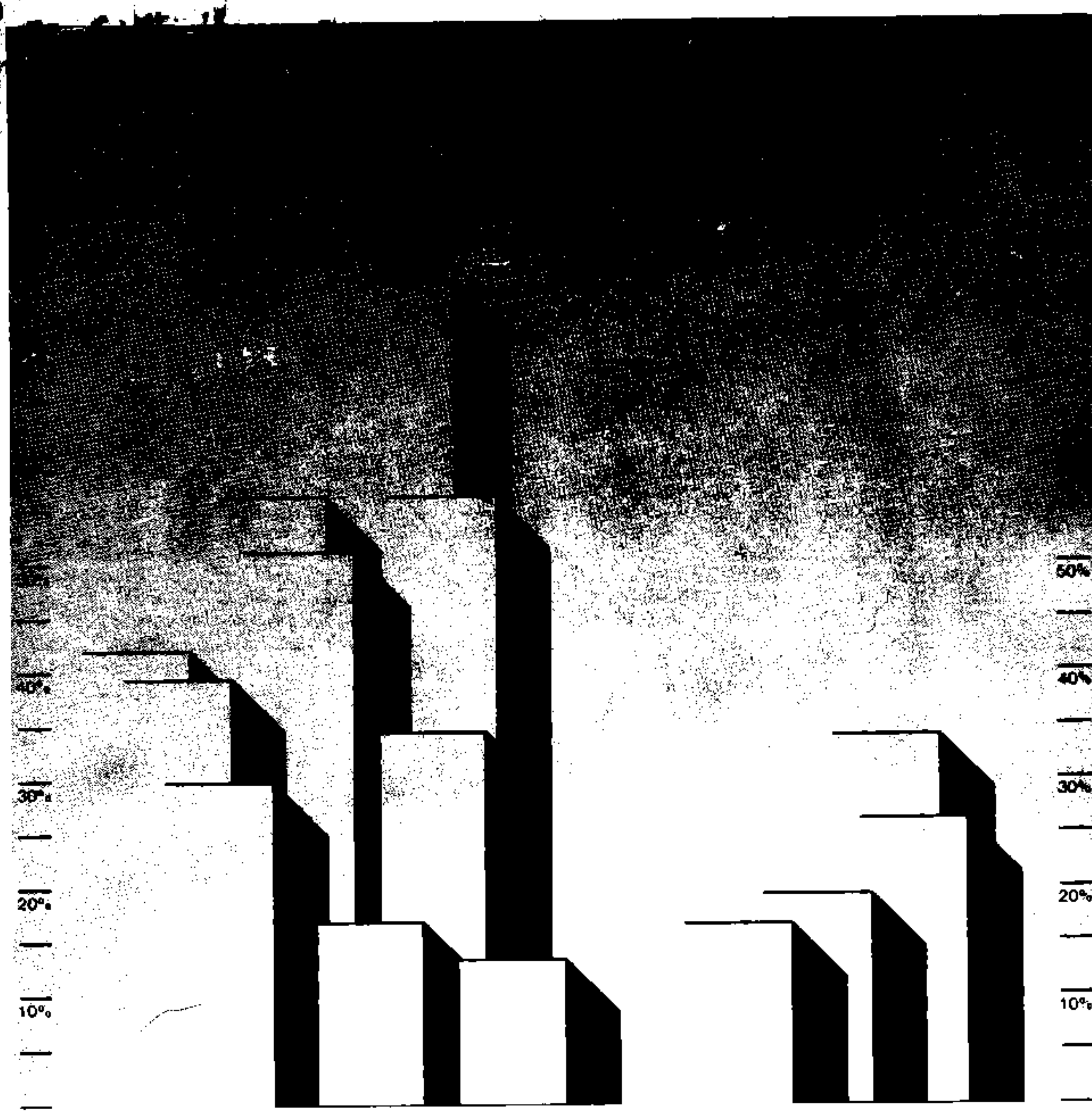

Counseling for Delinquent Mortgagors II

A Staff Study

January 1977

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

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A STAFF STUDY

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COUNSELING FOR DELINQUENT MORTGAGORS II

Executive Summary

This study evaluates the impact of counseling on foreclosure rates and assesses the cost-effectiveness of default and delinquency counseling. In addition, comparisons are made between this study's findings and those of previous PD&R counseling evaluations. Finally, the report presents a description and assessment of various approaches to default counseling.

This study is based on a HUD-funded, $300,000 demonstration program which provided default and delinquency counseling to Section 235 mortgagors between July 1974 and January 1975. Approximately 1,500 homeowners in five cities were referred to ten HUD-approved counseling agencies. 1/ The impact of counseling was measured by comparing the experiences of mortgagors referred to counseling to an equal number of mortgagors in the same cities who were not referred to the demonstration program.

Impact of Counseling

A survey of outcomes for mortgagors in both the referred and not-referred groups was taken in June 1975. 2/ This survey shows that counseling had a significant impact on reducing foreclosures. A comparison between referred and not-referred mortgagors shows 36 percent more foreclosures for not-referred homeowners. The study also shows that more referred than not-referred mortgagors were either current or fewer months in default at the end of the demonstration although the percentage difference between the groups was smaller for these measures than for foreclosure rates.

The effectiveness of counseling, however, was found to vary considerably by city and by counseling agency. The extent to which not-referred mortgagors experienced more foreclosures than referred homeowners ranged between 24 and 51 percent for cities and between 20 and 65 percent for agencies. 3/

The impact of counseling in reducing foreclosure rates is found to be more modest in this demonstration than in earlier counseling demonstrations. According to an earlier PD&R evaluation, 46 percent more not-referred mortgagors were foreclosed compared to 36 percent in this demonstration. The rate at which referred vs. not-referred mortgagors became current or were fewer months behind in mortgage payments is more modest in this study with regard to becoming current, and more favorable with regard to payments past due.

1/ The five cities are Atlanta, Columbia, South Carolina, Detroit, Los Angeles, and Seattle.

2/ The outcome measures are number foreclosed, number becoming current, and number of months behind in mortgage payments.

3/ One agency produced higher foreclosure rates for referred mortgagors and is not reported in the above statistics.

The study hypothesizes that mortgage age may account for the differences between the two studies. Since mortgagors in the current demonstration had built up more equity and had developed more stable mortgage payment histories, they were less likely to default unless they experienced problems more serious than those faced by mortgagors fewer years into their mortgages. It is likely that these more serious problems are less easily addressed by counseling.

Cost-Effectiveness of Counseling

According to several cost/benefit models, the counseling demonstration is shown to be cost-effective. 1/ On a total demonstration basis, net savings were between $174 and $440 per referral depending on the model used.

Cost-effectiveness, however, varies considerably by city and by agency. Net savings (or costs) for cities ranged between -$88 and +$814 and for agencies between -$167 and +$990 per referral.

As with the impact measures discussed above, the cost-effectiveness of counseling is found to be more modest in this demonstration than in earlier counseling efforts. Two factors explaining the decreased cost-effectiveness are the lower foreclosure rate differential between the referred and not-referred groups and the higher average loss on foreclosed properties reported for this period. The foreclosure rate differential between referred and not-referred mortgagors is the most important and most sensitive element of the cost/benefit models. A reduced foreclosure rate differential lowers the cost-effectiveness of counseling.

The average loss on foreclosed property increased by approximately $2500 between this study and previous counseling demonstrations. This also acts to reduce the cost-effectiveness of counseling.

Approaches to Counseling

The study hypothesizes that the impact and cost-effectiveness variations by city and by agency suggest that some kinds of counseling are more effective than others. Accordingly, the study assesses the extent and relative effectiveness of home counseling (vs. office counseling), debt collection services, and referral to other community social service agencies. Those agencies emphasizing home counseling are shown to have been more effective in reducing foreclosure rates and also to have produced more cost-effective counseling. The combined data for the "three best" agencies participating in the study, all emphasizing home counseling, show that referred mortgagors experienced 57 percent fewer foreclosures than not-referred homeowners and that the combined net savings for these agencies far exceeded the demonstration averages according to all three cost/benefit models.

1/ Three models are employed with the first containing the fewest cost/benefit elements, the second containing more elements, and the third containing the greatest number of elements.

INTRODUCTION

This paper is an evaluation of the default and delinquency counseling program conducted by HUD between July 1974 and January 1975. The purpose of the demonstration was to assess both the impact and cost-effectiveness of default and delinquency counseling. Approximately 1,600 defaulting Section 235 mortgagors in five cities were referred for counseling to ten HUD-approved counseling agencies during the demonstration.

The Section 235 program provides interest subsidies to low and moderate income families to allow them to participate in the single-family homeownership market. Prior to the 1973 moratorium, the subsidy was such that the effective interest rate was one percent. The revised program provides a smaller interest subsidy (the effective rate is now five percent) while at the same time requiring greater downpayments and raising the mortgage limits on approved applications for assistance. 1/ Appendix Table A contains data on program activity between 1968 and 1975.

Previous Evaluations of Counseling

In 1972 Congress appropriated $3.25 million for homeownership counseling. HUD used $2.5 million of this appropriation to fund a two-year program of default and delinquency counseling for families whose mortgages were insured under the Section 235 interest subsidy program. Counseling was provided through 31 voluntary non-profit agencies in the nineteen cities reporting the highest number of defaults and delinquencies.

This counseling program was the subject of two evaluations, the first by the Organization for Social and Technological Innovation (OSTI) 2/ and the second by the Special Studies Division of the Office of Policy Development and Research. 3/

1/ The major requirements of the old Section 235 program were 1) $200 downpayment, 2) subsidies to reduce the effective interest rate to one percent, and 3) income limits set at 135 percent of income limits for public housing residents. The revised program (effective date January 1976) raised the downpayment to the greater of six percent of the cost of acquisition or three percent of the first $25,000 plus ten percent of acquisition cost in excess of $25,000. In addition, the revised program provided subsidies to reduce effective interest to five percent and set income limits at 80 percent of area median income.

2/ An Evaluation of the Concentrated Default Counseling Program, Organization for Social and Technological Innovation, January 1974.

3/ Counseling for Delinquent Mortgagors, Office of Policy Development and Research, Department of Housing and Urban Development, November 1975.

OSTI Study: Although the counseling demonstration covered 19 cities, adequate data for evaluation existed in only the following six cities: Washington, D. C., Jacksonville, Louisville, Shreveport, Spokane, and Milwaukee. In these six cities, the OSTI Study assessed the impact of counseling on foreclosure rates and the cost-effectiveness of the program.

The impact of counseling was determined by comparing foreclosure rate and depth of default (number of mortgage payments past due) patterns among defaulted mortgagors in six of the cities where counseling was offered and in eleven similar cities where counseling was not offered. The OSTI Study reported two contradictory findings -- while the depth of default among mortgagors offered counseling was lower, their rate of foreclosure was higher. On the basis of these findings the study erroneously concluded that counseling was effective in reducing foreclosure rates. OSTI calculated that the number of foreclosures which would be avoided as a result of counseling resulted in savings to the insurance fund that exceeded the costs of administering the counseling program. One of the greatest obstacles to an effective counseling program, OSTI found, was the lack of cooperation extended by mortgagees, since some mortgagees referred as few as 5 percent of their defaulted mortgagors to counseling while others referred as many as 95 percent.

PD&R Follow-Up to OSTI Study: Because of the apparent inconsistencies in the OSTI findings, as well as severe methodological shortcomings in the research design used to generate these findings, PD&R undertook its own analysis of the 1972-74 counseling demonstration data for four cities. The PD&R study, which was based on a survey of mortgagors exposed to counseling for up to 12 months, concluded that counseling was effective in reducing foreclosure rates by as much as 46 percent. 1/ The study also indicated that

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1/ To those familiar with PDR's first report on counseling, this and subsequent figures based on data from the first report may not appear correct. This is because the first study discussed the impact of counseling in terms of the percentage point difference between the foreclosure rate among mortgagors referred to counseling and the rate among those not referred, whereas this study discusses impact in terms of the percent (or proportion) of foreclosures avoided.

The following example will illustrate the difference between the two methods of presentation. In the first study the foreclosure rate among mortgagors not referred to counseling was 50%; the rate among those referred was 27%. Subtracting 27% from 50% yields the percentage point difference between the two groups. This figure, however, does not indicate the rate at which counseling is effective in avoiding foreclosures. Dividing the percentage point difference between the two groups by the foreclosure rate for the not referred group yields the rate, or percent, at which counseling is successful in avoiding foreclosures.

counseling was cost-effective to varying degrees, depending on the cost benefit method employed. 1/ A resurvey of the same mortgagors, up to 20 months after exposure to counseling, found that counseling was effective in reducing foreclosure rates, but by only 28 percent. The study found that counseling was still cost-effective in each of the four cities studied. 2/

METHODOLOGY

Because there was a continuing need to provide information on additional questions -- such as the relative effectiveness of various counseling methods, the impact of counseling on different types of default problems, and the factors associated with the effectiveness of counseling -- PD&R initiated a second study of counseling. This effort, a joint endeavor by PD&R and HUD's Office of Housing Management, was conducted in 5 of the 19 cities originally identified as having the highest default and delinquency rates and included in the OSTI Study. The cities were Atlanta, Columbia, South Carolina, Detroit, Los Angeles, and Seattle. Funding was established at $300,000 with the expectation that, at an estimated average cost of $300 per referral, approximately 1,000 mortgagors would be referred to counseling. The cities, agencies, and funding levels are presented in Appendix Table B.

Experimental and control groups were developed within each of the study cities. The process for determining which cases would be referred to counseling (the experimental group) and which cases would not be referred to counseling (the control group) involved alphabetizing the list of defaulted mortgagors and then alternatively assigning the cases -- the first case to the experimental group, the second case to the control group. Counseling was offered to the experimental group from July 1974 through January 1975. A survey of outcomes for both the referred and not-referred groups was taken in June 1975. Appendix Table C shows the distribution of depth of default by experimental and control groups.

The analysis used in this study encompasses both impact and cost-effectiveness measures.

* The impact of counseling is measured by comparing the experiences of the referred (experimental) and not-referred (control) groups as to rates of foreclosure and depths of default. Depth of default refers to the number of mortgage payments past due.

1/ Counseling for Delinquent Mortgagors, November 1975.

2/ This resurvey was included as an appendix to Counseling for Delinquent Mortgagors.

* Cost-effectiveness is measured by employing the cost-benefit formulae developed in the first PD&R study. These formulae are presented in simple terms at the appropriate point in the text and in more detail in Appendix Q.

Table 1 provides some basic demographic and mortgage characteristics for the cases included in this study. These data are shown to indicate how the referred (experimental) cases in each city compare to the not-referred (control) cases. As can be seen, within each city, there are very few differences. The city-to-city differences are large in some instances, but the aggregate referred and not-referred groups were found to have no statistically significant differences.

IMPACT OF COUNSELING

As noted previously, the principal measures of the impact of counseling used in this study are comparisons of foreclosure rates and changes in the depth of default between the referred (experimental) and not-referred (control) groups. The data that follow represent outcomes as of June 1975, six to twelve months after the completion of the counseling offered through this demonstration. 1/

Table 2 compares outcomes of the not-referred and referred groups for the total demonstration. The data show that counseling had a significant positive impact on the referred group. The comparison of unsuccessful outcomes indicates that 36 percent more of the non-referrals were foreclosed, and 16 percent more were worse off (either foreclosed or more months behind in their payments). The comparison of successful outcomes indicates that 6 percent fewer of the non-referrals became current, and 14 percent fewer were better off(either current or fewer months behind in their payments). The only negative finding is related to unsuccessful outcomes, where it was found that relatively more referred mortgagors fell further behind in payments than did not-referred mortgagors. The difference, however, is small. It may be that mortgage servicers were willing to carry referred mortgagors in the expectation that counseling would improve their payment behavior. 2/

1/ The survey of outcomes was as much as one year after completion of counseling for those mortgagors referred during the first few months of the demonstration.

2/ It should be noted that these results apply only to the effect of counseling in the demonstration program; they form a theory of the likely impact of counseling in a larger scale program only to the extent that the five cities studied are representative of other cities.

TABLE 1

Characteristics of Mortgagors,
by City 1/

		Atlanta	Columbia	Detroit	Los Angeles	Seattle	Total
Age of Head:	Referred	31.1	33.8	32.3	32.9	32.2	32.8
	Counseled	33.4	33.6	33.9	31.3	31.4	32.8
	Not-Referred	32.0	32.4	29.1	32.9	29.3	31.4
Total Annual Income:	Referred	$ 5,659	$ 5,930	$ 6,271	$ 6,879	$ 6,759	$ 6,237
	Counseled	5,915	6,578	6,052	7,407	6,947	6,581
	Not-Referred	5,641	5,728	5,699	6,918	7,118	6,089
Household Size:	Referred	4.2	4.8	4.9	5.6	4.3	4.9
	Counseled	4.8	5.0	4.9	5.4	4.7	5.0
	Not-Referred	4.3	4.7	4.5	5.3	4.6	4.7
Mortgage Amount:	Referred	$17,011	$18,123	$19,445	$19,418	$18,606	$18,572
	Counseled	16,730	18,191	20,100	20,198	19,007	18,819
	Not-Referred	17,315	17,842	18,891	18,869	18,918	18,341
Down-Payment:	Referred	$ 190	$ 197	$ 212	$ 278	$ 260	$ 221
	Counseled	187	207	227	270	310	231
	Not-Referred	190	186	212	240	354	217
Per Capita Income:	Referred	$ 1,507	$ 1,399	$ 1,441	$ 1,370	$ 1,756	$ 1,445
	Counseled	1,419	1,424	1,420	1,509	1,600	1,458
	Not-Referred	1,423	1,404	1,373	1,517	1,762	1,454

1/ The "counseled" data in Table 1 refer to the subgroup of referred mortgagors "accepting and receiving counseling" services. Appendix Table D contains demographic data for each of the six "status" groups for which information was collected. These groups include: (1) all mortgagors not referred, (2) all mortgagors referred; within the referred group, (3) mortgagors who were counseled, (4) mortgagors who accepted a preliminary interview but declined subsequent counseling, (5) mortgagors who declined both the preliminary interview and counseling, and (6) mortgagors who could not be contacted.

TABLE 2

Impact of Counseling: Total Demonstration 1/

	Successful Outcomes		
	Current	Fewer Months in Default	Total Successful
Among Referred Mortgagors	41.3%	19.7%	61.0%
Among Not-Referred Mortgagors	38.8%	14.6%	53.4%
Percentage Point Difference 2/	+ 2.5	+ 5.1	+ 7.6
Percent Change 2/	+ 6.4%	+34.9%	+14.2%

	Unsuccessful Outcomes		
	Foreclosed	More Months in Default	Total Unsuccessful
Among Referred Mortgagors	14.0%	12.1%	26.1%
Among Not-Referred Mortgagors	21.7%	9.3%	31.0%
Percentage Point Difference 2/	+ 7.7 3/	- 2.8	+ 4.9 4/
Percent Change 2/	+35.5%	-30.1%	+15.8%

1/ Percentages computed by disproportionate stratified random sampling using the five cities as strata. The differences are computed using the not-referred group as the benchmark.

2/ Positive values favor the referred group.

3/ 95% confidence interval spans +3.5 to +11.9. This means that for the demonstration cities, we can be 95 percent confident that the actual difference in foreclosure rates between the referred and not-referred groups is at least 3.5 percentage points but not more than 11.9 percentage points in favor of the referred group. In other words, there is only a five percent probability that values outside the range of +3.5 to +11.9 occurred for any reason other than pure chance. Values represent 2 standard deviations to either side of 7.7. This holds only to the extent that mortgagors included in this study appropriately reflect a simple random sampling of mortgagors in each city with similar characteristics.

4/ 95% confidence interval spans 0 to +9.8.

This study compares all persons referred to counseling, regardless of whether they participated, to all those who were not referred. Only one quarter of the referred homeowners, however, were actually counseled. 1/ There are several reasons why all referred rather than just actually counseled mortgagors are used in this comparison.

First, in any HUD-funded counseling effort, there will always be persons who decline counseling. In this comparison, the experience of the persons "not referred" reflects what overall program experience would have been in the absence of the counseling program. The combined (and diluted) experience of all persons "referred" reflects what overall program experience would have been if all defaulters automatically had been referred to counseling.

Second, many homeowners who were referred but not counseled were affected by the counseling program nonetheless. All of them received letters or phone calls from the counseling agency; and many actually accepted the initial pre-counseling interview -- itself a form of counseling according to some schools of thought. This contact may have been all that was necessary to spur some, whose mortgage related difficulties were less severe, to solve their problems without further assistance. Since the counseling program did provide this contact with all referred homeowners, it is appropriate to include the analysis of all referred homeowners in the evaluation of counseling.

Third, and probably most important, it may be that there is some clear pattern of characteristics common to those mortgagors who, after being referred, do not accept counseling. Since the not-referred and referred groups were created on the basis of random assignments, these same kinds of mortgagors are also present in the not-referred group. Therefore, a comparison of the counseled group to the not-referred group would introduce a significant bias into the analysis because it would eliminate particular kinds of mortgagors from the former but not the latter.

In fact, our results do show that those mortgagors who are referred to counseling but either cannot be contacted or refuse counseling are somewhat different in their foreclosure experience from those who are counseled. Table 3 presents data on foreclosure rates by city, for the not-referred, referred, and counseled groups. These data show that the referred but not counseled group experienced a slightly lower foreclosure rate than the counseled group in four of the five cities, and a considerably lower foreclosure rate than the not-referred group in all five cities.

1/ Of the referred group, 148 (24.5%) could not be contacted, 184 (30.4%) declined to be screened, 150 (24.8%) were screened and then declined counseling, and 123 (20.3%) entered a counseling program.

TABLE 3

Comparison of Foreclosure Rate Changes Between Not-Referred, Referred, and Counseled Mortgagors, by City

	Actual Foreclosure Rates (%)			Difference Between Not-Referred and			
				Referred		Counseled	
	Referred	Counseled	Not-Referred	Percentage Points	% Change	Percentage Points	% Change
Atlanta	12.0	14.8	23.3	11.3	48.5	8.5	36.5
Columbia	10.3	11.5	13.5	3.2	23.7	2.0	14.8
Detroit	25.5	15.4	34.9	9.4	26.9	19.5	55.9
Los Angeles	11.8	15.2	16.9	5.1	30.2	1.7	10.1
Seattle	8.3	9.1	16.9	8.6	50.9	7.8	46.2
TOTAL	14.0	13.8	21.7	7.7	35.5	7.9	36.4

It may be that both the referred and not-referred groups included a significant number of mortgagors whose default stemmed from temporary problems which the mortgagor could and did cure without any need for counseling. These mortgagors were unlikely to perceive a need to participate in the counseling program. At the other extreme, families with the most serious financial problems were more likely to participate in the counseling program, since no other means to save their homes was readily apparent. Thus, it seems likely that cases which would not have gone to foreclosure were over-represented in the referred but not counseled group and those for whom foreclosure was inevitable were over-represented among those counseled.

Impact Variations by City and Agency

The summary statistics on the impact of counseling for the demonstration as a whole mask important variations by city and by agency. As Table 4 shows, the effectiveness of counseling for cities ranges from a low of 24 percent in Columbia to a high of 51 percent in Seattle. 1/ Table 5 shows that effectiveness by agency ranges from a low of -65 percent for Agency 8 in Los Angeles to a high of 65 percent for Agency 10 in Los Angeles.

1/ Similar findings occur when comparing counseled mortgagors (a subgroup of those referred) to the not-referred group, although in some cases the differential is smaller than when comparing the larger referred group.

TABLE 4

Impact of Counseling By City,
In Percentages 1/

City/Outcome	Referred	Counseled	Not-Referred
Atlanta			
Current	48.2	63.0	44.7
In Default	34.9	14.8	26.2
Foreclosed	12.0	14.8	23.3
Columbia			
Current	44.8	50.0	39.5
In Default	41.2	34.6	42.7
Foreclosed	10.3	11.5	13.5
Detroit			
Current	38.6	30.8	38.9
In Default	34.5	50.0	24.0
Foreclosed	25.5	15.4	34.9
Los Angeles			
Current	28.9	30.3	33.3
In Default	54.6	48.5	46.4
Foreclosed	11.8	15.2	16.9
Seattle			
Current	45.0	54.5	35.6
In Default	43.3	36.4	37.3
Foreclosed	8.3	9.1	16.9
TOTAL			
Current	41.3	43.9	38.8
In Default	41.1	37.4	34.6
Foreclosed	14.0 2/	13.8	21.7 3/

1/ Table excludes small number of assigned and deed-in-lieu mortgages.

2/ 90% confidence interval spans +9.2 to +18.8.

3/ 90% confidence interval spans +16.1 to +27.3.

TABLE 5

Foreclosure Rate Differential and Percent Change
Between Referred and Not-Referred Mortgagors,
By City and Agency 1/

Cities / Percentage Point Differential / % Change		AGENCIES									
		1	2	3	4	5	6	7	8	9	10
Atlanta	11.3 48.5	9.7 41.6	12.8 54.9								
Columbia	3.2 23.7			3.2 23.7							
Detroit	9.4 26.9				5.2 14.9	12.8 36.7	4.9 14.0				
Los Angeles	5.1 30.2							3.3 19.5	-10.9 -64.5	10.9 64.5	
Seattle	8.6 50.9										8.6 50.9

1/ Foreclosure rate differential is the percentage point difference between foreclosure rates for referred and not-referred mortgagors. Percent change is the rate of foreclosure avoidance resulting from counseling.

In the case of agency differentials, if we assume that agencies within the same city served similar mortgagors with similar socio-economic backgrounds, these data appear to imply that different counseling approaches lead to different effects. In the case of city differentials, it is not possible to draw any implications without further analysis because the research design does not allow us to distinguish between effects related to city factors and effects related to agency factors.

Comparison to Previous Findings

Table 6 compares the outcomes of the first PD&R study to the outcomes of this study. This comparison indicates that the results of the current demonstration generally confirm earlier findings that counseling has a significant positive impact -- but at a more modest level. A comparison of the unsuccessful outcomes indicates that whereas in the first study, 46 percent more of the non-referrals were foreclosed and 37 percent more were worse off, in this demonstration, 36 percent more were foreclosed and 16 percent more were worse off. In terms of successful outcomes, the first PD&R study showed 75 percent fewer of the non-referrals becoming current and 8 percent more fewer months in default. This study showed 6 percent fewer of the non-referrals were current and 35 percent fewer had decreased their depth of default. Overall, 46 percent more referred mortgagors improved their mortgage status in the first study while 14 percent more did during this effort. In summary, the studies are similar in that both show counseling to be associated with reduced foreclosure rates and reduced depths of default. They are dissimilar in that the second shows a smaller reduction in the number of foreclosures.

In trying to account for the difference between the two studies, the factor which appears most likely to have had a significant impact on outcomes is mortgage age. 1/ Most of the defaulters included in the second study had held their mortgages for approximately five years versus three years in the first study and, therefore, had built up more equity and sustained longer patterns of meeting mortgage payments prior to defaulting. Thus, their defaults are likely to have resulted from problems more serious than those encountered in the first PD&R study. To the extent that such problems are less easily solved by counseling, the inclusion of defaulters with these problems could have reduced the impact of counseling.

1/ The second demonstration study included some mortgagors who had been exposed to counseling in the first study. It might be hypothesized that since these mortgagors were still, or again, in default after their initial exposure to counseling, they are mortgagors whose problems are not easily addressed through counseling. If this is the case, their inclusion in the second study could have biased the results downward. Appendix Table E shows that among referred mortgagors, those with previous counseling experience are less likely to become current and more likely to remain in default, but less likely to become foreclosed. On the basis of these data, therefore, it appears that since previous exposure to counseling could increase the likelihood that subsequent counseling will reduce foreclosure, this hypothesis does not explain the difference in outcomes between the two studies.

TABLE 6

Comparison of Study Outcomes
With Previous PDR Study

SUCCESSFUL OUTCOMES

	Current		Fewer Months in Default		Total Successful	
	HM/PDR	1st PDR	HM/PDR	1st PDR	HM/PDR	1st PDR
Among Referred Mortgagors	41.3%	42%	19.7%	12%	61.0%	54%
Among Not-Referred Mortgagors	38.8%	24%	14.6%	13%	53.4%	37%
Percentage Point Difference 1/	+2.5	+18	+5.1	-1	+7.6	+17
Percent Change 1/	+6.4%	+75.0%	+34.9%	-7.7%	+14.2%	+45.9%

UNSUCCESSFUL OUTCOMES

	Foreclosed		More Months in Default		Total Unsuccessful	
	HM/PDR	1st PDR	HM/PDR	1st PDR	HM/PDR	1st PDR
Among Referred Mortgagors	14.0%	27%	12.1%	10%	26.1%	37%
Among Not-Referred Mortgagors	21.7%	50%	9.3%	9%	31.0%	59%
Percentage Point Difference 1/	+7.7 2/	+24 3/	-2.8	-1	+4.9 4/	+23 5/
Percent Change 1/	+35.5%	+46.0%	-30.1%	-11.1%	+15.8%	+37.3%

1/ Positive values favor the referred group.

2/ 95% confidence interval = +3.5/+11.9.

3/ 95% confidence interval = +11.0/+35.0.

4/ 95% confidence interval = 0/+9.8.

5/ 95% confidence interval = +9.6/+34.4.

Although none of the available data are adequate to address the issue conclusively, two pieces of information suggest that this hypothesis deserves further study. First, according to Departmental statistics, the number of default terminations decreases with mortgage age, especially after the sixth year. 1/ The smaller number of defaults occurring in later years lends some credence to the conclusion that mortgagors who have held their properties for longer periods of time only default for very serious problems. Second, Tables 7 and 8, which compare the results of the first PDR study, the follow-up resurvey to the first study, and the second PDR study, show that there was a decrease in the effectiveness of counseling over time. This is true for both the comparison between the not-referred and the referred groups and the comparison between the not-referred and counseled groups. Since the effectiveness of counseling appears to decline over time as the number of foreclosures declines, it may be that the decreasing effectiveness is a function of the increasing seriousness of the problems which give rise to defaults as mortgages age.

TABLE 7

Comparison of Foreclosure Rates
Between First and Second PDR Studies
(Percentages)

	Not-Referred	Referred	Counseled
1st PDR	50.0	27.0	30.0
1st PDR Follow-Up	60.0	43.0	44.0
2nd PDR	21.7	14.0	13.8

1/ HUD estimates that approximately 19% of all Section 235 mortgages written on the same day will become default terminations by the end of the fifth year. From the sixth year onward, only an additional 4.5 percentage points will end in default terminations. Appendix Table F shows the default termination rate for Section 235 homeowners.

TABLE 8

Comparison of Study Outcomes With All Previous PDR Outcomes

SUCCESSFUL OUTCOMES

	Current			Better Off Now Than When Initially Reported		
	1st PDR Study May '74	Resurvey Feb. '75	HM/PDR Demo 7/74-1/75	1st PDR Study May '74	Resurvey Feb. '75	HM/PDR Demo 7/74-1/75
Among Referred Mortgagors	42%	37%	41.3%	54%	46%	61.0%
Among Mortgagors Not-Referred	24%	21%	38.8%	37%	33%	53.4%
Percentage Point Difference	+18	+16	+2.5	+17	+13	+7.6
Percent Change	+75.0%	+76.2%	+6.4%	+45.9%	+39.4%	+14.2%

UNSUCCESSFUL OUTCOMES

	Foreclosed			Worse Off Now Than When Initially Reported		
	1st PDR Study May '74	Resurvey Feb. '75	HM/PDR Demo 7/74-1/75	1st PDR Study May '74	Resurvey Feb. '75	HM/PDR Demo 7/74-1/75
Among Mortgagors Not-Referred	50%	60%	21.7%	59%	63%	31.0%
Among Referred Mortgagors	27%	43%	14.0%	37%	50%	26.1%
Percentage Point Difference	+24	+17	+7.7	+23	+13	+4.9
Percent Change	+46.0%	+28.3%	+35.5%	+37.3%	+20.6%	+15.8%

COST-EFFECTIVENESS OF COUNSELING

This section presents three different cost/benefit estimate models for the demonstration as a whole, for each city, and for each agency. These models are summarized in Figure 1, and are the same as those presented in the first PD&R Study. Appendix K contains an index measure of the expected value of each dollar invested in counseling.

The cost/benefit calculations are based on the primary impact measure used in this study: comparison of all homeowners not referred to counseling versus all homeowners referred to counseling. We calculate each cost or benefit per person referred to counseling, so that net benefits can easily be estimated for any number of referrals that HUD might make to counseling agencies. Calculations per person counseled would give equivalent results as long as the primary comparison (all not-referred versus all referred) is used in the analysis.

If the cost/benefit calculations were based on a comparison of all homeowners not referred to counseling, versus all homeowners counseled, the results would be quite different because of the implicit but erroneous assumption that the foreclosure rate for the referred but not counseled homeowners is equal to the foreclosure rate of the not-referred homeowners. This assumption is proven wrong by the evidence in this study and the previous PD&R study. The effect of the assumption would be to overstate seriously the costs of counseling and to understate seriously the impact.

The estimates generated for the total demonstration indicate that counseling is cost-effective according to cost/benefit Methods 1 and 2 and that it is also cost-effective according to Method 3 if it is assumed that nonquantifiable benefits exceed nonquantifiable costs. 2/ (See Table 9). Depending on the method chosen for determining cost-effectiveness, counseling provides a net benefit of from $174.81 to $440.32 per case. These data indicate that benefits to HUD are likely to exceed both the costs of providing counseling services and the costs of continuing to provide Section 235 subsidies. 3/

1/ There are important limitations to this analysis. The most obvious is that there is no clear consensus concerning which variables should be included in a cost/benefit estimate. Equally important is that in some cases, data are not available and in others available information is not quantifiable. Expected administrative costs and future mortgage insurance payments are examples of missing data, while societal costs and benefits typify data not suited to quantification. Certain data (average loss on foreclosure, run out costs from the fifth year onward, and foregone taxes) are available at the national level only.

2/ Hereafter, subsequent discussion of Method 3 assumes that nonquantifiable benefits exceed nonquantifiable costs.

3/ As noted earlier, the foreclosure rate differential that can be expected in a larger counseling program conducted under similar circumstances would probably fall somewhere between 3.5 and 11.9 percentage points. Since the actual foreclosure rate differential affects any cost-effectiveness estimates, Appendix Table J shows the range of cost/benefit estimates that could be expected given these extrapolated differentials. The only striking difference is that Method 2 yields a net cost at the lower 3.5 percentage point rate. All other estimates project net benefits.

FIGURE 1

Cost/Benefit Models Per Referral 1/

METHOD 1

Cost	- Cost of Counseling 3/
Benefit	+ Savings to Insurance Fund 2/
	Total Net Benefits or Costs

METHOD 2

Costs	- Cost of Counseling - Cost of Continued Subsidies 4/
Benefit	+ Savings to Insurance Fund
	Total Net Benefits or Costs

METHOD 3

Costs	- Cost of Counseling - Cost of Continued Subsidy - Foregone Taxes (Revenue Loss) - Other Costs 7/
Benefits	+ Savings to Insurance Fund + Benefits to Recipients 5/ + Other Benefits 6/
	Total Net Benefits or Costs

1/ For complete details of these methods see Appendix Q.
2/ (Average Loss On Property) . (Foreclosure Rate Differential)
3/ Funding/Number of Referrals
4/ (Number of Referrals).(Foreclosure Rate Differential).(Run out Cost)/(Number of Referrals)
5/ (Run out Cost + Foregone Taxes).(.85).(Number of Foreclosures Avoided)/(Number of Referrals)
6/ Nonquantifiable benefits hereafter denoted as "y".
7/ Nonquantifiable costs hereafter denoted as "x".

It is important to note, however, that these figures relate only to five demonstration cities that may or may not be representative of all counseling efforts in other cities. 1/

Comparison To Previous PD&R Study

As with the impact measures discussed above, the cost-effectiveness of counseling is found to be more modest in this demonstration than in earlier counseling efforts. Two factors explaining the decreased cost-effectiveness are the lower foreclosure rate differential between the referred and not-referred groups and the higher average loss on foreclosed properties reported for this period. The foreclosure rate differential between referred and not-referred mortgagors is the most important and most sensitive element of the cost/benefit models. A reduced foreclosure rate differential lowers the cost-effectiveness of counseling.

The average loss on foreclosed property increased by approximately $2,500 between this study and previous counseling demonstrations. This also acts to reduce the cost-effectiveness of counseling.

Estimates by City

The basic data items available for estimating cost/benefit comparisons on a city-by-city basis are shown in Appendix Table G. Cost/benefit estimates per referral for each of the three methods are summarized in Table 9.

TABLE 9

Cost-Effectiveness Per Referral, by City *

	METHOD 1	METHOD 2	METHOD 3/CROSSOVER
Atlanta	$814.45	$423.92	$756.32 + (x-y)
Columbia	16.85	-88.84	-10.81 + (x-y)
Detroit	397.80	72.94	349.85 + (x-y)
Los Angeles	367.10	190.84	328.71 + (x-y)
Seattle	557.56	260.34	515.68 + (x-y)
Total	$440.32	$174.81	$397.82 + (x-y)

* The term (x-y) indicates the net effect of nonquantifiable costs and benefits. The nonquantifiable costs denoted as x would have to exceed the nonquantifiable benefits denoted as y by the amounts indicated under Method 3 (which are essentially crossover values) in order for counseling to have been cost-ineffective per referral.

1/ Since the demonstration program provided counseling only to subsidized mortgagors, it is not possible to present impact and cost-effectiveness analyses for unsubsidized mortgagors. However, the basic elements of a cost/benefit analysis for unsubsidized mortgagors would include the cost of providing counseling and the savings resulting from foreclosures avoided, essentially Method 1 in the preceding discussions.

These data indicate that in each city net benefits are positive across all three methods except for Methods 2 and 3 in Columbia.

Estimates by Agency

This section presents cost/benefit estimates on an agency-by-agency basis. The tables and methods presented are exact duplicates of those presented in the city-by-city analysis. The data elements for the agency estimates are summarized in Appendix Table H. Cost/benefit estimates per referral for each agency are presented in Table 10. With some exceptions, these estimates show that counseling is cost-effective across all three methods. Significantly, however, the estimates exhibit very wide variations with the Atlanta agencies showing large net benefits and Detroit agencies 4 and 6 as well as the single Columbia agency having net costs under Methods 2 and 3.

These findings underscore the hypothesis developed earlier that different counseling approaches may lead to different outcomes. The differences in cost/benefit estimates by agency for those cities with more than one participating counseling agency (Atlanta, Detroit, and Los Angeles) strongly imply that the approaches adopted by these counselors influenced the impact and cost-effectiveness of the counseling effort.

PRELIMINARY FINDINGS ON COUNSELING TECHNIQUES

As noted in this report, different foreclosure rate and depth of default outcomes were observed for the cities and agencies involved in this study. It may be that the approaches adopted by counseling agencies in attempting to contact, screen, and counsel mortgagors contain clues that could explain some of these observed differences. This section outlines the issues regarding three approaches used by agencies to deliver counseling services, assesses the techniques in terms of their impact on foreclosure rates, and presents the implications of these findings for cost-effectiveness. A detailed description and assessment of the techniques used by each agency is presented in Appendix I.

TABLE 10

Cost-Effectiveness Per Referral, By Agency 1/

	METHOD 1		METHOD 2		METHOD 3/CROSSOVER	
Atlanta	$814.45		$423.92		$756.32 + (x-y)	
1		705.88		375.31		657.35 + (x-y)
2		900.04		471.19		842.37 + (x-y)
Columbia						
3		16.85		-88.84		-10.81 + (x-y)
Detroit	397.80		72.94		349.85 + (x-y)	
4		-1.89		-167.48		-32.36 + (x-y)
5		690.99		241.10		631.37 + (x-y)
6		50.43		-122.37		16.54 + (x-y)
Los Angeles	367.10		190.84		328.71 + (x-y)	
7		326.20		205.99		297.20 + (x-y)
8		N/A		N/A		N/A
9		824.80		455.44		772.01 + (x-y)
Seattle						
10		557.56		260.34		515.68 + (x-y)

1/ Data items included here do not match perfectly with city data. In each case, agency data for foreclosures were based upon a smaller sample than the "total cases referred" used to make city comparisons.

Counseling Techniques

The agencies are evaluated according to the degree of emphasis placed upon:

- Home Counseling (as opposed to office counseling),
- Debt Collection Services (to secure financial support from the mortgagor's creditors), and
- Referral to other Community Social Services.

In regard to home counseling, the issue is whether offering counseling services in the mortgagor's home leads to greater success. On the one hand, it might be expected that home counseling could create a relaxed atmosphere in which a mortgagor would be more receptive to counseling efforts, and that home services could allow the counselor to inspect the mortgagor's environment and perhaps be in a better position to aid in solving his problems. On the other hand, it is possible that home visits could lead to distractions, reduced professionalism, and increased counseling costs through travel expenses.

It may be that a counselor who simultaneously acts as a debt collection agent for creditors is more effective because he has a more comprehensive knowledge of a mortgagor's total debt problem; or, conversely, it may be that his debt collection responsibilities put the counselor in an adversary position vis-a-vis the mortgagor.

In terms of other social services, the questions are whether such services are effective and whether they are best provided by the counseling agency or by other community based agencies.

Impact on Foreclosure Rates

Table 11 summarizes the three counseling approaches discussed above and compares agency outcomes to demonstration averages.

It appears as though the debt collection service offered by Agencies 1 and 4 does not contribute to a greater reduction in foreclosures than would be the case in the absence of such service. In Atlanta, Agency 2 produced a greater foreclosure rate differential than did Agency 1. In Detroit, Agency 5 produced superior results while Agency 6 exhibited a foreclosure differential comparable to that produced by Agency 4.

In regard to social services, neither Agency 3 or Agency 8 performed better than other agencies as a result of their greater emphasis upon referral to other community social services. In Los Angeles, both Agencies 7 and 9 exceeded Agency 8 in terms of foreclosure rate differentials and cost-effectiveness. The Columbia Agency was cost-ineffective across all three methods and was significantly below the demonstration foreclosure rate differential.

TABLE 11

Summary of Counseling Approaches and Related Outcomes

AGENCY	EMPHASIS ON: Home Counseling	Office Counseling	Debt Collection	Social Services Agencies	RELATIONSHIP TO DEMONSTRATION AVERAGES 1/: Cost/Benefit 1	Cost/Benefit 2	Cost/Benefit 3	Foreclosure Rate Difference 2/: Percentage Point	% Change
Atlanta					$	$	$		
1	X		X		705	375	657	9.7	41.6
2	X				900	471	842	12.8	54.9
Columbia									
3	X			X	(16)	(-88)	(-10)	(3.2)	(23.7)
Detroit									
4		X	X		(-1)	(-167)	(-32)	(5.2)	(14.9)
5		X			690	241	631	12.8	36.7
6		X			(50)	(122)	(16)	(4.9)	(14.0)
Los Angeles									
7		X			(376)	205	(297)	(3.3)	(19.5)
8		X		X	N/A	N/A	N/A	(-10.9)	(-64.5)
9	X				824	455	772	10.9	64.5
Seattle									
10	X	X			557	260	515	8.6	50.9

1/ Parentheses indicate values below demonstration averages.

2/ Between Referred and Non-Referred Mortgagors.

The evidence presented in this study, however, tends to indicate that home counseling (vs. office counseling) leads to greater foreclosure rate differentials and more cost-effective counseling (See Table 10). Of the four agencies favoring home counseling (Agencies 1,2,3, and 9), three produced foreclosure rate reductions greater than the demonstration average of 36 percent (Agencies 1,2, and 9). These same agencies also provided counseling at rates more cost-effective than the demonstration averages across all three cost methods. In Los Angeles, the only study city to offer a direct comparison between agencies on this issue, Agency 9, favoring home counseling, clearly performed better than either Agency 7 or 8.

Of the five agencies emphasizing office counseling (Agencies 4,5,6,7, and 8), only Agency 5 exhibited a foreclosure rate differential in excess of the demonstration average. Similarly, only Agency 5 was more cost-effective than demonstration averages and, in some cases, the "office-approach" agencies produced marginally cost-ineffective counseling.

Conclusions: Implications for Cost-Effective Counseling

The previous discussion indicates that home counseling may produce more effective counseling. Table 12 presents aggregate foreclosure rate and net benefits outcomes produced by three of the five agencies emphasizing this approach. As can be seen, the three agencies (2,9, and 10) produced net benefits per referral far in excess of the total demonstration averages.

TABLE 12

Aggregate Data For Three "Best" Agencies (2,9,10)

	Total Demonstration	Three Best
Method 1	$440.32	$760.80
Method 2	174.81	395.66
Method 3	397.82 + (x-y)	710.02 + (x-y)
Percentage Point Differential	7.7	10.8
% Reduction in Foreclosures	35.5	56.8

These conclusions, however, must be qualified heavily. The findings can be generalized only to the extent that the demonstration cities are representative of all cities and only to the extent that the approaches used by the 10 agencies reflect the approaches adopted by all counseling organizations. Important also is that the evidence presented above is in aggregate form although it may be invalid to compare agencies operating in different cities under different economic conditions.

MAJOR QUALIFICATIONS

This section provides the major limitations of this study. These caveats should be kept in mind when interpreting the study conclusions.

- The study results were obtained from a demonstration program in five cities and cannot be generalized to all Section 235 defaulted mortgagors. However, the results can be generalized to those cities that are similar to the ones included in this study.

- Within each demonstration city, it was intended that one-half of the defaulters would be assigned randomly to a control group and the other half to an experimental group. However, some inappropriate assginments were made as follows:

  - In Los Angeles mortgagors with the largest number of months in default were assigned to the experimental group. In Atlanta, the worst cases were assigned to the control group.

  - In Los Angeles mortgagors were assigned on the basis of their geographical area.

  - In two cities some of the originally designated control group defaulters received counseling due to the fact that an incorrect computer listing of defaulters was sent to the counseling agencies.

- Data collection procedures also require some qualifications.

  - In two cities during the first and second months of the demonstration, the information forwarded to PD&R was insufficient to permit a follow-up inquiry of the mortgagee to record mortgage status at the end of the study.

  - By design all mortgagors in default in all five cities were to be included in the study, giving a total of 1,588 referred and 1,588 not-referred cases. However, data limitations reduced the number of cases actually studied to 605 referred and 705 not-referred mortgagors. Moreover, these reductions are not even distributed across cities and agencies. The percent of cases actually studied ranges from 16.1 percent to 89.3 percent.

APPENDICES

APPENDIX TABLE A

Section 235 Program Activity

Year Insured	Annual Number Insured	Cumulative Number Insured	Cumulative % Foreclosed and Assign-ed 1/	Average Loss to Insurance Fund 2/
1968	39	39		
1969	25,574	25,613	.16	
1970	105,229	130,842	.93	$3,144 3/
1971	144,396	275,090	2.93	3,599
1972	119,390	394,337	6.26	3,876
1973	53,979	452,019	9.65	4,383
1974		4/	4/	4,863
1975 (1st 9 months)				8,172

1/ U. S. Department of HUD, Office of Housing Production and Mortgage Credit, "FHA Insurance Terminations," Wash., D. C., p.1.

2/ U. S. Department of HUD, Office of Finance and Accounting, Summary of Mortgage Insurance Operations and Contract Authority, Wash., D. C. 1970-75 (Series), p. 12.

3/ Average loss for 12 months preceding the month of June.

4/ Not available.

APPENDIX TABLE B

Cities, Agencies, Funding Levels: HM/PDR Demonstration

City/Agency	Funds
Atlanta	$ 40,000
Agency 1	20,000
Agency 2	20,000
Columbia	80,000
Detroit	130,000
Agency 4	35,000
Agency 5	60,000
Agency 6	35,000
Los Angeles	15,000
Agency 7	5,000
Agency 8	5,000
Agency 9	5,000
Seattle	35,000
Total Demonstration	$300,000

APPENDIX TABLE C

Depth of Default Distribution
As Of Date Of Referral,
Total Demonstration

# of Payments Past Due	Not-Referred	Referred	Counseled 1/	Screened Only 1/	Declined Screening 1/	No Contact 1/
	% No.	% No.	% No.	% No.	% No.	% No.
0	0.9 (6)	0.7 (4)	0.8 (1)	0.0 (0)	1.6 (3)	0.0 (0)
1	17.9 (126)	19.7 (119)	20.3 (25)	12.0 (18)	37.0 (68)	5.4 (8)
2	41.3 (291)	39.8 (241)	35.0 (43)	36.0 (54)	36.4 (67)	52.0 (77)
3	29.0 (203)	29.6 (179)	32.5 (40)	38.7 (58)	20.1 (37)	29.7 (44)
4	5.7 (40)	6.6 (40)	7.3 (9)	6.7 (10)	4.3 (8)	8.8 (13)
5	5.5 (39)	3.6 (22)	4.1 (5)	6.7 (10)	0.5 (1)	4.0 (6)
	705	605	123	150	184	148

1/ A sub-group of the referred mortgagors.

APPENDIX TABLE D

Characteristics of Mortgagors, Total Demonstration 1/

	Not-Referred (N=503)	Referred (N=497)	Counseled (N=91)	Screened Only (N=107)	Declined Interview (N=159)	No Contact (N=99)
Age of Head	31.4	32.8	32.8	32.9	33.3	31.6
Total Annual Income	$ 6,089	$ 6,237	$ 6,581	$ 6,359	$ 5,914	$ 6,091
Household Size	4.7	4.9	5.0	5.0	4.8	4.7
Mortgage Amount	$18,341	$18,572	$18,819	$18,860	$18,268	$18,260
Downpayment	$ 217	$ 221	$ 231	$ 207	$ 199	$ 226
Per Capita Income	$ 1,458	$ 1,445	$ 1,454	$ 1,439	$ 1,392	$ 1,493

1/ Universe from which data could have been drawn.

Counseled	123	Screened Only	150
Referred	605	Declined Screening	184
Not-Referred	705	No Contact	148

APPENDIX TABLE E

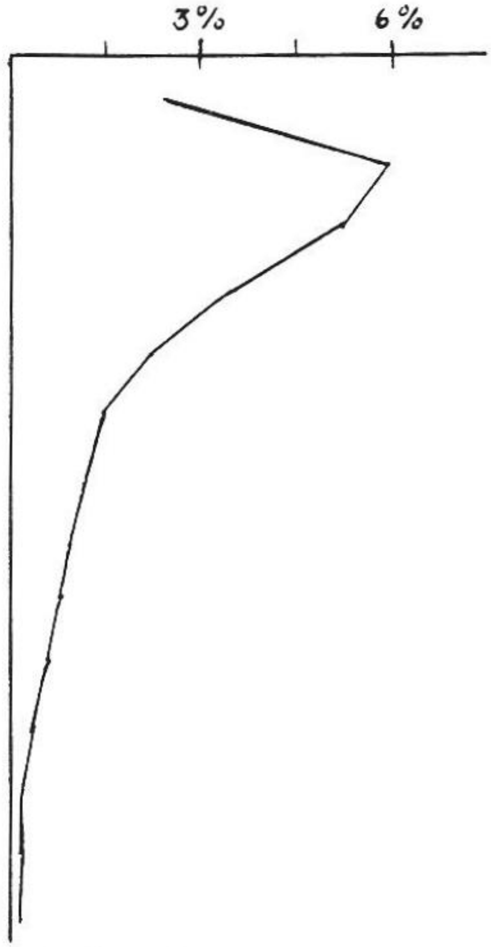
Study Outcomes by Exposure to Counseling, Total Demonstration

		No Previous Counseling %	No Previous Counseling No.	Previous Counseling %	Previous Counseling No.
Referred	-Current	40.7	(192)	36.8	(49)
	Default	40.9	(193)	47.4	(63)
	Foreclosed	15.3	(72)	11.3	(15)
	Other	3.2	(15)	4.5	(6)
Counseled	-Current	44.9	(44)	40.0	(10)
	Default	37.8	(37)	36.0	(9)
	Foreclosed	12.2	(12)	20.0	(5)
	Other	5.1	(5)	4.0	(1)
Screened Only	-Current	48.6	(67)	41.7	(5)
	Default	36.2	(50)	41.7	(5)
	Foreclosed	15.2	(21)	8.3	(1)
	Other	-0-	(0)	8.3	(1)
Declined-Screen*	-Current	44.2	(42)	36.0	(32)
	Default	40.0	(38)	50.6	(45)
	Foreclosed	11.6	(11)	10.1	(9)
	Other	4.2	(4)	3.4	(3)
No Contact*	-Current	27.7	(39)	28.6	(2)
	Default	48.2	(68)	57.1	(4)
	Foreclosed	19.9	(28)	-0-	(0)
	Other	4.3	(6)	14.3	(1)

* Not clear that these data are accurate since mortgagors refused to be screened or could not be contacted.

APPENDIX TABLE F
Annual Default Terminations as Percentage of Mortgagers Insured, Section 235

Policy Year	Default Terminations
1	2.6%
2	5.9
3	4.9
4	3.3
5	2.1
6	1.3
7	1.0
8	.7
9	.6
10	.4
11	.2
12	.1
13	.1
14	.1
15-30	less than .05% each year



Source: Estimated by HUD actuary based on program experience for the first six policy years and projections thereafter.

APPENDIX TABLE G

Data Elements for Cost-Effectiveness Calculations, by City

	Atlanta	Columbia	Detroit	L.A.	Seattle	National Total
Funding Level	$40,000	$80,000	$130,000	$15,000	$35,000	$300,000
No. of Referrals	367	327	351	302	241	1,588
Cost Per Referral	$108.99	$244.69	$370.37	$ 49.67	$145.23	$ 188.92 2/
Foreclosure Rate Differential 1/	11.3	3.2	9.4	5.1	8.6	7.7 2/
% Reductions in Foreclosures	48.5	23.7	26.9	30.2	50.9	35.5
Foreclosures Avoided	41	10	33	15	21	122 2/
Savings to Insur. Fund 3/	$923.44	$261.50	$768.17	$416.77	$702.79	$629.24 2/
Benefits to Recipients 3/	$350.24	$ 95.87	$294.75	$155.71	$273.18	$240.85 2/
Cost of Cont'd Subsidy 3/	$390.53	$105.69	$324.86	$176.26	$297.22	$265.51 2/
Foregone Taxes 3/	$ 17.84	$ 17.84	$ 17.84	$ 17.84	$ 17.84	$ 17.84
% Referrals Studied 4/	22.6	50.5	41.3	50.3	24.9	38.1

1/ Percentage point difference between foreclosure rates for not-referred and referred groups in each city.

2/ Due to rounding, totals do not equal averages of row data.

3/ Per referral.

4/ The number of mortgagors studied is less than the number that qualified for the study by being delinquent. These are the percentages of qualified mortgagors actually included in this study's referred group for each city.

APPENDIX TABLE H

Data Elements for Cost-Effectiveness Calculations by Agency 1/

	Atlanta		Columbia		Detroit			Los Angeles		Seattle
	1	2	3	4	5	6	7	8	9	10
Funding Level	$20,000	$20,000	$80,000	$35,000	$60,000	$35,000	$5,000	$5,000	$5,000	$35,000
No. of Referrals	230	137	327	82	169	100	115	112	75	241
Cost per Referral	$ 86.96	$145.98	$244.65	$426.83	$355.03	$350.00	$43.48	$44.64	$66.67	$145.23
Foreclosure Rate Differential	9.7	12.8	3.2	5.2	12.8	4.9	3.3	N/A	10.9	8.6
% Reduction in Foreclosures	41.6	54.9	23.7	14.9	36.7	14.0	19.5	N/A	64.5	50.9
Foreclosures Avoided	22	17	10	4	22	5	4	N/A	8	21
Savings to Insur. Fund 2/	$ 792.84	$1046.02	$261.50	$424.94	$1046.43	$400.43	$269.68	N/A	$890.75	$702.79
Benefits to Recipients 2/	$ 299.88	$389.02	$ 95.87	$152.96	$408.11	$156.75	$109.05	N/A	$334.41	$273.18
Cost of Cont'd Subsidy 2/	$ 330.57	$428.85	$105.69	$168.59	$449.89	$172.80	$120.21	N/A	$368.64	$297.22
Foregone Taxes 2/	$ 17.84	$ 17.84	$ 17.84	$ 17.84	$ 17.84	$ 17.84	$ 17.84	$17.84	$ 17.84	$ 17.84
% Referrals Studied	19.1	27.7	47.7	45.1	45.6	30.0	57.4	16.1	89.3	24.1

1/ Data items included here do not match perfectly with city data. In each case, agency data for foreclosures were based upon a smaller sample than the "total cases referred" used to make city comparisons.

2/ Per Referral.

APPENDIX I

Description of Counseling Techniques

This appendix presents, by city, a detailed description and assessment of the techniques used by each agency.

Atlanta Agencies

The two agencies involved in Atlanta (referred to as Agencies 1 and 2 in the body of this report), take similar steps in attempting to contact and screen mortgagors. Both use a series of letters and home visits to offer their services, although Agency 1 continues the contact process for a somewhat longer period of time sometimes exceeding one month. Both agencies emphasize home visits since they believe this approach reduces the burden placed on the mortgagor to avail himself of the service, reduces mortgagor time lost from employment due to counseling, and tends to reduce any fears or anxieties a mortgagor may have concerning counseling. Agency 2, however, will often prefer office visits if discussions with creditors or HUD are necessary. The most important difference between the two agencies is that Agency 1 attempts to act as a collection service for local creditors. The agency contacts other creditors to arrange forbearance agreements and/or to arrange for payment of bills with its own checks. The agency receives 10 percent of all monies collected from the mortgagor for its services.

Table I.1 presents comparative data for the Atlanta agencies. Agency 2 appears to have produced more favorable outcomes even though Agency 1 produced a lower cost per referral. This tends to indicate that the collection efforts and greater emphasis on home visits exhibited by Agency 1 did not add significantly to the probability of foreclosure avoidance. In addition, these results tend to indicate that the cost-effectiveness of Agency 1 counseling services is lower than that for Agency 2 although it required a slightly lower investment in counseling services at Agency 1 to produce a dollar of benefits. Both agencies performed significantly better than most other agencies in the study.

Columbia Agency

The one agency in Columbia (referred to as Agency 3) attempts to make contact with referred mortgagors by letter, telephone, and home visits in that order. When all else fails the agency tries to contact mortgagors through their neighbors or employers. The agency prefers to enroll both husband and wife in its counseling efforts and to provide counseling in the home to reduce mortgagor transportation problems. Since this agency is part of a larger community action agency, it tends to rely on referral to other community services more than do other counseling groups. As evidenced by the data in Table I.2, however, it does not compare favorably with the other agencies involved in the study.

Detroit Agencies

Unlike Atlanta and Columbia, all three Detroit agencies (Agencies 4, 5, and 6) prefer to conduct counseling sessions in their offices. They feel that this increases the professionalism of their services while at the same time allowing mortgagors to display a willingness to participate by travelling to the office. Agency 4 in Detroit performs the same type of debt collection and consolidation service as Agency 1 in Atlanta. This agency, however, does not receive a fee for the service although it does use its own checks. Table I.3 gives data for the three Detroit agencies participating in the study.

Although there is a reduction in the foreclosure rate after counseling, it appears as though the costs of obtaining these results may be prohibitive in Agencies 4 and 6. The debt collection service offered by Agency 4 does not result in significant foreclosure rate decreases nor does it produce cost-effective counseling. In fact, only one of the three Detroit agencies had a reduction in foreclosure rates higher than the demonstration average of 36 percent. The overall cost per referral was higher in Detroit than in the other four study cities. This can be attributable to local economic conditions, to the methods of counseling employed or to other variables not accounted for in this study.

Los Angeles Agencies

Two of the three Los Angeles agencies (referred to as Agencies 7, 8, and 9) rely heavily on office visits to conduct counseling while the third emphasizes home contacts. The "office" oriented agencies (Agencies 7 and 8) consider that the willingness to come to the office is one of the best indicators of a client's sincerity. Both of these agencies do make home contacts when the circumstances warrant. The Los Angeles group appears to be more involved in the counseling process during the initial contact phases than the other agencies in this study. Indicative of this is that these agencies contact mortgage servicers to request payment histories and other relevant information before screening and counseling has begun.

However, the Los Angeles agencies appear to be less involved with their clients once a repayment plan has been developed. These agencies prefer to use bi-monthly letter contacts with mortgagors to inquire about mortgage status and any new difficulties that may have developed. In fact, Agency 8 relies extensively on referral to other community sources. Table I.4 shows data for the three Los Angeles agencies in this study.

APPENDIX TABLE I.1

Atlanta Counseling Agencies

	Agency 1	Agency 2
Funding Level	$ 20,000	$ 20,000
Number of Referrals	230	137
Cost per Referral	$ 86.96	$ 145.98
Foreclosure Rate Differential	9.7	12.8
% Change in Foreclosure Rate	41.6	54.9
Cost-Effectiveness		
Method 1	$ 705.88	$ 900.04
Method 2	$ 375.31	$ 471.19
Method 3	$ 657.35 + (x-y)	$ 842.37 + (x-y)
Index	.109682	.139558

APPENDIX TABLE I.2

Columbia Counseling Agency

	Agency 3
Funding Level	$ 80,000
Number of Referrals	327
Cost per Referral	$ 244.65
Foreclosure Rate Differential	3.2
% Change in Foreclosure Rate	23.7
Cost-Effectiveness	
Method 1	$ 16.85
Method 2	$ -88.84
Method 3	$ -10.81 + (x-y)
Index	.935564

APPENDIX TABLE I.3

Detroit Counseling Agencies

	Agency 4	Agency 5	Agency 6
Funding Level	$35,000	$60,000	$35,000
Number of Referrals	82	169	100
Cost per Referral	$426.83	$355.03	$350.00
Foreclosure Rate Differential	5.2	12.8	4.9
% Change in Foreclosure Rate	14.9	56.7	14.0
Cost Effectiveness			
Method 1	$ -1.89	$690.99	$ 50.43
Method 2	$-167.48	$241.10	$-122.37
Method 3	$-32.36 + (x-y)	$631.37 + (x-y)	$ 16.54 + (x-y)
Index	1.004448	.339410	.874060

APPENDIX TABLE I.4

Los Angeles Agencies

	Agency 7	Agency 8	Agency 9
Funding Level	$ 5,000	$ 5,000	$ 5,000
Number of Referrals	115	112	75
Cost per Referral	$ 43.48	$ 44.64	$ 66.67
Foreclosure Rate Differential	3.3	- 10.9	10.9
% Change in Foreclosure Rates	19.5	- 64.5	64.5
Cost Effectiveness			
Method 1	$ 376.20	N/A	$ 824.80
Method 2	$ 205.99	N/A	$ 455.44
Method 3	$ 297.20 + (x-y)	N/A	$ 772.01 + (x-y)
Index	.161228	N/A	.074847

It is probable that the very low cost per referral associated with the Los Angeles agencies is explained by the fact that their main involvement is with a screening interview and the establishment of a budget plan. They apparently do not conduct many counseling sessions after completion of these two activities. Instead, reliance is placed upon other community services. This, however, in the case of Agency 8, led to a foreclosure rate significantly higher than that existing prior to the demonstration. Agency 9 did show a foreclosure rate differential greater than the demonstration average which may be attributable, in part, to its emphasis on home counseling.

No cost-effectiveness data are shown for Agency 8 since, from a policy perspective, any program resulting in more foreclosures could not be beneficial.

Seattle Agency

The one participating agency in Seattle (Agency 10) incorporates home and office visits into its approach. The agency prefers to conduct screening interviews in mortgagors' homes and to conduct counseling sessions in the office. In all other respects, this agency delivers counseling services in the same manner as the agencies in Atlanta, Columbia, and Detroit. Its success, however, exceeds most other agencies both in terms of foreclosures avoided and cost-effectiveness. (See Table I.5).

APPENDIX TABLE I.5

Seattle Counseling Agency

	Agency 10
Funding Level	$ 35,000
Number of Referrals	241
Cost per Referral	$ 145.23
Foreclosure Rate Differential	8.6
% Change in Foreclosure Rates	50.9
Cost-Effectiveness	
Method 1	$ 557.56
Method 2	$ 260.34
Method 3	$ 515.68 + (x-y)
Index	.206648

APPENDIX TABLE J

Cost-Effectiveness Utilizing
Upper and Lower Limits of
Foreclosure Rate Differential

	Lower (.035)	Upper (.119)	Observed (.077)
METHOD 1			
Savings to Ins. Fund	$ 286.02	$ 972.47	$ 629.24
Cost of Counseling	188.92	188.92	188.92
	97.10	783.55	440.32
METHOD 2			
Savings to Ins. Fund	286.02	972.47	629.24
Cost of Cont'd Subsidy	120.96	411.26	265.51
Cost of Counseling	188.92	188.92	188.92
	-23.86	372.29	174.81
METHOD 3			
Savings to Ins. Fund	286.02	972.47	629.24
Benefits to Recipients	110.56	373.13	240.85
Other Benefits	y	y	y
Cost of Cont'd Subsidy	120.96	411.26	265.51
Cost of Counseling	188.92	188.92	188.92
Foregone Taxes	8.19	27.65	17.84
Other Costs	x	x	x
Crossover	+78.51	+717.17	+397.82

APPENDIX K

Index of Performance

It is possible to create an index measure of performance utilizing any of the three methods for calculating the cost comparisons. For simplicity the following model uses only method 1. In essence, this approach combines all costs into one value and divides by a combined benefit value.

If: P = Price (Funding Level)
Q = Quantity (Number of Referrals)
E_L = Expected Loss on Average Property Foreclosed
$\overline{FR}$ = Foreclosure Rate
t = Time period, beginning of counseling effort
$t+1$ = Time period, end of counseling effort

Then: $$X = (P/Q)/(FR_t - FR_{t+1}) \cdot (E_L)$$

Where: X = Effectiveness Index and $FR_t - FR_{t+1} \neq 0$.

X is really no more than dividing cost per referral by savings to the insurance fund.*

The value of this approach is that it (1) allows for easy rank ordering of cities and agencies and (2), with the assumption of linearity in the ratio, makes it possible to estimate the cost of additional dollars saved.

The index can be interpreted as follows.** An index value equal to 1 implies that the cost per referral equals the expected savings to the insurance fund and that the effort was neither cost-effective or cost-ineffective. It follows then that if the index exceeds 1, costs per referral exceed savings to the insurance fund (cost-ineffectiveness) and if the index is less than one (but not less than 0), savings to the insurance fund exceed costs per referral (cost-effectiveness). Essentially, the smaller the index value in the interval between 0 and 1, the greater the net benefits.

---

* FR_t and FR_{t+1} relate to the foreclosure rates for only the referred group before and after counseling. But with the assumptions that foreclosure rates for non-referred mortgagors do not change significantly during the counseling effort and that the referred and not-referred groups are otherwise similar, comparing before and after rates for the referred group is equivalent to comparing the referred and not-referred groups after counseling.

** A negative index value indicates that $FR_{t+1} > FR_t$ and, therefore, that the counseling effort resulted in higher foreclosure rates after application.

In order to use the index as a measure of the cost of additional dollars saved, it is necessary to assume that the proportion, or ratio, remains constant over the range of dollars applied to counseling and the people referred to the program. In other words, additional dollars spent on the program will produce additional savings in the same proportion as that given by the index.

Appendix Table K gives index values for each city and for each agency within each city. Interpretation can be either in terms of funding necessary to produce one dollar of benefit or expected benefits per one dollar of counseling. In terms of funding necessary for one dollar of benefit, Atlanta required only 11.8 cents to achieve one dollar of benefit. At the other extreme, Columbia required 93.5 cents per one dollar of benefit. In terms of expected benefit per counseling dollar, Atlanta returned $8.47 of benefit per dollar invested while Columbia returned only $1.07 of benefit for each counseling dollar. These last figures are arrived at by taking the reverse of the original formula.

APPENDIX TABLE K

HM/PDR
Relative Cost Index Ranking by Agency*

City/Agency	Index		Rank	% Referrals Studied **
Atlanta	.118026			22.6
1		.109682	2	19.1
2		.139558	3	27.7
Columbia	.935564			50.5
3		.935564	8	50.5
Detroit	.482146			41.3
4		1.004448	9	45.1
5		.339410	6	45.6
6		.874060	7	30.0
Los Angeles	.119178			50.3
7		.161228	4	57.4
8		N/A		16.1
9		.074847	1	39.3
Seattle	.206648			
10		.206648	5	24.9
Total	.300235			38.1

* Data items included here do not match perfectly with city data. In each case, agency data for foreclosures were based upon a smaller sample than the "total cases referred" used to make city comparisons.

** The number of mortgagors studied is less than the number that qualified for the study by being delinquent.

APPENDIX TABLE L

Study Outcomes by Type of Servicer
(In Percentages)

Outcome		Investor/Servicer	Servicer Only
Current	- Referred	51.1	38.9
	Not-Referred	48.5	37.2
In Default	- Referred	26.7	43.6
	Not-Referred	38.2	35.9
Foreclosed	- Referred	20.0	13.9
	Not-Referred	10.3	22.5
Other	- Referred	2.2	3.6
	Not-Referred	2.9	4.4

APPENDIX TABLE M

Study Outcomes by Depth of Default at Initial Contact
(In Percentages)

Outcome		0	1	2	3	4	5
Current	- Referred	50.0	52.1	46.1	31.3	17.5	13.6
	Not-Referred	33.3	45.2	49.8	29.1	7.5	7.7
In Default	- Referred	-0-	38.7	41.5	45.3	52.5	36.4
	Not-Referred	-0-	45.2	35.7	37.4	32.5	12.8
Foreclosed	- Referred	25.0	7.6	8.7	19.6	25.0	50.0
	Not-Referred	33.3	8.7	11.3	28.1	50.0	71.8
Other	- Referred	25.0	1.7	3.7	3.9	5.0	-0-
	Not-Referred	33.3	.8	3.1	5.4	10.0	7.7

APPENDIX TABLE N

Study Outcomes by Mortgagee Type
(In Percentages) 1/

Outcome		State Bank 2/	National Bank	S&L	Mortgage Co.
Current	- Referred	50.0	46.9	60.9	38.2
	Not-Referred	60.0	37.5	54.5	37.5
In Default	- Referred	-0-	40.8	13.0	43.9
	Not-Referred	20.0	46.4	27.3	35.7
Foreclosed	- Referred	-0-	10.2	21.7	14.5
	Not-Referred	-0-	16.1	9.1	22.5
Other	- Referred	50.0	2.0	4.3	3.4
	Not-Referred	20.0	-0-	9.1	4.3

1/ There were no savings banks or insurance companies in the sample.

2/ There were only 7 mortgages held by State Banks in the sample.

APPENDIX O

Referral Process By Agency

Referral Scheme for Columbia and Seattle:

1 = referred to counseling, 2 = control group

1	mortgagor A	-	refer to contractor
2	mortgagor B	-	refer to control group
1	mortgagor C	-	refer to contractor
2	mortgagor D	-	refer to control group

Referral Scheme for Detroit and Los Angeles:

odd# = referred to counseling, even# = control group

1	mortgagor A	-	refer to contractor I
2	mortgagor B	-	refer to control group
3	mortgagor C	-	refer to contractor II
4	mortgagor D	-	refer to control group
5	mortgagor E	-	refer to contractor III

Referral Scheme for Atlanta:

1 = contractor I, 2&4 = control group, 3 = contractor II

1	mortgagor A	-	refer to contractor
2	mortgagor B	-	refer to control group
3	mortgagor C	-	refer to contractor II
4	mortgagor D	-	refer to control group
1	mortgagor E	-	refer to contractor I
2	mortgagor F	-	refer to control group

APPENDIX P

OPAE-X

DATA COLLECTION FORM

FORM OPAE-X INDIVIDUAL REPORT ON DELINQUENT OR DEFAULTING MORTGAGOR

INSTRUCTIONS: This form is to be filled out on each first time referral from the GTR to the contractor. Only Parts II-V are to be completed by the contractor, utilizing definitions on reverse side of form. If mortgagor is a second or third time referral within the extension period and was not previously contacted, then the contractor may use own judgement in deciding whether to make another effort to contact the mortgagor. If the contractor elects to attempt again to contact the mortgagor, the contractor shall fill out an additional form OPAE-X on the mortgagor, (only if contact is made). Submit form OPAE-X to GTR on the 10th day of the second month following receipt of referral. (For more complete instructions see "Summary of Points of Clarification Emanating from D/D Contracts Extension Workshop"). Information on this form will not be released outside HUD.

FHA Case No.		Date of this report
Section of National Housing Act	Mortgagee's Reference No.	Number of payments past due
Mortgagors (Last Name First)		☐ Mortgage is reinstated and current.
Property Address		☐ Foreclosure is imminent. ☐ Foreclosure is started.
City State		☐ Foreclosure is completed

MORTGAGEE'S NAME, ADDRESS AND ZIP CODE

PART II INDICATE APPROPRIATE BOX AND, IF CONTACTED, THE DATE OF THE FIRST CONTACT: ____________

First Contact Was Made:

- ___ Walk-in due to own recognizance
- ___ By mortgagor's response to HUD's or contractor's letter
- ___ By contractor's phone call
- ___ On first visit to home
- ___ On second visit to home
- ___ Otherwise (explain): ____________
- ___ No contact

PART III FOR EACH MORTGAGOR CONTACTED, INDICATE APPROPRIATE BOX AND, IF SCREENING INTERVIEW WAS HELD, DATE OF THE SCREENING INTERVIEW: ____________

- ___ Mortgagor accepted screening interview and entered counseling
- ___ Mortgagor accepted screening interview and did not enter counseling
- ___ Mortgagor declined the screening interview

PART IV FOR EACH MORTGAGOR WHO ACCEPTED SCREENING INTERVIEW, NUMBER THE FOLLOWING CAUSES OF DEFAULT IN ORDER OF PRIORITY, IF APPLICABLE (1 = MOST IMPORTANT)

- ___ Insufficient income
- ___ Loss of employment income
- ___ Loss of public assistance income
- ___ Other installment payments
- ___ Poor money management
- ___ Health problems
- ___ Property maintenance emergency
- ___ Domestic problems
- ___ Questioned mortgage payments
- ___ Defective property at purchase
- ___ Deteriorating neighborhood
- ___ Taxes or insurance
- ___ Other (explain): ____________

PART V CHECK THE BOX(ES) THAT MAY BE APPLICABLE:

☐ Mortgagor has previously been exposed to a homeownership counseling program

☐ Mortgagor had an agreement with mortgagee, prior to referral, relating to servicing policies and reinstatement

APPENDIX Q

Detailed Development of Cost/Benefit Methods[1/]

Cost/Benefit Comparisons

An important 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, it is 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 may 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 a 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:

1. Direct payments to counseling agencies.

2. Continuation of otherwise discontinued direct subsidy payments.

3. Continuation of monthly mortgagee servicing fee.

4. Continued cost of taxes foregone due to special income tax treatment of subsidy recipients (the so-called "double-dip" available to 235 homeowners).

5. Continuation of annual HUD administrative costs for ordinary loan servicing, income recertifications, and paying out subsidies.

6. Costs involved in future foreclosures on some fraction of the mortgages whose foreclosures are avoided at this point.

1/ This Appendix is a revision of Counseling for Delinquent Mortgagors, pp. 20-29.

7. HUD administrative costs involved in supervising the counseling agencies and in making referrals.

8. Other possible societal costs.

Possible Benefits of Avoiding Foreclosure:

1. Avoidance of the usual direct cash loss involved in acquiring, holding, possibly repairing, and selling foreclosed homes.

2. Avoidance of HUD administrative costs for property disposition.

3. Continued MIP receipts to the insurance funds.

4. Avoidance of hidden foreclosure losses e.g., the high probability of a subsequent foreclosure and re-acquisition.

5. Personal benefit of continued subsidy to recipient households.

6. Personal benefit associated with avoiding the anguish and bad credit rating involved in a foreclosure.

7. Social benefit of avoiding the vandalism and neighborhood deterioration sometimes invited by a vacant house.

8. The alleged social benefit arising from homeownership.

9. Other possible societal benefits.

Data are available on the first four costs listed above, and on benefits 1 and 5 only. Data are not readily available on the other items.

Explanation of Cost-and-Benefit Elements

Each avoided foreclosure commits the Department to continuing subsidy payments (Cost 2). The amount of this remaining subsidy depends on the age of the mortgage at foreclosure. The average age of the mortgages in our sample was 4 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 5th through the 15th year, discounted at 6 percent back to the beginning of the 5th year, is $3,456. This figure is 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. This study has reported the percentage point differential between the foreclosure rates for the referred and not-referred groups. Multiplying the number of referrals by this percentage point differential gives the number of foreclosures avoided. The per unit cost of the continued subsidy ($3,456) multiplied by the number of foreclosures avoided and divided by the number of referrals gives the cost of continued subsidies (which in the absence of counseling, would have been discontinued) per referral.

Income taxes foregone (loss of revenue) by the Federal Government because of special tax treatment for Section 235 mortgagors were calculated during the National Housing Policy Review (NHPR) (Cost 4). The amounts foregone from the fifth year onward of an average 235 mortgage, if discounted back to the beginning of the fifth year, amount to $232. Multiplying this value by the number of foreclosures avoided and then dividing by the number of referrals yields the amount of foregone taxes per referral.

The sum of future administrative costs for loan servicing (Cost 5), the expenses involved in future foreclosures (Cost 6), and the continued MIP receipts (Benefit 3), from the fifth through the thirtieth year of an average 235 mortgage, is 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 the study cities would be 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 the study cities is similar to the national average cost of subsidy for a typical Section 235 mortgage; (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.

The direct individual benefits of a Section 235 subsidy may be estimated by the 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 percent. This can be applied to the total run-out direct benefit to each recipient household. From this, a value per referral has been calculated.

As mentioned above, there are some nonquantifiable 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; 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; 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.

Explanation of Cost/Benefit Comparisons

Cost/Benefit Comparison #1. There are a number of ways to sum the costs and benefits outlined above, 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. This yields:

- Cost of Counseling

+ Savings to Insurance Fund

Total (Net Benefit or Loss)

Cost/Benefit Comparison #2. The Method #1 comparison is simple and direct, but it is limited in that it excludes from consideration certain costs and benefits. The additional cost that is included by method 2 is the cost of the continued subsidy payment, if counseling is effective, and the homeowner retains his subsidized mortgage. This yields:

- Cost of Counseling

- Cost of Continued Subsidy

+ Savings to Insurance Fund

Total (Net Benefits or Losses)

Cost/Benefit Comparison #3. The second comparison includes those items which affect the HUD budget, but is still a limited view in that it does not measure either costs or benefits to mortgagors and mortgagees or non-pecuniary costs or benefits to society at large.

Thus, Method 3 provides 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 nonquantifiable costs and benefits. It can be represented as follows:

Costs

- Cost of Counseling
- Cost of Continued Subsidy
- Foregone Taxes
- Other Costs (Y)

Benefits

+ Savings to Insurance Fund
+ Benefits to Recipients
+ Other Benefits (X)

Total (Net Benefits or Losses)

To the extent that the above Method is 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 = Net Value of Quantifiable Costs and Benefits.

APPENDIX R

Potential Savings From Counseling

This section provides estimates of the maximum savings that could result by 1) referring to a counseling program every mortgagor who enters default during FY 1977, 2) employing the home counseling approach utilized by the "three best" agencies in the HM/PDR demonstration, and 3) using cost benefit Method 1. In order to make these estimates, the following assumptions were adopted:

* That approximately 60,000 defaults will occur during FY 1977 under all single-family programs. (Loan Management estimate)

* That approximately one-quarter to one-third of the defaults will occur under subsidized programs; the remainder will occur under unsubsidized programs. This yields between 15,000 and 19,800 defaults under Section 235 and between 40,200 and 45,000 defaults under all unsubsidized programs, chiefly Sections 203 and 221(d)(2). (Loan Management estimates) 1/

* That every defaulting mortgagor will be referred to a counseling agency.

* That the agencies receiving the referrals will duplicate the methods employed by the agencies participating in this study. This implies that the foreclosure rate differential and savings generated by the three model agencies can be duplicated by all participating agencies. 2/ The aggregate data for these three agencies are given in Appendix Table R.

The basic formula to calculate the savings to be expected is:

Savings to HUD = Average Loss on Foreclosed Property X Number of Foreclosures Avoided

where, Average Loss = $11,750 - unsubsidized,
Average Loss = $ 8,172 - subsidized,
Number of Foreclosures Avoided = Number of Referrals x Foreclosure Rate Differential 3/

1/ In order to develop single estimates for both subsidized and unsubsidized programs, the mid-points of the range of expected defaults will be used. They are 17,400 and 42,600 respectively.

2/ In order to develop a single measure of foreclosures avoided, the foreclosure rate differentials for the three agencies were averaged.

3/ Average loss data are from Summary of Mortgage Insurance Operations and Contract Authority, Financial Analysis and Investment Division, OFA. They are as of September 1975 using cost benefits.

Therefore,

Savings = \$11,750 x 42,600 x .108 = \$54,059,400 -- Unsubsidized,

Savings = \$8,172 x 17,400 x .108 = \$15,356,822 -- Subsidized.

Costs

The cost of providing counseling services should be subtracted from the above amounts to give a reasonable estimate of the net savings that could accrue to HUD. If we assume a \$300 cost per referral, a counseling program for 60,000 defaulted mortgagors would cost \$18 million annually. At the \$300 rate, therefore, the maximum net savings that could be expected are approximately:

	\$54.1 million	-	Unsubsidized
+	15.4 million	-	Subsidized
-	18.0 million	-	Cost of Counseling
	\$51.5 million	-	Net Savings

APPENDIX TABLE R

Aggregate Data for "Three Best"
Agencies in HM/PDR Demonstration

Funding	$60,000.00
Number of Referrals	453
Cost of Counseling Per Referral	$ 132.45
Foreclosure Rate Differential 1/	10.8
% Reduction in Foreclosures	56.8
Foreclosures Avoided 2/	49
Average Loss on Foreclosed Property 3/	$ 8,172.00
Savings to the Insurance Fund 4/	$ 882.58
Estimated Lifetime Subsidy on Typical Mortgage	$ 6,760.00
Estimated Four-Year Usage of Subsidy	$ 3,304.00
Run-Out Cost Per Referral 5/	$ 3,456.00
Cost of Continued Subsidy Per Referral 6/	$ 373.25
Foregone Taxes Per Referral 7/	$ 17.84
Benefits to Recipients Per Referral 8/	$ 318.44

1/ Percentage point difference between referred and not-referred groups determined by averaging the differentials for the three agencies.

2/ Number of referrals times foreclosure rate differential.

3/ Average of values relating to the period between 1/75 and 9/75. Assumed constant for any geographic area.

4/ Average loss on foreclosed property times foreclosure rate differential.

5/ Lifetime subsidy minus four-year usage. Our estimates are based on the 5th through 12th years of mortgage life; income rise-out is assumed to occur after the 12th year. Value is assumed constant for all mortgagors.

6/ (Number of referrals times foreclosure rate differential times run-out costs) divided by number of referrals.

7/ Assumptions: income increases at 5.7% per year; program income constraints exceeded after 12th year; discounting occurs between 5th and 12th years; some unspecified increase in property tax built into values. Value derived from HM/PDR referrals totaling 1,588 and assumed constant for all mortgagors.

8/ ((Run-out costs plus foregone taxes) times .85) divided by number of referrals.

APPENDIX S

Regression Analysis

The counseling data were subjected to regression analysis to determine whether a systematic relationship could be established between counseling and improvement in the default status of mortgagors after controlling for other influences. This appendix describes the major results of this effort. The principal conclusion is that counseling appears to increase the probability of avoiding foreclosure over the short run. The magnitude of this effect is approximately 1 percentage point and is not statistically significant.

The regression approach used here is probit analysis. This technique was employed to overcome the heteroskedasticity problem and to confine the probability estimates to the zero-one interval. In contrast to the basic least squares regression approach, however, the coefficients must be transformed to have a probability interpretation. 1/

Two sets of regressions were specified. The first set compares fully counseled mortgagors with persons who had not been referred to a counseling agency. These results are presented in Appendix Table S.1. A more general analysis using all observations having complete data and employing a series of dummy variables to distinguish the various stages in counseling (referred, contacted, screened, and fully counseled) produced inconsistent and confusing estimates of the impact of counseling.

As can be seen in Appendix Table S.1, counseling appears to have a beneficial effect but the estimate is not statistically different from zero at the ten percent level. In a probit model the effect that counseling has on the probability of avoiding foreclosure is dependent on the circumstances in which counseling is applied. Therefore, we calculated three different estimates based on the coefficient estimated for counseling. These estimates range from 0.7 percentage points for a typical family to 0 percent for a family with a high probability of success. The estimated improvement in the probability of success for a typical family with a low overall probability of success as a result of counseling is 0.6 percentage points.

1/ Variants of this equation were tried each producing estimates consistent with the reported results. These include: 1) regressions using mortgage brought current or avoided foreclosure and the same or fewer months in default at the end of the counseling experiment as dependent variables; 2) regressions for each of the cities which participated in the counseling experiments; and 3) regressions in which the most important explanatory variable, the number of monthly payments in default at the beginning of counseling, was entered in quadratic form. The dependent variable in Appendix Table S.1 is foreclosure avoided during experiment.

In general, the signs of the other independent variables are consistent with commonly accepted explanations of default termination noting that there are no _a priori_ means of ranking cities or agencies as to their likely impact on the default phenomenon. The positive interest rate variable was unexpected but may be related to the expected positive sign for magnitude of subsidy payment. The negative sign for co-mortgagor is probably related to the positive sign for a female-headed family because FHA practice is to have one spouse sign as co-mortgagor in a family with both spouses present. The positive coefficient for a female-headed family was initially surprising but on second thought it may be possible that having gone into default, female-headed families are more likely to attempt to avoid foreclosure because their total income may be more stable and, by definition, they are not subject to divorce problems. Most of the reported coefficients, however, are not statistically significant.

It is conceivable that the decision to avoid foreclosure exerts significant influence over the decision to accept counseling so as to produce biased estimates with the model used above. This "simultaneity" problem is a manifestation of the self-selection phenomenon discussed in the body of this report but was not corrected for in the regression analysis. Another potential problem is that the regression analysis assumes that those counseled received the same amount of counseling. It is believed, however, that the adequacy of counseling varied across agencies. This could have also introduced bias into the results.

A second set of regressions were estimated comparing the referred and not-referred groups. These regressions are similar to the bivariate analysis performed in the text of this report. The impact of being referred was beneficial but statistically insignificant in all regressions. Direct comparison with the bivariate results, however, is difficult because of differences in sample size.

The bivariate analysis was conducted on a sample with 1,310 observations (605 referred and 705 not-referred mortgagors). Exclusion of observations with missing data on some of the independent variables reduced the sample on which the regression analysis was performed to 987. When the bivariate analysis was replicated on the 987 sample, substantially different results were obtained. The superior performance of the referred group with respect to avoiding foreclosure was reduced from 7.0 percentage points to 4.0 percentage points and with respect to being current from 1.6 to -4.7 percentage points. 1/ Some variation should be expected but the 6.3 percentage point shift, with respect to being current, appears to be statistically significant.

In addition to randomness, two other explanations are possible. The difference between the regressions and the analysis in the text could be explained by the differences in control variables. The only control variables common to both samples were the city dummies and the number of payments past due at the beginning of the demonstration. Using the "being current" regression, we calculate that these differences account for 1 percentage point of the 6.3 shift. With this adjustment, the observed difference is just barely statistically significant at the ten percent level. We believe that this is the most likely explanation and does not affect the validity of the regression analysis.

1/ Foreclosure avoidance and becoming current are alternative dependent variables.

The alternative possibility is that for a given set of control values with respect to being current, we either systematically excluded from the referred group individuals who perform above the average or systematically excluded from the not-referred group individuals who perform below the average. If this were true, a basic assumption of regression analysis would be violated and the resulting estimates would have none of the desirable properties of estimators. This possibility cannot be completely eliminated.

APPENDIX TABLE S.1

Regression Comparing Not-Referred and Fully Counseled

Variable	Coefficient
Mortgagor Fully Counseled	.034045
No. of Monthly Payments in Default at the beginning of the experiment	-.34968**
Mortgage Age Prior to Default (in years)	.05825
Mortgagor Lives in:	
Los Angeles	.022818
Atlanta	.016748
Seattle	-.14244
Detroit	-.35216
Loan-To-Value-Ratio	-.65676
Interest Rate (x 1000)	.000081512
Mortgage Term	-.53205
Annual Mortgage Payment	-.00046108
Annual Subsidy Payment	.0024495
Existence of Co-Signer	-.63274
Years Employed of Family Head	-.0060381
Occupation of Family Head:	
Professional	1.0559**
Clerical	.23533
Skilled Labor	-.00050279
Semi-Skilled or Military	-.06847
Laborer	.34548
Service Industry	-.10413
Total Family Income	.000091477
Total Family Income from Secondary Sources	.000022856
Age of Head	-.0046095
Family Size	.067732
Female-Headed Family	.42330**
Section 235 - New	.19922
Constant	18.265

** Significant at .01 level

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The analysis and conclusions are those of the Office of Policy Development and Program Evaluation and do not necessarily reflect the opinion of the Department of Housing and Urban Development.

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