

# The Impact of Socioeconomic Status on Leadership Potential in an Agricultural Leadership Program

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## **Abstract**

Rural leadership programs are designed to teach citizens how to become leaders for the purpose of community improvement. Research has shown that socioeconomic status has a significant impact on an individual's level of participation. Using factor analysis the study tested the impact of socioeconomic status on the leadership and participation of agricultural leadership program graduates at a major land-grant university in the Midwest. Levels of education and income were still significantly related to community commitment. Program directors need to address the effects of tuition and travel expenses to recruit participants from various socioeconomic groups.

## **Introduction**

Agricultural leadership programs have a 70-year history in the United States (Heasley, 1986). There is a need for leadership programs that teach citizens how to cope with a barrage of change in the rural environment (Flora, Flora, & Fey, 2004). Citizens must be educated and prepared with essential knowledge, skills, and abilities in order to engage in leadership positions that concentrate on the many obstacles faced by rural America (Winter, Sloggett, Doekson, & Sanders, 1989).

The current array of agricultural leadership programs demonstrates a significant societal investment towards the important goal of fostering community and public affairs participation of rural citizens (Rossing & Heasley, 1987). Rural community development (RCD) is especially critical in the Midwest where the region is faced with a variety of problems symptomatic of a declining economy and a lack of leadership capacity due to outmigration. Effective RCD depends on the knowledge, skills, and willingness of local leaders to assume key roles in the development process (Mulkey, 1989).

To train more citizens to assume leadership positions, a major land-grant university in the Midwest founded an agricultural leadership program in 1982. The target audience was adults (ages 25-45) involved in agriculture production or agribusiness. The program was designed to provide the training and experience necessary for participants to assume leadership roles within the community and state. Ten classes of approximately 30 participants per class had completed the program at the time of this study. The program objectives included 1) increasing participants' awareness of the agricultural industry, 2) expanding participants' understanding of U.S. economic, political, cultural, and social

systems, 3) increasing participants' ability to analyze and react to complex problems affecting rural communities, 5) increasing participants' leadership involvement, and 6) helping participants increase and use their knowledge and skills to solve community problems. Each participant contributed a \$1,500.00 fee plus travel expenses. This fee only covered 15% of the actual expenses of the program. A partial fee waiver was only available to full-time agriculture producers who participated in the program.

The program for the most recent cohort consisted of 13 seminars, including a seven-day trip to Washington, D.C., and a two-week trip to New Zealand. The weekend seminars (Friday afternoon to Sunday evening) focused on personal development issues, tours of agricultural research facilities, tours of specialty agricultural enterprises, tours of the state capital and discussions with state leaders, visits with agricultural association leaders, visits with media personalities, and visits to farm shows. Participants also learned about future trends in rural America, including economic and demographic trends in the state.

### **Theoretical Framework**

Rural community development literature emphasizes the importance of citizen participation as a means of strengthening communities (Flora, Flora, & Fey, 2004; Martin & Wilkinson, 1985). A central objective of the agricultural leadership program was to increase the involvement of participants at the local, state, and national levels. Advocates and practitioners of RCD also believe that citizens should be meaningfully involved in community decision-making (Coe, 1990). RCD programs have four basic components: public policy, economic development, community service, and of necessity, leadership (Seevers, Graham, Gamon, & Conklin, 1997). Thus, leadership development is a complex process focusing on changes in knowledge, skills, and abilities of participants.

The current trend of conditions in rural communities suggests that development of local leaders is an essential part of community survival (Kirk & Shutte, 2004; Robinson, 1994). Kirk and Shutte's (2004, p. 234) framework for leadership development include "leading change through dialogue, collective empowerment, and connective leadership". Leadership development programs that ensure an adequate supply of effective leaders are an important aspect of RCD.

Leaders provide the basis for improving the quality of life in communities (Fear, Vandenburg, Thullen, & Williams, 1985). Because effective local leadership does not exist in many rural communities, RCD efforts should include identifying and training potential leaders from diverse backgrounds (Winter, Sloggett, Doekson, & Sanders, 1989). Leadership training may be incorporated as an integral part of RCD programs, or alternately, a leadership training program may serve as the vehicle to allow the identification of community problems, an assessment of alternative approaches to solving problems, and the design of action programs to address community problems.

Socioeconomic status is an indicator derived from income, level of education, and occupation (Link & Phelan, 1995). As residents with lower socioeconomic status tend to

participate less in public affairs activities than those with higher socioeconomic status, RCD efforts need to address this participation gap (Martin & Wilkinson, 1985). In some cases, the socioeconomic status of people often limits their access to the decision-making process, excluding them from community affairs. As public policy issues are debated, it is important to remain sensitive to the fact that not all voices are being heard. Leaders must make every effort to recruit and involve people of both racial and ethnic diversity and with lower socioeconomic status as their interests and concerns should not be ignored (Beaulieu & Smith, 2000). By striving to involve new people in the leadership structure of a community, one may introduce new ideas and reach a broader segment of the community (Williams, 1989).

Martin and Wilkinson (1985) stated that leadership programs could effectively close the participation gap between individuals of higher and lower socioeconomic status. Leadership development can enhance the ability of all individuals to participate by developing skills for RCD. Closing the participation gap, therefore, would be a means of promoting RCD by consciously attempting to broaden leadership skills and participation among groups not usually involved in community leadership roles.

The need for effective leadership at the local level has never been greater. Actions at the state and federal levels of government have shifted the responsibility for many programs and services to the local level. As a result local leaders are making more decisions with significant political, social, and economic impacts (Rinehart & Smith, 1995). Those interested in leadership programs aimed at RCD processes should understand the role that socioeconomic status plays in asking citizens to get involved improving the quality of life within communities.

### **Purpose and Objectives**

The purpose of the study was to test the assumption that participants of an agricultural leadership program with higher socioeconomic status tend to participate at higher levels in RCD processes than those with lower socioeconomic status. Specific objectives included 1) describing participants demographically, 2) identifying factors associated with rural community development processes, and 3) determining the relationship between socioeconomic status and participation in RCD processes.

### **Methods**

The population for the study was all graduates of the program (Class I to Class X, 1982 to 2001) ( $N=290$ ). A census was used based on the database kept by the program director. Three individuals were excluded from the study due to death ( $n=1$ ) or incorrect address ( $n=2$ ). The response rate was 43% ( $n=125$ ).

An original survey instrument was developed modeled after Pigg's (2001) *EXCEL: Experience in Community Enterprise and Leadership*. The questions from the survey were grounded in the literature on community development, leadership theory and development, and past evaluation studies of leadership programs. The instrument was a

then-post design with Likert-type scales. The ratings included strongly agree, agree, disagree, and strongly disagree and were scored 1-4, respectively. Not sure/not applicable was coded 0 and excluded from the analysis. The Cronbach coefficient alpha for internal consistency for the instrument was calculated at 0.96.

The then-post design was chosen to control for several threats to validity and reliability, including *overestimation of changes in knowledge* and *response-shift bias* among participants. When pretest-posttest information has been collected, actual changes in knowledge and behaviors may be altered if the participants overestimate their knowledge and skills on the pretest. Similarly, pretest overestimation is likely if participants lack a clear understanding of the attitude, behavior, or skill the program is attempting to affect (Pratt, McGuigan, & Katsev, 2000).

Changes in participants' frame of reference due to program training is called *response-shift bias* (Rohs, 1999). To avoid this source of contamination for self-report surveys, a then-post method was used to collect retrospective data at the conclusion of the program as participants rated themselves with a single frame of reference and at a single point in time.

A panel of experts consisting of four faculty members with expertise in leadership education or RCD processes confirmed content and face validity of the survey. A pilot test was conducted with 30 randomly selected participants. The Dillman (2000) four-phase mailing approach was used for both the pilot survey and the final survey, which resulted in a 43% response rate. The surveys were qualitatively analyzed after the pilot test and minor revisions were made. Because only minor revisions were required, the pilot data were pooled with the final survey data, yielding a 57% total response rate.

Double-dipping was used to determine differences between the respondents and non-respondents (Lindner, Murphy, & Briers, 2001). Along with an early-to-late respondent comparison, a random sample of 10% ( $n=20$ ) of the non-respondents was administered portions of the survey via telephone. The two groups were compared on gender, employment status, level of educational attainment, and marital status with a Pearson Chi-Square. There were significant differences between non-respondents and respondents in gender, employment status, and marital status. There were no significant differences between the early-to-late respondents on any variable. Therefore, generalizing the results of this study must be made with caution.

Survey data were analyzed using SPSS® v. 8.0. An alpha level of .05 was set *a priori* to determine statistical differences among variables. The statistical tests used were descriptive, t-tests, Cohen's *d* effect size, and ANOVA. Likert-type data is ordinal in nature; thus, it is acceptable and practical to treat it as interval data and subject it to statistical analyses as long as care has been taken in the interpretation of the results (Kerlinger, 1986). Inferential statistics were used as a guide to understanding the relationships between variables.

A factor analysis on Likert-type survey items was used as a data reduction tool and to study the correlations among interrelated variables. The analysis involved varimax rotation and Kaiser normalization, which helped determine the factors impacting community development. With the varimax rotation, the factors were orthogonal (uncorrelated) and independent from one another even if some variables loaded on more than one factor (Kim & Mueller, 1982). Factor scores were then compared with the independent variables of the participants' gender and marital status using an independent t-test to determine significance. A Levene's test determined equality of variances, a prerequisite to the parametric tests. The independent variables of education level and income were compared with the factors in an ANOVA with a Tukey's post hoc test. To the "extent that a test measures a factor, it is said to be loaded on the factor" (Kerlinger, 1973, p. 661). With a sample size greater than 100, loadings of at least 0.40 were considered important and were used to determine which variables were included in a factor (Hair et al., 1998). This factor analysis has required a combination of complex statistical computation and a thoughtful study of the factor structure. Statistics determines which survey items cluster together, but only an observer can determine what each factor may be assessing. In some ways factor analysis is both science and art form.

### **Findings and Conclusions**

One-hundred and thirteen men (90%) and 12 women (10%), all graduates of the agricultural leadership program, responded to the survey. The mean age was 43 years, they had lived in their communities for an average of 24 years, and the average community size was 30,000 people. Respondents were married (90%), well-educated, middle-class working adults who were civically engaged. The majority (54%) graduated from college and 32% had earned graduate credit. Twenty-three percent earned \$30-\$50,000/year, 54% earned \$51-\$100,000/year, and 27% earned more than \$100,000/year. One-hundred percent of the respondents voted in the last presidential election, while over 93% voted in the last state and local elections. Sixty percent volunteered 5 to 10 hours per month in social service activities. The remaining 40% volunteered between 10 and 20 hours per week. Sixty-nine percent were involved in 5 to 10 hours of economic development activities per month. The remaining 31% gave over 10 hours per week to economic development activities.

The factor analysis produced five conceptual factors that indicate the relationship among the variables.

- Factor 1: Community commitment and future directions
- Factor 2: Expanding participation and community improvement
- Factor 3: Civic engagement
- Factor 4: Community knowledge and personal development
- Factor 5: Community dedication

The factor scores were compared with the independent variables of the participants' gender and marital status using an independent t-test to determine

significance. A Levene's test for equality of variances showed equality for all factors for gender.

The factor scores were compared, with the independent variables of the participants' level of education and income using an ANOVA with a Tukey's post hoc test. Factor 1, *community commitment and future directions*, differed with college graduates having a higher factor 1 score than those with only some college ( $p < 0.005$ ).

Factor four, *community knowledge and personal development*, differed for males and females with females being significantly more positive on this dimension ( $p < 0.032$ ). This finding supported Giebink's (1975) finding that women indicated an increase in personal development after participating in a leadership program. Gittell, Ortega-Bustamante, and Steffy (2000) also found that women leaders use the discourse of personal development for community development work and that women in community development organizations assessed community needs more than men did.

When income levels were compared a significant difference was found in factor 5, *community dedication*. In general, the higher the income category, the higher the factor 5 score. Put simply, the higher the income the higher the *community dedication*.

Based upon the response to the survey it is concluded that participants' socioeconomic status (levels of education and income) did impact their participation in rural community development processes in regard to factors 1 and 5. Citizens with higher levels of education tended to participate more in *community commitment and future directions* issues than those with lower socioeconomic status even after participation in the agricultural education leadership program. Those with higher incomes reported higher scores for *community dedication* than those with less income in each of the 4 income categories. Women scored more positively in *community knowledge and personal development* than men.

## **Discussion and Recommendations**

As women in this study were found to be more inclined than men to engage in community knowledge and personal development issues, the program directors should encourage more women to participate in the program. Also, the content of the program should be modified to allow for training in the issues and concerns that women face as rural community leaders. Kirk and Shutte's (2004) framework for community leadership development embraces dialogue and collective empowerment, both feminine strengths, and could serve as a model for enhancing the agricultural leadership program under current study. Since the program is partially self-funded, tuition necessarily excludes certain socioeconomic status groups. The program director might consider offering scholarships to those individuals who can not afford the required tuition fee to close the socioeconomic status participation gap.

The finding that participants with higher educational and income levels were more committed to the future direction of their communities than those with less

education and income confirms previous findings (Link & Phelan, 1995). However, recruiting only those individuals at the higher echelons of society promotes elitism and maintains the current parochial system in rural America. To encourage democracy within the program, the program director should engage individuals from a range of socioeconomic status levels, thus, disseminating RCD process throughout the community. This recommendation is supported by Mulkey's (1989) observation that by consciously attempting to broaden the leadership skills and participation among groups not usually involved in community leadership roles, leadership training programs can increasingly overcome the participation gap between individuals of higher and lower socioeconomic status. When leadership trainees are representative of the community in terms of race, gender, and socioeconomic status, interactions within the group can begin the process of fostering mutual understanding to bridge community groups.

Recommendations for future research include further testing for intervening variables between income and community dedication and for developing strategies to increase participation among lower socioeconomic status groups in agricultural leadership programs, especially those who receive partial fee waivers.

### References

- Beaulieu, L. J. & Smith, M. (2000). Identifying local decision-makers: Expanding citizen involvement in the public policy process. Policy Education Program. Southern Rural Development Center.
- Coe, B. A. (1990). Open focus: A model of community development. *Journal of the Community Development Society*, 21(2), 20-35.
- Dillman, D. A. (2000). *Mail and telephone surveys: The total design method*. New York: Wiley and Sons.
- Fear, F. A., Vandenburg, L., Thullen, M., & Williams, B. (1985). Toward a literature based framework for community leadership development. *Paper presented at the annual meeting of the Community Development Society*, Logan, UT.
- Flora, C. B., Flora, J. L. & Fey, S. (2004). *Rural communities: Legacy and Change*. 2<sup>nd</sup> ed. CO: Westview Press.
- Giebink, S. (1975). KEEP personal impact evaluation, Kellogg Extension Education Project. Bozeman, MT: Montana State University.
- Gittell, M., Ortega-Bustamante, I., & Steffy, T. (2000). Social capital and social change: Women's community activism. *Urban Affairs Review*, 36(2), 123-147.
- Hair, J. F., Jr., Anderson, R. E., Tathan, R. L., & Black, W. C. (1998). *Multivariate data analysis* (4th ed., pp. 458-586). Upper Saddle River, NJ: Prentice Hall.

- Heasley, D. K. (1986). Directory of statewide rural and agricultural leadership programs. University Park. The Pennsylvania State University.
- Kerlinger, F. N. (1986). *Foundations of behavioral research: Educational, psychological, and sociological inquiry*. New York: Holt, Rinehart & Wilson.
- Kim, J. O., & Mueller, C. W. (1982). Factor analysis statistical methods and practical issues. (Vol. 14). Beverly Hills, CA: Sage Publications, Inc.
- Kirk, P. & Shutte, A. M. (2004). Community leadership development. *Community Development Journal*, 39(3), 234-251.
- Lindner, J. R., Murphy, T. H., & Briers, G. E. (2001). Handling nonresponse in social science research. *Journal of Agricultural Education*, 42(4), 43-53.
- Link, B. G., & Phelan, J. (1995). Social conditions as fundamental causes of disease. *Journal of Health Social Behavior*, 80-94.
- Martin, K. E., & Wilkinson, K. P. (1985). Does leadership development intervene in the relationship between public affairs participation and socioeconomic status? *Journal of the Community Development Society*, 16(2), 97-106.
- Mulkey, D. (1989). *Leadership development: The critical link in community development*. FL: (ERIC Document Reproduction Service No. ED 316 655)
- Pigg, K. E. (1990). Accountability in community development. *Journal of Community Development Society*, 21, 19-32.
- Pratt, C. C., McGuigan, W. M., & Katsev, A. R. (2000). Measuring program outcomes: Using retrospective pretest methodology. *American Journal of Evaluation*, 21(3), 341-49.
- Martin, K. E. & Wilkinson, K. P. (1985). Does leadership development intervene in the relationship between public affairs participation and socioeconomic status? *Journal of the Community Development Society*, 16(2), 97-106.
- Rinehart, S. H., & Smith, K. L. (1995). Leadership and managerial skills of county commissioners. *Journal of Extension*, 33 (1) [On-line]. Available: www.joe.org.
- Robinson, J. W., Jr. (1994). Ten basic principles of leadership in community development organizations. *Journal of the Community Development Society*, 25 (1), 44-48.
- Rohs, F. R. (1999). Response shift bias: A problem in evaluating leadership development with self-report pretest-posttest measures. *Journal of Agricultural Education* 40(4), 28-37.

Rossing, B. E. & Heasley, D. K. (1987). Enhancing public affairs participation through leadership development education: Key questions for community development research and practice. *Journal of the Community Development Society*, 18(2), 98-115.

Seevers, B., Graham, D., Gamon, J., & Conklin, N. L. (1997). *Education through Cooperative Extension*. Delmar Publishers, Albany NY.

Winter, M. D., Sloggett, G. R., Doekson, G. A., & Sanders, L. D. (1989). Guidebook for rural economic development training. Southern Rural Development Center.

Williams, M. R. (1989). A model for deploying rural leadership in community economic development. *Southern Rural Sociological Association*: Nashville, TN.

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