Journal of Agricultural Education
Volume 54, Number 4, pp. 92 –103
DOI: 10.5032/jae.2013.04092

Focusing on the Future: Understanding Faculty Intent to Lead the Land Grant System

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Many outside influences are altering higher education including a decline in resources, changes in student demographics, the impacts of technology, and the shift to an information age. The need for faculty members to become leaders that can handle swift changes to the culture of Colleges of Agriculture within the land-grant system are needed now more than ever. Recognizing the need, colleges and universities have devoted valuable resources to developing future leaders through leadership training. While administrators who see leadership potential often nominate participants of leadership programs, little is known about why individuals choose to volunteer for leadership roles or emerge as leaders. Using the theory of planned behavior, this research explored how attitudes towards leadership training, subjective norms surrounding leadership, and perceived behavioral control over engaging in leadership related to and predicted intent to volunteer for a leadership role. Control, especially over one's perceived amount of time to develop leadership skills, was the only significant predictor of intent. Recommendations included organizational assistance in the creation of capacity that will allow the faculty member to focus on developing their leadership skills as well as the creation of a support network for the faculty member once they have completed training.

Keywords: leadership, faculty, higher education, land grant system

In the current academic climate, "challenges and opportunities exist simultaneously in the administrative and leadership ranks of our colleges and universities" (Eddy & VanDerLinden, 2006, p. 5). Many outside influences are altering higher education including a decline in financial and human resources (Johnstone, 1999), changes in student demographics (Hurtado & Dey, 1997), the impacts of technology (Baldwin, 1998), and the shift from an industrial age to an information age (Dolence & Norris, 1995). Fehlis (2005, p. 6) stated "leadership is unquestionably the key factor in determining if [the land grant system] will be capable of synthesizing future changes in demographics, science, technology, educational model, and human needs, and then developing a very clear and specific vision for our system."

One would expect to be able to find a clear and concise definition of leadership given conversations surrounding leadership date back to discussions identified in the Greek classics and the writings of ancient Chinese philosophers (Davies, Hides, & Casey, 2001). However, multiple definitions of leadership can be found throughout the literature. While different in description, the definitions of leadership offered by Montgomery (1961), Tannenbaum and Schmidt (1973), Kotter (1990) and Drouillard and Kleiner (1996) all offer a consistent theme. They all indicate that a leader has the ability to influence a group of individuals towards the achievement of a specific goal. This common theme delineates leadership from management. The role of management focuses on coping with complexity while leadership is about coping with change (Khaleelee & Woolf, 1996). Zaleznik (1977) described the differences between management and leadership when he stated:

> leadership inevitably requires using power to influence the thought and actions of other people . . . a managerial

> culture emphasizes rationality and control. Whether his/her energies are directed toward goals, resources, organization structures, or people, a manager is a problem solver (p. 67).

Many individuals believe leaders are born rather than made, however previous research has shown that while there are some innate leadership skills, others can be developed (Kotter, 1996). Recognizing the need for future leaders, colleges and universities have devoted valuable resources to developing future leaders through leadership training (Eddy & VanDerLinden, 2006). The LEAD21 program, a national leadership development program, was established as an effort to assist colleges of agricultural, environmental, and human sciences, the National Institute of Food and Agriculture (NIFA), and their strategic partners within the land-grant system, in developing leaders who link research, academics, and extension in order to lead more effectively in an increasingly changing environment (Strickland, 2012). The LEAD21 Board of Directors consists of representatives from the Association of Public and Land-grant Universities Committees on Policy (COPS) and other sponsoring organizations and has primary ownership of LEAD21.

A positive future for the land-grant system, like any large organization, is "dependent upon the building and strengthening of leadership and decision making skills" (Nistler, Lamm, & Stedman, 2011, p. 110), and long-term sustainability of any organization is dependent upon emergent new leaders (Collins, 2001). While participants of leadership programs, such as LEAD21, are often nominated by administrators who see their leadership potential, little is known about why certain individuals choose to volunteer for leadership roles or emerge as leaders.

One of the priority areas of the National Research Agenda for Agricultural Education (Doerfert, 2011) is to develop a sufficient scientific and professional workforce that addresses the challenges of the 21st Century, with a focus on "developing the models, strategies, and tactics that best prepare, promote, and retain new professionals who demonstrate content knowledge, technical competence, moral boundaries, and cultural awareness coupled with communication and interpersonal skills" (p. 9). Therefore, a study examining what influences faculty members' choices to volunteer for leadership roles provides vital information and insight that will assist in developing leadership development programs that can ensure the future success of the land-grant system.

Theoretical Framework

The theoretical framework for this study was based on Ajzen's (1991) theory of planned behavior (TpB). TpB identifies three beliefs that guide human behavior: behavioral beliefs, normative beliefs, and control beliefs. Behavioral beliefs represent the attributes of the behavior that include the likely outcomes and the assessment of these outcomes (Ajzen, 2002). Behavioral beliefs produce a favorable or unfavorable attitude toward the behavior. Normative beliefs represent an individual's beliefs about the normative expectations of other people. Normative beliefs result in the perception of social pressure, also known as a subjective norm (Ajzen, 2002). Control beliefs represent the presence of factors that may assist or hurt an individual's ability to perform a specific behavior. Control beliefs also represent the individual's perceived power over the factors they identify (Ajzen, 2002). Control beliefs drive an individual's perception of the ease or difficulty they associate with a specific behavior, otherwise known as perceived behavioral control. Manipulation of any, or all, of these beliefs is expected to alter the chances a person will intend to perform a specific behavior (Francis et al., 2004). Intention is identified as the immediate antecedent to behavior, therefore, by altering intention it is expected behavior can be manipulated. This study focused on how behavioral, normative and control beliefs influence faculty members intent to volunteer for leadership roles within the land-grant system.

Behavioral beliefs, or attitudes, have been shown to have a strong predictive value as it relates to training effectiveness (Noe, 1986; Noe & Schmitt, 1986; Sahinidis & Bouris, 2008). Noe and Schmitt (1986) found participants' attitudes about training prior to a training event had a direct influence on the eventual training effectiveness

(as measured by pre and post behavior and performance criteria). Kovacic (2003) found leadership development programs such as LEAD21 provide valuable training opportunities to participants and are an effective means of developing individual leadership capacity. Consequently, leadership development programs do share common characteristics with more general training interventions; therefore, findings related to attitude and general training are appropriate to apply to leadership development programs. Prislin (1993) determined that attitude was the strongest predictor of intention when an individual had previous experience with a behavior; however, when an individual did not have previous experience, both attitude and normative belief were predictive of a behavior.

Of the three TpB beliefs (behavioral, normative, and control), normative beliefs have been identified as the weakest predictor of intention (Armitage & Connor, 2001). However, there is strong evidence to suggest that some of these findings may have been due to incomplete or inaccurate measures. Armitage and Connor (2001) identified studies where single item measures were employed to measure normative beliefs, versus multi-item instruments. This distinction is consistent with Nunnally's (1978) work identifying the potential for erroneous results when single item measures are employed. When analyzed, the multi-item measures of normative beliefs had more significant correlations with intention than did single item measures (Armitage & Connor, 2001). Nonetheless, there are numerous empirical studies that have demonstrated a direct linkage between normative beliefs and behavioral intention. Specifically, normative beliefs have been correlated with an agricultural group's intention to lead the adoption of conservation technology (Lynne, Casey, Hodges, & Rahmani, 1995), as well as with agricultural teachers' intentions to serve as leaders in the integration of science into their curriculum (Myers & Washburn, 2009). It has also been shown to be predictive of knowledge scores after youth completed an agricultural education program (Lautenschlager-Beckman & Smith, 2008). Finally, normative belief when represented as organizational support has been shown to act as a significant predictor of behavior change (Facteau, Facteau, Schoel, Russell, & Poteet, 1998; Santos & Stuart, 2003).

While attitude and normative belief are critical components to TpB, the third fundamental element is perceived behavioral control. The addition of perceived behavioral control represents a departure from the TpB predecessor, the theory of reasoned action. It is the magnitude of all three facets collectively that has the best predictive characteristics regarding the behavior (Armitage & Connor, 2001). Consequently, the relative influence of each facet will vary depending on specific circumstances. Previous studies have empirically shown that perceived behavioral control, especially when related to developmental programs, such as leadership development programs, can have a significant influence on effectiveness and the actual change in behavior being sought (McCarthy & Garavan, 2006). Organizational support and/or lack of support has been found, on numerous occasions, to be a critical antecedent to training program effectiveness and individual behavioral change (Chiaburu & Tekleab, 2005; Mathieu & Martineau,1997; Tracey, Hinkin, Tannenbaum, & Mathieu, 2001).

Purpose and Objectives

The purpose of this study was to determine why faculty members choose to step into leadership roles within the land-grant system by completing a quantitative study analyzing a sample population of leadership program participants. The study is guided by the following objectives:

1. Identify faculty members' attitude towards leadership training, subjective norm surrounding leadership, perceived behavioral control over gaining leadership skills and intent to volunteer for leadership roles.
2. Identify if relationships exist between faculty members' attitude towards leadership training, subjective norm surrounding leadership, and perceived behavioral control over gaining leadership

skills and their intent to volunteer for leadership roles.

3. Determine if faculty members' attitude towards leadership training, subjective norm surrounding leadership, and perceived behavioral control over gaining leadership skills predicts their intent to volunteer for leadership roles.

Methods

A census of the 83 faculty participating in the LEAD21 leadership development program during the 2012-13 calendar year was conducted. The study was limited to participants of the LEAD21 program because of the selection process used for participation. Participants in LEAD21 are identified as "emerging leaders" and nominated by administrators at their home institutions. LEAD21 participants also represent a balance of faculty from across the land-grant system (1862 institutions, 1890 institutions, 1994 institutions and NIFA).

The target population's access to the Internet enabled the use of an online instrument (Dillman, Smyth, & Christian, 2008). An expert panel from the University of Florida, Chief Dull Knife College, Michigan State University, and the University of Georgia reviewed the researcher-designed instrument for content and face validity.

Participants were asked to rate their attitude towards leadership and their perceived behavioral control of gaining leadership skills on a bipolar scale between specific adjectives with a score of one indicating a negative response, and a score of five indicating a positive response. An overall index score for attitude and perceived behavioral control was obtained by taking the average of the individual item scores and used for further analysis. Participants were also asked to rate their level of agreement with statements signifying a subjective norm surrounding leadership on a five-point Likert-type scale (1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Neutral*, 4 = *Agree*, 5 = *Strongly Agree*). An overall index score for subjective norm was obtained by taking the average of the individual item scores and used for further analysis. All item development was based on the structure of questions used in Ajzen's (2002) handbook identifying how to construct a TpB questionnaire. Reliability of the indexes were calculated *ex post facto* resulting in the following Cronbach's alpha coefficients: attitude $\alpha = .95$, subjective norm $\alpha = .78$, and perceived behavioral control $\alpha = .70$.

Participants were contacted through e-mail using Dillman et al. (2008) Tailored Design Method. Eighty-one of the 83 participants responded for a final response rate of 97.6% (N = 81). Descriptive analysis of the demographic data showed that there were 28 female (33%) and 53 male (67%) respondents. Eighty percent (n = 65) of the participants represented 1862 institutions, 16% (n = 13) represented minority serving institutions (including 1890, 1994, 2008, and U.S. territory institutions) and 4% (n = 3) were from other organizations (USDA, NIFA, APLU, AASCAR).

Descriptive statistics were calculated for the first two objectives. Responses were coded for computer analysis using SPSS. Relationships between attitude, subjective norm, perceived behavioral control, and intent to volunteer for a leadership role were described by calculating Pearson's product-moment correlation coefficient using Davis' (1971) convention. The last objective was calculated using logistic regression with the participants' intent to volunteer as the dependent variable and their perceptions of attitude, subjective norm, and perceived behavioral control over leadership as the independent variables. A level of significance of .05 was established *a priori*.

Results

Attitude, Subjective Norm, Perceived Behavioral Control and Intent to Volunteer for Leadership Roles

Participants were asked to rate their attitude towards participation in leadership training on a bipolar scale between specific adjectives. The distribution of their scores between the two adjectives can be seen in Table 1. An overall score was obtained by taking the average of the individual item scores. Overall, participants reported a very positive attitude towards participating in leadership training (Table 2).

Table 1

Attitude towards Leadership Training Distributions (n = 81)

	1	*2*	*3*	*4*	*5*	
Bad	0.0%	0.0%	2.6%	12.8%	84.6%	Good
Negative	0.0%	0.0%	3.8%	15.2%	81.0%	Positive
Unfavorable	0.0%	0.0%	2.5%	18.8%	78.8%	Favorable
Not Very Beneficial	0.0%	0.0%	2.5%	13.9%	83.5%	Beneficial

Table 2

Average Attitude, Subjective Norm, and Perceived Behavioral Control Scores (n = 81)

	M	*SD*
Attitude towards Leadership Training	4.80	.44
Subjective Norm Surrounding Leadership	3.92	.58
Overall Perceived Behavioral Control	4.13	.44

Participants were asked to rate their level of agreement with five statements signifying a subjective norm surrounding leadership on a five-point Likert-type scale with 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Neither Agree nor Disagree*, 4 = *Agree*, 5 = *Strongly Agree*. An overall score was obtained by taking the average of the five item scores for each individual. Participants generally agreed others encourage them to take on a leadership role (Table 3). However, the participants' average level of agreement with the subjective norm items was not as high as their average personal attitudes towards leadership (Table 2).

Table 3

Subjective Norm Surrounding Leadership (n = 81)

	Strongly Disagree	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*
The people I work with whose opinions I value would want me to improve my abilities related to leadership	0.0%	5.1%	28.2%	50.0%	16.7%
The co-workers whose opinions I value work to improve their own abilities related to leadership	0.0%	9.2%	14.5%	56.6%	19.7%
It is expected that I will improve my ability to be a leader this year	0.0%	1.3%	12.8%	38.5%	47.4%
The people I work with who are important to me think I should improve my ability to be a leader	0.0%	5.1%	33.3%	43.6%	17.9%
The co-workers who are important to me work to improve their own abilities related to leadership	0.0%	2.6%	27.3%	46.8%	23.4%

Participants were asked to rate their level of control over gaining leadership skills on a bipolar scale between specific adjectives (Table 4). Responses to items associated with time exhibited lower reaction levels, indicating many of the participants feel their time is limited and developing leadership skills takes time they may not have control over. An overall score was obtained by taking the average of the individual item scores (Table 2). Overall, participants believed they had control over gaining leadership skills.

Table 4

Perceived Behavioral Control of Gaining Leadership Skills (n = 81)

	1	*2*	*3*	*4*	*5*	
If I want to, I can improve my ability to be a leader this coming year:						
Definitely false	0.0%	0.0%	2.5%	26.6%	70.9%	Definitely True
Improving my ability to be a leader this coming year is:						
Impossible	1.3%	0.0%	3.8%	27.8%	67.1%	Possible
Not up to me	0.0%	0.0%	3.8%	21.3%	75.0%	Up to me
How much control do you have over improving your ability to be a leader this coming year:						
No control	0.0%	0.0%	8.8%	61.3%	30.0%	Complete control
Finding time to improve my ability to be a leader this coming year is:						
Not in my control	8.9%	17.7%	49.4%	19.0%	5.1%	In my control
Impossible	1.3%	7.6%	13.9%	54.4%	22.8%	Possible
Difficult	1.3%	5.0%	17.5%	52.5%	23.8%	Easy

When asked whether or not they intended to volunteer for a leadership role, seventy-nine percent (n = 63) of participants reported they planned to volunteer for leadership roles. The type of leadership roles they indicated being interested in volunteering for included department, college and campus-wide committee leadership, roles in professional associations, and climbing the professional ladder (department chair, center director, associate dean, and dean positions).

Relationships between Attitude, Subjective Norm, Perceived Behavioral Control and Intent to Volunteer for Leadership Roles

There were significant moderate correlations between participants' perceived behavioral control of gaining leadership skills and their intent to volunteer for leadership roles (r = -.36, p = .00) (Table 5). There was also a significant low correlation between attitude towards leadership training and intent to volunteer for leadership roles (r = .22, p = .05). The subjective norm surrounding leadership (r = .06, p = .64) had a non-significant, negligible correlation with intent to volunteer for leadership roles.

Table 5

Correlations between Attitude, Subjective Norm, Perceived Behavioral Control and Intent to Volunteer for Leadership Roles

	Intent to Volunteer for Leadership Roles		
	r	*p*	Magnitude
Perceived Behavioral Control of Gaining Leadership Skills	.36	.00**	Moderate
Attitude towards Leadership Training	.22	.05*	Low
Subjective Norm Surrounding Leadership	.06	.64	Negligible

Note. Magnitude: $.01 \geq r \geq .09$ = Negligible, $.10 \geq r \geq .29$ = Low, $.30 \geq r \geq .49$ = Moderate, $.50 \geq r \geq .69$ = Substantial, $r \geq .70$ = Very Strong. *$p < .05$, **$p < .01$.

Understanding the Impact of Attitude, Subjective Norm, Perceived Behavioral Control on Intent to Volunteer for Leadership Roles

Logistic regression was used to develop a predictive model. Attitude, subjective norm, and perceived behavioral control were used as the independent variables and intent to volunteer for leadership roles the dependent variable. The model explained 15% of the variance in participants' intent to volunteer for leadership roles. The only significant predictor of intent to volunteer for leadership roles was the participants' perceived behavioral control of gaining leadership skills (Table 6).

Table 6

Predicted Impact of Attitude, Subjective Norm, Perceived Behavioral Control on Intent to Volunteer for Leadership Roles (n = 81)

Constant	*β*	*p*
Perceived Behavioral Control of Gaining Leadership Skills	1.99	.03*
Attitude towards Leadership Training	1.24	.14
Subjective Norm Surrounding Leadership	-.94	.24

Note. *$p < .05$, $R^2 = .15$

Conclusions and Implications

This research illuminated some of the antecedents and motivations that precede emergent leadership behaviors in a population of land-grant system faculty. Using TpB (Ajzen, 1991) it is possible to establish a framework against which intended behaviors can be predicted. The participants strongly agreed to measurements of all three facets of the theory. Specifically the participants reported a high degree of behavioral belief (represented as a positive attitude toward leadership training), high degree of normative beliefs (believing they and the opinions of those they value would support their leadership development), and a high overall level of perceived behavioral control (having the ability and capacity to work on developing their leadership capabilities).

These descriptive results are somewhat intuitive based on the selection criteria and nomination process used in LEAD21. Participants were expected to demonstrate leadership ability and a desire to take on leadership roles in order to have been selected for participation. However, an examination of how attitude, subjective norm, and perceived behavioral controls are correlated to, and predictive of, an individual's intent to volunteer for leadership roles within the land-grant system was of interest.

Based on the existing literature, attitude should have strong positive correlation with be-

havioral intention, this being volunteering for leadership roles (Noe, 1986; Noe & Schmitt, 1986; Sahinidis & Bouris, 2008). The results from this study were consistent with the prediction showing attitude and intent to volunteer for a leadership role were positively correlated. However, with any correlational study one must interpret the results with caution as correlations do not denote directionality. Consequently, individuals may have a positive attitude regarding the leadership development program because they had a pre-existing intention to volunteer for leadership roles. The selection process for this program in particular may also lend credence to this scenario.

Previous research has had mixed results regarding the importance of normative beliefs as they relate to behavioral intention (Armitage & Connor, 2001). The results of this study indicated that normative beliefs surrounding leadership do not have a significant correlation to intent and do not predict intent to take on a leadership role. This result confirmed Prislin's (1993) findings that normative beliefs were unrelated to intentions in situations where individuals had pre-existing experience with the behavior. Again, based on the audience and selection criteria, it is highly likely that the participants of this study had exposure to some manner of leadership role previously (for example advising student organizations or leading teams of researchers on grants). Perhaps the absence of correlation or predictive value would be greater in an audience less familiar with the types of leadership roles expected as an outcome of program participation.

Finally, perceived behavioral control is expected to have a significant influence on intentions based on past research (McCarthy & Garavan, 2006). In this study, perceived behavioral control was found to not only be moderately correlated with intent to volunteer for a leadership role but also predictive of this intention. Perceived behavioral control was the only variable which predicted behavior (given an audience of qualified and prepared individuals). These findings are consistent with previous research that predicts control to be strongly associated with intention (Chiaburu & Tekleab, 2005; Mathieu & Martineau, 1997; Tracey et al., 2001). However, this is one of the first studies that has empirically shown it is also predictive under developmental conditions. This study also found the lowest mean score in the overall measure of perceived behavioral control was related to time; specifically individuals believed that it would be difficult to find the time to develop their leadership skills in the next year.

Recommendations

As a result of this study there are a number of recommendations for practice and future research. With an audience of qualified and prepared individuals, the only facet that had a direct predictive quality on intent to volunteer for a leadership role was perceived behavioral control. The results indicated that when an individual has the necessary attitude and support from their sponsoring organization they are more likely to engage in a leadership role and leadership training. What these results indicated is that the supporting organization needs to become involved in the development of the individual, by specifically assisting the individual in the creation of capacity and finding time to focus on developing their leadership skills. It is reasonable to predict that the majority of individuals that are selected for participation in such prestigious development programs are likely demonstrating a high degree of competence and participation within their respective organization. With time a finite resource, if organizations intentionally support the transition from existing responsibilities to new leadership focused endeavors there should be an increase in observed leadership volunteering behavior. Future research that examines leadership development in a general population versus a nominated group of emergent leaders may help to better illuminate additional correlations. Additional studies from a random sample of representative faculty members tracked in a longitudinal manner would add significant insights to the findings of this particular study. Specifically, if the TpB findings from this study are a predictive antecedent of leadership volunteer behavior as an objective performance outcome.

A second associated recommendation is on the organizational side. Before nominating individuals to participate in such programs it may be advisable to develop an ongoing support plan for

when they return, such as a mentoring program. Minimizing obstacles, and thus increasing individual's perceived behavioral control, should have a direct impact on the behavior change (this assumes an individual has the appropriate attitude and normative belief regarding the development program). In the future, research that examines how such pre-emptive preparations influence both the individual's perception of support (perceived behavioral control) as well as actual performance (volunteering for roles) will continue to clarify interactions and influences on anticipated outcomes.

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