

**HOUSING CONDITIONS  
OF MIGRANT AND SEASONAL FARMWORKERS**

Prepared by

C. Theodore Koebel, Ph.D. and Michael P. Daniels  
Center for Housing Research  
Virginia Polytechnic Institute and State University

for the

Virginia Department of Labor and Industry  
Virginia Department of Housing and Community Development

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## **Introduction**

Migrant, seasonal workers are a critical labor force for planting and harvesting a variety of agricultural products in Virginia. Seasonal surges in demand for such labor are largely met by migrant workers who come from outside the United States in search of temporary employment. Within the agricultural economy, the farmer and the migrant worker have a symbiotic relationship that is structured by several important constraints. The most important of these are the seasonality of the work, the low skill level of the work, and wages set by a competitive market ultimately driven by a price-conscious consumer.

The living conditions of migrant farmworkers have always been difficult. This is no less so for the condition of their housing. During the work season, labor camps must find inexpensive housing for a surge of workers. By its nature, the demand for this housing is temporary; but temporary shelter is difficult to provide. Housing is capital intensive, which means it is expensive compared to most other products. Providing decent quality housing for permanent residents with low incomes in American communities is an ongoing unmet challenge. Providing decent quality migrant housing is an even greater challenge, one which concerns not only the grower and the worker, but the state. Reflecting this concern, the Virginia Department of Labor and Industry, the Virginia Department of Housing and Community Development, and the Migrant and Seasonal Farmworkers Board commissioned the Virginia Tech Center for Housing Research to study migrant farmworker housing conditions within the Commonwealth. In addition to surveying the quality of housing of migrant workers, the Center was asked to determine the magnitude of need and level of interest among growers for a housing loan program to assist growers in upgrading farmworker housing.

The difficulties surrounding the provision of migrant housing are paralleled in studying that housing. The first challenge is determining how to gather information about migrant housing conditions. Site visits are inordinately expensive except on a very selective basis--too selective to provide reliable estimates for state planning purposes. Conducting telephone or mailed surveys of migrant farmworkers would face numerous problems: most of the workers are only available

during planting or harvesting seasons; they do not have personal telephones or addresses; and, many migrant workers coming from other countries are likely to have limited command of English. Farm owners or operators would be easier to reach, but their characterization of migrant housing conditions might be biased.

The later would be a serious flaw particularly where severe housing problems exist. However, the primary goal of the study was to determine the level of need for and interest in a housing loan program. Such loans would be to growers and only they could speak to their interest. Consequently, the Center recommended that a mailed survey of growers (or managers) would be the best approach with the resources available. A mailing list of growers operating labor camps was obtained from the Virginia Department of Labor and Industry. Implementation of the survey followed the Dillman Mailed Survey technique, which the Center has used with good success in previous studies. The survey techniques produced a very respectable response rate of 61%. (Details of the survey method are provided in the Methodology section of this report.)

The Center, in consultation with the Virginia Migrant and Seasonal Farmworkers Board and VaDHCD, developed a questionnaire directed to farm owners or managers. The cover letter from the Center Director to the growers explained that the purpose of the survey was to help re-establish the Virginia Migrant Housing Program, which previously funded growers to build or improve migrant farmworker housing. Also included was a letter of support from the Chairman of the Virginia Migrant and Seasonal Farmworkers Board. These letters emphasized that participation in the survey was in the interest of the grower and that individual responses would be held in strict confidence.

Although the letters made the case for participation in the survey, it is always possible that survey results could be biased. This could occur in two ways: if the growers responding to the survey misrepresented migrant housing conditions; or, if growers with the worst migrant housing were more or less likely to respond to the survey than other growers. Given the emphasis on a potential loan program to assist farmers, it is uncertain if the potential response biases would over-represent or under-represent poor housing conditions. To help evaluate the reliability of survey

results, independent site visits were made to a sample of farms in three areas of the state where migrant workers are more prevalent: the Eastern Shore, South Side, and the northern Shenandoah Valley (Winchester). The site visits provided checks on both the reliability of the respondents' assessments of housing conditions and the differences between respondents and nonrespondents. Comparisons of site visit results with survey results provided no evidence of bias in the survey.

It is important to remember that the unit of analysis in this study is the campsite rather than the housing unit. Consequently, the number of camps reporting housing problems would understate the exposure of migrant workers to housing problems if larger campsites are more likely to have such problems. This is indeed the case. The differences between the percentage of campsites with housing problems and the percentage of migrant workers exposed to these problems suggests that the campsite data primarily understates plumbing and electrical problems, rather than structural problems.

## Summary

- Most of the campsites operate seasonally, primarily from spring to fall, and house fewer than ten workers, mostly from outside the United States. Only a few camps (4.3%) had a majority of their migrant workers coming from within Virginia.
- Workers are most often housed in trailers and mobile homes (36.3%) or “single-family” houses (26.2%). Dormitories and campsites are used for 24.5% of the beds provided. Little of the housing provided is new---less than 10% had been constructed in the past nine years. Over one-fourth (28.6%) was more than 50 years old.
- Most camps provide communal bathrooms (47.6%) or a mix of communal and private (15.3%), while 37.1% provide private bathroom facilities for migrant workers. Bathrooms are located inside residential facilities at 87.4% of the camps; 5.8% have outside facilities and 6.5% have both.
- Over half of the respondents reported no problems across these structural items: leaking roof; cracks in ceiling or walls; peeling paint or plaster; peeling lead paint; signs of rats or mice; and, ventilation and screens in windows. Only 5.8% reported 4 or more moderate problems and only 2.6% reported any severe problems.
- Nine-of-ten camps reported no electrical problems and no plumbing problems. Less than 10% (7.7%) of the camps utilize privies or portable toilet facilities. About one-in-six camps (17.4%) reported being cited by the Department of Health or other regulatory agency for health, safety, or other violations within the three months prior to the survey.
- Growers in the eastern region were the most likely to have migrant housing with moderate or severe problems.
- Larger camps are more likely to have housing problems than camps with fewer than 10 workers. Two-thirds of the camps with 20 or more workers reported moderate or severe problems with roof leaks, ceiling or wall cracks, peeling paint or plaster, peeling lead paint, vermin, and ventilation problems, as did 56% of camps with 10-19 workers. Larger camps were also much more likely to report electrical and plumbing problems than smaller camps.
- There is a clear and direct relationship between the age of migrant camps and the probability of housing problems. A majority of migrant housing that is 20 years or older has one or more moderate or severe structural problems. As facilities age, migrant housing conditions will worsen unless improvements are made and new units replace old.
- The migrant housing improvements that growers identified would mostly involve minor (less than \$500) or moderate expenditures (\$500 to \$1,999). About one-third of the growers (31.5%) expressed interest in applying for a low-interest loan to improve migrant housing; more said they would not apply (39.6%) and several were unsure (28.9%).
- Growers with migrant housing problems are more likely to be interested in a housing improvement loan program than those without problems, but not all those with migrant housing problems are interested. Fortunately, nearly all the growers with severe migrant housing problems said they would apply for a low-interest loan to improve migrant housing if such a program were made available.

## Detailed Results

### Characteristics of Campsites

As anticipated, most of the campsites operate seasonally, primarily from spring to fall (78.1%). Another 13.2% operate summer to fall. Only 3.5% operate year round. The campsites are also small, with a large majority housing less than 10 workers (71.5%). Only a few camps house more than 20 workers (12.3%). Corresponding to the relatively small number of workers housed, nearly 90 percent of the camps provide less than 3000 square feet of residential building space and about two-thirds provide less than 1500 square feet of living space.

Most of the workers are from outside the United States. Over half the camps (57.0%) reported that all their workers were from outside the U.S. and two-thirds of the camps had 90% or more of the workers coming from outside the U.S. About one-in-five camps employ workers coming mostly from within the U.S., mainly from Florida. Only a few camps (13 or 4.3%) had a majority of their migrant workers coming from within Virginia.

Workers are typically housed in trailers and mobile homes (36.3%) or “single-family” homes (26.2%)---each unit is used, of course, to house several workers. Dormitories and campsites are used for 24.5% of the beds provided. Apartments are rarely used (only 2.7% of all beds provided), as are a variety of miscellaneous housing options (10.3% of all beds provided). Little of the housing provided is new---less than 10% had been constructed in the past nine years, but more was within 10 and 19 years old (21.2%). More than seven-in-ten units were 20 or more years old, with over one-fourth (28.6%) more than 50 years old. Although these are not exceptional ages for normal housing, they are for mobile homes and trailers. Many of the mobile homes in use were probably constructed prior to the current HUD code regulating the manufactured housing industry.

For most respondents, the availability of migrant housing is not a problem. Slightly over three-fourths reported that the capacity of the available housing facilities is never exceeded. Nonetheless, about 10 percent of the respondents reported a lack of migrant housing capacity at

least once every five years, including 3.9% (12 respondents) who reported housing shortages once a year or more often.

Except for one-in-ten campsites, the housing provided is only for workers, rather than for families. However, of the few campsites housing families, only half provided sleeping areas for children over 6 years of age which were partitioned off from their parents, which is required by federal regulation. Although relatively infrequent, the housing needs of migrant families with children would appear to be particularly acute.

Virtually all the units (99.7%) have a stove, refrigerator, kitchen sink, and bathtub or shower accessible to all the workers. Flush toilets and laundry equipment were less likely to be accessible to all workers, at 93.1% and 91.9% respectively. Most camps provide communal bathrooms (47.6%) or a mix of communal and private (15.3%) bathrooms, while 37.1% provide private bathroom facilities for migrant workers. Bathrooms are located inside residential facilities at 87.4% of the camps; 5.8% have outside facilities and 6.5% have both. Three-fourths of the camps provide workers access to a private phone, another 16.6% to a public phone, and 9.4% have no phone available to workers.

Classifying the state into the four regions described in Table 1, the largest number of respondents (110 or 35.4%) was from the southwestern region, followed by south-central (98 or 31.5%), north-central (71 or 22.8%), and eastern (32 or 10.3%). Weighted by number of workers, regional dominance shifts to the north-central, which has 40.2% of the migrant workers, with the other three regions much closer to each other.

**Table 1. Regions of Virginia with Migrant Farmworker Campsites**

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1. Eastern Region
    - a. Three Rivers Health District
    - b. Virginia Beach Health District
    - c. Eastern Shore Health District
  2. Northern and Central Region
    - a. Lord Fairfax
    - b. Rappahannock/Rapidan Health District
    - c. Rappahannock Health District
    - d. Thomas Jefferson Health District
    - e. Central Shenandoah Health District
    - f. Central Virginia Health District
    - g. Chesterfield Health District
    - h. Piedmont Health District
  3. South Central Region
    - a. Southside Health District
    - b. Crater Health District
  4. Southwestern Region
    - a. Pittsville/Danville Health District
    - b. West Piedmont Health District
    - c. Alleghany Health District
    - d. New River Health District
    - e. Lenowisco Health District
    - f. Mount Rogers Health District
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### Housing Problems

A variety of measures were included in the survey to assess structural, electrical, and mechanical (plumbing) problems. In addition to questions pertaining to specific problems (such as blown fuses or plumbing breakdowns), the respondents were asked whether their building or facility had severe, moderate, or no problems for electrical, water, and structural systems. The measures of specific electrical, plumbing, and structural problems were also combined to identify the frequency of at least one or more problems in each of these areas. These summary measures provide the best overall indication of the magnitude of housing problems and are reviewed first.

Table 2 provides the frequency of camps reporting severe, moderate, or no problems with electrical, sanitary water, and structural systems. Reports of severe problems were extremely rare and the overwhelming response was that there were no electrical, sanitary water, or structural problems (87% to 100%). About 13 percent of the respondents reported moderate problems for electrical or structural systems.



**Table 2. Severity of Electrical, Sanitary Water, and Structural Housing Problems  
(Migrant Farmworker Camps)**

<u>Severity of Problems</u>	<u>Percent</u>		
	<u>Electrical</u>	<u>Sanitary Water</u>	<u>Structural</u>
No problems	86.7%	100.0%	87.4%
Moderate problems	12.9%	0.0%	11.7%
Severe problems	0.3%	0.0%	1.0%

Source: Center for Housing Research, Migrant Farmworker Survey, 1997.

Two composite measures of housing problems were developed from several more detailed housing quality questions. The first composite measure (given in Table 3) was based on the respondents' identification of no problems, moderate problems, or severe problems with the following: leaking roof; cracks in ceiling or walls; peeling paint or plaster; peeling lead paint; signs of rats or mice; and, ventilation and screens in windows. The composite measure identified those respondents who reported: no problems across every item; 1-3 moderate problems; 4 or more moderate problems; 1-2 severe problems; and, 3 or more severe problems. Since a respondent could report both moderate and severe problems for different items, these categories are not mutually exclusive. (The overlap is minor, since the percentages in Table 3 sum to just barely over 100%.)

**Table 3. Frequency of Selected Structural Housing Problems\*  
(Migrant Farmworker Camps)**

<u>Frequency of Problems</u>	<u>Percent</u>
No problems	52.7%
1 - 3 Moderate problems	41.2%
4 + Moderate problems	5.8%
1 - 2 Severe problems	1.3%
3 + Severe problems	1.3%

\*Leaking roof, ceiling or wall cracks, peeling paint or plaster, peeling lead paint, vermin, lack of ventilation or window screens.

Source: Center for Housing Research, Migrant Farmworker Survey, 1997.

Over half of the respondents reported no problems across all items covered in composite measure one. Nearly all of those identifying problems reported 1-3 moderate problems (41.2% of all campsites). Only 5.8% reported 4 or more moderate problems and only 2.6% reported any severe problems.

Similar to the first composite measures, the second composite measure (Table 4) identifies the prevalence of electrical and plumbing problems. The indicators of electrical problems were the lack of outlets in every room; lack of concealed wiring; and, two or more blown fuses in an average month. The indicators of plumbing problems were a complete lack of running water for 6 or more consecutive hours in an average month; one or more flush toilet breakdowns per toilet during an average month of use; toilet breakdowns going unrepaired for 12 or more hours. The composite measure provides the proportion of respondents with no electrical problems, no plumbing problems, or one or more electrical or plumbing problems. Nine-of-ten camps reported no electrical problems and no plumbing problems based on this composite measure.

**Table 4. Frequency of Electrical and Plumbing Problems  
(Migrant Farmworker Camps)**

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<u>Frequency of Problems</u>	<u>Percent</u>	
	<u>Electrical*</u>	<u>Plumbing**</u>
No problems	90.3%	91.3%
1 or more problems	9.7%	8.7%

\* Lack of outlets in every room; exposed wiring; two or more blown fuses per month.  
\*\*Complete lack of running water for 6+ hours in average month; one or more flush toilet breakdowns per toilet per month; toilets unrepaired for 12+ hours.

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Source: Center for Housing Research, Migrant Farmworker Survey, 1997.

The more detailed measures (provided in the Appendix) reveal the following. The most frequent individual problems are vermin (24.1%), peeling paint or plaster (21.5%), ceiling or wall

cracks (21.3%), ventilation and window screens (19.2%). Other problems of note include two or more blown fuses in an average month (7.9%) and one or more flush toilet breakdowns per toilet during an average month of use (6.7%). In addition, 7.7% of the camps utilize privies or portable toilet facilities. About one-in-six camps (17.4%) reported being cited by the Department of Health or other regulatory agency for health, safety, or other violations within the three months prior to the survey.

#### Cost of Needed Improvements and Interest in Loan Program

The migrant housing improvements that growers identify would mostly involve minor expenditures (less than \$500) or moderate expenditures (\$500 to \$1,999), rather than more costly improvements. Table 5 provides the growers' estimates of costs for electrical, plumbing, and structural improvements. Structural improvements are the most often required (35.5%) and the most likely to exceed \$2,000 (6.9%). Camps requiring moderate electrical, plumbing or structural repairs represent between 8 to 10% of all camps; between 12 to 18% require minor repairs.

**Table 5. Cost of Needed Electrical, Plumbing, and Structural Improvements  
(Migrant Farmworker Camps)**

<u>Needed Improvements</u>	<u>Percent</u>		
	<u>Electrical</u>	<u>Plumbing</u>	<u>Structural</u>
None needed	72.5%	77.2%	64.5%
Minor (< \$500)	16.6%	12.1%	18.4%
Moderate (\$500 - \$1,999)	8.6%	7.5%	10.2%
Intermediate (\$2,000 - \$10,000)	1.7%	2.6%	4.9%
Major (> \$10,000)	0.7%	0.7%	2.0%

Source: Center for Housing Research, Migrant Farmworker Survey, 1997.

About one-third of the growers (31.5%) expressed interest in applying for a low-interest loan to improve migrant housing; more said they would not apply (39.6%) and several were unsure (28.9%).

### Variations in Housing Problems by Region, Camp Size and Age

Growers in the eastern region were the most likely to have migrant housing with moderate or severe problems such as a leaking roof; ceiling or wall cracks; peeling paint or plaster; peeling lead paint; vermin; and ventilation problems. As shown in Table 6, 68.8% of the growers in the eastern region had migrant housing with one or more moderate problems and 6.3% reported one or more severe problems. The other three regions were more likely to have none of these problems (for 53 to 59%). Similarly, the eastern region had the highest percentage of migrant housing with electrical problems: 37.5% compared to 6.0% to 7.0% for the other regions. The eastern and north-central regions were almost equally likely to have plumbing problems (15.6% and 14.1%), in contrast to the south-central and southwestern regions (4.1% and 7.3%). (See Table 7.)

**Table 6. Severity of Structural Housing Problems by Region  
(Migrant Farmworker Camps)**

<u>Severity of Problem</u>	<u>Percent</u>			
	<u>Eastern</u>	<u>North-Central</u>	<u>South-Central</u>	<u>Southwestern</u>
No problem	31.3%	59.2%	55.1%	52.7%
Moderate problem	68.8%	40.8%	43.9%	47.3%
Severe problem	6.3%	4.2%	2.0%	0.9%

Source: Center for Housing Research, Migrant Farmworker Survey, 1997.

**Table 7. Frequency of Electrical and Plumbing Problems by Region  
(Migrant Farmworker Camps)**

<u>Frequency of Problem</u>	<u>Percent</u>			
	<u>Eastern</u>	<u>North-Central</u>	<u>South-Central</u>	<u>Southwestern</u>
<b>Electrical*</b>				
None	62.5%	93.0%	93.9%	93.6%
1 or more	37.5%	7.0%	6.1%	6.4%
<b>Plumbing**</b>				
None	84.4%	85.9%	95.9%	92.7%
1 or more	15.6%	14.1%	4.1%	7.3%

\* Lack of outlets in every room; exposed wiring; two or more blown fuses per month.

\*\*Complete lack of running water for 6+ hours in average month; one or more flush toilet breakdowns per toilet per month; toilets unrepaired for 12+ hours.

Source: Center for Housing Research, Migrant Farmworker Survey, 1997.

Larger camps are more likely to have housing problems than camps with fewer than 10 workers, as shown in Tables 8 and 9. Two-thirds of the camps with 20 or more workers reported moderate or severe problems with roof leaks, ceiling or wall cracks, peeling paint or plaster, peeling lead paint, vermin, and ventilation problems, as did 56% of camps with 10-19 workers. About 45% of smaller camps reported these problems. Larger camps were also much more likely to report electrical and plumbing problems than smaller camps (Table 9).

**Table 8. Severity of Structural Housing Problems by Size of Camp  
(Migrant Farmworker Camps)**

<u>Severity of Problem</u>	<u>Percent</u>			
	<u>&lt; 5</u>	<u>5 - 9</u>	<u>10 - 19</u>	<u>20 +</u>
No problem	55.8%	55.6%	50.0%	39.5%
Moderate problem	44.2%	43.8%	50.0%	60.5%
Severe problem	2.3%	1.1%	6.0%	5.3%

Source: Center for Housing Research, Migrant Farmworker Survey, 1997.

**Table 9. Frequency of Electrical and Plumbing Problems by Size of Camp  
(Migrant Farmworker Camps)**

<u>Frequency of Problem</u>	<u>Percent</u>			
	<u>&lt; 5</u>	<u>Number of Migrant Workers</u>		
		<u>5 - 9</u>	<u>10 - 19</u>	<u>20 +</u>
<b>Electrical*</b>				
None	97.7%	94.4%	81.6%	73.7%
1 or more	2.3%	5.6%	18.4%	26.3%
<b>Plumbing**</b>				
None	100.0%	92.7%	90.0%	76.3%
1 or more	0.0%	7.3%	10.0%	23.7%

\* Lack of outlets in every room; exposed wiring; two or more blown fuses per month.

\*\*Complete lack of running water for 6+ hours in average month; one or more flush toilet breakdowns per toilet per month; toilets unrepaired for 12+ hours.

Source: Center for Housing Research, Migrant Farmworker Survey, 1997.

Weighting the campsite data by the number of migrant workers at each site sheds further light on the relationship between camp size and housing problems. Interestingly, even though larger camps are more likely to have housing problems than smaller camps, the proportion of workers (rather than camps) with these housing problems (roof leaks, ceiling or wall cracks, peeling paint or plaster, peeling lead paint, vermin, and ventilation problems) is virtually identical to the proportion of camps. Apparently, the relationship between camp size and housing problems is not linear. Among camps with 20 or more workers, the largest camps must be more likely to not have these housing problems. However, this is not the case for electrical or plumbing problems, which are much more prevalent when calculated for workers than for camps: 17.1% of the workers are at camps with electrical problems, even though the latter make up only 9.7% of all camps; and, 33.4% of the workers are at camps with plumbing problems, even though these camps are only 8.7% of the total.

There is a clear and direct relationship between the age of migrant camps and the probability of housing problems (Table 10). Migrant housing built within the past nine years is highly likely

(90.5%) to not have problems with roof leaks, ceiling or wall cracks, peeling paint or plaster, peeling lead paint, vermin, and ventilation problems. The probability of no housing problems shifts dramatically downward with slightly older housing--10 to 19 years old--(57.8%) and progresses downward to 43.0% for migrant housing that is 50 years or older. A majority of migrant housing that is 20 years or older has one or more moderate or severe housing problems. The relationship between facility age and housing problems, however, does not hold for electrical and plumbing problems (Table 11).

**Table 10. Severity of Structural Housing Problems by Age of Housing  
(Migrant Farmworker Camps)**

<b><u>Severity of Problem</u></b>	<b><u>Percent</u></b>			
	<b><u>Age of Migrant Housing in Years</u></b>			
	<b><u>&lt; 10</u></b>	<b><u>10 - 19</u></b>	<b><u>20 - 49</u></b>	<b><u>50 +</u></b>
No problem	90.5%	57.8%	49.2%	43.0%
Moderate problem	9.5%	42.2%	50.8%	55.8%
Severe problem	0.0%	1.6%	2.3%	4.6%

Source: Center for Housing Research, Migrant Farmworker Survey, 1997.

**Table 11. Frequency of Electrical and Plumbing Problems by Age of Housing (Migrant Farmworker Camps)**

<b>Frequency of Problem</b>	<b>Percent</b>			
	<b>&lt; 10</b>	<b>10 - 19</b>	<b>20 - 49</b>	<b>50 +</b>
<b>Electrical*</b>				
None	90.5%	90.6%	94.6%	83.7%
1 or more	9.5%	9.4%	5.4%	16.3%
<b>Plumbing**</b>				
None	95.2%	96.9%	87.7%	91.9%
1 or more	4.8%	3.1%	12.3%	8.1%

\* Lack of outlets in every room; exposed wiring; two or more blown fuses per month.

\*\*Complete lack of running water for 6+ hours in average month; one or more flush toilet breakdowns per toilet per month; toilets unrepaired for 12+ hours.

Source: Center for Housing Research, Migrant Farmworker Survey, 1997.

Growers with migrant housing problems are more likely to be interested in a housing improvement loan program than those without problems, but not all those with migrant housing problems are interested. For camps with one or more moderate housing problems, 39.0% of the growers are interested in the loan program compared with 24.2% of those with no housing problems. (The latter might have reported housing problems on other measures). Fortunately, nearly all the growers with severe migrant housing problems said they would apply for a low-interest loan to improve migrant housing if such a program were made available.

## Methodology

The mail survey was administered to the complete list of migrant labor camps licensed by the Virginia Department of Health. The questionnaire was developed to be completed by the camp owner or manager. The final draft questionnaire was pretested on five camps.

The final questionnaire was mailed to each owner or operator of migrant and seasonal farmworker campsites in the Commonwealth of Virginia. Although the mailing information did



not permit a personalized letter to the owner, the cover letter was designed to explain the purpose of the survey, the importance of every grower's participation, and the confidentiality of their response. A letter was also included from the chairman of the Virginia Migrant and Seasonal Farmworkers Board encouraging growers to participate. All mailings were done with first class postage and a stamped, addressed return envelope was provided.

The initial mailing was followed by a postcard reminder sent to nonrespondents after three weeks. A letter from the Center Director was mailed to any remaining nonrespondents after the sixth week.

Completed questionnaires were received by the Center for Housing Research and logged into a database. Frequencies and cross-tabulations were prepared utilizing SAS, a statistical analysis software package.

The initial mailing list included 597 campsites. Thirty-three of the questionnaires were returned to the Center as undeliverable or because migrant and seasonal farmworkers were no longer employed at these farms. Out of the remaining 564 migrant campsites, completed questionnaires were received from 342 owners and operators for a response rate of 60.6%.

Some of the owners or operators of campsites owned or operated more than one campsite. In one case, the owner completed a single questionnaire for all campsites. Although such responses were treated as a single camp in the results presented here, the total number of campsites run by this owner were counted in the response rate.

In order to evaluate the reliability of the survey results, site visits were conducted at 48 campsites in three different areas of the state: the Eastern Shore (17), Southside (19) and Winchester (12). A representative of the Center for Housing Research observed and recorded the housing conditions at the camps visited. In accordance with University and Center protocols, survey responses and site information are completely confidential and only aggregate results are provided herein.

During the site visits, the type and structural quality of housing was recorded from personal observation. In addition, the size of the camp was obtained from local officials or the owner. The

site visit data and survey responses were very comparable and did not suggest any bias problems with survey responses. Likewise, comparisons of site visit data for respondents and nonrespondents revealed very similar distributions for housing quality measures. Although nonrespondents were somewhat more likely to have severe housing problems than respondents, the difference was well within an acceptable range given the small number of cases.

## APPENDIX: SURVEY QUESTIONNAIRE AND RESPONSES

**YOUR OPINIONS ARE EXTREMELY IMPORTANT TO US.** Answering these questions should only take 15 to 20 minutes of your time. This survey must be filled out by the owner or operator of the migrant farmworker campsite. Your answers will be totally confidential and will not be associated with you personally. Your participation in this project will be held in strict confidence by the staff of the Center for Housing Research. **THANK YOU FOR YOUR HELP.**

1. Who owns the housing provided at this camp?

\_\_\_\_\_

2. What is the time period of use for the camp each year? (List first and last month of use)

\_\_\_\_\_--\_\_\_\_\_

Grouped results:

Year Round (3.5%)  
 Spring to Fall (78.1%)  
 Spring to Summer (1.6%)  
 Summer to Fall (13.2%)  
 Winter to Summer (.6%)  
 Winter to Spring (2.2%)  
 Fall to Winter (.6%)

Codebook:

Spring-- March, April, May  
 Summer--June, July, August  
 Fall--September, October, November  
 Winter--December, January, February

3. What is the approximate age in years of the housing/buildings for migrant farmworkers? (If more than one building, specify range from most recent to oldest) \_\_\_\_\_ years old

Grouped results:

Less than 10 years old (7.0%)  
 Between 10 and 19 years old (21.2%)  
 Between 20 and 49 years old (43.2%)  
 More than 50 years old (28.6%)

4. Do you have a problem finding adequate housing for your workers?

1) Yes (11.9%)  
 2) No (88.1%)

5. How often does the number of farmworkers exceed the capacity of the housing facilities provided? (Check the most appropriate response)

1) Very Often (1 time or more a year) (3.9%)  
 2) Sometimes (1 time every five years) (8.5%)  
 3) Hardly ever (over five years between occurrences) (10.1%)  
 4) Never (77.2%)

6. Fill in the percent of farmworkers from each applicable area. (Should add up to 100%)

- \_\_\_\_\_% workers from Virginia
- \_\_\_\_\_% workers from Florida
- \_\_\_\_\_% workers from Texas
- \_\_\_\_\_% workers from other state inside USA
- \_\_\_\_\_% workers from outside the USA

Grouped results:

Area	Percent Campsites with:		
	No Farmworkers from Area	1% - 49% from Area	50% - 100% from Area
Virginia	72.5%	23.2%	4.4%
Florida	81.3%	6.0%	12.7%
Texas	93.8%	4.5%	1.6%
Other state inside USA	89.2%	5.5%	5.2%
Outside the USA	16.7%	4.2%	78.9%

7. How many people are housed at this camp?

\_\_\_\_\_

Grouped results:

- Camps that house less than 5 workers (13.9%)
- Camps that house between 5 and 9 workers (57.6%)
- Camps that house between 10 and 19 workers (16.2%)
- Camps that house more than 20 workers (12.3%)

8. How many beds are provided for migrant farmworkers and families in the following types of dwellings? (Respond to all that apply)

- \_\_\_\_\_ # beds in single-family homes (26.2%)
- \_\_\_\_\_ # beds in apartments (2.7%)
- \_\_\_\_\_ # beds in dormitories/campsites (24.5%)
- \_\_\_\_\_ # beds in trailers / mobile homes (36.3%)
- \_\_\_\_\_ # beds in other (specify)\_\_\_\_\_ (10.3%)

9. Approximately how many square feet of building area are used for migrant farmworker housing?

\_\_\_\_\_ square feet

Grouped results:

- Less than 750 square feet of building area (25.7%)
- 750 square feet of building area but less than 1500 square feet of building area (39.7%)
- 1500 square feet of building area but less than 3000 square feet of building area (25.3%)
- 3000 or more square feet of building area (9.3%)

10. Do children over 6 years of age have separate sleeping quarters partitioned off from their parents? (Check the appropriate response)

- 1) Yes (5.3%)
- 2) No (5.3%)
- 3) No children (87.8%)
- 4) Don't Know (1.7%)

11. Check the appropriate degree of accessibility to each of the following housing facilities for migrant farmworkers.

	Accessible to all workers	Accessible to some workers	Not accessible
Stove	___(99.7%)	___(.3%)	___
Refrigerator	___(99.7%)	___(.3%)	___
Kitchen sink	___(99.7%)	___(.3%)	___
Bathtub / Shower	___(99.7%)	___(.3%)	___
Flush toilet	___(93.1%)	___(1.3%)	___(5.6%)
Laundry equipment	___(91.9%)	___(1.3%)	___(6.8%)

12. Do the migrant farmworkers and their families have access to a telephone? (Check the appropriate response)
- 1) Yes, to a private phone (74.0%)
  - 2) Yes, but only to a public phone (16.6%)
  - 3) No (9.4%)
13. Do the migrant farmworkers and their families have access to radio communications, citizen band or other?
- 1) Yes (55.4%)
  - 2) No (44.6%)
14. Are there working electric wall outlets in every room that workers live in or use? (Excluding closets or storage facilities)
- 1) Yes (98.7%)
  - 2) No (1.3%)
  - 3) No electricity available (If no electricity, then skip to #19)
15. Is the wiring in the unit(s) concealed?
- 1) Yes (97.7%)
  - 2) No (2.3%)
16. During an average month of use, how many blown fuses or breakers are there?
- 1) 0 (84.3%)
  - 2) 1 (7.8%)
  - 3) 2 (5.6%)
  - 4) 3 or more (2.3%)
17. Does the building/facility have electrical problems?
- 1) Yes, severe electrical problems (.3%)
  - 2) Yes, moderate electrical problems (12.9%)
  - 3) No electrical problems at all (86.7%)
18. Are specific precautions taken to ensure safety of migrant farmworkers against electrical hazards?
- 1) Yes (89.5%)
  - 2) No (7.2%)
  - 3) Don't Know (3.3%)
19. What is the magnitude of electrical improvements needed for migrant farmworker housing?
- 1) No improvements needed (72.5%)
  - 2) Minor (less than \$500) (16.6%)
  - 3) Moderate (\$500 to \$1999) (8.6%)
  - 4) Intermediate (\$2000 to \$10000) (1.7%)
  - 5) Major (more than \$10000) (.7%)

20. During an average month of use, is there a complete lack of running water for 6 or more consecutive hours?
- 1) Yes (96.8%)
  - 2) No (3.2%)
  - 3) Running water not provided (If no running water, skip to #25)
21. Are the bathrooms:
- 1) Private for each family unit (37.1%)
  - 2) Communal (47.6%)
  - 3) Mix of Both (15.3%)
22. Are bathrooms located:
- 1) Inside (87.4%)
  - 2) Outside (5.8%)
  - 3) Both (6.5%)
  - 4) Other (Explain)\_\_\_\_\_ (.3%)
23. During an average month of use, is there one or more flush toilet breakdown per toilet?
- 1) Yes (93.3%)
  - 2) No (6.7%)
24. Once a flush toilet breakdown has been reported, how long does it usually take before it is repaired?
- 1) Within 6 hours (65.5%)
  - 2) 6 to 12 hours (26.8%)
  - 3) 13 to 24 hours (6.4%)
  - 4) More than 24 hours (1.4%)
25. What is the means of sewage disposal? (Check all that apply)
- 1) Public Sewer (.6%)
  - 2) Septic Tank / Cesspool (88.7%)
  - 3) Privy or Outhouse / Port-o-John (7.7%)
  - 4) Other
26. If you receive services from a public sewer, during an average month of use, is there a public sewer breakdown?
- 1) Yes (.6%)
  - 2) No (If no public sewer, skip to # 28) (99.4%)
27. During an average month of use, is there a public sewer breakdown of 6 or more consecutive hours?
- 1) Yes (100%)
  - 2) No
28. If you receive services from a septic tank system or other method, is there a breakdown during an average month of use?
- 1) Yes (2.1%)
  - 2) No (89.5)
  - 3) Not Applicable (8.4%)
29. Are there health hazards due to unsanitary water associated with the living quarters?
- 1) Yes, severe health problems due to unsanitary water
  - 2) Yes, moderate health problems due to unsanitary water
  - 3) Yes, occasional problems due to unsanitary water but rare (4.2%)
  - 4) No health problems due to unsanitary water (95.8%)

30. Are specific precautions taken to ensure safety of migrant farmworkers against health hazards due to unsanitary water?  
 1) Yes (96.0%) 2) No (3.4%) 3) Don't Know (.6%)
31. What is the magnitude of plumbing improvements needed to ensure safe and sanitary conditions for migrant farmworker housing?  
 1) No improvements needed (77.2%)  
 2) Minor (less than \$500) (12.1%)  
 3) Moderate (\$500 to \$1999) (7.5%)  
 4) Intermediate (\$2000 to \$10000) (2.6%)  
 5) Major (more than \$10000) (.7%)
32. Check the appropriate magnitude of problem associated with each of the following housing quality factors for migrant farmworker housing.

	No problem	Yes, moderate problem	Yes, severe problem
Leaking roof	___(87.2%)	___(12.5%)	___(.3%)
Cracks in ceiling, wall	___(78.7%)	___(20.0%)	___(1.3%)
Peeling paint, plaster	___(78.5%)	___(20.5%)	___(1.0%)
Peeling lead paint	___(96.3%)	___(2.7%)	___(1.0%)
Signs of rats, mice	___(75.8%)	___(23.8%)	___(.3%)
Ventilation, screens in windows	___(80.7%)	___(17.9%)	___(1.3%)

33. Does building / facility have structural problems?  
 1) Yes, severe structural problems (1.0%)  
 2) Yes, moderate structural problems (11.7%)  
 3) No structural problems (87.4%)
34. Are specific precautions taken to ensure safety of migrant farmworkers against structural hazards?  
 1) Yes (86.0%) 2) No (11.0%) 3) Don't Know (3.0%)
35. What is the magnitude of structural improvements needed for farmworker housing?  
 1) No improvements needed (64.5%)  
 2) Minor (less than \$500) (18.4%)  
 3) Moderate (\$500 to \$1999) (10.2%)  
 4) Intermediate (\$2000 to \$10000) (4.9%)  
 5) Major (more than \$10000) (2.0%)
36. Would the owner apply for a low-interest loan to upgrade / construct migrant housing if a program were made available?  
 1) Yes (31.5%)  
 2) No (39.6%)  
 3) Not Sure (28.9%)
37. Has this facility been cited by any official inspection agency (for example, the Department of Health ) for health, safety, or other violations within the last three months?  
 1) Yes (17.4%)  
 2) No (82.6%)