

CU-Boulder: A Global Research University

Report of The Task Force on International Graduate Education

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Executive Summary

The Task Force was established by the Graduate School in January 2006 and was charged with creating strategies for bringing a global dimension to graduate education. It met monthly to assess campus efforts and make recommendations for enhancement.

Campus strengths are considerable: outstanding faculty, highly ranked programs, and existing international partnerships provide a magnet for attracting high quality international students and high visibility international projects. The Office of International Education, Graduate Teacher Program, Continuing Education and Professional Studies, ATLAS and the International English Center offer strong administrative support for conventional classroom and distance education. Colorado has a well-educated workforce. Boulder is home to federal agencies and global businesses that would support a greater international presence. The campus enjoys a beautiful setting in a community welcoming of diversity.

Challenges in expanding and solidifying CU's international reputation are also considerable. Enrollments are low for both foreign and domestic graduate students. International tuition is high, assistantships are few, fellowships even fewer. Funding for recruiting efforts -- which vary widely by department -- is often non-existent. The case for a globally engaged campus has not been consistent, clear and forceful. A sustained dialog on the value of an international focus has not occurred. Meantime, competition for students, partnerships, collaborations and cutting edge projects is increasing both nationally and internationally.

Our recommendations center on personnel, infrastructure and incentives for expanding the CU-Boulder presence as a global research university and include the following as priorities:

1. Create a senior level administrative position for international education, a campus leader and advocate on the senior management team who will take a strategic approach to international initiatives, assure their alignment with overall campus goals, generate resources and opportunities and bring cohesion to the wide array of work already being undertaken through the creation of a Center for Global Education and Research.
2. Improve communications on the importance of international engagement and global citizenship. Underscore these themes frequently and forcefully; CU's identity as a global research university should become part of our collective identity and be supported with program development, funding and staff.
3. Expand and improve funding for tuition, fellowship support and recruiting to increase CU's international graduate population. Research, teaching and creative work efforts similarly require additional financial and staffing resources if they are to expand and flourish. This is especially crucial in the non-STEM areas where the impact of revised tuition policies has been minimal.
4. Reward and encourage international work. CU faculty, students and staff are engaged in numerous activities with international dimensions. Their work needs to be acknowledged,

encouraged and rewarded in annual evaluations, promotions and tenure and highlighted in campus advertising, marketing, and other communications

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I. Introduction:

Graduate education in the 21st century is increasingly a global enterprise. Major universities in the United States are creating overseas partnerships, competing for the best foreign students, and building satellite campuses thousands of miles from home. Professional master's programs and graduate certificates have become "America's Hot New Export" according to The Chronicle of Higher Education (Feb. 17, 2006). So widespread are these activities that they are routinely reported not only in The Chronicle, but also in the Wall Street Journal and The New York Times and tracked by sites such as the Observatory on Borderless Higher Education (<http://www.obhe.ac.uk/aboutus/inthenews.html>).

Going global is not media hyperbole. The case for international collaboration has been powerfully articulated and fostered by the most influential institutions in graduate education. In 2005, to cite one prominent example, the Council of Graduate Schools (CGS) initiated Project 2020 calling for a decade-long dialogue on future trends in graduate education from a global perspective. In one of the first formal responses, Dean Debra B. Carlin of the University of Kansas told her colleagues that while the US system remains the gold standard, educators must go beyond content and research methods in training today's graduate students. Collaborative research projects, team building, and intercultural awareness are now necessary components of a top quality graduate curriculum (see Carlin, Graduate Students in 2020: New Perspectives).

The National Science Foundation (NSF) has similarly called for greater international engagement in American graduate education. Its Partnerships for International Research and Education (PIRE) program is a multi-year, multi-million dollar funding effort designed to "catalyze a cultural change in U.S. institutions" through international research collaborations. It describes such projects as being "increasingly indispensable" and cites the critical importance of "operating effectively in teams comprised of partners from different nations with different cultural backgrounds." (NSF)

The importance of such training goes beyond science and engineering fields. As Carlin pointed out in her presentation to CGS, more students with graduate degrees in all fields will work outside of the U.S. at various points in their careers. Additionally, more students are coming into graduate programs already having international experiences and expecting that they will continue.

Against this backdrop, the Task Force on International Graduate Education was established in January 2006 and charged with creating strategies for bringing a global dimension to teaching, scholarship, research and creative work at UCB that "recognizes the increasing importance of working across national boundaries not only in science and engineering but also in the arts and humanities" (Stein Sture, communication to the committee). Task Force members include faculty, researchers and administrators from Business, Engineering, Arts & Sciences, Music, Journalism and Mass Communication, Continuing Education, Office of International Education, the International English Center, and Admissions.

At monthly meetings, members looked across disciplines at different but related aspects of international graduate education: recruiting top quality non-U.S. students to CU-Boulder's graduate programs; increasing opportunities for graduate students to participate in international research teams and projects; enhancing, expanding and supporting international work undertaken by faculty; examining current campus practices and making suggestions for improvements.

In an effort to gather data on a variety of pertinent topics, the Task Force (1) compiled background information and statistics, (2) conducted a departmental survey, (3) conducted a faculty survey, (4) conducted a faculty focus group and (5) assessed the Graduate School website. These activities, presented in full at the end of the report, informed the Task Force assessment of campus strengths and weaknesses as well as the recommendations and conclusions in the report.

II. Background Information and Statistics

Number of international students at UCB (10 year timeline)

In 2006, there were 656 international graduate students at CU Boulder, representing 14.7% of the 4,458 degree-seeking graduate students (University of Colorado, 2007a; University of Colorado, 2007b)¹. This compares to a recent CGS survey, which reports that 24% of the enrolled students in Public Research I universities are non-U.S. citizens and temporary residents. The following table indicates the percent of the graduate student population represented by international students at selected universities (figures exclude students in professional schools):

University	% Grad Pop International	# Int'l Grad Students/ # Total Grad	Source
University of Colorado (Fall 06)	14.7 %	656/ 4,458	(University of Colorado, 2007a; University of Colorado, 2007b)
University of Texas, Austin (Fall 06)	26.6%	3,018/ 11,353	(University of Texas, 2007)
Texas A&M (Fall 06)	37.1%	3,065/ 8,291	(Texas A&M, 2006)
University of Michigan (Fall 06)	26.0%	2,845/ 10,923	(University of Michigan, 2006)
University of Iowa (Fall 06)	25.1%	1,353/ 5,388	(University of Iowa, 2007)
Purdue University (Fall 06)	41.9%	2,942/ 7,023	(Purdue University, 2007)
University of Wisconsin (Fall 06)	26.5%	2,343/ 8,832	(University of Wisconsin, 2006)
University of Illinois (Fall 06)	33.7%	3,497/ 9,362	(University of Illinois, 2006; R. Malik, University of Illinois International Programs & Students, personal communication, 2007)
Colorado State University (Fall 06)	14.2%	517/ 3,636	(Colorado State University, 2007)

¹ Data collected by combining the total number of international graduate students provided by the CU Office of International Education (University of Colorado, 2007a) and the number of total graduate students provided by the CU Office of Planning, Budget, and Analysis (University of Colorado, 2007b).

Compared to other Research I (or Research Extensive) universities and the CGS report, the international graduate student population at CU Boulder is low.

The following chart shows CU's international graduate population from 1997-2006. Although CU experienced an increase in the percent of its international graduate population in 2006, its numbers still remain below the record set in 2002-03.

CU Boulder International Students 1997-2006 Data from University of Colorado, 2007a; University of Colorado, 2007b		
Year	Int'l Grad/Grad	Percent International
1997-98	651/4672	13.9%
1998-99	679/4530	15.0%
1999-00	657/4818	13.6%
2000-01	693/4680	14.8%
2001-02	779/4742	16.4%
2002-03	858/4895	17.5%
2003-04	758/5010	15.1%
2004-05	718/4860	14.8%
2005-06	627/4515	13.9%
2006-07	656/4580	14.3%

The following chart shows the percent of international students by region at CU Boulder for Fall 2006:

CU Boulder International Students by Region Fall 2006 Data from Office of International Education, 2007	
Asia	59%
Europe	17%
Latin America	10%
Middle East	8%
North America	3%
Africa	2%
Oceania	1%

III. Assessing CU-Boulder

Strengths

Despite relatively low percentages of international graduate students in residence here, the strengths of the Boulder campus make it a premier destination for graduate study. CU's excellence in the STEM (Science, Technology, Engineering and Math) areas is widely recognized. Additionally, its strong and long-term partnerships with the local federal agencies of NIST, NOAA, NREL and NCAR create a highly competitive, unique package for attracting international students, a large number of whom work in the STEM areas.

The Arts, Humanities and Social Sciences areas enjoy strong reputations as well. Of particular note is the high level of interdisciplinary work done at 90 centers, institutes and laboratories located on the campus. The Center for Humanities and the Arts, the Center of the American West, the Visiting Artist Program, the Visiting Scholar Program, Artsbridge, First Person Cinema, and Takacs String Quartet are just a few examples of important entities that enrich the campus (for complete list, see <http://www.colorado.edu/research/>).

Some aspects of the campus are particularly important to the further development of CU's international profile through either administrative support or academic excellence and we highlight them here for that reason.

ATLAS: This facility provides state of the art production and studio facilities for learning and teaching with distance and other technologies that are increasingly useful in international research, scholarship, creative work and teaching collaborations. Teleconferencing facilities also enable international students and faculty to communicate face to face with counterparts in their home countries.

Center for Asian Studies: CAS is one of three National Resource Centers (NRC) for Asian language and area studies designated by the U.S. Department of Education. Interdisciplinary in its approach, CAS offers grants, fellowships and other support to international and domestic graduate and undergraduate students and to faculty engaged in research, teaching, and outreach related to any area of Asia. It sponsors internships, speaker series, performances and film series, as well as seeding new faculty lines and supporting curricular development related to Asia. A recipient of more than \$2 million in federal funding, as well as nearly \$10 million in private foundation support, CAS is a powerful asset in the internationalization of the Boulder campus.

Continuing Education and Professional Studies: This unit offers an array of opportunities for international students who are seeking graduate training but not necessarily in the context of a degree program. Credit and non-credit certificate programs are currently offered in business, management, engineering, business communication and advertising. Other certificate programs have been developed for specific groups of international students who wish to upgrade their skills and knowledge base. Additionally, more than 20 campus departments offer self-paced CEPS courses on line.

CU Faculty: Faculty interest in international projects is considerable. A demonstration of this came in Fall 2006 when dozens of faculty members attended an open forum hosted by the Graduate School Dean to discuss their proposals for the NSF's international partnerships initiative. Similarly, in the Task Force faculty survey, 78 percent of respondents reported international activities in either teaching, research, scholarship or creative work.

Graduate Teacher Program: Widely recognized as a model for post-secondary teacher education and professional development, GTP offers fall and spring teaching intensives, weekly workshops in areas such as interactive learning, grading, learning styles, academic integrity, classroom diversity, teaching science, teaching art, creating teaching portfolios and applying for postdoctoral or faculty positions, videotape consultation on teaching, and classroom language and culture workshops for international teachers. These sessions are free to all graduate students.

International English Center: One of the biggest concerns for incoming foreign students and for departments recruiting them is their ability to communicate in English. IEC offers a comprehensive, individualized assessment of written and spoken language skills. Courses in accent reduction, academic writing, and advanced written composition are offered regularly and can be an enormous benefit to those incoming international students who need to improve their language skills.

Office of International Education: OIE, the primary resource for campus international activities, is nationally recognized for the strength and quality of its programs for both study abroad and international student services. It sends more than 1,200 students a year to countries all over the world, typically for year-long or semester-long stays. It manages exchange processes for all inbound and outbound students, completes visa processing and offers orientations for all incoming international students and scholars; it provides faculty with information on how to bring international colleagues to the campus. OIE is the campus Fulbright office for both outbound U.S. applicants and for inbound international students and scholars.

Weaknesses

Despite all that CU-Boulder has to offer, its considerable strengths are not consistently articulated to internal and external constituents, nor are they marshaled in a coordinated, comprehensive effort to globalize the campus. The weaknesses described to and by the Task Force coalesce around time, money, communication and leadership.

Assistantship Funding and Tuition: As noted above, the number of international students on the campus is low compared to peer institutions. According to OIE, Boulder ranks 11th among the Big 12 in international student enrollment and is second lowest among AAU public universities.

High tuition costs for international students and the relatively small number of assistantships funded by the university, especially in non-STEM areas, are major weaknesses for the campus and impose critical limits to international recruiting. Departments responding to the Task Force survey say lack of funding for assistantships is the single most severe and significant issue they

face. Fully 75% of departments say they want to increase the number of international graduate students in their units. Nonetheless, professors who bring students in on appointment are reluctant to take on what has been the added expense of an international student, especially if there are concerns about the student's English skills. Currently, 55 % of responding departments say they do not actively recruit international students. Furthermore, the revised tuition policy for international students on appointment has been felt asymmetrically on campus. Because of relatively large numbers of assistantships offered annually, STEM disciplines report significant benefits. Arts and humanities have seen no corresponding flow of money into their departments. CU needs a more integrated approach to the allocation of funds for assistantships and for the use of fellowship monies that takes these disciplinary differences into account.

Communications Practices: Too frequently, communication among academic departments, Admissions, OIE, the Graduate School and other units on campus lacks coordination. Tools such as websites are not being used to maximum benefit. Departmental and Graduate School websites don't link to one another. In our survey, 89% of responding departments say they use their websites for recruiting, but only 15% report having website materials specifically directed at international students. Similarly, 81% of departments say they use print recruiting materials, but only 19% have materials aimed at international students.

The use of educational agencies (15%), overseas testing centers (11%), and advertising (19%) is low.

Data Collection: Useful data are not housed in one central location and can require time intensive research to obtain. CU does not have an easily accessed, comprehensive list of international projects being undertaken by faculty, although our survey indicates that many faculty members are engaged in such projects. Prospective international students in particular would benefit from having this information readily accessible. Additionally, CU has largely ignored the infrastructure needs associated with large-scale institutional research initiatives such as NRC grants. Seed grant funds, to take just one example, should be available for faculty who are proposing to write a large grant application.

Lack of Centralized Leadership: Faculty cite the need for campus leaders to clearly, consistently and forcefully articulate a vision of CU-Boulder as a global research university to all campus constituents. Departments and faculty repeatedly describe the need for more and better leadership, including "a coordinated effort by the Graduate School for publicizing CU programs" worldwide and for "informing individual faculty, departments and directors about opportunities at CU for international students," to quote one survey respondent.

Many schools smaller than CU-Boulder have a Vice President or Vice Chancellor for International Affairs but CU does not. This lack of centralized leadership has a negative impact on efforts to globalize the campus.

Language Support: Many international students have a difficult transition to the CU campus because of language and cultural issues. Yet, 70% of departments report that they do not provide information via web links or print materials to the language assessment and training offered by the International English Center. Departments say they want CU to support development of

English language skills for incoming students. This might take the form of summer instruction or intensives through the International English Center and the Graduate Teacher program.

Policies and Practices: The campus lacks clear policies and uniform procedures with respect to a wide range of international topics, including faculty and student exchanges, for-credit exchanges, research visits, certificate programs, degree and non-degree programs, dual and joint degrees, etc. (Tan, OIE, personal communication February 16, 2007). This assessment is supported by our faculty survey and by the Task Force members, one of whom notes: "It is not clear what the policies are, what the guidelines are and what the restrictions are."

Faculty report being entrepreneurial with respect to international collaborations; this should be encouraged since it often yields positive results. But, a variety of agreements have been signed by faculty and departments that have not gone through the Office of International Education (OIE) or the Graduate School. In our faculty survey, 95 international research collaborations are identified that operate under some kind of formal partnership agreement. Another 151 international collaborations operate without a formal agreement. At present the campus does not have a complete list of agreements that are in place.

Memoranda of Understanding: These documents are used by partnering institutions to describe intended collaborations on research, scholarship, creative work, teaching or on student exchanges. In 2006, the university developed a series of MOUs, each describing a different type of collaboration (an honorific agreement, a research agreement and a student exchange agreement) between CU and a potential partner institution. These are designed to standardize the language of agreements and the process for executing them. Yet faculty, deans and graduate program directors are not widely aware of them. Faculty report that co-operative initiatives typically require formal structures between universities, yet faculty who have gone through university channels report that MOUs and similar agreements can be difficult to execute in a timely fashion. (see MOU templates in the Appendix)

Recruiting: At the graduate level, recruiting typically is a de-centralized, department-based process that results in a wide variation of practices and priorities. In our surveys, departments and faculty say financial support for recruiting international graduate students is weak.

The use of alumni and faculty to facilitate recruiting efforts is limited. Most departments (56%) do not work with their alumni networks for international recruiting. Faculty and personal contacts are considered the most significant recruiting tools for 70% of responding departments. One respondent notes that the department's "very diverse faculty who travel are also great diplomats and representatives of our department, including those who themselves were born overseas and natively speak languages other than English." Yet there is no formal, systematic program to support, encourage and facilitate recruiting efforts by faculty when they travel-- something departments say they want.

Funding to bring international students to the campus for interviews is also desired by but not available in most departments. Departments and faculty see a critical need for more recruiting by deans.

Opportunities

Colorado has a well-educated population, a concentration of high paying jobs and is a center of high tech activity. Its per capita income is 8th highest in the nation and it ranks fourth in venture capital investments. The decades ahead will see a continued expansion of the population.

Demographic projections show a 43% population increase globally, a 20% increase nationally and a 55% increase in the State by the year 2030. Population gains in Colorado will be most significant among Spanish speaking populations. CU has an opportunity to serve the educational needs of this growing population, which most certainly will include graduate education. Serving the needs of a growing Spanish-speaking population offers a clear opportunity for the creation of a second NRC on the campus.(http://www.dola.state.co.us/dlg/demog/pop_totals.html)

Demand for graduate study is increasing nationally and internationally and will continue to do so. As the preeminent university in the region with unique strengths in interdisciplinary and STEM areas, CU-Boulder has a significant opportunity to expand its graduate programs and to increase its international graduate student population. Professional master's programs, which will become increasingly vital to the national workforce, offer particularly important growth opportunities. (See in the Appendix -- Graduate Education: The Backbone of American Competitiveness and Innovation)

The campus is engaged in a strategic planning process in which graduate education and international activities are being prominently discussed. One part of the draft document recognizes the need for a more diverse student body, including the need for more international students. It also calls for the creation of Vice Chancellor for International Studies (2030 draft report).

As Flagship 2030 moves forward, resources will be allocated to implement at least some of its recommendations. That process offers an opportunity to advocate for funding to support international graduate study.

Perhaps the most significant opportunity at hand is in leveraging the extensive international work already being undertaken by UCB faculty. Hundreds of faculty members are already networked with international colleagues and their institutions. These connections, which already provide the campus with a global profile, could be more systematically utilized not only for recruiting students but also for expanding many of the initiatives under discussion here. CU has a strong set of study abroad offerings for undergraduates. But the needs and expectations for international work are considerably different at the graduate level. Programs need to be highly individual, interactive with CU faculty, and focused on research and creative work collaborations with international teams.

Threats

Competition for the best students is a global enterprise. Top universities in Australia, Canada, New Zealand, the UK and across the EU have funding to support strong recruiting efforts. At the

same time, China, India and other countries with rapidly developing economies are aggressively seeking international partnerships worldwide. Students who come to the U.S. for graduate work are increasingly likely to return to their home countries after completing their studies to pursue attractive career opportunities there.

Within the U.S., competition comes from both smaller institutions and AAU peers, many of which already have comparatively larger international student bodies. Within the state, Colorado State University, Colorado School of Mines, and UCDHSC all are competing with CU-Boulder for federal and local dollars, as well as for international students and faculty.

As competition increases for scarce resources, UCB, and the Graduate School in particular, is challenged to convey the economic importance of its innovations in research, scholarship, creative work and teaching to legislators, entrepreneurs, NGOs, and arts and cultural communities.

Lack of a more diverse student body poses a threat to future recruiting efforts. Internal barriers, both structural and perceptual, that stifle collaboration and cooperation across units are another threat to needed change in institutional culture.

IV. Recommendations

Provide personnel, infrastructure and incentives for a global research university

1. Create a senior administrative position for international education.

This administrator would have faculty credentials, would report to the Provost and would focus exclusively on the global aspects of the institution. A number of universities have an administrator at the Associate Provost / Associate Vice Chancellor or Vice Chancellor level who is responsible for global/international teaching, education, research, and creative work. Where such a position exists elsewhere it reports at the highest level rather than through a Dean, thereby encouraging coordination, cross-disciplinary collaboration, and cohesion in campus international programming. In some institutions, the position takes the form of Associate Provost or Associate Vice Chancellor. In others it takes the form of Director of International/Global programs. DU and CSU both have such a position (at CSU the position combines both titles); however, at no institution is a senior administrative international position housed within an individual school or college.

A senior administrator would be charged with developing funding strategies at the federal, regional and state levels, pursuing corporate and foundation support, initiating international partnerships and exchanges, creating conferences and cultural events for the campus and building networks of support on the campus for these initiatives.

We see the creation of this post as a necessary precondition to more ambitious projects such as the creation of a much-needed Center for Global Education and Research or for the establishment of overseas satellite campuses.

An almost identical recommendation has been made by the Flagship 2030 steering committee hence the possibility of funding for such a position is considerably enhanced.

2. Create a Faculty Associate Position in the Graduate School.

This person will assist the senior administrator and focus on the development of international initiatives for graduate students and faculty. The associate would hold a 12-month appointment that would rotate annually among tenured faculty or senior instructors.

3. Encourage schools, colleges and large departments to appoint a faculty member or an administrator to coordinate international projects.

Rather than add another responsibility to tasks of graduate directors, we recommend that a separate appointment be made, naming an international program director in schools, colleges and large departments.

This approach has been taken in the College of Engineering and Applied Science where [Sherry Snyder](#) is the Director of Student [Programs](#), responsible for providing widespread opportunities for international engineering internships, coursework and research. "We see the need to prepare [students for the global marketplace](#). Entry-level engineers will be traveling widely in their first

five years of work. These students have to know how to adapt to multi-national teams, languages and cultures." (Sherry Snyder, personal interview)

In the Leeds School of Business, Dipankar Chakravarti is Faculty Director, Programs in International Management. The Director is charged with creating and implementing "a roadmap for attaining global visibility" for the academic and professional programs in the School. Curricular development, faculty and student research, collaborations with leading businesses and business schools around the world, and fundraising are all part of the director's charge. The document "Program for International Management: Goals and Objectives" provides a useful template for other units to consider.

(See with MOU Templates)

These international directors would not only be a resource for graduate students and faculty, they would also form the basis for a network of campus innovators with international contacts and projects. As such they would be well positioned to work with the senior administrator to create interdisciplinary partnerships across the campus in a sustained, systematic way.

4. Reward, acknowledge and encourage international projects.

The following are examples of relatively low cost actions that would heighten campus awareness of the value being placed on international work by the Graduate School.

- Major initiatives such as Bio-Diversity, Sustainable Energy and other CU-funding opportunities should include incentives for international collaboration. This could be accomplished with a check-off box on CU grant applications asking: "Does this project include an international research, scholarship, creative work or teaching aspect?" This is already done on many federal grant applications including those to NSF and NASA.
- Smaller grants such as CRCW and GCAH should add an international incentive statement.
- International work should have a higher profile and enhanced status on the Faculty Report of Professional Activities.
- A checkoff box and reporting section for international work should be part of the Fellowship Funding requests made annually to the Graduate School by departments.
- International research projects should be prominently featured on the GS website.
- Seed grants for the development of cross-disciplinary graduate seminars that focus on prominent global issues should be offered.
- Faculty who are already traveling on university business should be encouraged to recruit international students and carry the message that CU is interested in international collaborations. DVDs and print materials should be left with faculty, departments, offices of international exchange, and embassies around the world.

- CU's network of alumni living in major foreign capitals should be tapped to help promote international initiatives. The alumni reception in Shanghai in 2006 demonstrated that our graduates are eager to support CU and that they often have excellent connections to business, cultural and scholarly communities.

Make structural and policy changes to support a global research university

1. Expand and improve funding to support international students.

In 2005, UCB changed its tuition policy with respect to international students on appointment. Prior to this change, departments were required to pay the significantly higher tuition rates for their international students with research and teaching assistantships. As a consequence of that policy, some departments would not or could not consider awarding an assistantship to any international applicant. This policy change (widely noted and applauded in responses to the Task Force departmental survey) is crucial to international recruiting efforts and must be retained and expanded. More funds must be allocated to departments to increase the number of appointments they can support. In the words of former Graduate School Dean Carol Lynch, "CU has to bite the bullet and pay. It's a cost of internationalizing."

Additionally, UCB should provide matching funds for Fulbright and other graduate scholarships. The campus could attract more Fulbright recipients and other prestigious scholarship winners by creating a pool of matching funds for grant organizations. According to OIE, the campus frequently is not considered as a destination by these organizations because it provides no matching monies. (Larry Bell, personal communication)

Similarly, a small pool of funds (\$10,000 to \$15,000) for need or merit based incentives would help attract international applicants. The campus currently offers no financial aid specifically for international students. A scholarship of \$1,000 or \$2,000 could be enough to influence a decision to attend CU rather than another school.

2. Remove the limit on international exchange students currently in force on campus.

The campus limits the number of student exchanges to 100 per semester. This cap applies to the total number of undergraduate and graduate students for whom CU pays tuition at the exchange student rate. Although the cap does not limit international enrollment for students who are not part of exchange programs, it does limit the number of exchange programs and exchange students on the campus. OIE reports that the campus gets closer to the capacity number each year and that soon this will limit the number of exchange students -- not just theoretically, but in practice. (Kim Kreutzer, personal correspondence)

The Task Force recommends that the limit be lifted permanently. Until that happens, we suggest that graduate students not be counted in the stated exchange student limit.

3. Separate graduate student exchanges from the Study Abroad Committee approval process.

Graduate students do not typically participate in traditional study abroad programs. In 2004-05 (the most recent years for which comprehensive data is available), 1, 346 students enrolled in for-credit CU and non-CU study abroad. Only 11 of those were graduate students. (Kim Kreutzer, Associate Director, OIE personal communication).

Nonetheless, taking courses for credit at a partner institution can be highly desirable for some graduate students. The Task Force believes that not only should graduate programs look for these kinds of opportunities, but that they should be able to act on them when they arise.

Graduate exchanges that involve for-credit study will have focused content and thus will require oversight by the participating school or college. At the same time, these exchanges will attract a relatively small number of students who will be more mature and better able to handle the logistics of international travel and living.

In an effort to create an efficient and flexible system for approving student exchanges at the graduate level, we recommend a streamlined approval process in which proposals are evaluated by a committee composed of the following:

- Graduate School, Associate Dean for Education
- Unit dean or appointed representative such as a chair or a graduate director
- Director, OIE (or appointed representative)
- Admissions officer who will insure that requirements for admission be maintained

Create institutional permanence for international projects

1. Provide support to secure additional DOE Title VI grants.

One of the major roles senior administrators for international programs typically play at institutions comparable to CU is to coordinate and facilitate periodic application for U.S. Department of Education Title VI funding, including National Resource Center (NRC) grants, Foreign Language and Area Studies (FLAS) fellowships for graduate studies, Undergraduate International Studies and Foreign Languages grants, Centers for International Business Education and Research (CIBER) and National Foreign Language Resource Centers (NFLRC).

Interdisciplinary units at CU interested in applying to these programs have faced an uphill battle in, for example, gathering the extensive data that is required to prepare a competitive application and coordinating activities across college or campus boundaries. In addition, once won, management of these programmatic grants and federally funded FLAS fellowships requires very different processes and procedures from those used for individual or collaborative research grants. Units such as the Center for Asian Studies, which was successful in the 2006 NRC competition, welcome the possibility of working with other NRCs and with a central administrative unit to share administrative and advising staff, outreach initiatives, accounting costs, and to collaborate on programming.

Many of CU's peer institutions have long been home to multiple Title VI NRCs. The University of Washington, for example, is home to seven (East Asia, South Asia, Southeast Asia, Mid-East, Canada, Russia and Eastern Europe, and Western Europe). The University of Wisconsin likewise houses seven NRCs (East Asia, South Asia, Southeast Asia, Latin America, Europe, and International). The University of Kansas is home to three: East Asia, Latin America, and Russia and Eastern Europe. Other state institutions with multiple centers include UC-Berkeley with eight, Hawaii with three, Illinois with six, Michigan with five, Pennsylvania with four, UCLA with four, Texas with four, Indiana with four, Michigan State with four, Florida with four. Many of these institutions are also home to NFLRCs, CIBERs or other projects funded by Title VI.

Appropriate support for and encouragement of additional Title VI proposals at CU would significantly expand and enhance internationalization of the campus. Each NRC award provides about \$250,000/year (in new faculty lines, language instruction, library acquisitions, colloquia and workshops, staff support, travel/small grants for research, curriculum enhancement, outreach support, etc.), plus about \$250,000/year in FLAS fellowships for graduate students for a four-year period. Among the interdisciplinary programs most commonly funded by Title VI NRC funding are: East Asia, South Asia, Southeast Asia, Africa, Mid-East, Latin America, Russia and Eastern Europe, and international affairs. Several interdisciplinary programs at CU might well be encouraged to apply for NRC funding in the next cycle if the internal support was available for preparation of applications and management of activities. Once funded, NRCs may reapply for funding as long as they continue to provide national leadership, education, and research.

2. Encourage joint and dual graduate degrees.

Study abroad programs and exchanges at colleges and universities began as a relatively small enterprise with little central administration. Today competition for talent and resources is global rather than regional or national and university partnerships have burgeoned worldwide.

In his 2007 presentation to the Association of International Education Administrators, Dr. Harold Rollins described the "exponential growth" of collaborations involving a broad range of disciplines, taking place in increasingly diverse locations with an ever-widening variety of research initiatives. Overseas campuses, joint faculty, joint ventures with local, national and multi-national industries and governments have become prominent features in higher education and not just among major universities. Complex issues relating to staffing, quality control, brand identification, logistics, accreditation, costs, intellectual property rights and regulatory restrictions are all part of these collaborative efforts. As such, these partnerships call for strategic planning, new policies and procedures, communication with faculty and students and prioritization of projects.

While dual and joint degree programs require careful consideration, they ultimately demonstrate an important institutional commitment to global education and create programs with permanence. At present, the only example of such a program on the Boulder campus is the newly established Dual Degree in Mechanical Engineering with the University of Trento.

Graduate School rules currently restrict the application of course credit to a single degree program. As such, they do not allow for the possibility of joint and dual degrees, which typically

are constructed with overlapping course credits. Consequently, CU is currently not equipped to participate in most dual, double, or joint degree programs with international partners, also making CU ineligible for some international grant opportunities that require course credits to be applicable in dual, double or joint degree cases. New language with respect to counting course credits needs to be developed to address this issue.

Because they require time and experience to develop, degree programs should be preceded by smaller commitments in research, scholarship, creative work and teaching described below.

3. Create a process for the appointment of international adjunct professors.

Foster formal relationships with partner institutions by creating a process for the appointment of adjunct professors who could serve on theses and dissertation committees and otherwise provide an added dimension to departments, schools and colleges. Most faculty members have international colleagues, many of whom come to the Boulder campus. These visits provide opportunities for meetings with graduate student and can be a starting point for a more formal relationship in which international faculty would be encouraged to participate as outside members of theses and dissertation committees and be invited for adjunct faculty status where appropriate. The technologies available on campus make teleconferencing and other distance communications tools a viable alternative when travel to the campus is not feasible for reasons of cost or time.

4. Support the creation of graduate seminars with cross-cultural, interdisciplinary themes.

These courses would examine the cultural, political, legal and social differences that define the global workplace. Not only would they help prepare students for work on multinational teams, by being cross-disciplinary, they would bring students in diverse fields in contact with each other.

5. Create summer teaching teams.

Faculty, instructors and graduate students could give lectures and teach courses in their content areas at universities outside of the U.S. An international teaching committee working with universities where we already have contacts could help make opportunities available. To give one example: Task Force member Anne Bliss has recruited both graduate students, instructors and faculty to teach English, journalism and computer science at Jiao Tong University in Xian over the last four summers.

6. Encourage inter-disciplinary international certificate programs for degree-seeking graduate students.

The Certificate in International Engineering (undergraduate) is an example of what such certificates might include. It requires three language courses, as well as a corporate internship outside of the U.S. (For further details, see <http://engineering.colorado.edu/academics/international.htm>)

The International Graduate Studies Program in Engineering offers a similar opportunity to MA and PhD students. To complete the certificate, students must conduct research at an overseas partner institution and take course work in International Project Management. (http://engineering.colorado.edu/students/intl_grad_studies.htm)

7. Encourage graduate certificate programs for non-degree students.

The Division of Continuing Education and Professional Studies (CEPS) has partnered with units on campus to create successful programs for international students seeking to upgrade technical or language skills via a certificate program. These programs, in addition to being self-funding, expose large groups of international students to CU faculty and programs.

8. Create a Standing Committee on International Graduate Education.

The committee would provide continuity with the Task Force. It would carry out recommendations and work on implementing specific projects that have the support of the Graduate School Dean. Committee members should come from Schools, Colleges and major units within Arts and Sciences, OIE, Admissions, CEPS, UGGS and the Alumni Association.

Improve Communications and Data Collection on International Initiatives

1. Institute more oversight and control of exchange agreements.

In discussions and fact-gathering, faculty and administrators repeatedly noted that the Graduate School does not have a clear set of policies and procedures with respect to the wide range of programs that fall under the heading of exchanges. This would include faculty and student exchanges, for credit exchanges, research visits, certificate programs, degree and non-degree programs. It was noted that various MOUs have been signed by individual units but have not gone through the Office of International Education. As a result, neither OIE nor the Graduate School has a complete master list of partnerships. This comment summed up the concern: "It is not clear what the policies are, what the guidelines are and what the restrictions are."

Task Force members noted that faculty members are entrepreneurial with respect to exchanges and that this should be encouraged since it often yields positive results. At the same time, "a lot of people are doing a lot of freelancing" and the Task Force sees the need for more oversight, control and protections. A clear directive that faculty and administrators should work with and through OIE and the Graduate School in setting up exchange programs and MOUs is needed.

2. Improve and centralize data collection.

Information sought for the Task Force report itself was collected from various offices and required time intensive research. Centralized information collection and reporting would greatly improve the ability for CU Boulder and the Graduate School to assess current international populations and programs.

3. Improve customer relations.

Encourage everyone who responds to international inquiries to be attentive to the needs of applicants. Demonstrate interest in foreign applicants by paying express mail fees for shipping documents to students who have been accepted into graduate programs. Students frequently select which school to attend based on the acceptance letter and visa documents that are first to arrive. Express mailing of these documents could increase graduate student yields. Estimated cost: \$1,000 to \$2,000.

Similarly, paying the government-mandated Student and Exchange Visitor Information System (SEVIS) fees for international students who have been accepted into our graduate programs demonstrates CU's commitment to these applicants. It also accelerates the visa application process. Estimated cost \$8,000 to \$12,000.

4. Invest in advertising and promotion.

For an expenditure of \$5,000 to \$10,000, CU could advertise its graduate programs in targeted print and on-line publications that have a worldwide distribution to students who are making decisions about graduate school. For \$2,000 to \$5,000, video and print materials including departmental contact information could be sent to targeted universities, embassy advising centers, university libraries and other foreign offices. For \$2,000 to \$3,000 the Graduate Dean or an Associate Dean could visit foreign embassies and sponsoring agencies in Washington, D.C. for meetings with advisors who carry out placement for students whom they sponsor. The International Research and Exchanges Board (IREX), the Academy for Educational Development (AED), the America-Mideast Educational and Training Services (AMIDEAST), and other agencies sponsor students and carry out placement from Washington. Regular contact with these agencies could encourage more placements of funded students in CU graduate programs.

5. Clearly communicate policies and positions.

The Graduate School can play an important role in communicating the importance of international initiatives to both internal and external constituents. Effective communications will require close coordination between the Graduate School, the Provost and Chancellor's Offices, the Office of International Education and the new Office of Strategic Communications. Communications can educate faculty and students about the advantages of internationalizing the campus, including

- Improved quality and diversity of graduate classroom instruction and research opportunities at CU-Boulder.
- Increased numbers of international graduate students enrolled and completing degrees and certificate programs at CU-Boulder.
- Expanded opportunities for CU faculty and graduate students to participate in international exchanges/research opportunities.
- Increased recognition of CU-Boulder in the larger international community.

Internally, communications should be targeted at a wide array of interested parties. Presentations could be made to the Council of Deans, Council of Associate Deans, Chairs and Graduate Directors meetings, faculty forums, UGGS and Post-Doc Association meetings. Discussions with service units on international initiatives and their impact on campus resources could be held with Housing, Admissions, Office of the Registrar, ISSS/OIE and University Communications.

External communications should focus on raising awareness of CU-Boulder in both national and international markets. CU has an outstanding faculty and student body, many of them engaged in impressive international projects. Their stories need to be told to as wide an audience as we can reach.

V. Conclusion

The Graduate School has taken a leading role in fostering a stronger international campus profile. It has sponsored a campus symposium on international student recruitment, organized a town hall meeting on international NSF grants, held informational sessions with graduate directors and deans, participated in international student fairs, hosted international deans, pursued research exchanges with strong international partner institutions and created a campus Task Force to develop strategies for moving international initiatives forward. Continued leadership in this area is essential for keeping graduate education competitive in the global marketplace.

The Task Force has offered a number of specific recommendations, any one of which would benefit the campus. We conclude by highlighting those actions that we see as top priorities in achieving the goal of a globally engaged research university.

1. Create a senior level administrative position for international education.

The campus needs a leader and an advocate on the senior management team who will take a strategic approach to international initiatives, assure their alignment with overall campus goals, generate resources and opportunities and bring cohesion to the wide array of work already being undertaken. This officer would work in close collaboration with the Chancellor, Provost, Vice President of Research, as well as with campus deans and faculty and the Office of International Education on the following goals:

- Identify synergies and build internal networks among faculty, staff and students.
- Support international dimensions to teaching, scholarship research and creative work.
- Build external linkages to government, industry, and the private sector.
- Lead recruiting efforts to attract the highest quality students.
- Provide an array of resources to faculty, students and staff.
- Undertake major fundraising efforts.

2. Improve communications.

The importance of international engagement and global awareness could be underscored much more frequently and forcefully by campus leaders. The Graduate School deans have an important role to play in educating and encouraging graduate directors, faculty, students and staff with respect to international opportunities. The Graduate School's website should reflect its support of international recruiting as well as research, teaching, scholarship and creative work. Graduate School policies and practices should be clear, easily accessible and supportive of international opportunities.

3. Expand and improve funding.

Increased funding for tuition, fellowship support and recruiting must be a priority for CU to increase its international graduate population. Research, teaching and creative work efforts similarly require additional financial and staffing resources if they are to expand and flourish.

4. Reward and encourage international work.

CU faculty, students and staff are engaged in a numerous activities with international dimensions. Their work needs to be acknowledged, encouraged and rewarded in annual evaluations, promotions and tenure and highlighted in campus advertising, promotions, and communications.