Examining the Design and Delivery of Collegiate Student Leadership Development Programs

Findings from the Multi-Institutional Study of Leadership - Institutional Survey (MSL-IS):
A National Report

Julie E. Owen, PhD
Principal Investigator
New Century College, George Mason University

MSL

MULTI-INSTITUTIONAL STUDY OF
LEADERSHIP

This publication is available in PDF format from www.nclp.umd.edu

Examining the Design and Delivery of Collegiate Student Leadership Development Programs

Findings from the Multi-Institutional Study of Leadership - Institutional Survey (MSL-IS): A National Report

Julie E. Owen, Phd
Principal Investigator
New Century College, George Mason University

Table of Contents

Examining the Design and Delivery of Collegiate Student Leadership Development Programs:

Findings from a National Study

Setting the Context

Colleges and universities have allocated resources to the development of formal student leadership programs based on the fundamental belief that leadership can be learned and refined through education, training, and development. These programs have proliferated to the extent that over 1500 programs are listed in the directory of the International Leadership Association. The growing popularity of programs aimed at developing college student leadership abilities gives rise to numerous questions:

- What is really known about the impact of such programs on student learning and development?

- What elements of the design and delivery of leadership programs make the most difference to student leadership learning?

- What institutional factors shape student leadership experiences?

Numerous attempts have been made to define key elements of collegiate leadership development programs (see Appendix for recommended readings). Despite the emergence of some common themes or potential defining characteristics of collegiate leadership development programs, few studies rely on an empirical methodology in the development of those themes. Those studies that use qualitative thematizing to de-velop prescriptions for leadership programs were often small in scope, and thus limited in their transferability, or were atheoretically designed. Studies that attempted to quantify elements of leadership program design were often less useful for institutions of higher education because they drew from cross-sector samples that included business and community leadership development programs, or confounded leadership program involvement with general campus involvement. There is, therefore, a strong need to examine collegiate student leadership programs from an empirical, theoretically-specific, and large scale perspective.

CAS Professional Standards for Student Leadership Programs

The Council for the Advancement of Standards in Higher Education (CAS) develops standards of practice to accomplish student learning and developmental outcomes. Developed in 1996, and revised in 2009, the CAS Professional Standards for Student Leadership Programs (SLPs) provided much needed guidance for establishing and maintaining high quality leadership programs. The CAS standards for SLPs are composed of fourteen component parts, each designed to examine an essential aspect of leadership programs and services (CAS, 2009). These components are presented in Exhibit 1.

Exhibit 1. Council for the Advancement of Standards (CAS) General Standards Components

Mission	Legal Responsibilities	Financial Resources
Program	Equity & Access	Technology
Leadership	Diversity	Facilities & Equipment
Human Resources	Organization & Management	Assessment and Evaluation
Ethics	Campus & External Relations	

CAS standards are designed to be useful for programs of various sizes, comprehensiveness, funding levels, and departmental home within diverse types of institutions. In order to use the CAS standards for program evaluation, a set of Self Assessment Guides (SAGs) for leadership programs were established in 1997 and revised in 2012. Many campuses use these for programmatic self-study or as part of re-accreditation processes. Taken together, the SLP standards and associated SAGs provide a useful frame for evaluating leadership programs.

The study described in this report drew on previous leadership program evaluation literature, particularly the CAS standards for student leadership programs, to examine how institutions of higher education are designing and delivering leadership education programs. In addition, institutions were surveyed as to the extent that they use the CAS Student Leadership Program standards to inform programmatic design.

The Multi-Institutional Study of Leadership (MSL)

The Multi-Institutional Study of Leadership - Institutional Survey (MSL-IS) was designed as a companion instrument to the Multi-Institutional Study of Leadership (MSL) developed by Drs. John Dugan (PI), Susan Komives (co-PI), and collaborators. The purpose of the MSL is to contribute to the understanding of college student leadership development, with special attention to the role of higher education in fostering leadership capacities. The MSL addresses individual institutional considerations while contributing to a national understanding of:

- Student needs and outcomes

- Effective institutional practices

- The extent of environmental influence in leadership development

- Theoretical Frame: Social Change Model of Leadership Development

For more information on overall findings from the Multi-Institutional Study of Leadership see Dugan and Komives (2007).

Theoretical Frame: Social Change Model of Leadership Development

Both the MSL and MSL-IS were designed to examine a theoretically specific approach to student leadership development. This study used the social change model of leadership development (Higher Education Research Institute [HERI], 1996) as its orienting philosophy of leadership and leadership development. Designed to explain and foster leadership development in undergraduate college students, the social change model offers a definition of leadership where leadership is viewed as a process that includes all people – those who hold a leadership position and those who do not. Further, the social change model imparts that the main goal of leadership should be to "facilitate positive social change at the institution or in the community" (p. 19). By emphasizing values such as equity, social justice, self-knowledge, personal empowerment, collaboration, citizenship, and service the model encourages students to understand their own talents and interests so that they can mobilize themselves and others to serve and work collaboratively. It should be noted that this definition of leadership is explicitly values-based (HERI, 1996). It incorporates the notion that positive social change is the inherent end-goal of leadership, and that leadership is a process that happens between and among people and does not reside in any one individual regardless of title or position. This model is only one of many possible models of leadership development and care must be taken when applying inferences from this study to leadership development programs with divergent goals and values.

According to the social change model, presented in Exhibit 2 below, there are eight key constructs that are necessary for students to learn in order to practice socially-responsible leadership: consciousness of self, congruence, collaboration, common purpose, controversy with civility, citizenship, and the overarching

goal of change (HERI, 1996). The model defines these eight core values as presented in Exhibit 3 (Wagner, 2006). Consciousness of self refers to being aware of the beliefs, values, attitudes, and emotions that motivate one to take action. Congruence refers to thinking, feeling, and behaving with consistency, genuineness, authenticity, and honesty toward others. Commitment refers to the energy that motivates an individual to serve and that drives the collective effort. Collaboration is to work with others in common effort. Common purpose means to work with shared aims and values. Controversy with civility recognizes that differences in viewpoint are inevitable and that such differences must be aired openly and with civility. Citizenship refers to processes whereby an individual and a collaborative group become responsibly connected to community and society. Change is the ultimate goal of leadership and refers to making the world a better place for self and others. The Socially Responsible Leadership Scale (Tyree, 1998) operationalized these eight values into measures that assess student knowledge, behaviors, and attitudes related to leadership. In this study, 'student leadership learning' refers to a composite score developed from students' scores on each of these eight measures. A revised version of the SRLS was used in the MSL study.

Exhibit 2. The Social Change Model of Leadership Development (HERI, 1996)
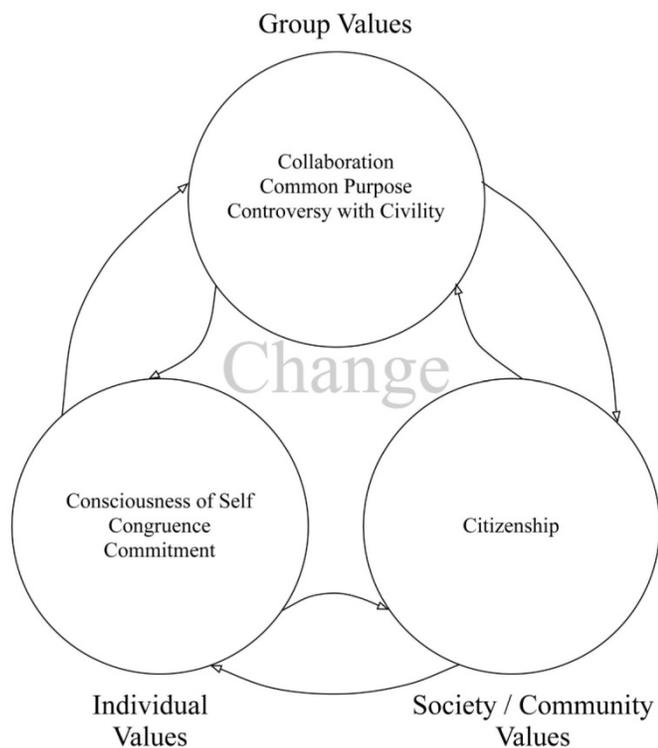
Exhibit 3. Value definitions for the Social Change Model of Leadership Development

The Critical Values of the Social Change Model	
INDIVIDUAL VALUES	
Consciousness of Self	Being self-aware of the beliefs, values, attitudes, and emotions that motivate you to take action. Being mindful, or aware of your current emotional state, behavior, and perceptual lenses.
Congruence	Acting in ways that are consistent with your values and beliefs. Thinking, Feeling, and behaving with consistency, genuineness, authenticity, and honesty toward others.
Commitment	Having significant investment in an idea or person, both in terms of intensity and duration. Having the energy to serve the group and its goals. Commitment originates from within, but others can create an environment that supports an individual's passions.
GROUP VALUES	
Collaboration	Working with others in a common effort, sharing responsibility, authority, and accountability. Multiplying group effectiveness by capitalizing on various perspectives and talents, and on the power of diversity to generate creative solutions and actions.
Common Purpose	Having shared aims and values. Involving others in building a group's vision and purpose.
Controversy with Civility	Recognizing two fundamental realities of any creative effort: 1) that differences in viewpoint are inevitable, and 2) that such differences must be aired openly but with civility.
COMMUNITY VALUES	
Citizenship	Believing in a process whereby an individual and/or a group become responsibly connected to the community and to society through some activity. Recognizing that members of communities are not independent, but interdependent. Recognizing individuals and groups have responsibility for the welfare of others.
Since it is a key assumption of the SCM that the ultimate goal of leadership is positive social change, "change" is considered to be at the "hub" of the model	
Change	Believing in the importance of making a better world and a better society for oneself and others. Believing that individuals, groups and communities have the ability to work together to make that change.

(Adapted from Higher Education Research Institute, 1996, p. 21; Tyree, 1998, p. 176; and Astin, p. 6-7)

From Wagner, W. (2006). The social change model of leadership: A brief overview. *Concepts & Connections, 15* (1), 9. Used with permission from the National Clearinghouse for Leadership Programs.

The Multi-Institutional Study of Leadership - Institutional Survey (MSL-IS)

Rationale

Zimmerman-Oster (2000) stated that "despite the large number of leadership programs, there is little direction provided in the leadership literature regarding how to document measurable student, institutional, and community outcomes" (p.9). The study featured in this report (Owen, 2008, 2009) goes beyond merely documenting leadership outcomes by examining which types of leadership programs make the most difference to student learning. By connecting structural and programmatic characteristics of leadership programs to student learning outcomes, this study adds needed specificity to the leadership program evaluation literature. Further, it extends existing program evaluation literature beyond qualitative, single institution studies to quantitative, multi-institution studies. This has not been feasible until the recent establishment of a national normative data set on student leadership outcomes, the Multi-Institutional Study of Leadership (MSL).

Data from this study can be used to address inconsistent recommendations from prior leadership program evaluation literature. For example, it is unclear whether human or fiscal resources have the greatest effect on student leadership learning; whether leadership commitments in institutional or programmatic mission statements are more essential to student outcomes; whether theoretical pluralism or single-focused approaches have greater effect; how many and what types of collaborations are most fruitful; what is the appropriate balance among training, education, and development functions of leadership programs; which has greater effect, curricular or co-curricular leadership programs; and where student leadership programs should ideally be located. Though this study in no way resolves these unanswered questions, the examination of descriptive data from leadership development programs provides needed insight into the complexities of leadership development that go beyond artificial dichotomies that can "constrain the ability to realize the stated goal of a holistic educa-

tion of students" (Love & Estanak, 2004, p. 15).

Finally, there is great practical significance to this study. Once one understands the institutional and programmatic factors that shape student leadership experiences on diverse campuses, it allows practitioners to more effectively assess program design and delivery, to advocate for necessary resources, and make increasingly effective decisions. Thus, the information presented in this report documents institutional inputs related to the design and delivery of leadership programs, and proffers important questions about connecting institutional inputs to student outcomes.

Study Design and Sample

The MSL-IS (2009) is a 74-item instrument that asks for basic institutional data (demographics) as well as descriptions of leadership program elements including: structure, staffing, funding, facilities, goals, collaborations with stakeholders, and leadership program content. Responses vary from categorical/multiple choice formats, open-ended responses, to four-point Likert scales ranging from strongly disagree (1) to strongly agree (4). Questions were theoretically derived by the research team from a thorough review of the leadership evaluation literature, comply with Berdie, Anderson, and Niebuhr's (1986) guidelines for designing a questionnaire, and were reduced according to Cronbach's (1982) divergent and convergent evaluation question process as outlined in Gall, Gall, and Borg (2003).

Most items are information-gathering or behavioral in nature. Of the items that assess attitudes, one question set examines the extent to which respondents believed their campus's leadership programs reflected each of the eight values and three levels of the social change model, and the other question set was derived from a set of leadership program evaluation criteria developed by Chambers (1994) through a Delphi approach with the following Cronbach alpha reliability estimates on the initial survey: program structure questions (α=.84); program method (α=.85); program administration (α=.87); and program consequence measures (α=.92). Exhibit 4 presents categories of questions presented in the MSL-IS.

Exhibit 4. Categories of Questions Presented in the MSL-Institutional Survey (MSL-IS)

MSL-IS QUESTION CATEGORY	SAMPLE QUESTIONS
Demographics and background of leadership educators completing survey	• Type of university appointment (faculty, staff) • Number of years working in higher education • Number of years at current position • Person to whom respondent reports • Highest degree obtained • Nature and amount of leadership-related coursework • Self-perception of knowledge of the field of leadership education • Self-perception of knowledge about campus-wide leadership development efforts
Institutional context for leadership	• Stage of overall leadership development efforts at institution (emerging, building, developing, sustaining) • Institutional commitment to student leadership development (mentioned in strategic plan, policy-making, coordinating body, etc) • Presence and location of leadership center
Nature, types, and duration of curricular and co-curricular leadership programs	• Total number and type of co-curricular leadership programs • Total number and type of curricular program (certificate, capstone, minor, major, stand alone classes) • Length of time program(s)have been in existence • For curricular programs, departmental affiliations
Program philosophy and theoretical orientation	• Degree to which curricular and co-curricular leadership development program has clear definition of leadership; stated learning objectives or competencies; and theoretical frame or orientation • Degree to which specific leadership theories and models (12 listed) are utilized in curricular and co-curricular student leadership programs • Focus of leadership programs (self, group, community; knowledge, skills, personal development) • Access of leadership programs (open, targeted, position-specific)
Level of program focus on social change model values	• Degree to which curricular and co-curricular leadership programs focus on: consciousness of self, congruence, commitment, collaboration, common purpose, controversy with civility, citizenship, change
Leadership staffing and remuneration	• Number of full and part-time faculty/staff/administrators • Number of student workers and graduate assistants • Presence of a leadership advisory committee or board

MSL-IS QUESTION CATEGORY	SAMPLE QUESTIONS
Leadership staffing and remuneration (cont.)	• Levels between leadership programs director and university president • For curricular programs, how instructors are compensated for teaching leadership classes (load, course release, remunerated, etc)
University and community collaborators	• Frequency and nature of collaborators on and off campus • Involvement of students, faculty/staff, and community members in leadership program functions (planning, implementation, evaluation, mentoring, consultation, facilitation, recognition)
Sources and amounts of funding	• Funding amounts for curricular and co-curricular leadership (including percentage of general/state funds, student fees, grants and foundation revenue, corporate sponsorship, endowments/private donors, self-support, federal work study, etc.)
Nature and frequency of planning, assessment, & evaluation	• Types of leadership assessment utilized in curricular and co-curricular programs: tracking, needs assessment, satisfaction, outcomes, benchmarking, cost effectiveness, national standards, qualitative measures, participatory measures • Use of data to: make changes/improvements, make funding decisions, examine community and institutional impacts, share information across and beyond campus
Use of CAS Standards for Student Leadership Programs (SLPs)	• Institutional and program-specific commitment to using CAS standards and Self Assessment Guides • Use of CAS standards for program assessment, program development, to advocate for resources, for leadership program creation, to educate faculty, staff, and students

(Owen, 2012)

Methods

The MSL-IS instrument was digitally sent to all 103 institutions which participated in the 2009 MSL student study. The appendix lists participating institutions. The survey was sent to the institutional contact for the MSL study. Because some of these contacts were in such offices as institutional research, the study was sent with a request that the survey link be forwarded to the person or persons most knowledgeable about co-curricular and curricular leadership programs on campus. Instructions also suggested that contacts convene a committee of those most knowledgeable about campus leadership development efforts and complete the survey as a team. Anecdotal information indicates that as many as half of participating institutions used this method to complete the MSL-IS instrument. Additionally, respondents were asked to include any documents, brochures, web content that may be helpful in understanding the nature and scope of an institution's leadership development activities. Of the 103 participating institutions, 96 returned MSL-IS surveys, and 89 of these were deemed complete and useful for this study.

Select Findings in Assessing Collegiate Leadership Programs

Mission and Theoretical Orientation

It has been argued that having a guiding theoretical framework, a programmatic grounding in the leadership literature, and well-defined organizational values and assumptions make for more effective leadership programs (Dugan & Owen, 2007; Zimmerman-Oster & Burkhardt, 1999). Involving key stakeholders in the development and articulation of theoretical and definitional frames is paramount to establishing buy-in (CAS, 2009). Further, in a Kellogg Foundation study of 31 youth leadership development projects, Zimmerman-Oster and Burkhardt (1999) suggest that the most successful leadership programs are characterized by a clear theoretical orientation in addition to the presence of a strong connection between the mission of the institution and the mission of the leadership development program or center. The rationale here seems to be that "articulating a shared purpose is a requisite step on the road to organizational success" and that statements of institutional priorities are essential to guiding decisions about program creation and termination (Morphew & Hartley, 2006, p. 456). There is evidence that "leadership depends on the perspectives of the individuals in an organization whose opinions are shaped by the institutional history and culture" (Kezar, Carducci, & Contreras-McGavin, 2006, p. 12).

Finding #1 Despite the illusion that most universities now have sophisticated collegiate leadership development programs, many campuses identify themselves as at early stages of building critical mass (48%, n=42), or working to enhance quality (35%, n=30). Few programs describe themselves as having achieved sustained institutionalization (6%, n=5).

Stage of Student Leadership Development Efforts on Campus
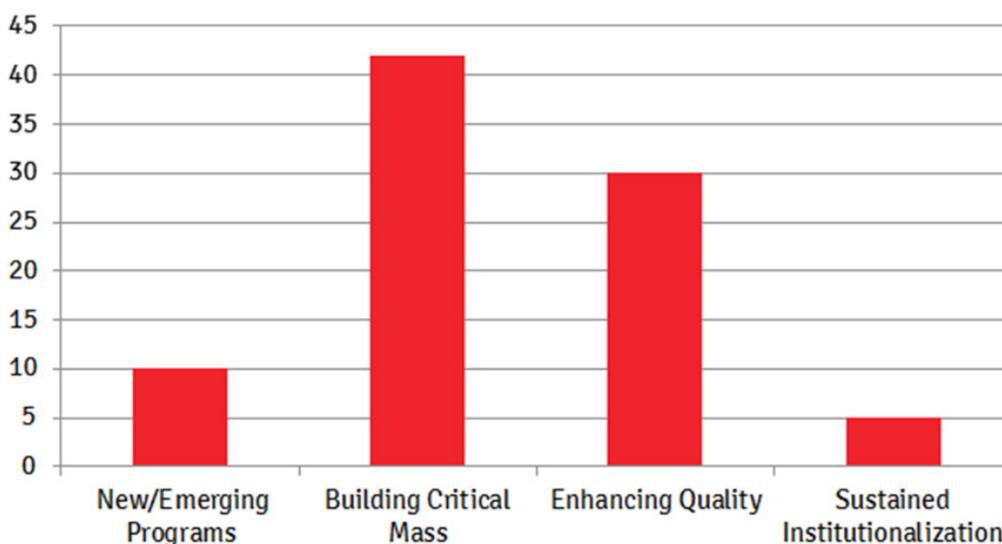
Finding #2 Most leadership programs claim to be grounded in post-industrial, relational, complex theoretical approaches to leadership, yet many (64%, n=57) frequently rely on personality inventories, heuristics, and other non-theoretical (and non-leadership) approaches in program applications.

The Institution's Overall Set of Leadership Programs are Theoretically-Based
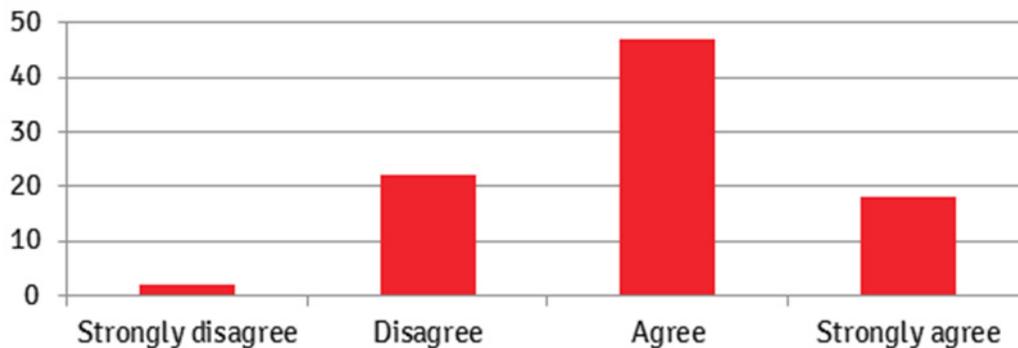
Leadership Theories / Models (% used often or very often)

Social Change Model	82%	Transformational	28%
Covey/MBTI/Strengths	64	Org/System Theories	12
Relational Leadership	56	Adaptive/Chaos	11
Servant Leadership	51	Management Models	9
Leadership Identity (LID)	42	Influence/Charisma	5
Behavioral/Situational	36	Great Man/Trait	3

Coordination, Staffing, and Collaborators

Boatman (1997) states that "successful leadership development programs do not belong to a single office or department of a college, but rather are woven throughout the institution in a multidimensional web" (p.54). Partnerships that welcome student involvement, collaborations with other campus departments and divisions, value community members, and adopt local, national, and global perspectives are paramount to meeting the leadership needs of diverse constituents. The CAS Student Leadership Program standards (2009) offer recommendations for human resources, including a detailed list of suggested staffing qualifications, including educational credentials and related work experience.

Finding #3 Leadership educator preparedness varies greatly. Most report little to no coursework in leadership studies (52%, n=46) yet there is an increasingly coherent and accepted body of leadership theories and research that should guide practice. Some emerging research contraindicates many popular approaches to leadership programs (Dugan).

Finding #4 The emergent and rapidly changing nature of leadership development suggests the need for on-going education of leadership educators.

Number and Type of Faculty and Staff Devoted to Leadership Program

	Min	Max	Mean	SD
# of FULL-TIME FACULTY/STAFF	0	70	6.4	11.8
# of PART-TIME FACULTY/STAFF	0	5	.24	.74
# of GRADUATE ASSISTANTS	0	10	.92	1.74
# of STUDENT EMPLOYEES	0	45	2.4	6.4
# of ADMINISTRATIVE STAFF	0	5	.70	.88

Highest Degree Attained by Leadership Educators

Degree	Value
PhD	~20
Masters	~68
Bachelors	~1

(x-axis: 0, 10, 20, 30, 40, 50, 60, 70, 80)
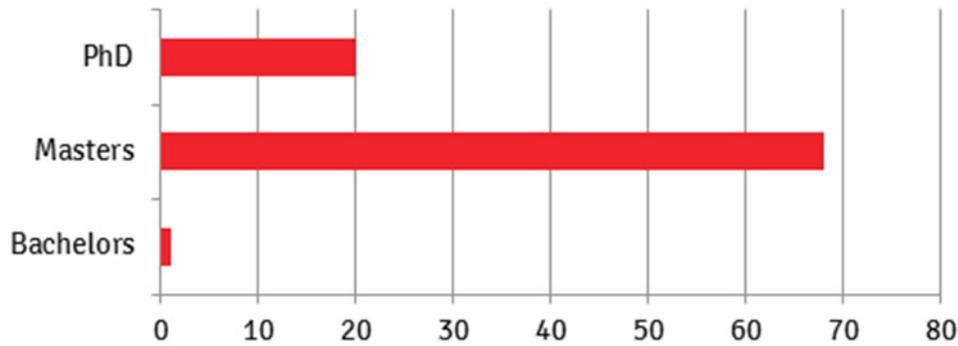
Does Post-Baccalaureate Work Include Study of Leadership?
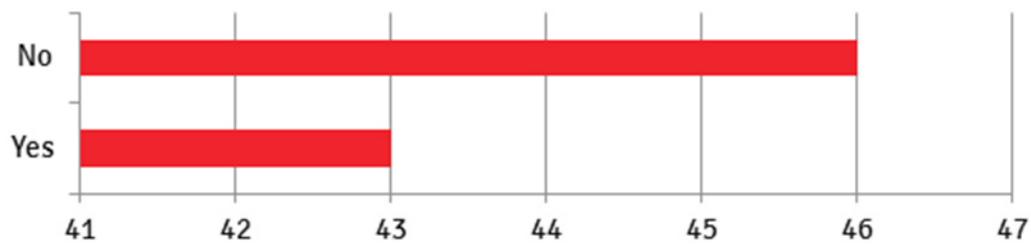
Answer	Value
No	~46
Yes	~43

(x-axis: 41, 42, 43, 44, 45, 46, 47)

Finding #5   Leadership programs claim not to own leadership education on campus, yet data reveal they are not collaborating with important stakeholders and instead operate as siloed programs. Remnants of a leadership 'excellence' approach may preclude collaboration with disability and learning assistance services and fosters an over-reliance on partners in campus activities and programming.

Frequency of collaboration with leadership program (% answering often or very often)

Student Activities	83%	Alumni/Parent Affairs	19%
Orientation	71	Institutional Research	19
Multicultural Programs	67	Counseling Center	15
Residence Life	63	Other	12
Community Service	58	Health Center	12
Academic Departments	42	Career Center	12
Campus Recreation	27	Disability Services	8
Study Abroad	21	Learning Assistance	6

Fiscal Resources and Facilities

CAS (2009) Standards for Student Leadership Programs (SLPs) state that programs must have adequate funding to accomplish their mission and goals and, where possible, "institutional funding should be allocated regularly and consistently for the operation of leadership programs" (p. 373). Smart, Ethington, Riggs, and Thompson (2002), discovered institutional expenditure patterns may affect gains in freshmen to senior leadership skills above and beyond pre-college characteristics and college experiences in leadership. Findings support Astin's (1993) conclusion that "investment in student services is a more critical environmental factor than investment in instruction" (p.331).

Finding #6 Resources vary greatly at participating institutions. MSL-IS results show the highly heterogeneous nature of collegiate leadership programs. Program variety in size, scope, purpose, reporting lines, resources, and stage of development makes it difficult to advocate for and make claims about the effects of such programs.

Co-Curricular Leadership Program Annual Budget (excluding salaries)

Min	Max	Mean	SD
0	$300,000	$43,854	$51,888

Does Your Campus Have A Dedicated Space Serving As a Leadership Center?
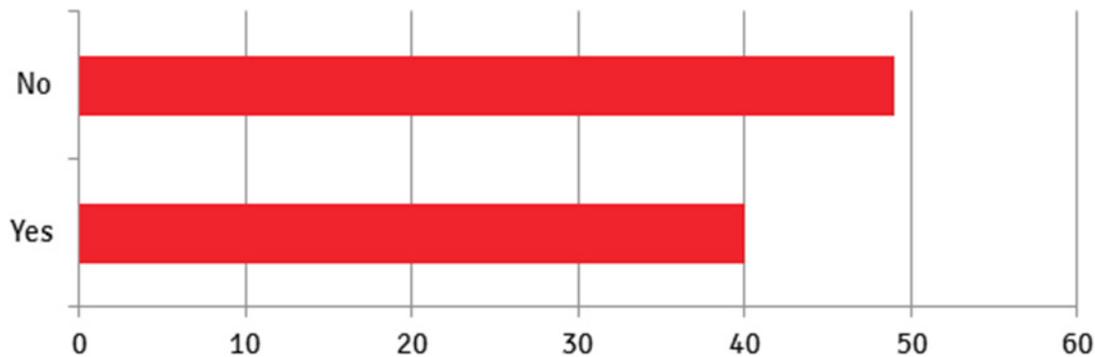
Planning, Assessment, and Evaluation

Most leadership program models include reference to the importance of on-going strategic planning and goal-setting activities, as well as the presence of clear evaluation processes and measurable student learning outcomes. Though there are numerous recommendations for including strategic planning and on-going evaluation into the design of leadership programs, there is little empirical evidence that well-planned programs have direct effect on leadership outcomes. Research on organizational design from the fields of higher education and management offer some insight. Organizations can be described in terms of complexity, centralization, formalization, stratification, production, and efficiency (Hage & Aiken, 1970). Organizations that are larger in size, or that are more mature in age, are more likely to have higher levels of formalization and structure (Robbins, 1983). As organizations increase in structure, more political behavior becomes necessary and decision-making and implementation processes become more complicated (Thompson, 1967). One might infer that elements of strategic planning such as assessment and plan creation help organizations align more effectively with changing environments and thus produce enhanced outcomes (see Exhibit 5).

Finding #7 Many leadership educators claim to engage in regular assessment of student learning (79%, n=70) , program evaluation, and use of national standards (45%, n=40), yet practitioners are not always making full use of that data.

Does Your Leadership Program Have a Specified Learning Outcomes?
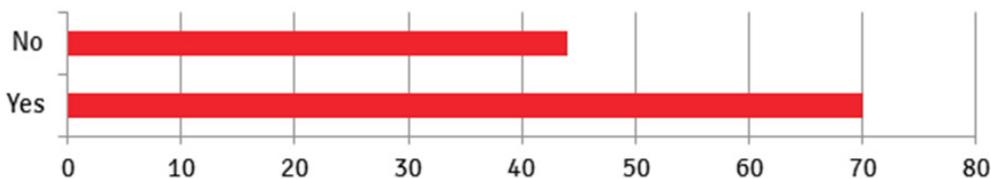
Does Your Leadership Program Have a Strategic Planning Process?
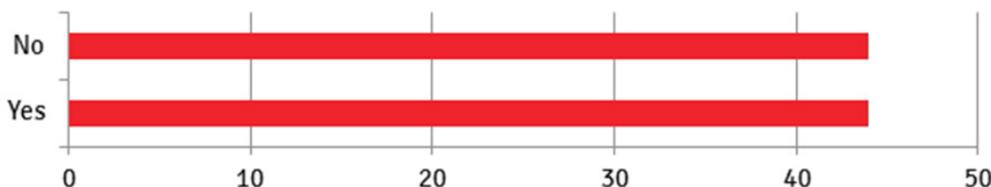
Which of the Following Kinds of Assessment Are Used at the Leadership Program Level (% that use it):

Tracking	98.9%	Qualitative/focus groups	64.0%
Satisfaction assessment	92.1	Needs assessment	51.7
Outcomes assessment	71.9	Using national standards	44.9
• self report	67.4	Org comparisons	37.1
• pre/post	46.1	Cost analysis	16.9
• portfolios	21.3	Org culture assessment	14.6
• raters/rubrics	19.1	Participatory action research	12.4

Finding #8   Few leadership programs engage in regular strategic planning (14%, n=12). Leadership educators need to do more to close the assessment loop by connecting planning and results.

How Often Does Your Leadership Program Engage in the Strategic Planning Process?
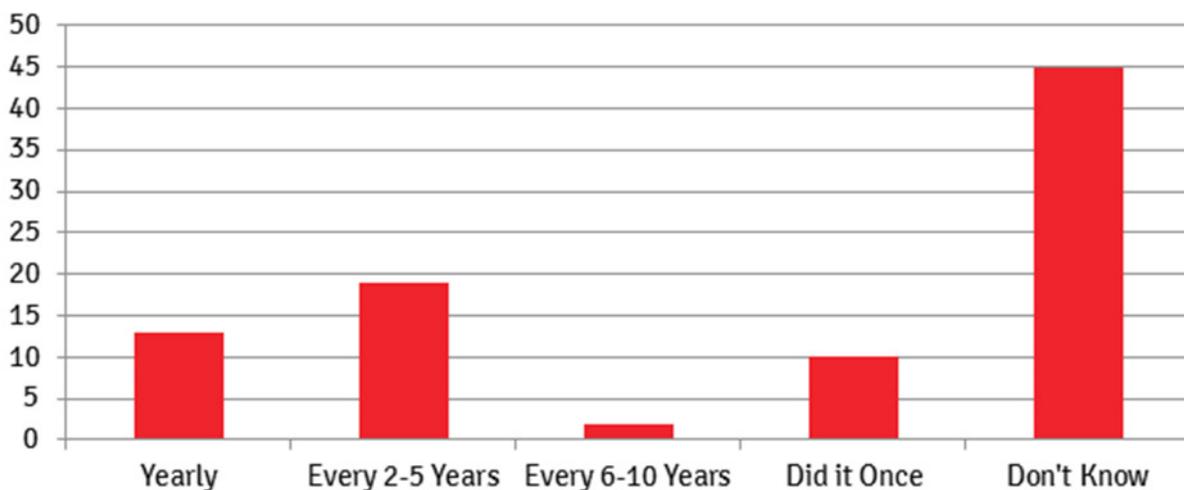
Exhibit 5. The Learning Assessment Cycle
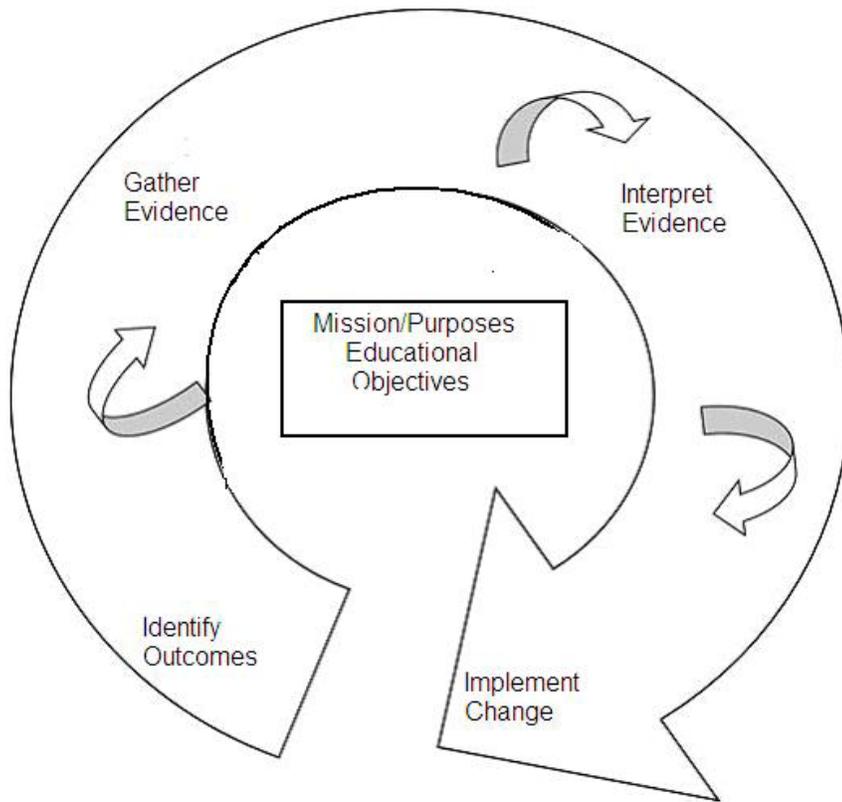
Adapted from Maki, P. (2004). *Assessing for learning.* Sterling, VA: Stylus.

Use of CAS Standards for Student Leadership Programs (SLPs)

Knowing how campuses are using and applying the CAS SLPs may allow for more effective distribution and dissemination of best practices for leadership programs. Leadership educators who make good use of the CAS SLPs may more effectively assess leadership program design and delivery, better advocate for necessary resources, and make increasingly effective programmatic decisions.

Finding #9   Respondents are using CAS Student Leadership Program standards (SLPs) for program development and assessment, but less so to advocate for resources or to disseminate to other campus constituents. The advocacy function of the Standards is underutilized.

Use of CAS Standards for Student Leadership Programs

	YES (%)	NO (%)
Used CAS Student Leadership Program standards (SLPs)	74.2 (n=66)	22.5 (n=20)
Used CAS Self Assessment Guides	34.8 (n=31)	46.1 (n=41)
Used CAS SLPs for program assessment	40.4 (n=36)	33.7 (n=30)
Used CAS SLPs for program development	60.7 (n=54)	13.5 (n=12)
Used CAS SLPs to advocate for resources	27 (n=24)	47.2 (n=42)
Used CAS SLPs for leadership program creation	29.2 (n=26)	44.9 (n=40)
Shared CAS SLPs with other faculty and staff	33.7 (n=30)	40.4 (n=36)
Shared CAS SLPs with students	16.9 (n=15)	57.3 (n=51)

Finding #10   More research on diverse institutional approaches to leadership is needed.

Future studies should build on this study's inclusion of a wide variety of institutional types and programs, but should include a larger number of institutions to build statistical power and allow for the inclusion of a greater number of variables. Exploration of institutions at varying stages of program institutionalization, as well as those with highly developed curricular leadership programs, should also be addressed. The Center for Creative Leadership's current work on a typology of team and organizational capabilities and the International Leadership Association's guidelines for leadership education programs (Ritch, 2007) may provide frameworks further explorations.

The advent of software packages such as HLM 7.0 that make it easier to further explore individual and institutional interaction effects while simultaneously controlling for inputs allows for a much more sophisticated analysis of the latent construct of leadership. Since leadership by definition involves the intersection of individual actors and groups or institutions, it follows that levels of analysis issues must be accounted for. This study of the intersections of institutional context, leadership program characteristics, and individual student leadership outcomes has only scratched the surface of what needs to be discovered about the design and delivery of collegiate leadership programs. More multi-level studies are needed.

More research is needed on how pre-college group experiences shape college-level leadership learning; about how gender, race, and other intersecting aspects of identity shape and are shaped by leadership experiences; and about interaction affects among micro, meso, and macro level predictors.

Connecting Inputs to Outcomes:
Recommendations for Campus Leadership Programs

In 1989 Bensimon, Newman, and Birnbaum called for leadership research that made use of more multivariate and complex approaches to examine the role of individuals within organizations and institutions. In 2006 Kezer, Carducci, and Contreras-McGavin reissued this call and posited that multilevel studies of leadership that take micro, meso, and macro level predictors into account will greatly enhance the current understanding of leadership. The data reported in this document merely describe institutional contexts for leadership programs and differentiate among leadership program characteristics. To further explore what features of the design and delivery of leadership programs made the most difference to student learning, please see the hierarchical linear models found in Owen (2008). These data reveal the on-going development of an emergent typology of collegiate leadership programs; the surfacing of heterogeneous and atheoretical approaches to student leadership development; the significant effects of pre-college experiences, gender and racial differences, and institutional type and control on student leadership outcomes; add needed specificity to the leadership program evaluation literature; and reveal new paths for future research and practice.

It is possible to read the above findings and recommendations as a suggestion that the state of leadership education on today's campuses is deficient. In fact, the contrary is true. Leadership educators have long spun straw into gold. Many programs begin with few dedicated resources, often lacking any full-time staff (people reported that 25% of job description was leadership development for the entire campus), or staff thrown into the work without adequate preparation and have turned out complex, multi-faceted programs that make a profound difference in students' lives. Now that collegiate leadership development is no longer in its infancy, it faces the awkward adolescent phase where there is incongruity between what is known about effective leadership education and what is enacted in programs.

We need to demand more from ourselves as leadership educators, so that we stay current with ever-involving leadership research and thinking. This is vital if we are to prepare students as innovative thought leaders prepared to make a difference in complex global world. More exploration is needed as to the elements of the design and delivery of leadership programs that best develop students who value tradition and yet dare to innovate, who act and think both locally and globally, who understand theory yet can deftly apply it, and who can critically evaluate sources of information and make informed choices about its uses.

Exhibit 6 offers practical suggestions for campus-based action around each of the ten key findings from the MSL-IS study. There are many more possible approaches than those suggested here and we invite leadership educators to continue to interrogate campus practices and to seek innovative and sustainable approaches.

> " Now that collegiate leadership development is no longer in its infancy, it faces the awkward adolescent phase where there is incongruity between what is known about effective leadership education and what is enacted in programs. "

Exhibit 6. Implications for Action

MSL–IS FINDING	POSSIBLE ACTIONS
Finding #1. Despite the illusion that most universities now have sophisticated collegiate leadership development programs, many campuses identify themselves as at early stages of building critical mass, or working to enhance quality. Few programs describe themselves as having achieved sustained institutionalization.	• Seek to develop an institution-wide commitment to leadership (beyond the program or departmental level). • Convene an institution-level task force to identify pockets of leadership innovation and to think systemically about how for forge connections across and among existing programs. • Nurture leadership where it arises. Foster departmental-level engagement in the work of leadership, rather than relying only on individual commitment. • Create a structure (virtual or real) to share resources and ideas, leadership data, recognition, etc.
Finding #2. Most leadership programs claim to be grounded in post-industrial, relational, complex approaches, yet many frequently rely on personality inventories, heuristics, and other non-theoretical (and non-leadership) approaches in program applications.	• Individual inventories and assessments are an important, but not sufficient, part of any leadership program. Help participants distinguish between theoretically –grounded models, theories informed by research, and intuitive approaches. • Teach students the value of evidence-based approaches to leadership. • Match leadership interventions with student developmental level and readiness for leadership.
Finding #3. Leadership educator preparedness varies greatly. Most report little to no coursework in leadership studies yet there is an increasingly coherent and accepted body of leadership theories and research that should guide practice. Some emerging research contraindicates many popular approaches to leadership programs (Dugan).	• Encourage leadership educators to engage in continued personal and professional development around leadership. Consider virtual learning, regional, and campus-based experiences if travel funds are limited. • Convene campus leadership learning communities focused on shared readings for continued growth. • Engage in on-going critical reflection about one's personal leadership beliefs, attitudes, privileges, and potential biases, and how they affect program design and delivery. • Affiliate with professional associations engaged in leadership education such as the NCLP, ILA, LEI, AAC&U, to name a few. • Invite leadership educators to explore emerging standards for leadership education such as the ILA Guidelines, CAS SLPs, and others.
Finding #4. The emergent and rapidly changing nature of leadership development suggests the need for on-going education.	
Finding #5. Leadership programs claim not to own leadership education on campus, yet data reveal they are not collaborating with important stakeholders and instead operate as siloed programs. Remnants of a leadership 'excellence' approach may preclude collaboration with disability and learning assistance services and fosters an over-reliance on partners in campus activities and programming.	• Foster, nourish, and develop relationships with diverse campus and community partners. • Invite shared on-going discussions with diverse collaborators about the nature and purposes of leadership education, including possible negative socio-historic connotations associated with leadership. • Consider ways to actively design inclusive communities and leadership programs that welcome all individuals.

MSL–IS FINDING	POSSIBLE ACTIONS
Finding #6. Resources vary greatly at participating institutions. MSL-IS results show the highly heterogeneous nature of collegiate leadership programs. Program variety in size, scope, purpose, reporting lines, resources, and stage of development makes it difficult to advocate for and make claims about the effects of such programs.	• Consider the appropriate balance between fiscal and human resources. Seek diverse sources of funding and support, and consider self-support engines or entrepreneurial forms of revenue if institutional support is lacking. • Continue to link leadership program mission and vision to that of the institution and to advocate for program outcomes at all institutional levels. Occasionally external accolades and attention (awards, local press, etc) can drive internal supports.
Finding #7. Many leadership educators claim to engage in regular assessment of student learning, program evaluation, and use of national standards, yet practitioners are not always making full use of that data.	• Don't gather data no one needs. Be sure to think in advance about how data will be used and to gauge people's willingness to deal with positive and negative outcomes. • Use data for program advocacy, formative design, as well as for summative/outcome purposes. • Collect multiple forms of data (counts, needs assessments, satisfaction surveys, outcomes measures, qualitative approaches) and match data use with appropriate audience. • Consider data sharing with others engaged in similar pursuits. • Adopt culturally and contextually sensitive approaches to assessment and evaluation (our assessment choices communicate our values and beliefs about leadership).
Finding #8. Few leadership programs engage in regular strategic planning. Leadership educators need to do more to close the assessment loop by connecting planning and results.	• The rapidly shifting landscape of higher education requires on-going strategic planning and consistent evaluation of results. Consider using SOAR analysis (strengths, opportunities, aspirations, results) to identify places for innovation. • Involve diverse constituents in the planning process – including students, community members, and others committed to leadership development.
Finding #9. Respondents are using CAS Student Leadership Program standards (SLPs) for program development and assessment, but less so to advocate for resources or to disseminate to other campus constituents. The advocacy function of the Standards is underutilized.	• Because CAS is a nationally-recognized consortium of professional associations, CAS standards have weight among many institutional leaders. Be sure you are effectively using the CAS SLPs to advocate for leadership programs resources and support, to benchmark leadership programs against national norms, and to connect program level outcomes with articulated national learning domains.
Finding #10. More research on diverse institutional approaches to leadership is needed.	• This study of the intersections of institutional context, leadership program characteristics, and individual student leadership outcomes has only scratched the surface of what needs to be discovered about the design and delivery of collegiate leadership programs.

(Owen, 2012)

Additional Resources

Participating Colleges and Universities (MSL-IS, 2009)

Alfred University

Baylor University

Berry College

Binghamton University

Bridgewater State College

Brigham Young University Hawaii

Bryant University

Bucknell University

California Lutheran

California State University, Sacramento

Clemson University

Colgate University

Colorado State University, Ft. Collins

Columbia College

Concordia College

Cornell College

CUNY Baruch College

CUNY Lehman College

DePaul University

Drake University

Drexel University

Duke University

Elmhurst College

Elon University

Furman University

Gallaudet University

George Mason University

Georgia Southern University

Gettysburg College

Guilford College

Hamline University

Harvard University

Houghton College

Indiana University, Bloomington

Jackson State University

John Carroll University

Kansas State University

Loyola Marymount University

Loyola University Chicago

Mansfield University

Marquette University

Meredith College

Metro State College Denver

Millikin University

Missouri Western State University

Monroe Community College

Montgomery College, Maryland

Moravian College

North Carolina Central University

North Carolina State University

Northeastern Illinois University

Northeastern State University

Northwestern University

Ohio University

Pacific Lutheran University

Regis University

Roger Williams University

Rollins College

Saint Joseph's University

Saint Mary's University of Minnesota

Samford University

Seattle University

Sonoma State University

Southern Methodist University

SUNY Geneseo

SUNY Potsdam

Temple University

Texas A & M University

Texas Christian University

University of Arizona

University of Buffalo

University of California, Berkeley

University of Central Florida

University of Central Oklahoma

University of Colorado at Boulder

University of Detroit Mercy

University of Illinois, Urbana-Champaign

University of Iowa

University of Kansas

University of Louisville

University of Maryland, College Park

University of Massachusetts, Lowell

University of Minnesota

University of Monterrey

University of Nevada, Las Vegas

University of North Carolina, Chapel Hill

University of North Carolina, Greensboro

University of North Carolina, Wilmington

University of Richmond

University of Rochester

University of San Diego

University of San Francisco

University of Scranton

University of South Florida

University of Tampa

University of Toronto

University of Wisconsin, Madison

University of Wisconsin, Oshkosh

University of Wisconsin, Stevens Point

University of Wisconsin, La Crosse

Wartburg College

Wilson College

Youngstown State University

About the CAS Standards for Student Leadership Programs

The mission of the Council for the Advancement of Standards in Higher Education (CAS) is to promote the improvement of programs and services to enhance the quality of student learning and development. CAS is a consortium of professional associations who work collaboratively to develop and promulgate standards and guidelines and to encourage self-assessment (CAS, 2008).

The Council for the Advancement of Standards in Higher Education (CAS) will release the 8th Edition of the book, *CAS Professional Standards for Higher Education*, on August 1, 2012. The book of standards is the defining source of professional standards for many of the services provided to students in higher education. Along with the book, CAS is also releasing an updated CD of all 43 functional area self-assessment guides (SAGs). The SAGs provide the institution with a strategy for assessing program and service effectiveness based on the evidence a team gathers and evaluates.

Individuals interested in obtaining a copy of the CAS Standards for Student Leadership Programs and the associated self-assessment guides, can order these resources through the CAS website at www.cas.edu or by writing to:

Council for the Advancement of Standards
One Dupont Circle NW Suite 300
Washington, DC 20036-1188
202-862-1400

Information about the CAS Research Grant

The Council for the Advancement of Standards (CAS) seeks to advance knowledge about the use of standards and self- assessment processes in enhancing programs and services to students and in developing designated student learning and developmental outcomes by offering an annual research grant.

Proposal Focus: Research proposals should address some dimension of the question, *"Does the use of standards and/or self assessment processes enhance programs and services contributing to the development of student learning and developmental outcomes?"*

1. Proposals with a specific focus on CAS standards and CAS Self-Assessment processes are preferred.
2. Proposals may be at the department, division, and institutional or multi-site level.
3. Proposals may study a particular functional area standard.
4. Proposals on any dimension of standards and self-assessment will be considered.
5. Proposals, however, should not be for the individual use of a standard for campus self-assessment as grants are intended for research purposes.
6. Dissertation research will be considered and is encouraged.

Proposal Content: Proposal should be 5-7 pages with a separate one page summary and should include:

1. name and contact information for the project director
2. background and related literature
3. research questions and significance of the proposed study
4. methods (any appropriate methodology [e.g. case studies, longitudinal designs] will be considered)
5. time frame (projects must be completed in three years or less)
6. brief biographies of researchers
7. budget (no overhead charges may be submitted; funds may not be used for equipment or software, salaries or tuition; travel for collecting data is permitted but not to present findings; proposals should indicate if funds are being sought or are provided by other sources.)

Grant: Typically, grants of up to $3000 will be considered. More than one grant may be awarded.

Deadline: Proposals must be received by October 1 each year.

Information about Participating in the MSL and MSL-IS (2015)

Theory. Research. Practice. Since the Multi-Institutional Study of Leadership (MSL) was first administered during the spring of 2006, these three concepts have remained key to the success and growth of the study. Since that initial data collection, the MSL has been conducted annually in 2009, 2010, and 2011. With nearly 200 schools having participated and hundreds of thousands of respondents overall, the MSL has collected the single largest research dataset documenting student leadership development in higher education.

With this solid base, the MSL research advisory board has committed to a new strategic plan for the future of this study. This plan has been in the works over the past 12 months, and has been developed using feedback from past and current participating institutions as well as research team members, and members of the scientific community at large.

Beginning with the MSL 2012, each year will be designated as a year of "Theory," "Research," or "Practice." This cycle will begin with 2012 as the fist MSL Research year. The goal of each year will be as follows:

MSL Research Years (2012/2015/2018): Research years will serve as the data collection years. Research will include data collection using the primary MSL survey instrument, but may also include other forms, such as experimental modules, new data collection methodologies, and other related inquiries. Research will always be based on a foundation of theory and collected in a manner that will allow for consistent application to practice.

MSL Practice Years (2013/2016/2019): Practice years will emphasize the practical application of the research data and analyses. This will include interpretation of the research results, at a national or local level, and transitioning those results into practice wherever possible. While no new data collections will take place in Practice Years, the MSL will support the scientific community and participating schools with assistance in turning the results into something productive for each cause.

MSL Theory Years (2014/2017/2020): Theory years are where the science hits the pavement and continues the work of the Practice year by putting what is learned back into the growing theoretical body of knowledge. While no data collection is undertaken during a Theory year, the study takes an opportunity to cycle back to the questionnaire and research design, and consider enhancements/changes that may further the cycle as a whole.

If you have any questions regarding the MSL or related activities, please contact us at:
Address: Survey Sciences Group, LLC 220 East Huron Street, Suite 440 Ann Arbor, MI 48104
Phone: *Local*: (734) 527-2182   *Toll-free*: (866) 561-3136   *Fax*: (734) 213-4972
E-mail: info@leadershipstudy.net
Web: www.leadershipstudy.net

Works Cited

Astin, A. W. (1993). *What matters in college? Four critical years revisited.* San Francisco: Jossey-Bass.

Bensimon, E. M., Newmann, A., & Birnbaum, R. (1989). *Making sense of administrative leadership: The "L" word in higher education. ASHE-ERIC Higher Education Report.* Washington, DC: School of Education, George Washington University.

Berdie, D. R., Anderson, J. F., & Niebuhr, M. A. (1986). *Questionnaires: Design and use* [2nd ed.]. Metuchen, NJ: Scarecrow Press.

Boatman, S. A. (1997). Student leadership development: Approaches, methods, and models. *Management of Campus Activities Series No. 2*. Columbia, SC: National Association for Campus Activities.

Chambers, T. (1994). Criteria to evaluate student leadership programs: What leadership educators consider important. *NASPA Journal*, 31, 225-234.

Council for the Advancement of Standards in Higher Education. (2009). *CAS Professional Standards for Higher Education* (7th ed.). Washington, DC: Author.

Cronbach, L. J. (1982). *Designing evaluations of educational and social programs*. San Francisco, CA: Jossey-Bass.

Dugan, J. P. & Komives, S. R. (2007). *Developing leadership capacity in college students: Findings from a national study*. College Park, MD: National Clearinghouse for Leadership Programs.

Dugan, J. P. & Owen, J. E. (2007). Practicing what we preach: An institutional approach to student leadership development. *NASPA Leadership Exchange*, 5(2), 20-22.

Gall, M. D., Gall, J. P., & Borg, W. R. (2003). *Educational research: An introduction* (7th ed.). Boston, MA: Allyn & Bacon.

Hage, J., & Aiken, M. (1970). *Social change in complex organizations*. New York: Random House.

Higher Education Research Institute (1996). *A social change model of leadership development: Guidebook version III*. College Park, MD: National Clearinghouse for Leadership Programs.

Kezar, A., Carducci, R., & Contreras-McGavin, M. (2006). *Rethinking the "L" word in higher education: The revolution of research on leadership*. ASHE Higher Education Report, 31.

Love, P. G., & Estanak, S. M. (2004). *Rethinking student affairs practice*. San Francisco, CA: Jossey-Bass.

Maki, P. (2004). *Assessing for learning*. Sterling, VA: Stylus.

Morphew, C. C., & Hartley, M. (2006). Mission statements: A thematic analysis of rhetoric across institutional type. *Journal of Higher Education*, 77, 456-471.

Owen, J. E. (2008). *Connecting actions and outcomes: Examining effects of collegiate leadership development programs on self-efficacy and leadership for social change*. Unpublished doctoral dissertation. College Park, MD: University of Maryland, College Park.

Owen, J. E. (2009). A snapshot of collegiate leadership programs: Data and implications from the Multi-Institutional Study of Leadership Institutional Survey (MSL-IS). *Concepts and Connections, 16* (3). College Park, MD: National Clearinghouse for Leadership Programs.

Ritch, S. W. (2007). Guidelines for leadership education programs: From crossroads to sustainability. *Concepts & Connections, 15* (3), pp. 11-13.

Robbins, S. P. (1983). The theory Z organization from a power-control perspective. *California Management Review, 25*, 67-75.

Smart, J. C., Ethington, C. A., Riggs, R. O., & Thompson, M. D. (2002). Influences of institutional expenditure patterns on the development of students' leadership competencies. *Research in Higher Education*, 43, 115-132.

Thompson, J. D. (1967). *Organizations in action*. New York: McGraw-Hill.

Tyree, T. M. (1998). *Designing an instrument to measure socially responsible leadership using the Social Change Model of Leadership Development*. Unpublished doctoral dissertation. College Park, MD: University of Maryland, College Park.

Wagner, W. (2006). The social change model of leadership: A brief overview. *Concepts & Connections, 15* (1), 9.

Zimmerman-Oster, K. (2000). How can I tell if it's working? Ten strategies for evaluating leadership development programs in higher education. *Concepts & Connections, 9* (1), 9-11.

Zimmerman-Oster, K., & Burkhardt, J.C. (1999). Leadership in the making: A comprehensive examination of the impact of leadership development programs on students. *The Journal of Leadership Studies, 6(3/4)*, 50-66.

Recommended Reading on Assessing Collegiate Student Leadership Programs

Astin, A. W., & Astin, H. S. (2000). *Leadership reconsidered: Engaging higher education in social change*. Battle Creek, MI: W. K. Kellogg Foundation.

Avolio, B. (2005). Executive summary: 100 year review of leadership intervention research, Gallup Leadership Institute Briefings Report. *Kravis Leadership Institute Leadership Review, 5*, 7-13.

Boatman, S. A. (1999). The leadership audit: A process to enhance the development of student leadership. *NASPA Journal, 37*(1), 325-336.

Chambers, T. (1992). The development of criteria to evaluate college student leadership programs: A Delphi approach. *Journal of College Student Development*, 33(4), 339-347.

Chambers, T. (1994). Criteria to evaluate student leadership programs: What leadership educators consider important. *NASPA Journal*, 31(3), 225-234.

Council for the Advancement of Standards in Higher Education. (2006). *CAS Professional Standards for Higher Education* (6th ed.). Washington, DC: Author.

Cress, C. M., Astin, H. S., Zimmerman-Oster, K., & Burkhardt, J. C. (2001). Developmental outcomes of college students' involvement in leadership activities. *Journal of College Student Development*, 42(1), 15-27.

Dugan, J. P., Komives, S. R., & Associates. (2006). Multi-Institutional Study of Leadership: *A guidebook for participating campuses*. College Park, MD: National Clearinghouse for Leadership Programs.

Dugan, J. P. & Owen, J. E. (2007). Practicing what we preach: An institutional approach to student leadership development. *NASPA Leadership Exchange*, 5(2), 20-22.

Eich, D. J. (2007). *A grounded theory of high quality leadership programs: Perspectives from student leadership development programs in higher education*. Unpublished doctoral dissertation, University of Wisconsin-Madison.

Higher Education Research Institute (1996). *A social change model of leadership development: Guidebook version III*. College Park, MD: National Clearinghouse for Leadership Programs.

Holland, B. (1999). From murky to meaningful: The role of mission in institutional change. In R. G. Bringle, R. Games, & E. A. Malloy (Eds.), *Colleges and universities as citizens*, (pp. 48-73). Boston, MA: Allyn and Bacon.

Janosik, S. M., & Sina, J. A. (1988). A comprehensive planning model and delivery system for leadership training programs. *NASPA Journal*, 25(3), 180-184.

Kezar, A., Carducci, R., & Contreras-McGavin, M. (2006). Rethinking the "L" word in higher education: The revolution of research on leadership. *ASHE Higher Education Report*, 31(6).

Komives, S. R., Dugan, J., Owen, J. E., & Slack, C. (Eds). (2006). *Handbook for student leadership programs*. College Park, MD: National Clearinghouse for Leadership Programs.

Komives, S. R., Owen, J. E.., Longerbeam, S. D., Mainella, F. C., & Osteen, L. (2005). Developing a leadership identity: A grounded theory. *Journal of College Student Development*, 46 (6), 593-611.

Kuh, G. D., Kinzie, J., Schuh, J. H., Whitt, E. J & Associates. (2005). *Student success in college: Creating conditions that matter*. San Francisco: Jossey-Bass.

McCauley, C. D., Moxley, R. S., & Van Velsor, E. (1998). *The Center for CreativeLeadership handbook of leadership development*. San Francisco, CA: Jossey-Bass.

Morphew, C. C., & Hartley, M. (2006). Mission statements: A thematic analysis of rhetoric across institutional type. *Journal of Higher Education*, 77(3), 456-471.

Owen, J. E. (2001). An examination of leadership assessment. *Leadership Insights and Applications Series #11*. College Park, MD: National Clearinghouse for Leadership Programs.

Owen, J. E. & Garland, J. L. (2005). Learning by design: Creating learning outcomes for leadership programs. *Concepts & Connections, 13* (3), 6-8.

Owen, J. E. & Komives, S. R.. (2007). Does credit matter? Examining the effects of curricular leadership programs. *Concepts & Connections, 14* (3), 4-6.

Reichard, R. J., & Avolio, B. J. (2005). Where are we? The status of leadership intervention research: A meta-analytic summary. In Gardner, W. L., Avolio, B. J., & Walumba, F. (Eds.), *Authentic leadership theory and practice: Origins, effects, and development*, pp. 203-223. San Diego: Elsevier.

Reinelt, C., & Russon, C. (2003). Evaluating the outcomes and impacts of leadership development programs: Selected findings and lessons learned from a scan of fifty-five programs. In C. Cherrey, J. J. Gardiner, & N. Huber (Eds.), *Building leadership bridges* (pp.119-136). College Park, MD: International Leadership Association.

Roberts, D. (Ed.). (1981). *Student leadership programs in higher education*. Carbondale, IL: American College Personnel Association.

Roberts, D. C. (2003). Crossing the boundaries in leadership program design. In C. Cherrey, J. J. Gardiner, & N. Huber (Eds.), *Building leadership bridges* (pp.137-149). College Park, MD: International Leadership Association.

Roberts, D. C. (2007). *Deeper learning in leadership: Helping college students find the potential within*. San Francisco: Jossey-Bass.

Roberts, D., & Ullom, C. (1990). *Student leadership program model*. College Park, MD: National Clearinghouse for Leadership Programs.

Russon, C., & Reinelt, C. (2004). The results of an evaluation scan of 55 leadership development programs. *Journal of Leadership and Organizational Studies, 10*(3), 104-107.

Rost, J.C. & Barker, R.A. (2000). Leadership education in colleges: Toward a 21st century paradigm. *The Journal of Leadership Studies, 7*, 3-12.

Schuh, J. H., & Upcraft, M. L., & Associates (2001). *Assessment practice in student affairs: An applications manual*. San Francisco: Jossey-Bass.

Smart, J. C., Ethington, C. A., Riggs, R. O., & Thompson, M. D. (2002). Influences of institutional expenditure patterns on the development of students' leadership competencies. *Research in Higher Education*, 43(1), 115-132.

Strayhorn, T. L. (Ed.). (2006). *Frameworks for assessing learning and development outcomes*. Washington, DC: Council for the Advancement of Standards in Higher Education.

Toutkoushian, R. K., & Smart, J. C. (2001). Do institutional characteristics affect student gains from college? *Review of Higher Education*, 25(1), 39-61.

Upcraft, M. L., & Schuh, J. H. (1996). *Assessment in student affairs: A guide for practitioners*. San Francisco: Jossey-Bass.

Zimmerman-Oster, K., & Burkhardt, J.C. (1999). Leadership in the making: A comprehensive examination of the impact of leadership development programs on students. *The Journal of Leadership Studies*, 6(3/4), 50-66.

Zimmerman-Oster, K. (2000). How can I tell if it's working? Ten strategies for evaluating leadership development programs in higher education. *Concepts & Connections, 9*(1), 9-11.

NCLP

**National Clearinghouse
for Leadership Programs**