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Jerre Lewis Withrow
University of Nebraska-Lincoln

Florence McKinney
University of Nebraska-Lincoln

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Research Bulletin
187

January, 1959

The Existing Space In Nebraska Multistory Square Farm Houses

by
Jerre Lewis Withrow
Florence McKinney

University of Nebraska College of Agriculture
The Agricultural Experiment Station
W. V. Lambert, Director; E. F. Frolik, Associate Director

TECHNICAL COMMITTEE FOR REGIONAL RESEARCH IN FARM FAMILY HOUSING NEEDS AND PREFERENCES*

Administrative Adviser

R. K. Frevert,[1] Assistant Director, Agricultural Experiment Station, Iowa State College, Ames, Iowa

Committee Members

Illinois ..... Keith Hinchcliff, University of Illinois
Helen McCullough, University of Illinois

Indiana ..... Kathleen Johnston, Purdue University

Iowa ..... Margaret Liston, Iowa State College

Kansas ..... Tessie Agan, Kansas State College

Michigan ..... Merle Esmay, Michigan State University

Minnesota ..... C. H. Christopherson, University of Minnesota

Missouri ..... T. O. Hodges, University of Missouri

Nebraska ..... Jean Davis, University of Nebraska

North Dakota ..... R. L. Witz, North Dakota Agricultural College

Ohio ..... Elaine K. Weaver, Ohio State University

South Dakota ..... C. N. Hinkle, South Dakota State College

Wisconsin ..... Mae Cowles, University of Wisconsin

Agricultural Research Service:

Home Economics Research Branch — Lenore Sater Thye

Agricultural Engineering — J. Robert Dodge

* A subcommittee of N.C. 9, Regional Technical Committee for RMA Project, Farmhouse Requirements.

[1] Mr. Frevert is now associated with the College of Agriculture at the University of Arizona.

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SUMMARY

The survey of the two story square house* parallels the multi-story tee house study[1] as to area covered and type of data collected. One hundred and seven houses were included in this study.

Most of the houses (74 per cent) were located between the road and the farm buildings. Thirty-two houses (about one third) faced north, and 56 per cent of these houses faced the road. Most of the houses were easily accessible from a public road by means of short driveways. Windbreaks protected nearly all of the farm houses in the sample.

Even though the houses were old, they had been well cared for and were of sound construction. Eighty-three per cent of the houses had hipped roofs. Wood siding and wood shingles were the most common construction material. The foundations were sound with brick, concrete block and concrete occurring with almost equal frequency. Floors and plaster generally were sound. Nine foot ceilings were prevalent. Ninety of the 107 houses had basements but over half of these had no drains.

Forty of the houses were perfectly square and by definition none varied more than six feet. The square varied from slightly less than 23 feet to slightly more than 31 feet with the mode falling at 27 feet. Sixty-six houses had an addition to the square. The average size of these additions was 87 square feet.

About one third of the houses had less than the recommended square footage for the number of persons in the household. When the density ratio of persons per room was analyzed, however, in no case was the ratio greater than the one person per room standard. All of the families had a satisfactory amount of space in the sleeping and dressing area.

The most common division of space within the houses was four rooms on the first floor and four rooms on the second floor. The amount of space in rooms designated as living room and in those designated as dining room was about the same.

The number of window openings, two per room, was about the same regardless of room designation. Commonly there were outside doors from living room, dining room, and kitchen.

Over half of all the stairways to the second floor were placed against an interior bearing wall. In most instances the width of the stairwell was adequate. Less than half of the houses had stair risers of the recommended seven inches; 67 houses had treads 10 or 11 inches deep. Most of the stairways were straight, rose from the dining room and terminated into a hall on the second floor.

All but two of the houses had electricity. A high percentage had water systems, sewage disposal sys-

* The study was made as a part of the North Central Regional Project NC 9 on Farm Housing Research and was partially financed by 9b3 funds.

[1] Trotter, Virginia Y. The Existing Space in Nebraska Multi-Story Tee Houses. Research Bulletin 186. The Agricultural Experiment Station, University of Nebraska. May 1958.

tems and water heaters. About half of the houses had central heating. Eleven of the houses had two or more bathrooms, while 32 houses had none. The first floor was the most frequent bathroom location.

Only 12 households had total storage equal to the minimum recommended by Public Health standards, but only 36 homemakers expressed a desire for additional storage space.

The Existing Space in Nebraska Multistory Square Farm Houses

Jerre Lewis Withrow[2] and
Florence McKinney[3]

INTRODUCTION

Many of our farm homes do not satisfactorily meet the needs of the family and its living patterns. Thirty to 50 years ago little thought was given to certain aspects of housing which are considered essential today. It is obvious, to even the casual observer, that improvements should be made in living space, work areas, utilities and appliances.

Although the study of space allowances for family living is in its infancy, each region of the United States has completed a study of space needs and requirements of farm families. Most writers agree with the authors of the North Central Regional Publication who state:

> For many farm families, the best way to get improved housing is to remodel the present house. This may be the only solution if the present financial resources and expected income are not large enough to justify building a new house. Even if it would be better in the long run to tear down the old house it may still be necessary to do some remodeling and continue to live in it for a while.[4]

Occupants of existing farm houses are interested in remodeling. In the Nebraska study of needs and preferences in farm housing, Trotter and Liston found that five per cent of the Nebraska farm families planned to build new houses, while 12 per cent planned to remodel their existing houses.[5]

Remodeling is difficult to plan so that it will bring about the most satisfactory result for the time and money invested. Twenty years ago Wichers criticized the literature available on remodeling. He stated:

> The written material on the subject (of remodeling) is voluminous and

[2] Extension Housing Specialist, Agricultural Extension Service; formerly Housing Research Technician, Nebraska Agricultural Experiment Station.

[3] Professor and Chairman, Department of Home Economics, Nebraska Agricultural Experiment Station.

[4] When You Build or Remodel your Farmhouse. University of Illinois, College of Agriculture, Urbana, Illinois. North Central Regional Publication. No. 8. 1958.

[5] Virginia Trotter and Margaret Liston. Research Bulletin 175, Farm Family Housing Needs and Preferences in Nebraska. Lincoln, Nebraska, University of Nebraska. June 1954.

not very accurate. Much of this material is based upon a single attempt or a single remodeling experience, and very often conclusions are drawn from this experience which are not only doubtful in value but actually misleading.[6]

Few authors have been as frank with their criticism as Mr. Wichers, but an investigation of recent writings on remodeling appears to validate his remarks. Wichers also pointed out the prevalence of certain architectural types and suggested that plans could be developed for remodeling certain of these. He did not, however, develop a method of substantiating the validity of the plans he chose as "typical." It is hoped that the present study will point out the extent to which the plans of the square house of more than one story are similar.

Any appraisal of family housing carries with it the problem of suitable standards for adequacy. New standards for judging the space within new houses have been developed, but these can also be applied to remodeling old houses. *Planning the Home for Occupancy,* published in 1950, states:

> We believe that every dwelling, if it is to contribute to the physical and mental health of the family, should have well organized, effective space for:
>
> 1. Sleeping and dressing
> 2. Personal cleanliness and sanitation
> 3. Food preparation and preservation
> 4. Serving food and dining
> 5. Recreation and self-improvement
> 6. Extra-familial association
> 7. Housekeeping
> 8. Care of infants or of the ill and infirm
> 9. Circulation between various areas of the dwelling
> 10. Operation of utilities
>
> It is a reasonable assumption that estimates of the necessary space for the required furniture and equipment, and their convenient use and storage, can contribute to substantial improvement in design.[7]

OBJECTIVES

The present study was made by the University of Nebraska Agricultural Experiment Station to determine the extent of similarity in the plans of one particular style of house, the square house of more than one story. Patterns of remodeling will be developed if the similarity of existing houses justifies such a project. The two story square house was chosen for study because it is one of the predominant old style houses still in existence throughout the North Central Region.

The objectives of this study:

1. To determine the nature of the occupied square house of more than one story in terms of placement on the farm, condition of the structure, the floor plan, the existing utilities, work areas and storage space.
2. To determine the adequacy of square houses of more than one story in terms of recommended minimum health requirements and the stage of the family cycle.
3. To have facts upon which plans for remodeling the square house of more than one story may be made.

[6] H. E. Wichers, Modernizing the Kansas Home. Kansas State College Engineering Experiment Station Bulletin 32. 1934.

[7] American Public Health Association Committee on the Hygiene of Housing. Standards for Healthful Housing, Planning the Home for Occupancy. Chicago. Public Administration Service. 1950 p. 3.

METHOD AND PROCEDURE

Many farmhouses are built in similar fundamental shapes. Members of the Agricultural Engineering Department at the University of Nebraska, while on trips through the state, noted the types of farmhouses and the frequency of the occurrence of each type. They found that the basic shapes of most of the houses could be classified as square, rectangular, tee, or ell, of one or two stories.

To determine the predominant types of dwellings located on the farms in the sampling segments included in this study, 1,487 Nebraska houses were observed and classified as to type. About 90 per cent of these houses were occupied and were considered to be over ten years old.

At the time of the survey of tee-shaped farm houses, the prevalence of square houses of more than one story was established (Table 1).

Description of Sample

A random sample of the segments in the six eastern economic areas[8] of Nebraska was drawn, and all houses in each segment listed according to type. The economic areas used were 3a, 3b, 4, 5, 6 and 7. The areas selected and the sample segments within each area were the same as those used in the study of tee-shaped farmhouses, these two factors becoming a constant in both studies. By limiting variables to classification by house type, the data resulting from both surveys may be more readily compared. The areas in the panhandle and sandhills were not included because distance between houses made the additional contribution to the study too small to justify the expenditure of time and money.

The Master Sampling plan developed by the Bureau of Census was used as the basis for choosing

[8] State economic areas established by the Bureau of Census in 1951 to be a grouping of counties having similar economic and social characteristics. A complete discussion of these divisions is made in the U. S. Bureau of the Census, State Economic Areas, by Donald J. Bogue, U.S. Government Printing Office, Washington, D. C., 1951.

Table 1.—Types of houses in the sampling segment, the state of occupancy and the age.

Types of houses	Houses observed		Occupied		More than 10 years old	
	Number	Per cent	Number	Percentage of type	Number	Percentage of type
All houses	1487	100.0	1364	91.7	1360	91.4
Two story tee	265	17.8	220	83.0	247	93.2
Two story ell	201	13.5	186	92.5	187	93.0
Two story square	167	11.2	160	95.8	155	92.8
Two story rectangle	201	13.5	187	93.0	183	91.0
1½ story square	90	6.1	83	92.2	82	91.1
One story rectangle	162	10.9	142	87.7	146	90.1
One story square	110	7.4	106	96.3	100	90.9
Bungalow	97	6.5	96	98.9	83	85.5
One story ell	58	3.9	53	91.4	55	94.8
One story tee	63	4.2	58	92.1	60	95.2
Ranch	3	.2	3	100.0	1	33.3
Unclassified	70	4.7	70	100.0	61	87.1

Table 2.—Type of houses in sample.

Type of houses	Houses observed		Houses Studied				
	Number	Per cent	Number	Pct. of all houses	Pct. of type observed	Pct. of studied	Pct. of studied type
All houses	1487	100.0	.....	....			
2-story square	167	11.2	84	5.6	50.2	78.5	100.0
1½-story square	90	6.1	23	1.5	25.5	21.5	100.0
Combined	257	17.3	107	7.1	41.6	100.0	100.0

the sample. In this plan the entire state was divided into Master Sample Sampling Units (MSSUs) consisting of from three to five households. These MSSUs were numbered within each county. The counties included in this study were numbered in a serpentine manner and a cumulative list of the MSSUs was made, totaling 25,986.

To obtain sampling segments with the desired number of houses, four contiguous MSSUs were required. Since approximately one hundred segments of 15 to 20 households each were needed in the sample, a number between one and 259 was chosen from a table of random figures to be the number from which to start. (The number was one.)

The MSSU chosen and the next three MSSUs were outlined on a county map as one sampling segment. The second segment was designated by adding 259 to the starting number and combining it with the next three MSSUs. This was done through the entire 25,986 MSSUs. A total of 101 segments was outlined on appropriate maps (Figure 1).

The total number of houses typed as either two story square or one and one-half story square in the sample was 257 (Table 1). Since the term "square" house was not clearly defined at the time of the initial study, a definition was drafted before any interviewing was begun.

1. To be considered square a house must not be more than six feet longer than it is wide.

2. Second floor ceilings must be at least seven feet at the wall if the house is to be considered two story.

3. To be classified as one and one-half story, a house must have enough second floor space to allow for at least two rooms. Each of these rooms must have at least one operating window and some floor space with a ceiling height of seven feet or more.

Collection of Data

Many houses which did not comply with the definition after actual measurement and close inspection, and a large number of unoccupied houses, had to be discarded. The number of houses where interviews were actually completed was 107 (Table 2). When a home maker was not at home, subsequent calls were made. Where entrance was refused, a substitute house fitting the definition and in an adjacent area was used.

The farm site was measured and sketched by the agricultural engineer, who also interviewed the farmer. A home economist measured and sketched the interior of the house and collected the necessary information from the home-

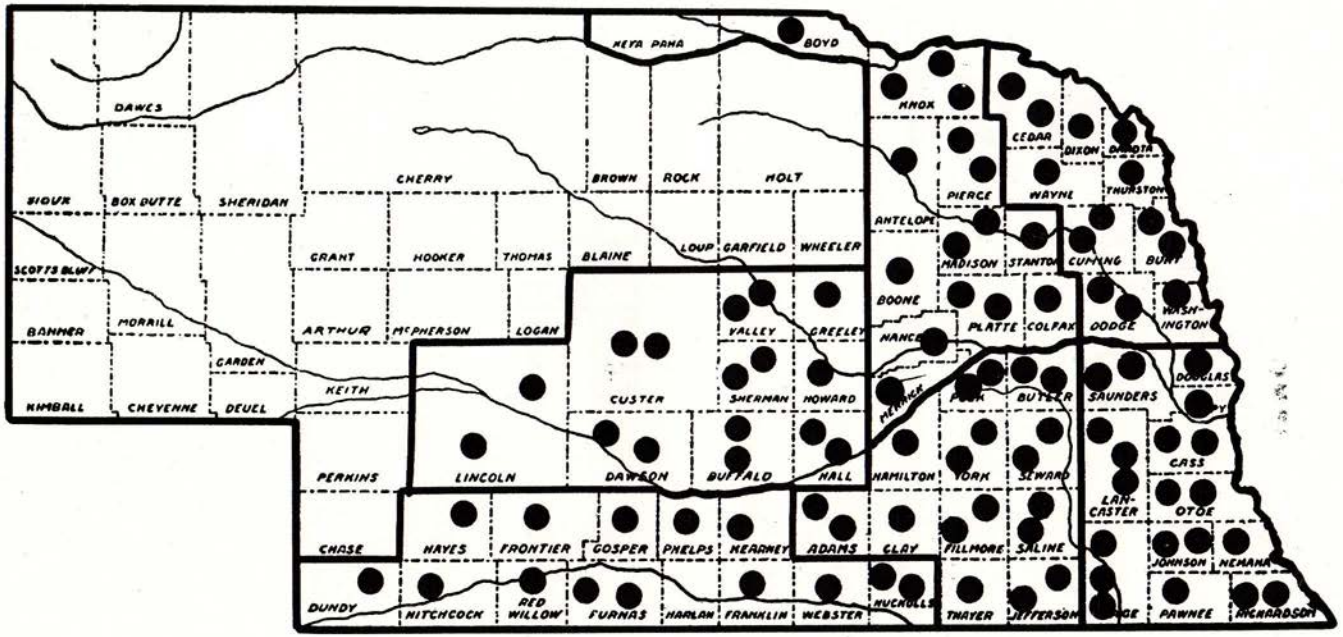
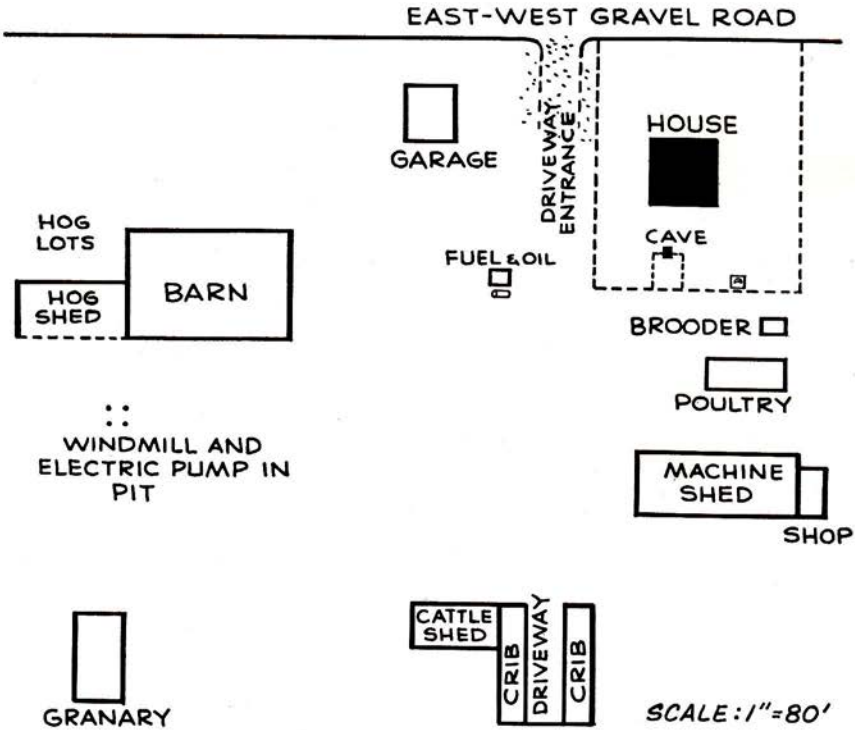


fig 1. LOCATION OF SAMPLING SEGMENTS

fig. 2 FARMSITE PLAN



maker. Both of the sketches were later drawn to scale for easier handling (Figures 2 and 3).

The interviews took from an hour to an hour and a half depending upon the person interviewed, the size and modernization of the house, and the number of farm buildings. Most of the questionnaires were filled out completely, but not all of the information was obtained in every interview. When the interviewee seemed reluctant to answer the questions, every effort was made to get as much of the needed data as possible without irritating the individual to the point of refusal. Some respondents lacked sufficient knowledge of the house to give all the information requested. Observations by the interviewers were the basis for many answers.

Summarization of Data

Data collected were coded into numbers and recorded on cards. Eight code cards were necessary to record the data. The data were summarized and tabulated. In most comparisons, the mode was used as the basis for establishing trends of similarity in the houses surveyed.

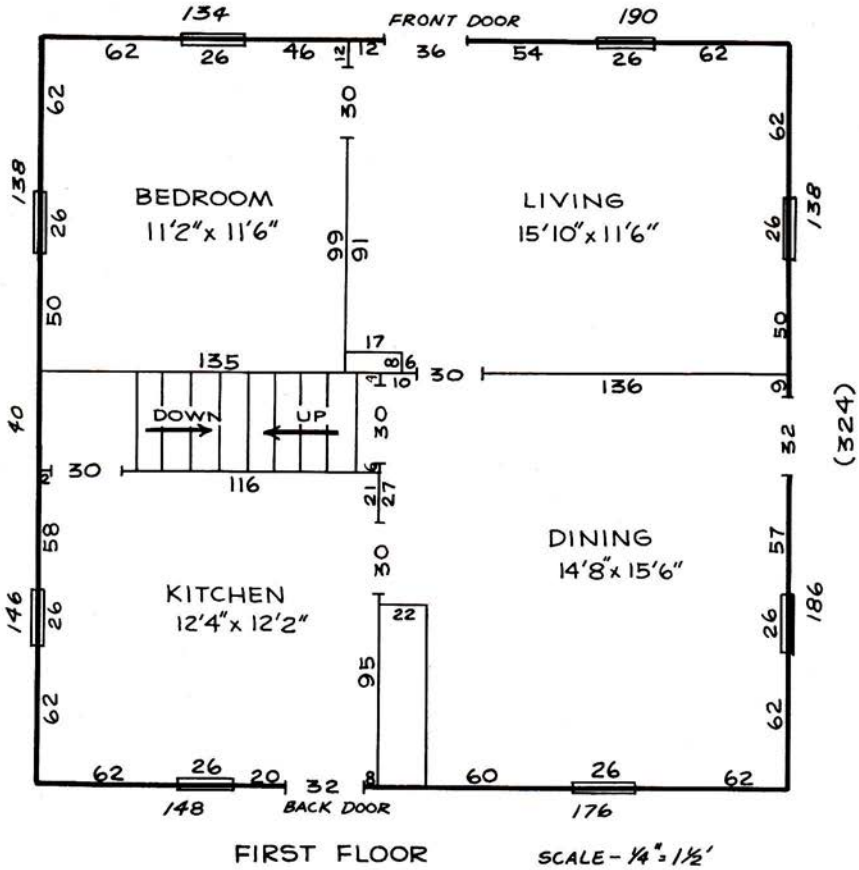


Fig. 3.Downstairs House Plan.

ORIENTATION OF FARMSITE

The front of the house in all cases was considered to be that side of the square into which the front door opened. The usual connotation of the front of the house as that which faces the road was disregarded so that arrangement within all the squares could be analyzed from the same starting point.

The orientation of the house, however, is an important factor in considering remodeling. Not only the placement of the house in relation to the prevailing winds, but also its placement in relation to the road will influence the practicability of certain plans.

In 74 per cent of the farmsites studied, the farmhouse was located between the road and the farm buildings (Table 3). The direction of the road from the house in these cases varied almost equally between the possibilities of North, South, East and West, with North having the highest prevalance of 31.6 per cent (Table 4). When all the houses in the study are considered the

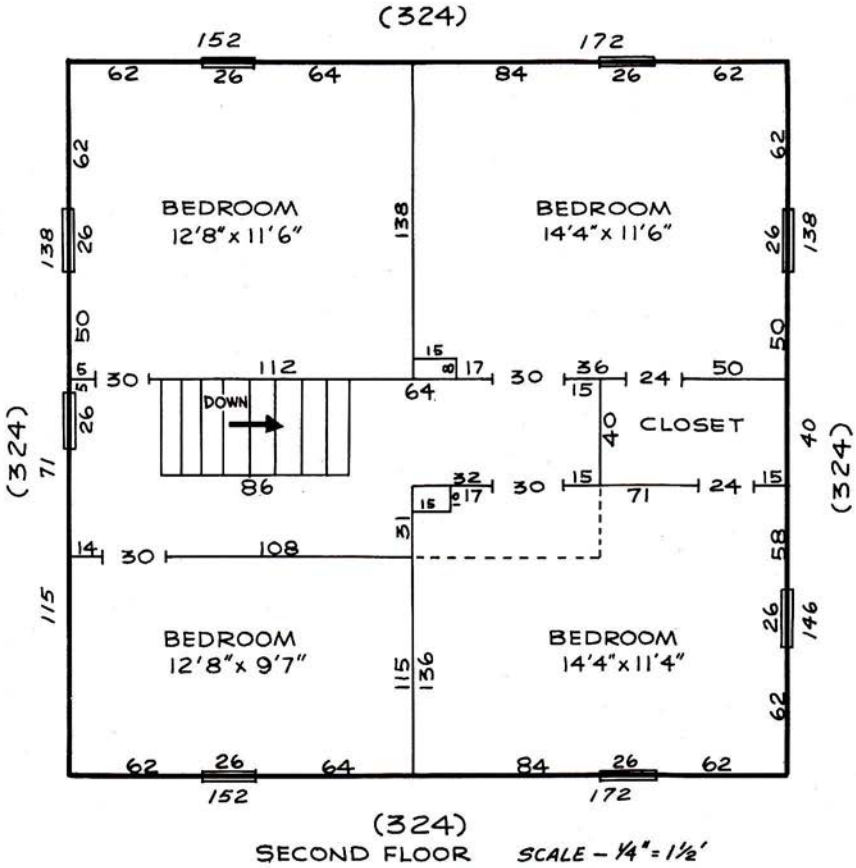


Fig. 3. Upstairs House Plan.

spread between the possible direction of the road follows the same pattern as that set by the farmsites with houses between the road and the farm buildings (Table 5).

By far the largest number of houses had front doors facing the road regardless of what direction this might be. The smallest percentage occurred where the road was north of the house. Here 56 per cent of the houses had front doors facing the road. Twenty-five per cent of these houses had the front door on the east. The next smallest percentage of doors facing the road was where the road was south. The highest relationship was between houses having the road to the east of the house and the front door facing east.

The majority of the farm houses were easily accessible from a public road. Only 26 per cent were reached by driveways longer than 250 feet, and 57 per cent of the houses were less than 100 feet from the road (Table 6). Since insufficient distance from the road may be a critical factor in the advisability of

Table 3.—Orientation of farmhouse to the farm buildings and public road.

Description of Site	Number and percentage of houses with specified farmsite arrangement	
	No.	*Pct.*
House between road and farm buildings	79	73.8
Farm buildings between house and public road	4	3.7
House beside buildings	7	6.6
Buildings closer to road, but not between road and house	17	15.9
Total	107	100.0

Table 4.—Direction of road from house by description of farmsite.

Description of farmsite	Total houses reported		Number and percentage of described farmsites with specific direction of road from house							
			North		East		South		West	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
House between road & buildings	79	73.8	25	31.6	19	24.0	19	24.0	16	20.4
Buildings between road & house	4	3.7	2	50.0	1	25.0	0	0.0	1	25.0
House beside buildings	7	6.6	2	28.6	2	28.6	0	0.0	3	42.8
Buildings closer to road, but not between road & house	17	15.9	3	17.6	2	11.8	8	47.1	4	23.5
Total	107	100.0	32	29.9	24	22.4	27	25.3	24	22.4

Table 5.—Direction of front door in relation to the direction of road from house.

Direction of road from house	Total houses reported		Number and percentage of houses with specific direction of front door							
			North		East		South		West	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
North	32	29.9	18	56.2	8	25.0	3	9.4	3	9.4
East	24	22.4	0	0.0	22	91.7	2	8.3	0	0.0
South	27	25.3	0	0.0	6	22.2	18	66.7	3	11.1
West	24	22.4	0	0.0	0	0.0	6	25.0	18	75.0
Total	107	100.0	18	16.8	36	33.6	29	27.2	24	22.4

Table 6.—Distance of all farmhouses from the public road.

Distance	Number and percentage of houses a specified distance from road	
Feet	Number	Percentage
Less than 100	61	57.0
100- 250	17	15.9
251- 400	5	4.7
401- 550	7	6.6
551- 700	9	8.4
701- 850	1	.9
851-1000	0	0.0
1001-2500	4	3.7
2501-5000	2	1.9
Over 5000	1	.9
Total	107	100.0

Table 7.—Distance of farmhouses less than 100 feet from the public road.

Distance	Number and percentage of houses a specific distance from road	
Feet	Number	Percentage
20	2	1.9
30	14	13.1
40	14	13.1
50	17	15.9
60	12	11.2
70	0	0.0
80	2	1.9
90	0	0.0
Total	61	57.0

remodeling, a further breakdown revealed that nearly half of those houses less than 100 feet from the road were actually less than 50 feet from the road (Table 7).

Although only 4.6 per cent of the public roads were hard surfaced, most were well maintained and serviceable even in bad weather. Gravel was the type of surfacing found on 77.6 per cent of the roads nearest the farmsteads of the sample (Table 8).

Table 8.—Type of surface on public road nearest the farmhouse.

Type of surface on nearest public road	Number and percentage of houses on a specified type of road	
	Number	percentage
Dirt	19	17.8
Gravel	83	77.6
Rock	0	0.0
Paved	1	0.9
Oil mat	4	3.7
Other	0	0.0
Total	107	100.0

When asked if they felt the location and condition of the farm justified modernizing the house, none of the farmers in the sample answered negatively. In seven cases no information was received, but the other 100 felt the house warranted improving (Table 9). Of the 100, however, only 27 were willing to borrow money in order to realize the improvements.

The condition of the farmstead as well as the direction the house faces and the location of the house in relation to the road and the farm buildings was observed. Eighty-two

Table 9.—Condition and location of farm by justification in borrowing.

Condition and location of farm	Total		Would borrow		Would not borrow		No statement	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Justifies modernization	100	93.5	27	27.0	20	20.0	53	53.0
Does not justify modernization	1	.9	0	0.0	0	0.0	1	100.0
No information	6	5.6	0	0.0	1	16.7	5	83.3
Total	107	100.0	27	25.2	21	19.7	59	55.1

per cent of the yards were judged by the agricultural engineer to be well kept (Table 10). Eighty-five per cent had a windbreak but only 22 per cent had any shade trees in the yard. Site planning will be a factor in considering remodeling for maximum satisfaction.

Table 10.—Number and percentage of 107 houses with specific condition of farmstead.

	Number	Percentage
Yard well kept	88	82.2
Shade trees in the yard	24	22.4
Windbreak	91	85.0

CHARACTERISTICS OF THE HOUSE

Age of House

Sixty-eight of the 107 houses in the study were between 31 and 50 years old. Only one was less than 20, and 24 were more than 50 years of age (Table 11). Fifty-six of the farmers knew the actual age of their houses. The ages of other houses were estimated by the farmer and judged by the agricultural engineer doing the interviewing

Structural Condition of House

Wood siding was by far the most common exterior with 85 per cent of the houses having siding of wood. The next highest percentage was 5.6 per cent, representing those with asbestos cement shingles. All of the latter and 81.3 per cent of the houses with wood siding were sound (Table 12).

Wood was also the most popular roofing material. Of the houses studied 66.4 per cent had wooden shingles. Twenty-seven per cent of the houses had composition shingled roofs. Composition shingles were found to be sound in 93 per cent of the houses in which they were used. Nearly 75 per cent of the houses with wooden shingles were sound (Table 13). Eighty-three per cent of the houses in the sample had hipped roofs while 14 per cent were gabled (Table B-1).

The exterior paint was in good condition on 61.7 per cent of the houses. Deterioration in the form of fading and peeling was noted in 13 cases (Table 14).

Brick, concrete block, and concrete occurred with almost equal frequency as foundation material.

Table 11.—Number and percentage of houses with specified age.

Age of house	Total houses reported		Number and percentage of houses with specified age			
Years			Known age		Estimated age	
	No.	Pct.	No.	Pct.	No.	Pct.
20 or less	1	.9	1	1.8	0	0.0
21-30	5	4.7	3	5.3	2	4.8
31-40	31	29.0	19	33.9	12	28.6
41-50	37	34.6	23	41.1	14	33.3
Over 50	24	22.4	10	17.9	14	33.3
No information	9	8.4	....	.....	....	.....
Total	107	100.0	56	100.0	42	100.0

Table 12.—Condition of siding by the material of the siding.*

Siding Material	Total houses reported		Number and percentage of houses reported with specified condition of siding									
			Cracked		Weathered		Sound		Loose, cracked and weathered		No information	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Wood	91	85.0	2	2.2	12	13.2	74	81.3	1	1.1	2	2.2
Brick veneer	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Asbestos cement shingles	6	5.6	0	0.0	0	0.0	6	100.0	0	0.0	0	0.0
Wood and metal	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Asphalt roll	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Comp. shingles	4	3.8	0	0.0	0	0.0	4	100.0	0	0.0	0	0.0
Combination	4	3.8	0	0.0	1	25.0	3	75.0	0	0.0	0	0.0
Stucco	1	.9	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0
Metal siding	1	.9	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0
No information	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	107	100.0	2	1.9	13	12.1	89	83.2	1	.9	2	1.9

* In no case was the siding of a house reported as loose, broken boards, or cracked and weathered.

Table 13.—Condition of the roofing by the material of the roofing.*

Roofing material	Total houses reported		Number and percentage of houses reported with specified condition of roofing									
			Weathered		Sound		Loose and weathered		Weathered and warped		No information	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Wood shingle	71	66.4	12	16.9	53	74.7	2	2.8	1	1.4	3	4.2
Compoition	29	27.1	1	3.4	27	93.2	0	0.0	0	0.0	1	3.4
Comp. & wood	5	4.7	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
Asphalt shingle	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Asphalt roll	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Combination	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other	1	.9	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
No information	1	.9	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
Total	107	100.0	13	12.1	86	80.4	2	1.9	1	.9	5	4.7
Total	107	100.0	13	12.1	86	80.4	2	1.9	1	.9	0	0.0	5	4.7

* In no case was the roofing reported as loose, warped, warped and loose or weathered, loose and warped.

Table 14.—The condition of the exterior paint of the house.

Condition of paint	Number	Per cent
Cracked	1	.9
Peeling	7	6.6
Faded	16	15.0
Good	66	61.7
No paint	1	.9
Peeling and fading	13	12.1
Peeling, faded, cracked	1	.9
Does not apply	2	1.9
Total	107	100

Brick and concrete each were found in 25 per cent of the houses and concrete block in 22 per cent. The percentage of all houses having sound foundations was 77.6. Of the brick foundations 85.2 per cent were sound and of the concrete 70.4 per cent were in sound condition (Table 15). Here again there seemed to be little if any relation between age of house and condition of foundation. Of the houses known to be 41-50 years old, 87 per cent reported foundations in sound condition (Table 16). Of the 90 houses that had basements, the material of the basement walls followed the same pattern as that of the foundation. Over 24 per cent had brick walls, 23 per cent concrete and 20 per cent concrete block (Table 17).

The condition of the houses is an important factor in determining the advisiblity of remodeling. The type of construction of the house as well as the materials used and the state of repair of the siding, roof, and foundation of each house has neen noted. In order to determine the state of upkeep within the house, the condition of floors and plaster was taken as representative. All but seven were reported to have good floors. Every house in the 41-50 years of age group had good floors (Table 18). None of the houses had dry wall or other finish construction, all 107 houses using plaster as the interior finish. In 94 instances, the plaster was sound (Table 19).

From the foregoing data it is apparent that although the square houses being studied were not new, generally they had been well cared for and were of sound construction.

Size of House

The length of the square varied from slightly less than 23 feet to slightly more than 31 feet with the mode falling at 27 feet and the mean at 27.53 feet. The width varied through the same span with the mode again falling at 27 feet and the average at 26.35 feet. Forty of the houses were perfectly square, and by definition none varied by more than 6 feet (Table 20).

Eleven per cent of the houses had a square footage of 575 feet or less while two per cent were larger than 976 square feet. The average size was 731.80 square feet (Table B-2). Sixty-six houses had an addition to the square varying from less than 100 to 400 square feet (Table B-7). By far the largest number of additions were within the less than 100 square feet limit. The average size of the additions in the sample was 87.22 square feet (Table 21).

Since the additions were generally small projections, the space may well be considered independently in the development of remodeling plans. In determining adequacy of available space in relation to numbers of persons in the household, however, the space must be included in the total

Table 15.—Condition of foundation by material of foundation.

Material of foundation	Total houses reported		Number and percentage of houses reported with specific conditions of foundation									
			Sound		Cracked		Settled		Cracked and settled		No information	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Stone	8	7.5	6	75.0	2	25.0	0	0.0	0	0.0	0	0.0
Brick	27	25.3	23	85.2	1	3.7	0	0.0	2	7.4	1	3.7
Concrete Block	24	22.4	16	66.7	4	16.6	1	4.2	1	4.2	2	8.3
Concrete	27	25.2	19	70.4	6	22.2	2	7.4	0	0.0	0	0.0
Tile	1	.9	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Combination	15	14.0	14	93.3	1	6.7	0	0.0	0	0.0	0	0.0
No information	5	4.7	4	80.0	0	0.0	0	0.0	0	0.0	1	20.0
Total	107	100.0	83	77.6	14	13.1	3	2.8	3	2.8	4	3.7

Table 16.—Condition of foundation by age of house.

Age of house years	Total houses reported		Number and percentage of houses reported with specific conditions of foundation									
			Sound		Cracked		Settled		Cracked and settled		No information	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Occupant knows												
Less than 20	1	.9	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0
20-30	3	2.8	3	100.0	0	0.0	0	0.0	0	0.0	0	0.0
31-40	19	17.8	15	78.9	3	15.8	1	5.3	0	0.0	0	0.0
41-50	23	21.5	20	87.0	0	0.0	0	0.0	1	4.3	2	8.7
over 50	10	9.3	8	80.0	1	10.0	0	0.0	1	10.0	0	0.0
Occupant guess												
Less than 20	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
21-30	2	1.9	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0
31-40	12	11.2	9	75.0	3	25.0	0	0.0	0	0.0	0	0.0
41-50	14	13.1	10	71.4	1	7.1	1	7.1	0	0.0	2	14.3
over 50	14	13.1	10	71.4	3	21.4	1	7.1	0	0.0	0	0.0
No information	9	8.4	5	55.6	3	33.3	0	0.0	1	11.1	0	0.0
Total	107	100.0	83	77.6	14	13.1	3	2.8	3	2.8	4	3.7

Table 17.—Material in basement walls.

Material	Number and percentage of 107 houses with specified feature		Percentage of 90 houses with basements with specified feature
	Number	Per cent	Per cent
Concrete block	18	16.8	20.0
Concrete	21	19.6	23.3
Stone	7	6.6	7.8
Brick	22	20.6	24.5
Tile	4	3.7	4.4
Dirt	2	1.9	2.2
Combination	15	14.0	16.7
No basement	17	15.9	16.7
No information	1	.9	1.1
Total	107	100.0	100.0

square feet of the house. Table 21 shows the average of total space to be 818.72 square feet. To determine the actual living space in the houses, the areas of closets, pantries, bathrooms, halls, and stairways were subtracted. Only 21 of the houses had inadequate space for the number of persons in the household (Table 22).

This is 19 per cent of the total families. The frequency of inadequacy varied directly with the number of family members. Nine of the 11 families of six, and three of the three families of seven did not have as many square feet of living space as the Health Association recommended.[9] The remodeling, it becomes apparent, must be directed toward better utilization of present space rather than the creation of additional square footage.

This fact is again pointed up when the density ratios of persons per room is analysed (Table 23). In no case was the ratio greater than the limit of one. In all but four instances the density was nine tenths or less. Here again closets, pantries, bathrooms, halls and stairways were not included in the number of rooms.

Adequate space for certain activities of the family members must also be provided. Recommendations by the committee on healthful housing[9] were made in terms of space for given activities rather than upon partitioned rooms.

The committee analyzed the space for activities in terms of three requirements: (1) space necessary for furniture and equipment essential to the activity, (2) space adjacent to the furniture or equipment essential to the performance of the activity, and (3) space necessary for storage of materials and equipment essential to the activity.

While the space allotments do not represent specific rooms, these standards are the best known to date. For this study it was not deemed advisable to ask questions on activity placement, because of the length of the questionnaire. A comparison was made, however, of the size of the rooms in which the furniture and equipment essential for the given activity were usually found and the space recommendations listed by the American Public

[9] American Public Health Association Committee on the Hygiene of Housing, op. cit.

Table 18.—Condition of floors by age of house.*

Age of house Years	Total houses reported		Number and percentage of houses reported with specified condition of floors											
			Not level		Warped		Good		Good not level		No infor-maton	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Occupant knows												
Iess than 20	1	.9	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0
20-30	3	2.8	0	0.0	0	0.0	3	100.0	0	0.0	0	0.0
31-40	19	17.8	0	0.0	1	5.3	17	89.4	1	5.3	0	0.0
41-50	23	21.5	0	0.0	0	0.0	23	100.0	0	0.0	0	0.0
over 50	10	9.3	0	0.0	0	0.0	10	100.0	0	0.0	0	0.0
Occupant guesses												
Less than 20	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
21-30	2	1.9	0	0.0	0	0.0	2	100.0	0	0.0	0	0.0
31-40	12	11.2	0	0.0	0	0.0	12	100.0	0	0.0	0	0.0
41-50	14	13.1	0	0.0	0	0.0	14	100.0	0	0.0	0	0.0
over 50	14	13.1	1	7.1	2	14.3	10	71.5	0	0.0	1	7.1
No information	9	8.4	1	11.1	0	0.0	8	88.9	0	0.0	0	0.0
Total	107	100.0	2	1.9	3	2.8	100	93.5	1	.9	1	.9
Total	107	100.0	2	1.9	3	2.8	0	0.0	100	93.5	1	.9	0	0.0	1	.9

* The writers assumed the original floors were in place. In no case was the the floor judged part good, or warped, not level.

Table 19.—Condition of plaster by age of house.*

Age of house Years	Total houses reported		Number and percentage of houses reported with specified condition of plaster											
			Loose		Cracked		Cracked and loose		Sound		Wall board		No information	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Occupant knows														
Less than 20	1	.9	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0
20-30	3	2.8	0	0.0	0	0.0	0	0.0	3	100.0	0	0.0	0	0.0
31-40	19	17.8	0	0.0	1	5.3	0	0.0	18	94.7	0	0.0	0	0.0
41-50	23	21.5	0	0.0	1	4.3	0	0.0	22	95.7	0	0.0	0	0.0
Over 50	10	9.3	1	10.0	1	10.0	0	0.0	8	80.0	0	0.0	0	0.0
Occupants guess														
Less than 20	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
21-30	2	1.9	0	0.0	0	0.0	0	0.0	2	100.0	0	0.0	0	0.0
31-40	12	11.2	0	0.0	0	0.0	1	8.3	11	91.7	0	0.0	0	0.0
41-50	14	13.1	0	0.0	1	7.1	2	14.3	11	78.6	0	0.0	0	0.0
Over 50	14	13.1	1	7.1	2	14.3	1	7.1	10	71.5	0	0.0	0	0.0
No information	9	8.4	1	11.1	0	0.0	0	0.0	8	88.9	0	0.0	0	0.0
Total	107	100.0	3	2.8	6	5.6	4	3.7	94	87.9	0	0.0	0	0.0

* The writers assumed the original plaster was in place.

Table 20.—Dimensions of the square.

Length Feet	Number and percentage of houses of specified width																			
	23 or less		24		25		26		27		28		29		30		31 or over		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
23 or less	*5	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	4.7
24	0	0.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	2	1.9
25	6	60.0	0	0.0	*3	30.0	0	0.0	0	0.0	1	10.0	0	0.0	0	0.0	0	0.0	10	9.3
26	2	12.5	6	37.4	1	6.3	*7	43.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	16	15.0
27	0	0.0	2	8.7	4	17.4	4	17.4	*11	47.9	0	0.0	1	4.3	0	0.0	1	4.3	23	21.5
28	0	0.0	0	0.0	5	33.3	3	20.0	3	20.0	*4	26.7	0	0.0	0	0.0	0	0.0	15	14.0
29	0	0.0	0	0.0	5	35.7	1	7.1	2	14.3	1	7.1	*4	28.7	0	0.0	1	7.1	14	13.1
30	0	0.0	1	8.3	0	0.0	0	0.0	3	25.0	2	16.7	0	0.0	*5	41.7	1	8.3	12	11.2
31 or over	0	0.0	0	0.0	0	0.0	1	10.0	2	20.0	2	20.0	2	20.0	2	20.0	*1	10.0	10	9.3
Total	13	12.1	9	8.4	19	17.8	16	15.0	21	19.6	10	9.3	7	6.6	8	7.5	4	3.7	107	100.0

* Perfectly square.

Table 21.—Average size of houses.

	Average dimensions—feet		
	Length	Width	Sq. ft.
Original Square	27.5	26.4	731.8
Additions	.....	.....	87.2
Total square feet on first floor			818.7

Health Association. If any houses were consistently limited in the space allotments, such shortcomings would show up in the total number of square feet of the house when compared with the total recommended square footage.

These standards were developed according to the number of people in the household. The published recommendations are for households of from one to six people. Households with greater numbers of people were included in this study, and the recommendations were estimated at a proportional rate of increase. When the space is broken down into areas, families had sufficient space.

When living rooms were considered as the only space for recreation, the facilities were inadequate. However, all except four families had dining rooms of more than adequate size so that the allocation of space rather than the addition of space is again the apparent problem (Table B-8).

So few halls were found on the first floor that no conclusion could be reached as far as space for circulation was concerned. Table B-9 shows the relationship of second floor hallways to size of family, but the recommendations indicated are for totals, and so are not representative of the true situation. Even with this limitation, few families were overcrowded in this area.

All of the families had a satisfactory amount of space in the sleeping and dressing area (Table B-10). Most of the families had satisfactory amounts of space available for food preparation and serving. (Table B-11).

Thirty-two houses had no bathroom and no information was given as to area used for cleanliness in these cases. Over half of the houses were inadequate in provision for such space (Table B-12).

As previously noted, 66 of the houses had additional space in the form of projections from the square. Twenty-five of these additions were the result of a remodeling project. The other 41 extensions from the square were a part of the original building plan. Remodeling had taken other forms than that of additions to the square. In all, 50 houses had had some kind of changes made from the original (Table 24). Thirty-four per cent of the families who had remodeled had rearranged the space within the square.

The room divisions of the houses fell into a definite pattern. Four rooms on the first floor and four on the second was the division in the majority of cases. The next most common division, representing about 15 per cent of the houses, had five rooms on the first floor and four on the second (Table 25). The number of rooms on the second floor, according to house type, is recorded in Table B-4).

It had been anticipated that the room arrangements would follow a pattern. Several combinations of room use designations assumed to be common were listed, but the re-

Table 22.—Total living space available by number of persons in household.

Number of square feet	Total families reported		Number and percentage of persons in houses with specified space available																	
			1		2		3		4		5		6		7		8		9	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
900 or less	1	.9	0	*0.0	0	*0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	.9	0	0.0	0	0.0
901-1000	3	2.8	0	0.0	0	0.0	1	*.9	1	.9	1	.9	0	0.0	0	0.0	0	0.0	0	0.0
1001-1100	9	8.4	1	.9	5	4.7	1	.9	2	1.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1101-1200	15	14.0	0	0.0	3	2.8	3	2.8	5	*4.7	1	.9	2	1.9	1	.9	0	0.0	0	0.0
1201-1300	23	21.5	0	0.0	6	5.6	5	4.7	6	5.6	3	2.8	1	.9	1	.9	1	.9	0	0.0
1301-1400	20	18.8	0	0.0	3	2.8	6	5.6	4	3.7	3	*2.8	4	3.7	0	0.0	0	0.0	0	0.0
1401-1500	19	17.8	0	0.0	1	.9	6	5.6	6	5.6	4	3.7	2	1.9	0	0.0	0	0.0	0	0.0
1501-1600	7	6.5	0	0.0	2	1.9	0	0.0	2	1.9	2	1.9	0	*0.0	0	*0.0	1	*.9	0	*0.0
1601-1700	7	6.5	1	.9	0	0.0	2	1.9	2	1.9	0	0.0	2	1.9	0	0.0	0	0.0	0	0.0
1701-1800	2	1.9	0	0.0	1	.9	0	0.0	0	0.0	1	.9	0	0.0	0	0.0	0	0.0	0	0.0
1801-1900	1	.9	0	0.0	0	0.0	0	0.0	0	0.0	1	.9	0	0.0	0	0.0	0	0.0	0	0.0
1901-2000	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2001 or over	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	107	100.0	2	1.9	21	19.6	24	22.4	28	26.2	16	14.9	11	10.3	3	2.8	2	1.9	0	0.0

* Recommended space for specified number of persons in household.

Table 23.—Ratio of number of rooms in the house to the number of persons in the household.

Number of persons in household	Total households reported		Number and percentage of total houses with specified number of rooms											
			6 rooms		7 rooms		8 rooms		9 rooms		10 rooms		11 rooms	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
1	2	1.9	..	..	1	.9	1	.9	..	....	..	..	..	..
2	21	19.6	..	..	5	4.7	13	12.1	3	2.8	.		.	
3	24	22.4	..	.	7	6.5	10	9.4	5	4.7	1	.9	1	.9
4	28	26.2	1	.9	3	2.8	18	16.8	5	4.7	1	.9	..	..
5	16	14.9	..	..	5	4.7	6	5.6	4	3.7	1	.9	..	..
6	11	10.3	*1	.9	..	....	6	5.6	3	2.8	..	..	1	.9
7	3	2.8	..	..	*1	.9	1	.9	1	.9	..	..	..	..
8	2	1.9	..	..	..	..	*2	1.9	..	....	..	..	..	..
Total	107	100.0	2	1.9	22	20.6	57	53.3	21	19.6	3	2.7	2	1.9

* One room per person minimum requirement.

sults of data analysis proved that although four rooms on the first floor were most prevalent among the square houses, the designation of these four rooms varied greatly (Table 26). Fifty-seven per cent of the houses followed none of the anticipated patterns.

The variety of arrangements within this percentage group and the low frequencies of each type, made additional designations as meaningless as those originally listed. The rooms throughout the study have been identified by their present usage regardless of where they were located in the individual house, although present usage is of minor importance when plans for improvement are developed.

Table 24.—Remodeling that has been done.

	No.	Pct.
Remodeled within the square	17	15.9
Remodeled existing addition of the square	3	2.8
*Added to one side	22	20.5
*Added to one side, not separate room	3	2.8
Other	5	4.7
None	57	53.3
Total	107	100.0

* These 25 additions were made after the original house had been built.

The average size of living room was 192.2 square feet and of the dining room 193.3 square feet, so that interchange of designation would not be deterred by size. The average kitchen size was also similar, leaving only the bedroom sizes appreciably different (Table 27).

Table 25.—Room division

Rooms on first floor	Rooms on second floor	Number and percentage of houses reported as having specified room division	
		No.	*Pct.*
3 rooms	2 rooms	0	0.0
3 rooms	3 rooms	2	1.9
3 rooms	4 rooms	7	6.5
3 rooms	5 rooms	0	0.0
3 rooms	6 rooms	0	0.0
3 rooms	7 rooms	0	0.0
4 rooms	2 rooms	1	.9
4 rooms	3 rooms	15	14.0
4 rooms	4 rooms	56	52.3
4 rooms	5 rooms	2	1.9
4 rooms	6 rooms	0	0.0
4 rooms	7 rooms	1	.9
5 rooms	2 rooms	0	0.0
5 rooms	3 rooms	2	1.9
5 rooms	4 rooms	16	15.0
5 rooms	5 rooms	2	1.9
5 rooms	6 rooms	0	0.0
5 rooms	7 rooms	0	0.0
6 rooms	2 rooms	0	0.0
6 rooms	3 rooms	1	.9
6 rooms	4 rooms	1	.9
6 rooms	5 rooms	1	.9
6 rooms	6 rooms	0	0.0
6 rooms	7 rooms	0	0.0
Total		107	100.0

Table 26.—Room arrangement on first floor.

Within square	Plus addition	No.	Pct.
Living, Dining, Bedroom, Kitchen		13	12.1
Living, Dining, Bedroom, Kitchen, Bath		8	7.5
Living, Dining, Bedroom, Kitchen, Pantry		8	7.5
Living, Dining, Bedroom, Pantry	Kitchen	3	2.8
Living, Dining, Bedroom, Kitchen	Bath	9	8.4
Living, Dining, Bedroom, Kitchen	Pantry	5	4.7
Other		*61	57.0
Total		107	100.0

* 49 of these additions to the square; 12 had no additions.

CHARACTERISTICS OF STAIRWAYS, HALLS, OPENINGS AND CEILING HEIGHTS

Certain characteristics other than size and room arrangement must be explored and compared.

Window openings are noted as indicative of adequate light and ventilation in the present houses and also as a guide for the architects in reorganizing the use of space. Table 28 shows the similarity of numbers of windows in each room. By far the largest number of houses had two windows in each downstairs room except the first floor bath.

Although the mode of number of inside doors was also two, 26.2 per cent of the kitchens had three inside doors and the same per cent had four. Sixty-eight per cent of the houses had outside doors opening into the present living room, and 64.5 per cent had openings into the dining room, again pointing up the similarity of the two rooms. So few halls were found on the first floor that no conclusion regarding door openings could be reached. Although 12 houses had no outside doors from the kitchen, most of these had inside doors to a back hall or utility room through which the outside could be reached directly.

Table 27.—Average size of rooms in square houses.

Room	Length*	Width*	Sq. feet
Living Room	14.9	12.9	192.2
Dining Room	14.9	13.1	193.3
Kitchen	14.4	12.2	172.8
First Floor Bedroom	13.0	10.9	141.9
First and Second Floor Bathrooms	9.2	6.2	56.3
Second Floor Bedrooms	13.1	11.0	145.0

* Average dimensions in feet.

The number of window and door openings in each of the second floor rooms was similar in all the houses surveyed. (Table 29). Two was again the most frequently occuring number of windows.

The stairway to the second floor in 32.7 per cent of the houses opened into the present dining room (Table 30). Nearly 32 per cent opened into an inside hallway. Over half of all stairways were placed against the interior bearing wall. Eighty-five per cent of the

Table 28.—Number and percentage of houses having specific number of openings by rooms on first floor.

Number of openings	Living room		Dining room		Kitchen		First floor bedroom		First floor bathroom	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Windows										
1	5	4.7	8	8.1	17	15.9	14	14.6	56	91.8
2	69	64.5	43	43.5	62	57.9	68	70.8	3	5.0
3	21	19.6	26	26.2	19	17.8	12	12.5	0	0.0
4	8	7.5	18	18.2	5	4.7	2	2.1	0	0.0
5	3	2.8	2	2.0	4	3.7	0	0.0	0	0.0
6	1	.9	2	2.0	0	0.0	0	0.0	0	0.0
0	0	0.0	0	0.0	0	0.0	0	0.0	2	3.2
Total	107	100.0	99	100.0	107	100.0	96	100.0	61	100.0
Inside doors										
1	22	20.5	0	0.0	3	2.8	14	14.6	44	72.1
2	73	68.3	52	52.5	40	37.3	56	58.3	14	23.0
3	10	9.3	26	26.2	28	26.2	22	22.9	2	3.3
4	2	1.9	17	17.1	28	26.2	4	4.2	1	1.6
5	0	0.0	3	3.1	8	7.5	0	0.0	0	0.0
6	0	0.0	1	1.1	0	0.0	0	0.0	0	0.0
Total	107	100.0	99	100.0	107	100.0	96	100.0	61	100.0
Outside doors										
1	72	67.3	67	62.6	82	76.7	3	2.8	3	2.8
2	1	.9	2	1.9	13	12.1	1	.9	0	0.0
3	0	0.0	1	.9	0	0.0	0	0.0	0	0.0
0	34	31.8	37	34.6	12	11.2	103	96.3	104	97.2
Total	107	100.0	107	100.0	107	100.0	107	100.0	107	100.0

Table 29.—Number and percentage of houses having specific number of openings by rooms on second floor.

Number of openings	Second floor hall		First bedroom		Second bedroom		Third bedroom		Fourth bedroom		Fifth bedroom	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Windows												
1	48	52.2	6	5.6	12	11.2	14	13.4	9	11.5	1	20.0
2	8	8.7	85	79.5	87	81.4	79	76.0	59	75.6	4	80.0
3	....	.....	7	6.6	4	3.7	8	7.7	7	9.0	..	.....
4	....	.....	6	5.6	4	3.7	3	2.9	3	3.9	..	.....
5	....	.....	1	.9	....	.....	....	.....	....	.....	..	.....
6	....	.....	1	.9	....	.....	....	.....	....	.....	..	.....
0	36	39.1	1	.9	....	.....	....	.....	...	.....	..	.....
Total	92	100.0	107	100.0	107	100.0	104	100.0	78	100.0	5	100.0
Inside doors												
1	1	1.1	23	21.5	23	21.5	24	23.1	15	19.2	1	20.0
2	1	1.1	75	70.1	76	71.0	75	72.1	58	74.4	3	60.0
3	8	8.7	8	7.5	5	4.7	4	3.8	4	5.1	..	.....
4	39	42.4	1	.9	3	2.8	1	1.0	1	1.3	..	.....
5	25	27.2	....	.....	....	.....	....	.....	....	.....	1	20.0
6	12	13.0	....	.....	....	.....	....	.....	....	.....	..	.....
7	6	6.5	...	.....	....	.....	....	.....	....	.....	..	.....
Total	92	100.0	107	100.0	107	100.0	104	100.0	78	100.0	5	100.0
Outside Doors												
1	6	5.6	1	.9	....	.....	1	.9	3	2.8	....	.....
0	101	94.4	106	99.1	107	100.0	106	99.1	104	97.2	107	100.0
Total	107	100.0	107	100.0	107	100.0	107	100.0	107	100.0	107	100.0

Table 30.—Placement of stairway by room opening to entrance of stairway on 1st floor.

Placement of stairway	Total houses reported		Number and percentage of houses with specified stairway placement and room opening to entrance of stairway											
			Kitchen		Entrance hall		Living room		Dining room		Inside hall		Bedroom		Closets	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Against outside wall	14	13.1	5	35.7	3	21.5	0	0.0	5	35.7	0	0.0	1	7.1	0	0.0
Against bearing wall	58	54.2	11	19.0	2	3.4	6	10.3	18	31.1	20	34.5	0	0.0	1	1.7
Against another wall	35	32.7	6	17.1	1	2.9	2	5.7	12	34.3	14	40.0	0	0.0	0	0.0
Total	107	100.0	22	20.6	6	5.6	8	7.5	35	32.7	34	31.8	1	.9	1	.9

stairways opened into a hall on the second floor (Table 31).

Since ceiling height is a factor in determining the amount of space necessary for a stairway, it was noted in each house (Table 32). As would be expected in houses the age of those in the sample, nine foot ceilings were prevalent. Only ten stairways were winding ones while 83 were straight and 14 turned with landings. Only two stairways were less than 34 inches wide. Thirty-eight were of minimum safe width of 34-36 inches,[10] sixty-seven were ample in width (Table 33). Less than half of the stairways had risers of the recommended seven inches height (Table 34). Sixty-seven stairways had treads 10 or 11 inches deep from front to back of step, but 35 stair treads measured nine inches or less.

Basement stairways were also studied wherever possible. No definite pattern of basement openings on the first floor was established. Basement stairways were entered from outside, back halls, and kitchens with nearly equal frequency (Table 35). Placement of the basement stairway varied too widely for generalization.

Only two basement ceilings were less than seven feet high and two more than nine feet high. As in the case of second floor stairways the largest number of basement stairwells were straight (Table 36). Only seven were less than minimum wid-

[10] "Standards for Working Surface Heights and Other Space Units of the Dwelling," Maude Wilson, Evelyn H. Roberts, Ruth Thayer, unpublished material, Oregon State College Library.

Table 31.—Placement of stairway by opening on second floor.

Placement of stairway	Total houses reporting		Number and percentage of houses with specific stairway opening on second floor							
			Into hall		Room used as hall		Bedroom		No information	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Against outside wall	14	13.1	12	11.2	0	0.0	2	1.9	0	0.0
Against bearing wall	58	54.2	46	43.0	1	.9	11	10.3	0	0.0
Against another wall	35	32.7	33	30.8	0	0.0	2	1.9	0	0.0
Total	107	100.0	91	85.0	1	.9	15	14.1	0	0.0

Table 32.—Ceiling height on first floor by type of stairway.

Type of stairway	Total houses reported		Number and percentage of houses with specific ceiling height on first floor							
			Feet						No information	
			7 or less		8		9			
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Straight	83	77.6	1	.9	17	15.9	58	54.2	7	6.6
Has Landing	14	13.1	0	0.0	3	2.8	11	10.2	0	0.0
Winds	10	9.3	0	0.0	2	1.9	7	6.6	1	.9
Total	107	100.0	1	.9	22	20.6	76	71.0	8	7.5

th (Table 37). All except 19 had risers of more than seven inches. The depth of tread in 20 of the 90 houses having basement stairways was recorded as inadequate, and no information was given for 49 other stairways, so that actually only 21 were known to be ten inches or more in depth from front to back of step.

DEGREE OF MODERNIZATION

All except two of the houses in the survey had electricity. Eleven, however, had no receptacle (convenience) circuits and three had no power circuits. Many farmers did not know the number of circuits, and in many cases the engineer was unable to tell. While 96 houses had receptacle circuits, the number of these circuits was not known in 95 cases (Table 39).

Although 74.8 per cent of the houses were wired sometime after they were built, no date of installation was established. Neither was any capacity of load into the house given to the interviewer. Any recommendations involving additional use of electricity would be dependent on adequency of wiring in the individual house.

A high percentage of the houses had water systems, sewage disposal systems, and water heaters. Seventy-nine per cent had water systems, (Table 40), and of these 87 per

Table 33.—Width of stairs by description of stairway to second floor.

Width of stair	Total houses reported		Description of stairway to second floor								
			Straight			Has landing			Winds		
	No.	Pct.	No.	Pct. of total	Pct. of type	No.	Pct. of total	Pct. of type	No.	Pct. of total	Pct. of type
Less than 28″	0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
28-30	0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
31-33	2	1.9	2	1.9	2.4	0	0.0	0.0	0	0.0	0.0
34-36	38	35.5	31	29.0	37.3	2	1.9	14.3	5	4.7	50.0
37-39	22	20.6	18	16.8	21.8	1	.9	7.1	3	2.8	30.0
40-42	36	33.6	27	25.2	32.5	8	7.5	57.2	1	.9	10.0
Over 42	8	7.5	5	4.7	6.0	2	1.9	14.3	1	.9	10.0
No information	1	.9	0	0.0	0.0	1	.9	7.1	0	0.0	0.0
Total	107	100.0	83	77.6	100.0	14	13.1	100.0	10	9.3	100.0

Table 34.—Height of risers by width of tread of stairway to second floor.

Height of riser	Total houses reported		Width of tread															
			7 inches or less		8 inches		9 inches		10 inches		11 inches		12 inches		Over 12 inches		No information	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
7″ or less	48	44.9	1	.9	2	1.9	8	7.5	21	19.6	14	13.1	2	1.9	....	....	..	....
8″	43	40.2	..	..	5	4.7	12	11.2	20	18.7	6	5.6	..	....	....	....	..	....
9″	13	12.1	..	..	..	....	7	6.5	3	2.8	3	2.8	..	....	....	....	..	....
No information	3	2.8	..	..	..	....	....	.....	..	.....	....	.....	..	....	....	....	3	2.8
Total	107	100.0	1	.9	7	6.6	27	25.2	44	41.1	23	21.5	2	1.9	0	0.0	3	2.8

Table 35.—Placement of basement stairway by opening on first floor.

Placement of stairway	Total houses reported		Number and percentage of houses with specific stairway openings on first floor															
			Kitchen		Back hall		Workroom		Pantry		Outdoors		Dining		Other		No information	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
In addition	12	11.2	3	2.8	4	3.8	1	.9	..	..	3	2.8	..	....	1	.9	..	....
Against outside wall	21	19.6	7	6.6	....	.....	..	..	..	..	14	13.1	..	....	..	....	..	....
Against bearing wall	22	20.6	8	7.5	10	9.3	..	..	1	.9	2	1.9	..	....	1	.9	..	....
Against other wall	18	16.8	5	4.6	11	10.3	..	..	..	..	1	.9	..	....	1	.9	..	....
None	17	15.9	..	....	....	.....	..	..	..	..	....	.....	..	....	..	....	..	....
No information	17	15.9	..	....	....	.....	..	..	..	..	10	9.3	..	....	1	.9	6	5.6
Total	107	100.0	23	21.6	25	23.4	1	.9	1	.9	30	28.0	0	0.0	4	3.7	6	5.6

Table 36.—Ceiling height of basement by type of stairway.

Type of stairway	Total houses reported		Number and percentage of the 90 houses with specific ceiling height of basement*							
			7 or less feet		7 to 9 feet		Over 9 feet		No information	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Straight	48	44.9	1	2.1	44	91.6	2	4.2	1	2.1
Has Landing	18	16.8	..	....	18	100.0	..	....	..	.....
Winds	1	.9	..	....	1	100.0	..	....	..	.....
No information	23	21.5	1	4.3	16	69.6	..	....	6	26.1
Total	90	84.1*	2	2.2	79	87.8	2	2.2	7	7.8

* 17 houses or 15.9 per cent of all houses had no basements.

Table 37.—Description of basement stairway by width of stairway.

Width of stairway	Total			Description											
				Straight			Has landing			Winds			No information		
	No.	Pct. of total	Pct. of houses with stairways	No.	Pct. of total	Pct. of houses with stairways	No.	Pct. of total	Pct. of houses with stairways	No.	Pct. of total	Pct. of houses with stairways	No.	Pct. of total	Pct. of houses with stairways
Less than 28″	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
28″-30″	3	2.8	3.3	2	1.9	2.2	1	.9	1.1	0	0.0	0.0	0	0.0	0.0
31″-33″	4	3.7	4.4	3	2.8	3.3	1	.9	1.1	0	0.0	0.0	0	0.0	0.0
34″-36″	20	18.7	22.2	16	15.0	17.7	2	1.9	2.2	1	.9	1.1	1	.9	1.1
37″-39″	9	8.4	10.0	5	4.7	5.5	4	3.7	4.4	0	0.0	0.0	0	0.0	0.0
40″-42″	12	11.2	13.3	7	6.6	7.7	5	4.7	5.5	0	0.0	0.0	0	0.0	0.0
Over 42″	5	4.7	5.5	4	3.7	4.4	1	.9	1.1	0	0.0	0.0	0	0.0	0.0
No information	37	34.6	41.1	11	10.2	12.2	4	3.7	4.4	0	0.0	0.0	22	20.6	24.4
Total	90	84.1*	100.0	48	44.9	53.0	18	16.7	19.8	1	.9	1.1	23	21.5	25.5

* 17 houses or 15.9 per cent of all houses had no basements.

Table 38.—Height of risers on basement stairs by width of treads.

Height of risers	Total houses reported		Width of treads													
			7 inches or less		8 inches		9 inches		10 inches		11 inches		12 inches		No information	
	No.	Pct. of total	No.	Pct. of stairways	No.	Pct. of stairways	No.	Pct. of stairways	No.	Pct. of stairways	No.	Pct. of stairways	No.	Pct. of stairways	No.	Pct. of stairways
7″ or less	19	17.8	1	1.1	2	2.2	2	2.2	6	6.7	5	5.6	0	0.0	3	3.3
8″	18	16.8	1	1.1	3	3.3	6	6.7	4	4.4	2	2.2	2	2.2	0	0.0
9″	5	4.7	0	0.0	1	1.1	3	3.3	1	1.1	0	0.0	0	0.0	0	0.0
10″	2	1.9	0	0.0	1	1.1	0	0.0	1	1.1	0	0.0	0	0.0	0	0.0
No information	46	42.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	46	51.1
Total	90	84.1*	2	2.2	7	7.7	11	12.2	12	13.3	7	7.8	2	2.2	49	54.4

* 17 houses or 15.9 per cent of all houses had no basements.

Table 39.—Electrical circuits.

Number of circuits	Lighting			Receptacle			Power		
	No.	elec.	Pct.	No.	elec.	Pct.	No.	elec.	Pct.
1	....	....	....	1	1.0	.9	20	19.2	18.7
2	1	1.0	.9	....	.....	.....	9	8.7	8.4
3	4	3.8	3.7	....	.....	.....	4	3.8	3.7
4	25	23.8	23.4	....	.....	.....	....	.....	.....
5	5	4.8	4.7	....	.....	.....	....	.....	.....
6	9	8.6	8.4	....	.....	.....	....	.....	.....
7	2	1.9	1.9	....	.....	.....	....	.....	.....
8 or more	2	1.9	1.9	....	.....	.....	....	.....	.....
No information	57	54.2	53.2	95	99.0	88.8	71	68.3	66.4
Total	105	100.0	98.1	96	100.0	89.7	104	100.0	97.2
None	2	.....	1.9	11	.....	10.3	3	.....	2.8

Table 40.—Water and sewage disposal facilities.

Facility	No.	Pct. of houses with facility	Pct. of total
Water System			
Pressure-gas pump	0	0.0	0.0
Pressure-elec. pump	74	87.1	69.2
Gravity	11	12.9	10.2
Total with system	85	100.0	79.4
None	20	.....	18.7
No information	2	.....	1.9
TOTAL	107	.....	100.0
Sewage Disposal			
Septic tank	34	43.0	31.8
Cess pool	30	38.0	28.0
Open line	9	11.4	8.4
Combination	6	7.6	5.6
Total with system	79	100.0	73.8
None	26	.....	24.3
No information	2	.....	1.9
TOTAL	107	.....	100.0
Water heater			
Automatic, elec.	45	63.5	42.0
Automatic, gas	14	19.7	13.1
Automatic, oil	5	7.0	4.7
Manual	2	2.8	1.9
Range or furnace	5	7.0	4.7
Total with system	71	100.0	66.4
None	36	.....	33.6
No information	0	.....	0.0
TOTAL	107	.....	100.0

cent were pressure systems operated by electric pumps. Seventy-four per cent had some sort of sewage disposal system, but less than half of these systems were septic systems.

Some facility for heating water was found in 66.4 per cent of the houses. Of these, 63.5 per cent had automatic electric heaters and only seven per cent of the houses included were dependent on the range or furnace for heating water. Thirty-eight of the farmers interviewed did not know whether the water system had been installed when the house was built or at a later date. Sixty-nine reported the system to be satisfactory.

At least one bath was found in 70.1 per cent of the houses sampled. Eleven per cent had more than one bath (Table 41). The first floor was by far the most frequently occurring location for a bathroom whether it was the only bath or one of two baths in the house. When each bathroom facility was studied without consideration of number per household or location within the house, a total of 96 lavatories was reported. Of these 87.5 per cent had cold and hot water. The total number of flush toilets was less than that of lavatories. Although the number of tubs and showers was also less than that of lavatories, the percentage having cold and hot water remained nearly the same (Table 42).

To determine the degree of modernization as far as equipment was concerned, a record was made of the presence of specific types of equipment and the kind of fuel used. Electrically operated refrigerators were found in 92.5 per cent of the houses. Only 6.6 per cent of the refrigerators used gas. Over 90 per cent of the houses had conventional washing machines and 60 per cent had electric ranges (Table 43).

About one fourth of the basements in the 90 houses were used for no specific purpose. Washers were found in 35 per cent and

Table 41.—Number of bathrooms or half bathrooms* by location within house.

Location				No.	Per cent with bath	Per cent of total
1st Floor square	2nd Floor	1st Floor addition	Basement			
x	..	..	..	28	37.3	26.2
..	x	.	..	23	30.6	21.5
..	..	x	..	11	14.6	10.2
..	..	..	x	1	1.3	.9
x	x	..	..	0	0.0	0.0
x	..	x	..	5	6.6	4.7
x	..	..	x	1	1.3	.9
..	x	x	..	2	2.6	1.9
..	x	..	x	0	0.0	0.0
..	..	x	x	3	4.0	2.8
x	..	x	x	1	1.3	.9
..	x	x	x	0	0.0	0.0
Total				75	100.0	70.1

* Any room having a flush toilet and at least one washing facility.

Table 42.—Number and per cent of bathroom facilities.

Facility	Number	Per cent of facility
Flush Toilets	86	100.0
Lavatories	96	100.0
Cold water only	12	12.5
Cold & hot water	84	87.5
Tubs	70	100.0
Cold water only	8	11.4
Cold & hot water	62	88.6
Showers	24	100.0
Cold water only	5	20.8
Cold & hot water	19	79.2

Table 43.—Number and per cent of houses with certain types and kinds of equipment.

Type of equipment	Kind of equipment											
	Electric		Gas		Oil		Coal and wood		Wood and oil		Wood and electric		None	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Range*	66	61.7	25	23.3	5	4.7	17	15.9	1	0.9	1	0.9	0	0
Refrigerator**	99	92.6	7	6.6	..	...	...	.....	..	...	..	...	3	2.8
Automatic Washer***	11	10.3	...	.....	..	...	...	.....	..	...	..	...	97	90.7
Conventional Washer***	97	90.7	...	.....	..	...	...	.....	..	...	..	...	11	10.3
Dryer	7	6.6	...	.....	..	...	...	.....	..	...	..	...	100	93.4
Freezer****	60	56.1	...	.....	..	...	...	.....	..	...	..	...	48	44.9
Separator	60	56.1	...	.....	..	...	...	.....	..	...	..	...	47	43.9

* 1 house had 1 electric range, 1 gas range
3 houses had 1 electric range, 1 wood range
1 house had 2 electric ranges
1 house had 1 gas range and 1 wood range
2 houses had 1 oil range, 1 wood range.
** 2 house had 2 refrigertors.
*** 1 house had 1 automatic and 1 conventional washer
**** 1 house had 2 freezers

pumps in 32.2 per cent of the basements. Only seven per cent of the families stored produce or household items there (Table 44). Table 45 shows over half of the basements had no drain.

Nearly the same number of houses were heated by central heating as by stoves (Table 47). in the centrally heated houses forced air and gravity type systems were used almost exclusively and in equal proportion.

Lights, power, running water, flush toilets, hot water and central heat were all found in 30 owned homes and 13 rented ones (Table 46). An additional 11 owned homes and nine rented ones had all these conveniences except central heat.

FAMILY

In the study of square houses in Nebraska the type of family occupying each house was ascertained. Family types included single persons, one couple, couples with grown children, and couples with children of different age groupings.

Families with children were the most frequent types. Thirty families had children eight and under, and 36 had children nine through 18 (Table 48). Twenty-four families with children had lights, power, running water, flush toilets, hot water and central heat. Thirteen more families with children had all the conveniences except central heat, and two had lights only.

No pattern was established on ages of family heads when divisions of a five year span were used. The concentration, however, was markedly between 36 and 53 with simila-

Table 44.—Use of basement in 90 houses having basements.

Use	Number	Pct. of houses with basements*
Household storage	7	7.8
Water heater	17	18.9
Furnace	14	15.6
Pump	29	32.2
Washer	32	35.6
Bath facilities	19	21.1
Dairy equipment	1	1.1
Freezer	3	3.3
Produce storage	7	7.8
No specified use	23	25.6

* Does not total 100 per cent because several uses are included in a single basement.

rity occurring between the groups within these extremes (Table 49). In most instances, the homemakers were younger than their husbands; three times more homemakers than family heads were 25 or under. A sharp drop in number of homemakers over 50 years of age was evident. More homemakers than family heads had completed high school and three times more had some college education (Table 50).

STORAGE

Storage space was measured wherever possible. Where not possible the space was estimated. Homemakers were asked where certain items in the kitchen were stored, so that the measurements could be specific. The amount of space by item is recorded in the appendix. In other areas the space was measured in square feet and recorded by room designation.

Homemakers were asked if they desired more general household storage and, more specifically, if available space in different rooms was adequate. There seemed to be no positive relationship between the homemaker's desire for additional storage and insufficiency of present facilities. Only 56 homemakers desired more storage in the kitchen (Table 51), although 66 presently had five feet or less of storage in this area (Table B-20). The households of ten of these homemakers consisted of five per-

Table 45.—Drainage of basement.

Method of drainage	Number and percentage of houses with specified feature		Percentage of 90 houses with basements with specified features
	No.	*Pct.*	*Pct.*
Floor drain into septic tank	9	8.4	10.0
Floor drain into cess pool	14	13.1	15.6
Floor drain into open line	10	9.3	11.1
Pump	4	3.7	4.4
Other	1	.9	1.1
None	51	47.8	56.7
No basement	17	15.9	.....
No information	1	.9	1.1
Total	107	100.0	100.0

Table 46.—Extent of modernization by tenure.

Modernization							Tenure			
							Own		Rent	
Lights	Power	Running water	Flush toilet	Hot water	Central heat	None	No.	Pct.	No.	Pct.
x	..	..	..	..	..	..	5	4.7	7	6.6
x	x	..	..	..	..	..	2	1.9	2	1.9
x	x	x	..	..	..	..	2	1.9	6	5.6
x	x	x	x	..	..	..	2	1.9	1	.9
x	x	x	x	x	..	..	11	10.3	9	8.4
x	x	x	x	x	x	..	30	28.0	13	12.1
x	x	x	..	x	..	..	3	2.8	4	3.7
x	x	x	..	..	x	..	2	1.9	3	2.8
x	x		..	..	x	..	2	1.9	0	0.0
x	x	x	x	..	x	..	0	0.0	1	.9
..	..	..	..	..	..	x	1	.9	1	.9
Total							60	56.2	47	43.8

Table 47.—Heating system and type of fuel.

Type of system	Type of fuel															
	Total		Gas		Oil		Coal		Wood		Coal and wood		Propane		Combination	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Central heat	47*	43.9	..	....	....	.....	..	....	..	....	..	....	..	....	..	....
Steam	1	.9	0	0.0	1	.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hot water	1	.9	0	0.0	0	0.0	0	0.0	0	0.0	1	.9	0	0.0	0	0.0
Forced air	23	21.5	1	.9	12	11.2	6	5.6	1	.9	0	0.0	3	2.8	0	0.0
Gravity	22	20.6	1	.9	4	3.7	6	5.6	2	1.9	9	8.4	0	0.0	0	0.0
Floor furnace	6	5.7	1	.9	1	.9	2	1.9	0	0.0	2	1.9	0	0.0	0	0.0
Pipeless	4	3.7	0	0.0	0	0.0	0	0.0	1	.9	3	2.8	0	0.0	0	0.0
Space heater	1	.9	0	0.0	1	.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Stove	49	45.8	4	3.7	27	25.3	2	1.9	1	.9	8	7.5	1	.9	6	5.6
Total	107	100.0	7	6.6	46	42.9	16	15.0	5	4.7	23	21.5	4	3.7	6	5.6

* 2 houses with central heating systems could not heat all rooms.
1 house with central heating reported no information concerning heat to all rooms.

Table 48.—Extent of modernization by family type.

Lights	Power	Running water	Flush toilet	Hot water	Central heat	None	Number and percentage of each family type with specified facilities																	
							Single person		One couple family		Families with children										2 or more adult couples		Single with another related adult	
											Children grown (over 18)		Children 8 and under		Children 9 through 18		Children 8 and under and other adults		Children 9 through 18 and other adults					
							No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
x	..	..	..	..	..	..	2	1.9	3	2.8	0	0.0	4	3.7	3	2.8	0	0.0	0	0.0	0	0.0	0	0.0
x	x	..	..	..	..	..	0	0.0	1	.9	0	0.0	4	1.9	1	.9	0	0.0	0	0.0	0	0.0	0	0.0
x	x	x	..	..	..	..	0	0.0	0	0.0	1	.9	3	2.8	4	3.7	0	0.0	0	0.0	0	0.0	0	0.0
x	x	x	x	..	..	..	0	0.0	2	1.9	0	0.0	1	.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
x	x	x	x	x	..	..	2	1.9	4	3.7	0	0.0	5	4.7	7	6.6	1	.9	0	0.0	0	0.0	1	.9
x	x	x	x	x	x	..	0	0.0	8	7.5	10	9.3	9	8.4	15	14.1	0	0.0	0	0.0	1	.9	0	0.0
x	x	x	..	x	..	..	0	0.0	0	0.0	1	.9	5	4.7	1	.9	0	0.0	0	0.0	0	0.0	0	0.0
x	x	x	..	..	x	..	0	0.0	0	0.0	0	0.0	1	.9	4	3.7	0	0.0	0	0.0	0	0.0	0	0.0
x	x	..	..	..	x	..	1	.9	0	0.0	0	0.0	0	0.0	1	.9	0	0.0	0	0.0	0	0.0	0	0.0
x	x	x	x	..	x	..	0	0.0	1	.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
..	..	..	..	..	..	x	1	.9	0	0.0	1	.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total							6	5.6	19	17.8	13	12.1	30	28.0	36	33.6	1	.9	0	0.0	1	.9	1	.9

Table 49.—Age of family head and homemaker.

Age	Family head		Homemaker	
	No.	Pct.	No.	Pct.
25 or under	5	4.7	18	16.8
26-30	15	14.0	13	12.1
31-35	7	6.6	9	8.4
36-40	14	13.1	17	15.9
41-45	14	13.1	10	9.3
46-50	10	9.3	14	13.1
51-55	17	15.9	6	5.6
56-60	9	8.4	7	6.6
61-65	3	2.8	5	4.7
66 or over	13	12.1	8	7.5
Total	107	100.0	107	100.0

Table 51.—Storage desired in specific rooms in house.

Room	Want more storage	
	Number	Per cent
Kitchen	56	52.3
Living room	25	23.3
Dining room	22	20.6
Bedrooms	47	43.9
Bathroom	46	43.0
Work room	33	30.8
Generally	36	33.6

sons and nine households consisted of six persons. Ten homemakers had 41 square feet or more kitchen storage. No relationship seemed to exist between size of family and amount of storage.

Table 50.—Education of family head and homemaker.

Years of education	Family head		Homemaker	
	No.	Pct.	No.	Pct.
0-7	3	2.8	3	2.8
8	44	41.1	27	25.3
9-11	28	26.2	24	22.4
12	28	26.2	41	38.3
13 or over	4	3.7	10	9.3
No information	0	0.0	2	1.9
Total	107	100.0	107	100.0

Bedroom storage and bathroom storage were reported inadequate by 43 per cent of the homemakers. Most of the houses had minimum or adequate closet space in the sleeping and dressing area (Table B-17). Storage space in sleeping and dressing areas in only 30 houses was inadequate when the number of persons was considered.

Inadequacy of total storage, however, increased as the size of family increased. All but two households of four persons did not have storage considered minimum by the Public Health Standards. No households of over four had adequate total storage space. In all, only 12 households had minimum or greater total storage space (Table 52). Only 36 homemakers, however, expressed a desire for additional general storage space.

Table 52.—Total storage space available by number of persons in the household.

Square feet of storage	Total families reported		Number and percentage of persons in houses with specified storage space available															
			1		2		3		4		5		6		7		8	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Less than 20	3	2.8	0	0.0	0	0.0	2	66.6	0	0.0	0	0.0	1	33.3	0	0.0	0	0.0
21-30	6	5.6	0	0.0	3	50.0	0	0.0	1	16.7	1	16.7	1	16.7	0	0.0	0	0.0
31-40	4	3.7	0	0.0	2	50.0	1	25.0	1	25.0	0	0.0	0	0.0	0	0.0	0	0.0
41-50	7	6.6	*0	0.0	2	28.6	0	0.0	5	71.4	0	0.0	0	0.0	0	0.0	0	0.0
51-60	4	3.7	0	0.0	0	0.0	2	50.0	0	0.0	0	0.0	0	0.0	2	50.0	0	0.0
61-70	12	11.2	0	0.0	4	33.3	0	0.0	4	33.3	2	16.7	2	16.7	0	0.0	0	0.0
71-80	1	.9	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
81-90	13	12.1	1	7.7	3	23.0	6	46.2	0	0.0	1	7.7	1	7.7	1	7.7	0	0.0
91-100	9	8.4	0	0.0	1	11.1	3	33.3	2	22.2	1	11.1	1	11.1	0	0.0	1	11.1
101-110	9	8.4	0	0.0	*1	11.1	2	22.2	2	22.2	2	22.2	1	11.1	0	0.0	1	11.1
111-120	10	9.4	0	0.0	2	20.0	3	30.0	3	30.0	1	10.0	1	10.0	0	0.0	0	0.0
121-130	10	9.4	1	10.0	1	10.0	1	10.0	3	30.0	4	40.0	0	0.0	0	0.0	0	0.0
131-140	6	5.6	0	0.0	1	16.7	2	33.3	3	50.0	0	0.0	0	0.0	0	0.0	0	0.0
141-150	2	1.9	0	0.0	0	0.0	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0	0	0.0
151-160	3	2.8	0	0.0	0	0.0	*0	0.0	0	0.0	1	33.3	2	66.6	0	0.0	0	0.0
161-170	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
171-180	1	.9	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0
181-190	5	4.7	0	0.0	0	0.0	1	20.0	*2	40.0	1	20.0	1	20.0	0	0.0	0	0.0
191 or over	2	1.9	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	107	100.0	2	1.9	21	19.6	24	22.2	28	26.2	16	14.9	11	10.3	3	2.8	2	1.9

* Recommended space for specific number of persons in household.

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Table B-1.—Type of roof.

Type	Number	Per cent
Gable	15	14.0
Hip	89	83.2
Combination	2	1.9
No information	1	.9
Total	107	100.0

Table B-2.—Square feet of square.

Square feet	Number	Per cent
575 or less	12	11.2
576-625	11	10.3
626-675	6	5.6
676-725	25	23.4
726-775	18	16.8
776-825	12	11.2
826-875	10	9.3
876-925	8	7.5
926-975	3	2.8
976 or over	2	1.9
Total	107	100.0

Table B-3.—Total square feet in the house.

Square feet	Number and percentage of houses of specified size	
	Number	Per cent
Less than 575	5	4.7
576-625	4	3.7
626-675	5	4.7
676-725	9	8.4
726-775	20	18.7
776-825	16	15.0
826-875	15	14.0
876-925	11	10.2
926-975	8	7.5
976-1025	7	6.6
1026-1075	3	2.8
1076-1125	0	0.0
1126-1175	3	2.8
1176 or over	1	.9
Total	107	100.0

Table B-4.—Number of rooms on second floor according to house type.

Number of rooms	1½ story		2 story		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
2	1	4.3	0	0.0	1	.9
3	7	30.5	13	13.4	20	18.7
4	14	60.9	66	78.6	80	74.8
5	1	4.3	4	4.8	5	4.7
6	0	0.0	0	0.0	0	0.0
7	0	0.0	1	1.2	1	.9
Total	23	100.0	84	100.0	107	100.0

Table B-5.—Number of bedrooms and number used for storage.

Number	Houses with specified number of bedrooms		Houses with specified number of bedrooms used for storage	
	Number	Per cent	Number	Per cent
0	0	0.0	80	74.8
1	0	0.0	22	20.5
2	0	0.0	5	4.7
3	8	7.5	0	0.0
4	32	29.9	0	0.0
5	55	51.4	0	0.0
6	10	9.4	0	0.0
7	1	.9	0	0.0
8	1	.9	0	0.0
No information	0	0.0	0	0.0
Total	107	100.0	107	100.0

Table B-6.—Space in living room and other room for recreation, self-improvement and extra familial association by number of persons in the household.

Number of square feet	Total families reported		Number and percentage of persons in houses with specified space available															
			1		2		3		4		5		6		7		8	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
100 or less	....	.....	..	.....	..	.....	..	.....	.	.....	..	.....	..	.....	..	....	..	....
101-125	1	.9	..	.....	..	.....	..	.....	..	.....	1	100.0	..	.....	..	....	..	....
126-150	4	3.7	*1	25.0	1	25.0	1	25.0	..	.....	..	.....	1	25.0	..	....	..	....
151-175	25	23.4	..	.....	4	16.0	5	20.0	8	32.0	2	8.0	5	20.0	1	4.0	..	....
176-200	30	28.0	..	.....	*5	16.6	8	26.7	7	23.3	5	16.6	2	6.6	1	3.3	2	6.6
201-225	17	15.9	1	5.9	7	41.2	1	5.9	5	29.4	2	11.8	1	5.9	..	....	..	....
226-250	5	4.7	..	.....	2	40.0	..	.....	2	40.0	1	20.0	..	.....	..	....	..	....
251-275	1	.9	..	.....	1	100.0	*	.....	..	.....	..	.....	..	.....	..	....	..	....
276-300	5	4.7	..	.....	1	20.0	..	.....	2	40.0	..	.....	2	40.0	..	....	..	....
301-325	7	6.6	..	.....	..	.....	3	42.9	1	14.3	2	28.6	..	.....	1	14.3	..	....
326-350	3	2.8	..	.....	..	.....	1	33.3	*1	33.3	1	33.3	..	.....	..	....	..	....
351-375	5	4.7	..	.....	..	.....	3	60.0	2	40.0	..	.....	..	.....	..	....	..	....
376-400	1	.9	..	.....	..	.....	1	100.0	..	.....	..	.....	..	.....	..	....	..	....
401-425	1	.9	..	.....	..	.....	..	.....	..	.....	*1	100.0	..	.....	..	....	..	....
426-450	2	1.9	..	.....	..	.....	1	50.0	..	.....	1	50.0	*	.....	..	....	..	....
Total	107	100.0	2	1.9	21	19.6	24	22.4	28	26.2	16	14.9	11	10.3	3	2.8	2	1.9

* Recommended space for specific number of persons in household as shown in Table B-7, B-8, B-9, B-10, B -11, and B-12. American Public Health Association, Committee on Hygiene of Housing, "Planning the House for Occupancy," R. R. Donnelly and Sons, 1950.

Table B-7.—Square feet outside of square.

Square feet	Number	Per cent
0	41	38.3
1-100	27	25.2
101-200	20	18.7
201-300	17	15.9
301-400	2	1.9
Total	107	100.0

Table B-8.—Space for serving food in dining area by number of persons in the household.

Number of square feet	Total families reported		Number and percentage of persons in houses with specified space available															
			1		2		3		4		5		6		7		8	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
100 or less	....	....	..	....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	....
101-125	4	3.7	..	....	2	50.0	..	.....	*	.....	..	.....	..	.....	2	50.0	..	....
126-150	6	5.6	..	....	1	16.6	2	33.3	1	16.6	*2	33.3	..	.....	..	.....	..	....
151-175	18	16.8	..	....	5	27.8	4	22.2	3	16.7	1	5.5	4	22.2	1	5.5	..	....
176-200	29	27.2	..	....	4	13.8	9	31.0	7	24.1	5	17.2	*3	10.3	*	....	1	3.4
201-225	26	24.3	2	7.7	5	19.2	7	26.9	8	30.8	3	11.5	1	3.8	..	.....	..	....
226-250	12	11.2	..	....	2	16.7	..	.....	6	50.0	2	16.7	1	8.3	..	.....	*1	8.3
251-275	3	2.8	..	....	1	33.3	1	33.3	1	33.3	..	.....	..	.....	..	.....	..	....
276-300	1	.9	..	....	..	.....	..	.....	..	.....	1	100.0	..	.....	..	.....	..	....
No separate space	8	7.5	..	....	1	12.5	1	12.5	2	25.0	2	25.0	2	25.0	..	.....	..	....
Total	107	100.0	2	1.9	21	19.6	24	22.4	28	26.2	16	14.9	11	10.3	3	2.8	2	1.9

Table B-9.—Space for circulation between various areas on second floor by number of persons in the household.

Number of square feet	Total families reported		Number and percentage of persons in houses with specified space available															
			1		2		3		4		5		6		7		8	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
30 or less	5	4.7	1	20.0	*3	60.0	..	.....	..	.....	..	.....	..	.....	1	20.0	..	....
31- 40	6	5.6	..	.....	1	16.6	..	.....	1	16.6	1	16.6	3	50.0	..	.....	..	....
41- 50	8	7.5	..	.....	1	12.5	2	25.0	4	50.0	..	.....	1	12.5	..	.....	..	....
51- 60	12	11.2	..	.....	3	25.0	5	41.7	1	8.3	1	8.3	1	8.3	..	.....	1	8.3
61- 70	17	15.9	..	.....	3	17.6	*7	41.2	*6	35.3	1	5.9	..	.....	..	.....	..	....
71-80	15	14.0	..	.....	2	13.3	..	.....	6	40.0	*5	33.3	1	6.7	1	6.7	..	....
81- 90	11	10.3	..	.....	2	18.2	2	18.2	3	27.3	2	18.2	*2	18.2	*..	.....	..	....
91-100	3	2.8	..	.....	1	33.3	..	.....	1	33.3	1	33.3	..	.....	..	.....	..	....
101-110	3	2.8	..	.....	1	33.3	1	33.3	1	33.3	..	.....	..	.....	..	.....	..	....
111-120	3	2.8	..	.....	..	.....	1	33.3	1	33.3	..	.....	..	.....	..	.....	1	33.3
121-130	6	5.6	..	.....	2	33.3	1	16.6	3	50.0	..	.....	..	.....	..	.....	..	....
131 or over	4	3.7	..	.....	..	.....	..	.....	..	.....	2	50.0	2	50.0	..	.....	..	....
None	14	13.1	1	7.1	2	14.3	5	35.7	1	7.1	3	21.4	1	7.1	1	7.1	..	....
Total	107	100.0	2	1.9	21	19.6	24	22.4	28	26.2	16	14.9	11	10.3	3	2.8	2	1.9

Table B-10.—Space for sleeping and dressing by number of persons in the household.

Number of square feet	Total families reported		Number and percentage of persons in houses with specified space available															
			1		2		3		4		5		6		7		8	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
301-400	2	1.9	..	....	1	50.0	1	50.0	*..	.....	..	.....	..	.....	..	.....	..	....
401-500	9	8.4	.	....	2	22.2	2	22.2	2	22.2	*2	22.2	..	.....	1	11.1	..	....
501-600	22	20.6	..	....	6	27.3	4	18.2	5	22.7	2	9.1	*4	18.2	*1	4.5	..	....
601-700	28	26.2	..	....	6	21.4	7	25.0	7	25.0	4	14.3	3	10.7	1	3.6	..	....
701-800	31	29.0	1	3.2	4	12.9	8	25.8	10	32.3	5	16.1	1	3.2	..	.....	*2	6.5
801-900	13	12.1	.	....	2	15.4	2	15.4	4	30.8	2	15.4	3	23.1	..	.....	..	....
901-1000	1	.9	..	....	..	.....	..	.....	..	.....	1	100.0	..	.....	..	.....	..	....
1001-1100	1	.9	1	100.0	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	....
Total	107	100.0	2	1.9	21	19.6	24	22.4	28	26.2	16	14.9	11	10.3	3	2.8	2	1.9

Table B-11.—Space for food preparation, preservation, and serving in kitchen by number of persons in the household.

Number of square feet	Total families reported		Number and percentage of persons in houses with specified space available															
			1		2		3		4		5		6		7		8	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
100 or less	2	1.9	..	....	*2	100.0	..	.....	....	.....	..	.....	..	.....	..	.....	..	....
101-125	6	5.6	..	....	1	16.7	*1	16.7	*..	.....	..	.....	2	33.3	2	33.3	..	....
126-150	25	23.4	..	....	6	24.0	6	24.0	10	40.0	*3	12.0	*	.....	*	.....	..	....
151-175	27	25.2	..	....	4	14.8	4	14.8	9	33.3	4	14.8	5	18.5	1	3.7	..	....
176-200	19	17.7	1	5.3	3	15.8	5	26.3	2	10.5	6	31.6	1	5.3	..	.....	1	5.3
201-225	21	19.6	1	4.8	4	19.0	6	28.6	6	28.6	2	9.5	2	9.5	..	.....	..	....
226-250	5	4.7	.	....	..	.....	1	20.0	1	20.0	1	20.0	1	20.0	..	.....	1	20.0
251-275	1	.9	..	....	..	.....	1	100.0	....	.....	..	.....	..	.....	..	.....	..	....
276-300	1	.9	..	....	1	100.0	..	.....	....	.....	..	.....	..	.....	..	.....	..	....
Total	107	100.0	2	1.9	21	19.6	24	22.4	28	26.2	16	14.9	11	10.3	3	2.8	2	1.9

Table B-12.—Space for personal cleanliness and sanitation by number of persons in the household.

Number of square feet	Total families reported Number	Number and percentage of persons in houses with specified space available			
		1 to 4		5 and more	
		Number	Per cent	Number	Per cent
0	32	25	78.1	7	21.9
21- 30	2	1	50.0	1	50.0
31- 40	16	14	*87.5	2	12.5
41- 50	12	8	66.7	4	33.3
51- 60	14	6	42.9	8	57.1
61- 70	9	7	77.8	2	*22.2
71- 80	4	2	50.0	2	50.0
81- 90	4	2	50.0	2	50.0
91-100	6	5	83.3	1	16.7
101-110	2	1	50.0	1	50.0
111-120	3	2	66.7	1	33.3
121-130	0	0	0.0	0	0.0
131-140	0	0	0.0	0	0.0
141-150	1	1	100.0	0	0.0
151-160	0	0	0.0	0	0.0
161-170	1	0	0.0	1	100.0
171-180	1	1	100.0	0	0.0
Total	107	75	70.1	32	29.9

Table B-13.—Shelf space available for specific items in kitchens.

Available space Inches	Food stuffs		Pots and pans		Dishes		Counter space	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Less than 30	3	2.8	2	1.8	0	0.0	6	5.6
31- 60	16	14.9	16	14.9	3	2.8	22	20.6
61- 90	22	20.6	19	17.8	19	17.8	19	17.8
91-120	17	15.9	19	17.8	29	27.1	13	12.1
121-150	11	10.3	11	10.3	20	18.7	4	3.7
151-180	1	.9	6	5.6	10	9.3	2	1.9
181-210	3	2.8	1	.9	2	1.9	0	0.0
211-240	4	3.7	8	7.5	6	5.6	0	0.0
Over 240	2	1.9	3	2.8	2	1.9	0	0.0
None	19	17.8	14	13.1	10	9.3	34	31.8
No information	9	8.4	8	7.5	6	5.6	7	6.5
Total	107	100.0	107	100.0	107	100.0	107	100.0

Table B-14.—Number and percentage of houses having a specific type of sink.

Type of sink	No.	Pct.
Cast iron, built into counter	10	9.3
Cast iron, enclosed, not into counter	3	2.8
Cast iron, not enclosed	1	.9
Porcelain, built into counter	31	29.0
Porcelain, enclosed, not in counter	29	27.2
Porcelain, not enclosed	21	19.6
None	9	8.4
No information	3	2.8
Total	107	100.0

Table B-15.—Horizontal component of sloped ceiling by height at exterior wall.

Height at exterior wall	Horizontal component																		No information		Total	
	0 feet		1 feet		2 feet		3 feet		4 feet		5 feet		6 feet		7 feet		8 feet or more					
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Less than 3	....	.....	..	..	..	....	..	....	..	....	..	....	..	....	1	.9	..	..	....	.....	1	.9
3 feet	....	.....	..	..	..	....	..	....	..	....	..	....	..	....	1	.9	1	.9	....	.....	2	1.9
4 feet	....	.....	..	..	..	....	..	....	..	....	2	1.9	1	.9	..	....	..	..	....	.....	3	2.8
5 feet	....	.....	..	..	1	.9	3	2.8	2	1.9	..	....	1	.9	..	....	..	..	1	.9	8	7.5
6 feet	....	.....	..	..	1	.9	2	1.9	2	1.9	..	....	..	....	..	....	..	..	....	.....	5	4.7
7 feet	4	3.8	1	.9	1	.9	1	.9	..	....	..	....	..	....	..	....	..	..	....	.....	7	6.6
8 feet	25	23.3	..	..	..	....	..	....	..	....	..	....	..	....	..	....	..	..	....	.....	25	23.3
9 feet	40	37.3	..	..	..	....	..	....	..	....	..	....	..	....	..	....	..	..	....	.....	40	37.3
No information	....	.....	..	..	..	....	..	....	..	....	..	....	..	....	..	....	..	..	16	15.0	16*	15.0
Total	69	64.5	1	.9	3	2.8	6	5.6	4	3.7	2	1.9	2	1.9	2	1.9	1	.9	17	15.9	107	100.0

* Of the 16 houses giving no information 12 were 2 story and 4 were 1½ story.

Table B-16.—Storage space in living room and other rooms for recreation, self-improvement, and extra familial association areas by number of persons in the household.

Number of square feet	Total families reported		Number and percentage of persons in houses with specified space available															
			1		2		3		4		5		6		7		8	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
0	97	90.7	1	1.0	17	17.5	24	24.7	25	25.8	15	15.5	10	10.3	3	3.1	2	2.1
5 or less	3	2.8	..	.....	....	.....	....	.....	2	66.6	1	33.3	....	.....	..	....	..	....
6	1	.9	..	.....	....	.....	....	.....	1	100.0	....	.....	....	.....	..	....	..	....
7	1	.9	..	.....	1	100.0	....	.....	....	.....	....	.....	....	.....	..	....	..	....
8	....	.....	.	.....	....	.....	....	.....	....	.....	....	.....	....	.....	..	....	..	....
9	1	.9	..	.....	1	100.0	....	.....	....	.....	....	.....	....	.....	..	....	..	....
10 or more	4	3.8	1	25.0	2	50.0	....	.....	....	.....	....	.....	1	25.0	..	....	..	....
Total	107	100.0	2	1.9	21	19.6	24	22.4	28	26.2	16	14.9	11	10.3	3	2.8	2	1.9

Table B-17.—Storage space in sleeping and dressing areas by number of persons in the household.

Number of square feet	Total families reported		Number and percentage of persons in houses with specified space available															
			1		2		3		4		5		6		7		8	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
None	4	3.7	..	.....	2	50.0	..	.....	1	25.0	..	.....	1	25.0	..	.....	..	.....
20 or less	7	6.5	..	.....	..	.....	3	42.9	..	.....	1	14.3	2	28.6	1	14.3	..	.....
21- 30	9	8.4	*1	11.1	*4	44.4	..	.....	2	22.2	1	11.1	1	11.1	..	.....	..	.....
31- 40	10	9.4	..	.....	1	10.0	*3	30.0	3	30.0	2	20.0	1	10.0	..	.....	..	.....
41- 50	10	9.4	..	.....	2	20.0	3	30.0	*3	30.0	1	10.0	1	10.0	..	.....	..	.....
51- 60	17	15.9	..	.....	5	29.4	3	17.6	2	11.8	1	5.9	3	17.6	2	11.8	1	5.9
61- 70	11	10.3	1	9.1	1	9.1	2	18.2	4	36.4	*3	27.3	..	.....	..	.....	..	.....
71- 80	11	10.3	..	.....	3	27.3	..	.....	4	36.4	3	27.3	*1	9.1	..	.....	..	.....
81- 90	12	11.2	..	.....	1	8.3	6	50.0	4	33.3	..	.....	1	8.3	*..	.....	..	.....
91-100	6	5.6	..	.....	..	.....	2	33.3	1	16.6	2	33.3	..	.....	..	.....	*1	16.6
101-110	5	4.7	..	.....	1	20.0	1	20.0	2	40.0	1	20.0	..	.....	..	.....	..	.....
111-120	1	.9	..	.....	..	.....	..	.....	1	100.0	..	.....	..	.....	..	.....	..	.....
121-130	1	.9	..	.....	..	.....	..	.....	..	.....	1	100.0	..	.....	..	.....	..	.....
131-140	1	.9	..	.....	..	.....	..	.....	1	100.0	..	.....	..	.....	..	.....	..	.....
141-150	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....
151-160	1	.9	..	.....	..	.....	1	100.0	..	.....	..	.....	..	.....	..	.....	..	.....
161-170	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....
171-180	1	.9	..	.....	1	100.0	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....
Total	107	100.0	2	1.9	21	19.6	24	22.4	28	26.2	16	14.9	11	10.3	3	2.8	2	1.9

Table B-18.—Storage space for serving food in dining area by number of persons in the household.

Number of square feet	Total families reported		Number and percentage of persons in houses with specified space available															
			1		2		3		4		5		6		7		8	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
0	99	92.6	2	2.0	19	19.2	23	23.2	24	24.2	15	15.2	11	11.1	3	3.0	2	2.0
3 or less	2	1.9	..	....	....	.....	....	.....	2	100.0	....	.....	....	.....	..	....	..	....
4	..	...	..	....	....	.....	....	.....	....	....	....	.....	....	.....	..	....	..	....
5	2	1.9	..	....	....	.....	1	50.0	1	50.0	....	.....	....	.....	..	....	..	....
6	1	.9	..	....	....	.....	....	.....	1	100.0	....	.....	....	.....	..	....	..	....
7	....	.....	..	....	....	.....	....	.....	....	.....	....	.....	....	.....	..	....	..	....
8	1	.9	..	....	1	100.0	....	.....	....	.....	....	.....	....	.....	..	....	..	....
9	....	.....	..	....	....	.....	....	.....	....	.....	....	.....	....	.....	..	....	..	....
10	1	.9	..	....	....	.....	....	.....	....	.....	1	100.0	....	.....	..	....	..	....
11	....	.....	..	....	....	.....	....	.....	....	.....	....	.....	....	.....	..	....	..	....
12	1	.9	..	....	1	100.0	....	.....	....	.....	....	.....	....	.....	..	....	..	....
Total	107	100.0	2	1.9	21	19.6	24	22.4	28	26.2	16	14.9	11	10.3	3	2.8	2	1.9

Table B-19.—Storage space for food preparation, preservation and serving areas in kitchen by number of persons in the household.

Number of square feet	Total families reported		Number and percentage of persons in houses with specified space available															
			1		2		3		4		5		6		7		8	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
5 or less	66	61.7	1	1.5	17	25.8	12	18.2	16	24.2	10	15.1	9	13.6	1	1.5	..	.....
6-10	5	4.7	..	.....	....	.....	....	.....	1	20.0	1	20.0	1	20.0	2	40.0		
11-15	3	2.8	.	.....	....	.....	1	33.3	1	33.3	....	.....	..	.....	..	.....	1	33.3
16-20	3	2.8	..	.....	1	33.3	1	33.3	1	33.3	....	.....	..	.....	..	.....	..	.....
21-25	4	3.7	..	.....	1	25.0	2	50.0	....	.....	....	.....	1	25.0	..	.....	..	.....
26-30	3	2.8	..	.....	....	.....	1	33.3	2	66.7	....	.....	..	.....	..	.....	..	.....
31-35	7	6.5	.	.....	2	28.6	2	28.6	2	28.6	1	14.2	..	.....	..	.....	..	.....
36-40	6	5.6	1	16.7	....	.....	2	33.3	2	33.3	1	16.7	..	.....	..	.....	..	.....
41 or more	10	9.4	..	. ....	....	.....	3	30.0	3	30.0	3	30.0	..	.....	..	.....	1	10.0
Total	107	100.0	2	1.9	21	19.6	24	22.4	28	26.2	16	14.9	11	10.3	3	2.8	2	1.9

Table B-20.—Drawer space available for specific items in kitchens.

Available space Inches	Linens		Utensils	
	No.	Pct.	No.	Pct.
Less than 12	8	7.5	12	11.2
13-24	39	36.4	42	39.2
25-36	18	16.8	19	17.8
37-48	8	7.5	5	4.7
49-60	1	.9	2	1.9
61-72	2	1.9	3	2.8
73-84	0	0.0	0	0.0
85-96	4	3.7	0	0.0
Over 96	1	.9	1	.9
None	19	17.8	15	14.0
No information	7	6.6	8	7.5
Total	107	100.0	107	100.0

Table B-21.—Number and percentage of houses having specific type of cabinets.

Type of cabinet	No.	Pct.
Built-in wood	62	57.9
Prefabricated wood	1	.9
Metal	11	10.3
Unit cabinet	15	14.1
Combination	1	.9
Other	1	.9
None	9	8.4
No information	7	6.6
Total	107	100.0