	$25,000,000

Section 504 C Weatherization Program - provides authority for the Secretary of Agriculture to develop and conduct a weatherization program to weatherize dwelling units occupied by low-income families. Priority would be given to weatherization of dwelling units occupied by elderly or handicapped persons. Section 504 C has not been funded.

The Department of Housing and Urban Development (HUD)

The Department of Housing and Urban Development's (HUD) Office of Community Planning and Development and Federal Housing Administration (FHA) manage the following programs which may provide for the inclusion of weatherization improvements:

Community Development Block Grants - focus on projects primarily benefitting low and moderate income people; have been awarded to over 5,000 cities, including about 3,000 annually; about 25 percent of the funds go to property rehabilitation, which often includes weatherization measures. For FY 1980, $3.8 billion was appropriated and the Administration's request for FY 1981 was $3.95 billion.

Section 312 of Rehabilitation Loans - have financed the renovation of over 110,000 housing units and are made only when the rehabilitation work conforms to HUD's energy conservation standards. For FY 1980, $216 million was appropriated for loans, and the request for 1981 was $192 million;

The Urban Homesteading Program - Section 810 of the Housing and Community Development Act of 1974 provides for the transfer of HUD properties in designated areas to cities for urban homesteading programs. These vacant properties are then turned over the urban "homesteaders" who agree to bring the property up to local building standards, frequently including the installation of weatherization materials. For FY 1980, $12 million was allocated under Section 810 and for FY 1981, $13 million has been allocated.

Title I Home Improvement Loans - the Federal Housing Administration provides insurance for loans made by private lenders on single and multi family dwellings; funds may be used for weatherization retrofits.

HUD also insures, subsidizes or holds an estimated 8,000 housing projects, with nearly 1,000,000 low-income tenants. In the summer of 1980, HUD advised its local offices that such projects might qualify for assistance under DOE's program. Many project owners or managers inquired about such assistance, and in some areas, DOE local program operators were able to schedule work on these projects along with their regular applicants. At its present funding levels, however, the DOE program would not be able to do more than a few of these projects in any given year.

The Department of Health and Human Services (HHS)

The Department of Health and Human Services' Administration on Aging provides the States with formula grant funds which can be used, particularly in emergencies, for minor home repairs and renovations, including weatherization improvements. Funds are not earmarked specifically for home repair and renovation, but these services may be provided through programs administered by local Area Agencies on Aging (AAAs) based on a determination of the priority needs of the older persons being served.

HHS will also be administering a new program in fiscal year 1981 to provide cash assistance to low-income persons to help them pay their fuel bills. This program, called the Low-Income Energy Assistance Program, is not involved in weatherization. For FY 1981, Congress has provided funds in the amount of $1.7 billion.

The Department of Commerce, National Bureau of Standards

The Community Services Administration (CSA) and the National Bureau of Standards (NBS) are cooperating in a Demonstration Project to determine the energy savings achieveable through economically optimized weatherization of low-income family homes. Some 200 homes in 14 locations, covering all major climate zones of the contiguous States are involved. For each demonstration house, energy use,

infiltration rate, mechanical efficiency, building dimensions, and weather data were collected, both pre-weatherization and post-weatherization. The data can be used not only to determine the savings and costs associated with various weatherization options, but also to develop mathematical models for infiltration and energy consumption of residential buildings and to check the accuracy of existing calculation methods.

ACTION

ACTION and DOE have entered into an Interagency Agreement to mobilize a number of communities throughout the Nation to conduct low-cost energy conservation campaigns. ACTION's Office of Voluntary Citizen Participation will assist communities in designing and implementing energy conservation citizen efforts. Funds for planning and implementing these campaigns have been provided by DOE, and the weatherization materials to be installed will be provided by DOE subgrantees.

III. ADEQUACY AND COST OF MATERIALS

DOE commissioned a survey, undertaken in July and August of 1980, to determine the adequacy and cost of materials used in the Weatherization Assistance Program. The preliminary results of this survey are included as Appendix B of this report, and are summarized below. (Final results of the survey should be available by the end of 1980.)

In general, supplies of materials were found to be adequate, although many subgrantees reported some delays (usually less than two months) in deliveries of storm windows. Frequently the shortages were seasonal, and the subgrantees serving less populous, rural areas tended to have the most problems with supply availability (they also tended to pay higher prices for the materials they use).

On average, the subgrantees are paying lower prices than the regular prices quoted by suppliers, which indicates the local agencies are obtaining quantity discounts or competitive bids from suppliers. Prices in the West tend to be generally higher, and in many areas prices tend to rise during the fall and early winter, when demand for the products is highest. Subgrantees serving rural areas tend to pay higher prices due to the smaller volume of their purchases and their general lack of warehouse space.

IV. RECOMMENDED LEGISLATIVE MODIFICATIONS

DOE's Weatherization Assistance Program operates through 75 grantees (currently 49 States (to increase to 50 States in fiscal year 1981), the District of Columbia, and 25 Native American tribes), and nearly 1,150 subgrantees. A number of labor sources, particularly the Department of Labor's CETA program, provide labor for the Weatherization Assistance Program. Developing a viable mode of operation has taken time because of this complex structure. Some adjustments to the original program were made in NECPA, further changes were made by ESA, and some have been made administratively or by regulation. These changes came about as a result of experience gained through actual operation of the program.

The program is still evolving. DOE is presently reviewing a number of areas which could result in proposals for legislative modification to the program. These include: increasing the limitation on administrative expenses; raising the allowable expenditure per dwelling unit; and authorizing demonstrations to determine the effectiveness of innovative energy conservation approaches. The Department is in the process of implementing the series of legislative changes recently made to the program by the Energy Security Act, and is therefore making no legislative recommendations at this time. Such proposals will be forthcoming as appropriate.

V. CONCLUSIONS

Federal weatherization activities are benefiting those people least able to afford the financial burden of escalating energy costs, and they are also encouraging job opportunities for unemployed individuals.

Federal weatherization activities contribute to the achievement of the Nation's energy conservation goals by reducing the amount of fuel needed to heat American homes. Weatherization also makes homes more comfortable and more healthful. DOE and CSA programs have weatherized approximately 830,000 dwelling units as of August 31, 1980, at an annual estimated savings of 2,075,000 barrels of oil equivalent per year. Recent changes to the DOE program have been designed to increase production; encourage weatherization of multi-family rental buildings; improve data collection; add production capabilities to the factors used in allocating funds; and otherwise make the program more responsive and effective.

By providing for training and job experience which can later be used in obtaining employment in the private sector, Federal weatherization activities, which seek to employ CETA labor, are helping many people who might otherwise remain unemployed. Current records indicate that approximately 20,000 CETA workers were employed in the program at any given time in 1980. No definitive data are available on the number of CETA workers who move on to private sector weatherization work. However, discussions with local program operators indicate that as many as 50 percent, or more, of the CETA workers in the program use their weatherization training and experience to get private sector employment.

The Federal weatherization activities mentioned in this report have succeeded in directly weatherizing a significant number of homes (in the cases of the CSA and DOE programs) or in encouraging, or funding, weatherization as part of a larger program (the FmHA, NBS, HUD, and HHS programs). It is expected that the ongoing Federal programs involved in weatherization will continue to contribute to the conservation of energy and the assistance of those least able to afford rising energy costs.

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PRELIMINARY RESULTS OF SURVEY OF ADEQUACY AND COST OF MATERIALS

Introduction and Description of the Survey

In order to determine the adequacy and cost of materials necessary for weatherization activities, DOE commissioned a survey of States, subgrantees, and private sector material suppliers. This survey effort was undertaken in July and August 1980, and preliminary results for the survey are reported here.

Description of the Survey

Separate surveys with correspondingly different survey plans were administered to the three groups of respondents (States, subgrantees, and suppliers). The State administrative questionnaire was given to all 49 States in the program (Hawaii was not participating in the program at the time) plus the District of Columbia. The purpose of this survey was to determine the role of the State in the purchase of materials as well as to ascertain any information State officials had concerning the range of prices paid in their State and the extent of intrastate price variation. The reason for identifying the role of the State was to assess whether it contributes to any differences in prices.

A sample of the approximately 1,150 subgrantees in the country was surveyed also. The size of this sample was 241. In order to increase the precision of the collected data for analysis, the subgrantees were stratified by the four Census Regions and by three sizes of population areas (less than 75,000; 75,000 - 200,000; over 200,000). In the design of the survey, it was assumed that price variation is greatest for program operators in small, rural areas; and smallest in large urban areas where there is greater information and competition. Therefore the smallest population areas were oversampled and the largest areas undersampled relative to their proportional composition in the program. Subgrantees in each of the 49 States were surveyed, however. The size of the sample is as follows (completed surveys are in parentheses):

	POPULATION OF AREAS SERVED									
CENSUS REGION	LESS THAN 75,000		75,000-200,000		OVER 200,000		TOTAL	
Northeast	16	(15)	14	(13)	9	(9)	39	(37)
North Central	23	(23)	24	(23)	8	(7)	55	(53)
South	55	(48)	32	(26)	9	(5)	96	(79)
West	34	(25)	10	(8)	7	(4)	51	(37)
Total	128	(111)	80	(70)	33	(25)	241	(206)

The purpose of the subgrantee survey was to determine prices paid on or as close as possible to July 1, 1980, for insulation materials, storm windows, storm doors, and other materials used in the program. This survey also gathered information on the prevalence of discounts and on general procurement procedures, and identified suppliers of materials.

It should be emphasized that in both the subgrantees' and suppliers' surveys, the geographic stratification was the Census Region (Northeast: Maine, Connecticut, New Hampshire, Vermont, Massachusetts, New York, New Jersey, and Pennsylvania; North Central: Ohio, Indiana, Michigan, Illinois, Wisconsin, Minnesota, North Dakota, South Dakota, Nebraska, Kansas, Missouri, Iowa; South: Delaware, Maryland, Washington, D.C., Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, Kentucky, Arkansas, Louisiana, Texas, and Oklahoma; and West: Montana, Idaho, Washington, Oregon, Wyoming, Utah, Colorado, New Mexico, Arizona, California, Nevada, and Alaska).

Consequently, the conclusions that are drawn are statistically significant only for those regions.

The definition of supplier that was applied was a business establishment which sells insulation materials, storm windows, and/or storm doors to organizations or individuals whose purpose is to apply these materials to residences for energy conservation purposes. That is, manufacturers of constitutent parts of the materials (e.g. manufacturers of glass panes which are sold to other manufacturers who assemble the storm windows) and manufacturers who limit their sales to wholesalers/retailers or industrial clients were precluded. The sample of suppliers was stratified by Census Region in order to permit reporting results at the same geographic detail as that used in the subgrantee survey. The universe of suppliers was partitioned into two sets: manufacturers and retailers/wholesalers. The supplier sample sizes are as follows:

CENSUS REGION	MANUFACTURERS		WHOLESALERS/RETAILERS	
Northeast	43	(10)	44	(7)
North Central	56	(20)	55	(19)
South	101	(26)	44	(8)
West	51	(2)	25	(5)
Total	251	(58)	168	(39)

Data from the supplier survey are incomplete at this time but will be fully analyzed in the final report on this survey.

The purpose of the supplier survey was to determine prices charged for weatherization supplies and to get the suppliers' perspectives of why and how prices are set and changed. There were also a number of questions on discount policies and supply availability.

Because the survey was done by telephone, it was not possible to inspect the materials - however, it was assumed that subgrantees were responding about purchases of materials which meet the standards set for this program.

Summary of Results

The preliminary results of the survey point to several conclusions. First of all, the subgrantees are, on average, paying lower prices than those generally quoted by suppliers. This suggests that the agencies are shopping around and getting competitive bids. Suppliers responded that their pricing policies often included discounts for large volume purchases and it is clear that many subgrantees are taking advantage of these. On the other hand, a relatively small percentage of subgrantees (perhaps 10 percent or less), appear to be paying disproportionately high prices, as indicated by the price variations in Tables 2 through 7. Once the results of this survey are completely tabulated DOE is planning to advise all subgrantees of the conclusions regarding purchasing procedures.

Compared to other regions, the West seems to be facing somewhat different circumstances. The delivered costs of almost all materials are higher, which results in the following:

i) A higher incidence of subgrantee's building their own storm windows and storm doors;

ii) A higher usage of less expensive materials such as wood or rigid vinyl framed storm windows or plastic glazing; and

iii) Greater use of the more durable silicone caulking, which is relatively more cost effective in high-cost areas. Silicone caulking is costlier than other types, but the disparity in cost is considerably less in the West.

Finally, there appears to be some sensitivity to supply and demand in the markets for all weatherization materials, with a history of 5-20 percent price increases reported in the fall or early winter, when weatherization activities generally accelerate.

State Response

All fifty State programs responded to the survey. The prices reported by the States for all of the materials (based on their knowledge of prices paid at the local level) showed significant variation. Furthermore, most States reported considerable intrastate variation in prices paid. Twelve of the States reported that they are currently experiencing availability problems with some supplies. Ten of these twelve responses concerned significant delays in having storm window orders filled. South Carolina reported having problems obtaining skirting, and New Mexico was having difficulties purchasing water flow controllers.

Role of the State in Materials Acquisition

Table 1 provides data on the States' perception of their role in the acquisition of materials. The total responses are more than 50, since more than one response may be applicable per State. Six States reported that they played no role in the acquisition of materials. Of the remaining States, a majority indicated that they provided technical assistance (28) and regulated procurement procedures (24). Most of those that responded that they provided technical assistance indicated that it was not an activity that received a great deal of emphasis. On the other hand, the two dozen States which regulate procurement procedures, required a fairly strict reliance on competitive bidding. In five States, an upper limit was set on prices that may be paid.

Since the price information that was gathered was in terms of intrastate ranges, it is difficult to determine whether those States emphasizing competitive bidding or maximum prices actually paid lower prices. An analysis of the data seems to indicate that this relationship does not hold. Using cellulose and storm window prices (because these are the most comparable across States), the relationship between State emphasis on competive bidding and prices paid was cross-tabulated by the midpoint of the reported price ranges.[1] The results are as follows:

		State Emphasis on Competitive Bidding and/or State Sets Maximum Price	
		Yes	No
Cellulose Price Midpoint	< 4.25	13	9
	≥ 4.25	10	9
Storm Window Price Midpoint	< 25.00	7	10
	≥ 25.00	15	8

[1] The midpoint of the price range might be skewed if there is a single agency which is paying extremely high prices. A judgement was made to exclude obvious outliers.

For the 23 States which emphasize competitive bidding or set maximum prices and which had cellulose price data, 13 had midpoints less than $4.25 and the other 10 reported ranges with midpoints greater than $4.25. For the other 18 States with data on cellulose prices, half of the midpoints were above and below $4.25. For the 22 States which emphasize competitive bidding or maximum prices which had storn prices, 7 had midpoints less then $25.00, while 15 reported ranges that had a midpoint higher than $25.00. For the other 18 States with data on storm windows, 10 had midpoints less than $25.00 and only 8 had midpoints greater than $25.00.

State control or emphasis on prices is not enough to explain price variation. Or stated more positively, there are subgrantees in States which are passive toward exercising control over materials' prices which are pay low prices.

Table 1

Region	State Assumes Full Responsibility For All	State Assumes Full Responsibility For Some	State Provides Technical Assistance	State Sets Maximum Prices	State Regulates Procedures	State Plays No Role	Other
I			2	1	5		
II			2		1		
III	1[a]		3	1	2		1
IV			3	1	5	2	
V			2		4	1	
VI			4	2	2		1
VII			2		2	1	
VIII			4		2	2	
IX			3		1		
X			3		1		
TOTAL	1	0	28	5	25	6	2

[a] District of Columbia

Within State Price Variation and Seasonality Pattern

The vast majority of States (39) indicated that there was variation in prices paid for materials within the State. A number of these respondents felt that the variation was minor and was explained simply by the fact that different vendors were used. However, ten to twelve States reported that the volume of the subgrantees' purchases made a difference in the price paid and therefore small, rural agencies paid slightly higher prices, while two States reported that urban areas paid higher prices because of the typical pattern of generally higher prices for all goods in urban areas.

About ten States indicated that the intrastate variation in prices was due to the locations of the various subgrantees which resulted in different transportation costs. Finally, four States indicated that there were significant differences in buying practices which caused the price variation within their States. That is, in these States some subgrantees searched for bargains more aggressively or shopped around to more vendors than other subgrantees.

Slightly fewer than half (22) of the States indicated that there was a seasonality pattern in materials' prices. Sixteen of these respondents reported that cellulose insulation prices were particularly sensitive to supply and demand and thus rose 5 to 15 percent in fall and early winter, when demand is high.

Prices Paid

Table 2 gives the reported price ranges by State. It should be emphasized that these prices are estimates and are not strictly comparable. The intent of the State survey was to derive general estimates and not to pinpoint exact prices for comparable materials (which was, however, the intent of the subgrantee survey). Because of the differences in the way the estimates were reported, attention should be paid to the footnotes to the table. A single entry in a column usually represents a State average; otherwise the responses are supposed to be lows and highs across subgrantees.

The cellulose prices are probably the most comparable, and as can be seen from the table, generally lie in the $3.25 - $4.25 range (per 30 pound bag). States which exceed this range are typically somewhat isolated geographically and presumably pay more for transportation costs: Maine, New Mexico, North Dakota, Utah, Wyoming, Arizona, California, Oregon, and Alaska. The variation in prices paid within States often exceeds $1.00 per bag (25-30 percent of the price).

Fiberglass insulation prices are not as easily compared due to greater variation in types of products offered in this material. Such insulation may be purchased in blankets (rolls) or batts and comes in a variety of R-values, thicknesses, and lengths and widths. Furthermore, it may be unfaced or may have facing of aluminum foil or kraft paper. Subgrantees in a number of States purchase fiberglass insulation at a price range of 10 cents - 20 cents per square foot, while in other States prices ranged considerably higher, up to 50 cents - 65 cents in some cases.

Table 2

PRICE RANGES PAID FOR WEATHERIZATION MATERIALS BY STATE

Region and State	Cellulose (Price per 30 lb. bag)	Fiberglass (Cents per sq. ft.)	Storm Windows (Dollars)	Storm Doors (Dollars)	Caulking (Per tube of Latex)
Region I					
Connecticut	3.75 - 4.25	.190 - .23[a]	21.00	55 - 85	.89 - .99
Maine	4.45 - 5.99	.14[a]	21.75 - 35.00	115 - 125	2.80
Massachusetts	3.60 - 4.60	.10 - .25[b]	25.00 - 45.00	-	NC
New Hampshire	3.50 - 5.00	.14[b]	23.00 - 32.75	63 - 84	.83 - 1.30
Rhode Island	4.25 - 5.00	.24[b]	30.00	80	1.00
Vermont	4.25 - 4.60	.18 - .20[a]	27.50 - 29.50	80 - 87	1.20 - 2.53
Region II					
New Jersey	4.35 - 4.52	NC	26.50 - 27.75	70 - 72	1.25 - 1.79
New York	NA	NA	NA	NA	NA
Region III					
Delaware	3.85 - 4.35	.23 - .30[a]	23.50 - 27.65	62.50 - 69.00	.96 - 1.45
D.C.	3.70 - 4.30	.45 - .51[b]	22.50	46 - 63	.95
Maryland	4.25 - 4.60	.27 - .59[b]	21.00 - 23.00	57 - 80	.90 - 1.20
Pennsylvania	4.20	NC	22.00	63 - 65	.90
Virginia	NA	NA	NA	NA	NA
W. Virginia	3.00 - 4.00	NA	18.75 - 24.95	-	.90 - 1.20
Region IV					
Alabama	NC	-	16.50 - 38.50	-	.99 - 1.60
Florida	NA	NA	13.00 - 40.00	-	NA
Georgia	3.51 - 4.98	.19 - .27[a]	16.65 - 57.00	-	.65
Kentucky	NA	NA	NA	NA	NA
Mississippi	NA	NA	15.00 - 35.00	-	NA
North Carolina	3.90 - 4.10	-	18.95 - 23.05	53.41 - 59.00	.96 - 1.09
South Carolina	2.87	.12	20.00	20.00	2.00
Tennessee	3.90 - 5.90	-	10.00 - 15.00	60.00 - 85.00	2.00 - 3.00
Region V					
Illinois	3.50 - 4.25	.17 - .25[b]	21.00 - 28.00	45 - 65	.88 - 2.00
Indiana	3.40 - 4.50	.27 - .65[a]	15.00 - 37.00	29 - 37	.95 - 1.70
Michigan	4.05 - 4.95	NC	18.00 - 35.00	-	NC
Minnesota	3.75 - 4.50	.12 - .16	20.00 - 25.00	75	NC
Ohio	3.00 - 4.00	NC	12.00 - 18.00[e]	-	.88
Wisconsin	3.40 - 4.75	.14 - .25[b]	19.00 - 27.00	37 - 75	1.30 - 1.80
Region VI					
Arkansas	3.15 - 4.35	-	29.00 Max	-	.89 - 1.85
Louisiana	3.80 - 4.00	.53[b]	15.00 - 20.00	NA	.89 - 2.00
New Mexico	5.50 - 7.00	.14 - .20[a]	30.00[c]	-	1.79 - 2.29
Oklahoma	4.05 - 4.10	-	19.60	48.50 - 52.00	.735
Texas	NA	NA	NA	NA	NA
Region VII					
Iowa	3.50 - 4.50	.11 - .12	26.00 - 27.00	-	.75 - 1.10
Kansas	NA	-	NA	NA	NA
Missouri	4.26	-	16.00 - 26.00	49.50 - 65.00	.88 - 1.59
Nebraska	3.25 - 4.25	NC	23.00 - 24.00	48 - 75	.59 - 2.15
Region VIII					
Colorado	4.00 - 8.00	-	40.00 - 55.00	-	1.50 - 3.00
Montana	NC	.30 - .53[b]	15.00 - 40.00	58 - 120	1.40 - 2.10
North Dakota	5.00	-	30.00[c]	75	1.40
South Dakota	3.40 - 5.40	.11 - .14[b]	38.00 - 50.00	60 - 100	1.84 - 2.00
Utah	4.50	.12	40.00	75 - 80	NC
Wyoming	4.00 - 8.00	NA	28.00 - 40.00	60 - 90	2.00 - 3.00
Region IX					
Arizona	4.00	NC	30.00[c]	50	2.50
California	4.50 - 6.00	NC	-	-	1.25
Nevada	4.10	NA	45.45[g]	NC	1.40 - 2.40
Region X					
Alaska	4.80 - 8.55[f]	.19 - .22	33.75 - 54.75[c]	55 - 85	1.75
Idaho	3.30 - 4.50	.19 - .22	NC	-	1.00 - 1.50
Oregon	5.90 - 6.90	-	25.25[g]	-	1.00 - 1.10
Washington	5.90 - 6.90	-	15.00	-	.80

a 6-inch thickness with facing
b thickness not reported
c responded in $/sq. ft.; converted to a per window price by assuming 15 sq. ft./window
d unless noted, aluminum triple-track
e double-track
f responded in $/40 lb. bag; converted by multiplying by .75
g responded in $/United inch; converted by multiplying by 101
- Material not used in state
NA Respondent did not answer
NC Respondent reported in a unit which could not be converted.

Storm window prices ranged from $15-$25 in some States, up to $35-$50 in others. Most States responded that they used predominantly aluminum frame, triple-track windows. There was a clear geographic pattern that Southern States paid lower prices, while the New England and Rocky Mountain States paid higher prices. Analysis of the data does not confirm the notion that States which reported availability problems with storm windows pay higher prices than other States, although it is reasonable to assume that they would be paying lower prices were supply more plentiful. Oregon has a unique source of storm windows - they are manufactured in the State Women's Correctional Institution and sold to the subgrantees.

The storm door prices that were quoted typically pertained to aluminum frame doors without screens. As can be seen from the table, prices paid were extremely variable ranging all the way from $30-$125. Similarly, the caulking prices were extremely varied; in some cases the caulking prices quoted were for the more expensive butyl or silicone type caulking as opposed to the cheaper latex.

Subgrantee Response

In this survey, 241 subgrantees were contacted. Responses were received from over 200 of these agencies. This section will be limited to a discussion of the prices paid for materials by these subgrantees.

Fiberglass Insulation

Table 3 shows the unweighted median price and price ranges for the purchase of fiberglass insulation. The geographic pattern does not show much variation, which is probably explained by the fact that the fiberglass insulation industry is fairly concentrated, with three large national suppliers accounting for most of the supply. These suppliers have regional production and distribution facilities, so that transportation costs are not an issue.

An interesting conclusion of the survey is that in many cases the rural subgrantees are getting slightly better prices on fiberglass than are subgrantees in population areas of greater than 75,000. For example in the Northeast, the median price for rural subgrantees was $.136/sq. ft. for R-11, while it was $.16 and $.14 for the larger agencies. In the North Central States, both R-11 and R-19 have been less expensive for the rural subgrantees. As will be shown, this pattern does not hold for any of the other weatherization materials. That is, it is almost universally the case that the rural subgrantees pay more than urban agencies. It is not yet clear why there is an apparent discrepancy on this one product, but the question will be more fully addressed in the more detailed final version of this pricing survey to be issued later in 1980.

Table 3

FIBERGLASS INSULATION PRICES PAID BY SUBGRANTEES, BY REGION

Census Region and Subgrantee Type	R-11 ($/sq. ft.)		R-19 ($/sq. ft.)	
	Median	Range	Median	Range
Northeast				
Rural	.136	.133 - .16	.32	.31 - .32
Semi-urban	.16	.14 - .16	.235	.19 - .47
Urban	.14	.13 - .15	.135	.10 - .23
North Central				
Rural	.135	.091 - .153	.18	.083 - .20
Semi-urban	.14	.125 - .17	.24	.16 - .45
Urban	-	-	.241	.241 - .34
South				
Rural	.12	.087 - .18	.19	.115 - .28
Semi-urban	.15	.11 - .24	.185	.09 - .27
Urban	-	-	-	-
West				
Rural	.14	.113 - .40	.21	.19 - .40
Semi-urban	-	-	.22	.18 - .29
Urban	-	-	.195	.19 - .20

(-) = 2 or fewer observations

Cellulose Insulation

The use of cellulose by the weatherization subgrantees was far more prevalent than the use of fiberglass blankets or batts. This is because it is cheaper on a per square foot basis and because it is easier to use in retrofitting a home. The cellulose industry is marked by a large number of small firms and is rather competitive. Within an area of the country, the median price for cellulose tended not to vary greatly for the different types of subgrantees. There were isolated subgrantees paying $7.00 or more for a 30 pound bag, but this was the exception rather than the rule.

In Table 4, unweighted median prices and price ranges for cellulose insulation are reported. Prices in the Central U.S.--the North Central region and the South--are lower than either the Northeast or West. The difference is so significant that with only one exception, all of the price observations in the North Central Region were less than the medians for the Northeast or West.

Within each of the regions, subgrantees with service areas of less than 75,000 persons paid higher prices for cellulose than the next largest groups (population between 75,000 and 200,000). However, in the Northeast and North Central regions, the larger urban programs also paid higher prices than the medium-sized group. It is likely that the price premium paid by the smaller subgrantees is due to smaller volume purchases. Not only do the smaller agencies weatherize fewer homes, but they also typically have smaller warehouses for storage.

Table 4

CELLULOSE INSULATION PRICES PAID
SUBGRANTEES, BY REGION

Census Region and Subgrantee Type	Cellulose Price ($/30 lb. bag)[a]	
	Median	Range
Northeast		
Rural	4.40	3.75 - 5.03
Semi-urban	4.38	3.11 - 7.00
Urban	4.58	4.25 - 5.28
North Central		
Rural	3.96	2.69 - 7.90
Semi-urban	3.75	3.47 - 4.00
Urban	3.90	3.75 - 4.08
South		
Rural	3.96	2.57 - 7.10
Semi-urban	3.94	3.30 - 5.99
Urban	3.54	2.80 - 4.00
West		
Rural	4.80	3.40 - 6.75
Semi-urban	4.41	4.45 - 7.00
Urban	3.90	3.90 - 4.02

[a]If price was reported for bag size other than 30 lbs., the price was normalized by an adjustment factor of (30/bag size).

An interesting observation which came out of the survey was that the subgrantees in the West tended to purchase cellulose in bag sizes other than 30 pounds, with 40 pounds bags most common. In all three other regions, fewer than five percent of the subgrantees purchased bag sizes which were other than 30 pounds. Perhaps the larger bag sizes in the West are a way of holding down an already high relative price.

Storm Windows and Storm Doors

Virtually every subgrantee engaged in the installation of storm windows.[1] Approximately 85 percent installed aluminum triple-track or double track windows. The remaining 15 percent used wood or vinyl-framed windows, plastic glazing, or aluminum framed windows with plastic inserted windows. The installation of storm doors was far less prevalent. However, those agencies which did install storm doors tended to use aluminum, hollow frame doors. Table 5 presents the unweighted median price observations and the price ranges of storm windows and storm doors.

As far as storm windows are concerned, the South seemed to pay the lowest price of any of the regions. The Northeast and North Central paid comparable prices, while the West was much higher. For example, the median price in the South for the smallest agencies was $19.99, while it was $25.00 and $25.95 in the North Central and Northeast, respectively. In the West the comparable median price was $35.00. Since storm windows and storm doors are generally manufactured and sold by the same firms, the regional pattern of storm door prices is similar to that of storm window prices. The South and North Central regions are paying the lowest prices, with the Northeast and West paying much higher prices.

There was extensive variation reported for both storm windows and storm doors. For windows, there was usually a discount for purchasing large quantities which no doubt added to the price variation across agencies. Also there were a number of agencies which purchased double track as opposed to triple track windows (although it was interesting to note that double track storm windows were not always cheaper than triple track windows).

In the case of storm doors, price variations appear to be due to the quality of the doors as well as the agencies' purchase volumes. A number of agencies only purchased doors occasionally and typically bought expensive wood-filled doors from local vendors at prices of $100 and up. Other agencies had higher volumes and paid lower prices.

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[1] There were 3 or 4 exceptions, where agencies claimed only to be caulking or weatherstripping homes.

Table 5

STORM WINDOW AND STORM DOOR PRICES PAID
BY SUBGRANTEES, BY REGION

Census Region and Subgrantee Type	Storm Windows		Storm doors	
	Median	Range	Median	Range
Northeast				
Rural	25.95	20.50 - 34.91	63.00	55.00 - 100.80
Semi-urban	24.00	16.50 - 38.08	65.00	58.30 - 115.00
Urban	24.50	22.40 - 27.00	70.25	67.50 - 80.00
North Central				
Rural	25.00	17.80 - 40.00	59.00	43.85 - 95.92
Semi-urban	22.47	16.95 - 30.00	51.08	43.88 - 100.00
Urban	22.50	20.00 - 29.00	60.00	60.00 - 66.00
South				
Rural	19.99	15.50 - 42.25	59.00	45.00 - 85.00
Semi-urban	20.70	18.00 - 45.00	57.75	45.00 - 70.72
Urban	20.95	19.75 - 22.95	54.95	52.95 - 54.95
West				
Rural	35.00	27.50 - 56.95	63.00	46.95 - 85.50
Semi-urban	33.00	30.00 - 35.00	58.00	52.00 - 75.00
Urban	-	-	-	-

(-) = 2 or fewer observations.

Other Materials

The surveys gathered data on caulking and weatherstripping, but no analytic results are available at this date because of the tremendous variation in types of products.

Availability of Materials

Almost 40 percent of the subgrantees had problems with the availability of materials. As indicated in Table 6, by far the biggest complaint concerned storm window availability or shipping delays. Many of the subgrantees reported seasonal problems only, however, and most indicated that the delays were less than two months in duration.

There was little geographic differentiation among the subgrantees reporting availability problems. However, there was a distinct pattern between the size of the agencies within a region. It was clear that the smaller, rural agencies had a greater problem obtaining supplies. While several subgrantees indicated there had been problems with insulation suppliers in the past, there currently seem to be only spot shortages.

Supplier Response

At this time, only approximately 25 percent of the supplier responses have been received and analyzed. Therefore this section of the report will be somewhat sketchy. The main results of note are that a substantial number of suppliers do offer discounts for cash and/or large volume purchases, often treating subgrantees as if they were contractors and offering 10 percent or more discounts and that the reported prices for merchandise are generally higher than those being paid by subgrantees. Table 7 provides unweighted medians and price ranges as reported by the suppliers.

Suppliers generally indicated that prices have risen by more than 10 percent for most of their weatherization materials over the past year and blamed the rising cost of raw materials for most of the increase. Cellulose manufacturers noted especially the rising costs of scrap paper and boric acid (used as a fire retardant). The latter is in such short supply that a number of manufacturers are currently importing it. For other commodities besides cellulose, suppliers blamed rising transportation costs, particularly fuel surcharges, as the primary reason for price inflation.

Table 6

SUBGRANTEE REPORTS OF MATERIAL AVAILABILITY PROBLEMS, BY REGION

Problem	Region			
	Northeast	North Central	South	West
Storm Window Availability or Delays	12	10	12	7[d]
Insulation Availability or Delays	4	4[a]	6	4[d]
Caulking or Weatherstripping Availability	2	3	4	4
Other	0	1[b]	3[c]	5[e]

[a]Rural agency had problems finding an R-30 supplier.

[b]Mobile home storm doors had no supplier.

[c]Two agencies which made their own windows and doors reported on aluminum shortage; one agency had problems obtaining masonite

[d]Includes one Alaskan subgrantee.

[e]Includes one agency which makes its own storm windows and doors which reported shortages of aluminum and glass; three agencies which reported problems in obtaining quality storm doors; and one agency reporting problems in obtaining aluminum vents and water heater blankets.

Table 7

MATERIALS PRICES AS REPORTED BY SUPPLIERS, BY REGION

Region and Supplier Type	R-19 Fiberglass ($/sq. ft.)		Cellulose ($/30 lb. bag)		Storm Windows		Storm Doors	
	Median	Range	Median	Range	Median	Range	Median	Range
Northeast								
Retailers or Wholesalers	.248	.240-.33	-	-	25.40	24.00-36.65	79.95	67.50-105.89
Manufacturers	.257	.24 -.31	4.50	4.25-7.56	31.50	25.50-38.00	77.50	68.00-120.00
North Central								
Retailers or Wholesalers	.255	.20-.33	5.90	3.40-7.00	30.75	16.95-37.50	73.50	43.88-126.95
Manufacturers	-	-	4.04	3.85-5.10	28.45	21.10-52.20	54.00	50.00-85.00
South								
Retailers or Wholesalers	.241	.146-.28	4.99	4.25-5.99	22.00	15.00-40.00	54.95	41.00-100.00
Manufacturers	.22	.19 -.36	4.50	3.80-7.00	-	-	-	-
West	-	-	-	-	-	-	-	-

(-) = Too few observations.

Appendix C

STATISTICAL TABLES

The information in Tables 1 and 2 is as of August 31, 1980. The information in Table 3 is as of December 31, 1979. The information in Tables 4 through 6 is as of 1975.

TABLE 1
HOMES WEATHERIZED

State	Thru 1978 Total	CALENDAR YEAR 1979 Total	1980 Thru 8/31/80	Total
Alabama	2093	2875	3612	8580
Alaska	69	564	653	1286
Arizona	571	705	824	2100
Arkansas	1350	3722	3224	8296
California	2033	5304	5993	13330
Colorado	948	3053	1173	5174
Connecticut	115	1157	3036	4308
Delaware	259	376	532	1167
District of Columbia	46	642	669	1357
Florida	482	485	667	1634
Georgia	1782	2267	3993	8042
Hawaii	-0-	-0-	-0-	-0-
Idaho	812	1545	1910	4267
Illinois	2718	3654	4897	11269
Indiana	746	4692	10016	15454
Iowa	4345	4310	4185	12840
Kansas	953	1837	3157	5947
Kentucky	2980	5656	7621	16257
Louisiana	632	953	1848	3433
Maine	1259	2214	3439	6912
Maryland	767	2085	4033	6885
Massachusetts	857	2064	4214	7135
Michigan	4805	5913	5464	16182
Minnesota	3535	6304	12085	21924
Mississippi	639	1561	3550	5750
Missouri	6719	10163	8644	25526
Montana	1291	2386	3443	7120
Nebraska	1955	2966	2793	7714
Nevada	208	471	357	1036
New Hampshire	860	1180	1574	3614
New Jersey	1567	2902	1318	5787
New Mexico	1218	2265	3366	6849
New York	4926	3562	13754	22242
North Carolina	1132	2033	4204	7369
North Dakota	1325	2783	1859	5967
Ohio	2836	3344	8125	14305
Oklahoma	2493	1713	2394	6600
Oregon	1667	1450	2893	6010
Pennsylvania	14555	14115	10435	39105
Rhode Island	1087	671	1723	3481
South Carolina	994	1639	1600	4233
South Dakota	1794	1830	1646	5270
Tennessee	1561	3858	6828	12247
Texas	1850	3050	5226	10126
Utah	309	765	1630	2704
Vermont	235	1002	1626	2863
Virginia	4238	5260	3759	13257
Washington	2325	3861	3993	10179
West Virginia	1741	3067	3512	8320
Wisconsin	2476	1933	3136	7545
Wyoming	177	373	937	1487
TOTALS	96335	142580	191570	430485

TABLE 2
EXPENDITURES
(in dollars)

State	Calendar Year Thru 1978	1979	1980 Thru 8/31/80	Total
Alabama	390,811	1,146,246	719,696	2,256,753
Alaska	87,175	511,962	1,369,307	1,968,444
Arizona	127,768	133,980	394,116	655,864
Arkansas	247,666	1,877,155	1,361,018	3,485,839
California	490,999	709,863	5,987,731	7,188,593
Colorado	275,277	758,239	1,450,771	2,484,287
Connecticut	170,000	1,263,172	961,976	2,395,148
Delaware	117,310	142,910	491,193	751,413
District of Columbia	4,785	341,172	2,365,305	2,711,262
Florida	94,076	182,205	235,714	511,995
Georgia	483,795	663,621	1,283,470	2,430,886
Hawaii				
Idaho	236,563	580,283	1,368,254	2,185,100
Illinois	1,266,986	1,805,705	4,348,599	7,421,290
Indiana	160,977	2,016,714	8,198,423	10,376,114
Iowa	767,649	2,343,664	7,186,244	10,297,557
Kansas	40,000	711,633	2,323,477	3,075,110
Kentucky	603,023	2,571,035	3,928,482	7,102,540
Louisiana	152,877	704,031	279,852	1,136,760
Maine	354,654	1,286,531	2,527,491	4,168,676
Maryland	358,250	938,755	1,414,257	2,711,262
Massachusetts	286,557	2,654,948	3,148,536	6,090,041
Michigan	1,467,567	1,815,022	5,405,952	8,688,541
Minnesota	1,418,568	2,568,405	10,918,747	14,905,720
Mississippi	153,837	607,118	1,059,130	1,820,085
Missouri	707,773	8,572,698	6,107,817	15,388,288
Montana	357,587	1,337,617	1,672,697	3,367,900
Nebraska	106,312	1,188,899	2,462,824	3,758,035
Nevada	93,605	245,172	241,970	580,747
New Hampshire	258,000	825,639	718,263	1,801,902
New Jersey	218,456	291,901	2,259,790	2,770,147
New Mexico	247,969	1,313,921	2,065,882	3,627,772
New York	981,483	2,142,735	8,907,608	12,031,826
North Carolina	342,472	916,690	1,309,699	2,568,861
North Dakota	599,807	1,137,286	991,143	2,728,236
Ohio	851,074	1,570,977	5,957,473	8,379,524
Oklahoma	404,576	368,233	1,277,777	2,050,586
Oregon	386,738	614,221	1,783,353	2,784,312
Pennsylvania	4,322,700	5,466,947	6,729,744	16,519,391

TABLE 2 (Cont'd)

State	Calendar Year Thru 1978	1979	1980 Thru 8/31/80	Total
Rhode Island	227,000	771,230	1,029,862	2,028,092
South Carolina	315,057	854,296	1,359,518	2,528,871
South Dakota	821,472	1,051,703	1,070,508	2,943,683
Tennessee	344,543	1,758,711	2,637,033	4,740,287
Texas	349,308	1,790,014	2,646,801	4,786,123
Utah	286,055	511,557	1,299,622	2,097,234
Vermont	131,878	1,410,507	1,174,266	2,716,651
Virginia	1,003,835	1,415,583	2,584,731	5,004,149
Washington	277,513	2,518,287	1,977,817	4,773,617
West Virginia	418,000	1,133,540	2,607,023	4,158,563
Wisconsin	1,165,161	819,369	1,496,296	3,480,826
Wyoming	79,974	165,838	747,638	993,450
Total	25,055,517	68,527,940	131,844,396	225,427,853

TABLE 3

PERSONS ASSISTED THROUGH THE WEATHERIZATION ASSISTANCE PROGRAM

	Total People Assisted 1977 & 1978	Elderly 1977 & 1978	Handicapped 1977 & 1978	Total 1979	Elderly 1979	Handicapped 1979	Totals thru 1979		
							Total	Elderly	Handicapped
Connecticut	369	89	30	3,775	708	152	4,144	797	182
Maine	3,417	824	276	6,472	1,668	698	9,889	2,492	974
Massachusetts	2,277	408	196	6,592	1,101	645	8,869	1,509	841
New Hampshire	2,793	505	48	3,632	709	128	6,425	1,214	176
Rhode Island	3,769	421	111	1,946	334	153	5,713	755	264
Vermont	993	66	38	3,502	433	319	4,455	499	357
REGION I TOTAL	13,576	2,313	699	25,919	4,953	2,095	39,495	7,266	2,794
New Jersey	5,611	637	141	7,010	983	150	12,621	1,620	291
New York	12,127	2,531	762	10,264	2,234	664	22,391	4,765	1,426
REGION II TOTAL	17,738	3,168	903	17,274	3,217	814	35,012	6,385	1,717
Delaware	668	364	46	869	297	74	1,537	661	120
Dist. of Col	98	17	4	1,904	171	42	2,002	188	46
Maryland	1,286	606	63	6,230	932	161	7,516	1,538	224
Pennsylvania	16,838	11,572	1,439	15,649	8,357	1,755	32,487	19,929	3,194
Virginia	8,028	4,910	900	10,246	5,488	1,334	18,274	10,398	2,234
West Virginia	4,535	2,490	583	5,886	2,682	784	10,421	5,172	1,367
REGION III TOTAL	31,453	19,959	3,035	40,784	17,927	4,150	72,237	37,886	7,185
Alabama	3,640	2,361	525	5,651	3,786	842	9,291	6,147	1,367
Florida	973	380	81	1,100	388	66	2,073	768	147
Georgia	3,858	2,776	1,081	5,082	1,415	523	8,940	4,191	1,604
Kentucky	8,108	2,480	662	12,317	3,649	1,106	20,425	6,129	1,768
Mississippi	1,898	787	173	3,046	1,477	341	4,944	2,264	514

(Cont'd)

TABLE 3 (Cont'd)

	Total People Assisted 1977 & 1978	Elderly 1977 & 1978	Handicapped 1977 & 1978	Total 1979	Elderly 1979	Handicapped 1979	Totals thru 1979		
							Total	Elderly	Handicapped
North Carolina	2,654	1,244	343	3,453	1,764	595	6,107	3,008	938
South Carolina	2,634	820	244	2,837	850	225	5,471	1,670	469
Tennessee	4,203	2,438	570	5,653	2,865	433	9,856	5,303	1,003
REGION IV TOTAL	27,968	13,286	3,679	39,139	16,194	4,131	67,107	29,480	7,810
Illinois	6,062	2,654	391	19,951	7,473	1,125	26,013	10,127	1,516
Indiana	1,437	928	60	10,457	5,095	601	11,894	6,023	661
Michigan	13,332	4,720	937	14,447	6,485	1,619	27,779	11,205	2,556
Minnesota	8,193	2,776	342	15,330	4,837	903	23,523	7,613	1,245
Ohio	6,611	2,099	617	8,132	2,950	899	14,743	5,049	1,516
Wisconsin	7,040	1,844	412	4,831	1,516	561	11,871	3,360	973
REGION V TOTAL	42,675	15,021	2,759	73,148	28,356	5,708	115,823	43,377	8,467
Arkansas	2,842	1,879	325	6,814	4,518	685	9,656	6,397	1,010
Louisiana	1,236	643	91	2,374	1,333	166	3,610	1,976	257
New Mexico	3,451	2,055	237	8,291	2,587	1,014	11,742	4,642	1,251
Oklahoma	4,219	2,563	449	3,158	1,755	383	7,377	4,318	832
Texas	2,863	1,966	422	5,926	3,969	709	8,789	5,935	1,131
REGION VI TOTAL	14,611	9,106	1,524	26,563	14,162	2,957	41,174	23,268	4,481
Iowa	9,909	3,711	709	10,796	3,981	775	20,705	7,692	1,484
Kansas	1,922	916	134	3,925	1,736	277	5,847	2,652	411
Missouri	16,153	6,652	1,313	23,985	8,777	1,948	40,138	15,429	3,261
Nebraska	5,814	2,524	444	8,241	3,143	711	14,055	5,667	1,155
REGION VII TOTAL	33,798	13,803	2,600	46,947	17,637	3,711	80,745	31,440	6,311
Colorado	2,617	1,295	133	8,178	2,660	441	10,795	3,955	574
Montana	3,552	890	321	4,304	1,262	351	7,856	2,152	672
Montana Tribe	683	56	20	1,490	239	23	2,173	295	43
North Dakota	2,888	945	355	4,044	1,207	391	6,932	2,152	746

(Cont'd)

TABLE 3 (Cont'd)

	Total People Assisted 1977 & 1978	Elderly 1977 & 1978	Handicapped 1977 & 1978	Total 1979	Elderly 1979	Handicapped 1979	Totals thru 1979		
							Total	Elderly	Handicapped
North Dakota Tribe	355	99	42	1,945	585	23	2,300	684	65
South Dakota	3,895	2,242	165	5,574	1,225	311	9,469	3,467	476
South Dakota Tribe	78	22	10	298	114	5	376	136	15
Utah	920	197	35	1,595	559	100	2,515	756	135
Wyoming	588	288	18	654	404	72	1,242	692	90
REGION VIII TOTAL	15,576	6,034	1,099	28,082	8,255	1,717	43,658	14,289	2,816
Arizona	1,819	417	77	2,064	573	165	3,883	990	242
Hawaii	0	0	0	0	0	0	0	0	0
Window Rock	0	0	0	370	93	18	370	93	18
Nevada	591	150	31	1,050	541	167	1,641	691	198
California	4,262	1,169	424	15,219	6,041	897	19,481	7,210	1,321
REGION IX TOTAL	6,672	1,736	532	18,703	7,248	1,247	25,375	8,984	1,779
Alaska	164	22	9	2,362	213	73	2,526	235	82
Idaho	1,559	887	106	3,318	1,110	260	4,877	1,997	366
Idaho Tribe	218	84	19	189	51	1	407	135	20
Oregon	3,057	1,148	149	2,046	1,207	248	5,103	2,355	397
Washington	4,405	1,164	350	7,171	2,630	697	11,576	3,794	1,047
REGION X TOTAL	9,403	3,305	633	15,086	5,211	1,279	24,489	8,516	1,912
NATIONAL TOTAL	213,470	87,731	17,463	331,645	123,160	27,809	545,115	210,891	45,272

TABLE 4

DISTRIBUTION OF HOUSEHOLDS AND INDIVIDUALS BELOW
125% OF THE POVERTY LEVEL IN 1975
(1000s)

State	Households*	Individuals**	Elderly	Handicapped***
Connecticut	96	309	46	13
Maine	69	198	30	10
Massachusetts	254	677	84	47
New Hampshire	37	97	15	2
Rhode Island	56	112	25	9
Vermont	33	97	13	4
REGION I TOTAL	545	1,490	213	85
New Jersey	287	817	110	39
New York	1,027	2,712	405	215
REGION II TOTAL	1,314	3,529	515	254
Delaware	26	71	10	3
Dist. of Col.	58	123	15	10
Maryland	151	435	59	28
Pennsylvania	650	1,728	267	77
Virginia	245	734	113	30
West Virginia	140	394	61	21
REGION III TOTAL	1,270	3,485	525	169
Alabama	308	872	158	42
Florida	607	1,712	275	57
Georgia	379	1,192	179	65
Kentucky	277	812	108	38
Mississippi	249	787	119	41
North Carolina	408	1,179	196	64
South Carolina	188	653	85	31
Tennessee	330	975	161	55
REGION IV TOTAL	2,766	8,182	1,279	393
Illinois	536	1,530	203	87
Indiana	245	629	104	20
Michigan	441	1,202	145	64
Minnesota	193	520	96	20
Ohio	522	1,459	211	73
Wisconsin	193	530	90	27
REGION V TOTAL	2,130	5,870	849	291

(Continued)

TABLE 4 (Cont'd)

State	Households*	Individuals**	Elderly	Handicapped***
Arkansas	209	568	112	28
Louisiana	304	1,005	135	51
New Mexico	88	290	28	13
Oklahoma	214	537	108	31
Texas	869	2,585	371	78
REGION VI TOTAL	1,684	4,985	754	201
Iowa	139	341	75	10
Kansas	111	267	61	11
Missouri	323	805	175	34
Nebraska	89	219	22	7
REGION VII TOTAL	662	1,632	333	62
Colorado	122	327	44	15
Montana	44	120	15	4
North Dakota	35	95	16	3
South Dakota	44	125	22	3
Utah	54	154	19	6
Wyoming	18	47	7	1
REGION VIII TOTAL	317	868	123	32
Arizona	141	934	41	13
California	1,107	3,281	324	307
Hawaii	30	101	9	2
Nevada	27	80	7	4
REGION IX TOTAL	1,305	4,396	381	326
Alaska	9	34	1	2
Idaho	45	126	18	5
Oregon	118	298	48	14
Washington	166	424	67	31
REGION X TOTAL	338	882	134	52
National Total	12,331	35,319	5,106	1,865

*Families plus unrelated individuals living alone plus unrelated individuals living in group quarters.

**In families plus unrelated individuals.

***Blind and Disabled receiving Supplemental Security Income.

Sources:

1. Money Income and Poverty Status in 1975 of Families and Persons in the U.S. and Regions by Division and States. Series p-60. United States Deptartment of Commerce. Bureau of the Census. June 1970.
2. Social Security Bulletin. U.S. Department of Health, Education and Welfare. Social Security Administration. December 1975. Vol, 38, no. 12.

TABLE 5

HOUSEHOLDS BELOW 125% OF THE POVERTY LEVEL IN 1975

(1000's)

State	Owner	Renter	Total	Renter/Total (%)
Connecticut	39	76	115	67
Maine	36	28	64	43
Massachusetts	73	185	258	72
New Hampshire	16	21	37	57
Rhode Island	15	36	51	71
	15	18	33	55
REGION I TOTAL	194	364	558	65
New Jersey	90	197	287	69
New York	260	758	1,018	74
REGION II TOTAL	350	955	1,305	74
Delaware	12	13	25	52
Dist. of Col.	6	40	46	87
Maryland	52	96	148	65
Pennsylvania	292	357	649	55
Virginia	120	107	227	47
West Virginia	79	52	131	40
REGION III TOTAL	561	665	1,226	54
Alabama	162	137	299	46
Florida	319	289	608	48
Georgia	154	200	354	56
Kentucky	149	108	257	42
Mississippi	124	101	225	45
North Carolina	196	184	380	48
South Carolina	91	81	172	47
Tennessee	166	150	316	47
REGION IV TOTAL	1,361	1,250	2,611	48
Illinois	172	354	526	67
Indiana	128	109	237	46
Michigan	224	212	436	49
Minnesota	102	85	187	45
Ohio	224	287	511	56
Wisconsin	99	92	191	48
REGION V TOTAL	949	1,139	2,088	55

(continued)

TABLE 5 (Cont'd)

State	Owner	Renter	Total	Renter/Total (%)
Arkansas	127	58	185	31
Louisiana	147	145	292	50
New Mexico	48	35	83	42
Oklahoma	116	92	208	44
Texas	423	386	809	48
REGION VI TOTAL	861	716	1,577	45
Iowa	80	59	139	42
Kansas	63	46	109	42
Missouri	180	140	320	44
Nebraska	45	38	83	46
REGION VII TOTAL	368	283	651	43
Colorado	44	80	124	65
Montana	22	18	40	45
North Dakota	19	14	33	42
South Dakota	27	15	42	36
Utah	27	26	53	49
Wyoming	9	8	17	47
REGION VIII TOTAL	148	161	309	52
Arizona	67	70	137	51
California	318	790	1,108	71
Hawaii	7	22	29	76
Nevada	11	16	27	59
REGION IV TOTAL	403	898	1,301	69
Alaska	4	4	8	50
Idaho	23	21	44	48
Oregon	50	71	121	59
Washington	61	103	164	63
REGION X TOTAL	138	199	337	59
National Total	5,333	6,630	11,963	56

Source: Money Income and Poverty Status in 1975 of Families and Persons in the U.S. and Persons in the U.S. and Regions by Divisions and States. Series p-60. United States Department of Commerce. Bureau of the Census. June 1975.

*Primary Family and Primary Individuals (owner & renter (cash); May not equal total hundreds in Table C due to rounding and acquisition from different sections of P-60 series.

TABLE 6

LOCATIONAL SPLIT OF PERSONS BELOW 125% OF POVERTY LEVEL IN 1975 (1000s)

State	Urban	Rural	Total****	Rural/Total (%)
Connecticut	257	51	308	17
Maine	27	171	198	86
Massachusetts	595	82	677	12
New Hampshire	22	75	97	77
Rhode Island	96	16	112	14
Vermont	*	122	*	*
REGION I TOTAL	997**	517	1,892**	28***
New Jersey	620	198	818	24
New York	2,389	324	2,713	12
REGION II TOTAL	3,009	522	3,531	15
Delaware	47	24	71	34
Dist. of Col.	123	*	*	*
Maryland	350	85	435	20
Pennsylvania	1,291	437	1,728	25
Virginia	337	398	735	54
West Virginia	75	319	394	81
REGION III TOTAL	2,100	1,263**	3,363**	38***
Alabama	400	472	872	54
Florida	1,137	575	1,712	34
Georgia	419	772	1,191	64
Kentucky	242	570	812	70
Mississippi	119	667	786	85
North Carolina	353	826	1,179	70
South Carolina	213	440	653	67
Tennessee	448	527	975	54
REGION IV TOTAL	3,331	4,849	8,180	59
Illinois	1,272	258	1,530	17
Indiana	361	268	629	43
Michigan	859	343	1,202	29
Minnesota	232	288	520	55
Ohio	986	473	1,459	32
Wisconsin	243	287	530	54
REGION V TOTAL	3,953	1,917	5,870	33

(continued)

TABLE 6 (Cont'd)

State	Urban	Rural	Total	Rural/Total (%)
Arkansas	159	409	568	72
Louisiana	465	541	1,006	54
New Mexico	52	238	290	82
Oklahoma	214	323	537	60
Texas	1,709	876	2,585	39
REGION VI TOTAL	2,599	2,387	4,986	48
Iowa	101	240	341	70
Kansas	100	168	268	63
Missouri	415	390	805	48
Nebraska	77	142	219	65
REGION VII TOTAL	693	940	1,633	57
Colorado	221	106	327	32
Montana	19	102	121	84
North Dakota	8	87	95	92
South Dakota	13	112	125	90
Utah	114	40	154	26
Wyoming	*	47	*	*
REGION VIII TOTAL	375**	447	822**	54**
Arizona	316	118	434	27
California	2,894	387	3,281	12
Hawaii	81	20	101	20
Nevada	66	14	80	18
REGION IX TOTAL	3,357	539	3,896	14
Alaska	*	34	*	*
Idaho	16	110	126	87
Oregon	178	120	298	40
Washington	270	155	425	36
REGION X TOTAL	464**	385	849**	45***
National Total	21,377**	13,548**	34,926**	38***

*Not Available

**Sum does not include missing data.

***Based on states with complete data.

**** May not equal individuals in Appendix Table C due to rounding

SOURCE: Money Income and Poverty Status in 1975 of Families and Persons in the United States and Regions by Divisions and States. Series P-60. United States Department of Commerce. Bureau of the Census. June 1978.

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