

12-1-2007

## Identifying Volunteer Core Competencies: Regional Differences

Ken Culp III

*University of Kentucky*, ken.culp@uky.edu

Renee K. McKee

*Purdue University*, rmckee@purdue.edu

Patrick Nestor

*West Virginia University*, pinestor@mail.wvu.edu



This work is licensed under a [Creative Commons Attribution-Noncommercial-Share Alike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

---

### Recommended Citation

Culp, K., McKee, R. K., & Nestor, P. (2007). Identifying Volunteer Core Competencies: Regional Differences. *The Journal of Extension*, 45(6), Article 5. <https://tigerprints.clemson.edu/joe/vol45/iss6/5>

This Feature Article is brought to you for free and open access by the Conferences at TigerPrints. It has been accepted for inclusion in The Journal of Extension by an authorized editor of TigerPrints. For more information, please contact [kokeefe@clemson.edu](mailto:kokeefe@clemson.edu).



## Identifying Volunteer Core Competencies: Regional Differences

### Abstract

The study reported here surveyed direct service volunteers and agents in 12 states and identified 32 competencies for volunteers who deliver 4-H Youth Development programs and activities. Twenty of the 32 competencies were different when stratified by Extension region, illustrating that volunteer competencies have greater regional differences than previously thought. Volunteer competencies were statistically most different in the Southern region, while competencies in the North Central and Western regions were most similar. A national curriculum that focuses upon the 12 competencies that were not found to be significantly different between regions could be developed.

### Ken Culp, III

Sr. Extension Specialist for Volunteerism  
Department of 4-H Youth Development  
University of Kentucky  
Lexington, Kentucky  
[ken.culp@uky.edu](mailto:ken.culp@uky.edu)

### Renee K. McKee

Assistant Director of Extension  
State 4-H Youth Development Program Leader  
Purdue University  
West Lafayette, Indiana  
[rmckee@purdue.edu](mailto:rmckee@purdue.edu)

### Patrick Nestor

Extension Specialist, Volunteer Leadership  
West Virginia University  
Weston, West Virginia  
[pinestor@mail.wvu.edu](mailto:pinestor@mail.wvu.edu)

## Introduction and Review of Literature

Working with volunteers is an Extension tradition (Patton, 1990) as well as the primary method of delivering 4-H programs. Volunteer leaders have been central to the success of the 4-H program since its inception (Wessel & Wessel, 1982). Extension professionals engage volunteers by involving them in a variety of roles and delegating to them responsibility for projects, programs, events, and activities.

In order to effectively prepare Extension educators for their roles as volunteer administrators, organizational and community needs must be identified. Extension educators also need to determine ways that volunteer efforts can assist in serving both Extension and its clientele in fulfilling these needs. An important next step is developing volunteers to more effectively serve Extension and its clientele.

A perusal of the volunteerism literature in 4-H Youth Development reveals a number of previous studies (Banning, 1970; Clark & Skelton, 1950; Culp, 1995; Culp, 1996; Culp & Schwartz, 1998; Denmark, 1971; Parrott, 1971) that have sought to identify the demographic indicators that describe 4 H Youth Development volunteers. Additionally, "Giving and Volunteering in the United States" (Independent Sector, 2001) provides in-depth, broad-based, documentable information describing a cross section of American volunteers. However, none of these studies have focused on identifying the skills or competencies that volunteers need in order to deliver programs, lead

initiatives or activities, or work effectively with their target audiences. Additionally, regional differences in 4 H Youth Development volunteers have largely been unexplored.

Recent studies (Boyd, 2002; Culp & Kohlhausen, 2004; Deppe, 1998; Deppe & Culp, 2000; King, 1998; Kohlhausen, 1999; Stone & Coppagnol, 2002; North Carolina Cooperative Extension, 2002) have investigated the administrative competencies needed by Extension professionals who direct programs and coordinate and supervise volunteers. Competencies needed by the volunteers who deliver the program, however, has largely been unresearched.

Volunteers are an essential component of the Cooperative Extension Service in the United States. Nearly 625,000 volunteers deliver 4-H Youth Development programs to American youth annually (National 4-H Headquarters, 2002.) 4-H Youth Development professionals should consider the most effective ways to manage volunteer programs in order to maximize volunteer contributions to Extension. 4 H professionals need to effectively work with volunteers to fulfill the goals of Extension programs.

A competency is an underlying characteristic of an individual that is causally related to criterion-referenced effective and/or superior performance in a job or situation (Spencer & Spencer, 1993). The type or level of a competency has practical implications for human resource planning. Knowledge and skill competencies tend to be visible, and relatively surface, characteristics of people. Self-concept, trait, and motive competencies are more hidden, "deeper," and central to personality (Spencer & Spencer, 1993).

Competencies indicate "ways of behaving or thinking, generalizing across situations and enduring for a reasonably long period of time" (Guion, 1991). Hedges (1995) defined a competency as "an observable and measurable behavior that has a definite beginning and ending, can be performed within a limited amount of time, consists of two or more competency builders, and leads to a product, service, or decision." He further defined a competency builder as "the skills, knowledge, and attitudes needed to perform a given competency" (p. 13).

## **Background and Setting**

The purpose of the study reported here was to identify the competencies that volunteers will need in order to effectively deliver 4 H Youth Development programs and activities in the next decade and to determine if differences in these competencies exist between Extension regions. The manner in which 4-H programs, projects, and activities are structured and delivered in the United States varies significantly between Extension regions. The North Central and Western regions, for example, rely heavily on volunteer-led community clubs as their primary delivery method. 4-H in the Southern Region, conversely, is heavily school-based.

The study reported here will provide State Volunteerism Specialists and county-based 4 H professionals throughout the United States with a national focus and direction related to the levels of competency and the perceived needs of 4-H volunteers working directly with youth. Volunteer development activities, volunteer certification standards, and master volunteer programs can then be developed and tailored to the skills and competencies needed by those who deliver the programs to youth.

## **Problem Statements**

There are a number of reasons why the study is important to 4-H Youth Development professionals. First, national data that identifies the competencies needed to effectively work with 4-H youth is non-existent. Second, the need exists to prioritize at a national level, the identification and development of volunteer core competencies that 4-H professionals can use in supporting, building, and delivering 4-H Youth Development programs. Third, the need exists to prioritize at a national level, the identification and creation of volunteer development resources that 4-H professionals can use in constructing, delivering, and evaluating 4-H Youth Development programs. Fourth, the Cooperative Extension Service provides little education or resources to new professionals regarding volunteer development. The study was designed to address these needs.

## **Objectives of the Study**

Two specific objectives were identified for this research. These objectives are to:

- Identify the competencies that 4-H Youth Development volunteers need in order to conduct programs for 4-H youth.
- Determine if volunteer development competencies are different among Extension regions.

## **Procedures**

### **Research Design and Subject Selection**

The exploratory survey research reported here is descriptive and correlational in nature and was conducted utilizing mail questionnaires as outlined by Dillman (2000). The target populations for the census were identified as adult volunteers who interact directly with youth in the 4-H Youth

Development program, 4-H Youth Development agents, and state volunteerism specialists in the United States.

State volunteerism specialists were instructed to assemble a random sample of 100 adult volunteers who served in direct-contact roles with youth in each state. Three states were purposefully selected from each of the four Extension Regions (North East, South, North Central and West), with an additional state selected from the South and North Central, to more accurately represent the 4-H member and adult volunteer population distribution in the United States. A total of 14 states were originally selected and agreed to participate in the study, yielding a sample of 1,400 volunteers.

The names of current field staff members selected to participate in the study were obtained from the Cooperation Extension Service personnel directory in each of the target states. The 12 states completing the study are included in Table 1. Fifty (50) 4-H agents, employed 6 months or more, were sampled in the 12 states. A census survey was employed for the state volunteerism specialists at 1862 land-grant universities (N=50). (Note: Not every state specialist, however, followed the request specifically and assembled a sample consisting of exactly 100 volunteers and 50 agents. This provides a discrepancy in the sample size.)

**Table 1.**  
Regions Participating in the Study with Return Rate

| Region             | Volunteers |        | Agents |        | Specialists |        | Totals |        |
|--------------------|------------|--------|--------|--------|-------------|--------|--------|--------|
|                    | Sample     | Return | Sample | Return | Sample      | Return | Sample | Return |
| North East         | 206        | 99     | 52     | 38     | 12          | 8      | 266    | 145    |
| No. Central        | 368        | 176    | 339    | 136    | 12          | 12     | 720    | 368    |
| South              | 310        | 79     | 240    | 63     | 13          | 561    | 153    |        |
| West               | 471        | 166    | 118    | 71     | 13          | 11     | 600    | 248    |
| <b>Totals</b>      | 1355       | 520    | 749    | 308    | 50          | 43     | 2147   | 914    |
| <b>Return Rate</b> |            | 38.38% |        | 41.12% |             | 86.00% |        | 42.57% |

## Instrumentation, Data Collection, and Analysis

The instrument used in the study was developed to identify the demographic differences between volunteers, agents, and state volunteerism specialists. Face validity was established by a panel of experts drawn from 4-H volunteers, agents, specialists, and experts in the field of volunteerism and research methodology who were not involved in the study.

The samples were mailed questionnaires as outlined by Dillman (2000). Questionnaires contained one qualitative and two quantitative components. The quantitative components focused on the characteristics of the respondent's volunteer program, including number of 4-H members, youth and adult volunteers, middle managers, and agents working with 4-H, as well as the respondent's demographic characteristics.

Questionnaires and a cover letter inviting participation in the study were distributed electronically to specialists and agents. Both groups were directed to access the appropriate version of the questionnaire via the University of Kentucky 4-H Youth Development Web site. Responses were transferred to a data set located at Purdue University. A reminder message was electronically mailed to the samples 3 weeks after the initial mailing. Because the data that were submitted to the Purdue database were anonymous, no further attempt at non-respondent follow-up was made.

Questionnaires were disseminated to the volunteer samples in each state via U.S. Mail, along with a cover letter and a self-addressed, stamped return envelope. Reminder postcards were mailed to non-respondents 3 weeks after the initial mailing, asking for a response within 2 weeks.

As noted in Table 1, the following return rates were achieved: 38.38% for volunteers, 41.12% for agents, and 86% for specialists, for a combined rate of 42.57%. Data from the quantitative questions were analyzed using descriptive statistics, chi-square, and analysis of variance utilizing SAS (SAS, 2002) to determine differences between the three populations. An alpha level of .05 was set *a priori*.

## Results and Discussion

In Part I of the questionnaire, all respondents were asked to "identify current or future skills or competencies which ... will be needed by volunteers who work directly with youth in order to effectively deliver 4-H programs." Neither a minimum nor maximum number of skills or competencies was requested. As expected, respondents provided input in a variety of ways. Single

words, phrases, complete sentences, and paragraphs were all provided.

Using the system of three raters (Culp & Pilat, 1998) three researchers from three different Extension Regions read all questionnaires and came to consensus on the proper qualitative category for each individual response in Part I before assigning a quantitative code. The three raters began by identifying qualitative categories by coding the Specialists' responses as this was the smallest and most manageable data set. They proceeded to Agent responses and finished with the volunteers' data set.

## Identification of Competencies

Table 2 lists the 32 competencies that were identified by the participants, stratified by the four Extension Regions. The top 12 competencies, which were identified by the 15% or more of the aggregate sample, included: Communication; Organization/Planning Skills and Records; Subject Matter Skills; Interpersonal Skills; Leadership; Ages & Stages of Youth Development; Technology & Computer Skills; Youth/Adult Partnerships, Enjoy Kids; Patience; Time Management & Availability; Organizational Structure: 4-H and CES; Group Skills/Facilitation/Teamwork; and Teaching Skills and Program Delivery (Table 2).

**Table 2.**  
Competencies That Volunteers Will Need in Order to Effectively Deliver 4-H Youth Development Programs by Extension Region

| Competency                             | NC    | NE    | South | West  | Total | Chi-square |
|--|-------|-------|-------|-------|-------|------------|
| Communication                          | 40.92 | 40.00 | 33.55 | 47.18 | 41.26 | .0597      |
| Organization/Planning Skills & Records | 38.15 | 33.10 | 22.37 | 45.97 | 36.78 | <.0001     |
| Subject Matter Skills & Knowledge      | 24.92 | 30.34 | 34.87 | 39.11 | 31.61 | .0029      |
| Interpersonal Skills                   | 34.46 | 18.62 | 25.66 | 33.87 | 30.11 | .0017      |
| Leadership                             | 21.85 | 19.31 | 12.50 | 28.63 | 21.72 | .0018      |
| Ages & Stages of Youth Development     | 23.08 | 26.21 | 16.45 | 19.76 | 21.49 | .1626      |
| Technology & Computer Skills           | 17.23 | 23.45 | 25.66 | 22.58 | 21.26 | .1339      |
| Youth/Adult Partnerships, Enjoy Kids   | 24.31 | 20.69 | 13.16 | 22.58 | 21.26 | .0450      |
| Patience                               | 17.23 | 13.79 | 15.79 | 19.76 | 17.13 | .4683      |
| Time Management & Availability         | 16.92 | 12.41 | 10.53 | 22.98 | 16.78 | .0045      |
| Organizational Structure: 4-H & CES    | 20.92 | 13.79 | 11.18 | 15.73 | 16.55 | .0353      |
| Group Skills/Facilitation/Teamwork     | 13.23 | 15.17 | 11.18 | 21.37 | 15.52 | .0188      |
| Teaching Skills and Program Delivery   | 11.69 | 7.59  | 13.82 | 22.18 | 14.37 | .0002      |
| Care, Compassion, Love, Understanding  | 12.31 | 15.17 | 7.24  | 18.15 | 13.56 | .0155      |
| Diversity                              | 12.62 | 17.24 | 6.58  | 13.31 | 12.53 | .0463      |
| Behavior Mngmt /Conflict Resolution    | 10.46 | 20.69 | 12.50 | 9.27  | 12.18 | .0054      |
| Ethics, Honesty, Integrity, Role Model | 8.00  | 8.97  | 7.24  | 17.34 | 10.69 | .0010      |
| Risk Management & Liability            | 8.92  | 16.55 | 8.55  | 27    | 10.23 | .0544      |
| Recruitment; Parent Involvement        | 11.08 | 4.83  | 2.63  | 10.48 | 8.39  | .0038      |
| Motivation                             | 4.00  | 10.34 | 3.29  | 9.27  | 6.44  | .0053      |
| Financial Resources/Fund Raising       | 4.62  | 3.45  | 3.95  | 9.27  | 5.63  | .0302      |
| Community Capacity Building, SL, CS    | 4.00  | 1.38  | 3.95  | 9.68  | 5.17  | .0012      |
| Experiential Learning                  | 4.92  | 6.90  | 5.92  | 3.63  | 5.06  | .5080      |
| Empowerment & Delegation               | 5.23  | 6.90  | 1.97  | 4.84  | 4.83  | .2446      |
| Willing to Learn and Change            | 1.23  | 6.21  | 3.29  | 5.65  | 3.68  | .0124      |
| Learning Styles                        | 4.00  | 1.38  | 3.29  | 4.44  | 3.56  | .4276      |
| Needs Assessment                       | 1.85  | 1.38  | 1.32  | 4.03  | 3.22  | .1859      |
| Problem-Solving Skills                 | 2.15  | 2.76  | 3.29  | 4.03  | 2.99  | .6178      |
| Marketing & Publicity                  | 3.69  | 0.69  | 0.66  | 4.84  | 2.99  | .0296      |
| Club Management                        | 3.08  | 3.45  | 1.97  | 2.42  | 2.76  | .8410      |
| Assessment/Evaluation/Accountability   | 1.23  | 4.14  | 1.32  | 6.45  | 2.30  | .0022      |

|   |       |       |       |       |      |       |
|---|-------|-------|-------|-------|------|-------|
| Recognition   | 1.85  | 2.76  | 1.32  | 2.42  | 2.07 | .8023 |
|   | n=325 | n=145 | n=152 | n=248 |      | n=870 |
| Values are expressed in percentages of people in each educational category reporting each competency. |       |       |       |       |      |       |
| Values in rows are significantly different when subjected to the Chi-square test.                     |       |       |       |       |      |       |

Communication was the most frequently identified competency for volunteers to effectively deliver 4-H programs. It was identified by 41.26% of the respondents. With a chi-square value of .0597, this competency approached significance with the highest frequency in the West (47.18%) and the lowest in the South (33.55%). Agents and specialists should plan volunteer development activities that focus on developing, applying, and teaching speaking, writing, listening, and non-verbal communications skills.

This may be accomplished by offering communication workshops, building communication components into most 4-H programs and activities, and teaching volunteers to speak in a youth vernacular in order to further develop this skill. A communication component should be integrated into as many 4-H projects, programs, and activities as possible. Additionally, administrators, specialists, agents, volunteers, parents, and members should all be expected to inclusively share organizational information and practice open communication with all participants and stakeholders.

The second competency, Organization/Planning Skills and Records, was listed by 36.78% of respondents. On a regional comparison, this was the most highly significant competency identified with a chi-square value  $<.0001$ . Organization/Planning Skills and Records" was identified twice as frequently in the West (45.97%) as in the South (22.37%) with intermediate values reported in the North East and North Central (33.10% and 38.15%, respectively). Teaching volunteers record-keeping skills, how to manage paper, learning how to leave a paper trail, and teaching file and record maintenance (how to organize information and resources) should improve their level of performance.

Subject Matter Skills, ranked third, was listed by 31.61% of respondents and was significantly different among regions. This competency was identified most frequently in the West (39.11%) and least frequently in the North Central (24.92%), although it was ranked fourth in importance in the North Central. Specialists should consider developing statewide volunteer certification programs or organize state or regional volunteer forums or educational conferences by subject-matter tracks so that volunteers may acquire the technical information which they believe is necessary for them to fulfill their role.

The fourth competency, Interpersonal Skills, was listed by 31.11% of all respondents. Frequently identified descriptors in the interpersonal skills category were extroverted personality characteristics, including "outgoing," "fun-loving," and "easy to talk to." The research team determined that interpersonal skills was not a competency (as it cannot be taught) and therefore removed this descriptor from the competency list for the second study. However, interpersonal skills is included as a personality trait that may be important to consider when recruiting, screening, or engaging volunteers and is included in a separate category in phase two of the study. This competency also posted significantly different rankings among regions with the highest frequency being in the North Central and South (34.46% and 33.87%, respectively.)

The fifth competency, Leadership, was identified by 21.72% of the combined sample. One of the basic tenets of 4-H Youth Development programming is to develop leadership skills in both youth and adults. Agents and specialists should, therefore, continually seek ways to teach volunteers to develop leadership skills or teach leadership education workshops to youth. These topics could include parliamentary procedure and how to plan and conduct a meeting, event, or activity, as well as modeling, teaching, and developing leadership skills in youth. This category was identified least often in the South (12.50%).

The sixth competency, Ages and Stages of Youth Development, had a combined listing of 21.49%. Opportunities to integrate ages and stages information into subject-matter workshops or as a component of larger or more engaging workshops should be sought.

The scores for the seventh and eighth competencies were tied. Technology and Computer Skills was tied as the seventh most frequently identified competency, with a combined total of 21.26%. Agents and specialists should provide educational opportunities for volunteers to become more computer literate and develop technological and computer skills. Additionally, teaching volunteers to access and use the Internet and county, state and national 4-H Web sites will increase their capacity to gather information, ideas, resources, and curriculum. Finally, volunteers should be taught to utilize the computer as an instructional tool as well as how and where to seek grants for educational resources and technology.

The category Youth/Adult Partnerships; Enjoy Kids was also tied as the seventh most frequently identified competency, with an aggregate score of 21.26%. Agents and specialists should create opportunities for youth and adults to collaborate on projects and activities and mentor each other and integrate youth and adult interactions into the 4-H curricula wherever possible. With a score of 13.16%, the South identified this competency one-third less frequently than the other three

regions.

The ninth most frequently identified competency, Patience, presented one of the most interesting and challenging categorical variables to the research team and was not significantly different among regions. While the combined score was 17.13%, the research team determined that patience was not a skill or competency, but rather a personality trait. This descriptor was, therefore, removed from the competency list for the second study. Patience is included as a personality trait that may be important to consider when recruiting, screening, or engaging volunteers and is included in a separate category in the second study.

Rounding out the top ten was the competency Time Management and Availability, which received an average frequency score of 16.78%. Time management and availability ranked tenth in importance and was significantly different among regions, with the highest frequency scores being found in the West (22.98%) and the lowest found in the South and North East (10.53% and 12.41%, respectively.) Agents and specialists should consider offering time management workshops as volunteer development opportunities and make greater use of the Web, a county homepage, and e-mail as means to communicate information to those who cannot visit the Extension office during business hours. Considering that the majority of volunteers are employed, agents should also consider offering extended office hours one day each week and be realistic and honest about time requirements when developing position descriptions and during recruitment efforts.

Organizational Structure: 4-H and CES ranked 11th. It was identified twice as frequently in the North Central (20.92%) as in the South (11.18%). The researchers determined that this item was not a skill or competency but rather a topic that should be presented during volunteer orientation. In order to effectively lead or deliver 4-H programs, events, and activities, volunteers must understand the structure of the organization which they serve and the connection between 4-H and Cooperative Extension.

Group Skills/Facilitation/Teamwork ranked 12th and was identified significantly more frequently in the West. Because volunteers largely work with groups of youth (and, to a lesser extent, adults), developing the skills to facilitate group activities and build teams will be highly important.

Teaching Skills and Program Delivery ranked 13th. This competency was identified three times more frequently by the West (22.18%) than by the North East (7.59%). Whether volunteers teach subject matter, leadership, parliamentary procedure, communications, creative arts, or demonstrations, developing the ability to teach and convey information is a critical component of a 4-H volunteer's role. Volunteers could, however, instruct other volunteers teaching and program delivery skills.

## Regional Differences

Nearly two-thirds (20) of the 32 competencies were found to be significantly different when compared by Extension Region. This finding illustrates that the beliefs about volunteer roles in the 4-H program, perceptions about volunteer skills or competencies needed to deliver 4-H Youth Development programs, and the manner in which volunteers deliver 4-H programs and activities are vastly different among Extension Regions. The 20 competencies that were significantly different when compared across Extension Regions included:

- Organization/Planning Skills and Records;
- Subject Matter Skills and Knowledge;
- Leadership;
- Youth/Adult Partnerships, Enjoy Kids;
- Time Management and Availability;
- Organizational Structure: 4-H and CES;
- Group Skills/Facilitation/Teamwork;
- Teaching Skills and Program Delivery;
- Care, Compassion, Love, Understanding;
- Diversity;
- Behavior Management/Conflict Resolution;
- Ethics, Honesty, Integrity, Being a Role Model;
- Risk Management and Liability;
- Recruitment and Parent Involvement;
- Motivation;
- Financial Resources/Fund Raising;
- Community Capacity Building, Service Learning, and Community Service;
- Willing to Learn and Change; Marketing and Publicity; and
- Assessment/Evaluation/Accountability.

Additionally, two competencies, Communication and Risk Management and Liability, approached significance when subjected to the Chi-square test ( $p = .0597$  and  $.0544$ , respectively.)

It is noteworthy to point out that the frequency with which these significantly different competencies were identified was the lowest in the Southern region for 14 of the 22. (Table 2.)

## Implications

- Twenty (20) of the 32 competencies identified in the preliminary study were significantly different among Extension Regions. The relative importance of the competencies needed by volunteers to effectively deliver 4-H Youth Development programs in the next decade, therefore, *is* somewhat different among regions. This would indicate that the competencies needed by volunteers have greater regional differences than has been previously thought. Care should be taken, therefore, not to assume that materials developed for volunteers in one region are completely interchangeable with another region.
- Of the 20 competencies identified as being significantly different among regions, roughly two-thirds (14 of the 20) had the lowest frequency values in the Southern Region. This could imply that 4-H volunteers are the most uniquely different in the South, due, in part, to the greater emphasis on school-based and agent-delivered programming.
- Volunteer competencies were found to be most similar in the North Central and Western Regions, where strong leader-led community club programs are the cornerstones of county 4-H programs. Agents in the North Central and West should feel comfortable in sharing and interchanging materials developed for volunteers in these two regions.
- Volunteer competencies that were not found to be significantly different between regions (Communication, Ages and Stages of Youth Development, Technology and Computer Skills, Patience, Risk Management and Liability, Experiential Learning, Empowerment and Delegation, Learning Styles, Needs Assessment, Problem-Solving Skills, Club Management, and Recognition) could become the focus of a national volunteer development curriculum. This national curriculum could be developed for use by all states and regions that focus on either these 12 competencies; or those that were ranked most frequently by the respondents.

## References

- Boyd, B. L. (2002). Competencies for leaders of volunteers during the next decade: A national delphi study. Proceedings of the 2002 National Agricultural Education Research Conference. Las Vegas, NV.
- Clark, R. C. Jr., & Skelton, W. (1950). *The 4-H club leader*. New York State College of Agriculture, Bulletin 94. Ithaca: Cornell University.
- Culp, III, K. (1996). *Factors affecting length of service of adult volunteer 4-H leaders in Indiana*. Unpublished doctoral dissertation. Purdue University, West Lafayette, IN.
- Culp, III, K., & Kohlhagen, B. S. (2004). Kentucky 4-H agents' perceptions of their level of competency and frequency of use of volunteer administration functions. *The Journal of Agricultural Education* 45 (2) 1-13.
- Culp, III, K., & Pilat, M. A. (1998). Converting qualitative feedback into quantifiable categories. *Journal of Extension* [On-line], 36(5). Available at: <http://www.joe.org/joe/1998october/iw3.html>
- Culp, III, K. & Schwartz, V.J. (1998). Recognizing adult volunteer 4-H leaders. *The Journal of Extension* [On-line], 35(2). Available at: <http://www.joe.org/joe/1998april/rb3.html>
- Denmark, K. L. (1971). *Factors affecting the identification, recruiting and training of volunteer 4-H adult leaders in Texas*. Unpublished Ph.D. dissertation. Texas A & M University, College Station.
- Deppe, C. A. (1998). *Ohio 4 H agents' perceptions of the level of importance and frequency of use of the eighteen components of the GEMS model of volunteer administration*. Unpublished master's thesis. The Ohio State University.
- Deppe, C. A., & Culp, III, K. (2000). Ohio 4-H agents' perceptions of the level of importance and frequency of use of the eighteen components of the GEMS model of volunteer administration. *The Journal of Agricultural Education* 42(4) 33-43.
- Dillman, D. A. (2000). *Mail and Internet surveys: The tailored design method*. New York: John Wiley & Sons, Inc.
- Ericksen-Mendoza, H., & Heffron, A. (1998). The importance of volunteers. *Civnet Journal*, 2(4).
- Guion, R.M. (1991). Personnel assessment, selection, and placement. In M.D. Dunnette & L.M. Hough (Eds.), *Handbook of industrial and organizational psychology* (p. 335). Palo Alto, CA: Consulting Psychologists Press.
- Independent Sector (2001). Giving and volunteering in the United States: Findings from a national survey. Retrieved November 30, 2007 from:<http://www.independentsector.org/programs/research/gv01main.html>
- King, J. E. (1998). *Ohio 4-H agent=s perceptions of the importance of and their competence with selected volunteer management competencies*. Unpublished doctoral dissertation. The Ohio State



University. Columbus, OH

Kohlhagen, B. S. (1999). *Kentucky 4 H agents' perceptions of the level of competency and frequency of use of volunteer development activities*. Unpublished master's thesis. The Ohio State University.

McClelland, D. C. (1971). *Assessing human motivation*. New York: General Learning Press.

Murk, P. J., & Stephan, J.F. (1990). *Volunteers enhance the quality of life in a community...or (How to get them, train them and keep them)*. Salt Lake City, Utah: (ERIC Document Reproduction Service No. ED 326 639).

National 4-H Headquarters (2002). National 4-H Youth Enrollment Report, Fiscal Year 2000. Retrieved November 29, 2007 from: [http://www.reeis.usda.gov/discoverer/viewer?cn=cf\\_a1327&wskdel=6&nls1=en-us&wbk=4-H\\_VOL\\_SERVICE\\_RACE\\_CLASS&pg=1&\\_act=apply&\\_poqpv=off&\\_podat=on&\\_polws=off&\\_popim=on&\\_pocht=off&\\_podri=on&\\_poexp=on&\\_porrq=on&\\_poset=reset](http://www.reeis.usda.gov/discoverer/viewer?cn=cf_a1327&wskdel=6&nls1=en-us&wbk=4-H_VOL_SERVICE_RACE_CLASS&pg=1&_act=apply&_poqpv=off&_podat=on&_polws=off&_popim=on&_pocht=off&_podri=on&_poexp=on&_porrq=on&_poset=reset)

Parrott, M. A. (1977). *Motivation, personal and social characteristics of 4-H leaders*. Unpublished M.S. thesis. Oklahoma State University, Stillwater.

Patton, M. Q. (1990). Editor's introduction. *Journal of Extension* [On-line], 28(3). Available at: <http://www.joe.org/joe/1990fall/ed1.html>

SAS 8.01 (2002). SAS Institute, Cary, NC.

Spencer, L. M., Jr., & Spencer, S. M. (1993). *Competence at work: Models for superior performance*. New York: John Wiley & Sons, Inc.

Stone, J.M. (1983). *How to work with groups: Guidelines for volunteers*. Springfield, IL: CC Thomas.

Wessel, T. & Wessel, M. (1982). *4-H: An American idea 1900-1980*. Washington, D.C.: National 4-H Council.

*Copyright* © by Extension Journal, Inc. ISSN 1077-5315. Articles appearing in the Journal become the property of the Journal. Single copies of articles may be reproduced in electronic or print form for use in educational or training activities. Inclusion of articles in other publications, electronic sources, or systematic large-scale distribution may be done only with prior electronic or written permission of the *Journal Editorial Office*, [joe-ed@joe.org](mailto:joe-ed@joe.org).

If you have difficulties viewing or printing this page, please contact [JOE Technical Support](#)