

Housing Research In Home Economics

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This paper presents an overview of the extent and type of housing research being conducted within home economics. The data was obtained from 130 home economics units reporting research for the 1978 Home Economics Research Project Inventory.¹ Of the units reporting, 37 percent had projects related to housing, which accounted for 8 percent of the research reported. Housing was thus among the major research areas within home economics. Projects ranged in cost from \$150 to \$81,500, with an average of \$8,900 per project.² The largest funding source was the Cooperative Research System budgeted from USDA and State Agricultural Experiment Station funds. Forty-four housing specialists were identified. In addition, 50 specialists from other home economics subject areas were identified as housing research project leaders. The housing specialist, however, controlled the majority of the funds and projects, and were most productive in terms of communicating results. The amount of money funded for housing specialists' projects, however, was about 50 percent less than that for the average home economics projects. Most results were communicated to other professionals within the field.

The Home Economics Project Inventory was initiated as a joint effort of USDA-Science and Education Administration/Cooperative Research and the American Home Economics Association. The purpose of the Inventory was to establish a quantitative measure of home economics research in higher education — the

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number of projects, amount and sources of funds and the extent to which research results are reported.

The 373 chief officers of home economics units on record at the Association March 1, 1978, were contacted and asked to report all research projects related to home economics at their institution. Ninety-seven percent of the chief officers responded. Research reported included that in progress or completed during fiscal 1977, and involved 1,559 projects from 130 institutions. Four characteristics were analyzed to ascertain influence on home economics research ac-

tivities: region in which the institution was located, type of institution of which the home economics unit was a part, size and program offered by the unit.

Housing Research

Housing research was reported from 37 percent of the home economics units that participated in the Inventory, and included 119 projects which had as an objective at least one of the five housing goals: human needs, psychological/sociological/cultural needs, aesthetics, economics, and housing quality/community services; listed in the Home Economics Goals and Guidelines (Schlater, 1970).

The housing projects reported amounted to 92 full project equivalents and comprised 8 percent of the total home economics research effort. The largest number of housing projects at any one home economics unit was ten. Approximately one half of the units reported

only one housing research project. There was only one institution whose only project had housing goals.

Most of the housing research was reported from a unit with at least one of the following characteristics:

1. located in either the southern or north central region as described by USDA.
2. was part of an institution established by the 1862 Morrill Act (land grant institution).
3. graduated more than 90 students per year (a large size unit).
4. operated both undergraduate and graduate programs within the unit.

The 1862 land grant units reported more than 60 percent of the housing research projects, funds and reported results. "Other units", those established by state, city or community action or were privately endowed, reported 36 percent of the projects but less than 20 percent of both funds and reported results. Only one

TABLE 1 — Distribution of Projects, Project Equivalents, Dollars, and Outcomes For Housing Research By Region, Type, Size, and Program of Institution

	Projects	Proj. Equiv.	Dollars	Outcomes
percent distribution				
Region				
Northeast	4	4	6	7
South	40	45	37	44
North Central	39	43	47	41
West	16	11	10	8
Type of Institution				
1862	63	65	80	81
1890	1	1	1	1
Other	36	34	19	17
Size				
Small	1	1	4	1
Medium	17	16	9	9
Large	82	83	87	90
Program				
Grad.	92	94	92	96
Ungrad. Only	8	6	8	4
	(N=119)	(N=91.9)	(N=814.798)	(N=392)

1890 land grant unit and one small size unit (graduating less than 20 students per year) reported housing research.

Those units with only undergraduate programs accounted for less than 10 percent of the projects, funds and reported results.

Projects

Of the home economics housing research goals, the category of human need was indicated as an objective for 55 projects or 46 percent of the housing research. Many times, however, human housing need was a minor part of the total project in terms of the total number of objectives. When converted to project equivalents, the human need category represented only 26 percent of the housing research.³ The aesthetics category which was associated with fewer projects (35 percent) had the largest number of project equivalents (34 percent). This occurred because if aesthetics was a goal, it was likely to be the only goal for the project. The lowest number of housing research projects and project equivalents, 16 percent and 7 percent respectively, were concerned with housing quality/communities.

Half of the projects (60) included one of the key words — *low income, elderly, energy or textile/fabrics* or some type of teaching strategy or skill in their titles. Other frequently mentioned topics were the relation-

ship or effect of the environment of an individual or family: architectural styles or interiors: government policies and housing satisfaction or preferences. The southern region “low income” project contributed substantially to housing research as eight or approximately 17 percent of the projects with housing objectives in the southern region were related to “low income”.

Funds

There was a total \$814,798 reported from all sources to support housing research. Projects ranged from \$150 to \$81,500 in cost. This averaged \$17,000 per institution with housing research, \$8,900 per full project equivalent and \$8,600 per researcher. Thus housing received only 4 percent of the total home economics research funding yet accounted for 8 percent of the projects reported for the Inventory.

The greatest amount of funds were allocated to human needs followed by psychological/sociological/cultural needs, aesthetics, economics and housing quality/communities. Less than 20 percent were used for the latter two. Aesthetics, the goal to which 34 percent of the full project equivalents applied were supported by 13 percent of the funds. Those directed toward housing quality received the lowest support from both researcher and funding sources.

Over one third of the funds, 38 percent, was from

TABLE 2 — Distribution Of Projects, Project Equivalents, Dollars, and Outcomes For Housing Research By Project Classification

Housing Project Class	Projects	Project Equiv.	Dollars	Outcomes
	percent distribution			
Human Needs	46	26	40	52
Psyc/Soc/Culture	37	21	29	19
Aesthetics	35	34	12	25
Economics	24	12	10	4
Quality & Communities	16	7	8	1
	100.0 (N=119)	100.0 (N=91.9)	100.0 (N=814,798)	100.0 (N=392)

TABLE 3 — Source of Housing Research Funds

SOURCE	PERCENT
Federal	
USDA-SEA/CR	19
HEW	3
Other Federal Agencies	8
Total	30
State & University	
Agricultural Expt. Sta.	19
Resident Instr & Other Univ.	22
Depts, Education	4
Other State	3
Total	48
Private	
Fndns, (University/Alumnae)	3
Personal Contributions	
Faculty	3
Students	8
Other	2
Total	16
<hr/>	
Total Amount	\$814,798

Cooperative Research System — 19 percent from USDA and 19 percent from State Agricultural Experiment Stations. There were grants from other agencies within the federal government. Most amounted to under \$2,500 and came from a department within the Department of Health, Education and Welfare, National Foundation of Arts and Humanities, Endowment of the Arts and National Science Foundation.

Most of the state money was from either the Agricultural Experiment Station or some university source such as resident instruction, graduate school, computer and media centers. Although there were a large number of projects pertaining to teaching skills and strategies, State Departments of Education supported only 5 percent of the housing research.

The largest private source of funds was a university or alumnae foundation. These amounted to between \$2,000 and \$5,000 per project. Almost as large was the contribution from faculty members or unfunded

graduate students. While money was identified for typing, office supplies, and materials from personal funds, more often estimated costs for time expended in addition to that required by their university role were mentioned. In total, this contribution amounted to \$80,000. Empirical data suggests this was a conservative estimate. There was a limited amount of money from other private sources. A study of electrical energy use for example, was aided by a manufacturer of an electrical product.

Outputs

For the purpose of the Inventory, an “output” was described as a report which became part of the public domain. It could be written, oral or a juried show. Approximately 10 percent of the “outputs” in the Inventory compared to 8 percent of the projects, were related to housing goals. Fourteen projects listed no reported results. This could be due to several factors including a lack of carry-through on the part of a researcher, data which had not yet been collected, or data not yet at the reporting stage during the year surveyed.

There were 23 juried shows — two for each interior designer. There were a large number of related arts specialists who reported their research as relevant to housing goals. Artists as well as designers use juried shows to present research results.

There were fewer abstracts (10) than theses and dissertations (27). Very few results were communicated to the general public. Oral presentations were popular. This type of research reporting was more often at a professional meeting to another professional than to a community group.

Researchers whose projects concerned human housing needs listed some type of oral or written presentation most often. This may occur because of the greater number of publications and meetings related to child development and family life in which it is appropriate to report human housing needs. The large number of reports in the human need area may also be the result of a large number of child development or family life specialists who include housing goals as a part of their projects.

TABLE 4 — Academic Preparation and Expertise of Project Leaders Contributing to Housing Research

Subject Area	Preparation	Academic Expertise
Child Dev/ Family Life	10	13
Clothing/Textiles	4	6
Cons Econ/ Home Mgt.	14	13
Education	5	4
Housing	41	46
Nutrition/ Food Science	4	3
Related Arts	14	13
Psychology	2	2
Other	5	
	100.0 (N=95)	100.0 (N=95)

Housing Researchers

The Inventory did not collect characteristics concerning all professional personnel connected with research projects. It did require specifics about project leaders. There were 95 persons responsible for housing research. They came from every subject area within the field of home economics as well as some from other academic areas such as Agricultural Economics, Architecture, American Studies and Business. The dominant areas of expertise were housing, related arts, consumer economics/management or child development/family life.

A "housing specialist" was defined as perceiving their area of expertise as housing or interior design. There were 44 persons in this category. Housing specialists had training in one of these two areas as well. Other categories of academic preparation for specialists were education, related arts, consumer economics and home management. Some of the specialists' research was determined to be not applicable to the stipulated housing research goals, as the titles indicated that they concerned other home economics

goals. Examples of these non-housing topics are energy, quality of life as determined by area of residence, housing allowances and textile design. Information for these research projects has been eliminated from this report.

Housing specialists listed physics, history, anthropology, economics, sociology and research methodology as fields of science necessary to their research. Also mentioned were biology, chemistry, education, information/communication and psychology. Within the field of home economics subject areas considered essential were housing and related arts. Others considered useful were consumer economics, home management, family studies, food and nutrition and textiles. Researchers from other subject areas did not perceive housing as an important research competency, yet over 50 percent of the persons contributing to housing research goals had expertise in a subject area other than housing.

Only 44 persons, 4 percent of the project leaders surveyed in the Inventory, were housing specialists. There was little difference noted in the number of housing projects per institution whether or not a housing specialist was "in residence."

The data revealed that housing *specialists* are involved in more projects than either the average housing *project leader* or other home economics researchers and have an above average number of publications, presentations, and juried shows, yet are funded at lower levels. The funding per project by the housing specialist was 8 percent less than the project leader of housing research and about 50 percent less than for the average home economics researcher.

Summary

Housing is a basic requirement for individuals and families. A place to live, its costs and effect on family life are among national and professional issues. Current inflation as well as the energy crunch should increase demand for housing answers. The recent Home Economics Assessment, Planning and Projections study indicates a need for 60 full time researchers for solving individual and family environment issues by 1986 (Ritchey, 1978). While descriptions of housing personnel differ somewhat in the two studies

TABLE 5 — Academic Preparation, Expertise, and Rank of Housing Specialists

Type of Housing Researcher	Preparation	Expertise	Rank				
	percent	percent	Inst	Asst	Assc	Prof	
Housing	54	65	9	21	19	16	
Interior Design	28	28	7	9	5	7	
Hsg/Int Dsn	2	5	-	-	2	2	
Equipment	-	2	-	-	-	-	
Other	16	-	-	-	-	-	
	100 (N=43)	100 (N=43)	16 (N=7)	30 (N=13)	26 (N=11)	28 (N=12)	100.0 (N=43)

(HERAPP and the Inventory), there were a limited number of researchers identified. Although trained in another subject area, other researchers may adapt and become specialists should it become more fashionable than their current speciality or pay greater dividends. Other persons may be unidentified because their expertise is currently used for other duties within academe, lack of support or simply because their chief officer was among the 3 percent who did not respond to the Inventory. It would appear that if current job descriptions were altered so that specialists could concentrate on housing research issues and some unidentified or out of the field researchers converted, the projections in HERAPP could be met.

Some danger signals can be perceived. A third of the housing researchers are currently at the professorial rank. One qualification of full professorship is experience. Since quality of performance is taken into account when professorial rank is achieved, time and perseverance are required. Often persons at this rank may be approaching retirement. Instructors cannot be considered replacements because these personnel were identified as a part of the 44 specialists.

Comparisons of numbers of researchers in housing with former studies in 1964 and 1974³ show that the number of new researchers have increased at a reduced rate since 1974. When a regression line of best fit is applied, the results indicate an inability to meet the predicted need in HERAPP. In addition, there is no guarantee that current housing specialists fulfilling instructional duties within academe can or want to be

released from current duties. Centers prepared to train new specialists are limited. This occurs because in many instances a single specialist is employed at an institution and the critical mass needed for both training and supervision of research is not available.

Another danger is funding. The Inventory shows that funding for housing is considerably less than for other subject areas. One of the ways recommended to increase funding is through improved communication of results. Housing specialists already show productivity of this kind. In general, outputs for housing researchers are at a higher percentage than for other types of researchers contributing to home economics research. Most of these messages are reported to one another. This is helpful in the development of new research projects and crucial to increases in rank for specialists, but it is not helping to increase funding. In addition, the person directly responsible for supporting the housing research programs does not seem aware of the value of a housing research effort.

Recommendations

Housing is among the more significant types of research in the field of Home Economics. Whether or not home economics is a significant part of housing research cannot be determined from this study. It does indicate several needs.

1. PREPARATION of future researchers. The southern and north central region seem best prepared to undertake this task. The largest concentration of personnel and projects is located here. What is needed is

a way researchers in other areas can contribute.

2. **IMPROVED COMMUNICATIONS** of results. An increased effort to reach the audience controlling budget is needed. Current stress for project acceptance is past productivity often equated with publication of research results. To obtain greater productivity, graduate students paid on a project should produce theses or dissertations related to it. Unfunded students can also be encouraged to contribute to approved projects. Equal number of abstracts to theses/dissertations should be produced. Most important research messages should be redirected to attract the attention of budget or policy makers within the universities, impressing the general public and encouraging legislation to support a housing research effort. A good beginning is the American Association of Housing Educators research column. Methods of making other linkages should be examined and facilitated.

3. **REALISTIC COST** estimates. More business-like accounting should be maintained. Efforts of co-workers, students and even personal in-kind services should be converted to actual budget expenditures. In the long run, research funded on goodwill may affect quality.

Because of the shortage of housing research project leaders, support personnel should be more universally incorporated. Administrators should be cognizant that money spent to retain specialists could be more productive if a specialist is augmented with an interviewer much like a technical assayer in other fields. The released time could be spent writing supplemental proposals for additional budget and/or supervising personnel.

Notes

1. The Home Economics Research Project Inventory was sponsored by the American Home Economics

Association in cooperation with the USDA-Science and Education Administration/Cooperative Research. Dr. Marjorie Keiser while at USDA-SEA/CR and Dr. Patricia A. Tripple serving as an AHEA visiting scholar accepted the responsibility for carrying out the study. Currently Keiser is Professor of Home Economics at Montana State University and Tripple at University of Nevada-Reno. A monograph reporting the entire study is to be published by the American Home Economics Association.

2. Statistics are rounded to the nearest whole number as neither the data or the differences warranted greater specificity.
3. This conclusion is based upon comparisons of data presented in the unpublished manuscript by the Experiment Station committee on Organization and Policy, *Home Economics Research Personnel in Land Grant Institutions*, 1963-64, distributed by the Cooperative State Research Service, USDA, Washington, DC., and Zenter, M.A. and Davis, E. Y., "Home Economics Research Personnel in Land Grant Universities", *Journal of Home Economics Research*, June, 1976, pp. 260-266.

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