

A Research Note on:

THE OWNER-BUILDER AND THE OWNER-BUILT HOME IN KNOX COUNTY, TENNESSEE

Lenahan O'Connell

ABSTRACT

Despite its potential, little is known about owner-built housing and the process through which it is built. This study concerns 108 owner-builders in Knox county, Tennessee, who applied for building permits in 1979. These owner-builders built large conventional homes and saved 33 percent of market value. The typical owner-builder had the help of 1.4 friends, 1.8 relatives, and 3.8 subcontractors. The friends and relatives donated much skilled work. Only 35 percent of the owner-builders work in a field related to home construction. Seventy percent however have some previous construction experience. Four conclusions are drawn: (1) self-help housing is a family centered project, (2) owner-builders have long standing ties to their communities, (3) previous experience but not necessarily as a paid construction worker is common, (4) owner-builders have friends and relatives who are owner-builders.

INTRODUCTION

To circumvent the financial obstacles to homeownership, some experts recommend that people build their own homes rather than buy (Turner and Fichter, 1972). There is little doubt that many people have turned to self help to house themselves. Indeed, in 1980 owner-builders accounted for 19 percent of all new single family homes built in the United States (USBC, 1980).

Despite widespread popularity and its potential, owner-built housing has been infrequently and sometimes superficially studied (Turner and Fichter, 1972; Angell and Olson, 1975). Consequently, there are many unanswered questions about the owner-builder phenomenon. Do most of the owner-builders work in the home construction industry? Do they perform all the work themselves? Some of the work? Or work as their own contractors, supervising the labor of others? Do they build large or small homes? What is their family income? To what extent do they rely on donated skills of friends and relatives? How much money do they save building for themselves? What are the homes worth on the market? This study addresses those questions.

The author is a graduate student at the University of Tennessee, Knoxville, Tennessee.

THE STUDY

The owner-builder is, in this study, a person who organizes and supervises the construction of his own home. (There is one exception: the owner-builder does not make a living as a housing contractor.) At the minimum, the owner-builder does the contracting and supervises the work of others; at the maximum the owner-builder does all the work.

The findings are based on a sample of 108 such people who built homes in Knox County, Tennessee. Each applied for a building permit in 1979 and built during 1979 and 1980. The sample was drawn from the 1979 listing of applicants for building permits at the Knox County Court House. All of those who indicated on their permits that they were not hiring contractors or were not contractors themselves were included. The respondents were interviewed during 1980 and 1981. If possible, the owner-builders were interviewed in their new homes or at the building site if the home was not yet finished. While not all the people on the list were interviewed (i.e., some refused, some moved, many were contractors and therefore were excluded), most of the people who built their homes starting in 1979 were interviewed.

THE HOUSE AND LOT

The owner-builders built large homes, with a median square footage of 1,938 and a median estimated value of \$78,667. The homes, while large on the average, had relatively few rooms (the median number of rooms was 6.7). For the most part, the homes were conventional split-level ranchers. Twenty were, however, architecturally unique with such features as atriums, cathedral ceilings, and curved walls. Although the style is usually conventional, all the homes bore the cachet of the individual owner-builder.

Sixty-nine percent of the owner-built homes have basements. This figure is dissimilar to the 25 percent figure published by the census bureau for new ownerbuilt homes in the south in 1979 (USBC, 1980). The basement and a median lot size of 2.7 acres (most respondents had built out in the country where land is less expensive) help account for generous market values.

Measures taken to ensure energy efficiency are reflected in values. The open-ended question about energy-saving measures elicited a rich outpouring of specifics about four energy relevant areas: ninety-nine percent of owner-builders mentioned insulation, 78 percent mentioned some form of energy-conserving heat (usually wood stoves), 73 percent listed thermopane doors and windows, and 23 percent included natural or energy-efficient air conditioning.

FINANCES AND SAVINGS

Table 1 presents data on costs and finances for the entire sample and for each of four categories of house size. The data indicate that materials costs are proportional to house size while cost of labor is not. Owner-builders who built the smaller houses spend disproportionately less on labor. They do not have the lowest cost per square foot despite the fact that they are least likely to hire a carpenter.

(It is possible that those who built the largest homes underestimated their eventual costs. Many were still building when interviewed.)

For the sample as a whole, the difference between those who hire a carpenter and those who do not is great. The former spend \$12,266 on labor and the latter spend \$4,215.

There are two major sources of saving: the labor costs and the contractor's share of the cost. The savings generated through not purchasing labor can be estimated by owner-builders' costs per square foot with the average cost in the Knox County area. The average cost per square foot of \$22.14 is 22 percent less than the \$28.49 per square foot average in the area (Housing, 1981).

The estimated total saving is much greater when the contractor's share is accounted for. Subtracting the median total cost of \$52,440 (land, labor, and materials) from the median estimated value of \$78,667, we find that the typical owner-builder saved \$26,227 or 33 percent.

Those who perform their own carpentry save 45 percent. These findings suggest that Grindley's (1972) belief that do-it-yourself home builders can save as much as 52 percent is not out of step with the realities of home building.

Table 1. Construction Costs by Size in Square Feet

	1,499 or under	1,500 to 1,999	2,000 to 2,999	3,000 and up	Total sample
Number	18	35	30	18	108
Combined Cost	\$26,667	\$40,111	\$52,250	\$ 66,666	\$42,895
Land Cost	\$ 3,750	\$10,555	\$11,667	\$ 12,500	\$ 9,545
Labor Cost	\$ 3,333	\$ 7,919	\$ 8,370	\$ 15,000	\$ 9,027
Material Cost	\$20,000	\$30,832	\$42,142	\$ 48,333	\$33,333
Estimated Value	\$51,429	\$77,857	\$92,500	\$122,000	\$78,667
Work Related	28%	43%	30%	39%	35%
Borrowed	\$13,750	\$35,000	\$37,500	\$ 45,000	\$29,375
Median Sq. Ft.	1,183	1,696	2,408	3,250	1,938
Income	\$21,875	\$26,071	\$29,500	\$ 31,667	\$26,175
Cost/Sq. Ft.	\$ 22.54	\$ 23.65	\$ 21.70	\$ 20.51	\$ 22.14

*Based on 101 cases with complete, precise data.

SOCIAL SUPPORT

Owner-builders benefited greatly from the help of friends and relatives. The typical respondent had 1.4 friends and 1.8 relatives (in addition to 3.8 subcontractors) in his or her ad hoc construction company. As indicated in Table 2, the lower-income builders rely on the skills of friends and relatives more often.

Table 2. Social Support by Income

	Under \$20,000	\$20,000- \$29,999	\$30,000 and Up	Total Sample
Friends	1.8	1.2	1.4	1.4
Relatives	2.0	2.4	1.3	1.8
Total Friends and Relatives	3.8	3.6	2.7	3.2
Hired carpenter	39%	57%	38%	51%

For the sample as a whole, 64 percent of the friends and 82 percent of the relatives did skilled work. In addition, 5 percent of the friends and 14 percent of the relatives did much skilled work, i.e. 14 percent performed two or more skilled tasks such as carpentry and electrical work. The friends and relatives also did the unskilled lifting and cleaning up and performed very little of the "mental work" of arranging finances and supervising subcontractors. The owner-builder is his own contractor. Of the 3.2 friends and relatives who help the typical owner-builder, 2.4 do skilled work.

Since the support of friends and relatives is vital, it is not surprising that 74 percent of the respondents have lived in Knox County for 20 or more years and only 12 percent for less than 10 years. The role of social support is reflected in the finding that 41 percent of owner-builders have friends and 54 percent have relatives who have built their own homes.

*CURRENT OCCUPATION, PREVIOUS EXPERIENCE AND
HOMEBUILDING*

There seem to be two schools of thought on the owner-builder phenomenon. Some believe that every able-bodied adult could be an owner-builder (Grindley, 1972). Others (especially loan officers of many lending institutions) believe that only those who work with tools in a field related to home construction can build a home. We found that only 35 percent of the respondents work in an occupation related to homebuilding and many of them who are in related occupations actually work in a white collar capacity, for example, as architects, engineers, or building-supply people. Among those who do their own carpentry, only 41 percent work in a field related to building. Concerning skilled work with tools, only 36 percent are craftsmen, skilled workers, or foremen (Table 3).

While only 35 percent work in a related field, 70 percent had previous experience of some kind. Thirty-six percent worked on their former home; 44 percent had worked on someone else's home, either a relative's or friend's; and 25 percent mentioned some form of paid construction. These figures indicate that a sizeable number of owner-builders have prior experience, but not necessarily as paid construction workers.

Table 3. Current Occupations

	Entire Sample		Do Own Carpentry		Hire Carpentry	
	No.	%	No.	%	No.	%
Professional, managerial, proprietor	29	28	13	25	16	30
Sales and clerical	16	15	6	12	10	19
Skilled workers craftsmen, foremen	38	36	23	45	15	28
Semi-skilled and operatives	17	16	8	16	9	17
Service and household	5	5	1	2	4	7
Total	105	100	51	100	54	101

CONCLUSION

There are four conclusions about self-help homebuilding derived from the analysis. First, it is a middle income, family-centered activity which involves a capacity to marshal the skills and talents of friends and relatives. Second, a home-builder is likely to have strong and well-established ties to the local community. Third, previous building experience although not necessarily as a paid construction worker is a definite factor behind the decision to build, as 70 percent reported some previous experience, and the owner-builder is likely to have friends and relatives who are also owner-builders. And fourth, self-help housing is the product of small networks of encouragement and example.

REFERENCES

- Angell, W. J. and Olson, P. S. *Owner-built Housing* (Special Report 53), St. Paul, Minnesota: Agricultural Extension Service. University of Minnesota, 1975.
- Grindley, W. C. Owner-builders: Survivors with a future. In J. F. C. Turner and R. Fichter (Eds.), *Freedom to Build*. New York: Macmillan, 1972, 3-22.
- No author. The Housing Magazine Construction Cost guide. *Housing*, 1981, 60 (2), 45.
- Turner, J. F. C. and Fichter, R. (Eds.). *Freedom to Build*. New York: Macmillan, 1972.
- USBC, U.S. Bureau of the Census. *Construction Reports*, C-20 Series, Washington, D.C.: U.S. Government Printing Office, 1980, 1981.