

## **A TALE OF TWO HOMES: A STUDY OF HOUSING CONDITIONS OF MIGRANT FARMWORKERS**

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### **Abstract**

*This study compares home-base and on-the-job housing for a representative sample of migrant farmworkers in Wayne County, New York. The results indicate that substantial proportions of migrant farmworkers live in substandard housing in the home community (25 percent) and at camp (70 percent). The extraordinarily high degree of substandard housing at camp is due more to the lack of major plumbing facilities for exclusive, private use than to structural defects. Because such a high proportion of the migrant stream in Wayne County, New York is black (95 percent), discrimination may be a factor in slowing progress. The logistic regression model indicates that variation in respondents' comparative evaluation between home-base and on-the-job housing can be largely explained by such independent variables as marital status, housing space, physical housing conditions and presence of home-community ties.*

### **Introduction**

One of the most pressing problems confronting migrant farmworkers and their employers is the lack of standard housing. Unlike the general population, the migrant needs adequate housing at both the home-base and on the job (Brann, 1967). The latter type of housing, usually provided by the employer, represents a long-term capital investment and becomes part of the farm operation. Most on-the-job housing is on the farms where the migrants work; some is in off-farm camps sponsored by growers associations, housing authorities, and processing companies. Some migrant farmworkers rent their own housing in nearby areas. Housing units in the migrant camps are commonly one-room arrangements with central washing and toilet facilities in separate buildings.

The quality of on-the-job housing varies greatly from state to state. All major reports (U.S. Senate, 1969; Miller, 1972; New York State Migrant Education, 1989) indicate that migrant farmworkers usually live in dilapidated structures that are cold and wet in winter and excessively hot in summer. Insufficient ventilation, unsanitary privies and bath facilities, inadequate storage, and unhealthful methods of garbage disposal are often the prevailing conditions. In an effort to guarantee minimum standards in on-the-job housing, many states have established mandatory regulations applicable to migrant camps, but the housing standards vary considerably from state to state. Penalties for noncompliance with the regulations also vary greatly (Brann, 1967).

Employers' plans for housing improvement and new construction have been studied by some researchers (LeRoy, Sharp, and Larson, 1960; Conklin and McElroy, 1966). Several factors have been found to influence employers' decisions on housing for their migrant farmworkers: availability and terms of credit, the outlook for crops and prices, possible changes in crops grown, and cropping methods and their effects on labor needs.

Historically, housing in rural areas has been inferior to urban housing, and home-base housing of migrant farmworkers ranks the poorest of all housing for the rural population (Malotky, 1963). Research on housing conditions of migrant farmworkers is somewhat limited, while comparative studies of migrant housing at the home-base and

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on the job are even scarcer. The present study compares home-base and on-the job housing for a representative sample of migrant farmworkers in Wayne County, New York. The analysis will focus not only on housing conditions and neighborhood characteristics but also on migrants' subjective comparisons of satisfaction between home-base and on-the-job housing. Both objective and subjective comparisons of housing situations between migrant camps and home communities will provide a clear understanding of overall housing problems of migrant farmworkers.

### **Methodology**

This study is based on data obtained from the New York Migrant Health Interview Survey conducted in Wayne County, New York, in the summer of 1982. In order to obtain a representative sample of migrant farmworkers from which to collect health statistics and housing information, a special sampling procedure was designed for this survey. The first step was to compile a comprehensive list of addresses for all migrant camps and other migrant housing units in Wayne County. All units on the list were stratified according to the size of maximum capacity. The total number of migrants that could be accommodated in each size category was known. A representative sample of 218 migrants was randomly drawn through a three-stage sampling procedure from all size categories (the sample size was determined by budget constraints). Special efforts were made on October 21, 1982 to find out from owners of migrant camps and other housing units how many migrant workers were actually living in the units. On the assumption that the sampled migrants had characteristics similar to those of migrants enumerated on October 21, the interviewed migrants can be considered a representative sample of total migrant workers in Wayne County on that day. The detailed sampling procedure has been described elsewhere (Chi, 1985).

During the 1982 migrant health survey, seven Cornell undergraduate students were hired as interviewers, and one graduate student as project coordinator. All the interviewers had some survey experience through coursework in field studies or in research methods. They were also trained in special sessions designed for the migrant project. The project coordinator assigned sampled camps or housing units to interviewers and supervised their daily interview activities. Before the actual interviewing began, the coordinator sent letters to local growers, requesting permission for the interviewers to enter farms and to interview randomly selected migrants.

The survey instrument contained 113 items, covering the migrant farmworker's individual and family characteristics, his or her health habits and attitudes, health status, utilization of health services, home-community characteristics, and the physical environment of the current residence. Just before the scheduled interview period, a preliminary test of the questionnaire was conducted among 10 migrant farmworkers in the county, and appropriate revisions were made.

Of the 218 migrant farmworkers in our sample, 167 were born in the United States; Hence, over 75 percent of the total sample were native-born Americans. Of the remaining 51 respondents, 44 percent reported that they were naturalized American citizens. Only 29 were either unnaturalized permanent residents of the United States or illegal aliens. Over 95 percent were black, 77 percent were male, while the mean age was 35 years. As might be expected, migrant farmworkers in this sample had a low socioeconomic status. Mean educational level was 9.5 years of schooling, and mean annual income was \$5,327 in 1981.

Although 218 migrant farmworkers were randomly selected for this study, not all respondents answered every question in the questionnaire, and some missing values may appear in the analysis. For accuracy, the valid number of cases was presented separately for different analyses. Moreover, since every respondent was asked to report housing conditions at the job site as well as at the home-base, the total number of responses will be doubled when housing conditions between home communities and migrant camps are compared. These data are shown in Table 1.

Table 1. Comparisons in percent of housing conditions between home communities and migrant camp.

Housing conditions	Combined Responses	Home	Camp
<b>Physical conditions</b>			
Major plumbing facilities		$(\chi^2=128.42, p<.001)$	
No	40.93	14.05	67.50
Yes	59.07	85.95	32.50
N	434	216	218
Number of structural defects		$(\chi^2=3.95, \text{not significant})$	
None	84.01	86.32	81.69
1	11.40	8.82	13.97
2	2.95	2.61	3.29
3	1.65	2.25	1.05
N	436	218	218
Substandard housing		$(\chi^2=89.88, p<.001)$	
No	52.26	74.91	29.61
Yes	47.74	25.09	70.39
N	436	218	218
<b>Housing space</b>			
Number of rooms		$(\chi^2=154.41, p<.001)$	
1	11.25	4.01	18.54
2	14.59	4.25	25.01
3	22.13	14.47	29.85
4	19.14	18.15	20.14
5 or more	32.90	59.12	6.46
N	430	216	214
Number of bedrooms		$(\chi^2=128.84, p<.001)$	
0	1.34	1.64	1.05
1	42.27	17.92	66.35
2	22.04	23.83	20.27
3	24.40	37.03	11.91
4 or more	9.95	19.58	.42
N	433	215	218
Non-bedroom used as bedroom		$(\chi^2=14.31, p<.001)$	
No	77.02	84.69	69.09
Yes	22.98	15.31	30.91
N	417	212	205
<b>Facilities and services</b>			
Garbage collection		$(\chi^2=107.31, p<.001)$	
City service	53.43	78.03	29.08
Private service	18.19	8.54	27.74
Dump	28.38	13.43	43.18
N	434	216	218
Sewage		$(\chi^2=130.44, p<.001)$	
City sewer	38.36	65.33	11.93
Other	61.64	34.67	72.16
N	432	214	218
Source of water		$(\chi^2=97.45, p<.001)$	
City system	57.86	81.38	34.49
Private well/spring	42.14	18.62	65.51
N	432	216	216

## Results and Discussion

### ***Comparisons Between Home-Base and On-The-Job Housing***

**Physical conditions.** The adequacy of plumbing facilities was calculated by the presence of three features: (a) hot and cold running water, (b) flush toilet, and (c) shower and/or bath. In Wayne County, over two-thirds of migrant farmworkers lived in housing units with inadequate plumbing facilities or had to share facilities with others. In the home community a much smaller proportion (14 percent) lived in such inadequate housing. Nevertheless, over 80 percent of housing units in both home communities and migrant camps had no structural defects. The relatively low number of structural defects in camp housing in the sample may be due to the migrant camps in New York State generally being inspected bimonthly during the season of occupancy and at least once prior to occupancy. Any observed structural defects--which included such things as open cracks or holes in the interior walls or ceiling, holes in the floors, and leaking roofs--must be corrected before the employer is permitted to operate the camp. Using either structural defects or inadequate plumbing as a measure of substandard housing, over 70 percent of camp housing units and one-fourth of home-base housing were considered substandard. Less than eight percent of rural housing units in the United States were so classified in 1980 (Bureau of the Census, 1981).

**Housing space, facilities, and services.** In general, home-base housing had more space than camp housing. Similarly, it was less crowded and had a higher level of public services. Nearly 60 percent of home-base housing but only 6 percent of camp housing had more than five rooms. Almost two-thirds of the migrant farmworkers occupied one-bedroom housing in camp, while fewer than one-fifth of the respondents had only single-bedroom housing in the home community. Overcrowding in housing space, as illustrated by a measure of use-crowding, was apparent at both locations but was much worse in camp housing. While only 15 percent of migrant farmworkers used the living, dining, or kitchen area as bedroom space in home-base housing, over 30 percent of them did so in camp housing. Finally, much higher proportions of respondents in home-base housing units than in camp housing units used city or private garbage-collection services, were hooked up with city sewer systems, and were linked with city water supplies. Obviously, on-the-job housing conditions were much worse than home-base housing, but migrant housing conditions in the home community, at least for black migrant farmworkers, were observed to be worse than overall rural housing in general.

### ***Housing Variation in the Home Community***

Since migrant farmworkers are not homogeneous and housing conditions usually vary between owner-occupied and rental units, variation in housing conditions in the home community among migrant farmworkers were examined in terms of their tenure status. Four aspects of housing conditions--dwelling type, physical conditions, housing space, facilities and services--are presented in Table 2.

### ***Dwelling Type and Physical Conditions***

Since there were more renters than owners (158 vs. 80) in the sample, the home ownership rate of black migrant farmworkers in the home community was estimated to be 27.5 percent. This figure is not only lower than the national home ownership rate of 64.7 percent, but is also lower than the 45 percent rate of the black population in the United States (Bureau of the Census and HUD, 1983). These results suggest that seasonal mobility may combine with racial discrimination to severely limit the opportunity of owning a home for most black, migrant farmworkers.

Over three-fourths of home owners in the sample lived in single-family detached units, and about 90 percent of renters were divided between single-family (39 percent) and multifamily units (51 percent). Unlike housing for the general population, the quality of migrant housing at the home-base tended to be similar for both owners and renters. Although a significantly higher proportion of owners (94 percent) than renters (83 percent) lived in housing units equipped with all major plumbing facilities, over 85 percent

of both groups lived in housing with no structural defects. When these two measures were combined into a single measure of substandard housing, the difference between owners, 19 percent, and renters living in substandard units, 29 percent, was not significant. This similarity, in conjunction with the relatively high level of overall substandard housing at the home-base (26 percent), may reflect the continuing effects of uniform poverty and constant "uprootedness" among black, migrant farmworkers.

Table 2. Housing conditions in the home community by tenure status in percent.

Housing conditions	Total	Renter	Owner
<b>Type of housing structure</b> ( $\chi^2=41.65$ , $p<.001$ )			
Single-family detached	50.02	38.85	79.55
Walk-up apartment	14.66	19.63	1.54
Multi-family unit	23.20	31.23	1.98
Other	12.12	10.30	16.93
N	218	158	60
<b>Physical conditions</b>			
Major plumbing facilities ( $\chi^2=4.38$ , $p<.05$ )			
No	14.05	17.11	6.05
Yes	85.95	82.89	93.95
N	216	156	60
Number of structural defects ( $\chi^2=0.19$ , not significant)			
None	86.16	85.98	86.64
1	8.92	8.93	8.91
2	2.64	2.56	2.86
3	2.27	2.53	1.59
N	216	156	60
Standard housing ( $\chi^2=1.89$ , not significant)			
No	73.94	71.43	80.60
Yes	26.06	28.57	19.40
N	218	158	60
<b>Housing space</b>			
Number of rooms ( $\chi^2=40.81$ , $p<.001$ )			
1	4.21	5.92	0
2	6.07	8.56	0
3	18.69	25.66	1.61
4	19.16	21.05	14.52
5 or more	51.87	38.82	83.87
N	214	154	60
Number of bedrooms ( $\chi^2=41.10$ , $p<.001$ )			
0	.94	1.32	0
1	22.54	31.13	1.61
2	27.23	31.79	16.13
3	31.46	23.18	51.61
4 or more	17.84	12.58	30.65
N	213	153	60
Non-bedroom used as bedroom ( $\chi^2=0.12$ , not significant)			
No	84.70	85.23	83.35
Yes	15.30	14.77	16.65
N	212	157	60

Table 2--continued. Housing conditions in the home community by tenure status in percent.

Housing conditions	Total	Renter	Owner
<b>Facilities and services</b>			
Garbage collection		( $\chi^2=6.80$ , $p<.05$ )	
City service	78.03	79.75	73.55
Private service	8.53	5.55	16.34
Dump	13.43	14.70	10.11
N	217	157	60
Sewage		( $\chi^2=8.19$ , $p<.01$ )	
City sewer	63.34	71.14	50.40
Other	34.66	28.86	49.60
N	214	154	60
Source of water		( $\chi^2=0.03$ , not significant)	
City system	81.38	81.68	80.62
Private well or spring	18.62	18.32	19.38
N	216	156	60

### ***Housing Space, Facilities, and Services***

In terms of housing space, migrant owners tended to occupy housing with more rooms and bedrooms than their renter counterparts. For example, over 83 percent of migrant owners lived in homes with five or more rooms and over 30 percent of them in housing with four or more bedrooms. The corresponding figures for migrant renters were 39 percent and 13 percent, respectively. However, the difference between owners (17 percent) and renters (15 percent) in use-crowding, a condition in which living, dining, or kitchen area is used as bedroom space, was not significant.

So far as facilities and services are concerned, renters seemed to be somewhat better served than owners. Migrant renters were more likely than migrant owners to use city garbage-collection services, and rental units were much more likely than owner-occupied units to be hooked up with city sewer systems. The lack of sewer connections was the most serious inadequacy in owned housing at the home-base. It was also a deficiency for renters, 29 percent of whom lived in units without sewer hookups. These results may simply reflect the fact that a majority of rental units are centrally located within a city boundary. Similar proportions of both owners and renters of migrant home-base housing used city water systems (over 80 percent) or had private wells or springs (about 20 percent) for water supplies.

### ***Neighborhood***

Neighborhood conditions in the migrants' home communities were examined according to four distinct characteristics: (a) perceived socioeconomic status of neighbors, (b) adverse conditions observed in the neighborhood, (c) satisfaction with neighborhood services, and (d) overall satisfaction with the neighborhood. These comparisons of neighborhood conditions between migrant owners and renters are presented in Table 3.

Based on the perceived socioeconomic status of neighbors, migrant owners seemed to be more likely (87 percent) than renters to live in a segregated neighborhood in which most of their neighbors are black. A majority of migrant owners' neighbors were home owners and had a similar level of family income.

Respondents in our sample were asked whether the following seven conditions existed on streets in their neighborhoods: (a) street noise, (b) streets or roads continually in need of repair or with open ditches, (c) neighborhood crime, (d) trash, litter, or junk in the streets or on empty lots or on properties in the neighborhood, (e) boarded-up or

abandoned structures, (f) industries, business, or other nonresidential activities, and (g) smoke, gas, or other odors. A summated score of these seven items was used to construct an index of adverse conditions in the neighborhood. The difference in adverse conditions between migrant renters and owners was not significant; on average, 2.37 adverse neighborhood conditions existed in migrant farmworkers' home communities.

Table 3. Neighborhood characteristics in the home community by tenure status expressed in column percent or mean values.

Housing conditions	Total	Renter	Owner
<b>Perceived socioeconomic status of neighbors</b>			
Tenure status of most neighbors			( $\chi^2=40.64$ , $p<.001$ )
Renter	35.02	47.19	4.66
Owner	60.56	46.91	94.59
Mixed	4.42	5.89	0.59
N	209	149	60
Racial composition of most neighbors			( $\chi^2=7.12$ , $p<.05$ )
White	4.60	5.58	2.08
Black	74.79	69.85	87.49
Integrated	20.61	24.57	10.43
N	214	154	60
Family income of most neighbors			( $\chi^2=7.13$ , $p<.05$ )
Less than respondent's	5.55	5.75	4.88
Same	55.49	49.61	74.70
More than respondent's	38.96	44.64	20.42
N	150	115	35
<b>Index of adverse neighborhood conditions</b>			( $F=4.21$ , not significant)
Mean	2.37	2.54	2.03
N	206	155	51
<b>Degree of satisfaction with neighborhood services</b>			( $F=6.21$ , $p<.05$ )
Mean	3.93	4.19	3.50
N	204	153	51
<b>Overall rating of neighborhood in home community</b>			( $\chi^2=14.03$ , $p<.01$ )
Poor	4.44	6.12	0.0
Fair	29.80	33.98	18.79
Good	33.43	33.85	32.34
Excellent	32.33	26.05	48.87
N	217	157	60

Respondents were also asked whether they were satisfied with five major neighborhood services: police protection, outdoor recreational facilities, hospital or health clinics, general shopping, and neighborhood stores. On the questionnaire, degree of satisfaction with neighborhood services ranges from 5 to 0. The highest score of 5 indicates a high degree of satisfaction with all five services, and a score of 0 indicates dissatisfaction with all of them. Degree of satisfaction with services was higher for migrant renters (4.19) than owners (3.50), probably because the former group was more likely to be centrally located and to receive better neighborhood services. The owners' overall rating of neighborhood in the home community, however, was significantly higher than that of renters; over 80 percent of owners compared with 59 percent of renters rated their neighborhoods as either good or excellent.

In the general housing market, housing quality of owner-occupied units tends to be better than that of rental units, but for migrant home-base housing no such distinct difference has been found. Further, migrant renters seem more likely than migrant owners to use city garbage-collection and sewer services and their degree of satisfaction with neighborhood services is also significantly higher than that of migrant owners. These findings clearly indicate that migrant home owners may not necessarily enjoy the decent housing conditions that many other home owners do.

#### **Variation in Wayne County, New York**

As noted before, on-the-job housing in this study is much worse than home-base housing. When farmworkers migrate to New York state for summer jobs, most of them live in migrant camps although some rent their own housing in nearby areas. Do all migrant farmworkers live in the same poor housing conditions or are some better off than others? The analysis in this section tries to answer this question. Since camp housing units are located in similar rural environments, no attempt was made to analyze variation in neighborhood characteristics. Variation in housing conditions in Wayne County, however, was examined among migrant farmworkers according to migrant status because different migration experiences might affect their access to decent housing. In our sample, three distinct migrant groups were identified. The first group consisted of immigrants from Puerto Rico or other countries like Haiti and Jamaica. The second group, recent migrants, included native-born farmworkers who had made a seasonal migration to New York state for less than three years. The third group, long-term migrants, included native-born farmworkers who had made a seasonal migration to New York state for three or more years. Table 4 shows housing conditions in Wayne County for these three groups.

Table 4. Housing conditions in Wayne County, New York by migrant status (1982) in percent.

Characteristics	Total	Immi- grants	Recent migrants	Long-term migrants
<b>Physical condition</b>				
Major plumbing facilities (x <sup>2</sup> =26.83, p<.001)				
No	42.47	51.84	57.48	29.58
Shared	24.76	29.70	26.89	21.19
Exclusive use	32.77	18.47	15.65	49.24
N	216	51	59	106
Number of structural defects (x <sup>2</sup> =5.87, not significant)				
None	81.46	76.66	75.59	87.01
1	14.15	17.48	20.90	8.80
2	3.33	4.93	2.75	2.90
3	1.06	0.93	0.76	1.29
N	216	50	59	106
Substandard housing (x <sup>2</sup> =25.92, p<.001)				
No	29.86	15.17	13.63	45.98
Yes	70.14	84.83	86.37	54.02
N	216	51	59	106

Table 4--continued. Housing conditions in Wayne County, New York (1982) by migrant status in percent.

Characteristic	Total	Immi- grants	Recent migrants	Long-term migrants
<b>Housing space</b>				
Number of rooms		(x <sup>2</sup> =9.05, not significant)		
1	26.67	27.66	32.31	22.45
2	27.14	19.15	29.23	29.59
3	25.71	34.04	26.15	21.43
4	14.76	14.89	9.23	18.37
5 or more	5.71	4.26	3.08	8.16
N	212	47	59	106
Number of bedrooms		(x <sup>2</sup> =11.65, not significant)		
0	26.67	27.66	32.31	22.45
1	71.50	80.85	78.79	62.38
2	17.76	12.77	13.64	22.77
3	8.88	6.38	4.55	12.87
4 or more	.47	0	1.52	0
N	212	47	59	106
Non-bedroom used as bedroom		(x <sup>2</sup> =5.71, p<.06)		
No	69.56	83.00	69.47	63.58
Yes	30.44	17.00	30.53	36.42
N	203	46	54	103
<b>Facilities and services</b>				
Garbage collection		(x <sup>2</sup> =13.37, p<.01)		
City service	29.14	12.58	35.45	33.57
Private service	27.33	23.25	26.93	29.52
Dump	43.53	64.77	37.83	36.92
N	216	51	59	106
Sewage		(x <sup>2</sup> =13.79, p<.01)		
City sewer	12.03	5.85	16.41	12.55
Septic tank	54.98	44.86	46.53	64.57
Other	32.98	49.29	37.06	22.88
N	216	51	59	106
Source of water		(x <sup>2</sup> =1.44, not significant)		
City system	34.57	33.23	40.78	31.70
Private well/spring	65.43	66.27	59.22	68.30
N	215	51	59	105

### ***Physical Conditions, Facilities, and Services***

Among the three migrant groups, long-term migrants were more likely than the other two groups to live in standard housing units (46 percent for long-term migrants, 14 percent for recent migrants, and 15 percent for immigrants). Further, a higher proportion of long-term migrants used city or private garbage-collection services and modern sewage systems (city sewers or septic tanks) than the other two groups. All the migrant groups received their water supply from similar sources: 35 percent from city water systems and 65 percent from private wells or springs. The major reasons for the better housing units and higher quality of services among long-term migrants are two-fold: First, through repeated migrations, this group has acquired sufficient knowledge about the local housing

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market to find better housing in Wayne County; and second, because they have worked for the same employers for a long period of time (an average of 6 years has been reported), they usually receive better housing from the employer as a reward for their loyalty. At the same time, even though long-term migrant farmworkers were better off than the other two groups, their camp housing was far from adequate: over 50 percent of long-term farmworkers lived in substandard housing. These data are shown in Table 4.

### ***Housing Space***

Although no significant difference in housing space (as measured by number of rooms and bedrooms) was found to exist among the three migrant groups, long-term migrants tended to suffer a greater degree of use-crowding. For example, 36 percent of long-term migrants used living, dining, or kitchen areas as bedroom space. This compares to 31 percent of recent migrants and 17 percent of immigrants. This crowding condition may reflect the fact that long-term migrants usually have larger families than either recent migrants or immigrants.

### ***Determinants of Comparative Residential Satisfaction***

Comparative analyses in the previous sections have clearly shown that migrant farmworkers in this study experience the worst housing and neighborhood conditions as measured by commonly used objective indicators. Facing similar adversities, some migrant farmworkers may be more satisfied than others with their living environment. The ultimate measure of decent housing and suitable living environment is the residents' levels of subjective satisfaction. This measure provides a means of identifying housing deficiencies from the user's standpoint and can lead to the formulation of solutions targeted to specific problem areas.

Whether the degree of residential satisfaction among migrant farmworkers is influenced by physical aspects of housing conditions, neighborhood characteristics, or affected by other relevant variables has been examined in a multivariate model. Since migrant farmworkers need adequate housing at both the home-base and on the job, subjective evaluation of residential satisfaction was made between these two types of housing. In our study, respondents were asked to compare their current residence in the camp with their housing units in the home community. Almost half of the migrant farmworkers reported the camp residence as "worse off," 45.3 percent "about the same," and only 5 percent "better off." "Worse off" was coded as 0, "about the same" and "better off" were jointly coded as 1. Since the dependent variable, comparative residential satisfaction, is a binary variable (0 or 1), a logistic regression was considered an appropriate technique for analysis. The independent variables expected to affect comparative housing satisfaction can be loosely grouped under four headings: demographic characteristics, housing characteristics, neighborhood characteristics of home community, and measures of home-community tie. Such basic demographic variables as age, sex, and marital status were used as controls in the logistic regression model.

Three sets of housing characteristics were used to reflect housing conditions in both migrant camps and home communities; their expected relationships with comparative residential satisfaction were predicted to be in opposite directions. For instance, migrant farmworkers who had a large number of rooms in the home community would be less likely to report that they were "about the same" or "better off" in camp housing. On the other hand, those who had a large number of rooms in camp housing would be more likely to assess it positively. Similarly, structural defects in home-base housing would positively affect respondents' residential satisfaction with on-the-job residence, whereas structural defects in camp housing would inversely affect their satisfaction with housing in migrant camps. Finally, adequate plumbing in camp housing was expected to have a positive relationship with comparative residential satisfaction, whereas the relationship of adequate plumbing in home-base housing was expected to be negative.

Satisfaction with neighborhood services in the home community was expected to be negatively associated with camp housing satisfaction. That is, respondents who were more satisfied with neighborhood services in their home communities were less likely to assess camp housing positively.

The respondents' personal ties with home communities were measured by two variables: whether they were home owners in the community and the number of relatives living in the same community. Generally speaking, home owners tend to have stronger ties with the community than renters, and persons with relatives living in the home community are more likely to maintain a strong connection than those without relatives. Therefore, we hypothesize that both measures of home-community ties may be negatively associated with camp-housing satisfaction. In other words, the stronger the community tie, the less likely the respondent is to favor camp housing. Results of the logistic regression model are presented in Table 5.

Table 5. Logistic regression analysis of migrants' subjective comparisons between home-base and on-the-job housing.

Variables	Mean	Co-efficient	Standard Error	$\chi^2$
<b>Demographic characteristics</b>				
Sex	.80	-.33	.49	.45
Age	35.36	.02	.02	1.56
Marital status	.37	.85	.41	4.25**
<b>Housing characteristics</b>				
No. rooms in home-base	4.84	-.24	.12	4.06**
No. rooms in camp housing	2.70	.57	.29	3.89**
Structural defects in home-base	.19	.51	.31	2.67
Structural defects in camp housing	.24	-.64	.35	3.23*
Adequate plumbing in home-base	.86	-.78	.56	1.91
Adequate plumbing in camp housing	.33	1.34	.45	8.75***
<b>Neighborhood characteristics of home community</b>				
Satisfied with neighborhood services	3.41	-.002	.24	0
<b>Measures of home-community tie</b>				
Home ownership in the community	.27	-1.74	.86	4.06**
No. of relatives in the community	1.45	-.33	.14	5.72***
Intercept	--	1.90	1.68	1.29

Dependent variable: Subjective comparison between home-base and on-the-job housing. 0=Worse off (N=86) 1=Not worse off (N=87)

Model  $\chi^2=56.12$ \*\*\* with 12 d.f. -2 Log likelihood=183.99

\* $p < .07$  \*\* $p < .05$  \*\*\* $p < .01$

It is somewhat surprising to find from Table 5 that married migrants were more satisfied with camp housing than unmarried ones when other variables are statistically controlled (coefficient =.85, significant at the 5 percent level). This result may be due to the fact that married migrants are more likely to bring their families to New York for seasonal farm work. Housing space was found to have the expected relationships with comparative residential satisfaction. For example, having a large number of rooms in home-base housing decreased a respondent's satisfaction with camp housing (-.24), whereas occupying a large number of rooms in the camp had a positive effect (.57). Adequate

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plumbing facilities in camp housing generated a positive rating, whereas structural defects in the same housing produced a negative rating toward on-the-job housing. Further, both measures of home community ties--home ownership and number of relatives in the home community--were negatively associated with satisfaction with camp housing. In sum, variation in respondents' comparative evaluation of on-the-job housing can be largely explained by such independent variables as marital status, housing space, physical housing conditions, and presence of home-community ties.

### **Conclusions and Implications**

This study compares home-base and on-the-job housing for a representative sample of migrant farmworkers in Wayne County, New York. The results indicate that substantial proportions of migrant farmworkers lived in substandard housing in the home community (25 percent) and at camp (70 percent). The extraordinarily high degree of substandard housing at camp is due more to the lack of major plumbing facilities for exclusive private use than to structural defects. Inasmuch as structural defects have become a relatively minor problem of migrant housing, the worst quality inadequacy now is the lack of plumbing facilities and municipal sanitary services. To improve migrant housing in these two areas, substantial capital investments are required from both employers and municipal governments. Federal low-interest loan programs are also needed for some employers to upgrade their substandard camp housing units.

Another problem related to camp housing conditions is the existence of severe overcrowding. Over 30 percent of migrant farmworkers in this study used living, dining, or kitchen area as bedroom space. Many farmworker families and households occupy temporary housing originally intended for single (primarily male) workers. This is indicated by the low average number of rooms in Table 4. Longer-term use of temporary housing units raises questions about the adequacy of this housing and the effects of crowding on sanitation and camp-cooking facilities. From the viewpoint of housing supply, one may suggest that migrant farmworkers should leave their families at home so they can fit into existing camp housing. However, migrating with family members may maintain a sense of "home." Further, keeping the family together will certainly reduce the adverse impacts of constant mobility. For instance, previous studies have shown that migrants with family members in the camp are less likely to have drinking problems (Chi and McClain, 1989) and more likely to have a higher level of subjective well-being (Chi, 1986). Further, married migrants who bring their families to New York for seasonal farm work are more satisfied with camp housing than unmarried ones when other variables are statistically controlled. After taking all aspects into consideration, providing decent housing for migrant families may be an appropriate strategy to maintain a stable and productive labor force.

A further problem linking health status and housing conditions is the proximity of farm labor camps to farming areas. Close proximity may result in contamination of housing as a result of aerial spraying and pesticides seeping into the wells and springs from which a majority of migrant farmworkers receive their water. The health effects of "chronic low level exposure to pesticides are relatively unknown but may include dermatitis and polyneuropathy" (Morse, McLellan, and Christopherson, 1982, p. 304). Better documentation is needed on the impact of living in close proximity to farming areas where pesticides are heavily used. In addition, if proper washing and laundry facilities are not provided, then more extensive problems of contamination of housing and food preparation areas may exist than have been studied. Rural housing assistance in the United States has developed primarily through the provision of credit for home ownership and loans and grants for home repair by the Farmers Home Administration. More recently, some special direct assistance programs of the Department of Housing and Urban Development have been used in nonmetropolitan areas that meet certain population requirements. On the whole, the provision of better housing for farmworkers has not been a major focus of rural housing-assistance programs at the federal level.

Because rural housing policy is not well developed, it is not surprising that the provision of on-the-job housing for migrant farmworkers has not been taken up directly by any federal agency recently except under Sections 514 and 516 of the Farmers Home Administration's (FmHA) farm-labor housing loans and grants programs. Some state housing agencies (e.g., in California) have developed new housing for migrant families using both state and federal funds. As of 1981, 1,583 units were provided indirectly using the FmHA farm-labor loans and grants program. Some 1,517 units were also provided in rural areas using FmHA rural rental assistance under Section 515 (Hartmen, 1983).

In some nonmetropolitan areas where adequate rental housing units are available, housing vouchers not tied to particular residential locations would permit migrant farmworkers to rent housing in some low-income housing markets that are now closed to them. The higher quality of home-base housing (see Table 1), which migrant farmworkers presumably found for themselves, strongly supports this suggestion.

Housing deficiencies for migrant farmworkers in this study are not limited to on-the-job housing only; home-base housing also has problems of structural defects (14 percent), lack of major plumbing facilities (14 percent), and overcrowding (15 percent). A previous analysis (Chi, 1986) indicates that poor home-base housing conditions have negative effects on migrant farmworkers' subjective well-being. Therefore, the migrant housing programs discussed above should apply to inadequate home-base housing as well as to on-the-job housing.

This study also found that migrant farmworkers in New York, most of whom were black, had an extremely low home ownership rate in their home communities (27.5 percent). Limitations on home ownership, whether due to racial discrimination, seasonal mobility, or a combination of causes, will significantly increase black migrant farmworkers' housing costs by denying them an effective hedge against inflation and depriving them of an important means of wealth accumulation (Kain and Quigley, 1972).

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