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The Unifying Voice for Higher Education

Measuring Internationalization at Community Colleges

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Executive Summary

ow are community colleges internationalizing their curricula and student experiences? What strategies are common among colleges that have actively pursued internationalization? This report addresses these questions by examining the responses given by 233 community colleges 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, distinguishing "high activity" institutions 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 community colleges scored "low" (61 percent) as a measure of their overall level of internationalization. None scored "high."

Articulated Commitment

- The majority of community colleges (59 percent) scored "zero" or "low" in this dimension.
- Although not implemented by the majority, the most common forms of articulated commitment among
 community colleges were having guidelines to ensure that students who study abroad can graduate without
 delays (41 percent), and highlighting international education in their recruitment literature (34 percent).
- Highly active community colleges were more likely than less active community colleges to include international education in their mission statement (44 percent compared with 12 percent) and strategic plan (32 percent compared with 6 percent), and have assessed their internationalization efforts in the last three years (51 percent compared with 5 percent).
- Very few community colleges considered international work when evaluating faculty for tenure and promotion (3 percent).

Academic Offerings

- The majority of community colleges scored either "low" (51 percent) or "medium" (36 percent) on the availability of internationally focused academic offerings; none scored "high."
- The most prevalent strategy for all community colleges was offering study abroad for credit (38 percent).
- Highly active community colleges were more likely than less active community colleges to require students to take a general education course with an international focus (41 percent compared with 10 percent).

Organizational Infrastructure

- Just 2 percent of community colleges scored "high" in this dimension. Most scored "zero," "low," or "medium" (86 percent).
- The most prevalent strategies among all colleges were having an office that administered international education programs (61 percent), and using internal e-mail to communicate about international education
- Highly active colleges were more likely than less active colleges to have a campus-wide internationalization task force (76 percent compared with 23 percent) and a system to communicate about students' study abroad experiences (48 percent compared with 16 percent).

External Funding

- Fifty-eight percent of community colleges scored "zero" in this dimension. Just 2 percent scored "high."
- Thirty-eight percent of colleges actively sought external funds for internationalization; the most likely sources were private (18 percent) or federal (15 percent) funding.
- Highly active colleges were much more likely than less active colleges to seek external funds for international education (78 percent compared with 10 percent), and to receive private funding (38 percent compared with 4 percent), federal funding (34 percent compared with 2 percent), state funding (16 percent compared with 1 percent), or other external funding (11 percent compared with 1 percent).

Institutional Investment in Faculty

- The majority of community colleges were weak on investment in faculty members' international education: 38 percent scored "zero" and 37 percent scored "low" in this dimension. Only 1 percent scored "high."
- Community colleges were unlikely to provide funding or offer faculty development opportunities on campus. However, overall they were most likely to offer faculty workshops for internationalizing their curriculum (36 percent) and provide funding for faculty to lead study abroad programs (27 percent). Highly active community colleges were more likely than less active colleges to both finance and offer faculty development in international education.

International Students and Student Programs

- The majority of community colleges scored "low" in this dimension (71 percent), and none scored "high" or "medium-high."
- The most commonly used strategies used by all colleges were financing international activities on campus (40 percent) and offering ongoing international festivals and events on campus (47 percent).
- Highly active community colleges were somewhat likely to provide a meeting place for students to discuss international topics (44 percent) and funds for students to study or work abroad (33 percent).

Common Strategies of Highly Active Community Colleges

- 1. Seeking external funding and receiving private and federal funding for international education.
- 2. Having an office that oversees international education programs and a campus-wide committee that works solely on advancing international efforts on campus.
- 3. Emphasizing education abroad by highlighting international education in recruitment literature, and issuing formal guidelines concerning students' ability to study abroad without delaying their graduation.
- 4. Using the college's internal e-mail system to communicate with faculty and students about international education programs and opportunities, and establishing a system for communicating students' study abroad experiences.

- 5. Administering study abroad programs for undergraduate credit, and providing funding for students to study or work abroad.
- 6. Providing funding for faculty to lead students on study abroad programs, and to travel abroad to meetings or conferences.
- 7. Offering workshops and providing funding for faculty to internationalize their curricula.
- 8. Having an international general education course requirement and a history department with an average of 31 percent of courses that have an international focus.
- 9. Providing funding for and holding international activities and events on campus, and providing a meeting place for students to discuss international topics.

Introduction

ommunity colleges make up 42 percent of all higher education institutions, and enroll 40 percent of students. 1 Given the large population of students they serve, and the crucial role they play in providing preparing students for the workforce, their ability to prepare globally competent students is vital to the nation. And indeed, these institutions are no strangers to the national conversation on internationalization. While community colleges are historically focused on serving their local communities, the local community has become increasingly global, as community businesses expand overseas, immigration flows increase the ethnic diversity of towns, and worker mobility is an expected reality. The 1996 report of a national conversation convened by the American Council on International Intercultural Education and the Stanley Foundation concluded, "If community college educators care about the communities they serve, global education is an imperative, not an option." Consequently, the role of community colleges is changing to meet these new challenges.

The unique mission and student population associated with most community colleges pose a special challenge for internationalization. Community college students are generally older, work full or part time, and thus spend little time on campus. Most students are pursuing career-oriented curricula and their goals may not include transfer to a four-year institution. The combination of student goals and interests and the locally focused mission of community colleges poses special challenges for internationalization at community colleges.

How are community colleges 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 233 community colleges to an institutional survey conducted in 2001 by the American Council on Education (ACE) and funded by the Ford Foundation.³ 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, and distinguish "high activity" colleges from other, less active colleges. 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.

¹ The Carnegie Foundation for the Advancement of Teaching. (2000). The Carnegie classification of institutions of higher education. New York: Author.

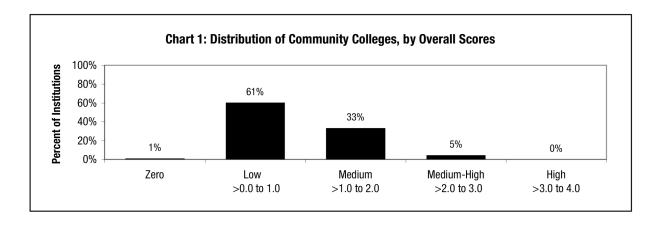
² American Council on International Intercultural Education (ACIIE) and the Stanley Foundation. (n.d.). Educating for the global community: A framework for community colleges. November 15-17, 1996, convened at Airlie Center, Warrenton, VA. See also ACIIE and the Stanley Foundation. (n.d.). Building the global community: The next step. November 28-30, 1994, convened at Airlie Center, Warrenton, VA.

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

- External funding.
- Institutional investment in faculty.
- International students and student programs.

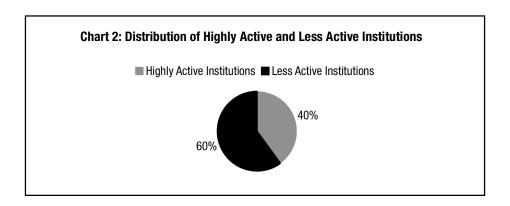
ACE distributed the survey to a national sample of community colleges. With data collected from a total of 233 community colleges, we quantitatively defined institutional levels of internationalization in each dimension, and rated their overall levels of internationalization. Each of the scores was based 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 community colleges surveyed (61 percent) received an overall internationalization score of "low" (>0.0 to 1.0). One-third scored "medium" (>1.0 to 2.0) (see Chart 1).



To define which community colleges would be categorized as "highly active" and which as "less active," the responding colleges were assigned to quintiles based on their overall internationalization score. Each of the quintiles contained approximately 47 institutions. Therefore, of the 233 community colleges, 40 percent (93 institutions) were placed in the top two quintiles (the fourth and fifth quintiles) and were labeled "highly active," and 60 percent (140 institutions) were placed in the bottom three quintiles (the first through third quintiles) and labeled "less active" (see Chart 2 on next page). The resulting overall score cut-off between the top two and bottom three quintiles was calculated to be 0.95. In other words, community colleges categorized as "highly active" had an overall score greater than or equal to 0.95, and those categorized as "less active" had an overall score less than 0.95. (For more information on the methodology and index scores, see the Methodology section on page 22.)

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



This report describes how community colleges 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 community colleges and differences between highly active and less active institutions.⁵

 $^{^{5}}$ Statistically significant findings are reported when p≤.05.

Comparing Highly Active and Less Active Community Colleges

Most Likely Strategies

The strategies used by the majority of highly active community colleges are sometimes used by many of the less active colleges, as well. To identify efforts that are more exclusive to highly active institutions, we determined which strategies implemented by the majority of highly active colleges (62 percent or more) were significantly less likely to be implemented by less active colleges (determined by a gap of at least 20 points between highly active and less active community colleges that employed that strategy). They are presented in the table below.

Table 1: Strategies of Highly Active and Less Active Community Colleges

		Highly Active Institutions (%)	Less Active Institutions (%)
Arti	culated Commitment		
•	Highlighted international education in recruitment literature.	65	14
•	Had policies to enable students to study abroad without delaying their graduation.	75	15
Aca	idemic Offerings		
•	Administered study abroad programs for undergraduate credit.	66	19
Org	anizational Infrastructure		
•	Had a campus-wide task force exclusively for international education.	76	23
•	Had an office that administers international education programs.	92	41
•	Used internal e-mail to communicate about international education.	83	33
Ext	ernal Funding		
•	Actively sought funding for international education.	78	10
Inst	titutional Investment in Faculty		
•	Offered faculty workshops for internationalizing curriculum.	62	19
Stu	dent Programs		
•	Earmarked funds for regular, ongoing international activities on campus.	72	18
•	Offered international festivals and events on campus.	69	33

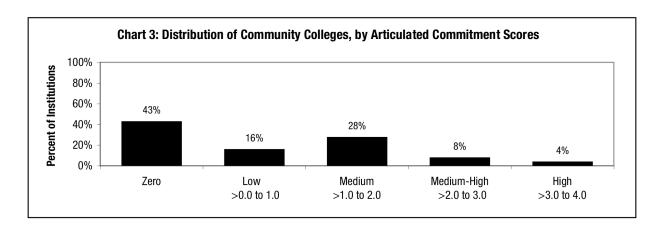
Articulated Commitment

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 on next page.)

Box A: Survey Questions on Articulated Commitment

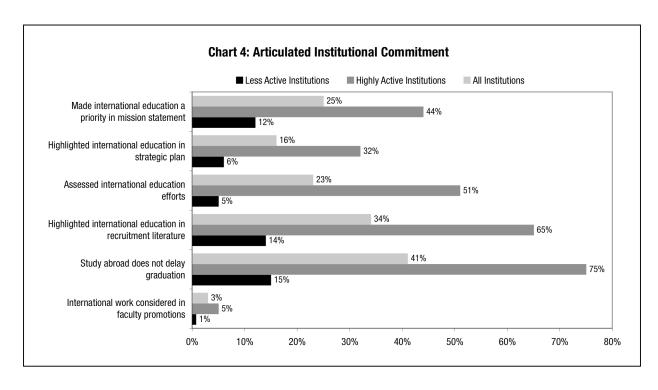
- Does your institution's mission statement specifically refer to international education?
- Is international education specifically stated as one of the top five priorities in your current strategic plan?
- Has your institution formally assessed the impact or progress of its international education 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?

More than half of community colleges scored "zero" or "low" in the articulated commitment dimension, suggesting a weakness among community colleges in this dimension (see Chart 3).



Highly Active and Less Active Institutions Compared

Overall, community colleges were most likely to have articulated their commitment to international education by issuing formal guidelines concerning students' ability to study abroad without delaying their graduation, and highlighting international education in their recruitment literature. Overall, one-fourth or fewer made international education part of their mission statement and strategic plan and assessed their internationalization efforts, and almost none had guidelines to consider international work when evaluating faculty for promotion and tenure. It appears that community colleges were more likely to be formally committed to efforts directly affecting students, and not necessarily to efforts affecting faculty or to institutional-level statements. Highly active institutions were more likely than less active institutions to exhibit all these forms of articulated commitment (see Chart 4 on next page).



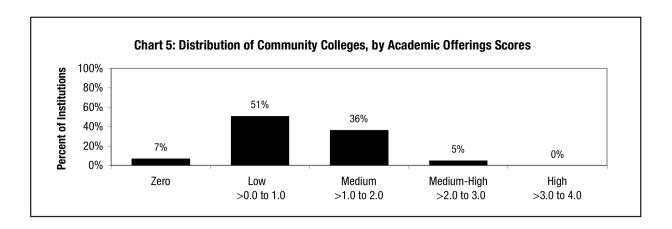
Academic Offerings

The second dimension of the internationalization index examines the availability of for-credit, undergraduate academic offerings with an international focus. This included 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.)

Box B: Survey Questions on Academic Offerings

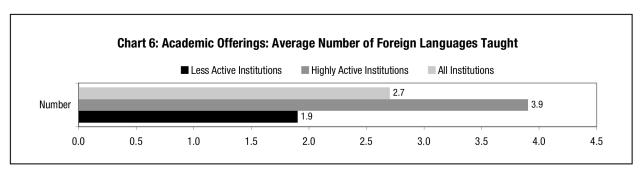
- Does your institution have a foreign language admissions requirement for incoming undergraduates?
- Does your institution have a foreign language graduation requirement for undergraduates?
- List the different foreign languages that were taught at the undergraduate level during the 2000–01 academic 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?
 - o Business
 - o History
 - Political science
- Did your institution administer for credit any of the following undergraduate programs last year?
 - Study abroad
 - o International internships
 - o International service opportunities
 - Field study
- How many undergraduate students at your institution studied abroad last year?

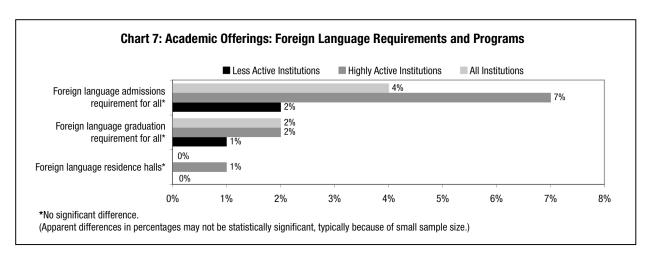
Most community colleges scored "low" or "medium" in the academic offerings dimension, suggesting some weakness (see Chart 5).



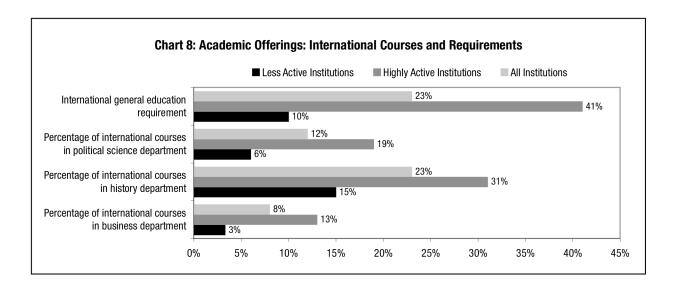
Highly Active and Less Active Institutions Compared

Very few community colleges emphasized foreign language learning. An average of almost three (2.7) foreign languages were taught at community colleges, and almost no community colleges had foreign language requirements. However, highly active community colleges offered more foreign languages than less active colleges (3.9 compared with 1.9). Both highly active and less active community colleges were equally unlikely to have foreign language admissions and graduation requirements for all students. Chart 6 and Chart 7 detail these findings.

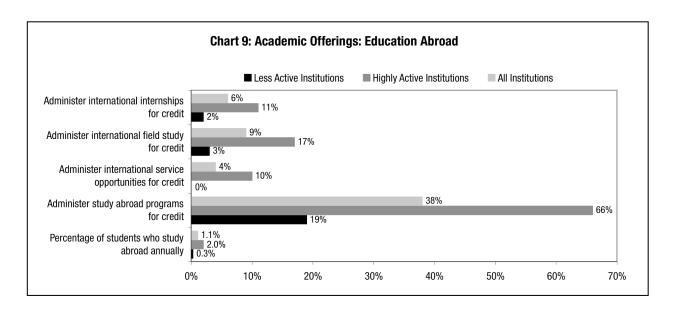




Highly active community colleges were significantly more likely to have international general education requirements and more internationalized history, political science, and business departments, than were less active colleges. However, overall, community colleges were unlikely to be committed to international education through course offerings (see Chart 8).



More than one-third of community colleges administered study abroad for credit, but less than 10 percent administered international field study, internships, or service opportunities. Relative to less active institutions, highly active institutions were more likely to administer all types of education abroad programs, and have a higher proportion of students who study abroad annually (2 percent compared with 0.3 percent) (see Chart 9).



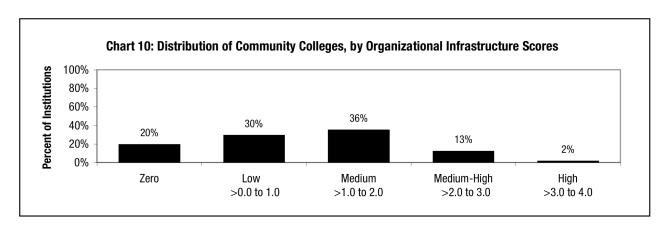
Organizational Infrastructure

This dimension reflects the resources 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 education office staff; and communications and technological support, through 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

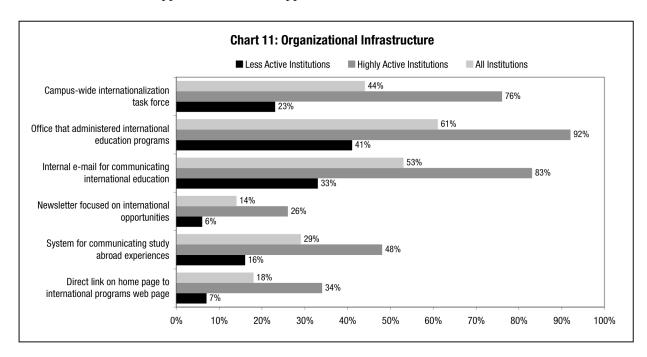
- Does your institution have a campus-wide committee or task force in place that works solely on advancing internationalization efforts on campus?
- Please select the response that most closely resembles the administrative structure of the international education activities and programs at your institution:
 - No office administers or oversees international education programs.
 - A single office administers or oversees international education programs exclusively.
 - o 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?

Most of the scores in Chart 10 range from "zero" to "medium," suggesting that many community colleges lack an organizational infrastructure for international education.



Highly Active and Less Active Institutions Compared

The organizational infrastructure of community colleges consisted of an office that administers international education programs, using an internal e-mail system to communicate with faculty and students about international opportunities and activities, and having a campus-wide task force exclusively for internationalization efforts. It was less likely for community colleges to have a system to communicate students' study abroad experiences, an internet homepage with direct links to an international programs web page, or an international newsletter or bulletin. Highly active community colleges were significantly more likely than less active colleges to make these efforts to support international support (see Chart 11).



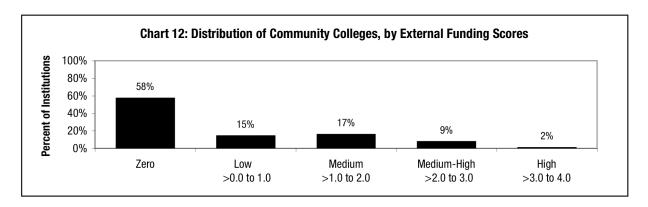
External Funding

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

Box D: Survey Questions on External Funding

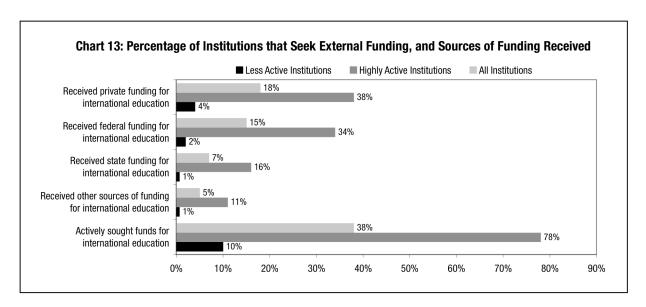
- Does your institution actively seek funds specifically earmarked for international education programs and activities?
- Did your institution receive external funding specifically earmarked for international programs and activities from any of the following sources in the last three years?
 - o Federal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

More than half (58 percent) of community colleges scored "zero" on the external funding dimension, and 15 percent scored "low" (see Chart 12). These scores demonstrate the lack of external funding for international education at most community colleges.



Highly Active and Less Active Institutions Compared

Overall, community colleges did not place a strong emphasis on external funding. A little more than one-third actively sought funding for international education and very few received funding for international education from private, federal, state, or other sources. Highly active community colleges were significantly more likely than less active colleges to actively seek and receive funds (see Chart 13).



Institutional Investment in Faculty

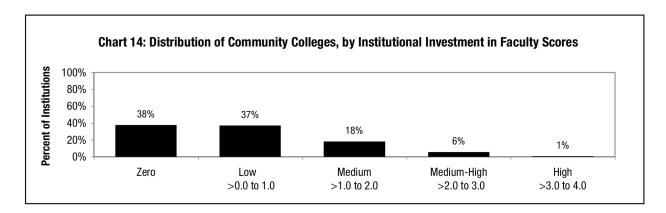
Faculty involvement is key to internationalization. Faculty members have the most direct contact with students and create the curriculum. In addition, because few students participate in education abroad or participate in international extracurricular activities, the classroom remains the primary means 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 groups, 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 in Faculty

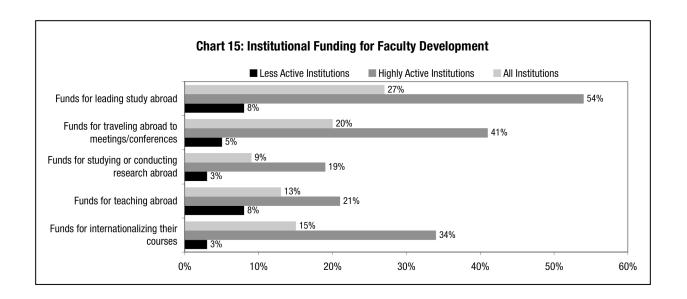
- Did your institution specifically earmark funds for full-time faculty to participate in any of the following international activities last year?
 - Leading undergraduate students on study abroad
 - o Teaching at institutions abroad
 - o Travel to meetings or conferences abroad
 - o Study or conduct research abroad
 - o Internationalization of courses
 - Other
- Did your institution offer any of the following opportunities to faculty members in the last three years?
 - o Workshops on internationalizing their curricula
 - o 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

The majority of community colleges scored "zero" or "low" on institutional investment in faculty (see Chart 14). These scores reveal the lack of support for faculty and opportunities for them to be involved in internationalization.

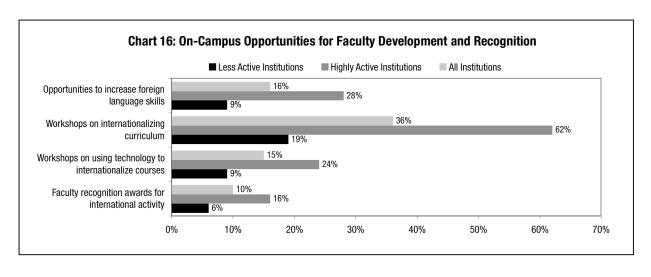


Highly Active and Less Active Institutions Compared

A minority of community colleges provided funds for faculty to increase their international skills. However, they were most likely to invest in international faculty activities by earmarking funds for faculty to lead study abroad programs or to travel abroad to meetings or conferences, rather than earmarking funds for them to travel to study, conduct research, or teach. Very few community colleges earmarked funds for faculty to internationalize their courses. Highly active colleges were significantly more likely than less active colleges to earmark funds for faculty to internationalize courses and to travel abroad for various purposes (see Chart 15 on next page).



Community colleges were unlikely to offer opportunities for faculty development in international education. However, they were most likely to offer faculty workshops to internationalize curricula (36 percent), as compared to the likelihood of offering workshops on using technology to internationalize courses (15 percent), opportunities for faculty to increase their foreign language skills (16 percent), and faculty recognition for international activity (10 percent). Highly active community colleges were significantly more likely than less active community colleges to offer faculty foreign language opportunities, workshops to help them internationalize their courses, and recognition for international activity (see Chart 16).



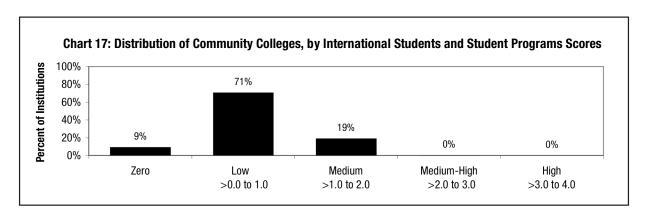
International Students and Student Programs

Students learn about international events, cultures, and issues through the various extracurricular activities offered on or 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 used to recruit international students, educate students abroad, and offer internationally focused campus activities; and the existence of programs aimed at socially integrating U.S. and international students on campus. (For a complete list of questions, see Box F.)

Box F: Survey Questions on International Students and Student Programs

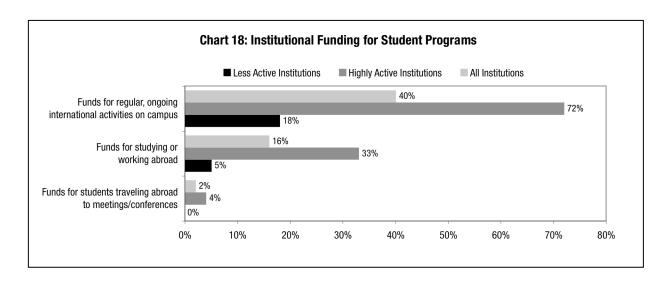
- Did your institution specifically earmark funds for any of the following activities to aid recruitment of full-time, degreeseeking international students at the undergraduate level?
 - Travel for recruitment officers
 - Scholarships for international students
 - o Other
- What percentage of full-time 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
 - o Language partner program that pairs U.S. and international students
 - Meeting place for students to discuss international issues and events
 - o Regular and ongoing international festivals or events on campus
 - o International residence hall open to all, or a roommate program to integrate U.S. and international students

Most community colleges scored "low" in the international students and student programs dimension. No community colleges scored "medium-high" or "high." The small variance of scores in Chart 17 shows the lack of emphasis on international student enrollment and on student programs emphasizing internationalization.

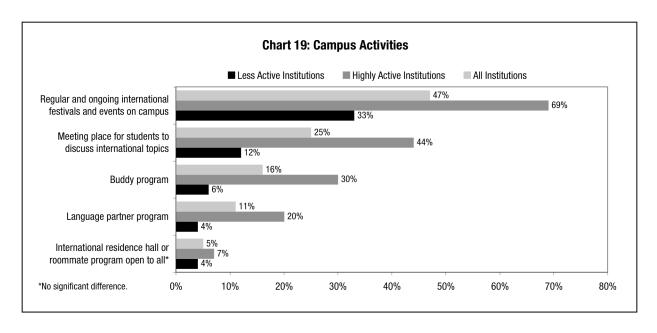


Highly Active and Less Active Institutions Compared

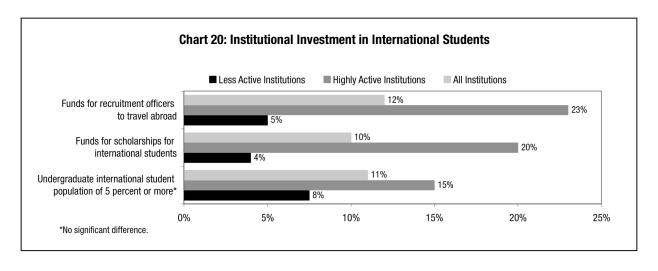
Community colleges were most likely to earmark funds for students programs such as regular, ongoing international activities on campus. Very few of them earmarked funds for students to study or work abroad. Almost none earmarked funds for students to travel abroad to meetings or conferences. Highly active community colleges were significantly more likely than less active institutions to earmark funds for all these student activities (see Chart 18).



Community colleges were most likely to provide on-campus international activities such as regular international festivals and events, and a meeting place for students to discuss international issues and events. Very few offered activities such as buddy programs, language partner programs, or an international residence hall or roommate program. Highly active community colleges were significantly more likely than less active colleges to offer all these types of activities, except for international residence hall or roommate programs, which both types of community colleges were equally unlikely to offer (see Chart 19).



Community colleges were not likely to place an emphasis on international students. A small minority earmarked funds for recruitment officers to travel abroad or for scholarships for international students. Furthermore, only 11 percent had an international student population of 5 percent or more of their full-time student population. Highly active community colleges were significantly more likely than less active colleges to fund the recruitment of and scholarships for international students. However, there was no statistically significant difference in the percentages of the two types of colleges with international student populations of 5 percent or more (see Chart 20). ⁶



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 $^{^{6}}$ Apparent differences in percentages may not be statistically significant, typically because of small sample size.

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 community colleges. We identified internationalization efforts used by 40 percent or fewer of either type of institution (see Table 2).

Table 2: Strategies Least Likely to Be Used by Community Colleges

	Highly Active Institutions (%)	Less Active Institutions (%)
Articulated Commitment		
Had a strategic plan with international education as one of the top five priorities.	32	6
Had guidelines to consider international work in faculty promotion and tenure.	5	1
Academic Offerings		
Had foreign language admission requirements for all students.	7	2
Had foreign language graduation requirements for all students.	2	1
Had foreign language residence halls open to all.	1	0
Administered international internships for credit.	11	2
Administered international field study for credit.	17	3
Administered international service opportunities for credit.	10	0
Organizational Infrastructure		
Had a newsletter focused on international opportunities.	26	6
Had a homepage direct link to international programs web page.	34	7
External Funding		
Received private funding for international education.	38	4
Received federal funding for international education.	34	2
Received state funding for international education.	16	1
Institutional Investment in Faculty		
Earmarked funds for faculty to internationalize their courses.	34	3
Earmarked funds for faculty to teach abroad.	21	8
Earmarked funds for faculty to study or conduct research abroad.	19	3
Offered workshops for faculty to use technology to internationalize courses.	24	9
Offered opportunities for faculty to increase their foreign language skills.	28	9
Offered faculty recognition awards for international activity.	16	6
International Students and Student Programs		
Earmarked funds for students to study or work abroad.	33	5
Earmarked funds for students to travel abroad to meetings or conferences.	4	0
Had a buddy program.	30	6
Had a language partner program.	20	4
Had international residence halls or roommate programs open to all.	7	4

Significant Correlations

ollowing 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. (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.)

- Articulated commitment, as measured by having a mission statement that specifically refers to international education, having international education stated as one of the top five priorities in the strategic plan, having a formal assessment of international efforts in the last five years, highlighting international education in recruitment literature, and having guidelines to ensure that students can study abroad without delaying their graduation, was strongly related to earmarking funds for international activities and events on campus. This suggests that articulated commitment at community colleges is likely to be realized in on-campus international activities and events.
- One type of formal commitment, highlighting international education in recruitment literature, was
 strongly related to academic offerings. It appears that if community colleges advertise their commitment
 to international education in their recruitment literature, they are likely to offer study abroad for credit,
 have more students study abroad, offer more foreign languages, and offer more business and political
 science courses with an international focus.
- The academic offering items that were related to most other internationalization efforts were the number of foreign languages taught, having an international general education requirement, offering study abroad programs for credit, and the number of students who study abroad, suggesting that these were the primary strategies for internationalizing students' academic experience.
- The number of community college students who study abroad was strongly related to the college earmarking funds for students to study or work abroad, suggesting that funding is crucial.
- It appears that having a campus-wide task force and an office exclusively for international education are
 most important to the community college infrastructure because they were strongly related to almost all
 other efforts toward internationalization.
- Having established systems to communicate with faculty and students about international education
 opportunities and activities (e-mail, newsletter, and web pages) was related to other internationalization
 efforts. Those types of communication appear to be effective at increasing awareness and interest in international education because all communication methods were significantly related to the number of
 students who study abroad.
- External funding helps further internationalization at community colleges. Actively seeking funds for international education programs and activities was strongly related to almost all other internationalization strategies.

⁷ Statistically significant relationships with p≤.01 are reported.

- Earmarking funds for faculty to internationalize their courses and offering workshops for faculty to internationalize their curriculum were strongly related to academic offerings. Specifically, they were related to the number of foreign languages taught, and the percentage of courses with an international focus in the business, history, and political science departments. This suggests that institutional support for faculty to internationalize their courses may result in increased international offerings for students.
- Having guidelines that specify international work or experience as considerations in faculty promotion and tenure decisions and offering faculty recognition awards for international activities were related to very few other efforts, suggesting that faculty recognition is not an important element of internationalization at community colleges.
- International students were not central to internationalization efforts at community colleges. Earmarking funds for recruitment officers to travel abroad, earmarking funds for scholarships for international students, and the percentage of colleges with full-time international students making up more than 5 percent of the student population were related to very few other strategies.
- In terms of student programs, the emphasis at community colleges was on-campus activities and opportunities. Earmarking funds for and offering regular ongoing international activities on campus, and having a meeting place for students to discuss international issues and events were related to the majority of other internationalization strategies.

Conclusion: What the Data Suggest

he internationalization index enables comparisons among similar institutions and allows individual community colleges 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 what key strategies highly active institutions use, 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:

- Most highly active community colleges articulate their commitment to international education in their recruitment literature and study abroad guidelines, but often lack other, more formal commitments. In addition, articulated commitment is related to supporting international festivals and events on campus. It appears that community colleges emphasize articulating commitments that directly affect students but not commitments on an institutional level or those that affect faculty. More formal institutional statements and commitment to faculty might provide a foundation for a broader array of internationalization policies and practices.
- Study abroad programs are central to the international academic opportunities offered to students at highly active community colleges. Although only 2 percent of students at highly active community colleges study abroad, the percentage is strongly related to earmarking funds for students to study abroad. The small portion of students who study abroad may be, in part, because of the lack of financial support provided to them. Other forms of internationalizing students' academic experience at community colleges are international general education requirements and foreign language course offerings.
- International education in on-campus student programs is most likely offered through international
 festivals and events, and meeting places for students to discuss international topics. Although only a
 minority of community colleges offer such programs, they are much more likely to provide these student
 opportunities than other opportunities in which U.S. and international students interact outside the
 classroom, such as buddy programs and language programs.
- Internationalization efforts at community colleges generally do not emphasize institutional investment in faculty. However, more than one-third of community college offers workshops for faculty to internationalize their courses. When this type of faculty support is provided it appears to be effective, as evidenced in the strong relationship found between both financing and offering internationalization workshops and the percentage of courses with an international focus in the history, business, and political science departments.
- Formal guidelines to consider international activity in faculty promotion and tenure decisions, and offering faculty recognition awards for international activity are extremely uncommon. More faculty support could increase international course offerings and student interest in international education.
- External funding for international education, although linked to an array of internationalization strategies, is weak among community colleges. Highly active colleges are more likely than less active colleges to seek external funds and to receive private and federal support.
- An established organizational infrastructure to support internationalization is not typical of most community colleges. Having an office dedicated to overseeing internationalization and using internal e-mail to

- communicate about international education are the key aspects of a community college's infrastructure for advancing internationalization.
- The percentage of community colleges with full-time international students making up more than 5 percent of the student population was not related to other measures of internationalization and did not distinguish highly active colleges from less active colleges. Furthermore, practices to recruit international $students\ were\ uncommon\ and\ unrelated\ to\ other\ internationalization\ strategies.\ These\ findings\ suggest$ that the presence of international students is not central to internationalization at community colleges.

Methodology

In 2001, ACE began to explore the extent of institutional commitment to internationalization and the strategies 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 community colleges. 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 community colleges 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 1,070 regionally accredited community colleges in the nation (as defined in the Carnegie classification system), a random sample of 552 (52 percent) was surveyed, of which 233, or 42 percent, responded.

Survey

To determine the characteristics of an institution "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 an 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 for an "internationalization index," which was used to assign a level of internationalization for each institution and allow categorization as "highly active" or "less active." This 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 openended (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 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 is 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 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

 $^{^{8}}$ At the time this study was conducted, the 1994 version of the Carnegie Classifications was in use.

a response value equal to or less than the average for all responding community colleges; or 1.0 for those with a response above the average for all responding community colleges. 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 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 the others.

An overall quintile ranking was achieved by assigning community colleges to quintiles based on their overall score. Because the colleges were placed into quintiles, 20 percent of the total was placed into each of the quintiles. Therefore, of the 233 community colleges in the sample, 40 percent (93 institutions) were placed in the top two quintiles (the fourth and fifth quintiles) and were labeled "highly active"; and 60 percent (140 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 0.95. Therefore, community colleges categorized as "highly active" had an overall score greater than or equal to 0.95, and those categorized as "less active" had an overall score less than 0.95.

Adjusted and Unadjusted Scores

Two sets of overall scores were computed, an unadjusted 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 also were 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 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 223 of the cases, or 96 percent, the quintile assignment was the same regardless of which methodology was used; those that differed only did so by one quintile. For example, with the adjusted

computation, two institutions moved out of the third quintile and into the fourth, and one moved out of the second quintile and into the first. 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 community colleges, and across all community colleges. 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 the means of highly active and less active institutions. Statistically significant differences were reported and discussed only when $p \le .05$ for a particular comparison.

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

