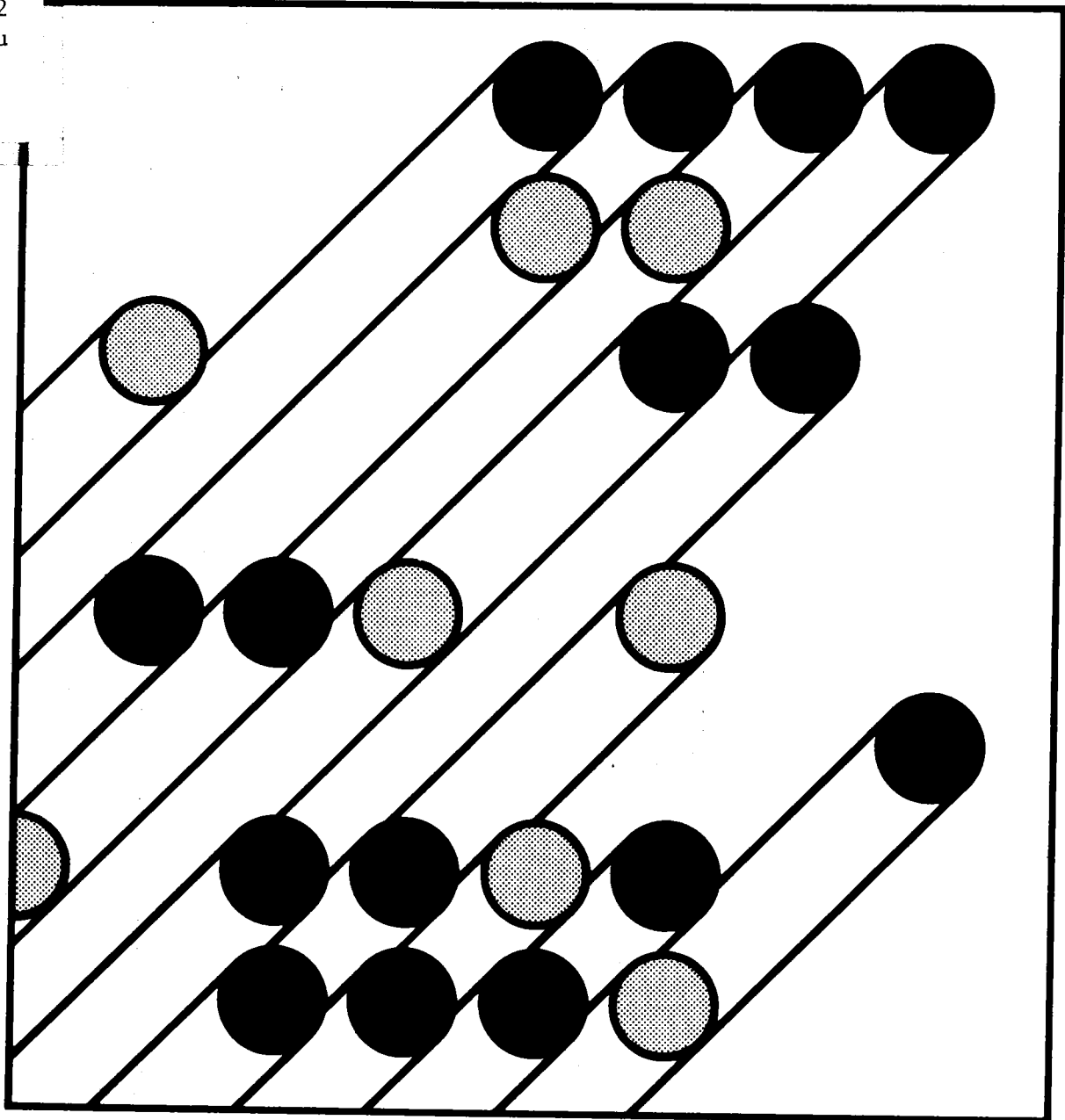


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# COUNSELING FOR DELINQUENT MORTGAGORS

A Staff Study  
November 1975



U. S. Department of Housing and Urban Development  
Assistant Secretary for Policy Development and Research  
Office of Program Analysis and Evaluation

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## Preface

This report analyzes the impact of HUD funded counseling for delinquent mortgagors that occurred in late 1973. Chapters 1-8 were prepared in July 1974 and summarize data collected in May 1974. These chapters were circulated in draft form within the Department under the title "Default and Delinquency Counseling 1973", and were first printed for general distribution in August 1975.

Chapter 9 was prepared in November 1975, and summarizes additional data gathered in February 1975.

This report was prepared by the Office of Program Analysis and Evaluation under the Assistant Secretary for Policy Development and Research. The analysis and conclusions are those of the Office of Program Analysis and Evaluation and do not necessarily reflect the opinion of the Department of Housing and Urban Development.

Other staff studies prepared by members of the Office of Program Analysis and Evaluation include:

- Causes of Multi-Family Defaults, July 1975
- Disposition of Foreclosed Houses, August 1975
- HUD-FHA Condominiums: Their Future, August 1975
- Coordination of Federal Planning Programs, October 1975
- Allocation Issues in Section 701 Planning Grants, October 1975
- Multi-Family Property Disposition, October 1975

Copies of the above studies may be obtained from the Program Information Center, Department of Housing and Urban Development, 451 Seventh Street, S. W., Washington, D. C. 20024, or the National Technical Information Service (NTIS), Springfield, Virginia 22161.

## Table of Contents

1. Introduction	p. 1
2. Methodology	p. 4
Selection of the universe of defaulters	p. 4
Socio-economic information on defaulters, and the creation of matched pairs	p. 8
Rationales for various types of comparisons	p. 11
3. Results	p. 16
4. Cost-Benefit Comparisons	p. 20
Quantification of Costs and Benefits	p. 20
Cost Benefit Comparison 1	p. 26
Cost Benefit Comparison 2	p. 27
Cost Benefit Comparison 3	p. 28
5. The Types of People Who Refuse Counseling, or Who Cannot be Contacted	p. 30
6. Caveats	p. 36
7. Appendix	p. 40
8. Acknowledgements	p. 67
9. November 1975 Supplement	p. 68

## Introduction

The purpose of this study is to evaluate whether HUD sponsored default and delinquency counseling reduces foreclosures on homes purchased under the Section 235 housing program.

The Concentrated Default and Delinquency Counseling Program (D&D) was initiated by the Housing Management Office of HUD in July 1972, as an attempt to provide remedial counseling assistance to low and moderate income mortgagors who had purchased homes under Sections 235 and 237 and who were experiencing difficulty in meeting mortgage payments. Authority to fund counseling programs was first provided under Section 237 of the Housing Act of 1968, but funds were not provided until FY 1972.

Congress appropriated \$3.25 million for D&D counseling. HUD used \$2.5 million of these funds to finance 31 private counseling agencies in 19 cities for two years. \$0.4 million was provided to the Organization for Social and Technical Innovation (OSTI) to evaluate the success of both the D&D counseling program and various prepurchase counseling programs.

The stated objective of the Concentrated Default and Delinquency Counseling (D&D) Program as outlined in the Counseling study RFP was "to alleviate the incidence of delinquencies, defaults and foreclosures under the Section 235 and 237 programs...thus reducing the social and

financial costs to mortgagors who would otherwise face foreclosure, and the financial loss and administrative costs incurred by HUD when default terminations occur." (underlining supplied)

The OSTI study was designed and developed to evaluate the progress of the D&D program in meeting this objective over the 16 month period subsequent to program initiation and to determine D&D program impact (success or lack of success). The analysis of program impact contains a number of shortcomings, however, and these shortcomings were sufficiently serious to call into question any conclusions about the success of the D&D program which might be drawn from the data.

The primary difficulty with the OSTI study is that it is questionable whether the sample of persons counselled is similar to the control group of uncounselled persons. Because OSTI data does not include necessary socio-economic characteristics, reanalysis of their data would not overcome limitations of their study.

Because OSTI data did not permit a reliable determination of the impact of default counseling on mortgage outcomes, the Assistant Secretary for Policy Development and Research asked the Office of Program Analysis and Evaluation to do a short term study of the D&D program in an effort to obtain more reliable data. The primary emphasis in the OPA&E study was to obtain data that would permit a comparison between counselees and a socio-economically linked control group. This report summarizes that study.

The principal conclusions of the report are:

1. Counseling has increased the fraction of mortgagors that are current in their mortgage payments by at least ten percentage points.
2. Counseling has reduced the rate of foreclosure on Section 235 housing by at least sixteen percentage points.
3. Savings to the insurance fund because of foreclosures avoided far outweigh the cost of contracting with counseling agencies in the four cities studied.
4. The long-run impact of counseling on the HUD budget is not clear, because future subsidy obligations, increased by each foreclosure averted, are approximately equal to the immediate savings to the insurance fund.
5. A comparison of federal, personal, and social costs and benefits of D&D counseling suggests that the net result of counseling is beneficial.

The conclusions of this report should be viewed with caution, however. They reflect data from a very limited case study in four cities, and data collected over a very short time period. The conclusions on the comparison of costs and benefits are further weakened by the fact that the dollar estimates presented are not firm and several items of costs have not been measured. These and other limitations of the study are discussed in greater detail in Section 6.

## Methodology

Selection of the universe of defaulters. The OPA&E study compares the current mortgage status of persons who were in default a year ago and who were and were not counseled. Obtaining information on persons who were in default in the past proved difficult, however, and this severely limited the analysis. (Since OSTI collected data on mortgages over time, they were not confronted with this problem.) The problem stemmed from HUD procedures.

HUD Area Offices are notified that Section 235 mortgagors are in default on their payments by the mortgagee. Notice is provided on HUD Form 2068. Standard procedures require HUD Area Office personnel to maintain all 2068s received on an individual as long as that person remains in default, but once a person either becomes current in his or her payments or is foreclosed upon, records of past delinquency are destroyed. The net effect is that most area offices have no records for persons who were delinquent but solved their problems without the aid of counseling.

Fortunately for the purposes of this study, six Area Offices out of the 19 administering the special D&D program did not destroy all records of former delinquents. These six cities - Washington, D. C.; Atlanta, Georgia; Tampa, Florida; Oklahoma City, Oklahoma; Milwaukee, Wisconsin; and Grand Rapids, Michigan -- comprised the OPA&E sample. It is not claimed that these cities are representative either of the 19 D&D cities (listed in Table 1) or of the nation as a whole; city selection was solely based upon the completeness of FHA records. It is important to emphasize that this study does not present a definitive answer to the question of



Table 1  
Cities With HUD-Funded D&D Counselling Programs

	<u>Number of Agencies</u>	<u>Funding</u>
Atlanta, Georgia	2	\$146,089
Columbia, South Carolina	1	310,000
Dallas, Texas	1	89,453
Detroit, Michigan	4	674,311
Grand Rapids, Michigan	1	46,962
Indianapolis, Indiana	1	34,200
Jacksonville, Florida	3	139,750
Little Rock, Arkansas	1	78,000
Louisville, Kentucky	1	48,200
Los Angeles, California	4	59,455
Milwaukee, Wisconsin	1	33,306
Oklahoma City, Oklahoma	1	76,517
San Antonio, Texas	2	210,358
Seattle, Washington	1	177,053
Shreveport, Louisiana	1	83,000
Spokane, Washington	2	42,000
Tampa, Florida	2	60,500
Tulsa, Oklahoma	1	81,306
Washington, D. C.	1	110,358
	<hr/> 31	<hr/> 2,500,818

whether default counseling works. Rather, it is a case study of the impact of the particular methods of default counseling offered in these 6 cities. Different methods or policies about counseling might have a different impact. Also, any type of counseling might have a different impact in cities different from the ones studied.

A member of the OPA&E staff visited each of the six Area Offices. Data were not collected in Tampa, because it appeared all defaulters had been referred to counseling so a control group could not be created. OPA&E staff studied HUD and counseling agency records in the remaining cities. Each of these cities had one counseling agency except Atlanta which had two agencies. Information was gathered on all persons who had entered default during the time period shown below:

Washington	November 1972-October 1973
Atlanta	July-October 1973
Oklahoma City	April-October 1973
Milwaukee	April-October 1973
Grand Rapids	June-October 1973

The beginning of the time period was determined by the availability of HUD records. The cut-off date of October 31, 1973 was selected to give enough time to assess the longer term impact of counseling.

A person was said to have entered default when the mortgagee reported the delinquency to HUD on a 2068 form or to the counseling agency through informally established channels. A previous history of default did not exclude a person from the sample so long as he or she was current in mortgage payments at the start of the time period.

Data was collected on every person who defaulted during the observation period unless: (1) the mortgagee failed to report the FHA case number or (2) the counseling agency had verified that mortgagee delinquency reports

were in error. The net effect of these criteria was to eliminate many observations involving one particular mortgagee heavily involved in the Section 235 program. These criteria had the greatest impact on Oklahoma City data, but their impact was also observed in other cities.

The following information on each defaulter was collected from HUD Area Office files and counseling agency records:

Name

FHA case number

Mortgagee

Date reported to HUD

Date referred to Counseling Agency

Months in default at time of referral

Current status (if available)

Date of report of current status

Defaulters were classified into four categories based upon HUD and counseling agency records:

Not Referred - persons in HUD files only

Referred - all persons who names were sent to a counseling agency. These may be broken into:

Counselled - persons who accepted agency counseling program

Refused Counseling - persons contacted by agency who did not undergo counseling program

Not Contacted - persons who were referred, but whom the counseling agency was unable to contact

The number of persons in each category on which data was collected, by city, is shown in Table 2. It should be noted that because of the small number of persons not referred to counseling in Grand Rapids, conclusions are based on data from the other four cities.

Socio-economic information on defaulters, and the creation of matched pairs. For each defaulting mortgagor, an attempt was made to gather from HUD central office files information on the following socio-economic characteristics:

Race

Structure of Household (Male head, Female head, etc.)

Number of Dependents

Monthly Income

Monthly Mortgage Payment

Date of Insurance

Amount of Mortgage

There were three sources of this information: computer records based upon data from annual income recertification forms, computer records based upon data from initial insurance application forms, and actual FHA case binders, in that order of priority. No source of information was comprehensive, and for some persons no information was available anywhere. Of the 874 persons in default, information was available on 610 persons.

The sources of that information are as follows:

Recertification Form	327
Insurance Application	139
Case Binder	<u>144</u>
	610

Table 2Number of Mortgagees in Default During Observation Period

<u>City</u>	<u>Not Referred</u>	<u>Counselled</u>	<u>Refused Counselling</u>	<u>Not Contacted</u>	<u>Total</u>
Washington	26	87	6	0	119
Atlanta	128	44	10	18	200
Oklahoma City	188	75	0*	39*	302
Milwaukee	11	78	19	42	150
Grand Rapids	3	22	14	64	103
Total	356	306	49	163	874

\* Counseling agency records do not permit a distinction between these two categories in Oklahoma City.

In order to insure that both counselled and control groups come from the same universe, each counselee was matched on the basis of the following socio-economic characteristics with a member of the control group:

City

Race

Structure of Household

Months in default (+ 1 month)

Per capita income (+ \$200 per year)

Size of mortgage (+ \$2000)

Year insured (+ 1 year)

The above characteristics are listed in priority order as used in the match. Pairs were matched exactly on the first two characteristics, usually exactly on the third characteristic, and most of the time within the ranges indicated on the latter characteristics. Matching was done manually. In comparing counselees and non-counselees, only those persons who were matched are evaluated.

Rationales for various types of comparisons. Two separate matching procedures were used. The first procedure involved the matching of persons not referred to counseling and persons who were referred to counseling. 123 pairs resulted, of which 86 pairs involved non-referred persons versus counseled persons and the remaining 37 pairs involved non-referred persons versus either persons referred but not contacted or persons who refused counseling. The second matching procedure involved the matching of persons who had been counseled versus everyone else.

After the matching was completed, six comparisons were made. Table 3 graphically illustrates the relationships among the six comparisons. The primary comparison used is of persons not referred to counseling versus persons who were referred (irrespective of whether they were actually counseled).

This is comparison A. It might be argued that this comparison dilutes the apparent effectiveness of counseling, because, of the 123 pairs in this comparison, only 86 are pairs between persons not referred and persons actually counseled. The other pairs involve persons who cannot be reached or who refused counseling. However, in any potential HUD-funded counseling effort, there will always be persons who cannot be contacted or who refuse counseling and thus, the real impact will always be diluted. In this comparison, the experience of the persons "not referred" reflects what overall program experience would have been in the absence of the D&D program. The combined (and diluted) experience of all persons "referred" reflects what overall program experience would have been if all defaulters had automatically been referred to counseling.

A second reason for this primary comparison is that, among the persons referred to counseling who cannot be contacted or who refuse it, there may be some clear pattern to the reasons for their unavailability. They may either be very sure of being able to avoid foreclosure or be lacking in motivation and resigned to foreclosure. In other words, to ignore them may be to introduce a bias into the study. In fact, results presented later do show that those who cannot be contacted are quite different in their foreclosure experience from matched persons who can be contacted.

It is also important to note that the "not referred" group in all likelihood includes some persons who would have refused counseling or who could not have been contacted, and since we cannot tell which persons these are, the comparison which avoids any biases caused by the motivation of counselees is the comparison between all persons not referred and all persons referred.

A secondary comparison is of persons not referred to counseling versus persons who were actually counseled (Comparison B). This comparison may give a useful picture of the direct impact of counseling on those who accept it, relative to a control group. However, the group of counselees may not correspond attitudinally to the control group (the two groups do correspond socio-economically because of the matching process), and thus the possibility of partial self-selection into the "counseled" group may weaken the usefulness of this comparison.

Further analysis was conducted to determine the relative success of those who were referred to counseling but were not counseled, in order to ascertain what type of people refuse counseling or cannot be reached. A comparison of "referred, but not contacted" versus "not referred"

was one part of this analysis (Comparison C). A similar comparison (Comparison D) was made of "referred, but not contacted" versus "counseled". Other comparisons were made of "referred, but refused counseling" versus "not referred" (Comparison E) and of "referred, but refused counseling" versus "counseled" (Comparison F).



TABLE 3

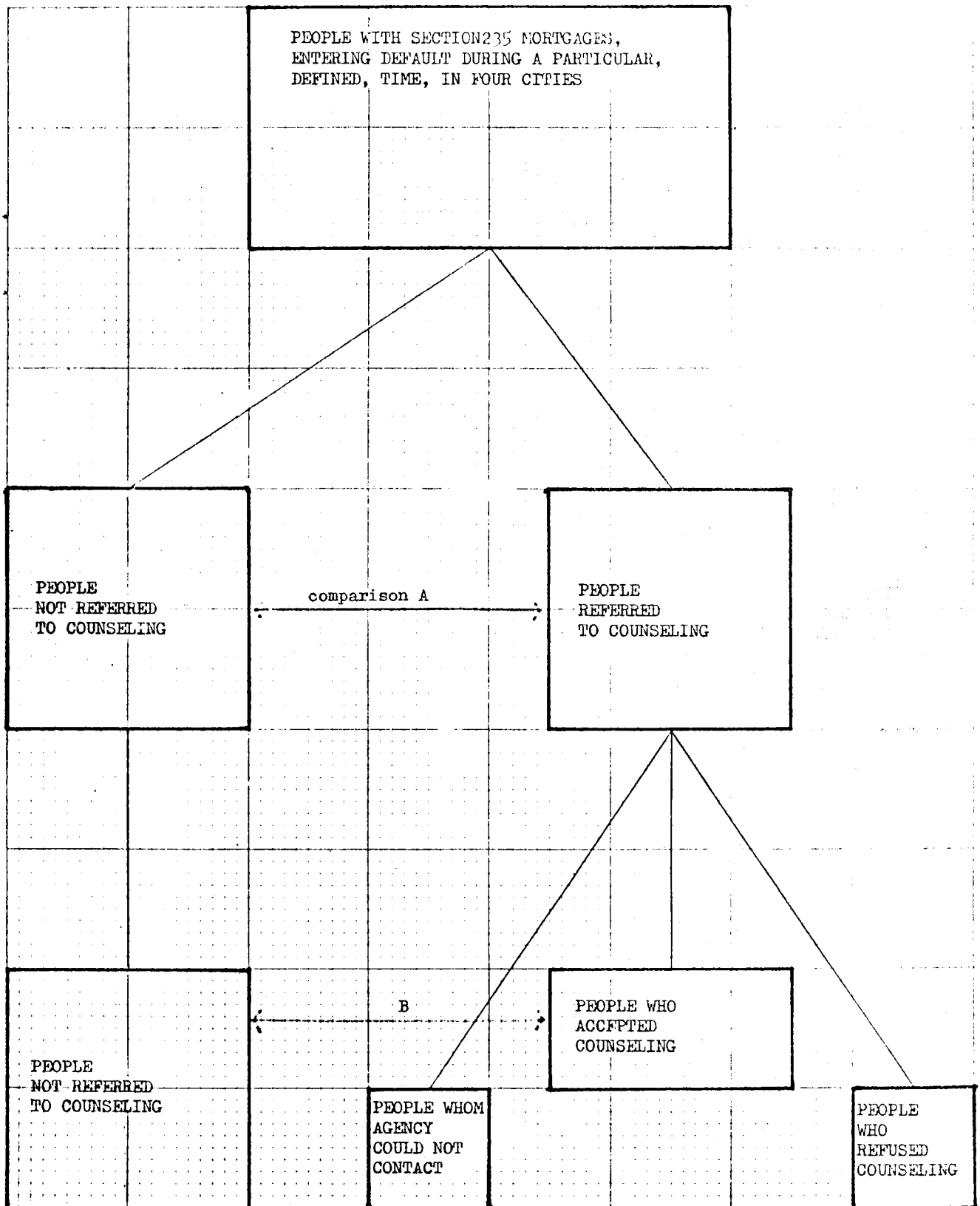
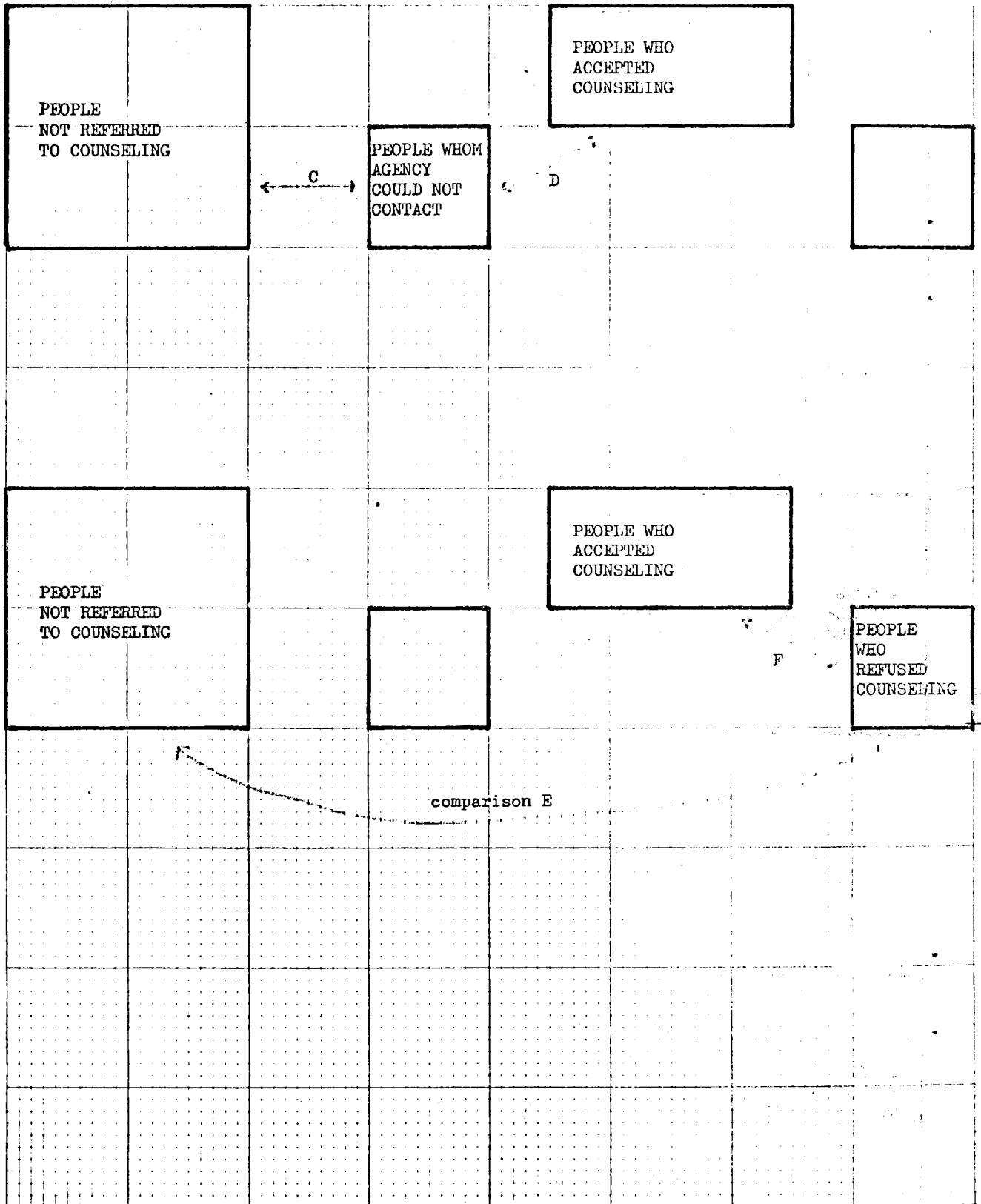


TABLE 3, continued



The mortgage status as of May 15, 1974 of every person who was matched was obtained by telephoning the mortgagee. OMB clearance was received to make this contact. Sample and control groups are compared on the basis of:

- percentage now in foreclosure
- percentage now reinstated
- percentage now worse off than at time of referral
- percentage now better off than at time of referral

All of the comparisons are made on the basis of matched pairs. To indicate that the matched samples really are socio-economically similar, we calculated, for both the sample and control group in each comparison, the following overall statistics:

- mean family income
- mean per capita income
- mean family size
- mean initial date of the mortgage
- mean depth of default at time of referral
- distribution by minority status
- distribution by structure of household

These are presented in the appendix, and the results show that the matching process was very successful, for each comparison, in obtaining samples of mortgagors who are closely comparable in all of the respects that could be measured at the present time.

## Results

Table 4 presents the principal measure of the impact of the D&D counseling program. As was explained in more detail in the "Methodology" section, this comparison between persons referred to counseling and those not referred is chosen as the principal one because, (a) this comparison avoids the effects of any attitudinal biases or self-selection on the part of counselees, and (b) this comparison measures the difference in outcomes that exists between a HUD policy of no special D&D program and a HUD policy of all defaulters being automatically referred to a D&D agency. All measures indicate a statistically significant impact of counseling -- more of the non-referrals were foreclosed upon, and more are worse off in their payments than when they were reported to HUD. Fewer of the non-referrals are now current, and fewer are now any better off than when they were reported to HUD. Line 3 of Table 4 presents the actual differences between rates of failure and between rates of success for the two sample groups.

We can use the information in this table to estimate the difference that would be caused by counseling in a large program. We cannot project what might happen in a counseling program conducted under different circumstances from this one, but we can try to predict what would happen in a larger program conducted under the same circumstances.

The present results can be understood as a random sample drawn from that potential larger program. Using this assumption, one can calculate that one is confident at the 90% level that the results in that potential larger program would show at least a 16 percentage point gap in foreclosure rates (a so-called "one-tailed test"). Alternatively, one is 90% confident that the gap would be no greater than 31 percentage points. Thus, one can

Table 4, Comparison A

Defaulting Mortgagors Not Referred To Counseling  
Versus  
Defaulting Mortgagors Referred To Counseling

COMPARISON OF SUCCESSFUL OUTCOMES		
	Percentage Current	Percentage Better Off Now Than When Initially Reported <sup>1</sup>
Among Mortgagors Referred	42%	54%
Among Mortgagors Not Referred	24	37
Difference <sup>2</sup>	+ 18	+ 17
Confidence Interval On The Difference <sup>3</sup>	+ 10/+ 25	+ 9/+ 25

COMPARISON OF UNSUCCESSFUL OUTCOMES		
	Percentage Foreclosed	Percentage Worse Off Now Than When Initially Reported <sup>4</sup>
Among Mortgagors Not Referred	50%	59%
Among Mortgagors Referred	27	37
Difference <sup>2</sup>	+ 24	+ 23
Confidence Interval On The Difference <sup>3</sup>	+ 16/+ 31	+ 15/+ 31

Number of matched pairs: 123

<sup>1</sup> Mortgagors now current plus mortgagors still delinquent but fewer payments behind than when they were first reported to HUD.

<sup>2</sup> Positive numbers indicate counseling success. Number shown is a point estimate of the impact that a large counseling program would have, if conducted under the same conditions that prevailed in the four cities studied. The number on this line may not exactly agree with the first two lines, because of rounding.

<sup>3</sup> One can be confident at the 90% confidence level that the difference which would appear in a potential larger counseling program conducted under the same conditions would be more than the lower limit shown. Alternatively, one can be confident at the 90% confidence level that the difference would be less than the upper limit shown. These are one-sided 90% confidence intervals.

<sup>4</sup> Mortgagors now foreclosed plus mortgagors more payments behind than when they were first reported to HUD.

with considerable assurance put either an upper or a lower limit on the impact of a D&D program. The ranges shown for each of the other measures in this and later tables may be similarly interpreted - one is confident the difference that would exist in a larger program conducted under the same conditions would be greater than the lower limit shown; one is confident that the difference would be less than the upper limit shown.

Table 5 presents a secondary comparison, that between counseled and non-referred persons. Again, all measures show that the counseled persons had more successful outcomes. However, the differences in this table appear somewhat smaller than in the previous comparison, implying that those who were referred but could not be reached or refused counseling (these are included in Table 4, but not in Table 5) had particularly successful outcomes, thus raising the rates of success to the levels shown in Table 4. This finding suggests that those mortgagors who know they would readily be able to bring themselves current tended to be the ones who refused counseling or could not be contacted (perhaps they could not enter counseling because they were moonlighting or involved in other self-improvement activities). That possible picture confirms the weakness of Comparison B as an unbiased measure of program impact.

Table 5, Comparison B  
 Defaulting Mortgages Not Referred To Counseling  
 Versus  
 Defaulting Mortgages Counseled

COMPARISON OF SUCCESSFUL OUTCOMES

	Percentage Current	Percentage Better Off Now Than When Initially Reported <sup>1</sup>
Mortgages Counseled	40%	53%
Mortgages Not Referred	27	38
Difference <sup>2</sup>	+ 13	+ 15
Confidence Interval On The Difference <sup>3</sup>	+ 4/+ 22	+ 6/+ 25

COMPARISON OF UNSUCCESSFUL OUTCOMES

	Percentage Foreclosed	Percentage Worse Off Now Than When Initially Reported <sup>4</sup>
Mortgages Not Referred	49%	57%
Mortgages Counseled	30	40
Difference <sup>2</sup>	+ 19	+ 17
Confidence Interval On The Difference <sup>3</sup>	+ 9/+ 28	+ 8/+ 27

Number of matched pairs: 86

<sup>1</sup> Mortgages now current plus mortgages still delinquent but fewer payment behind than when they were first reported to HUD.

<sup>2</sup> Positive numbers indicate counseling success. Number shown is a point estimate of the impact that a large counseling program would have, if conducted under the same conditions that prevailed in the four cities studied. This line may not exactly agree with the first two lines, because of rounding.

<sup>3</sup> One can be confident at the 90% confidence level that the difference which would appear in a potential larger counseling program conducted under the same conditions would be more than the lower limit shown. Alternatively, one can be confident at the 90% confidence level that the difference would be less than the upper limit shown. These are one-sided 90% confidence intervals.

<sup>4</sup> Mortgages now foreclosed plus mortgages more payments behind than when they were first reported to HUD.

### Cost-Benefit Comparisons

The principal purpose of this study was to determine the impact of default counseling on Section 235 foreclosure rates. The information presented in the previous section indicates that counseling does significantly reduce the incidence of foreclosure.

The next question that should be asked is whether the benefits associated with counseling outweigh the costs. Estimating the costs and benefits of counseling is not easy, however, for two reasons. First, there is no consensus about what factors should be included as costs and benefits. Second, in the time allocated for this study, it was not possible to calculate rigorously all the complex items of cost and benefit associated with counseling. The first problem -- what to include -- will ultimately be left to the choice of the reader. Rough estimates for many costs are presented and the reader should combine them as he or she sees fit. As examples, this section presents three alternative cost-benefit comparisons along with a discussion of the advantages and disadvantages of each.

The second problem is more difficult; the orders of magnitude of the dollar estimates presented here are probably reliable, but one should be quite wary of comparing any two figures that are about the same order of magnitude and drawing conclusions about which is greater, e.g., in comparing costs and benefits.

Quantification of Costs and Benefits - The objective of the D&D counseling program is to reduce foreclosures on Section 235 homes. Each of the following kinds of costs and benefits has been viewed by some as being associated with reduced foreclosure:



### Possible Costs of Avoiding Foreclosure:

- \* Direct payments to counseling agencies.
- \* Continuation of otherwise discontinued direct subsidy payments.
- \* Continuation of monthly mortgagee servicing fee.
- \* Continued cost of taxes foregone due to special income tax treatment of subsidy recipients (the so-called "double-dip" available to 235 homeowners).
- \* Continuation of annual HUD administrative costs for ordinary loan servicing, income recertifications, and paying out subsidies.
- \* Costs involved in future foreclosures on some fraction of the mortgages whose foreclosures are avoided at this point.
- \* HUD administrative costs involved in supervising the counseling agencies and in making referrals.
- \* Continued resentment among some non-beneficiaries resulting from the inequity of the continued 235 program.
- \* Other possible societal costs.

### Possible Benefits of Avoiding Foreclosure:

- \* Avoidance of the usual direct cash loss involved in acquiring, holding, possibly repairing, and selling foreclosed homes.
- \* Personal benefit of continued subsidy to recipient households.
- \* Continued MIP receipts.
- \* Avoidance of HUD administrative costs for property disposition.
- \* Avoidance of hidden foreclosure losses e.g., the high probability of a subsequent foreclosure and re-acquisition.
- \* Personal benefit associated with avoiding the anguish and bad credit rating involved in a foreclosure.
- \* Private benefit to mortgagees of avoiding bad will and lost interest income.

- \* Social benefit of avoiding the vandalism and neighborhood deterioration sometimes invited by a vacant house.
- \* The alleged social benefit arising from homeownership.
- \* Other possible societal benefits.

Data are available on the first four costs listed above, and on the first two benefits. Data are not readily available on the other items.

Unless one makes some unsupported assumption about future foreclosure rates among counseled mortgagors -- and one cannot even make reliable estimates about the uncounseled ones -- one cannot exactly calculate the continued direct subsidy costs. Estimates presented here assume no future foreclosures among the mortgagors whose foreclosures counseling has thus far averted; since there will be at least some foreclosures, the direct subsidy cost is therefore over-estimated.

Similarly, unless one makes some assumption about future foreclosure rates, one cannot estimate future administrative costs for loan servicing, costs involved in future foreclosures, or continued MIP receipts. However, the sum of these three, from the fourth<sup>\*</sup> through the thirtieth year of an average 235 mortgage, is usually projected to be a net gain to HUD. Thus, the net effect of these three factors is to increase HUD's benefit from the avoidance of a foreclosure (or, equivalently, to reduce HUD's loss), although the magnitude of the increase cannot be calculated.

In calculating the costs and benefits for the factors where data are available, several assumptions are made: (a) that the percentage change in failure rates for all referred mortgagors in these cities is the same as the change found in the study sample; (b) that the cost of foreclosure in these cities is similar to the national average cost for Section 235 properties; (c) that the cost of subsidy in these four cities is similar to the national average cost of subsidy for a typical Section 235 mortgage;

\* The average age of mortgages in our sample was 3 years.

(d) that inflation will be 6% per year, so that future costs and revenue should be discounted at that rate; (e) that the former occupant would not receive any other housing subsidy involving federal costs; and finally (f) that any welfare payment formerly received for housing will not rise or fall, so there will be no change in federal costs from that direction.

For the purpose of cost-benefit comparisons, the unit of measure selected is cost/benefit per person referred to counseling. It should be recalled that persons counseled are a subset of persons referred.

The cost of the D&D counseling in these four cities through April 1974 was \$307,400. As of that date it is estimated that 3,733 mortgagors had been referred to the agencies (this is 95% of the 3,929 referrals reported by agencies, because it is assumed that 5% of the number reported by the counseling agencies involve double counting as a result of: (a) chronic delinquents who move in and out of default, and (b) mortgagors being referred to two agencies in the same city). Thus direct program cost was \$82 per referral.

Each avoided foreclosure commits the Department to continuing subsidy payments. The amount of this remaining subsidy depends on the age of the mortgage at foreclosure. The average age of mortgages in our sample was 3 years. The latest HUD estimate of run-out costs for a typical Section 235 unit predicts that the subsidy will stop in the 15th year.

The total of estimated subsidies and mortgagee servicing fees from the 4th through the 15th year, discounted at 6% back to the beginning of the 4th year, is \$5,888 (in 1974 dollars). This figure will be used, but it should be noted that it is an average for all mortgages, and may be an under-estimate of the run-out cost for defaulting mortgages, because it is possible the mortgagors who enter default may be the ones who are likely to need subsidy more than the average length of time.

There has been a reduction of 24 percentage points in the foreclosure rate among referrals in the study sample. If it is assumed that this change applies to all referrals, multiplying the number of referrals -- 3733 -- by 24 percent indicates a total of 896 foreclosures were avoided. Since the cost of continued subsidy is \$5888 per unit, multiplying this by the number of foreclosures avoided -- 896 -- and dividing by the number of referrals -- 3733 -- gives the cost of continued subsidies which normally would have been discontinued, per referral, \$1417.

Income taxes foregone by the Federal Government because of special tax treatment for Section 235 mortgagors were calculated during the National Housing Policy Review (NHPR). The amounts foregone from the fourth year onward of an average 235 mortgage, if discounted back to the beginning of the fourth year, amount to \$300. For 896 foreclosures avoided, the amount of the foregone taxes is \$268,800. The amount per person referred to counseling is \$72.

The average loss to the insurance fund for a foreclosure is calculated as: the acquisition cost, minus the sales price discounted for the time in inventory, plus the selling expenses discounted for the time in inventory, plus the cost of repairs and taxes discounted for half the time in inventory. These amount to \$6,035 (1974 dollars), according to the record of Section 235 properties sold July through December 1973. Therefore, each foreclosure averted by counseling is estimated to save the insurance fund \$6,035, and the saving per referral to counseling is \$1448.

The direct individual benefits of a Section 235 subsidy may be estimated by the program efficiency of Section 235. The NHPR estimated average program efficiency over the life of a Section 235 mortgage. Since some of the costs which generate inefficiency -- administrative costs

and GNMA tandem plan costs in particular -- are spent in the first years of a mortgage, program efficiency in the later years is higher than the average estimated by the NHPR. One can roughly estimate program efficiency in later years as: benefit to the recipient, divided by the sum of direct subsidy and foregone taxes. This ratio is 85%. Applied to the total runout costs of direct subsidy and foregone taxes, this percentage implies that the runout direct benefit to each recipient household is \$5260. For 896 foreclosures avoided, the value of the individual benefits is \$4,713,000. Per person refused to counseling, the value is \$1263.

As mentioned above, there are some non-quantifiable costs associated with each foreclosure avoided. The total of these will be called \$Y per person referred to counseling. \$Y includes the costs of: continuation of annual HUD administrative costs for ordinary loan servicing; future foreclosures on some of the mortgages whose foreclosures are initially avoided by counseling; HUD administration relative to supervising the counseling agencies and making referrals; continued resentment among some non-beneficiaries toward the inequity of the continued program; and other societal costs.

Individual and societal benefits, which cannot be quantified, shall be represented by \$X per person referred to counseling. \$X includes: continued MIP receipts; avoidance of HUD administrative costs for property disposition; avoidance of hidden foreclosure losses; personal benefit of avoiding the anguish and bad credit rating involved in a foreclosure; private benefit to mortgagees of avoiding bad will and lost interest income; social benefit of avoiding the vandalism and neighborhood deterioration sometimes invited by a vacant house; the alleged social benefit arising from homeownership; and other possible societal benefits.

Cost-Benefit Comparison #1 There are a number of ways to add the figures outlined above together, depending upon one's perspective as to what constitutes a cost or a benefit. The first perspective is to assume that Section 235 interest subsidy payments on existing mortgages are a given; that if one homeowner is foreclosed, another will receive his or her subsidy; that the major cost associated with the counseling program is the cost of counseling itself, and that there is a single major benefit - foreclosure costs avoided.

Thus, for a 24 percentage point reduction in foreclosures, a comparison of costs and benefits gives:

Cost of Counseling	- \$ 82
Savings to Insurance Fund	<u>+ \$1448</u>
Total (net benefit)	+ \$1366

This means that for every person referred to counseling there is a net benefit of \$1366. This calculation is the best "point estimate," but it is useful to mention that a similar calculation could be made for each end of the interval of estimates that was presented in the "Results" section. Thus, while the estimate of the change in foreclosure rates that counseling would cause in a large program under similar conditions is 24%, the change as indicated by the confidence intervals discussed in the previous section could really be anywhere from 16% to 31%. Going through the same calculations as above, one can be 90% confident that the net benefits per referral are greater than \$883, or 90% confident that the net benefits are less than \$1788.\*

\* Similar confidence limits could be calculated, using slightly different assumptions, in the following two cost-benefit comparisons. For ease of reading however, they have not been presented.

Cost-Benefit Comparison #2 The above comparison is simple and direct, but it is limited in that it excludes from consideration certain costs and benefits. One major cost that is excluded is the cost of the continued subsidy payment. Although HUD has issued mortgage insurance and subsidy commitments in good faith, and must not take any steps actively to encourage or foster foreclosures HUD is not under any obligation to change the usual patterns of foreclosure. HUD may remain neutral, continuing its ordinary loan servicing practices, or it may actively attempt to reduce foreclosures below their normal level. Counseling represents such an active step beyond what is required, and it has certain costs and benefits. The fact that its effect on mortgagors and on the insurance fund is largely beneficial does not automatically justify the implementation of counseling, unless these benefits are enough to outweigh any cost to taxpayers.

This section and the following one present cost-benefit comparisons which include progressively more of the costs and benefits. The second comparison includes those items which affect the HUD budget. This is also a limited view, so the third comparison includes private costs as well as government costs.

For a 24 percentage point reduction in foreclosures, the measurable budget impact on the government of the counseling program is:

Cost of Counseling	- \$ 82
Cost of Continued Subsidy	- \$ 1417
Savings to Insurance Fund	+ \$ 1448
Total (net benefits)*	- \$ 51

\* Several items of budget impact are omitted from this total, because they have not been measured, e.g., future MIP receipts, future costs to the insurance fund, etc.

This table indicates that the net measurable budget impact of counseling (\$51) is an added cost to the Federal government, but that that cost is less than the direct outlays for counseling (\$82).

If we apply the results of the analysis of measurable budget impacts in this case study to a possible annual \$10 million national counseling program, the point estimate of cost is \$5,733,000.

Cost-Benefit Comparison #3 Comparison #2 considered budget costs and benefits to the Federal government, but did not measure either costs or benefits to mortgagors and mortgagees or non-pecuniary costs or benefits to society at large.

Thus a comparison of the full costs and benefits of a D&D counseling program per person referred to counseling, one that includes both quantifiable and non-quantifiable costs and benefits, can be represented as follows:

Costs

Cost of Counseling	- \$ 82
Cost of Continued Subsidy	- \$ 1417
Foregone Taxes	- \$ 72
Other Costs	- \$ Y

Benefits

Savings to Insurance Fund	+ \$ 1448
Benefits to Recipients	+ \$ 1263
Other Benefits	+ \$ X

Total	\$ 1140 + (X-Y)
-------	-----------------

To the extent that the above figures are accurate, one can define a cross-over point between the net result of counseling being a benefit or a cost. This cross-over point occurs when:  $Y - X = \$1140$ .



This means that if the inequity, inefficiency, and other costs in the 235 program ("Y") are \$1140 greater than the positive, non-quantifiable benefits of each avoided foreclosure per person refused to counseling ("X"), counseling is not cost effective.

\* \* \*

To summarize, this section has presented three ways to measure costs and benefits of counseling. Comparison 1 indicates that savings to the insurance fund because of foreclosure avoided far outweigh the cost of contracting with counseling agencies in the four cities studied. Comparison 2 indicates that although the long-run impact of counseling on the HUD budget is not clear, future subsidy obligations are approximately equal to the immediate savings to the insurance fund. Comparison 3, which includes federal, personal, and social costs and benefits of D&D counseling, suggests that the net result of counseling is beneficial.

### The Types of People Who Refuse Counseling or Who Cannot be Contacted

A set of four comparisons will help us form conclusions about the kinds of people who refuse counseling or who cannot be contacted at all. The first two compare the outcomes of "referred, but not contacted" versus the "not referred" and "referred, but not contacted" versus the "counseled." Although for the comparison shown in Table 6 the sample size is small (only 38 families), the results are significant and indicate substantially worse outcomes for the "not referred." This comparison confirms the finding above that the "referred, but non-counseled" -- here in particular the "referred, but not contacted" -- include mostly people with very successful outcomes. Table 7 suggests that the not contacted have just about the same outcomes as the counseled. Thus, these people who cannot be contacted seem to be those who can keep up their payments as well as the counseled, without receiving the counseling. These latter results are not statistically significant, but are indicative of hypotheses that can be further tested.

The second two comparisons examine the outcomes of "refusals" versus the "not referred", and "refusals" versus the "counseled" (Tables 8 and 9 respectively). These tables indicate that people who refuse counseling have worse outcomes than the "counseled" but better outcomes than the "not referred". One possible interpretation of this finding, although the results here are not statistically significant, is that it indicates that those who refuse counseling may be people who think they can cure their defaults without depending on the counseling agency, but who in fact cannot cure their defaults as permanently as they could have with counseling. On the other hand, this finding may indicate that a mix of two types of

Table 6, Comparison C

Defaulting Mortgagors Not Referred to Counseling  
Versus  
Defaulting Mortgagors Referred to Counseling But  
Whom The Agency Could not Contact

## COMPARISON OF SUCCESSFUL OUTCOMES

	Percentage Current	Percentage Better Off Now Than When Initially Reported <sup>1</sup>
Mortgagors Referred But Not Contacted	53%	63%
Mortgagors Not Referred	26	37
Difference <sup>2</sup>	+ 26	+ 26
Confidence Interval On The Difference <sup>3</sup>	+ 7/+ 46	+ 6/+ 46

## COMPARISON OF UNSUCCESSFUL OUTCOMES

	Percentage Foreclosed	Percentage Worse Off Now Than When Initially Reported <sup>4</sup>
Mortgagor Not Referred	58%	63%
Mortgagors Referred But Not Contacted	21	26
Difference <sup>2</sup>	+ 37	+ 37
Confidence Interval On The Difference <sup>3</sup>	+ 18/+ 56	+ 18/+ 56

Number of matched pairs: 19

<sup>1</sup> Mortgagors now current plus mortgagors still delinquent but fewer payments behind than when they were first reported to HUD.

<sup>2</sup> Positive numbers indicate success of the not contacted. Number shown is a point estimate of the impact that a large counseling program would have, if conducted under the same conditions that prevailed in the four cities studied. This line may not exactly agree with the first two lines, because of rounding.

<sup>3</sup> One can be confident at the 90% confidence level that the difference which would appear in a potential larger counseling program conducted under the same conditions would be more than the lower limit shown. Alternatively, one can be confident at the 90% confidence level that the difference would be less than the upper limit shown. These are one-sided 90% confidence intervals.

<sup>4</sup> Mortgagors now foreclosed plus mortgagors more payments behind than when they were first reported to HUD.

Table 7, Comparison D

Defaulting Mortgagors Counseled  
Versus  
Defaulting Mortgagors Referred To Counseling But  
Whom The Agency Could Not Contact

## COMPARISON OF SUCCESSFUL OUTCOMES

	Percentage Current	Percentage Better Off Now Than When Initially Reported <sup>1</sup>
Mortgagors Counseled	53%	58%
Mortgagors Referred But Not Contacted	58	63
Difference <sup>2</sup>	-5	-5
Confidence Interval On The Difference <sup>3</sup>	- 26/+ 15	- 26/+ 15

## COMPARISON OF UNSUCCESSFUL OUTCOMES

	Percentage Foreclosed	Percentage Worse Off Now Than When Initially Reported <sup>1</sup>
Mortgagors Referred But Not Contacted	16%	26%
Mortgagors Counseled	16	21
Difference <sup>2</sup>	0	+5
Confidence Interval On The Difference <sup>3</sup>	- 15/+ 15	- 12/+ 23

Number of Matched Pairs: 19

<sup>1</sup> Mortgagors now current plus mortgagors still delinquent but fewer payments behind than when they were first reported to HUD.

<sup>2</sup> Positive numbers indicate success of the counseled. Number shown is a point estimate of the impact that a large counseling program would have, if conducted under the same conditions that prevailed in the four cities studied. The numbers on this line may not exactly agree with the first two lines, because of rounding.

<sup>3</sup> One can be confident at the 90% confidence level that the difference which would appear in a potential larger counseling program conducted under the same conditions would be more than the lower limit shown. Alternatively, one can be confident at the 90% confidence level that the difference would be less than the upper limit shown. These are one-sided 90% confidence intervals.

<sup>4</sup> Mortgagors now foreclosed plus mortgagors more payments behind than when they were first reported to HUD.

Table 8, Comparison E

Defaulting Mortgagors Not Referred To Counseling  
Versus  
Defaulting Mortgagors Referred But Who Refused Counseling

COMPARISON OF SUCCESSFUL OUTCOMES

	Percentage Current	Percentage Better Off Now Than When Initially Reported <sup>1</sup>
Mortgagors Referred But Who Refused	57%	57%
Mortgagors Not Referred	21	50
Difference <sup>2</sup>	+ 36	+ 7
Confidence Interval On The Difference <sup>3</sup>	+ 14/+ 58	- 17/+ 31

COMPARISON OF UNSUCCESSFUL OUTCOMES

	Percentage Foreclosed	Percentage Worse Off Now Than When Initially Reported <sup>4</sup>
Mortgagors Not Referred	36%	50%
Mortgagors Referred But Who Refused	7	21
Difference <sup>2</sup>	+ 29	+ 29
Confidence Interval On The Difference <sup>3</sup>	+ 10/+ 47	+ 6/+ 51

Number of matched pairs: 14

<sup>1</sup> Mortgagors now current plus mortgagors still delinquent but fewer payments behind than when they were first reported to HUD.

<sup>2</sup> Positive numbers indicate success of the refusals. Number shown is a point estimate of the impact that a large counseling program would have, if conducted under the same conditions that prevailed in the four cities studied. This line may not exactly agree with the first two lines, because of rounding.

<sup>3</sup> One can be confident at the 90% confidence level that the difference which would appear in a potential larger counseling program conducted under the same conditions would be more than the lower limit shown. Alternatively, one can be confident at the 90% confidence level that the difference would be less than the upper limit shown. These are one-sided 90% confidence intervals.

<sup>4</sup> Mortgagors now foreclosed plus mortgagors more payments behind than when they were first reported to HUD.

Table 9, Comparison F

Defaulting Mortgagors Counseled  
Versus  
Defaulting Mortgagors Referred But Who Refused Counseling

COMPARISON OF SUCCESSFUL OUTCOMES		
	Percentage Current	Percentage Better Off Now Than When Initially Reported <sup>1</sup>
Mortgagors Counseled	62%	77%
Mortgagors Referred But Who Refused	46	54
Difference <sup>2</sup>	+ 15	+ 23
Confidence Interval On The Difference <sup>3</sup>	- 9/+ 40	0/+ 46

COMPARISON OF UNSUCCESSFUL OUTCOMES		
	Percentage Foreclosed	Percentage Worse Off Now Than When Initially Reported <sup>4</sup>
Mortgagors Referred But Who Refused	23%	38%
Mortgagors Counseled	8	15
Difference <sup>2</sup>	+ 15	+ 23
Confidence Interval On The Difference <sup>3</sup>	- 2/+ 33	+ 2/+ 45

Number of matched pairs: 13

<sup>1</sup> Mortgagors now current plus mortgagors still delinquent but fewer payments behind than when they were first reported to HUD.

<sup>2</sup> Positive numbers indicate success of the counseled. Number shown is a point estimate of the impact that a large counseling program would have, if conducted under the same conditions that prevailed in the four cities studied. This line may not exactly agree with the first two lines, because of rounding.

<sup>3</sup> One can be confident at the 90% confidence level that the difference which would appear in a potential larger counseling program conducted under the same conditions would be more than the lower limit shown. Alternatively, one can be confident at the 90% confidence level that the difference would be less than the upper limit shown. These are one-sided 90% confidence intervals.

<sup>4</sup> Mortgagors now foreclosed plus mortgagors more payments behind than when they were first reported to HUD.

people refuse counseling: people for whom foreclosure is inevitable and people who can readily become current. As above, further research may be appropriate to provide statistically significant tests of these hypotheses.

### Caveats

The purpose of this section is to indicate why the conclusions of this study should be accepted with caution. The reasons listed below are not in any order of importance.

1. The sample sizes are small. With such small sample sizes part of the differences in outcomes noticed in the comparisons may be due to chance, and therefore, may not reflect the true difference in failure rates in the potential larger counseling program of which we are assuming our data are a random sample. However, the interval estimated for each comparison does take full account of this problem, so that in spite of the small sample sizes, we are confident to the 90% level that the actual difference in failure rates for each comparison in that potential larger program would be less than the upper limit given, or we are similarly 90% confident that the difference would be more than the lower limit given. It may be noted that we are confident only at the 80% level that the actual difference in that potential larger program would lie within the interval given; there is a 10% chance that it might lie above and a 10% chance that it might lie below.
2. The study does not measure all kinds of counseling, but only a particular kind of counseling funded by HUD in four cities in the last two years. While it is true that presumably both HUD and the counseling agencies tried diligently to provide the best counseling that the amount of funds and the state of the art permitted, it is also true that if the counseling had been provided in a different way, it might have had a significantly



greater impact on failure rates. Furthermore, the five counseling agencies in these four cities differ in their procedures, in the people they serve, and in the characteristics of their cities, so the procedure of pooling data from these four cities may be questionable. For example, in Milwaukee the agency often did not attempt to visit the mortgagors who could not be reached by phone or mail, while in Atlanta agencies usually did. In Milwaukee many mortgagors were welfare recipients, while this was the case for few in Washington. Many characteristics of the cities may have affected counseling. For example, rental vacancy rates (the alternative housing available in case of foreclosure) are 10-15% in Oklahoma City, while they are 3-4% in Washington.

3. Because they are limited to four cities, the matched pairs are probably not representative of the nation as a whole. 48% of the pairs are in Oklahoma City, 32% in Atlanta, 11% in Washington, 9% in Milwaukee. These cities were not selected on the basis of representativeness, but on the basis of availability of data.
4. This study evaluates only one aspect of counseling--its effect on mortgage failure. Irrespective of whether counseling is beneficial in this area, counseling may be useful for other reasons (a) it may help more families who lose their homes to use Deeds in Lieu instead of foreclosure, thus reducing the effect upon their credit ratings; (b) it may help such families to find more satisfactory alternative housing; (c) it may

help families who would become current in their payments anyway to do so more quickly and with less strain on the family budget; (d) it may help families unjustly billed in error to deal with their (often far distant) mortgagee and avoid having to pay any erroneous charges; (e) it may help HUD monitor the mortgagees more effectively by uncovering any questionable mortgage servicing or mortgage approval practices.

5. The samples consist of pairs of mortgagors matched on certain characteristics, but they may not be matched on other characteristics about which we have no data such as repair bills, mortgagee attitudes, neighborhood characteristics, etc. We have assumed that once the samples are matched on such items as city, race, depth of default at time of referral, age of the mortgage and per capita income, any biases in the samples probably have been eliminated, with the remaining variation in the samples acquiring a random distribution.
6. In two cities, we found substantial numbers of defaulted mortgagors not referred to counseling, although HM policy was that all defaulters should be referred. There is no evidence that the nonreferrals were anything but random (see Appendix Tables A-15 to A-18). If the non-referrals happened at random, then they are probably comparable (after the matching process) to the referrals. If there were systematic reasons why certain mortgagors were not referred to counseling, however, then the samples may be somehow biased in an unknown direction.

7. In most cases we have looked at the change in mortgagor's status over periods of less than twelve months. The end of the period of observation was always mid-May, 1974, but the beginning of the period varied by mortgagor. The time span from the beginning to the end of the period of observation for each mortgagor may have been too brief to show the true effects of counseling. For example, if one effect of counseling is to extend the time before an inevitable foreclosure, then the results we present on the fraction of referrals that have been foreclosed would be biased downward because more mortgagees will still foreclose albeit on a delayed basis. Therefore, the results presented here may over-estimate the impact of counseling.

Such a bias, if present, could be overcome by waiting several years to collect results. By then, presumably, most foreclosures would have occurred even if they were somewhat delayed. In a short-run study, however, one must accept this possible bias in the data.

8. Because a non-random sub-set of counselees is used to measure counseling agency performance, the results section summarizes the relative effectiveness of counseling, rather than the absolute effectiveness. Therefore, foreclosure rates should not be taken as indicative of the performance of any given counseling agency.

9. The "Cost-Benefit Comparisons" section describes certain assumptions that were made in making cost-benefit estimates. Different assumptions might have caused different findings.

## Appendix

This appendix is divided into six sections. Section 1 provides city breakdowns for the comparisons found in the text. This section shows how much variation in results there is across the four cities which comprise this case study. Section 2 compares the characteristics of persons in each half of the matched pairs. This section permits one to assess the exactness of the matching procedure. Section 3 compares -- for each group of persons with the same counseled or non-counseled status -- the average characteristics of all persons sampled to the average characteristics of each corresponding sub-group involved in each set of matched pairs. This permits an assessment of the bias involved in creating matched pairs. Section 4 indicates foreclosure rates and mortgages brought current for all persons in the sample. Section 5 indicates the characteristics of all persons referred and of all persons not referred in each city. This section provides an indication as to whether the Area Offices' referral/non-referral processes were random. Section 6 discusses an alternate way of analyzing the data collected in this study, involving the use of regression analysis rather than matched pairs to hold socio-economic characteristics constant.

Section 1Contents

Table A-1: Defaulting Mortgagors Not Referred to  
Counseling versus Defaulting Mortgagors  
Referred to Counseling by City

Table A-2: Defaulting Mortgagors Not Referred to  
Counseling versus Defaulting Mortgagors  
Counseled by City

Table A-1

Defaulting Mortgagors Not Referred to Counseling Versus Defaulting Mortgagors Referred to Counseling  
By City

	<u>Difference In Percent Current</u>	<u>Difference In Percent Better Off Now Than When Initially Reported</u> <sup>1</sup>	<u>Difference In Percent Foreclosed</u>	<u>Difference In Percent Worse Off Now Than When Initially Reported</u> <sup>2</sup>
Oklahoma City <sup>3</sup>	+ 27	+ 27	+ 38	+ 34
Confidence Interval <sup>4</sup>	+ 17/ + 37	+ 16/ + 38	+ 26/ + 48	+ 23/ + 45
Atlanta <sup>3</sup>	+ 8	+ 7	+ 10	+ 12
Confidence Interval <sup>4</sup>	- 6/ + 22	- 7/ + 22	- 2/ + 23	- 1/ + 26
Milwaukee <sup>3</sup>	0	0	+ 18	+ 9
Confidence Interval <sup>4</sup>	- 24/ + 24	- 26/ + 26	- 9/ + 45	- 18/ + 36
Washington <sup>3</sup>	+ 22	+ 14	+ 7	+ 14
Confidence Interval <sup>4</sup>	- 2/ + 45	- 5/ + 34	- 8/ + 22	- 5/ + 34

<sup>1</sup> Mortgagors now current plus mortgagors still delinquent but fewer payments behind than when they were first reported to HUD.

<sup>2</sup> Mortgagors now foreclosed plus mortgagors more payments behind than when they were first reported to HUD.

<sup>3</sup> Positive numbers indicate counseling success. Number shown is a point estimate of the impact that a large counseling program would have, if conducted under the same conditions that prevailed in the four cities studied.

<sup>4</sup> One can be confident at the 90% confidence level that the difference which would appear in a potential larger counseling program conducted under the same conditions would be more than the lower limit shown. Alternatively, one can be confident at the 90% confidence level that the difference would be less than the upper limit shown. These are one-sided 90% confidence intervals.

Table A-2

Defaulting Mortgagors Not Referred to Counseling Versus Defaulting Mortgagors Counseled By City

	<u>Difference In Percent Current</u>	<u>Difference In Percent Better Off Now Than When Initially Reported <sup>1</sup></u>	<u>Difference In Percent Foreclosed</u>	<u>Difference In Percent Worse Off Now Than When Initially Reported <sup>2</sup></u>
Oklahoma City <sup>3</sup>	+ 17	+ 25	+ 30	+ 26
Confidence Interval <sup>4</sup>	- 5/ + 29	+ 11/ + 37	+ 16/ + 43	+ 14/ + 40
Atlanta <sup>3</sup>	0	0	+ 8	+ 5
Confidence Interval <sup>4</sup>	- 18/ + 18	- 19/ + 19	- 8/ + 25	- 13/ + 22
Milwaukee <sup>3</sup>	0	0	+ 11	0
Confidence Interval <sup>4</sup>	- 28/ + 28	- 30/ + 30	- 18/ + 40	- 30/ + 30
Washington <sup>3</sup>	+ 31	+ 23	+ 7	+ 23
Confidence Interval <sup>4</sup>	+ 7/ + 54	+ 4/ + 42	- 8/ + 24	+ 4/ + 42

<sup>1</sup> Mortgagors now current plus mortgagors still delinquent but fewer payments behind than when they were first reported to HUD.

<sup>2</sup> Mortgagors now foreclosed plus mortgagors more payments behind than when they were first reported to HUD.

<sup>3</sup> Positive numbers indicate counseling success. Number shown is a point estimate of the impact that a large counseling program would have, if conducted under the same conditions that prevailed in the four cities studied.

<sup>4</sup> One can be confident at the 90% confidence level that the difference which would appear in a potential larger counseling program conducted under the same conditions would be more than the lower limit shown. Alternatively, one can be confident at the 90% confidence level that the difference would be less than the upper limit shown. These are one-sided 90% confidence intervals.

Section 2

Table A-3: Characteristics of the Matched Pairs of Defaulting  
Mortgagors Referred to Counseling Versus Defaulting  
Mortgagors Not Referred to Counseling.

Table A-4: Characteristics of the Matched Pairs of Defaulting  
Mortgagors Counseled Versus Defaulting Mortgagors Not  
Referred to Counseling.

Table A-5: Characteristics of the Matched Pairs of Defaulting  
Mortgagors Not Referred to Counseling Versus Defaulting  
Mortgagors Referred to Counseling but Whom the Agency  
Could Not Contact.

Table A-6: Characteristics of the Matched Pairs of Defaulting  
Mortgagors Counseled Versus Defaulting Mortgagors Referred  
to Counseling but Whom the Agency Could Not Contact.

Table A-7: Characteristics of the Matched Pairs of Defaulting  
Mortgagors Not Referred to Counseling Versus Defaulting  
Mortgagors Referred but who Refused Counseling.

Table A-8: Characteristics of the Matched Pairs of Defaulting  
Mortgagors Counseled Versus Defaulting Mortgagors Referred  
but Who Refused Counseling.



TABLE A-3

CHARACTERISTICS OF THE MATCHED PAIRS IN THE COMPARISON OF DEFAULTING  
MORTGAGORS REFERRED TO COUNSELING VERSUS DEFAULTING MORTGAGORS NOT  
REFERRED TO COUNSELING

(COMPARISON A)		
CHARACTERISTICS	MORTGAGORS NOT REFERRED TO COUNSELING	MORTGAGORS REFERRED TO COUNSELING
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 6,803	\$ 6,603
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	\$ 1,490	\$ 1,520
HOUSEHOLD SIZE (MEAN)	5.0	4.8
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE (MEAN)	2.8	2.5
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	AUG 1971	MAY 1971
MORTGAGE AMOUNT (MEAN)	\$ 17,100	\$ 16,900
MINORITY STATUS:		
NOT REPORTED	32%	24%
MINORITY	33	41
NON-MINORITY	35	35
STRUCTURE OF HOUSEHOLD :		
NOT REPORTED	2%	3%
HUSBAND-WIFE	72	66
FEMALE HEAD WITHOUT HUSBAND PRESENT	24	29
OTHER	1	2
METROPOLITAN AREA:		
ATLANTA	32%	32%
MILWAUKEE	9	9
OKLAHOMA CITY	48	48
WASHINGTON	11	11

TABLE A-4

CHARACTERISTICS OF THE MATCHED PAIRS IN THE COMPARISON OF DEFAULTING  
MORTGAGORS COUNSELED VERSUS DEFAULTING MORTGAGORS NOT REFERRED TO  
COUNSELING

(COMPARISON B)

CHARACTERISTICS	MORTGAGORS NOT REFERRED TO COUNSELING	MORTGAGORS COUNSELED
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 7,030	\$ 6,816
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	\$ 1,439	\$ 1,469
HOUSEHOLD SIZE (MEAN)	5.3	5.1
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE (MEAN)	2.7	2.6
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	SEP 1971	JUN 1971
MORTGAGE AMOUNT (MEAN)	\$ 17,200	\$ 17,500
MINORITY STATUS:		
NOT REPORTED	30%	22%
MINORITY	40%	47%
NON-MINORITY	30	31
STRUCTURE OF HOUSEHOLD:		
NOT REPORTED	4%	4%
HUSBAND-WIFE	70	67
FEMALE HEAD WITHOUT HUSBAND PRESENT	26	27
OTHER	1	2
METROPOLITAN AREA:		
ATLANTA	27%	27%
MILWAUKEE	10	10
OKLAHOMA CITY	48	48
WASHINGTON	15	15

TABLE A-5

CHARACTERISTICS OF THE MATCHED PAIRS IN THE COMPARISON OF DEFAULTING  
MORTGAGORS NOT REFERRED TO COUNSELING VERSUS DEFAULTING MORTGAGORS  
REFERRED TO COUNSELING BUT WHOM THE AGENCY COULD NOT CONTACT

(COMPARISON C)

CHARACTERISTICS	MORTGAGORS NOT REFERRED TO COUNSELING	MORTGAGORS NOT CONTACTED
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 5,666	\$ 5,543
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	\$ 1,670	\$ 1,651
HOUSEHOLD SIZE (MEAN)	3.7	3.6
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE (MEAN)	2.8	2.3
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	MAR 1971	MAR 1971
MORTGAGE AMOUNT (MEAN)	\$ 16,600	\$ 16,100
MINORITY STATUS:		
NOT REPORTED	47%	32%
MINORITY	21	32
NON-MINORITY	32	37
STRUCTURE OF HOUSEHOLD:		
NOT REPORTED	0%	5%
HUSBAND-WIFE	74	58
FEMALE HEAD WITHOUT HUSBAND PRESENT	26	37
OTHER	0	0
METROPOLITAN AREA:		
ATLANTA	63%	63%
MILWAUKEE	5	5
OKLAHOMA CITY	32	32
WASHINGTON	0	0

TABLE A-6

CHARACTERISTICS OF THE MATCHED PAIRS IN THE COMPARISON OF DEFAULTING  
MORTGAGORS COUNSELED VERSUS DEFAULTING MORTGAGORS REFERRED TO  
COUNSELING BUT WHOM THE AGENCY COULD NOT CONTACT

(COMPARISON D)

CHARACTERISTICS	MORTGAGORS COUNSELED	MORTGAGORS NOT CONTACTED
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 6,023	\$ 5,773
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	\$ 1,281	\$ 1,261
HOUSEHOLD SIZE (MEAN)	5.2	5.1
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE (MEAN)	2.4	2.2
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	MAY 1971	FEB 1971
MORTGAGE AMOUNT (MEAN)	\$ 15,900	\$ 14,300
MINORITY STATUS:		
NOT REPORTED	33%	22%
MINORITY	44	44
NON-MINORITY	22	33
STRUCTURE OF HOUSEHOLD:		
NOT REPORTED	0%	11%
HUSBAND-WIFE	50	33
FEMALE HEAD WITHOUT HUSBAND PRESENT	50	56
OTHER	0	0
METROPOLITAN AREA:		
ATLANTA	21%	21%
MILWAUKEE	68	68
OKLAHOMA CITY	11	11
WASHINGTON	0	0

TABLE A-7

CHARACTERISTICS OF THE MATCHED PAIRS IN THE COMPARISON OF DEFAULTING  
MORTGAGORS NOT REFERRED TO COUNSELING VERSUS DEFAULTING MORTGAGORS  
REFERRED BUT WHO REFUSED COUNSELING

(COMPARISON E)

CHARACTERISTICS	MORTGAGORS NOT REFERRED TO COUNSELING	MORTGAGORS WHO REFUSED COUNSELING
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 6,886	\$ 6,544
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	\$ 1,535	\$ 1,458
HOUSEHOLD SIZE (MEAN)	5.1	5.1
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE (MEAN)	2.5	1.7
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	MAR 1971	JUN 1971
MORTGAGE AMOUNT (MEAN)	\$ 17,100	\$ 14,800
MINORITY STATUS:		
NOT REPORTED	33%	33%
MINORITY	17	25
NON-MINORITY	50	42
STRUCTURE OF HOUSEHOLD:		
NOT REPORTED	0%	0%
HUSBAND-WIFE	83	58
FEMALE HEAD WITHOUT HUSBAND PRESENT	17	42
OTHER	0	0
METROPOLITAN AREA:		
ATLANTA	29%	29%
MILWAUKEE	7	7
OKLAHOMA CITY	57	57
WASHINGTON	7	7

TABLE A-8

CHARACTERISTICS OF THE MATCHED PAIRS IN THE COMPARISON OF DEFAULTING  
MORTGAGORS COUNSELED VERSUS DEFAULTING MORTGAGORS REFERRED BUT WHO  
REFUSED COUNSELING

(COMPARISON F)

CHARACTERISTICS	MORTGAGORS COUNSELED	MORTGAGORS WHO REFUSED COUNSELING
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 8,230	\$ 8,403
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	\$ 1,615	\$ 1,565
HOUSEHOLD SIZE (MEAN)	5.5	5.8
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE (MEAN)	2.2	2.3
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	APR 1971	MAR 1971
MORTGAGE AMOUNT (MEAN)	\$ 18,600	\$ 17,300
MINORITY STATUS:		
NOT REPORTED	23%	25%
MINORITY	46	33
NON-MINORITY	31	42
STRUCTURE OF HOUSEHOLD:		
NOT REPORTED	15%	0%
HUSBAND-WIFE	62	83
FEMALE HEAD WITHOUT HUSBAND PRESENT	23	17
OTHER	0	0
METROPOLITAN AREA:		
ATLANTA	15%	15%
MILWAUKEE	46	46
OKLAHOMA CITY	15	15
WASHINGTON	23	23

Section 3

Table A-9: Characteristics Of Mortgagors Not Referred To Counseling

Table A-10: Characteristics Of Mortgagors Referred To Counseling

Table A-11: Characteristics Of Mortgagors Who Were Counseled

Table A-12: Characteristics Of Mortgagors Referred To Counseling But Whom The Agency Could Not Contact

Table A-13: Characteristics Of Mortgagors Who Refused Counseling

TABLE A-9  
CHARACTERISTICS OF MORTGAGORS  
NOT REFERRED TO COUNSELING

CHARACTERISTICS	ALL SUCH MORTGAGORS SAMPLED	MORTGAGORS INCLUDED IN COMPARISON A	MORTGAGORS INCLUDED IN COMPARISON B	MORTGAGORS INCLUDED IN COMPARISON C	MORTGAGORS INCLUDED IN COMPARISON E
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 7,025	\$ 6,803	\$ 7,030	\$ 5,666	\$ 6,886
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	\$ 1,697	\$ 1,490	\$ 1,439	\$ 1,670	\$ 1,535
HOUSEHOLD SIZE (MEAN)	4.6	5.0	5.3	3.7	5.1
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE (MEAN)	3.0	2.8	2.7	2.8	2.5
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	AUG 1971	AUG 1971	SEP 1971	MAR 1971	MAR 1971
MORTGAGE AMOUNT (MEAN)	\$ 17,100	\$ 17,100	\$ 17,200	\$ 16,600	\$ 17,100
MINORITY STATUS:					
NOT REPORTED	23%	32%	30%	47%	33%
MINORITY	33	33	40	21	17
NON-MINORITY	44	35	30	32	50
STRUCTURE OF HOUSEHOLD:					
NOT REPORTED	2%	2%	4%	0%	0%
HUSBAND-WIFE	73	72	70	74	83
FEMALE HEAD WITHOUT HUSBAND PRESENT	23	24	26	26	17
OTHER	2	1	1	0	0
METROPOLITAN AREA:					
ATLANTA	35%	32%	27%	63%	29%
MILWAUKEE	8	9	10	5	7
OKLAHOMA CITY	51	48	48	32	57
WASHINGTON	6	11	15	0	7



TABLE A-10  
CHARACTERISTICS OF MORTGAGORS  
REFERRED TO COUNSELING

CHARACTERISTICS	ALL SUCH MORTGAGORS SAMPLED	MORTGAGORS INCLUDED IN COMPARISON A
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 7,347	\$ 6,603
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	\$ 1,585	\$ 1,520
HOUSEHOLD SIZE (MEAN)	5.1	4.8
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE (MEAN)	2.5	2.5
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	JUN 1971	MAY 1971
MORTGAGE AMOUNT (MEAN)	\$ 17,100	\$ 16,900
MINORITY STATUS:		
NOT REPORTED	28%	24%
MINORITY	39	41
NON-MINORITY	33	35
STRUCTURE OF HOUSEHOLD:		
NOT REPORTED	5%	3%
HUSBAND-WIFE	60	66
FEMALE HEAD WITHOUT HUSBAND PRESENT	35	29
OTHER	1	2
METROPOLITAN AREA:		
ATLANTA	21%	32%
MILWAUKEE	36	9
OKLAHOMA CITY	26	48
WASHINGTON	18	11

TABLE A-11  
CHARACTERISTICS OF MORTGAGORS  
WHO WERE COUNSELED

CHARACTERISTICS	ALL SUCH MORTGAGORS SAMPLED	MORTGAGORS INCLUDED IN COMPARISON B	MORTGAGORS INCLUDED IN COMPARISON D	MORTGAGORS INCLUDED IN COMPARISON F
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 7,610	\$ 6,816	\$ 6,023	\$ 8,230
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	\$ 1,581	\$ 1,469	\$ 1,281	\$ 1,615
HOUSEHOLD SIZE (MEAN)	5.2	5.1	5.2	5.5
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE ( MEAN)	2.5	2.6	2.4	2.2
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	JUN 1971	JUN 1971	MAY 1971	APR 1971
MORTGAGE AMOUNT (MEAN)	\$ 17,400	\$ 17,500	\$ 15,900	\$ 18,600
MINORITY STATUS:				
NOT REPORTED	29%	22%	33%	23%
MINORITY	41	47	44	46
NON-MINORITY	30	31	22	31
STRUCTURE OF HOUSEHOLD:				
NOT REPORTED	5%	4%	0%	15%
HUSBAND-WIFE	59	67	50	62
FEMALE HEAD WITHOUT HUSBAND PRESENT	34	27	50	23
OTHER	2	2	0	0
METROPOLITAN AREA:				
ATLANTA	17%	27%	21%	15%
MILWAUKEE	32	10	68	46
OKLAHOMA CITY	26	48	11	15
WASHINGTON	25	15	0	23

TABLE A-12  
CHARACTERISTIC OF MORTGAGORS  
REFERRED TO COUNSELING BUT WHOM THE AGENCY COULD NOT CONTACT

CHARACTERISTICS	ALL SUCH MORTGAGORS SAMPLED	MORTGAGORS INCLUDED IN COMPARISON C	MORTGAGORS INCLUDED IN COMPARISON D
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 6,251	\$ 5,543	\$ 5,773
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	\$ 1,563	\$ 1,651	\$ 1,261
HOUSEHOLD SIZE (MEAN)	4.7	3.6	5.1
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE (MEAN)	2.4	2.3	2.2
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	MAR 1971	MAR 1971	FEB 1971
MORTGAGE AMOUNT (MEAN)	\$ 15,900	\$ 16,100	\$ 14,300
MINORITY STATUS:			
NOT REPORTED	26%	32%	22%
MINORITY	39	32	44
NON-MINORITY	35	37	33
STRUCTURE OF HOUSEHOLD:			
NOT REPORTED	5%	5%	11%
HUSBAND-WIFE	47	58	33
FEMALE HEAD WITHOUT HUSBAND PRESENT	47	37	56
OTHER	0	0	0
METROPOLITAN AREA:			
ATLANTA	32%	63%	21%
MILWAUKEE	16	5	68
OKLAHOMA CITY	51	32	11
WASHINGTON	2	0	0

TABLE A-13  
CHARACTERISTICS OF MORTGAGORS  
WHO REFUSED COUNSELING

CHARACTERISTICS	ALL SUCH MORTGAGORS SAMPLED	MORTGAGORS INCLUDED IN COMPARISON E	MORTGAGORS INCLUDED IN COMPARISON F
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 8,030	\$ 6,544	\$ 8,403
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	\$ 1,639	\$ 1,458	\$ 1,565
HOUSEHOLD SIZE (MEAN)	5.3	5.1	5.8
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE (MEAN)	2.4	1.7	2.3
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	JUN 1971	JUN 1971	MAR 1971
MORTGAGE AMOUNT (MEAN)	\$ 17,500	\$ 14,800	\$ 17,300
MINORITY STATUS:			
NOT REPORTED	28%	33%	25%
MINORITY	31	25	33
NON-MINORITY	41	42	42
STRUCTURE OF HOUSEHOLD:			
NOT REPORTED	0%	0%	0%
HUSBAND-WIFE	78	58	83
FEMALE HEAD WITHOUT HUSBAND PRESENT	22	42	17
OTHER	0	0	0
METROPOLITAN AREA:			
ATLANTA	28%	29%	15%
MILWAUKEE	41	7	46
OKLAHOMA CITY	22	57	15
WASHINGTON	9	7	23

Section 4Table A-14: Current Mortgage Status Of All Persons In Sample

Table A-14

Current Mortgage Status of All Persons In Sample

	<u>Percent Current</u>	<u>Percent Better Off Now Than When Initially Reported <sup>1</sup></u>	<u>Percent Foreclosed</u>	<u>Percent Worse Off Now Than When Initially Reported <sup>2</sup></u>
Defaulting Mortgagors				
Not Referred to Counseling	32	48	37	48
Defaulting Mortgagors Referred				
To Counseling	51	68	18	24
Defaulting Mortgagors Counseled	54	73	15	20
Defaulting Mortgagors Referred				
but Not Contacted by Agency	47	62	23	30
Defaulting Mortgagors Who				
Refused Counseling	52	61	19	26

<sup>1</sup> Mortgagors now current plus mortgagors still delinquent but fewer payments behind than when they were first reported to HUD.

<sup>2</sup> Mortgagors now foreclosed plus mortgagors more payments behind than when they were first reported to HUD.

Section 5

- Table A-15: Characteristics Of All Persons In Atlanta Who Were Not Referred To Counseling Versus All Persons In Atlanta Who Were Referred
- Table A-16: Characteristics Of All Persons In Milwaukee Who Were Not Referred To Counseling Versus All Persons In Milwaukee Who Were Referred
- Table A-17: Characteristics Of All Persons In Oklahoma City Who Were Not Referred To Counseling Versus All Persons In Oklahoma City Who Were Referred
- Table A-18: Characteristics Of All Persons In Washington Who Were Not Referred To Counseling Versus All Persons In Washington Who Were Referred

TABLE A-15

CHARACTERISTICS OF ALL MORTGAGORS IN ATLANTA WHO WERE NOT REFERRED  
TO COUNSELING VERSUS ALL MORTGAGORS IN ATLANTA WHO WERE REFERRED

CHARACTERISTICS	MORTGAGORS NOT REFERRED TO COUNSELING	MORTGAGORS REFERRED TO COUNSELING
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 6,750	\$ 6,216
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	1,628	1,602
HOUSEHOLD SIZE (MEAN)	4.7	4.4
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE (MEAN)	2.6	2.3
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	MAY 1971	MAR 1971
MORTGAGE AMOUNT (MEAN)	\$ 17,000	\$ 17,100
MINORITY STATUS:		
NOT REPORTED	22%	22%
MINORITY	54	51
NON-MINORITY	24	27
STRUCTURE OF HOUSEHOLD:		
NOT REPORTED	1%	3%
HUSBAND-WIFE	62	61
FEMALE HEAD WITHOUT HUSBAND PRESENT	33	34
OTHER	3	2



TABLE A-16

CHARACTERISTICS OF ALL MORTGAGORS IN MILWAUKEE WHO WERE NOT REFERRED  
TO COUNSELING VERSUS ALL MORTGAGORS IN MILWAUKEE WHO WERE REFERRED

CHARACTERISTICS	MORTGAGORS NOT REFERRED TO COUNSELING	MORTGAGORS REFERRED TO COUNSELING
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 6,899	\$ 8,009
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	1,449	1,479
HOUSEHOLD SIZE (MEAN)	5.2	5.6
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE (MEAN)	4.7	2.6
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	SEP 1971	SEP 1971
MORTGAGE AMOUNT (MEAN)	\$ 16,400	\$ 16,700
MINORITY STATUS:		
NOT REPORTED	30%	23%
MINORITY	55	40
NON-MINORITY	15	37
STRUCTURE OF HOUSEHOLD:		
NOT REPORTED	5%	5%
HUSBAND-WIFE	55	52
FEMALE HEAD WITHOUT HUSBAND PRESENT	40	43
OTHER	0	0

TABLE A-17

CHARACTERISTICS OF ALL MORTGAGORS IN OKLAHOMA CITY WHO WERE NOT REFERRED  
TO COUNSELING VERSUS ALL MORTGAGORS IN OKLAHOMA CITY WHO WERE REFERRED

	MORTGAGORS NOT REFERRED TO COUNSELING	MORTGAGORS REFERRED TO COUNSELING
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 6,790	\$ 6,740
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	1,812	1,663
HOUSEHOLD SIZE (MEAN)	4.2	4.4
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE (MEAN)	3.1	2.5
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	JAN 1972	AUG 1971
MORTGAGE AMOUNT (MEAN)	\$ 17,200	\$ 16,700
MINORITY STATUS:		
NOT REPORTED	19%	20%
MINORITY	15	24
NON-MINORITY	67	55
STRUCTURE OF HOUSEHOLD:		
NOT REPORTED	2%	3%
HUSBAND-WIFE	84	84
FEMALE HEAD WITHOUT HUSBAND PRESENT	14	14
OTHER	1	0

TABLE A-18

CHARACTERISTICS OF ALL MORTGAGORS IN WASHINGTON WHO WERE NOT REFERRED  
TO COUNSELING VERSUS ALL MORTGAGORS IN WASHINGTON WHO WERE REFERRED

	MORTGAGORS NOT REFERRED TO COUNSELING	MORTGAGORS REFERRED TO COUNSELING
ANNUAL TOTAL HOUSEHOLD INCOME (MEAN)	\$ 10,510	\$ 8,190
ANNUAL PER CAPITA HOUSEHOLD INCOME (MEAN)	1,470	1,667
HOUSEHOLD SIZE (MEAN)	6.6	5.8
NUMBER OF PAYMENTS PAST DUE AT TIME OF REFERRAL BY MORTGAGEE (MEAN)	3.3	2.8
FHA ENDORSEMENT FOR MORTGAGE INSURANCE (MEAN DATE)	OCT 1970	OCT 1970
MORTGAGE AMOUNT (MEAN)	\$ 18,200	\$ 18,100
MINORITY STATUS:		
NOT REPORTED	63%	55%
MINORITY	38	43
NON-MINORITY	0	2
STRUCTURE OF HOUSEHOLD:		
NOT REPORTED	6%	8%
HUSBAND-WIFE	69	39
FEMALE HEAD WITHOUT HUSBAND PRESENT	25	49
OTHER	0	4

## Section 6

The methodology selected for this study involved using matched pairs, so that a definitive statement could be made as to the effect of counseling. As a check on this procedure an ordinary least squares regression was run. It was hypothesized that if counseling in fact is significant in reducing foreclosure, in a regression predicting foreclosure, the coefficient of counseling would be negative, with a significant "t" statistic. This was in fact the case as shown in Table A-19.

On the basis of the regression shown in Table A-19 and other regressions run, the following conclusions were reached:

- \* Equations predicting foreclosure had twice the explanatory power (i.e., had double the  $r^2$ ) as equations predicting whether or not a person previously in default was current.
- \* Counseling is significant in reducing foreclosure whereas annual income and mortgage value are not. This suggests, pending further analysis, that counseling is preferable to an increment of direct cash assistance in lieu of counseling or to increased subsidy payments.
- \* Per capita income, the variable used in constructing the matched pairs, was significant whereas when annual income or stratified annual income and family size were substituted for per capita income, only family size was significant. This increases confidence in the validity of the matched pairs, where per capita income was used.

TABLE A-19  
Regression Summary Table

Dependent Variable: Foreclosure (1 = foreclosed, 0 = not foreclosed)

<u>Independent Variable</u>	<u>B</u>	<u>Standard Error</u>	<u>t</u>
Being 1 or 2 Months in Default When Referred	- .5405	.0675	- 8.012
Being 3 Months in Default When Referred	- .3223	.0656	- 4.914
Living in Oklahoma City	.3166	.0705	4.490
Living in Milwaukee	.1776	.0648	2.740
Living in Atlanta	.1439	.0656	2.194
Referred to Counseling	- .0861	.0429	- 2.008
Per Capita Income	.0353	.0220	1.599
Female Headed Household	- .0512	.0433	- 1.182
Unknown or Male Headed Household	- .0879	.0948	- .927
Mortgage Value	.0022	.0024	.920
Mortgagor Race Unknown	.0490	.0539	.910
Home Purchased After 1969	.0579	.0725	.799
Minority Mortgagor	.0261	.0495	.528
Extent of Default When Referred Unknown	.0212	.1420	.149
Constant	.3600	.1244	2.895

$$r^2 = .2515$$

For independent variables where  $t > 1.28$  (alternatively  $t < -1.28$ ), one can be confident at the 90% level that the coefficient ("B") shown is greater than zero (alternatively: less than zero). Similarly  $t > 1.64$  indicates a confidence level of 95%;  $t > 2.33$  indicates a confidence level of 99%.

- \* Increased per capita income increases the likelihood of foreclosure. It is suspected that this is due to the fact that increased family size reduces the likelihood of foreclosure, although neither phenomenon can be explained.

In calculating the regression displayed in Table A-19, a number of dummy variables were created. Default dummy variables measure the impact on foreclosure of being referred at a particular number of months in default relative to the foreclosure experience of those persons who were four or more months in default when referred. Thus, being referred to counseling when 1 or 2 months in default greatly reduces the likelihood of foreclosure, and even referral at 3 months is much preferable to four or more.

City dummy variables measure foreclosure experience relative to living in Washington, D. C. The equation suggests the cities can be ranked in the following order of increased likelihood of default: Washington, Atlanta, Milwaukee, Oklahoma City. This variable should be interpreted more as a reflection of market conditions than of counseling agency effectiveness.

Household structure dummy variables are measured relative to husband-wife headed households. Being a female head of household decreases the likelihood of foreclosure. This may be due to more extensive screening of female heads of households.

Race dummy variables are measured relative to non-minority white mortgagors. Although not statistically significant, being a minority mortgagor appears to increase the likelihood of foreclosure.

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The paper was typed, in its many drafts, by Mary Atkins who managed to produce a polished copy from very rough manuscripts. She also helped in compiling data for the study.

November 1975 Supplement

The data presented in the previous sections rely on a survey of mortgage payment status conducted in May 1974. As pointed out in the caveats section, in most cases this meant looking at the change in the mortgagor's status over a period of less than 12 months, and we were concerned that the time span from the beginning to the end of the period of observation for each mortgagor may have been too brief to show the true effects of counseling. For this reason, mortgagees were resurveyed to find out the mortgage payment status for the same mortgagors as of February 1975.

This section summarizes the results of the resurvey effort. Two questions are considered. First, we explore how successful counseling is over the longer term, by repeating the analysis in the previous sections with the February 1975 data. Second, we look at the change in the impact of counseling from the first survey to the second to see if the differences observed are significant.

Resurvey Results. In the analysis of resurvey data, we confine ourselves to the comparison between mortgagors referred and mortgagors not referred to counseling (Comparison A) and the comparison between mortgagors referred to counseling and mortgagors counseled (Comparison B). The same matched pairs were used, and the only change in the methodology previously described was to substitute the February data on mortgage status.

There was a problem with missing data on the resurvey; mortgagees reported that they had no records on certain mortgagors, although they had provided data in the May 1974 survey. There appear to be three contributing explanations for this situation: the mortgagee sold the



mortgage; the mortgagor was foreclosed and the mortgagee had eliminated the mortgage record from the files; and mortgagee oversight. In cases where the May 1974 survey indicated the mortgage was foreclosed yet the February 1975 survey indicated no record, the mortgage was assumed foreclosed. Otherwise, the matched pair was eliminated from the analysis.

One large lender indicated in the February survey that a number of mortgages were "paid". Since some of these mortgages were listed as foreclosed in the May survey, it was assumed that this mortgagee meant paid by HUD. Consequently, all mortgagors served by this mortgagee and listed as "paid" were assumed to have been foreclosed.

Table S-1 compares foreclosure rates for those mortgagors referred to and not referred to counseling, for both the May and February surveys. As can be seen, the percentage of mortgagors foreclosed increased over time for both the not referred (50% to 60%) and the referred (27% to 43%) groups. Because the percent of referred mortgagors foreclosed increased more rapidly, the difference in outcomes decreased from 24 percentage points to 16 percentage points.

When looking at the confidence intervals on the difference, there is no reason to alter the previously reached conclusion that counseling appears to reduce the rate of foreclosure of defaulting mortgagors. Despite the fact that the difference observed is smaller, the confidence interval (+8/+25) does not include zero.

Table S-2 presents the findings of the February 1975 survey in graphic form, showing how many fewer families in the referred group have been foreclosed upon, and how many more are current.

Table S-1, Foreclosure Rates, Comparison A  
 Defaulting Mortgagors Not Referred to Counseling  
 Versus  
 Defaulting Mortgagors Referred to Counseling

	Percentage Foreclosed	
	5/74	2/75
Among Mortgagors Not Referred	50%	60%
Among Mortgagors Referred	27	43
Difference <sup>1</sup>	+ 24	+ 16
Confidence Interval On The Difference <sup>2</sup>	+ 16/+ 31	+ 8/+ 25

Number of matched pairs: 123 in 5/74. 111 in 2/75.

<sup>1</sup> Positive numbers indicate counseling success. Number shown is a point estimate of the impact that a large counseling program would have, if conducted under the same conditions that prevailed in the four cities studied. The number on this line may not exactly agree with the first two lines, because of rounding.

<sup>2</sup> One can be confident at the 90% confidence level that the difference which would appear in a potential larger counseling program conducted under the same conditions would be more than the lower limit shown. Alternatively, one can be confident at the 90% confidence level that the difference would be less than the upper limit shown. These are one-sided 90% confidence intervals.

TABLE S-2, MORTGAGORS' STATUS, FEBRUARY 1975

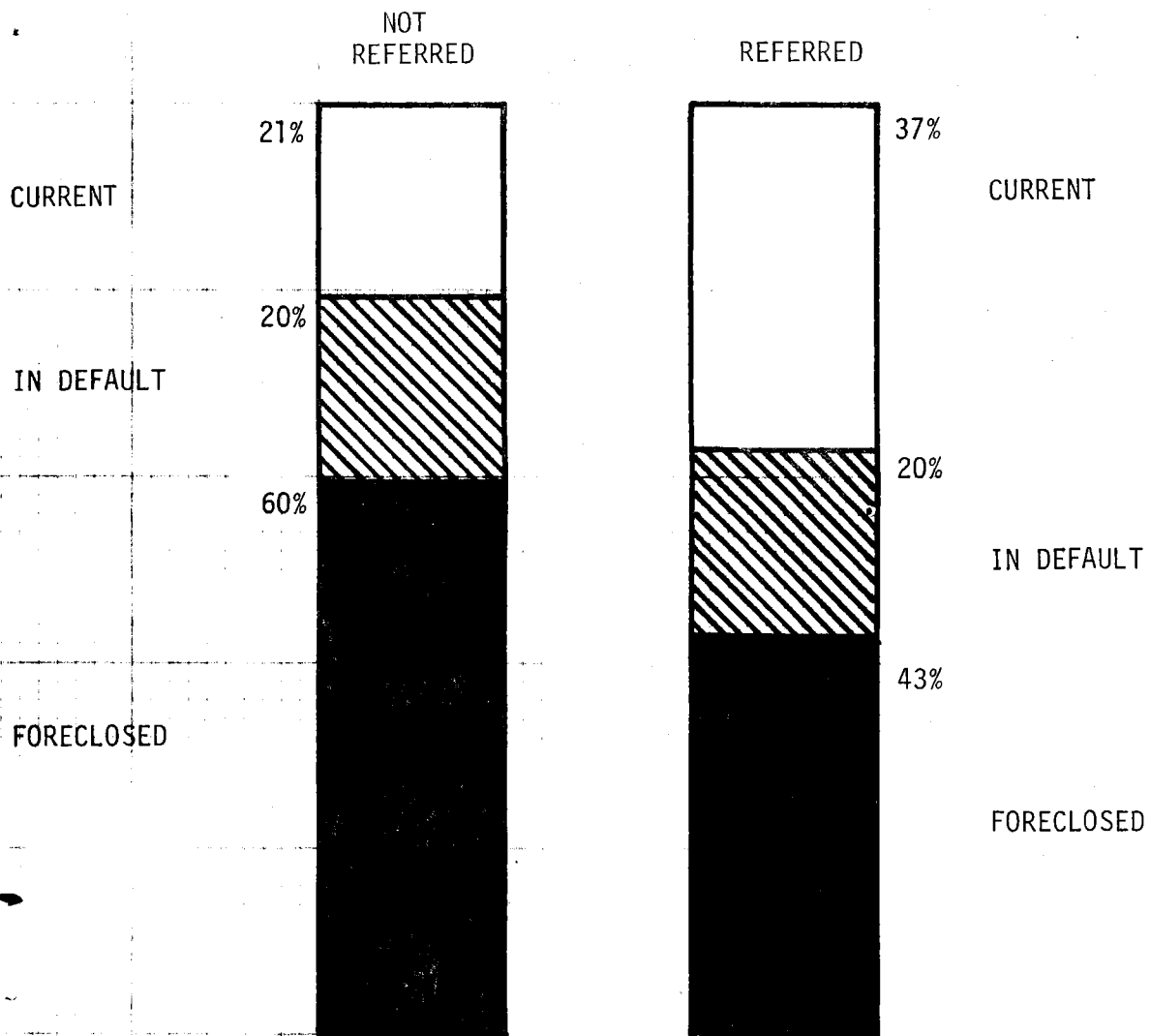


Table S-3 presents a more detailed comparison of the referred and not referred groups (Comparison A). It is similar in format to Table 4 (page 17) but includes data from both the May and February mortgage status surveys.

Table S-4 contains similar data on Comparison B, which compares mortgagors not referred to counseling to mortgagors counseled. Table S-4 is comparable to Table 5, page 19.

Analysis of the Difference. The rate of foreclosure for the referred group increased by 13 percentage points (27% to 43%) while the rate for the not referred group increased by 10 percentage points (50% to 60%). Likewise, each group experienced a decline in the percentage of mortgages current - for those referred the drop was 3 percentage points (24% to 21%) and for those not referred it was 5 percentage points (42% to 37%). In each case however the difference between the two groups in February 1975 is within the intervals estimated from the original data. There are thus not substantial differences between the 1974 and 1975 findings. However, the 1975 findings should be considered more accurate as indications of the longer term impact of counseling.

Table S-3, Comparison A

Defaulting Mortgagors Not Referred to Counseling  
Versus  
Defaulting Mortgagors Referred to Counseling

COMPARISON OF SUCCESSFUL OUTCOMES				
	Percentage Current		Percentage Better Off Now Than When Initially Reported <sup>1</sup>	
	5/74	2/75	5/74	2/75
Among Mortgagors Referred	42%	37%	54%	46%
Among Mortgagors Not Referred	24	21	37	33
Difference <sup>2</sup>	+ 18	+ 16	+ 17	+ 13
Confidence Interval On The Difference <sup>3</sup>	+ 10/+ 25	+ 9/+ 24	+ 9/+ 25	+ 4/+ 21

COMPARISON OF UNSUCCESSFUL OUTCOMES				
	Percentage Foreclosed		Percentage Worse Off Now Than When Initially Reported <sup>4</sup>	
	5/74	2/75	5/74	2/75
Among Mortgagors Not Referred	50%	60%	59%	63%
Among Mortgagors Referred	27	43	37	50
Difference <sup>2</sup>	+ 24	+ 16	+ 23	+ 13
Confidence Interval On The Difference <sup>3</sup>	+ 16/+ 31	+ 8/+ 25	+ 15/+ 31	+ 4/+ 21

Number of matched pairs: 123 in 5/74, 111 in 2/75.

<sup>1</sup> Mortgagors now current plus mortgagors still delinquent but fewer payments behind than when they were first reported to HUD.

<sup>2</sup> Positive numbers indicate counseling success. Number shown is a point estimate of the impact that a large counseling program would have, if conducted under the same conditions that prevailed in the four cities studied. The number on this line may not exactly agree with the first two lines, because of rounding.

<sup>3</sup> One can be confident at the 90% confidence level that the difference which would appear in a potential larger counseling program conducted under the same conditions would be more than the lower limit shown. Alternatively, one can be confident at the 90% confidence level that the difference would be less than the upper limit shown. These are one-sided 90% confidence intervals.

<sup>4</sup> Mortgagors now foreclosed plus mortgagors more payments behind than when they were first reported to HUD.

Table S-4, Comparison B

Defaulting Mortgagors Not Referred To Counseling  
Versus  
Defaulting Mortgagors Counseled

## COMPARISON OF SUCCESSFUL OUTCOMES

	Percentage Current		Percentage Better Off Now Than When Initially Reported <sup>1</sup>	
	5/74	2/75	5/74	2/75
Mortgagors Counseled	40%	33%	53%	44%
Mortgagors Not Referred	27	22	38	33
Difference <sup>2</sup>	+ 13	+ 11	+ 15	+ 11
Confidence Interval On The Difference <sup>3</sup>	+ 4/+ 22	+ 2/+ 20	+ 6/+ 25	+ 1/+ 21

## COMPARISON OF UNSUCCESSFUL OUTCOMES

	Percentage Current		Percentage Worse Off Now Than When Initially Reported <sup>4</sup>	
	5/74	2/75	5/74	2/75
Mortgagors Not Referred	49%	60%	57%	62%
Mortgagors Counseled	30	44	40	52
Difference <sup>2</sup>	+ 19	+ 16	+ 17	+ 10
Confidence Interval On The Difference <sup>3</sup>	+ 9/+ 28	+ 6/+ 26	+ 8/+ 27	0/+ 20

Number of matched pairs: 86 in 5/74. 81 in 2/75

<sup>1</sup> Mortgagors now current plus mortgagors still delinquent but fewer payment behind than when they were first reported to HUD.

<sup>2</sup> Positive numbers indicate counseling success. Number shown is a point estimate of the impact that a large counseling program would have, if conducted under the same conditions that prevailed in the four cities studied. This line may not exactly agree with the first two lines, because of rounding.

<sup>3</sup> One can be confident at the 90% confidence level that the difference which would appear in a potential larger counseling program conducted under the same conditions would be more than the lower limit shown. Alternatively, one can be confident at the 90% confidence level that the difference would be less than the upper limit shown. These are one-sided 90% confidence intervals.

<sup>4</sup> Mortgagors now foreclosed plus mortgagors more payments behind than when they were first reported to HUD.

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