

CONSEQUENCES OF DISPLACEMENT BY RIGHT OF WAY TO 100 HOME OWNERS, DALLAS, TEXAS

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Part 1 - Introduction and Summary of Findings

Persons whose property is needed for thoroughfare right-of-way purposes have a legal guarantee of compensation for the property rights they surrender. The compensation to be paid is the fair market value of the realty acquired. There is no provision under law that owners shall be made "whole" again, in the sense that they will be returned to the conditions of ownership previously enjoyed and that they shall be paid for every loss or inconvenience that they may have suffered. Even if the law provided for the payment of additional indemnity, the determination of the sums to be paid for particular items would be highly arbitrary. Who can place a dollar value on sentimentality, for example, or upon worry and inconvenience?

Thus in most cases the experience of displacement by right of way is not likely to be a pleasant one. Home owners for the most part are in a status of equilibrium or satisfaction in the enjoyment of their rights. Generally, they are not seeking to sell their homes and indeed may have deep sentimental attachments to them. The experience of displacement is imposed upon them by public authority. Certainly it is desirable that a responsible public should have knowledge of the consequences of its programs.

The broad purpose of the study presented in this report was to learn something of the effects of displacement upon home owners. To restrict the scope of the inquiry, attention was concentrated on the following questions:

1. How well were the home owners in the study area prepared to cope with the problems arising from displacement?
2. What were the effects upon their housing standards?
3. Did they increase or decrease their outstanding debts?
4. Where did they relocate?

Other related questions also were investigated. No attempt was made, however, to try to place a dollar value on such losses and inconveniences which are not compensable under law.

It is reasoned that the public and its action agency have two uses for the information such a study provides. First, it will help in the evaluation of alternatives should any sentiment for changes in law or policy arise. Second, it can be used as a yardstick against charges or assertions regarding the severity of noncompensable consequences of displacement by right of way.

The area in Dallas chosen for study is not one where smooth and easy adjustments by displaced persons might be expected. Rather, it is an area of older housing and of residents mostly past middle age. The housing was by no means expensive, but for the most part it was not substandard. Some owners had lived in their homes for as long as 40 years, and many had strong sentimental attachments for their ownerships and for their neighborhood. Almost all of the residents stated that they were permanently settled. Thus the nature of the study area itself constitutes a bias. The results cannot be consid-

ered as representative for the displacement consequences of rights of way in general; they are concerned with residents for whom resettlement and readjustment expectedly would be more difficult than for average resident-owners.

The Study Area

The study area is a portion of the right of way acquired for Interstate Highway 20. It is situated in what is locally known as East Dallas. More specifically it is in the vicinity of Samuell Boulevard and East Grand Avenue. For about one mile, the study area parallels Samuell, from Boone Avenue to East Grand. Then it turns Southwest for about another mile to Fletcher Street. (See Figure 1.)

The general area described is from 1½ to 3 miles east of Dallas' Central Business District. It is one of the older areas of Dallas, having homes ranging up to 90 years of age. Most of the houses are frame and the majority are single family. However, numerous duplexes and several apartment houses are also in the area. The adequacy of maintenance for buildings varied a great deal and some small degree of blight was in evidence (unpainted houses, lack of screens, etc.).

Many of the workers through the years have been employed at the Ford Motor Company assembly plant. Employment in downtown Dallas also has been substantial. At the time of the study, many residents had reached retirement age. Those employed were typically in the low middle income class.

The area has good facilities and services. Schools and churches are within convenient distance, and East Grand Avenue and other lesser streets furnish a variety of shopping outlets as well as professional, banking, and other services. The grounds for the State Fair of Texas are nearby and furnish some year around recreation as does one major park with a golf course in the area.

The area consists of a number of small neighborhoods which vary considerably in solidarity. One might classify the area as "comfortable"; its improvements, its location, its facilities and services—while not outstanding—are generally adequate. No serious hazards or nuisances are present, and the only deterioration is the aging process of a fully mature urban sector.

The Sample

A search of the files in the office of the District Right-of-Way Engineer, Dallas, Texas, revealed that the right of way in the study area involved the acquisition of 477 separately owned parcels. Of these, 419 were in residential use. The uses of the remaining 58 parcels were categorized as "commercial and industrial," "unimproved," and "other." These properties appeared in clusters among major thoroughfares in the area and were excluded from the study.

Of the 419 "residential" properties involved, only 237 were occupied by their owners. Those parcels which contained more than one dwelling unit, e.g., a duplex or apartment, were included in this class provided at least

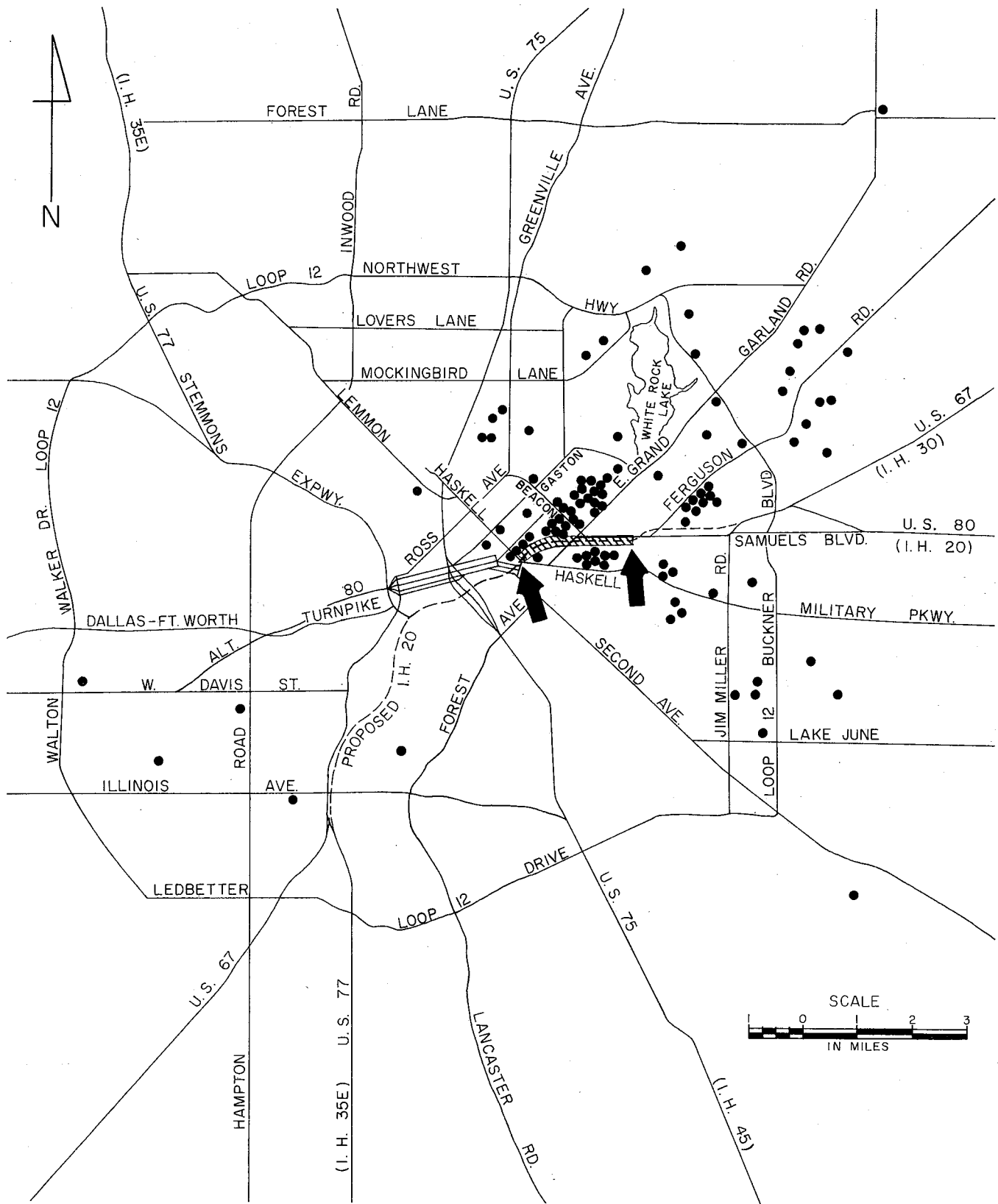


Figure 1. A map of the Greater Dallas Area showing the area from which owners were displaced, set off by arrows, and the location of replacement homes, represented by dots.

one unit was occupied by the owner. The remaining 182 parcels were occupied solely by tenants. Of these 237 parcels, 29 were partial takings while the remaining 208 were whole takings. Only partial takings which involved displacement through the acquisition or bisection of dwellings were considered.

Information for the study was obtained for 100 of the 237 owner-occupied residential parcels. That is, a sample of 100 parcels was drawn. The sample was drawn in a random manner. Each owner-occupied dwelling was accorded an equal probability of appearing in the sample. Selection was made by numbering the parcels from 1 to 237, inclusively, and drawing 100 three-digit numbers from a table of random units. The parcels corresponding to these were designated as the primary sample.

The next task to be undertaken was to locate the replacement properties of individuals appearing in the primary sample. Two sources were utilized to provide this information: records of the Southwestern Bell Telephone Company and of the Water Department of the City of Dallas. Of the primary sample 4 persons relocated in areas outside the Dallas metropolitan area, 2 were deceased, and 4 could not be located. Alternates for these were drawn from the remaining parcels by selecting the next higher parcel number.

Once the addresses of 100 relocated individuals were obtained, these persons were contacted and interviewed. Of the 100 individuals included in the primary sample, 5 refused to cooperate, while 10 could not be contacted to be interviewed. Although addresses for the latter 10 were located, in order to facilitate the survey's progress only three attempts were made to contact an individual. Calls were made preferably at different times of the day and on different days. Alternates were drawn for the 15 nonrespondents and "missed contacts" by the same process as previously explained.

The fact that responses could not be obtained from all individuals appearing in the initial sample presents the possibility of the presence of some selective factors. However, the proportion of alternate respondents was fairly small, 15 percent, and would not likely be an important factor in the results.

Another source of bias may have arisen due to the inability to locate four of the displaced owners. Since addresses of replacement housing were obtained from utility records, there is a possibility that these individuals purchased housing for which such utilities were not available. Since utilities were available in all dwellings taken, this "lost" group may have acquired poorer-than-average replacement housing. On the other hand, these "lost" individuals may not have purchased replacement housing or they may have moved from the Dallas area.

Data Sources

Prices of replacement homes were obtained from personal interview with the displaced residents. The prices received by owners for their original housing were obtained from the files of the Office of the District Right-of-Way Engineer, Dallas. The tax valuations for replacement properties located in the City of Dallas were obtained from the records of the Tax Assessor's Office of the City. Assessments for both land and the improve-

ments thereon were utilized to provide assessed valuation. The assessments were drawn for the years in which the properties were acquired for right of way, 1958-1959. Although some properties were acquired during 1960, a previous year's assessed valuation was used because a change in assessment procedures occurred beginning in 1960. Prior to that year assessed valuations were estimated at 65 percent of 1941 construction and land costs with due consideration given to depreciation. Costs in terms of 1941 prices were considered to be 38 percent of the current market price during the years 1958-1959, according to personnel of the City of Dallas Tax Assessor's Staff.

All properties are re-assessed, by plan, at least once every six years, and no evidence was obtained to indicate that the study area received differential treatment of any kind. In addition, re-assessment is made upon the issuance of a building permit granted for improvements and in some cases upon a change in ownership of a property. In order to compensate for changes in after-valuation as a result of these re-assessment provisions, a previous year's assessment was utilized if changes occurred in after-valuation. In other words, assessed values were used for a year common to both original and replacement property. In addition, adjustments were made for the construction of new improvements on vacant land.

Data on original housing were obtained from Texas Highway Department records. To complete the collection of information, respondents were asked a variety of questions regarding replacement housing, adequacy of compensation and effects of displacement by right of way on their social and economic status. The methods in which these responses and data from other sources were treated are discussed in appropriate later parts of the report.

Type and Method of Taking

It perhaps would have been wise to have included only whole takings within the sample. This would have simplified the analysis. On the other hand, it was believed that something of value might be learned regarding partial takings. Therefore, the sample was drawn without regard to whether all or part of properties were acquired. The only condition was that right-of-way lines contained or bisected residences. The result was that 10 owners who had only a part of their property acquired were in the sample; the property of the remaining 90, of course, fell wholly within the right-of-way lines.

Eighty-eight of the ownerships were obtained through negotiation. An award by special commissioners was accepted in one instance. Twelve acquisitions required condemnation. In fact, at the time of the interviews six cases had not yet been decided. These six owners were reluctant to answer some of the questions asked. This accounts for a number of the "no responses" that appear in various parts of the report.

Summary of Findings

1. Of the first sample of 100 displaced owners, it was found that four had moved from the greater Dallas area, the addresses of four were not ascertained, and two were deceased. Ninety resettled in the Dallas area.

2. The sample was increased again to 100 owners to represent the 90 percent who remained in the Dallas area. Each of the 100 was interviewed. Displaced owners averaged about 60 years of age; only seventeen were less than 50 years old. Households were small, having an average of 2.19 persons. Only six families had children less than 14 years of age.

3. Forty percent of the owners were retired or unemployed, and total household income averaged \$4,422 annually. Median net worth for owners was a little more than \$10,000 and much of this consisted of the value of home equities. Security of ownership was strong; only 29 original homes had mortgages, and the unpaid balances were small.

4. Displaced owners assuredly were not poverty stricken; they had some resources and flexibility with which to meet adjustments. Because of their ages, family stages and attachment to homes, however, it would be expected that displacement would bring considerable inconvenience and hardship to them. Nevertheless, with a few exceptions they met the necessary adjustments surprisingly well.

5. Within a few months, 93 owners were again settled in homes which they owned. Eighty-eight of these had purchased replacement homes, two retained their original homes and moved them, and three moved into dwellings they already had owned at the time of acquisition. Only five displaced owners became renters; two others made their homes with relatives.

6. As a group displaced owners upgraded their housing to an appreciable extent. Replacement homes were newer and more modern and were of higher value than original homes. As shown by physical traits, tax valuations and market values, very few persons moved to replacement homes which were inferior to original ones.

7. In acquiring superior housing, owners increased their mortgage indebtedness. Twenty-nine percent of original homes were mortgaged, whereas 52 percent of the owners who purchased replacement homes incurred mortgages. The average indebtedness per mortgage for

original homes was about \$3,000 as compared to about \$7,200 per mortgage for replacement homes. The average equity in homes remained very much the same.

8. The funds received by owners from state payments and sales of retained improvements averaged \$8,523. Immediate dispositions of funds amounted to \$9,297, much of which consisted of downpayments for replacement homes. Some owners added to savings and some spent savings; on balance, savings may have decreased but it is unlikely that direct effects of displacement accounted for this.

9. A test based on tax valuations of homes indicated that owners as a group were adequately compensated for their real estate.

10. Only two owners retained their original homes and occupied them. Five additional owners sold the improvements they had retained. The major obstacle to the retention of homes was the problem of finding suitable lots. Also many dwellings were quite old and were deemed unfit for moving. Undoubtedly many owners lacked the knowledge and the energy required to retain, move, and renovate houses.

11. As has been stated, at least 90 percent of the owners displaced remained in the Dallas area. Fifty-eight of the 100 persons interviewed relocated within about a mile of their former homes. All except 10 of the 100 resettled in the same general part of the city.

12. Twenty-nine owners believed their housing was not as good as before displacement, and 12 thought their housing was about the same. Fifty-nine persons reported that they had upgraded their housing. These opinions supported other study findings. In contrast, 62 of 97 owners who had opinions stated that displacement had adversely affected their financial positions. Only 13 believed that their financial affairs had been improved. Despite some understandable bitterness in regard to displacement, the survey results indicate that as a group owners fared very well in adjusting to resettlement problems. There were very few hardship cases from the standpoint of economic loss.

Part II-Characteristics of Owners

Part I of this report discussed the purposes of the study, the nature of the study area, the drawing of the sample of owners, and the major findings of the survey. Thus the reader who is interested only in the highlights of the study will have little necessity to read further. Other readers whose interest includes the detail of findings and method will be helped by a brief review of the organization of the remainder of the report. This section tells something of the personal attributes of the displaced owners. Such information will give an appreciation of how well these persons (in relation to other groups) may have been prepared to cope with the problem of selecting replacement housing and of making various other adjustments. Part III analyzes what happened to the standards of housing of displaced resident-owners. It attempts to answer the question as to whether or not housing was upgraded. It also deals with places of relocation and whether or not home ownership was lost. Part IV deals with the over-all financial consequences to the displaced owners including adequacy of compensation, and Part V discusses effects on their social characteristics and also their attitudes toward the right-of-way acquisition experience.

Owners' Ages and Household Composition

As has been suggested, many of the displaced residents were elderly persons. In 1960, about two years after right-of-way acquisition began, the average age of the heads of households was 60 years. The range of ages was 39 to 85. Only seventeen of these persons were less than 50 years of age and thirty-five were over 65. Thus it is fairly evident that the home owners were in or nearing the "empty nest" family stage. This is shown more clearly in Table 1.

Twenty of the households had one person living alone; many of these were elderly widows. There were

TABLE 1. COMPOSITION OF HOUSEHOLDS AT THE TIME OF RIGHT-OF-WAY ACQUISITION
HOUSEHOLD COMPOSITION

Persons in Households	No. of Households	
Persons Alone	20	
Male	2	
Female	18	
Couples	50	
Man and wife	43	
Other (e.g., two sisters)	7	
Families with children	25	
Children 14 years and over (but under 21)	19	
Children under 14 years	2	
Children both under and over 14 years	4	
Other (e.g., widow and adult children)	5	
SIZE OF HOUSEHOLDS		
Number of Persons Per Household	No. of Households	Total No. of Persons
1	20	20
2	50	100
3	23	69
4	5	20
5	2	10
Totals	100	219

married couples in 43 households, and seven other homes were occupied by two persons each, these two being close relations. Only 25 of the households had children, and of these just six had children under 14 years of age. (There was a total of 15 children under 14 years of age in 100 households.) The 100 households consisted of a total of 219 persons.

Employment

In view of their ages, it is not surprising that a large proportion of the resident owners were not employed. Twenty-three were fully retired and an additional 12 were partially retired (Table 2). Sixty heads of households were employed. Five oldsters who were unemployed denied that they were retired and indicated that they would like to work although one was disabled.

Twenty-nine other members of the households in addition to the family heads were employed. However, 36 households had no persons with employment. A total of 89 of the 219 household members were considered to be employed.

Income and Net Worth

Table 3 summarizes the income and net worth positions of the displaced property owners as of 1960. Such information is extremely difficult to develop. Due to the broad class intervals used, however, it should yield a fair representation of the economic status of the displaced owners.

In regard to income, respondents were asked to consider all sources and to estimate a net income figure. The incomes of all persons in the household were to be included. Twenty-four households reportedly had an income of less than \$2,000 per year (Table 3). Fifty-two households received \$4,000 or more per year. Seven owners would not make estimates. In each of these cases, the likelihood was that income was at least \$4,000 annually. The average annual income of the households reporting was \$4,422.

TABLE 2. EMPLOYMENT OF MEMBERS OF HOUSEHOLDS IN 1960
EMPLOYMENT STATUS OF HEADS OF HOUSEHOLDS

Employment Status	No. of Households
Retired	23
Partially retired	12
Employed	52
Self-employed	8
Unemployed	5

EMPLOYMENT OF ALL MEMBERS OF HOUSEHOLDS

Number of Persons Employed	No. of Households	Total No. of Persons Employed
0	36	0
1	43	43
2	17	34
3	4	12
Totals	100	89

TABLE 3. INCOME AND NET WORTH OF
DISPLACED OWNERS
TOTAL INCOME OF HOUSEHOLD¹

Annual Income	No. of Households
Under \$2,000	24
\$2,000 to \$3,999	17
\$4,000 to \$5,999	21
\$6,000 and more	31
Not determined	7

NET WORTH OF OWNERS	
Net Worth Class	No. of Owners
Under \$5,000	12
\$5,000 to \$9,999	29
\$10,000 to \$19,999	31
Over \$20,000	25
Not determined	3

¹Average annual income for 93 households reporting = \$4,422.

To obtain an estimate of net worth, respondents were instructed to consider the value of all property owned by them. From this they were to subtract all debts. They then were asked to designate the broad net worth class, as shown in Table 3, in which they should be categorized. Three owners refused to answer the question. Only 25 estimated a net worth of more than \$20,000. When it is recalled that equities in owned dwellings appeared in most of the estimates (not all had purchased replacement housing by 1960), the reported figures on material wealth are rather low. It is true, however, that some owners had protection in the way of life and health insurance, the details of which were not determined.

Home Ownership Status

Whereas the 100 displaced residents studied have been classed as owners, they actually varied to some extent in the nature and degree of their ownerships. For example, 29 owners had a mortgage indebtedness on their homes at the time of right-of-way acquisition. The amount of the unpaid balance ranged from \$651 to \$7,147 and the average for the 29 cases was \$3,061.

At least one owner had only a life estate in his property and in a number of instances children of the owners had attained unrecorded equities in their parents' homes through payments or debts or loans.

In most cases, however, the equities of the home owners were quite secure. The smallest equity, percentage-wise, among owners with mortgaged homes was 40 percent of the appraised value of the property. Most owed much less than 50 percent of the value of their homes.

These data and similar information are presented in Table 4. It is of some interest that the 100 acquisitions involved property payments of \$925,855 by the State. As will be discussed in more detail in later sections, all of this was not received by owners, however.

Some owners had occupied their homes for as long as 44 years. The average length of ownership was 12.4 years. Half of the residents had owned their homes for 14 or more years, and 32 owners had held their property for over 20 years.

In summary, the 100 displaced owner-occupants had firm ties to their homes. As a group, due to their age, income status, net worth, and attachment to their homes, they would not be expected to make the adjustments of resettlement as well as younger and more flexible persons.

TABLE 4. STATUS OF OWNERSHIP OF HOMES AT
THE TIME OF RIGHT OF WAY ACQUISITION

Number of ownerships	100
Number of mortgaged homes	29
Range of mortgage balances	\$651 to \$7,147
Average unpaid balance on 29 mortgages	\$3,061
Smallest percentage equity ¹	40%
Smallest dollar equity ²	\$2,601
Range of length of ownership	3 to 44 years
Average length of ownership	12.4 years
Median of length of ownership	14 years

¹One of these was a life estate; several others were joint-ownerships with children.

²Based on appraised value less unpaid balance of mortgage.

Part III - Original Compared with Replacement Housing

The major question to be discussed in this section is whether or not displaced owners attained a higher standard of housing than they lost to right of way. Many right-of-way agents have expressed the belief that such upgrading of housing generally occurs. If the oldsters displaced by IH 20 acquired superior housing, such a finding would be quite meaningful in that this group was not in a particularly advantageous position to take such a step.

The comparisons that are to be made in seeking an answer deal both with physical and value attributes of original and replacement housing. Before these are presented, however, it is important that the nature of the original sample of owners be reconsidered. Ninety percent of the 100 persons drawn in the first sample relocated within the Dallas area. (Of the remaining 10 percent, four had moved from Dallas, two were deceased, and four could not be located.) Since there were 217 owner-occupants in the total population (in the study area), probably 195 or 90 percent resettled in the Dallas area. Of these, 100 or slightly over 50 percent were interviewed. Those who made up the sample were chosen in a random manner and it is reasonable to assume that they represent those displaced owners who continued to live in the Dallas area.

Physical Attributes

Ninety-three of the displaced owners had re-attained home ownership by the time of the survey in December, 1960. Eighty-eight owners had purchased homes, three had moved into housing that they had owned prior to right-of-way acquisition, and two had retained their original homes which they had moved. Only seven owners surrendered home ownership; five became renters while two others made their homes with relatives. Table 5 presents a number of meaningful comparisons between original and replacement housing. A number of other items might be compared, of course, but the evidence is strong that replacement homes were superior for the owners as a group.

Perhaps the most significant changes observed had to do with the type of construction and age of homes. Fifty-one percent of replacement homes were masonry (usually veneer) compared to only 16 percent of former homes. Twelve replacement homes were new, and far fewer than originals were over 20 years of age. The average age of replacement homes was 19 years and for original homes 29 years.

There were only minor differences in size of homes, number of rooms and heated area. On the average, replacement homes were slightly smaller but had a larger number of baths. The upgrading of heating (and cooling) equipment showed replacement homes to be more modern as did the improvement in garage facilities. Items not presented which indicated superiority of replacement housing are conditions of walls, floors and equipment, and the more modern arrangements of rooms.

There can be no doubt that buyers of replacement housing sought equal and superior neighborhoods. Streets were generally newer and better in the neighbor-

hoods where displaced persons settled and, of course, the surrounding improvements were newer. Nothing was lost in the way of facilities and transportation, although certain inconveniences were experienced as is discussed later.

Tax Valuations

Other measures that may be used to compare original and replacement homes are their tax valuations. As has been discussed in Part I, the City of Dallas apparently assessed property values in the study area and in other parts of the City in a similar manner. Thus the comparisons shown in Table 6 should constitute a valid check of the previous evidence that displaced owners sought better homes than they surrendered to right of way.

The average value for tax purposes of 88 original homes was \$2,801. The owners of these homes purchased replacement property with an average tax valuation of \$4,416. Seventy-four owners bought homes with assessed values higher than those of their original homes and 14 bought properties with lower tax valuations.

Only 88 cases were used in this analysis because tax data for 12 replacement homes either were not compara-

TABLE 5. PHYSICAL CHARACTERISTICS OF ORIGINAL AND REPLACEMENT HOMES

Item	Original Homes	Replacement Homes
Type of improvements (living units):		
Single family dwellings	78	92
Duplexes	17	7
Other apartments	5	1
Type of construction:		
Brick veneer and other masonry	16	51
Frame with wood siding	76	41
Frame with asbestos or other siding	8	8
Age of improvements		
New	0	12
1-5 years	3	9
6-10 years	12	19
11-20 years	10	13
Over 20 years	73	46
No report	2	1
Average age, years	29	19
Heated area (square feet):		
Average	1277	1264
Range	574 to 2404	184 ¹ to 3000
Median	1268	1200
Number of rooms:		
Average total rooms	5.54	5.55
Average number of bedrooms	2.44	2.33
Average number of bathrooms	1.18	1.58
Type of heating:		
Central heating and cooling	2	3
Central heating only	2	30
Floor or wall furnaces	5	24
Gas jets	91	43
Type of garage or carport:		
Double attached	1	17
Single attached	12	18
Double detached	21	39
Single detached	60	21
No garage or carport	6	5

¹One of the original owners rented a one-room efficiency apartment.

Part IV - Financial Effects of Displacement

It has been shown that displaced owners generally resettled in homes that were superior to homes acquired for right of way. This upgrading of housing was attained, however, through the payment of purchase prices which were higher than the compensation received for original homes. Obviously, the owners either used savings or incurred debts in order to accomplish a better standard of housing. This section deals with this financial aspect of the problem and also with certain non-compensable losses.

Unfortunately, a complete accounting of the financial effects of displacement was hardly practicable. A more concerted effort in this regard would have required detailed case studies beginning before and continuing through the displacement experience. What has been developed, although limited, perhaps will add something to the understanding of financial effects.

Compensation and Value of Retentions

Table 8 shows the net payments received by 100 displaced owners. These averaged \$8,565 and ranged from \$1,135 to \$17,006 per owner. The deduction of mortgage indebtedness and back taxes reduced the compensation to owners. The retention of certain improvements by owners at their option also reduced the cash they received. These were relatively small sums, however, averaging only \$159 per person. Since improvements were retained at only a fraction of their appraised value, some owners were able to increase their compensation through these retentions. Five owners had sold retentions for a total of \$7,285. Several others had moved retained improvements (usually not homes) to other owned properties. Two retained houses and moved and occupied them. How well the group fared as a whole was not determined, however.

Changes in Equities and Indebtedness

It will be recalled that 90 persons purchased replacement homes but that prices paid were determined for only 84 cases. Similarly, the amount of equity and indebtedness in regard to replacement housing was ascertained only for these 84 owners. Table 9 shows this information and also the equity positions regarding the 84 original homes. Twenty-seven (32 percent) of these 84 owners had mortgaged homes at the time of right-of-

TABLE 8. COMPENSATION RECEIVED AND VALUE OF RETENTIONS

Net cash payments to owners: ¹	
Total	\$856,497
Average	8,565
Range	1,135 to 17,006
Cost to owners of improvements retained: ²	
Total	\$ 15,851
Average	159
Range	1 to 1,180

¹Includes sums deposited with court in 7 cases for which final awards were pending.

²These are items retained voluntarily by owners and do not include land and improvements in remainder parcels which the state would not have purchased.

TABLE 9. EQUITIES AND INDEBTEDNESS FOR ORIGINAL AND REPLACEMENT HOMES¹

84 Original homes:	
Average appraised value	\$ 9,695
Average indebtedness ²	980
Average equity	8,715
Average compensation received ³	8,487
Number of mortgaged homes	27
Average term of mortgage (27 homes), years	5.4
84 Replacement homes:	
Average purchase price	\$12,175
Average indebtedness ⁴	3,825
Average equity	8,350
Number of mortgaged homes	44
Average term of mortgage (44 homes), years	12.0
Number of owners who:	
Increased equity dollar-wise	52
Decreased equity dollar-wise	31
Increased mortgage indebtedness	20
Had mortgage on original but not on replacement	7
Had mortgage on replacement but not on original	24
Had mortgage on neither original nor replacement	33

¹Data were obtained for only 84 replacement homes. Comparisons are between these and the original homes of the 84 owners. See Footnote 1, Table 7.

²The average indebtedness for the 27 owners with mortgages was \$3,049.

³Excludes values of retentions and remainders from partial takings.

⁴The average indebtedness for the 44 owners having mortgages was \$7,215.

way acquisition. (Twenty-nine percent of the original 100 owners had home mortgages.) In obtaining replacement housing, 44 of the owners (52 percent) incurred mortgage indebtedness.

The average of indebtedness was \$3,825 per replacement home compared to \$980 per home originally, but the average equities remained very nearly the same (\$8,350 versus \$8,715, respectively). Thus the 84 owners as a group used borrowed money secured by mortgage in order to upgrade their housing from an average value of \$9,695 to \$12,175.

As might be expected, however, the owners did not all act in a similar manner. Again as shown in Table 9, there were 52 owners who increased their equities in homes while the equities of 31 decreased. Of the 27 owners who had mortgages on their original homes, 20 had larger mortgages on replacements and 7 did not incur new mortgages. Twenty-four owners not having mortgaged homes previously became indebted in purchasing replacement homes. Only 33 owners had mortgages on neither original nor replacement homes.

Disposition of Funds Received from the State

A complete accounting of how compensation for original homes was spent or otherwise used was not obtained. Table 10, however, gives a reasonably accurate indication of the disposition of funds. It should be emphasized that the expenses reported for items such as purchase of chattels were considered by displaced owners to be a result of moving. Included in the table, however, are gifts to relatives and other expenditures not necessary for resettlement.

TABLE 10. DISPOSITION OF FUNDS RECEIVED FROM THE STATE AND FROM SALES OF RETENTIONS, 100 DISPLACED OWNERS

Funds received, averages:	
Compensation from the state	\$8,415
Sales of retentions including remainders ¹	108
All funds received	8,523
Disposition of funds, averages:	
Downpayment on replacement homes ²	\$7,515
Added to savings ³	572
Purchase of chattels	344
Moving cost of furniture	48
Repair and additions to replacement housing ⁴	472
Other items of expense ⁵	346
All expenditures	9,297
Expenditures in excess of receipts ⁶	774

¹One remainder was sold, to the owner's advantage. The sum is not stated in order that the person will remain unidentified.

²This figure was obtained by extending the average for 84 purchasers to all purchasers and taking nonpurchaser's downpayment as zero.

³Nineteen persons reported additions to savings; the average per person who saved was \$3,010.

⁴These sums were added to purchase prices to obtain average prices paid as reported in prior tables.

⁵Include a few legal and appraisal fees, payment of debts, costs of moving retained improvements, reinvestment, etc.

⁶These consist of prior savings (including interim earnings) and new debts.

The purpose of the presentation is not to determine whether or not compensation covered all necessary expenses related to moving (or all other dispositions of funds); compensation as defined by law is not supposed to accomplish this. The purpose of the analysis was to check the spending patterns of displaced owners. It had been observed by interviewers that owners believed that they spent more than they received. Without regard to necessity, this was apparently true; the average total disposition was greater than the average sum received by \$774 (Table 10). (Of this, however, \$572 was added to savings.)

By far the most important item of expenditure was the downpayment on replacement housing. In addition to this \$7,515 per owner, another \$472 was spent on home repairs and renovations. (This latter figure includes the costs of moving two retained homes.)

For all displaced owners, the reported additions to savings averaged \$572 per owner. Such savings, however, were accomplished by only 19 persons who had \$3,010 net savings on the average. A number of other owners responded that they reduced their savings in order to accomplish their resettlement. There were 45 such owners but, unfortunately, the amounts involved were not determined.

Moving costs of furnishings were reported as an average of \$48. (All moving of these persons was done within the Dallas area.) Purchases of chattels accounted for \$344 per owner and miscellaneous other expenditures were \$346 per person.

Effects for Persons Who Did Not Regain Home Ownership

It may be recalled that of the 100 owners, 5 became renters and 2 moved to the homes of relatives. A brief review of the financial effects of displacement on these persons is in order here.

One former owner who became a renter had held only a life estate in his home. This person believed the reversioner should have the compensation paid by the State and thus did not attempt to purchase a replacement home. Another renter had distributed the sum received to his children and did not wish to purchase. Three renters preferred to put their funds into savings and doubted that they would buy replacement homes; the two persons who made their homes with relatives acted similarly.

From a financial standpoint, at least one former owner held a much deteriorated position. For the others, it is difficult to generalize. While they undoubtedly suffered from having to surrender their homes, it cannot be concluded that they were in either a better or worse position financially because of displacement.

Adequacy of Compensation for Real Estate - - A Test

Although an analysis of the adequacy of compensation was not anticipated in the study plans, data for making at least a partial test of adequacy were developed. These data consist of the tax valuations of original and replacement homes. If tax valuations measure basic value characteristics for all residential properties and if there is no bias among property types, then they obviously comprise a common yardstick or standard of value. As such they can be used to control comparisons of the State's appraised market values of original homes and the prices owners paid for replacement homes.

The question to be investigated is whether or not owners were able to purchase comparable replacement housing with the prices received. If original homes and replacement homes were identical—obviously not true—then no yardstick or control would be needed; market values could simply be compared. As has been seen, however, owners as a group acquired superior replacement housing as evidenced by physical attributes (and market values and tax valuations). (See Tables 5, 6, and 7.)

It was the relationship between average tax valuations and average market value indicators which suggested a test of adequacy. From Tables 6 and 7, it is evident that the ratios of tax valuations and market values were different for original and replacement properties, the ratio for the latter being the larger. These data, however, were based on tax valuations for 88 homes and market values for 84 homes. In testing the adequacy of compensation, only 79 cases are suitable for use. These cases provided both tax valuations and market values for both original and replacement homes. All properties involved were located in the City of Dallas.

Table 11 presents the elements of the test of adequacy. Again it is shown that replacement homes had the higher tax and market values. Differences between compared means are highly significant as indicated by standard errors. For 79 original homes, the average ratio of tax and appraised market values was 0.2880; for replacement homes the ratio was 0.3715. The standard error shows the difference to be highly significant (at the one percent level.) According to these ratios, owners as a group received from the state one dollar for each 28.80 cents of the tax valuation of their homes; they paid one dollar for each 37.15 cents of the tax

TABLE 11. A TEST OF THE ADEQUACY OF COMPENSATION FOR REAL ESTATE, 79 CASES¹

Tax valuations:	
Average for original homes	\$2,797
Average for replacement homes	4,499
Difference between averages	1,702
Standard error of the difference	260
Market values:	
Average appraised value for original homes	\$ 9,568
Average price paid for replacement homes	12,019
Difference between indicators of market value	2,415
Standard error of the difference	519
Ratios of tax valuations to market values:	
Average for original homes	0.2880
Average for replacement homes	0.3715
Difference between the ratios	0.0835
Standard error of the difference	0.0113
Correlation coefficients:	
Market value and tax valuation, original homes	0.8939
Market value and tax valuation, replacement homes	0.8409
Regression coefficients: ²	
Market value and tax valuation, original homes	\$2.2651
Market value and tax valuation, replacement homes	1.7715
F-test value ³	4.89

¹For an explanation of statistical procedures, see Snedecor, George W., *Statistical Methods*. 5th Edition. Iowa State College Press, Ames, Iowa, 1959.

²The intercept for original homes was \$3,232 and for replacement homes \$4,050.

³The hypothesis that the regression coefficients are equal was rejected. The F value or variance ratio is significant at the 1 percent level. The conclusion is that the difference between the regression lines is "real" in that it is too great to be accounted for by sampling.

valuation of replacement homes. The test may be continued, however, and later there are reservations to be stated.

Correlation coefficients between tax and market values are presented in Table 11. By most standards, they are surprisingly high. They indicate that a very large amount of the variation in market values is reflected by tax valuations. The regression coefficients continue to support the hypothesis that appraised values of original homes were high in relation to replacement prices. The complete regression equations were as follows:

$$\text{Appraised value} = 3232 + 2.2651 (\text{tax valuation}).$$

$$\text{Prices paid} = 4050 + 1.7715 (\text{tax valuation}).$$

Since the intercept or constant for replacement prices is the larger, a plotted regression line for replacement homes would lie above that for original homes. The lines converge as the values rise, but within the range of the data they remain well apart. The F-test value shows that the two regressions are significantly different; that is, are not simply measures of the same single regression.

It has been cautioned that the test of adequacy is partial or tentative and that there are definite reservations in regard to findings. It will be recalled that original and replacement homes were quite different physically (Table 5). Replacement homes were newer, more modern, and more frequently of brick veneer construction. It is possible that the better the quality of homes, the higher the ratio between tax valuation and market value. In other words, tax assessors may unknowingly or inadvertently evaluate newer homes relatively higher, in relation to market value, than older homes.

Since the question of adequacy of compensation has been raised, it would be desirable that tests for these contingencies be at hand. Actually only one quantitative factor which could be helpful in this regard was developed. This was the age of improvements; the relationship between this factor and the assessment ratios was very small and it was found to be insignificant when introduced into regression analyses.

The conclusion drawn from the findings should be quite conservative because of the limitations of the test used. It is suggested that the evidence is strong that owners were adequately compensated for their real estate. Even though the evidence gives support to a conclusion that they were over-compensated, such an inference should be a tentative or hesitant one. The identification and quantification of additional relevant variables and the use of a larger number of observations to permit more thorough statistical treatments of such variables are required to test adequacy of compensation satisfactorily.

As a further caution, if average "over-compensation" occurred, such was not necessarily because of too-high appraised values; it could have happened because of a depressed housing market at the time replacements were acquired. Of course, both of these situations might have prevailed to explain the difference between ratios of tax and market values for original and replacement homes.

Reasons Houses Were Not Retained

As a general practice in Texas, owners are given an opportunity to retain all or certain of their improvements even when the whole property is within right-of-way lines. The costs to owners of such improvements approximate salvage values.

Of the 100 owners interviewed, only two retained their houses and used them for their homes. One of these relocated his dwelling on land he had remaining after acquisition; the other moved his home several blocks to a lot he had purchased. Five other owners kept their houses but sold them (at a profit) prior to their removal from right of way; these persons reported that they could not find suitable sites for the homes.

Owners who did not choose to retain houses were asked why they made such a decision. Their reasons are summarized as follows:

No suitable lot in area	28
House could not be moved	16
Wanted another house	12
Not physically able	5
Too much trouble	4
Other (no knowledge, etc.)	8

The problem of locating a suitable lot is an interesting one. Many of the owners found that deed and zoning restrictions greatly limited the number of lots that might be used for their old houses. Also there were very few vacant lots in the immediate area, and lot prices were quite high. (Some owners say prices became higher because displaced owners and house movers increased demand for them.) One owner reported that he found a lot suitable in all respects except that his house arrangement was not compatible; if the floor plan had been exactly reversed, the lot would have been quite acceptable.

Although the reason "too much trouble" was given as the major objection to retention of dwellings by only

four owners, it was actually implied by many others. Also, there was a definite lack of knowledge and ability among the oldsters in regard to all of the steps involved in having a house moved and renovated. There was a definite fear that they would become committed to a plan that "would go wrong."

Detailed study was not made of the final disposition of improvements. However, it was learned that a large proportion of the dwellings were moved intact by persons other than displaced owners. With few exceptions these houses were placed on unrestricted sites 10 miles or more from the study area.

Part V - Other Consequences of Displacement

This section deals with the question of where owners resettled, with some of the changes they experienced and with some of their attitudes. Many of the responses, of course, necessitated recall by respondents; such recall may have been faulty in some instances. Nevertheless, these answers and the various opinions expressed help to explain how owners reacted to displacement and something of their reasons.

Where Owners Resettled

Of the original sample of 100 owners, two were deceased, four had relocated outside the Dallas area and the addresses of four were not determined. Generalizing from the sample, it may be concluded that at least 90 percent of the displaced owners remained within the Dallas area. Since there were 217 owner-occupants in the population (in the study area), probably 195 (or 90 percent) relocated in the Dallas area. One hundred or slightly more than 50 percent of these 195 were interviewed. Since these respondents were chosen in a random manner (through alternate draws in some instances), it is reasonable to assume that they are representative of owners who relocated in Dallas.

Sixteen of the 100 owners interviewed had moved within a few blocks of their former homes. Forty-two others had resettled within a mile. The most surprising finding was that 90 owners relocated within the east central part of the Dallas area. These patterns are clearly evident in Figure 1.

None of the owners moved appreciably closer to downtown Dallas. Some moved to more suburban-type areas, but most preferred neighborhoods and general locations not greatly different from those in which they had resided prior to displacement.

How Replacement Homes Were Selected

Owners were asked several questions regarding the selection of displacement homes. Many were uncertain as to their reasons, but a number of meaningful responses were obtained. These are summarized in Table 12. The consideration in the selection of housing most often named was type and character of neighborhood. Perhaps price was not named more often because owners felt that plenty of houses were being offered near prices they wished to pay and selection was made within such a limitation. As stated in many instances, there was a general attempt to stay somewhere in east Dallas because of friends, shopping habits, employment, and familiarity with the environment.

Homes were acquired by the State during 1959 and 1960 and, following acquisition, owners usually had 90 to 120 days to move. There had been knowledge of the road improvement for several years, however. Yet 17 owners waited until displacement was imminent before seriously seeking other housing. This, of course, was understandable; most could not buy replacement homes until they received their compensation from the State. A large number of owners who searched for more than two months for replacement housing were only surveying the market in preparation for the time when they could make purchases.

It is of some interest that 47 gave serious consideration to only one house, this being the one they purchased (Table 12). For these persons the problem of finding suitable housing may have been easily handled. For 56 others, selection of alternate housing was a more rigorous experience. In fact, some reported they finally bought just to end the ordeal.

Ninety-one owners made only one move after displacement. Of the nine who made two or more moves, two were persons who rented for a short period and then purchased homes. The other persons were renters who were dissatisfied with earlier arrangements.

Attitudes Toward Original and Replacement Homes

Only one question was asked of owners concerning their attitude toward replacement in relation to original homes. They were asked to compare the two. A number of owners were quite bitter and gave responses in terms of sentimental and amenity values. Omitting this type of answer, the judgments of the owners were as follows:

Replacement homes were:	
Better (quality) and larger	13
Better (quality) but smaller	5
Better for other reasons (e.g., location)	41
Smaller and worse (quality)	10
Worse for other reasons (e.g., location)	19
About the same	12

Twenty-nine owners believed their replacement housing was inferior to original housing, but 59 owners believed the opposite. These opinions are not too different

TABLE 12. SELECTION OF REPLACEMENT HOMES

	Number of Responses
Major consideration in the selection of a home:	
Neighborhood characteristics	31
Price range	12
Size and style of house	8
All of these reasons	29
Other (to be near relatives, friends, shopping facilities)	16
No response	4
Period spent looking for replacement housing:	
Less than 2 months	17
2 to 6 months	39
Over 6 months	30
No response	14
Number of houses seriously considered:	
One	47
Two	17
Three	8
Four or more	21
Did not buy replacement	7
Number of moves following displacement:	
Moved directly to replacement home	91
Two moves	7
Three moves	2

in effect from the results reported earlier which indicate upgrading of housing. It was to be expected that owners' opinions would constitute a more critical measure of replacement homes than would comparisons of physical and value characteristics.

Possible Explanations for Upgrading of Housing

There are several possible explanations for the fact that home owners as a group acquired better housing than they had possessed previously. The interviews with these persons yielded very few positive answers in this regard. The following discussion, therefore, is based on the attitudes and casual remarks of owners cast within a somewhat logical framework of reasons.

Homes already were for sale in a few cases. In one instance an owner had tried to trade or sell and was unsuccessful for several months. He wanted to buy a better home. A few other owners seemed to have been willing to sell although they were not actively marketing their homes.

Flexibility was gained by owners. They were enabled (or forced) to consider what their latent preferences might be. They had wished for better things perhaps but had lacked initiative (and opportunity) to make a change of homes. The compensation paid them was used as a lever to gain equities in better homes.

Changes in tastes and preferences may have occurred during the period of searching for new homes. Observations of better housing may have generated additional and more expensive wants.

Attempts to overcome disappointments or, in other words, to compensate for losses of familiar and cherished dwellings and surroundings may well have been the major factor leading to selection of better housing. Unable to find exact replicas of original homes and home sites and unwilling perhaps to recognize the shortcomings of their former housing, owners turned to newer and more modern replacements. One owner, for example, bought a new home rather than an old one because he preferred not to live "in someone else's dirt." But more than this, the only way acknowledged by some owners to offset their loss of emotional attachments was to acquire something different in housing.

Failure to locate similar housing at comparable prices may have occurred for a few owners, but evidence presented elsewhere in this report seems to indicate that adequate payments were received for original homes. Furthermore, an urban complex as large as Dallas presents an ample variety of dwellings.

These possible explanations are admittedly conjectural to a great extent. Yet, conversations with displaced

owners contributed to their formulation, and alternate reasons for upgrading of housing were not ascertained.

Opinions on Financial Effects of Displacement

Respondents were given an opportunity to express opinions and attitudes regarding their displacement experience. Specifically, they were asked about effects upon employment and income and social activities. Finally, they were asked how the displacement had influenced their financial positions.

Only two owners stated that right of way acquisition directly affected their employment, their places of employment having been taken. Twenty-seven relocated farther from their places of work, and surprisingly only three moved closer. Changes in transportation modes to and from work were quite negligible; two persons began to travel to work by automobile rather than by bus.

Changes in income were reported by only 20 owners. Three reported increases arising from increased rentals collected on apartments. Seventeen reported losses, most of which were because of decreased rentals. Two reported income losses due to less remunerative employment.

A very large number of changes in social activities were named by respondents. Many of these had to do with the separation from friends and neighbors. Some persons changed their church affiliations. Most answers regarding social activities were expected and were actually dictated by the pattern of relocation shown in Figure 1.

Perhaps the best single indicator of over-all feelings toward displacement is the opinions regarding the effects upon financial positions. These responses were:

Financial position better	13
Financial position worse	62
No change	22
No response	3

Many of the 62 owners who reported a deterioration in their financial positions were still quite bitter at having been displaced by right of way. This is not to doubt their conclusions regarding their financial affairs. It is but to emphasize that the experience of losing a home to right of way is seldom a pleasant one. The adjustments and hardships involved may be very serious indeed. Much dissension sprang from the noncompensable losses suffered. Owners understood that they could be paid only for realty acquired or damaged but such understanding did not offset their feelings of injustice. Some persons felt that they had been undercompensated for their realty. These attitudes may have arisen, partially at least, because of an inability to distinguish between compensable and noncompensable losses.

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