



# Measuring Internationalization at Research Universities

Funded by the Ford Foundation



**AMERICAN COUNCIL ON EDUCATION**  
**The Unifying Voice for Higher Education**

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Center for Institutional and International Initiatives

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**Madeleine F. Green**

**Funded by the Ford Foundation**



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# Executive Summary

**H**ow are research universities internationalizing their curricula and student experiences? What strategies are common among institutions that have actively pursued internationalization? This report addresses these questions by examining the responses given by 144 research universities to an institutional survey conducted in 2001 by the American Council on Education (ACE) and funded by the Ford Foundation. Descriptive data from that national survey also were presented in the 2003 ACE report titled *Mapping Internationalization on U.S. Campuses*. This report expands on the earlier descriptive report's findings. By creating an "internationalization index," we have re-examined the data to measure internationalization along six key dimensions of internationalization, and distinguish "high activity" universities from other, less active institutions. The six dimensions of the internationalization index are:

- Articulated commitment.
- Academic offerings.
- Organizational infrastructure.
- External funding.
- Institutional investment in faculty.
- International students and student programs.

## Major Findings

### ***Overall Internationalization Scores***

- On a five-point scale ("zero," "low," "medium," "medium-high," and "high"), the majority of research universities scored "medium" (34 percent) or "medium-high" (57 percent) as a measure of their overall level of internationalization. Only 2 percent scored "high."

### ***Articulated Commitment***

- Slightly less than one-quarter of research universities scored "high" in this dimension.
- More than 80 percent of research universities had guidelines to enable students to study abroad without delaying their graduation, and highlighted international education in their recruitment literature.
- Highly active institutions were likely to have assessed their internationalization efforts in the last three years (78 percent), or to have included international education as one of the top five priorities in their strategic plan (71 percent) or their mission statement (69 percent). Less active institutions were far less likely to have these forms of articulated commitment.
- Although only a minority of research universities considered international work when evaluating faculty for promotion (11 percent), highly active universities were four times more likely than less active universities to take international experience into consideration (20 percent compared with 5 percent).

### ***Academic Offerings***

- Nearly half the research universities scored "medium-high" on the availability of academic offerings; 16 percent scored "high."
- The most prevalent strategy for all research universities was offering study abroad for credit (95 percent).
- Highly active research universities were likely to require students to take a general education course with an international focus (66 percent).

### ***Organizational Infrastructure***

- Half of the respondents scored “medium-high” on having an infrastructure that supported international education (human resources and facilities dedicated to international education), and another one-fifth scored “high.”
- The most prevalent strategies among all institutions were having an office that administered international education programs (97 percent), using internal e-mail to communicate about international education (76 percent), and having a system to communicate about students’ study abroad experiences (72 percent).
- Highly active universities were likely to have a campus-wide internationalization task force (86 percent).

### ***External Funding***

- Research universities registered a wide range of scores in terms of seeking and receiving funding from federal, state, and private sources. Approximately one-fourth scored either “zero” or “low” on this dimension and a similar proportion scored “high.”
- More than 80 percent of research universities actively sought external funds for internationalization; the single most important source for all institutions was private funding (received by 60 percent of institutions).
- Highly active universities were much more likely than less active institutions to receive external funding from all sources: 88 percent received private funding, 79 percent received federal funding, and 53 percent received state funding.

### ***Institutional Investment in Faculty***

- Most research universities made some investment in faculty members’ international education: 42 percent scored “medium,” 24 percent scored “medium-high,” and 11 percent scored “high” on this dimension.
- Approximately 7 in 10 research universities provided funding for faculty to travel abroad to meetings or conferences, or to study or conduct research abroad. Three-quarters of institutions provided funding for faculty to lead study abroad programs. Overall, research universities were unlikely to offer on-campus opportunities for faculty to develop their internationalization skills.
- In addition to using these strategies, highly active universities were likely to provide funding for faculty to internationalize their courses (71 percent) or teach abroad (64 percent); and 66 percent offered workshops to help faculty use technology to internationalize their courses.

### ***International Students and Student Programs***

- Nearly 70 percent of research universities scored “medium” in their efforts to offer various international extracurricular activities, or to promote contact with international students. None scored either “zero” or “high.”
- The most commonly used strategy by all institutions was providing funding for ongoing international activities on campus (87 percent).
- Highly active research universities were likely to provide a meeting place for students to discuss international topics (78 percent), funds for scholarships for international students (60 percent), or funds for recruitment officers to travel abroad (59 percent).

***Common Strategies of Highly Active Research Universities***

1. Articulating their commitment through mission statements, strategic plans, international education offices, and campus-wide international education committees.
2. Seeking and receiving external funding for international education.
3. Using the university web site, e-mail system, and newsletters to communicate with faculty and students about international education opportunities.
4. Providing opportunities for U.S. and international students to interact with one another outside the classroom.
5. Establishing guidelines for international work to be considered in faculty promotion and tenure decisions.
6. Supporting faculty development in international education that is clearly linked to internationalized courses and student learning.

# Introduction

A recent report by a task force of the National Association of State Universities and Land-Grant Colleges (NASULGC) issued an urgent call to university presidents and chancellors to “internationalize our mission—our learning, discovery, and engagement.” This is not the first call to action to U.S. higher education leaders, nor will it be the last. But the message has taken on new urgency, and the report cites the need for “substantive, transformative change at all levels.”<sup>1</sup> Although research universities have long engaged in international collaboration and have hosted large numbers of international students, they have fallen short of the mark in producing globally competent graduates. And though they comprise less than 7 percent of all higher education institutions, research universities enroll almost 30 percent of students.<sup>2</sup> Because of their large array of undergraduate and graduate programs, and their commitment to graduate education and research, research universities typically are able to offer a wide range of international opportunities.

How are research universities internationalizing their curricula and student experiences? What strategies are common among institutions that have actively pursued internationalization? How do institutional efforts relate to faculty participation in international activities and programs? This report addresses these questions by examining the responses given by 144 research universities to an institutional survey conducted in 2001 by the American Council on Education (ACE) and funded by the Ford Foundation. Of the 144 universities that responded, 38 percent were Research Universities I; 15 percent were Research Universities II; 21 percent were Doctoral Universities I; and 26 percent were Doctoral Universities II.<sup>3</sup> Descriptive data from that national survey were first presented in the 2003 ACE report titled *Mapping Internationalization on U.S. Campuses*.

This report expands on the earlier descriptive report’s findings. By creating an “internationalization index,” we have re-examined the data to measure internationalization along six key dimensions of internationalization, and distinguish “high activity” universities from other, less active institutions. ACE developed the survey that forms the basis of the index by conducting a literature review, and consulting an advisory board of international education experts. The institutional survey instrument created to measure comprehensive internationalization comprised six dimensions:

- Articulated commitment.
- Academic offerings.
- Organizational infrastructure.
- External funding.
- Institutional investment in faculty.
- International students and student programs.

ACE distributed the survey to a national sample of research universities. With data collected from a total of 144 research universities, we quantitatively defined institutional levels of internationalization in each

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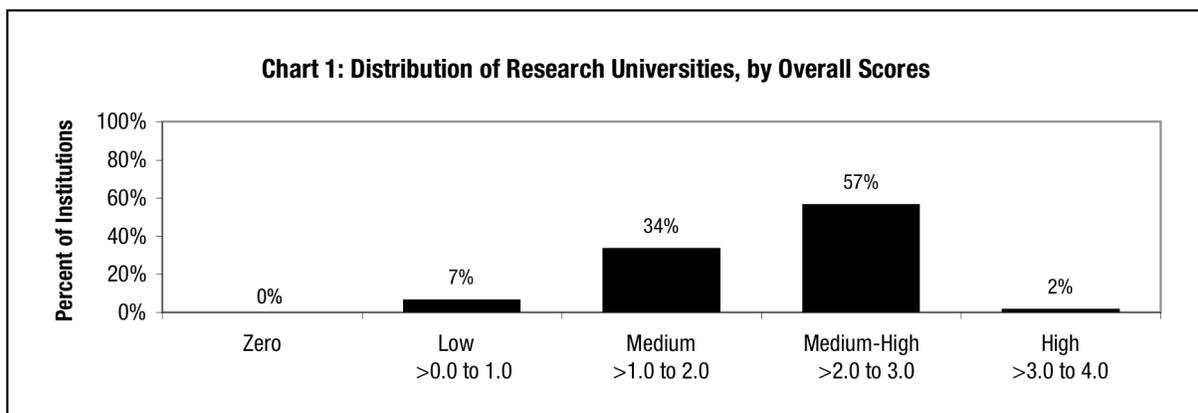
<sup>1</sup> National Association of State Universities and Land-Grant Colleges. (2004). *A call to leadership: The presidential role in internationalizing the university*. Washington, DC: Author.

<sup>2</sup> The Carnegie Foundation for the Advancement of Teaching. (2000). *The Carnegie classification of institutions of higher education*. New York, NY: Author.

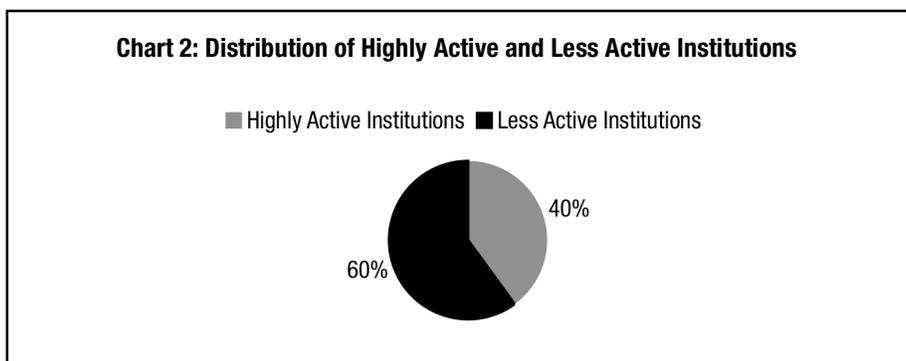
<sup>3</sup> At the time this study was conducted, the 1994 version of the Carnegie Classifications was in use.

dimension, and rated their overall levels of internationalization.<sup>4</sup> Each of the scores was based on a five-point scale, ranging from “zero” (0) to “high” (4) levels of internationalization.

Scores for each of the six dimensions were derived by summing the values of the variables being measured. After we derived scores for each dimension, we averaged the dimensional scores for each institution to determine its overall score. The majority of research universities surveyed received an overall internationalization score of “medium” (>1.0 to 2.0) or “medium-high” (>2.0 to 3.0) (see Chart 1).



To define which research universities would be categorized as “highly active” and which as “less active,” the responding institutions were assigned to quintiles based on their overall internationalization score. Each of the quintiles contained approximately 29 institutions. Therefore, of the 144 research universities, 40 percent (58 institutions) were placed in the top two quintiles (the fourth and fifth quintiles) and were labeled “highly active,” and 60 percent (86 institutions) were placed in the bottom three quintiles (the first through third quintiles) and labeled “less active” (see Chart 2). The resulting overall score cut-off separating the top two and bottom three quintiles was calculated to be 2.30. In other words, research universities categorized as “highly active” had an overall score greater than or equal to 2.30, and those categorized as “less active” had an overall score less than 2.30. (For more information on the methodology and index scores, see the Methodology section on page 22.)



<sup>4</sup> Note that in the charts that appear throughout this report, percentages may not total 100 percent due to rounding.

This report describes how research universities scored in each dimension of the index, the relationships among the sub-elements of the six dimensions of institutional internationalization, and the distinguishing characteristics of highly internationalized institutions. Frequency analysis and significance testing on the index items were conducted to reveal broad trends among research universities as well as common differences between highly active and less active institutions.<sup>5</sup>

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<sup>5</sup> Statistically significant findings are reported when  $p \leq .05$ .

# Comparing Highly Active and Less Active Research Universities

## Most Likely Strategies

The strategies used by the majority of highly active research universities are sometimes used by many of the less active institutions, as well. This chapter focuses on a series of strategies that were implemented by the majority of highly active universities (75 percent or more) but were significantly less likely to be implemented by less active research universities (determined by a gap of at least 20 points between the percentage of highly active and less active institutions that employed that strategy). They are presented in the table below.

**Table 1: Strategies of Highly Active and Less Active Research Universities**

	Highly Active Institutions (%)	Less Active Institutions (%)
<b>Articulated Commitment</b>		
• Conducted formal assessment of internationalization in the last three years.	78	37
• Highlighted international education in recruitment literature.	95	73
• Had policies to enable students to study abroad without delaying graduation.	95	75
<b>Academic Offerings</b>		
• Administered international internships for credit.	90	44
• Administered international field study for credit.	86	43
<b>Organizational Infrastructure</b>		
• Had a campus-wide task force exclusively for international education.	86	52
• Used internal e-mail to communicate about international education.	90	67
• Used an established system to communicate about students' study abroad experiences.	93	58
<b>External Funding</b>		
• Actively sought funding for international education.	97	70
• Received private funding.	88	42
• Received federal funding.	79	43
<b>Institutional Investment in Faculty</b>		
• Earmarked funds for faculty to lead study abroad programs.	95	62
• Earmarked funds for faculty to travel abroad for meetings or conferences.	93	55
• Earmarked funds for faculty to study or conduct research abroad.	93	56
<b>Student Programs</b>		
• Earmarked funds for students to study or work abroad.	86	60
• Had a meeting place for students to discuss international issues.	78	47

### **Articulated Commitment**

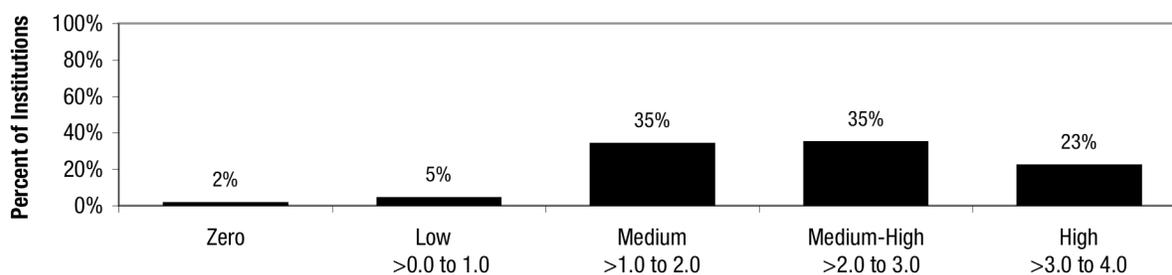
Articulated commitment is the extent to which an institution has written statements or established policies supporting internationalization. It was assessed through questions about the institution’s mission statement, strategic plan, formal assessments, recruitment literature, and guidelines for study abroad and faculty promotions. (For a complete list of questions, see Box A.)

#### **Box A: Survey Questions on Articulated Commitment**

- Does your institution’s mission statement specifically refer to international education?
- Is international education specifically stated as one of the top five priorities in your current strategic plan?
- Has your institution formally assessed the impact or progress of its international education efforts in the last five years?
- Does your institution highlight international education programs, activities, and opportunities in student recruitment literature?
- Does your institution have guidelines that specify international work or experience as a consideration in faculty promotion and tenure decisions?
- Does your institution have guidelines to ensure that undergraduate students can participate in approved study abroad programs without delaying graduation?
- Can institutional funding awarded to undergraduate students for study abroad be applied to study abroad opportunities administered by other institutions?

The majority of research universities displayed some degree of articulated commitment, as shown by the preponderance of scores at the mid- and high ends of the scale (see Chart 3).

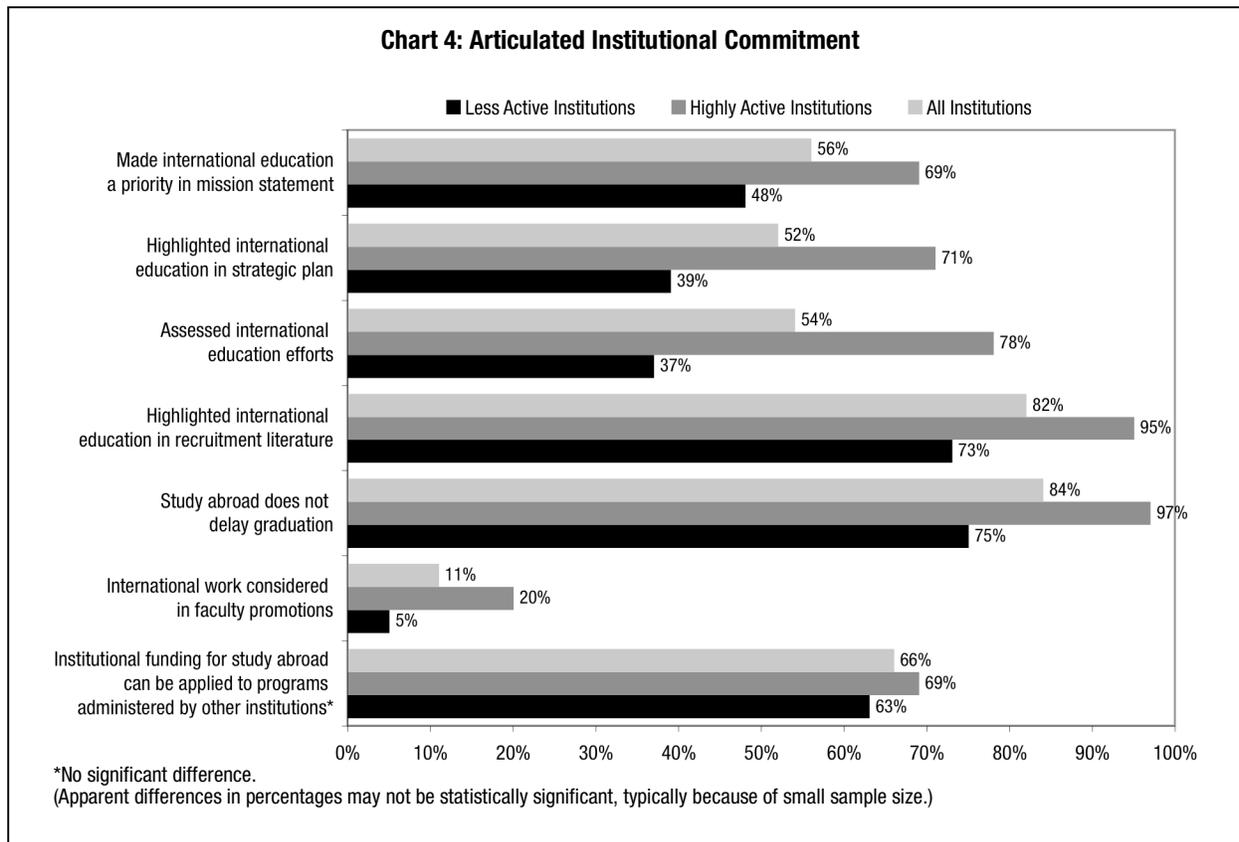
**Chart 3: Distribution of Research Universities, by Articulated Commitment Scores**



### **Highly Active and Less Active Institutions Compared**

In general, institutions that were highly active in their internationalization efforts registered a stronger articulated commitment to international education than less active institutions. Highly active universities were more likely to make international education a part of their mission statements and strategic plans, assess their own internationalization efforts, highlight their efforts in student recruitment literature, and have guidelines to allow students to study abroad without delaying their graduation. It was generally uncommon for research universities to have guidelines to consider international work in faculty promotion and tenure decisions, but highly active institutions were still more likely to have these guidelines than less active institutions. Only one

form of articulated commitment—allowing institutional funding awarded to students for study abroad to be applied to study abroad programs administered by other institutions—was equally likely to be applied by highly active and less active institutions. The majority of research universities allowed this practice (see Chart 4).



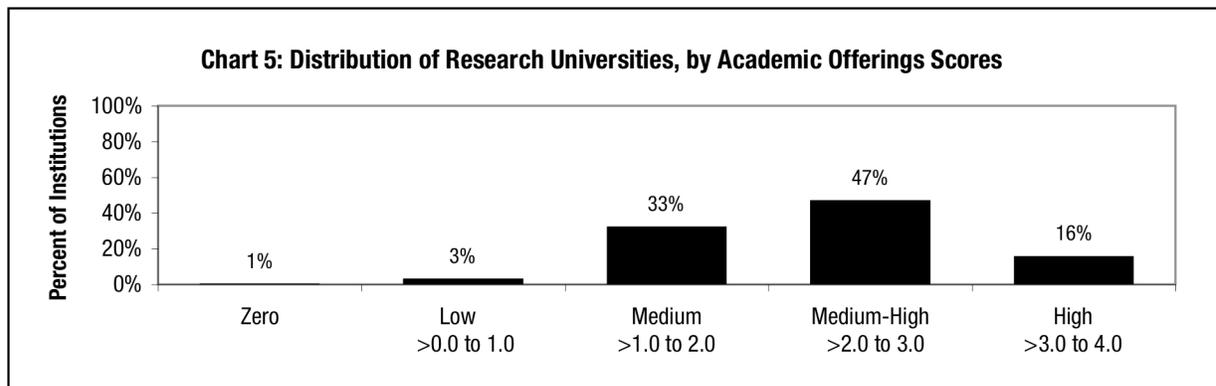
**Academic Offerings**

The second dimension of the internationalization index examined the availability of for-credit, undergraduate academic offerings with an international focus. This included international opportunities such as foreign language learning, internationalized general education requirements and course offerings, study abroad, and other programs offered abroad for credit. It did not include noncredit or extracurricular activities. (For a complete list of questions, see Box B on next page.)

### Box B: Survey Questions on Academic Offerings

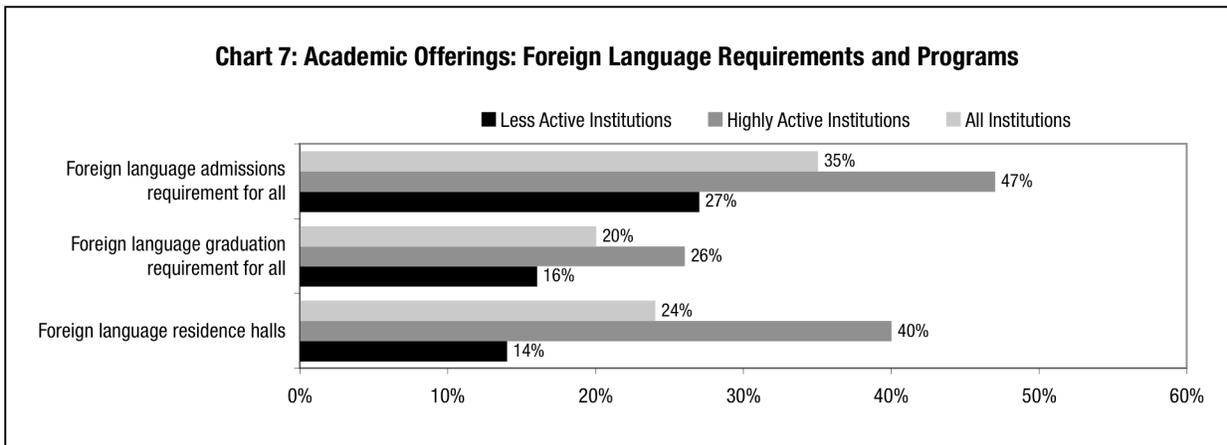
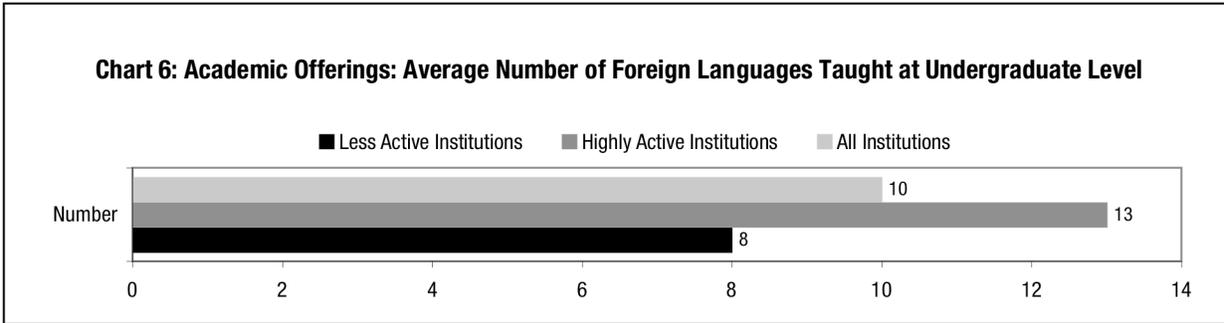
- Does your institution have a foreign language admissions requirement for incoming undergraduates?
- Does your institution have a foreign language graduation requirement for undergraduates?
- List the different foreign languages that were taught at the undergraduate level during the 2000–01 academic year. Do not count English as a Second Language (ESL) or American Sign Language (ASL).
- To satisfy their general education requirement, are undergraduates required to take courses that primarily feature perspectives, issues, or events from specific countries or areas outside the United States?
- At your institution, what percentage of undergraduate courses offered by the following departments had an international focus?
  - Business
  - History
  - Political science
- Did your institution administer for credit any of the following undergraduate programs last year?
  - Study abroad
  - International internships
  - International service opportunities
  - Field study
- How many undergraduate students at your institution studied abroad last year?

Most research universities were somewhat strong in their internationally focused academic offerings, as shown by the distribution of scores in Chart 5.



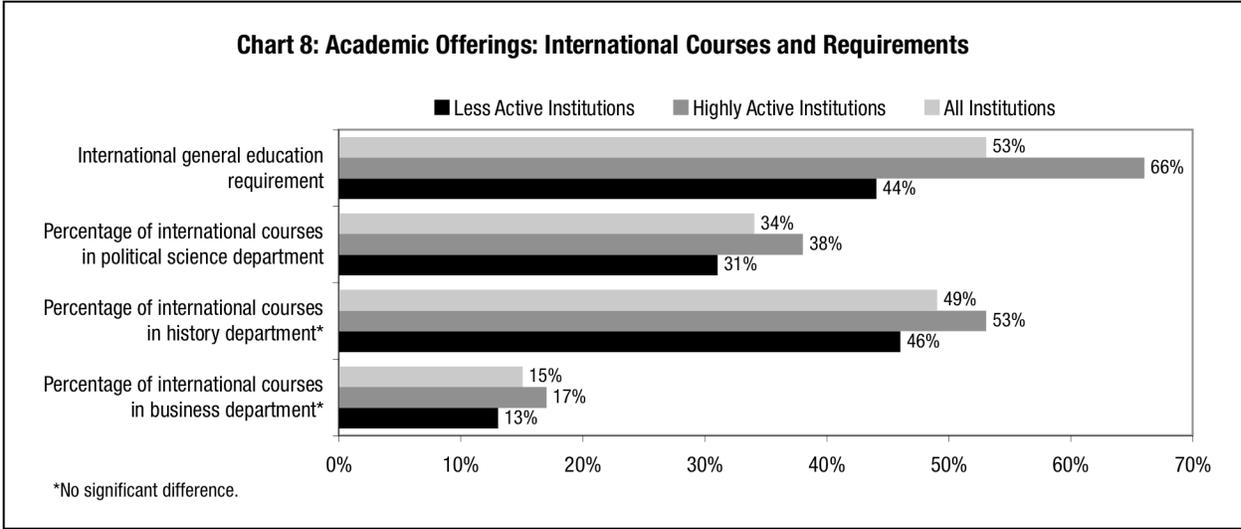
#### ***Highly Active and Less Active Institutions Compared***

An emphasis on foreign language learning separated institutions that were highly active in their internationalization efforts from those that were less active. The highly active universities offered more foreign languages, were more likely to have both foreign language admissions and graduation requirements, and were more likely to have foreign language residence halls, where particular foreign languages were spoken (although relatively few research universities offered this type of living arrangement). Chart 6 and Chart 7 (see next page) detail these findings.

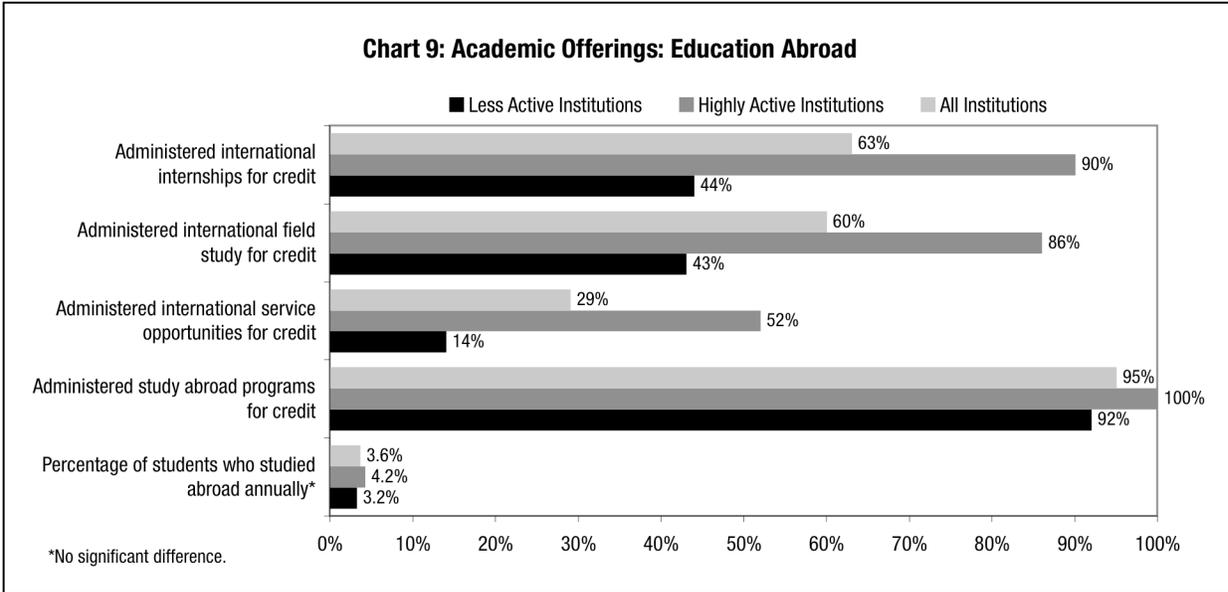


An institution's emphasis on internationalization was measured not only in its foreign language offerings, but also in its general education requirements. Highly active institutions were more likely than less active institutions to require undergraduates to take a general education course that primarily featured perspectives, issues, or events from specific countries or areas outside the United States. Based on the percentage of courses with an international focus in various departments, political science departments of highly active institutions were more internationalized than those of less active institutions. There were no statistically significant differences between highly active and less active institutions in the percentages of international courses in their history and business departments (see Chart 8 on next page).<sup>6</sup>

<sup>6</sup> Apparent differences in percentages may not be statistically significant, typically because of small sample size.



Institutions highly active in their internationalization efforts also were more likely than less active research universities to administer for-credit programs that involve education abroad, such as international internships, field study, and international service opportunities. All of the highly active institutions administered study abroad programs, but 92 percent of less active institutions also offered study abroad, making it the most common type of for-credit education abroad program. Overall, there was little difference between the two types of institutions in the reported number of students who study abroad annually. Why highly active institutions do not have more students studying abroad than less active institutions, even though they are slightly more likely to administer their own study abroad programs, may be explained by a subsequent finding: The majority of both highly active and less active institutions offer multiple study abroad opportunities, directing their own programs and allowing students to use study abroad funds for programs administered through other institutions (see Chart 9).



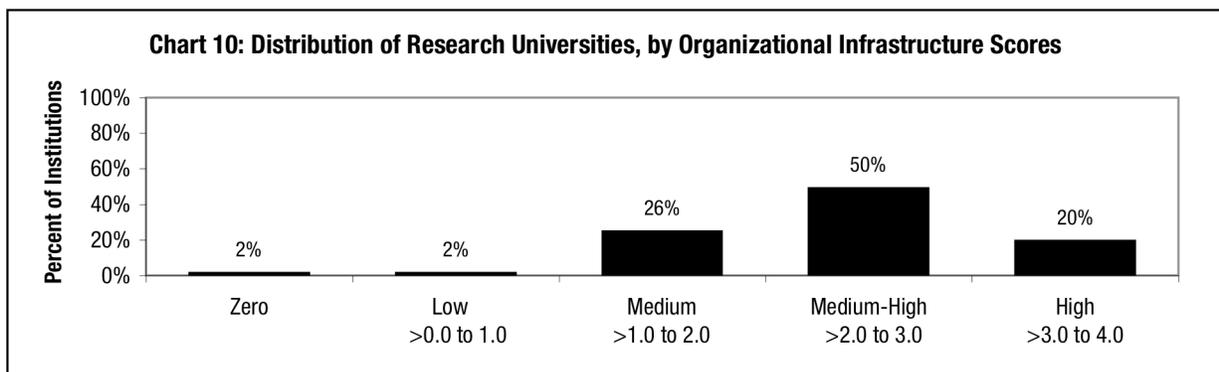
### **Organizational Infrastructure**

This dimension reflects the resources that institutions provide to support and promote internationalization on campus. These resources include physical facilities, such as dedicated office space; human resources, such as standing campus-wide committees and international office staff; and communications and technological support, through the use of e-mail, newsletters, web pages, or other communication means. These resources promote internationalization primarily by organizing, publicizing, and supporting new internationalization goals and initiatives. (For a complete list of questions, see Box C.)

#### **Box C: Survey Questions on Organizational Infrastructure**

- Does your institution have a campus-wide committee or task force in place that works solely on advancing internationalization efforts on campus?
- Please select the response that most closely resembles the administrative structure of the international education activities and programs at your institution:
  - No office administers or oversees international education programs.
  - A single office administers or oversees international education programs exclusively.
  - A single office administers or oversees international education programs, among other functions.
  - Multiple offices administer or oversee international education programs exclusively.
  - Multiple offices administer or oversee international education programs, among other functions.
- Does this office (or offices) have non-student support staff employed full time to administer international activities and programs exclusively?
- Is information about international education activities and opportunities on campus regularly sent out to faculty and students on your institution's internal e-mail system?
- Is there a newsletter or news bulletin regularly distributed by your institution that focuses on international opportunities?
- Does your institution have a system for communicating the experiences of current study abroad students to other students on campus?
- Is there a direct link from your institution's homepage on the World Wide Web to its international programs and events web page?

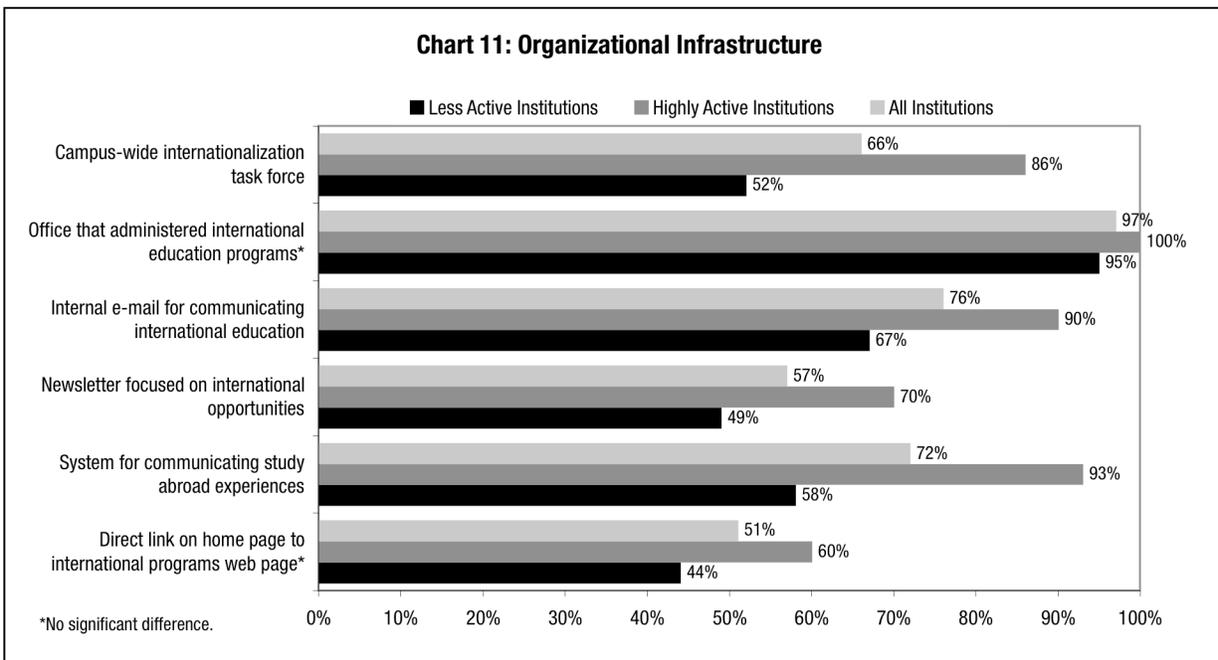
The scores presented in Chart 10 are clustered toward the higher end of the dimension, suggesting that most research universities had an established organizational structure for promoting internationalization.



**Highly Active and Less Active Institutions Compared**

Highly active research universities generally had a more developed organizational infrastructure than less active institutions in terms of facilities and human resources. They also were more likely to have a campus-wide committee that worked solely on advancing international efforts on campus. However, almost all institutions, regardless of level of internationalization, maintained an office that oversaw international education programs.

Promotional efforts to support and aid international education also were more likely among highly active institutions than less active institutions. Highly active institutions were more likely to use their internal e-mail system to inform faculty and students about international education activities and opportunities, regularly use a newsletter or bulletin for such communications, and have a system for publicizing the experiences of study abroad students to their peers. The structure of institutions' World Wide Web homepages did not separate highly active and less active institutions, even though more than half of highly active universities featured direct links on their homepages to international programs and events web pages (see Chart 11).



### **External Funding**

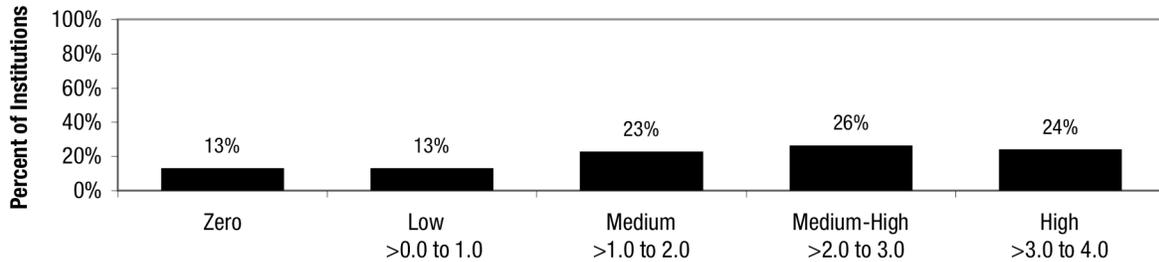
This dimension represents the effort that institutions put forth to seek external funds specifically earmarked for international education programs and activities and the extent to which they received federal, state, or private funding dedicated to advancing internationalization. (For a complete list of questions, see Box D.)

#### **Box D: Survey Questions on External Funding**

- Does your institution actively seek funds specifically earmarked for international education programs and activities?
- Did your institution receive external funding specifically earmarked for international programs and activities from any of the following sources in the last three years?
  - Federal government
  - State government
  - Private (foundations, corporations, alumni)
  - Other

The distribution of scores in Chart 12 ranges from zero to high, suggesting that research universities vary considerably in terms of pursuing and receiving external funding for their internationalization efforts.

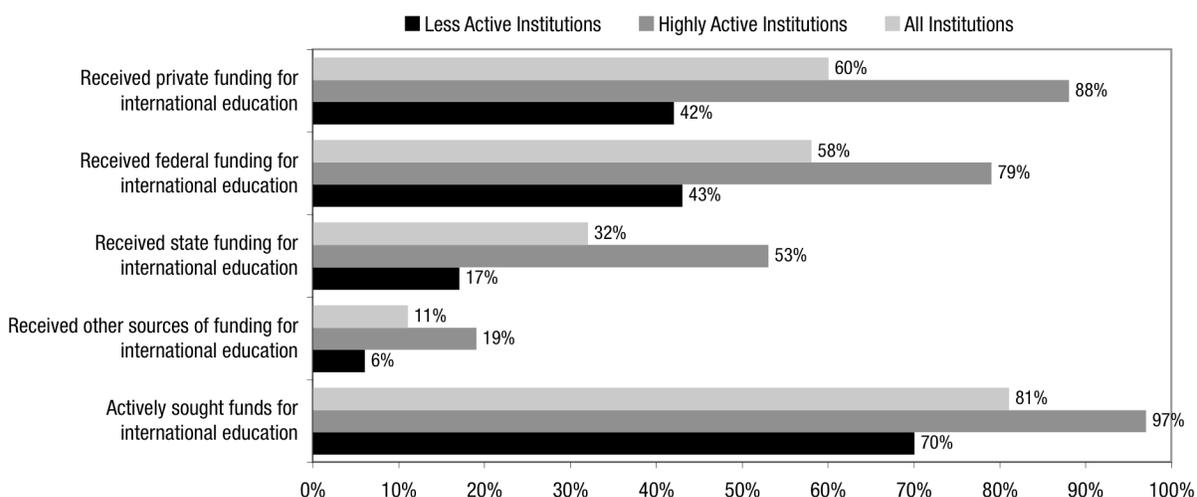
**Chart 12: Distribution of Research Universities, by External Funding Scores**



### **Highly Active and Less Active Institutions Compared**

Highly active institutions were more likely to both seek external funding and receive it from private, federal, state, and other sources to support international programs and activities. The most common sources of funding for research institutions at any level of internationalization were private and federal entities (see Chart 13 on next page).

**Chart 13: Percentage of Institutions that Seek External Funding, and Sources of Funding Received**



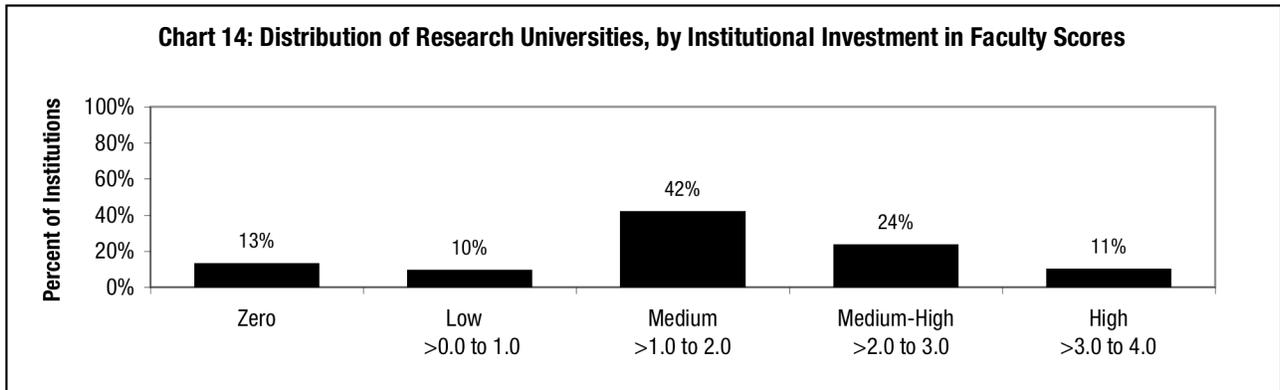
### ***Institutional Investment in Faculty***

Faculty involvement is key to internationalization. Faculty have the most direct contact with students and create the curriculum. In addition, because few students participate in education abroad or attend international extracurricular activities, the classroom remains the primary means to expose students to international issues, events, and cultures. This dimension measures the professional development opportunities available to faculty to help them increase their international skills and knowledge and internationalize their courses. Specifically, the survey questioned whether an institution had earmarked funds to support international activities by faculty (leading study abroad excursions, teaching and conducting research abroad, and internationalizing their courses), faculty participation in workshops on internationalizing courses, foreign language opportunities for faculty, or recognition awards for their international activity. (For a complete list of questions, see Box E.)

### **Box E: Survey Questions on Institutional Investment of Faculty**

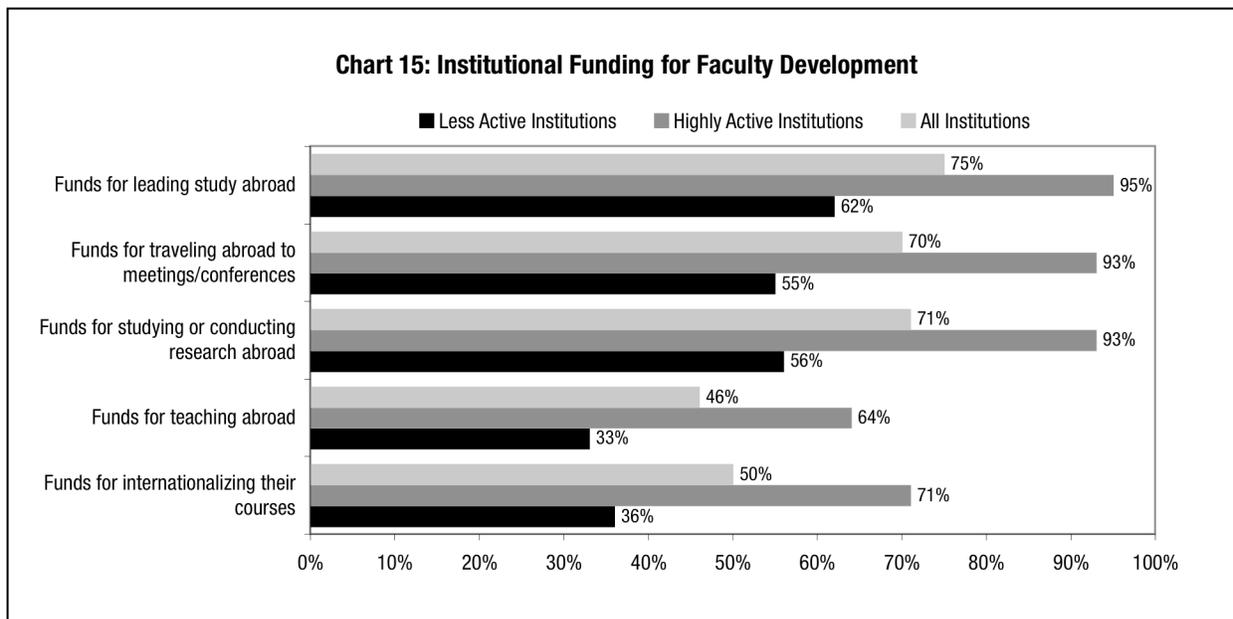
- Did your institution specifically earmark funds for full-time faculty to participate in any of the following international activities last year?
  - Leading undergraduate students on study abroad
  - Teaching at institutions abroad
  - Travel to meetings or conferences abroad
  - Study or conduct research abroad
  - Internationalization of courses
  - Other
- Did your institution offer any of the following opportunities to faculty members in the last three years?
  - Workshops on internationalizing their curricula
  - Workshops on how to use technology to enhance the international dimension of their courses
  - Opportunities for faculty to increase their foreign language skills
  - Recognition awards specifically for international activity

Scores for institutional investment in faculty cover a broad range, suggesting that there is little consistency in the degree to which research universities invest in faculty to achieve internationalization goals (see Chart 14).

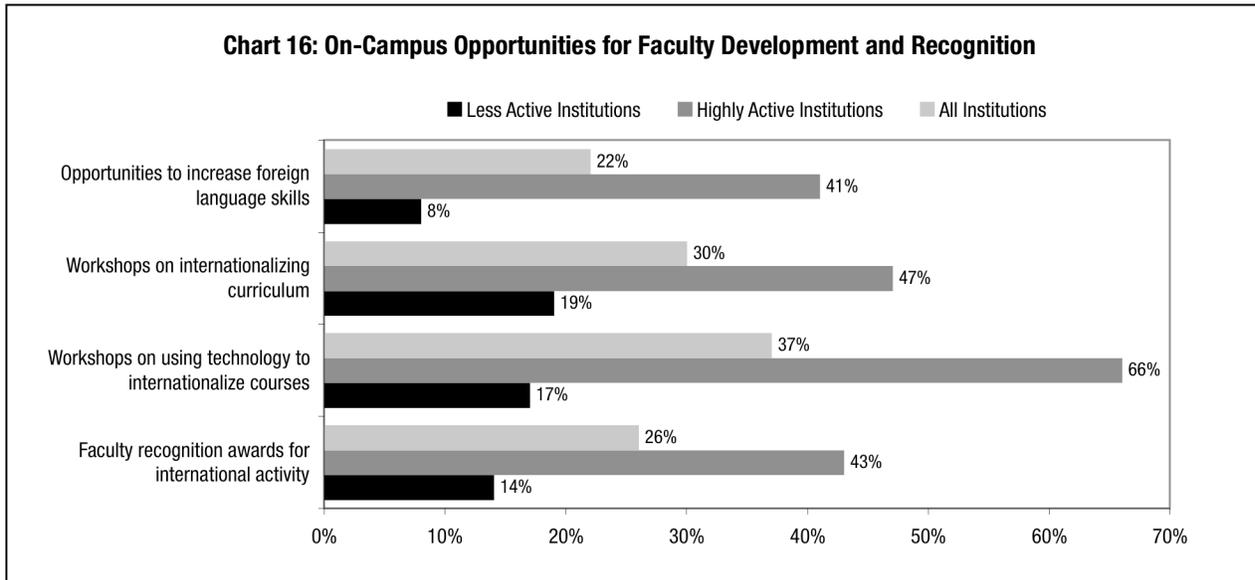


**Highly Active and Less Active Institutions Compared**

The funding provided to faculty to develop their international skills and knowledge, particularly through travel, distinguished highly active institutions from less active institutions. Highly active research universities were more likely to finance faculty to (1) lead undergraduate study abroad programs; (2) travel to meetings or conferences abroad; (3) study, teach, or conduct research abroad; or (4) internationalize their courses (see Chart 15).



The investment in faculty goes beyond funding, however. Highly active institutions in particular were more likely than their less active counterparts to offer opportunities for faculty to increase their foreign language skills, or to provide workshops to help them internationalize their curriculum or use technology to incorporate an international dimension into courses. They also were more likely to recognize faculty with awards specifically for international activity (see Chart 16).



On the whole, research universities were more likely to provide funding for faculty to participate in international activities abroad than to fund on-campus, curriculum-related faculty activities, such as workshops to help faculty internationalize their courses. These institutions generally supported faculty efforts to enhance their international skills and knowledge through research and travel, but not their efforts to enhance students’ international learning in the classroom.

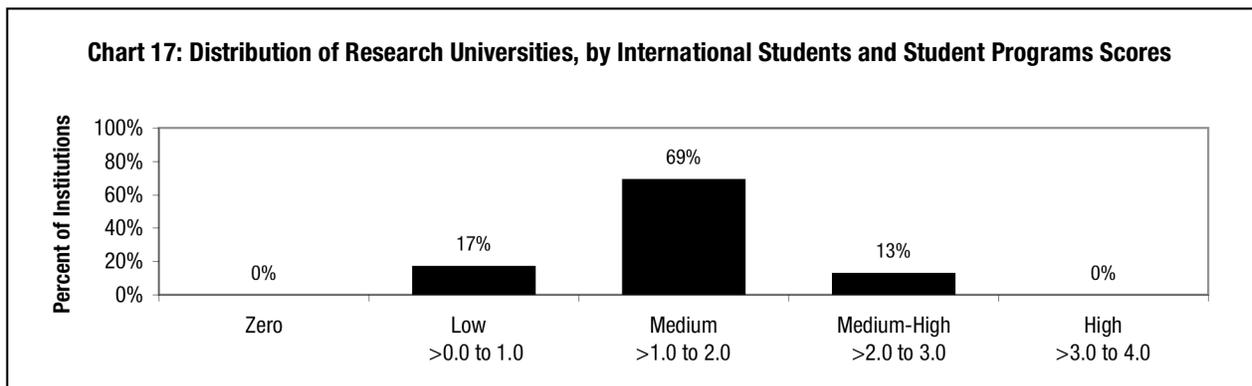
***International Students and Student Programs***

Students learn about international events, cultures, and issues through the various extracurricular activities offered on and off campus and through their contact with international students. This dimension aims to measure institutional support for the unscripted learning that takes place on every campus. The survey included questions about the number of international students on campus; the amount of funding to recruit international students, educate students abroad, and offer internationally focused campus activities; and the existence of programs aimed at providing opportunities for U.S. and international students to learn from one another outside the classroom. (For a complete list of questions, see Box F on next page.)

### Box F: Survey Questions on International Students and Student Programs

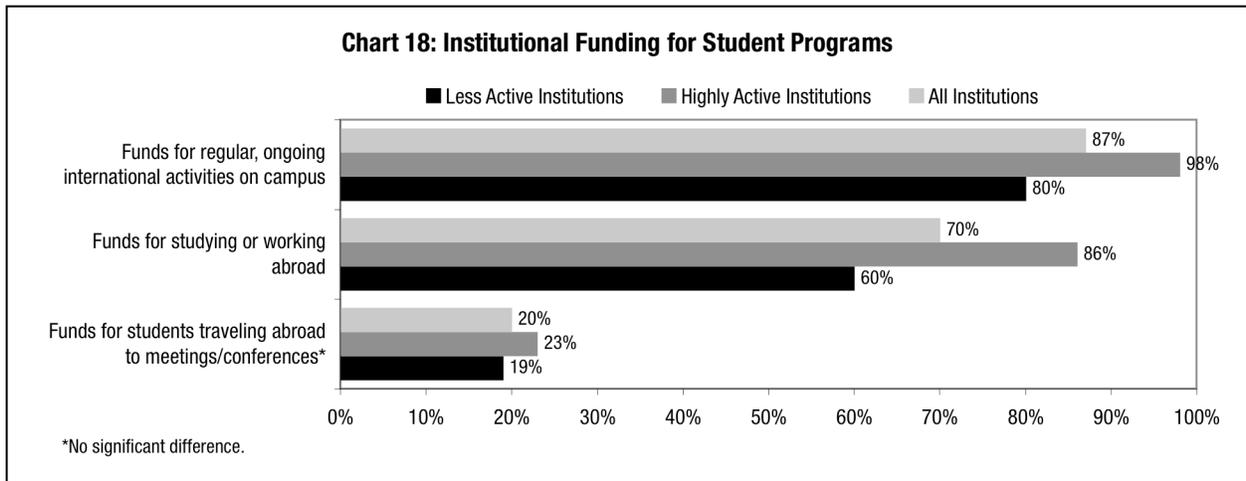
- Did your institution specifically earmark funds for any of the following activities to aid recruitment of full-time, degree-seeking international students at the undergraduate level?
  - Travel for recruitment officers
  - Scholarships for international students
  - Other
- What percentage of full-time undergraduate students are international students? Do not count English as a Second Language (ESL)-only students.
- Did your institution specifically earmark funds for undergraduate students to participate in any of the following international opportunities last year (2000–01)?
  - Travel to meetings or conferences abroad
  - Study or work abroad opportunities
- Did your institution specifically earmark funds for ongoing international activities on campus (speaker series, language houses, international centers) last year (2000–01)?
- Did your institution offer any of the following extracurricular activities to undergraduate students last year (2000–01)?
  - Buddy program that pairs U.S. and international students
  - Language partner program that pairs U.S. and international students
  - Meeting place for students to discuss international issues and events
  - Regular and ongoing international festivals or events on campus
  - International residence hall open to all, or a roommate program to integrate U.S. and international students

Chart 17 indicates that the majority of research universities scored “medium” in the international students and student programs dimension.

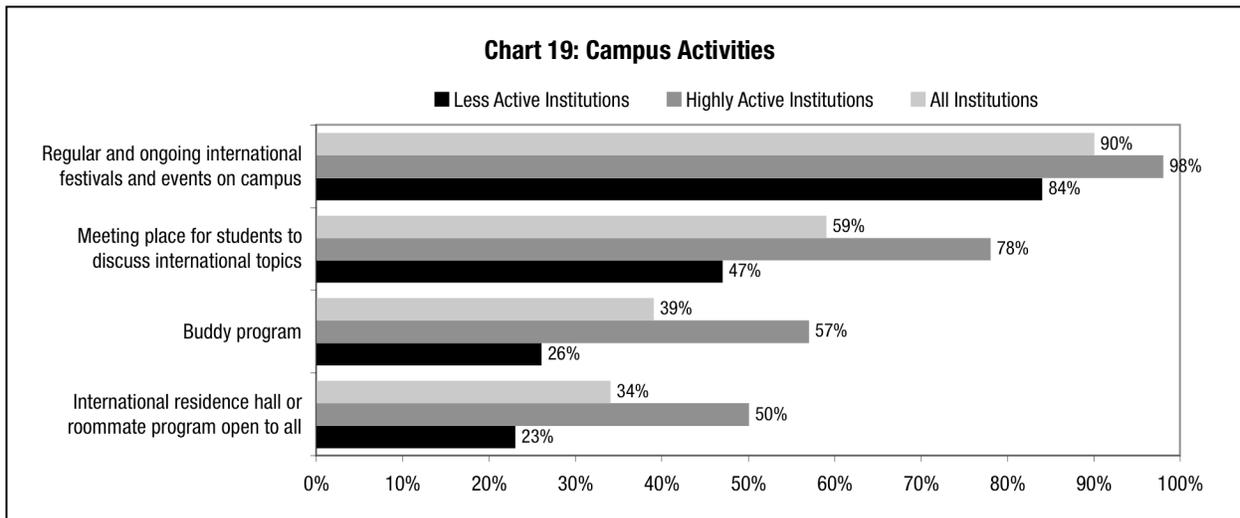


#### **Highly Active and Less Active Institutions Compared**

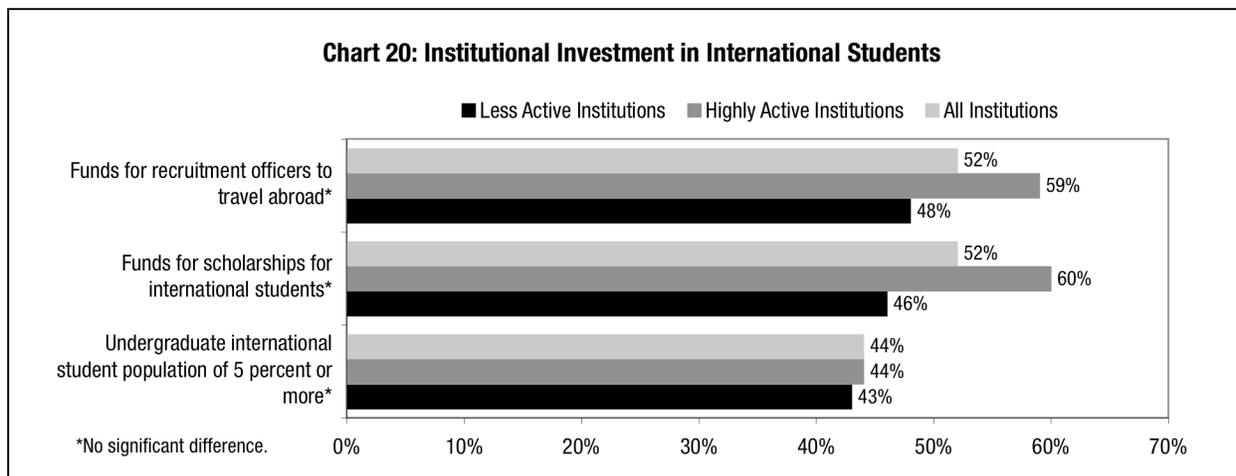
Research universities that were highly active in their internationalization efforts were more likely than less active institutions to fund on-campus international activities and students who study abroad. Specifically, they were more likely to earmark funds for ongoing international activities on campus—such as speaker series, language houses, or international centers—and for undergraduates to study or work abroad. However, both highly active and less active research universities were unlikely to fund undergraduate student travel abroad for meetings or conferences (see Chart 18 on next page).



Highly active institutions were more likely than less active institutions to offer regular and ongoing international festivals or events on campus, and to provide a meeting place for student discussions of international topics. Furthermore, they were more likely to offer programs that focus on providing opportunities for U.S. and international students to interact outside the classroom, such as buddy programs, international residence halls, and international roommate programs, although these programs were generally less common than study abroad (see Chart 19).



Highly active research universities did not appear to place greater priority on recruiting and supporting international students than did less active institutions. In fact, there was no statistically significant difference between the two types of universities in earmarking funds to recruit international students or provide them with scholarships (see Chart 20 on next page). The similar percentages of full-time undergraduate international students reported by both highly active and less active institutions (less than 5 percent at more than half of all research universities) may reflect that lack of priority. Because research universities were more likely to have international graduate students than international undergraduate students, this finding must be interpreted with caution.



### Least Likely Strategies

The survey responses also revealed a series of strategies that were unlikely to be used by either highly active or less active research universities. We identified internationalization efforts used by 50 percent or fewer of either type of institution (see Table 2).

**Table 2: Strategies Least Likely to Be Used by Research Universities**

	Highly Active Institutions (%)	Less Active Institutions (%)
<b>Articulated Commitment</b>		
• Had guidelines to consider international work in faculty promotion and tenure.	20	5
<b>Academic Offerings</b>		
• Had foreign language admission requirements for all undergraduates.	47	27
• Had foreign language graduation requirements for all undergraduates.	26	16
• Had foreign language residence halls open to all.	40	14
<b>Institutional Investment in Faculty</b>		
• Offered workshops for faculty to internationalize their courses.	47	19
• Offered opportunities for faculty to increase their foreign language skills.	41	8
• Offered faculty recognition awards for international activity.	43	14
<b>International Students and Student Programs</b>		
• Earmarked funds for students to travel abroad to meetings or conferences.	23	19
• Had international residence halls or roommate program open to all.	50	23

# Significant Correlations

Following these broad institutional comparisons, we conducted a correlation analysis to determine if there were statistically significant relationships between and among index items. Statistically significant relationships were found for almost all items in the index.<sup>7</sup> (Some of the relationships between the various types of internationalization efforts are carefully discussed here, noting only the possibility of cause and effect, and cautioning against assumptions of causation.)

- External funding helps further internationalization at research universities. All the items within the external funding dimension (seeking funds and receiving federal, state, and private funds earmarked for international education) have strong relationships to items in almost all other dimensions.
- Having an office and a campus-wide task force exclusively devoted to international education, two highly prevalent strategies in research universities, are strongly related to institutional investment in faculty and to supporting international programs and activities for students.
- Items in the academic offerings dimension were found to strongly relate to a variety of other items in the index. Specifically, having internationalized business and political science departments was strongly related to institutions' likelihood of offering faculty workshops on how to use technology to integrate an international dimension into courses. This correlation cannot be identified as a causal relationship, but does allow speculation that offering such workshops may help internationalize some departments.
- International study and work opportunities offered to undergraduates for credit (study abroad, international internships, service opportunities, and field study) were strongly related to earmarking funds for faculty to lead study abroad programs. It appears that research universities that offer undergraduate study or work abroad programs also are likely to support faculty involvement in some of those programs.
- The number of undergraduate students who study abroad was related to several other internationalization efforts, allowing speculation that strategies such as highlighting study abroad in recruitment literature, having programs that promote interaction of U.S. and international students outside the classroom, and offering internationally focused courses, may increase student awareness of opportunities. These strategies also may spark student interest in international and global issues and, therefore, the likelihood of studying abroad.
- Among research universities, having an articulated commitment to international education was not often related to other institutional efforts toward internationalization. Institutions determined to improve their internationalization efforts will need to pursue and implement efforts that go beyond formal statements and policies.

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<sup>7</sup> Statistically significant relationships with  $p \leq .01$  are reported.

# Conclusion: What the Data Suggest

The internationalization index enables comparisons among similar institutions and allows individual research universities to compare their own practices and policies with those of their peers. Further institutional analysis would be required to determine the importance of different dimensions of internationalization or their impact on faculty or students. The index provides a useful beginning, however, in identifying the key strategies used by highly active universities, especially when these are put in the larger context of other qualitative and quantitative research.

Case studies of internationalization practices developed by ACE through its Promising Practices project, its Global Learning for All project, and its Internationalization Laboratory corroborate the centrality of the strategies used by highly active institutions. Thus, the following conclusions reinforce the tenets of good practice that have been articulated throughout the literature and other investigations. They hold no surprises for internationalization leaders and practitioners:

- Articulated commitment to international education in mission statements and strategic plans is a first step, but is insufficient to promote high levels of internationalization. Such commitment is made real when translated into concrete policies and practices that promote internationalization. It appears that formal commitments, such as having internationalization included in mission statements and strategic plans, are not clearly related to other institutional efforts toward internationalization. While articulation of commitment is an important foundation, institutions determined to improve their international education must pursue and implement efforts that go beyond formal statements and policies.
- An established organizational infrastructure to support internationalization is typical of most research universities. However, having a campus-wide task force dedicated to advancing international efforts on campus and an office that oversees international education programs are strongly related to many other efforts, therefore suggesting that they are key to advancing internationalization.
- External funding is central to internationalization. The differences between highly active and less active institutions in this arena are noteworthy.
- Successful institutions excel in communicating widely about international education—through newsletters focused on international activities, internal e-mail communications, and specific systems to communicate students’ study abroad experiences. The one form of communication that appears to be underutilized by research universities is using the institution’s home web page to directly link to web pages on international education programs and activities.
- The mere presence of international students on a campus is not a major contributor to internationalization—more important are initiatives that provide opportunities for U.S. and international students to learn from one another outside the classroom, such as buddy programs, meeting places, and international residence halls or roommate programs. The percentage of research universities with full-time international students making up more than 5 percent of undergraduates was not related to other measures of internationalization nor did it significantly differ between highly active and less active institutions. This finding suggests that the degree of interaction between U.S. and international students outside the classroom may be more important than the number of international students. The experience of internationalization professionals and leaders corroborates this suggested finding.
- Although study abroad programs are often overemphasized in defining an institution’s internationalization efforts (and small proportions of students at either highly active or less active institutions actually study abroad), these programs are key international learning opportunities for the students who do participate. Institutions that want to encourage participation should consider offering programs that provide opportunities for U.S. and international students to interact and learn from one another, which strongly

related to the number of students who study abroad. Results also indicate that recruitment literature and offering courses with an international focus served to raise student interest in studying abroad. In addition, highly active institutions administered not only study abroad programs, but also international internships and field study for undergraduate credit.

- Although relatively few institutions had guidelines to consider faculty members' international work when making promotion and tenure decisions, such guidelines are likely to advance internationalization.
- Highly active institutions provided opportunities for faculty to enhance their international knowledge and skills by funding them to lead study abroad excursions or attend international meetings and research, and by offering workshops on internationalizing the curriculum. Research universities tend to invest more in faculty members' international experiences related to research than in efforts to help them internationalize the curriculum. This, then, is a potential area for further attention.

# Methodology

In 2001, ACE began to explore the extent of institutional commitment to internationalization and the strategies that institutions use to promote internationalization. To reach these goals, ACE conducted a national survey of higher education institutions. Following is a description of the research methodology used in the investigation of research universities. This methodology details the sample and response rate, survey development, the internationalization index, the six dimensions into which questions were categorized, and statistical analyses.

## Sample

The sample for the institutional survey was drawn from the population of regionally accredited research universities in the United States. Data were collected during the 2001–02 academic year, from institutional surveys mailed to the presidents of the sample institutions in September 2001. Of the 234 regionally accredited research universities in the nation (as defined in the Carnegie classification system), a sample of 223 (95 percent) was surveyed, of which 144, or 65 percent, responded. The 144 universities included 38 percent Research Universities I; 15 percent Research Universities II; 21 percent Doctoral Universities I; and 26 percent Doctoral Universities II.<sup>8</sup>

## Survey

To determine the characteristics of an institution deemed “highly active” in internationalization, ACE conducted a literature review and convened an advisory board of experts in international education. Based on this input, ACE defined “highly active” to mean having a high level of integration of international/global themes and content in the teaching, research, and service functions of the institution. An institutional survey instrument measuring internationalization was developed. The survey contained questions regarding the extent of the institution’s international activities, funds to support such activities for both faculty and students, and stated commitment to internationalization. (For a list of questions, see Boxes A–F in this report.)

## The Internationalization Index

The institutional survey designed to measure internationalization at postsecondary institutions also formed the basis of an “internationalization index,” which was used to assign a level of internationalization to each institution and allow categorization as highly active or less active. The categorization would become a variable used in further analysis.

ACE included several different types of questions on the survey. Some questions required a yes or no response; some offered a range of response choices (i.e., no students, some students, all students); and others were open-ended (i.e., the number of students studying abroad). In order to create the index, all of the questions used in the computation were coded to a zero/one scale so they would have the same relative weight in the index. Response values were recoded so that the possible valid range was from zero to one. Dichotomous questions (those with a yes or no response) were coded as zeros and ones. Questions with more than two responses, in which each response was progressively “better” than the previous one, were recoded so that each response was worth a progressively higher increment, and all increments were of equal value. For example, if a question had

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<sup>8</sup> At the time this study was conducted, the 1994 version of the Carnegie Classifications was in use.

three possible responses, valid values would be 0.0, 0.5, and 1.0. Continuous variables, such as the number of students who studied abroad or the number of foreign languages offered, were coded as follows: 0.0 for none; 0.5 for those with a response value equal to or less than the average for all responding research institutions; or 1.0 for those with a response above the average for responding research institutions. ACE eliminated several survey questions because they did not lend themselves to quantitative analysis or because of low response rates.

### **Six Dimensions and Scores**

Based upon the literature review and the qualitative analysis of survey items by experts in international education, ACE grouped the survey questions into six dimensions:

- Articulated commitment.
- Academic offerings.
- Organizational infrastructure.
- External funding.
- Institutional investment in faculty.
- International students and student programs.

Scores for each of the six dimensions were derived by summing the values of the variables used. These dimension scores were then corrected to reflect a zero-to-four-point scale. Correcting the scores for each dimension to the same zero-to-four-point scale normalized the dimension scores so that, although one dimension may contain more questions than another, no one dimension is weighted more than another. The dimension scores were then used to calculate the overall internationalization score.

### **Overall Internationalization Score**

After deriving scores for each dimension, ACE averaged the dimension scores for each institution to determine an overall score for that institution. When computing the overall score, the analysts viewed the academic offerings dimension as being more important than the others; consequently, this section was then adjusted to weigh 50 percent more than others.

An overall quintile ranking was achieved by assigning research institutions to quintiles based on their overall score. Because the institutions were placed into quintiles, 20 percent of the total was placed into each of the quintiles. Therefore, of the 144 research universities in the sample, 40 percent (58 institutions) were placed in the top two quintiles (the fourth and fifth quintiles) and were labeled “highly active”; 60 percent (86 institutions) were placed in the bottom three quintiles (the first through third quintiles) and labeled “less active.” The resulting overall score cut-off between the top two and bottom three quintiles was 2.30. Therefore, research universities categorized as “highly active” had an overall score greater than or equal to 2.30, and those categorized as “less active” had an overall score less than 2.30.

### **Adjusted and Unadjusted Scores**

Two sets of overall scores were computed, an unadjusted set and an adjusted set. The unadjusted computation was made based on the data as submitted by the institution. However, not all institutions responded to all questions. Therefore, adjusted overall scores were also computed in an attempt to compensate for non-response to the survey questions. If an institution responded to at least one-half of the questions within a survey section, its missing responses were replaced with the average response to that question by all other research institutions. Once the missing responses were replaced, overall scores and quintiles were computed in the same manner as for those that were unadjusted.

Analysts then compared a cross-tabulation of quintile assignment prior to adjustments with the assignment after the adjustments were made. In 124 of the cases, or 86 percent, the quintile assignment was the same regardless of which methodology was used; those that differed did so by only one quintile. For example, with the adjusted computation, three institutions moved out of the third quintile and into the fourth, and three moved out of the fourth quintile and into the third. The concern with the unadjusted computation is that it introduces more bias into the results than the adjusted computation; therefore, the adjusted index was used for the analysis.

### **Analysis**

Frequencies or means for each survey item were calculated for highly active and less active research universities, and across all universities. Chi-square tests were conducted to determine where statistically significant differences existed between proportions of highly active and less active institutions. Student *t*-tests were conducted to determine where statistically significant differences existed between means of highly active and less active institutions. Statistically significant differences were reported and discussed only when  $p \leq .05$  for a particular comparison.

Finally, ACE conducted a correlation analysis on the relationships among survey items. Statistically significant correlations were reported and discussed only when  $p \leq .01$ .

