

Effects of Participation in Formal Leadership Training in International Students Compared to Domestic Students: A National Study

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Abstract

International student enrollment has experienced dramatic increases on U.S. campuses. Using a national dataset, the study explores and compares international and domestic students' incoming and post-training levels of motivation to lead, leadership self-efficacy, and leadership skill using inverse-probability weighting of propensity scores to explore differences between the two samples. Unweighted findings suggest that international and domestic students enter programs similarly across in many ways, and leave the immersion program with similar gains. However, a matched-sample comparison suggests that international students' growth was statistically different in ethical leadership skills, affective-identity motivation to lead, and leadership self-efficacy. Discussion focuses on the benefits of leadership development to international students why campuses could build partnerships between units that serve international students and leadership educators to facilitate a more inclusive campus.

Introduction

The inclusion of international students within U.S. post-secondary institutions has long been a priority of U.S. post-secondary education. While the U.S. has traditionally been welcoming to international students, the motives for enrolling international students has recently changed. Before the 2008 recession, international students were recruited primarily to build national socio-political ties; however, since the recession, the motivation to enroll international students have shifted towards revenue generation (Hu, 2011; Slaughter & Cantwell, 2012). With this shift, international student enrollment has quickly expanded. In 2004, enrollment of international students was just under 600,000 total enrollees; yet, in 2014 enrollment had exploded to nearly one million students with the largest gains seen in 2014 (Institute of International Education [IIE], 2015). Attracting international students to the U.S. has become big business for both institutions and the economies they support, as international students supply tens of billions of dollars to the U.S. economy (The Association of International Educators [NAFSA], 2013).

While U.S. postsecondary institutions have modified business practices to obtain revenue from international students, research suggests that campuses may have yet to develop

or promote adequate socio-cultural accommodations to the students themselves (Collier & Hernandez, 2016; Greenblatt, 2005; Hu & Kuh, 2003; Trice, 2004; Ward, 2015). Although campuses may be lagging in developing international student specific programs and interventions, emerging evidence suggests that leadership education programs may be a suitable pathway to assisting international students in interactions with domestic students and in becoming more confident, comfortable, and engaged on campus (Collier & Rosch, 2016).

Studies suggest that international students are interested in engaging with domestic students and the communities surrounding campuses (Yuan, 2011; Bertram, Poulakis, Elsasser, & Kumar, 2014). With most leadership development programs intentionally focused on encouraging participants to develop relationships with diverse groups and to practice leadership skills within the community (Owen, 2013), attending leadership education initiatives may be a natural way for international and domestic students to come together. Here, we utilize a national dataset set to explore the differences between international and domestic students regarding leadership-focused skills, motivation to lead, self-efficacy, and the differential effects of leadership education programs. Data is collected from students who participated in the LeaderShape Institute, a week-long leadership development program that occurs at dozens of universities.

International Student Development and Engagement on U.S. Campuses.

Previous research has found that international students report a variety of integration issues stemming from stereotyping and racism (Chapdelaine & Alexitch, 2004; Greenblatt, 2005; Poyrazli & Grahame, 2007), mockery of English proficiency (Cho, 2009), and negative interactions with both domestic students and staff (Rose-Redwood & Rose Redwood, 2013). Thus, international students have reported lower levels of confidence as compared to domestic students, which may preclude international students from engaging in class, campus, or community activities (Lee & Rice, 2007). It is, therefore, no surprise that research has found that many international students engage in self-segregation with either co-nationals or other international students (Rose-Redwood & Rose-Redwood, 2013). Such issues may lead international students to develop beliefs that campuses do not provide institutional support (Cho, 2009) as they shy away from the developmental and cultural programming that is offered by campuses (Trice, 2004).

In response, U.S. institutions have developed units aimed to serve the international student population. Such units are generally labeled International Student Services [ISS] offices. Often, ISS departments serve dual purposes (Collier & Hernandez, 2016; Ward, 2015) – to support students as they navigate federal administrative processes (i.e. visas) and business procedures of the university (i.e. tuition) and to develop and promote cultural and social interaction (i.e. campus involvement activities). Evidence exists that ISS units may value the former purpose over the latter as ISS units' struggles to develop and promote interactive social and cultural programming have been most evident on campuses who support the most international students (Collier & Hernandez, 2016). One example is found at Purdue University, where polling has suggested that 29% of international students believe there is a lack of co-curricular involvement opportunities for international students and revealed that only 15% of international students in the sample reported holding a friendship with a domestic student (Zehner, 2012). Other research has suggested that 65% of international students are either self-segregators (27%) or exclusive global mixers (38%) – students who interact only with co-nationals and other international students (Rose-Redwood & Rose-Redwood, 2013).

Segregation serves as a barrier to widening multicultural perspectives (Watt, Golden, Schumacher, & Moreno, 2013). However, increased interactions with domestic students have been shown to result in better academic performance and increased satisfaction with the collegiate experience (Webber, Krylow, & Zhang, 2013). Thus, researchers have long been calling on institutions to inspire intentional interactions between international and domestic students (Hu & Kuh, 2003; Greenblatt, 2005).

Undoubtedly, U.S. institutions are trying to be more integrative. One concept gaining increased attention in transforming campuses to becoming more welcoming to international students is Internalization at Home [IaH]. IaH conceptualizes how post-secondary institutions can more fully embrace internationalization within formal curricula, in informal curricula, and within the communities that campuses are situated in (Nilsson, 2003). Generally, IaH removes the dichotomous “us” and “them” labels and encourages campus to accept everyone as “us,” and promotes a constructivist perspective where knowledge is developed in relation to personal perspectives and transfer of knowledge occurs from and between everyone in the experience (Mestenhauser, 2003).

Fortunately, many campuses may have already carved out spaces that IaH calls for, via leadership education and development programs. And while leadership development programs may not have been intentionally designed specifically with the conceptualizations of IaH concepts in mind, they were created with similarly oriented notions. For example, leadership development programs were intentionally devised to (1) promote multicultural interaction and collaboration (Komives, Longenecker, Owen, Mainella, & Osteen, 2006), (2) develop authentic relationships (Astin & Astin, 2000), and (3) inspires students to more deeply engage on campuses and within communities (Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001). In combination, leadership development programs have obvious alignments with IaH and actively encourages both international and domestic students to build relationships with each other and practice leadership skills in shared spaces.

A Competency-based “Ready, Willing, and Able” Model of Leadership. In the beginning of the new millennium, Astin & Astin (2000) challenged postsecondary leadership educators to develop better, more ethical and inclusive leaders. Since the authors’ calls, formal leadership development programs on campuses have profoundly expanded (Dugan, 2011; Sessa, Matos, & Hopkins, 2009). Many campuses now offer leadership certificates and majors, and promote opportunities to send students to formal leadership development seminars, most which (Owen, 2013) use community-oriented and relationship-based leadership models labeled as post-industrial (Rost, 1993).

We utilized a conceptual framework of leadership competency that builds on the skills of post-industrial leadership and combines the need for leadership education to additionally focus on developing participants’ motivational and self-efficacy capacities as well. This framework, described as the *Ready, Willing, and Able* [RWA] model (Keating, Rosch, & Burgoon, 2014) suggests that for leaders to be effective in contemporary society, they must not only develop leadership skills but also possess a threshold capacity of leadership self-efficacy and motivation to put forth efforts to lead to turn possession of skill into effective action. See Figure 1. We describe each of these capacities more fully.

Figure 1. *Leadership Capacity: Being “Ready, Willing, and Able” to Lead*

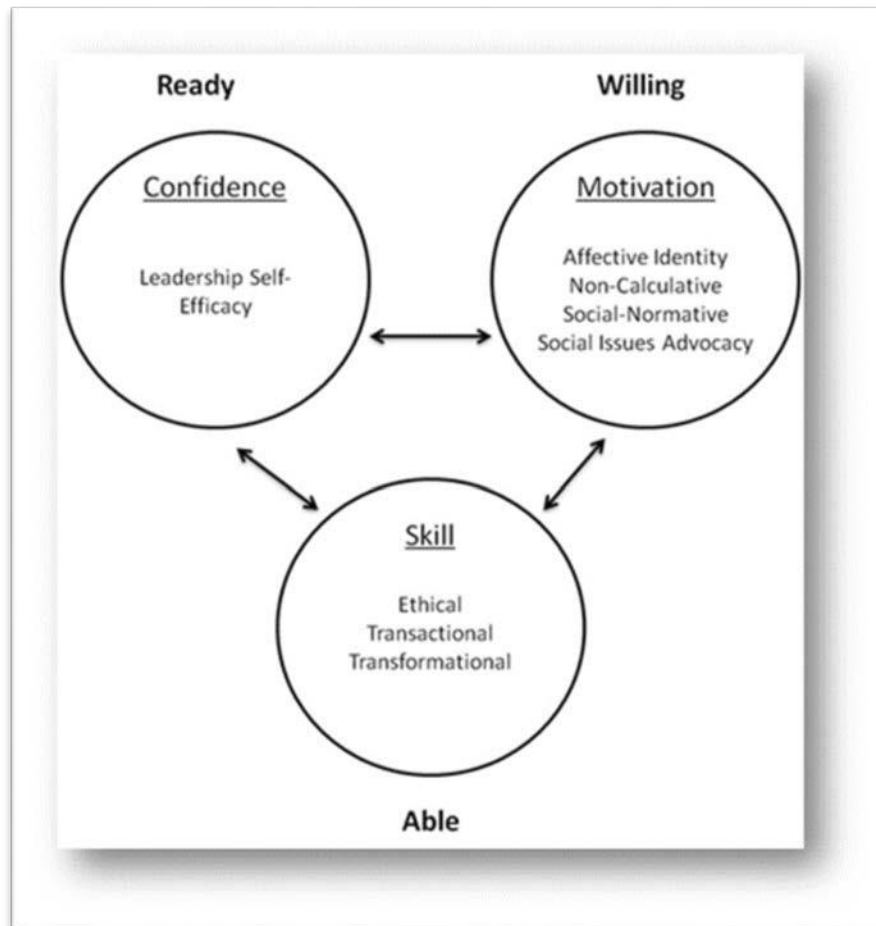


Figure 1

Leadership Skill. The RWA model utilizes the concepts of transformational and transactional leadership (Bass, 1998). Transformational leadership skills encourage leaders to develop more equalized environments where people own a shared sense of responsibility (Groves & LaRocca, 2011; Rost, 1993) and collaboration is based upon developing authentic relationships and collective movement towards goals (Antonakis, Avolio, & Sivasubramaniam, 2003). Previous research has found that transformational leaders promote increased team performance (Wang, Oh, Courtright, & Colbert, 2011). In contrast, transactional leaders rely more heavily on contract-like relationships where followers work towards completing tasks in exchange for various compensations (Bass & Avolio, 1993; Jung & Avolio, 2000). To be noted, transactional leadership is not defined as a negative style of leadership as it still focuses on relationships and utilizing relationships to achieve goals. In addition, contemporary leaders must place significant emphasis on ethical behaviors and goals (Brown, Trevino, & Harrison, 2005).

Leadership Self-Efficacy. The RWA model also includes the concept of leadership self-efficacy [LSE]. LSE is widely studied and has emerged as a valid measure of leadership capacity (Dugan & Komives, 2010; Dugan, 2011). LSE refers to a leader's sense of potential for success in performing leadership activities (Murphy, 2002). Previous research has connected LSE to leader success within group contexts (Avolio, Reichard, Hannah, Walumbwa, & Chan, 2009; Machida & Schaubroeck, 2011) and degree of interest in possessing formal positions of

leadership (Hannah, Avolio, Luthans, & Harms, 2008). In university settings, increased leadership self-efficacy has been linked with students' desire to lead student-run organizations (Shertzer & Schuh, 2004). Failing to cultivate LSE may result in the loss of interest in leading or even participating in group settings.

Motivation to-Lead. The third construct included within the RWA model is motivation to lead [MTL]. As theorized by Chan and Drasgow (2001), MTL measures the motivation that individuals hold to engage in leadership behaviors. MTL measures three connected but unique areas from where the motivation to lead may stem: (1) Affective Identity [AI], Social Normative [SN], and Non-Calculative [NC]. AI refers to the self-belief that an individual can lead and therefore should be a leader. SN is based on a sense of duty in assisting one's group to achieve its goals. NC refers to the level in which an individual will avoid a self-centered cost-benefit analysis in taking on leadership responsibilities (i.e. "What's in it for me?"). Individuals with enhanced non-calculative motivation to lead will often assume leadership positions and responsibilities regardless of stress, workload, or praise. Previous research has found that MTL is a predictor in increased engagement in leadership of college students (Rosch, Collier, & Thompson, 2015; Rosch, 2014) and has been correlated with organizational effectiveness (Van Iddekinge, Ferris, & Heffner, 2009).

Purpose of Study

The purpose of our study is to compare U.S. international students and their domestic peers in their incoming leadership capacity and change in such capacity through participation in a formal leadership program. Through the exploration, we expect to help leadership education researchers and practitioners more fully understand the effects that leadership development programs have on international students and make a case for leadership development personnel and administrators to explore leadership development experiences as avenues to make their campuses more welcoming and integrative for international students.

Research Questions

1. What differences exist between international and domestic students in incoming and post-training measures of leadership self-efficacy, motivation to lead, and leadership skills?
2. How do international students' incoming measures of leadership self-efficacy, motivation to lead, and leadership skills change due to participation in a co-curricular leadership program?
3. To what extent do international students' change in capacity after participating in leadership programs differ from that of domestic peers?

Method

Data Collection. Data was collected in 2013 and 2014 at 21 postsecondary institutions who hosted a LeaderShape Institute (hereafter referred to as the "program") and volunteered to be part of data collection efforts. LeaderShape, Inc., is a non-profit leadership education organization that partners with institutions to deliver an intensive six-day immersive leadership development seminar. Primary outcomes associated with the program are to encourage students to: (1) build inclusive communities, (2) develop collaborative relationships, (3) create long-term leadership goals, and (4) recognize how they can positively impact the campuses, communities, and societies in which they reside. During the past four

decades, over 30,000 students have participated in a program, while in 2014, 85 universities hosted one (www.leadershape.org).

Sample. The sample in our study consisted of 1,168 participants. Due to missing and incomplete data, the final sample is 717 participants - or 61% of the initial sample. In the balanced models, the final sample is statistically similar to the full sample based on five self-identified demographic variables: international student status, sexual identity gender, race, and class year. Of the 717 students, 96% ($n = 688$) identified as a U.S. domestic student. The wide disparity in size between the sample of U.S. international students and their domestic peers led us to utilize data-balancing techniques (inverse-probability weighting) to control for variation between the two. In addition, 67% ($n = 480$) identified as female. Regarding racial identity, 58% ($n = 415$) identified as white/Caucasian, 15% identified as African-American/Black, 12% identified as Asian/Asian American, 7% identified as Hispanic/Latina/o, and 6% identified as multi-racial. Regarding class year, 30% identified as freshman, 31% as sophomore, 29% as junior, 9% as senior, and 2% as a graduate student.

Instrumentation.

Leadership Skill. We employed the Leader Behavior Scale [LBS] (Podsakoff, MacKenzie, Moorman, & Fetter, 1990) to ascertain participants' leadership skill. The LBS is a widely used 28-item instrument that measures both transformational and transactional leadership skill. Within the subscale that measures transformational leadership skill, a sample item was, "When I lead a group, I show what is expected to group members." A sample item that gauged transactional leadership skill was, "I commend other group members for doing a better than average job." LBS has been utilized in business and educational settings for several decades with high internal consistencies ranging from .71 to .89 (Yukl, 2010). We also utilized the Ethical Leadership Scale [ELS], a 10-item, Likert scale instrument designed to gauge the degree to which leaders engage in ethical means to motivate people and achieve goals (Brown, Treviño, & Harrison, 2005). An example question within the scale was, "When I make decisions in groups to which I belong, I keep other members' best interests in mind."

Leadership Self-Efficacy. To measure LSE, we used the 8-item Likert-scaled Self-Efficacy for Leadership [SEL] scale. SEL measures a person's sense of self-confidence and assuredness when engaged in leadership behaviors (Murphy & Fiedler, 1992). A sample item from the SEL scale was, "In general, I'm not very good at leading a group of my peers." SEL has been utilized in business and higher education for multiple decades (Hoyt, 2005), and has shown acceptable internal reliability (Murphy & Ensher, 1999).

Leadership Motivation. To capture students' motivation to lead, we utilized the Motivation-to-Lead [MTL] scale (Chan & Drasgow, 2001) and a variant of the Social Issues Advocacy Scale [SIAS] (Nilsson, Marszalek, Linnemeyer, Bahner, & Misialek, 2011). The MTL is a 27-item, Likert-scale instrument. The MTL measures three subscale motivations – Affective Identity [AI], Social Normative [SN], and Non-Calculative [NC]. Each of the subscales consists of 9 questions. Example items within each scale are: (1) Within the AI subscale, "I am the type of person who likes to be in charge of others;" (2) within the SN subscale, "I was taught to believe in the value of leading others;" and (3) within the NC subscale, "I never expect to get more

privileges if I agree to lead a group.” Recently, the MTL instrument has been introduced into higher education as a mechanism to student leadership assessment (Rosch, Collier, Thompson, 2015; Rosch, Collier, & Zehr, 2014).

Because curriculum within the Institute focused, in part, on building inclusive organizations and communities – based on tenets of social justice – we included a modified version of the SIAS. The SIAS measures a person’s motivations in and behaviors of advocating for social issues (Nilsson, et al., 2011). Initially, SIAS also included items connected to political advocacy (i.e. lobbying and voting); for this research, we eliminated such items as these behaviors were not part of the learning outcomes or curriculum within the program, and were the only items in the scale that referenced a specific context for students’ social advocacy. The modified SIAS was a 12-item, Likert-scaled measure. One example of an item was, “I am personally responsible to confront friends and colleagues who display signs of discrimination.” Previous research suggested that SIAS had appropriate reliability and validity (Nisson, et al., 2011).

Data Analysis.

T-test. We first conducted unweighted independent sample t-tests to compare international participants with their domestic peers on incoming and post-program scores, as well as the gains that each sample expressed (the different between their post-program and incoming scores). This analysis allowed us to assess any large-scale differences across the two samples and to compare how an unweighted analysis might differ from a more statistically rigorous weighted comparison we conducted posthoc.

Inverse probability weighting. Prior studies that have used quasi-experimental designs that employ the use of propensity scores to balance their samples do so in an attempt make causal inferences about experimental effects (see Buschlen & Dvorak, 2011; Rouse, 2012). Where this study differs is that all students in the sample participated in the leadership training. Thus, the use of quasi-experimental designs is not to make causal inferences but to provide better descriptive comparisons.

Because international students represented less than 10% of the sample, OLS estimates this group may be constrained relative to domestic students. Therefore, reweighting or balancing the sample using a propensity-score technique may provide more accurate estimates. Typical uses of propensity-score matching attempts to create 1-to-1 matched cases within treatment (i.e. leadership training) and non-treatment (i.e. non-leadership training) groups. In doing so, unmatched cases from both groups are removed from the data and estimates of the benefits of receiving training are then made from the remaining data. Propensity-score matching, utilized in this way, attempts to make a causal inference about the benefits of a treatment, leadership training in this example.

However, because citizenship status does not represent an experimental variable (i.e. we cannot manipulate one’s status), we employed the propensity-score technique “inverse-probability weighting” (IPW), to create better balance between the covariates of both samples (Li, Zaslavsky, & Landrum, 2013) and “evaluate the average difference in the outcome in two groups with balanced distributions of covariates” (Li, Morgan, & Zaslavsky, 2014, p.4) Additionally, due to sample-size limitations, IPW was chosen because it limits the amount of

data and sample loss (see Holmes & Olson, 2010). Instead of matching individual cases, cases are re-weighted based on their “likelihood” of being an international student. To do this, IPW techniques are used to separately re-weight the population of domestic and international students based on each student’s predicted probability (propensity score) of being an international student. The propensity of being an International student is estimated based on the logistic regression of the likelihood of being an international student as the dependent variable and a vector of demographic and incoming leadership scores as the independent variables. The predicted probabilities of the logistic regression are considered the propensity scores for each student. After conducting IPW, we used ordinary least-squares (OLS) regression is used to estimate the relationship between the dependent variables (facets of leadership growth) and international student status.

Results

T-tests.

Incoming and Post-Training Comparison. Significant differences were uncovered in Transactional Leadership skill – where domestic students ($M = 4.23$, $SD = 0.52$) had higher incoming skills than did international students ($M = 4.03$, $SD = 0.52$), $t(712) = 1.95$, $p = .025$. Similarly, international students ($M = 3.84$, $SD = 0.32$) possessed lower than domestic students ($M = 3.96$, $SD = 0.36$) incoming Transformational Leadership skill, $t(712) = 1.70$, $p = .045$. See Table 1.

Table 1. *Incoming leadership scores*

Variable	Domestic Students			International Students			Independent T-Test		
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>Df</i>	<i>p</i>
Ethical Leadership Skill	687	4.14	0.38	27	4.10	0.33	0.44	712	.330
Affective-identity MTL	687	3.50	0.67	27	3.50	0.54	0.05	712	.478
Non-calculative MTL	687	3.95	0.67	27	3.78	0.77	1.32	712	.094
Social-normative MTL	687	3.92	0.39	27	3.80	0.33	1.47	712	.071
Leadership self-efficacy	687	3.81	0.48	27	3.78	0.46	0.38	712	.351
Social Issues Advocacy	687	3.77	0.50	27	3.83	0.42	0.58	712	.718
Transactional Skill	687	4.23	0.52	27	4.03	0.52	1.95	712	.025*
Transformational Skill	687	3.96	0.36	27	3.84	0.32	1.70	712	.045*

* $p < .05$, ** $p < .01$

Other than domestic students’ ($M = 4.30$, $SD = 0.36$) elevated capacity in the area of transformational leadership skill compared to international peers ($M = 4.11$, $SD = 0.57$, $t(674) = 2.56$, $p = .005$), no differences emerged in a comparison participants’ post-training leadership capacities. See Table 2.

Table 2. *Post-program leadership scores*

Variable	Domestic Students			International Students			Independent t-test		
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>Df</i>	<i>P</i>
Ethical Leadership Skill	662	4.37	0.40	27	4.25	0.47	1.57	687	.058
Affective-identity MTL	673	3.50	0.71	26	3.32	0.71	1.27	697	.110
Non-calculative MTL	679	4.19	0.71	27	4.07	0.75	0.82	704	.207
Social-normative MTL	663	3.99	0.41	26	4.02	0.39	0.35	687	.636
Leadership self-efficacy	657	4.20	0.45	26	4.15	0.66	0.48	681	.315
Social Issues Advocacy	660	4.17	0.51	27	4.14	0.49	0.29	685	.384
Transactional Skill	666	4.43	0.54	27	4.34	0.56	0.82	691	.207
Transformational Skill	650	4.30	0.36	26	4.11	0.57	2.56	674	.005*

* $p < .05$, ** $p < .01$

Unmatched, Un-weighted Growth from Pre-to-Post Reported Scores and Differences.

Two-sample t-tests were to test the null hypotheses that the average growth (Growth is measured by taking the difference of the composite measures from the pre- and post-assessment.) across multiple leadership measures is different between domestic and international students. Of the eight leadership constructs, no significant differences emerged between international and domestic students. See Table 3 – Gains from in leadership scores.

Table 3. *Gains in leadership scores*

Variable	Domestic Students			International Students			Independent t-test		
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Ethical Leadership Skill	662	.236	.372	27	.148	.406	1.20	687	.115
Affective-identity I MTL	673	.009	.581	26	-.162	.400	1.48	697	.069
Non-calculative MTL	679	.236	.652	27	.296	.542	0.48	704	.683
Social-normative MTL	663	.074	.400	26	.231	.358	1.97	687	.975
Leadership self-efficacy	657	.387	.503	26	.400	.477	0.13	681	.551
Social Issues Advocacy	660	.397	.467	27	.312	.395	0.94	685	.175
Transactional Skill	666	.203	.527	27	.315	.583	1.08	691	.859
Transformational Skill	650	.350	.361	26	.285	.425	0.90	674	.185

* $p < .05$, ** $p < .01$

Matched, Weighted Sample OLS Regressions. Reweighting the sample, in most cases, reduced the standard errors of the independent variable (international status) and increased the proportion of the variance explained by the model, indicating that the IPTW models fit the data better than the non-weighted models. Across seven of the eight leadership constructs, there was a statistically significant increase in the average growth for all students. On average, all students, regardless of international status, reported some growth in most areas.

The growth of international students was significantly different from domestic students in three of the eight leadership constructs. On average, growth in ethical skill and affective-identity motivation to lead for international students was less than domestic students (note the negative beta weight for “Inter” in the appropriate row for Table 4). However, for

international students, growth in leadership self-efficacy was higher compared to domestic students. All of our regression statistics can be found in Table 4.

Table 4. *Ordinary-least-squares regression statistics.*

		Un-Weighted			Weighted		
		B	S.E	P	B	S.E	P
Ethical Leadership skills	Inter	-0.07	0.07		-0.10	0.03	***
	_cons	0.23	0.01	***	0.24	0.02	***
Affective-identity MTL	Inter	-0.16	0.11		-0.13	0.04	**
	_cons	0.01	0.02		0.00	0.03	
Non-calculative MTL	Inter	0.06	0.12		-0.02	0.04	
	_cons	0.23	0.02	***	0.24	0.03	***
Social-normative MTL	Inter	0.16	0.08		-0.04	0.03	
	_cons	0.07	0.02	***	0.08	0.02	**
Leadership self-efficacy	Inter	0.00	0.10		0.14	0.04	***
	_cons	0.39	0.02	***	0.39	0.03	***
Social issues advocacy	inter	-0.07	0.09		-0.05	0.03	
	_cons	0.40	0.02	***	0.39	0.02	***
Transactional skill	inter	0.10	0.10		0.06	0.03	
	_cons	0.20	0.02	***	0.21	0.03	***
Transformational skill	inter	-0.05	0.07		-0.03	0.03	
	_cons	0.35	0.01	***	0.35	0.02	***

* $p < .05$, ** $p < .01$, *** $p < .001$

Discussion

Overall the findings of the research have implications for both leadership educators and administrators interested in finding new pathways towards developing more inclusive campuses. We have found that as compared to domestic students, international students entered leadership programs with statistically similar self-reported leadership skill, efficacy, social justice awareness, and motivation to lead. Additionally, as compared to domestic students, international students' post-program scores were statistically similar in all areas except for transformational leadership skill, where domestic students' scores were noticeably higher, supporting past research showing similar findings (Collier & Rosch, 2016).

However, a more rigorous investigation yielded different results. Matched and weighted OLS regression results suggest such similarities may not be the case when comparing international students to domestic peers in regards to effects on their participation

in leadership programs. With balanced data, our models indicate that international students trail behind domestic students in growth in ethical leadership skill and affective-identity motivation to lead, while outpacing domestic students in developing a leadership-focused sense of self-efficacy. This finding suggests that programs focused on broad-based leadership development, popular on many university campuses, may leave international students more confident in their leadership skills, but lagging in a sense of themselves as leaders and able to act ethically regardless of outside pressure.

Potentially, leadership educators could act upon international students' heightened self-efficacy and assist these students in developing pathways in becoming leaders in student organizations. Likely, increased practice will also further develop international students' affective-identity and ethical practices. Additionally, leadership development professionals could develop small-scale workshops or experiences explicitly focused on bolstering affective-identity and ethical leadership behaviors. Because leadership education is designed to be inclusive and such designs align with IaH, we suggest that these workshops integrate international and domestic students.

Theoretically, increased leadership self-efficacy capacity may encourage international students to explore additional opportunities to develop leadership capabilities and practice leadership skill. Continued engagement in leadership development may naturally lead to improved engagement with campus programs with domestic students, and thus, become less self-segregated (Du & Wei, 2015; Rose-Redwood & Rose Redwood, 2013). Possibly, leadership development programs' influence on the leadership self-efficacy of both international and domestic students could represent the steps required to reduce or eliminate cultural boundaries often found in both international and domestic students.

Whereas some differences emerged across the two populations, similarities were discovered in both the degree and growth of leadership capacity measured. Importantly, together domestic and international students showed similar commitment to: (1) social justice processes – like protecting each other from discrimination, (2) buying into group processes and sharing responsibilities with each other, and (3) developing enhanced skills within a leadership paradigm that generally encourages the cultivation of authentic, trusting relationships amongst team members.

Like many modern leadership development curricula employed on campuses, the curriculum within the leadership program we studied was intentionally designed with constructivist elements integrated into the experience – in that students were encouraged to share their personal experiences and points of view, especially in small groups. Students are expected to assemble commonly agreed principles and sometimes shift their personal belief systems – exactly as IaH calls for (Mestenhauser, 2003). This study's findings imply that together both groups of students may have become more aware of each other's experiences and culture, have learned how to develop deeper relationships with each other, and are likely more open towards the idea of and more confident in interacting with each other.

As the LeaderShape Institute employs curricula and desired developmental outcomes that are not dramatically dissimilar to programs many campuses usually offer, our results suggest that campus units aimed to serve international students should purposefully steer international students towards leadership development programs. With recent studies suggesting that units serving international students may be more focused on business functions associated with serving this population (Collier & Hernandez, 2016; Ward, 2015;

Zehner, 2012), we believe that these units would benefit from partnerships with leadership education units. This partnership could assist international student serving units with outcomes associated with social development and campus involvement; which in combination are important elements of IaH (Mestenhauser, 2003) and desired outcomes of many researchers who focus on international students (Hu & Kuh, 2003; Greenblatt, 2005; Webber, Krylow, & Zhang, 2013).

Future Research and Limitations

Future research could travel several pathways. First, more data is needed. More research including other leadership development programs would possibly solidify the emerging trend and larger samples would allow us to speak more confidently about the effects of leadership education programs on international students. Next, as we have gained traction in exploring the pre-to-post leadership program experiences, one limitation the study possesses is in the inability to measure lagged survey data or in qualitative follow-up to explore how students have become more involved or if they have developed tighter relationships with between domestic and international student groups.

There are many questions to ponder moving forward. Do international students still prefer to self-segregate or co-mingle with only other nationals or have they become more comfortable in engaging with domestic students? Are domestic students more comfortable in collaboration and in building relationships with international students? There is still much work to be done in exploring how Leadershape and other immersive leadership development programs affect international students' behaviors.

Finally, the numbers of international students were low compared to domestic students. However, drawing from the researchers' previous experiences with LeaderShape, each university employs a different process to invite their students to join the program. Some select students via application others approach students to engage. Often, because departments cover the costs of the program this process is rather competitive. Although international student engagement in LeaderShape is low, at least in our previous research focused on an institution with a large international student population that regularly hosts leadership development programs open to the whole study body, international students show an elevated desire to engage in these programs (Collier & Rosch, 2016). In the future, research could more deeply explore and bring to light the various LeaderShape recruitment processes each institution employees. Such an investigation may answer the question posed by reviewers.

Conclusion

The current study follows another that suggests that after engaging with a leadership development program, international students generally make gains across most scales and that gains are like domestic peers (Collier & Rosch, 2016). Leadership education programs have long demonstrated various positive effects on domestic students (Dugan & Komives, 2010; Dugan, 2011; Rosch, Stephens, & Collins, 2016) and now research is beginning to uncover similar trends in international students. Such findings are highly encouraging especially when considering that contemporary leadership education already promotes concepts that closely link with IaH and with the development an inclusive, accepting community.

Overall, the study provides an additional level of evidence suggesting leadership development programs may become a catalyst in helping U.S. campuses develop more inclusive communities. The data indicates that immersive leadership development programs like the LeaderShape Institute generate comfortable and inclusive environments that allow international students to engage within and report generally similar developmental outcomes as domestic students. Because of the general lack of differences in growth, international students are signaling that leadership development programs are establishing environments where they usually feel comfortable, safe, and supported in their interactions with domestic students. These signals suggest that leadership development could be a useful tool for campuses in supporting their growing international student populations' integration and in building more inclusive communities. We implore the researchers to broaden the findings and practitioners to explore potential pathways between leadership development programs and units that serve international students.

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