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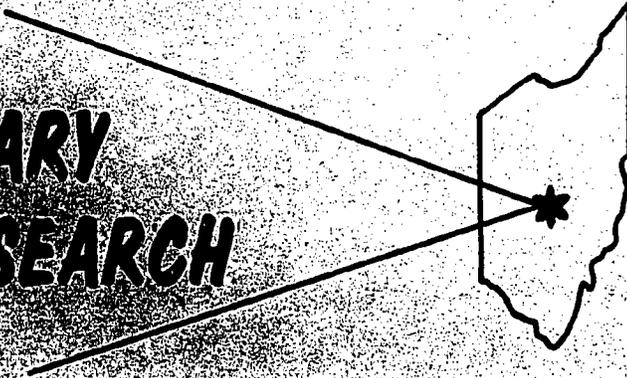
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**ABSTRACT**

A study was conducted to determine what competencies Extension employees working in urban areas of Ohio perceived as most necessary. Information on the demographic characteristics of urban Extension employees in the state was also gathered. Data were obtained via a two-part questionnaire mailed to the 46 Extension employees working in the urban areas of the state; response was 100 percent. The study found that Extension employees perceived that competency in organizational skills was the highest priority, with competency in communication skills a close second. Competency in research and evaluation received the lowest priority rating. Program planning and development was the highest ranked subcategory, while effective thinking, program execution, and public relations were the lowest ranked subcategories. No very high or substantial correlations were found between the competency categories, subcategories, and the demographic characteristics of the Extension employees. The study recommended that the curriculum in agricultural education at Ohio State University should take into consideration the career plans of future Extension employees who may work in an urban environment and that organization skills and urban planning and development competencies should be taught in classes. The study also recommended that Extension's program developers and policymakers should consider these findings when developing urban programs and policies. (KC)

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# SUMMARY OF RESEARCH



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## PROFESSIONAL COMPETENCIES NEEDED BY EXTENSION EMPLOYEES IN URBAN COUNTIES OF OHIO

PANTELIS B. RITSOS AND LARRY E. MILLER

### INTRODUCTION

As stated in the Smith-Lever Act of 1914, which established the Cooperative Extension Service, Extension was created "to aid in diffusing among the people of the United States, useful and practical information on subjects relating to Agriculture and Home Economics, and to encourage application of the same."

At the time of its inception, Extension efforts were aimed at the limited income individuals in rural areas, most being farm families. Later, as more and more rural people moved into an urban environment, Extension agents continued in a leadership role with greater emphasis on assessing problems and organizing educational efforts. Youth programs in 4-H rapidly expanded to include urban population centers. Home economics clientele increased among non-rural people. Because of Extension's well

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recognized leadership and effective organization, community and natural resources development programs were expanded to aid community leadership in improving community quality of life.

This shift of Extension's programs to include urban areas has been of great significance for Ohio; because, according to the census of 1908, 66.4 percent of the people in Ohio (approximately 7 million people) live in eight counties identified as urban by the Ohio Cooperative Extension Service. Forty-six Extension agents, assistant agents and EFNEP coordinators work in these eight counties. This fact puts some additional pressure for high performance and increased responsibility on these urban Extension employees. Few studies have dealt with the competencies needed by urban Extension employees. Some studies have dealt with the training needs of urban Extension agents working with disadvantaged audiences (Soobitsky, 1971) or they compared the training needs of agents in urban and farm counties in selected northeastern states (Kalangi, 1963).

## PROCEDURE

No study has been conducted on the professional competencies needed by urban Extension employees in Ohio. An analysis of the competencies needed by Ohio's urban Extension agents, assistant agents and EFNEP coordinators would better enable this small portion of Extension's personnel to be prepared and trained to successfully carry Extension's programs to the majority of the people of Ohio. The objectives of this study were to:

1. Describe the demographic characteristics of Extension employees in the eight counties identified by the Ohio Cooperative Extension Service as urban in terms of their sex, age, position held presently, tenure in Extension, tenure in present position, area of major responsibility, highest academic degree held and field of study in which highest academic degree was obtained.
2. Describe the Extension employees' perceptions of the competencies needed in organizational skills.
3. Describe the Extension employees' perceptions of the competencies needed in communication skills.
4. Describe the Extension employees' perceptions of the competencies needed in research and evaluation skills.
5. Determine the relationship between the demographic characteristics of Extension employees and their perceptions of competencies needed in organizational, communication, research and evaluation skills.

## IMPLICATIONS

This study was a census of all Extension agents, assistant agents and EFNEP coordinators who worked in the eight urban counties of Ohio. The frame of reference was comprised of these urban Extension employees who were included in the Ohio County Extension Agents list in 1983.

### Instrumentation

The researcher developed a questionnaire which was comprised of two parts. Part One of the questionnaire was comprised of 78 competency statements. Thirty of these statements pertained to the category of organizational skills. This category was comprised of the subcategories: (a) program planning and development, (b) program execution, (c) Extension organization and administration, and (d) maintaining professionalism.

Thirty-two competency statements pertained to the category of communication skills. This category was comprised of the subcategories of (a) public relations, (b) social factors, and (c) effective thinking.

Sixteen competency statements pertained to the category of research and evaluation. This category had no subcategories.

Part One of the questionnaire utilized a Likert-type scale to measure the level of perceived competence of the Extension employees. There were six levels of competence: (0) not applicable, (1) very low level of competence, (2) low level of competence, (3) moderate level of competence, (4) high level of competence, and (5) very high level of competence.

Part Two of the questionnaire pertained to the demographic characteristics of the Extension employees. These characteristics were: area of major responsibility, position in the Cooperative Extension Service, tenure in the Cooperative Extension Service, tenure in present position, highest academic degree held, major field of study for the highest degree held, age and sex.

A panel of experts in Extension was used to examine the questionnaire and determine its validity. The questionnaire was pilot tested on the Extension agents of five Ohio counties in order to determine its reliability. A Cronbach's alpha procedure was used in order to determine the internal consistency among the competency statements of the questionnaire. The Cronbach's alpha estimates for all categories and subcategories of competency statements were above .60 (Nunnally, 1967) and thus all categories and subcategories were included in the questionnaire.

### Data Gathering Procedures

The mailing procedures for the collection of data for this study were in accordance with recommendations made by Dillman (1978). A precard was sent to all the Extension agents, assistant agents and EFNEP coordinators

of the eight urban counties of Ohio. The questionnaire with a cover letter was sent to the subjects of the study one week after the precard was sent out. A postcard followup was sent to the subjects of the study one week after the questionnaire was sent out. A second questionnaire was mailed to the nonrespondents two weeks after the postcards were sent out. By the deadline, all Extension agents, assistant agents and EFNEP coordinators had responded.

### Statistical Analysis

The data were keypunched onto cards and analyzed by means of the Statistical Package for the Social Sciences. Since this was a census, only descriptive parameters were utilized to analyze and summarize the data. Pearson product moment correlation coefficients were used to determine the strength of correlations between the competency categories and subcategories, and the demographic characteristics measured by nominal (area of major responsibility, position in the Cooperative Extension Service, major field of study and sex) and interval (tenure in the Cooperative Extension Service, tenure in present position and age) scales.

Spearman rank coefficients were used to determine the strength of correlations between the competency categories and subcategories and the demographic characteristic measured by ordinal scale (highest academic degree held).

## DISCUSSION AND CONCLUSIONS

Extension employees perceived that competency in organizational skills was the highest in priority, with competency in communication skills a close second. Competency in research and evaluation was the lowest in priority among all categories and subcategories.

The Extension employees rank ordered the subcategories pertaining to the category of organizational skills as follows: (a) program planning and development, (b) maintaining professionalism, (c) Extension organization, and administration, and (d) program execution.

The Extension employees rank ordered the subcategories pertaining to the category of communication skills as follows: (a) social factors, (b) effective thinking, and (c) public relations.

Analyzing all subcategories collectively, program planning and development was the highest ranked subcategory. Effective thinking, program execution and public relations were the lowest ranked subcategories.

No very high or substantial correlations were found between the competency categories, subcategories and the demographic characteristics of the Extension employees (Tables 1 and 2). Moderate correlations were observed between: (a) position in the Cooperative Extension Service with the category program planning and development; Extension agents and

**Table 1**  
**Pearson product moment correlations**  
**between demographic characteristics,**  
**categories and subcategories**

<u>Competency</u> <u>Categories and</u> <u>Subcategories</u>	<u>Characteristics of Urban Agents</u>						
	<u>Area of</u> <u>Major Respon-</u> <u>sibility</u>	<u>Position</u> <u>in</u> <u>the C.E.S.</u>	<u>Tenure</u> <u>in</u> <u>the C.E.S.</u>	<u>Tenure in</u> <u>Present</u> <u>Position</u>	<u>Major</u> <u>Field</u> <u>of Study</u>	<u>Age</u>	<u>Sex</u>
Program Planning and Development	.16	.31	.04	.14	.01	.04	.01
Program Execution	-.20	-.05	-.004	.25	.04	.07	.18
Personnel Organization and Administration	.03	-.05	.03	.05	.07	.15	.10
Maintain Professionalism	-.16	.17	.13	.40	.13	.13	.17
Public Relations	.01	-.23	.06	.07	.13	.02	.04
Personal Factors	-.25	-.03	-.13	.007	.10	-.23	.19
Creative Thinking	-.15	-.14	-.32	-.30	.34	-.19	.09
Research and Evaluation	-.22	-.10	-.27	-.18	.07	-.05	.16
Organizational Skills	-.12	-.17	.07	.16	.04	.10	.14
Communication Skills	-.12	-.17	.07	.002	.10	-.14	.07

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Table 2  
Spearman rank correlations between  
the highest academic degree held with  
categories and subcategories

<u>Categories and Subcategories</u>	<u>Highest Academic Degree Held</u>
Program Planning and Development	.09
Program Execution	.20
Extension Organization and Administration	.21
Maintain Professionalism	.01
Public Relations	.34
Social Factors	.27
Effective thinking	.20
Research and Evaluation	.15
Organizational Skills	.25
Communications	.35

assistant agents perceived that their level of competency should be higher than the level of competency of EFNEP coordinators, (b) tenure in present position with the subcategory maintain professionalism; the longer employees served in their present position the more important they perceived the competency needed in maintaining professionalism, (c) tenure in the Cooperative Extension Service and tenure in present position with the subcategory effective thinking. These correlations were negative; the longer employees served in their position and/or in the Cooperative Extension Service the less important they perceived the competency needed in effective thinking, (d) major field of study with the subcategory effective thinking; Extension employees who studied a production subject matter field (including animal science, poultry, agronomy, horticulture and agricultural engineering) perceived that their level of competency needed should be higher than the level of competency of employees who studies home economics or education (agricultural education, home economics education, general education), (e) higher academic degree held with the category organizational skills and the subcategory public relations; the higher the academic degree of employees the more important they perceived the competency needed in organizational skills and in public relations.

Urban Extension employes perceived that competencies in organizational skills were the highest priority among the categories and communications skills were ranked second. Competencies in research and evaluation were ranked the lowest.

The other studies cited had found significant correlations between demographic characteristics and the competency areas studied for all Extension agents. The lack of significant correlations in this study would imply that inservice programs can be developed for urban agents as a homogenous group since they do not vary greatly with the characteristics investigated.

1. Curriculum development in the undergraduate and graduate level at the Department of Agricultural Education of The Ohio State University should take into consideration the career plans of future Extension employees who develop an interest in working in an urban environment. The results of this study can be used as topics in classes such as Program Development in Cooperative Extension, where organization skills of highest priority to urban Extension can be taught. Organizational skills and urban planning and development competencies could be taught in classes such as Program Planning and Development.
2. Extension's program developers and policy makers (Extension employees, program planning committees, and advisory and support groups) in Ohio should consider these findings when developing urban programs and policies.

ORGANIZATIONAL SKILLS

Program Planning & Development			Maintain Professionalism			Extension Organization & Administration			Program Execution		
	<u>μ</u>	<u>S.D.</u>		<u>μ</u>	<u>S.D.</u>		<u>μ</u>	<u>S.D.</u>		<u>μ</u>	<u>S.D.</u>
Develop key program activities	4.356	0.679	A-30 Maintain professional appearance	4.378	0.614	A-23 Select competent staff	4.581	0.626	A-15 Employ a variety of techniques in instructing people	4.500	0.624
Develop program goals	4.267	0.688	A-28 Identify opportunities for professional improvement	4.022	0.683	A-24 Plan budget expenditures	4.326	0.837	A-12 Determine program priorities	4.391	0.682
Involve clientele in program planning	4.239	0.822	A-27 Maintain a yearly plan for professional development	3.913	0.865	A-26 Complete tasks before deadlines	4.130	0.778	A-17 Demonstrate a concept or principle to clientele	4.136	0.765
Develop an annual program work	4.196	0.749	A-29 Participate in professional organizations	3.867	0.694	A-22 Supervise Extension staff	4.093	0.718	A-13 Direct volunteers in instructing people	4.000	0.919
Develop a monthly calendar of activities	4.130	0.749				A-20 Know the goals of Extension	4.087	0.812	A-14 Use subject matter experts to present information	3.848	0.816
Maintain an advisory committee	4.065	0.952				A-25 Coordinate work schedules of staff	4.047	0.785	A-16 Demonstrate a manipulative skill to clientele	3.767	0.972
Organize an advisory committee	3.978	0.931				A-21 Plan business meetings with colleagues	3.756	0.679	A-11 Follow a written program of work	3.587	0.832
Develop a long range program work	3.916	0.812				A-19 Know the organizational structure of Extension	3.717	0.834	A-10 Complete SEMIS reports	3.152	1.192
Conduct an occupational analysis	3.000	1.065				A-18 Know the history of Extension	3.348	0.948			

COMMUNICATION SKILLS

Social Factors		Effective Thinking	
	<u>μ</u>	<u>S.D.</u>	
Work with community leaders	4.457	0.657	
Dev. programs available to all regardless of sex	4.455	0.663	
Identify community leaders	4.304	0.726	
Dev. programs appropriate for values held by people in the county	4.217	0.841	
Dev. programs for racial minorities	4.000	0.943	
Dev. programs for ethnic minorities	3.957	0.988	
Counsel clientele taking into consideration different patterns of behavior	3.957	0.815	
Use motivational techniques for apathetic people	3.848	0.988	
Dev. programs for single parent families	3.714	1.019	
Dev. programs for handicapped clientele	3.689	1.041	
Dev. programs for elderly	3.500	1.018	

Effective Thinking		Public Relations	
	<u>μ</u>	<u>S.D.</u>	
B-31 Solve Extension related problems under time pressure of the job	4.111	0.775	
B-30 Predict probable future results from existing facts	3.800	0.786	
B-32 Utilize peer groups to affect the thinking processes of clientele	3.800	0.661	

Public Relations		C. RESEARCH AND EVALUATION	
	<u>μ</u>	<u>S.D.</u>	
B-3 Write newsletters	4.217	0.728	
B-18 Select instructional materials	4.200	0.694	
B-17 Dev. instructional materials	4.174	0.677	
B-16 Teach large groups	4.152	0.729	
B-2 Deliver public speeches	4.133	0.786	
B-9 Prepare brochures to promote Ext. programs	4.089	0.874	
B-1 Prepare public speeches	4.067	0.780	
B-4 Write newspaper articles	4.043	0.815	
B-8 Prepare displays to promote Ext. programs	3.957	0.893	
B-6 Dev. Ext./community relations plan	3.952	0.909	
B-7 Coop. w/ state specialists on selected programs	3.911	0.793	
B-11 Arrange radio presentations	3.870	1.087	
B-13 Conduct group discussions	3.848	0.894	
B-10 Arrange television presentations	3.826	1.081	
B-12 Prepare proposals to agencies to fund projects	3.778	1.064	
B-5 Use a computer terminal	3.767	1.043	
B-15 Teach small groups	3.652	1.016	
B-14 Individualize instruction	3.435	1.088	

C. RESEARCH AND EVALUATION		<u>μ</u>	<u>S.D.</u>
C-16 Est. criteria for evaluating Ext. programs	4.152	0.698	
C-15 Est. criteria for your instructional effectiveness	4.109	0.737	
C-12 Apply research findings to solution of clientele's problems	3.911	0.900	
C-14 Est. performance criteria for volunteers	3.717	0.807	
C-13 Est. clientele performance criteria	3.600	0.780	
C-9 Know how to identify instrument validity	3.578	1.011	
C-10 Dev. a valid instrument	3.556	0.967	
C-7 Know how to identify instrument reliability	3.500	1.000	
C-8 Dev. a reliable instrument	3.477	0.952	
C-3 Report findings of community survey	3.370	0.997	
C-11 Know how to use statistical procedures	3.356	1.069	
C-6 Report findings of follow up studies	3.356	0.981	
C-1 Prepare a community survey	3.261	0.953	
C-5 Conduct follow up studies	3.261	0.976	
C-4 Prepare follow up studies	3.239	1.015	
C-2 Conduct community survey	3.196	0.957	



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## SUMMARY OF RESEARCH SERIES

Extension in urban areas may have a different emphasis than in rural areas. What are the professional competencies required of agents who work in the urban environment? This study provides a rating of the important professional competencies by agents working in urban areas. Further justification of the area of program planning and development as essential in the work of an Extension agent is provided.

The authors are recognized for their scholarship in preparing this summary. Dr. Larry Miller is a Professor, Department of Agricultural Education, The Ohio State University. Mr. Ritsos was a graduate student in the Department of Agricultural Education, The Ohio State University. Special appreciation is due to Dr. Clarence Cunningham, Associate Director, The Ohio Cooperative Extension Service, The Ohio State University; Dr. Ismael Golzalez, Department of Agricultural Education, Iowa State University; and Dr. David Kittrell, Assistant Professor, Department of Agricultural and Extension Education, Mississippi State University for their critical review of this manuscript prior to its publication.

Research has been an important function of the Department of Agricultural Education since it was established in 1917. Research conducted by the Department has generally been in the form of graduate theses, staff studies and funded research. The purpose of this series to make useful knowledge from such research available to practitioners in the profession. Individuals desiring additional information on this topic should examine the references cited.

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