For the past year, CGS and Educational Testing Service (ETS) have been working with a commission of university and business leaders on the development of a landmark report: Pathways Through Graduate School and Into Careers. The report was released at the 7th annual CGS Legislative Forum on Capitol Hill on April 19. This article reviews the major findings and recommendations and discusses the new research done for the report.

It also provides an overview of the legislative forum as well as future plans to highlight the importance of clarifying career pathways for graduate students so that the nation can effectively tap the talent produced in our graduate schools.

The Pathways Report

The Commission on Pathways Through Graduate School and Into Careers is a joint initiative of the Council of Graduate Schools and ETS. The 14-member commission includes university presidents, provosts, academic affairs officials, graduate deans, and industry leaders. Their involvement and insights were critical to the development of a report that addresses the need to strengthen pathways into careers for graduate students to ensure that a diverse, talented workforce supports the future success of the U.S. economy and society.

The commission explored these pathways by examining the views of groups that directly observe and experience the journey—students, universities and employers. The perspectives of these groups yielded new and important information in terms of understanding what these stakeholders seek, where they find success and additional opportunities for strengthening the pathways into 21st century careers.

A survey of graduate students and a separate survey of graduate deans yielded important findings that informed the development of recommendations for each of these sectors. Interviews with a broad range of organizations and companies provided qualitative input on many important workforce issues that were also utilized in developing recommendations.

The results of the student survey found that prior to entering graduate school, students perceive value in obtaining an advanced degree but lacked sufficient information about career options. During graduate school, faculty are the primary source of career information but they endorse positions in academia more frequently than those in industry, government or nonprofit organizations. After graduate school, degree recipients work in a broad range of occupations in every occupational sector. Master's degree holders, even more so than those with a doctorate, work in a variety of settings. A survey of graduate deans using CGS member institutions was conducted to obtain a better understanding of universities' roles in illuminating career pathways for graduate students. The results of this survey found that graduate deans' perceptions confirmed that students are not very knowledgeable about career options prior to entering, during, and even upon completion of their graduate education. In addition, providing career guidance is often not a high priority due to other priorities and a lack of resources.

To better understand employer expectations of graduate degree recipients, we gathered data directly from employers, conducting a series of interviews with a broad range of organizations and companies. Employers indicated that graduate degree holders bring value to the workplace because they have the advanced knowledge that allows them to quickly engage in their work. However, employers also indicated that some graduate degree holders lack other skills necessary for success on the job, such as skills in teaming, communications, and project management.

An overall recommendation from the report is that all three sectors—universities, employers and policymakers, need to work more closely and collaboratively to support graduate education and the development of highly-skilled talent.

Recommendations for universities include providing professional development opportunities for graduate students to enhance their understanding and preparation for the full spectrum of 21st century careers. Collecting and using data on career outcomes for graduate students is
also recommended to assist graduate faculty in understanding and communicating a wide range of career options to students.

The report found that employers are in a unique position to signal the knowledge and skills necessary for success in careers. Recommendations for employers include enhancing and expanding communications with graduate education leaders, making strategic investment in graduate education programs and providing support to their own employees to pursue graduate degrees.

The report urges policymakers to make support for graduate education a top priority by establishing a Professional Plus Program for graduate students holding research assistantships. It also urges implementation of provisions in the America Competes Reauthorization Act of 2010 that authorize the National Science Foundation (NSF) to offer grants to implement or expand research-based reforms in master’s and doctoral level STEM education that emphasize preparation for diverse careers.

**Legislative Forum and Report Release**

CGS and ETS were pleased to have an outstanding array of speakers to discuss the importance of the *Pathways* report. The day began with welcoming remarks from leaders of the two sponsoring organizations, CGS and ETS. Following a welcome from Debra Stewart, President of CGS, Kurt Landgraf, President and CEO of ETS, discussed the importance of graduate education as a strategic national asset now at risk, and urged a renewed, meaningful commitment to the enterprise. Four policymakers also shared their perspective on the report.

U.S. Senator Kay Hagan of North Carolina discussed the fast changing global marketplace and the increasing competition confronting the U.S. She supported collaboration among leaders in graduate education, business and government to enhance graduate education across all fields. She noted her support of targeted investments at all skill levels, including the graduate level.

John Berry, Director of the U.S. Office of Personnel Management (OPM) discussed proposed regulations to implement Pathways Programs to provide clear paths to federal internships and potential careers in government for students and recent graduates. The proposed regulations support inclusion of graduate students in all three OPM Pathways programs (Internship Program, Recent Graduates Program and Presidential Management Fellows). He noted that the final regulations are nearing completion and should be published in the near future. He encouraged attendees to think of careers in the federal government as a way to have an impact and make a difference in our country.

U.S. Representative Steve Stivers of Ohio applauded the *Pathways* report’s focus on developing highly skilled talent for 21st century careers. He also noted the importance of providing information on outcomes associated with federal investments, particularly with regard to job creation. A supporter of basic research, Mr. Stivers also stressed the importance of applied research which often leads to jobs. He urged universities to do what they can to be efficient and to ensure federal funds are spent effectively.

U.S. Representative Richard Hanna of New York stated that the most important concern currently facing the nation is to produce the future middle class. He discussed the need for the U.S. to develop the future innovators and creators needed to remain competitive in the global economy, noting that education is transformative for individuals. He urged continued investments in education and also called for tax reform.

Additional perspectives on the report findings and recommendations were shared by corporate leaders and higher education leaders. Dwight Hutchins, Global Managing Director of Accenture’s Health and Public Service Strategy Practice, provided an employer’s perspective on the importance of developing highly skilled talent. He noted that “talent is our only asset at Accenture,” and that graduate degrees are a differentiator of talent. “Graduate degrees help identify people for specific roles,” he said. Mr. Hutchins encouraged graduate schools to design programs and courses to embed teaming skills and communications into curricula. He discussed a scholars program at Accenture that provides for two years of graduate study in business and public policy for employees in their management consulting group. He also noted that Accenture’s experience has been that people with master’s degrees have better preparation, professional training and higher performance in his organization.

Ronald Townsend, Executive Vice President, Global Laboratory Operations, Battelle Memorial Institute, and a member of the Pathways Commission, made a direct connection between innovation, a strong and robust research and development enterprise, and graduate education. He said that graduate education is the driver of research and development which in turn is the driver of innovation. He noted that industry views everything through a competitive lens and on a global scale. He encouraged development of strategic relationships between industry and universities to increase our competitive advantage.

The perspective of higher education leaders was shared by Freeman Hrabowski, President of the University of Maryland Baltimore County (UMBC) and Suzanne Ortega, Senior Vice President, Academic Affairs, University of North Carolina, both of whom are members of the Pathways Commission.

Dr. Hrabowski discussed the tendency of students to follow their passion and the need for universities to provide additional support and information about a wide range of career pathways. He advocated for making earlier connections with students at the undergraduate and even the high school level to begin the focus on career pathways. He discussed the need to change the culture of higher education and to build more and closer relationships with employers and the corporate world.

Dr. Ortega’s remarks emphasized the importance of recruiting a diverse group of students into graduate education and providing the support needed to help them complete their degrees. Part of that support would be providing more emphasis on the connection between career pathways and prospects and degree completion. In this regard, she highlighted the Professional Science Master’s (PSM) degree as an excellent example of a graduate degree aligned with career opportunities and developed in close collaboration with industry, government or non-profit organizations. She also cited the Preparing Future Faculty (PFF) initiative as an exemplar for preparing doctoral students for a variety of academic careers and with the potential to be applied in other sectors.

Dr. Lisa Tedesco, Chair of the CGS Board of Directors and a member of the Pathways Commission, provided closing remarks at the forum. She emphasized the importance of shining bright lights on pathways for graduate students and the critical need for closer collaboration and partnerships with business leaders and policymakers to illuminate career pathways. Her comments also echoed those of Dr. Hrabowski in terms of the need for a culture change within higher education and involvement of the
Building a Culture of Graduate Education: Lessons Learned in Private Master’s-Focused Institutions

With demand increasing for opportunities to pursue graduate education (Bell, 2011), the role of private, not-for-profit master’s-focused institutions in meeting this need is critical. However, many of these institutions historically have a strong undergraduate focus that can significantly affect their ability to develop a culture supportive of quality graduate education.

Often the experiences of other institutions can help to illuminate new approaches or fresh ways of considering the possibilities. La Salle University, Lewis University, and West Virginia Wesleyan College are three distinctly different but all private, religiously affiliated, master’s focused institutions that have recently added administrative structures to support graduate education. In this article, the authors share their stories and analyze their experiences to generate a dialogue about the challenges of building a culture of graduate education.

While experiences and cultures at La Salle, Lewis, and WV Wesleyan are unique to each institution, significant lessons can be learned by analyzing and synthesizing their experiences. The resulting five lessons learned are presented here, providing a framework for considering best practices at private, master’s-focused and, until now, traditionally undergraduate-focused institutions. It is hoped that these lessons learned will benefit others who are facing similar challenges in building a culture of graduate education in the rapidly changing landscape of the 21st century.

Lesson 1: Visioning and Planning for Excellence

Strategic planning is crucial for an institution to envision and plan for excellence in graduate education, including goals, objectives, resources, responsible persons, and funding sources. The strategic plan for graduate studies should be prefaced with a vision of how the institution wishes to be known on the graduate level. Constituents across the campus may develop the graduate vision and strategic plan through university-wide forums and discussion groups. It is the role of the graduate dean to facilitate conversations across campus, provide current information on emerging regional, national, and international trends/issues, and guide and support new initiatives within graduate education.

The strategic plans of La Salle, Lewis, and WV Wesleyan each include goals to enhance the graduate culture and grow graduate enrollments. La Salle’s newly developed philosophy of graduate education, graduate student receptions and Graduate-Professional Student Appreciation Week activities, and a special Heritage Week Explorer Café contribute to enhancing the graduate culture. Emerging from the prior strategic plan, Lewis’ third annual Faculty Forum on Graduate Education raised faculty awareness of interdisciplinary possibilities and generated ideas for potential new initiatives across disciplines to meet regional workforce demands. WV Wesleyan’s recent annual strategic plan update resulted in separate pre-graduation celebratory activities and student award presentations, as well as the recognition of the need for faculty development activities for faculty teaching graduate classes in different delivery formats.

Overall, these strategic activities contribute toward achieving the vision for graduate programming for academic excellence, highly qualified faculty, and responsiveness to students’ and society’s needs. Fostering campus-wide dialogues focused on graduate education helps to create a shared vision as exciting possibilities emerge.

Lesson 2: Faculty Scholarship and Quality

While faculty scholarship is critical for faculty development and advancement, it is also critical to enhancing the quality of teaching-learning at both the undergraduate and the graduate levels. This is particularly relevant at teaching focused institutions such as these three.

Each institution has engaged in several projects to promote the scholarship of pedagogy and enhance teaching-learning across programs. At La Salle, a Faculty
Reading Group was organized for faculty teaching at the graduate level and was facilitated by a professor from the Department of Education. The reading of two books on pedagogy formed the basis for a dynamic discussion of best practices in pedagogy, especially related to graduate education and engaging graduate students. With a focus on building a culture of inquiry, Lewis recently hosted its inaugural Celebration of Scholarship, featuring over 230 presenters making 132 presentations in a variety of formats across campus and disciplines. This event showcased the research, scholarship, and creative projects that emerge from the daily work of faculty with undergraduate and graduate students in formal and informal learning settings. Described as transformational in the life of the University, this one day event generated dynamic dialogues across campus about future scholarly projects for students and faculty. Similarly, WV Wesleyan’s strong tradition of faculty-student research at the undergraduate level founded on faculty-student collaborative practice has carried over into several graduate programs. Joint conference presentations, as well as articles, and student competitively selected conference papers have already invigorated other graduate faculty to explore new avenues in scholarly work and development. These experiences from three unique institutions suggest the importance of promoting the quality of undergraduate and graduate educational experiences through focusing on the scholarship of pedagogy and the collaborative scholarship that emerges daily from faculty and students actively engaged in exploring questions arising within and across disciplines.

Lesson 3: The 3Cs—Coordination, Communication, and Cooperation

As graduate education gains more prominence university wide, the need for the 3Cs is apparent, especially to engender a spirit of trust. Coordination is vital in an environment of shared resources, especially faculty and space. Open communication creates transparency between the administrators and the faculty. Cooperation facilitates interaction of graduate studies with the service-providing units of the university.

At La Salle, graduate directors closely coordinate use of shared faculty within their departments and across departments and schools. The Executive Director of Graduate Studies and the Graduate Management Team communicate frequently with the graduate directors, seeking their input and feedback, meeting with them once a semester and posting minutes of meetings on the portal. New program developers cooperate with marketing, institutional research, and finance to determine the feasibility of a new program and the revenue/expense projection. Lewis’ recent successful AQIP accreditation identified as a strength the university’s promotion of communication and collaboration in graduate education. Coordination is vital in an environment of shared resources, especially related to graduate education. Outcomes include an initiative to enhance academic support services for graduate students through online tutoring, facilitating access regardless of location, and creation of a new position in the Academic Resource Center to develop, maintain, and coordinate academic support services for adult and graduate students. At WV Wesleyan, the appropriate coordination and dissemination of data or information about graduate programs or to graduate students is now implemented, treating graduate students as “real students” who should be served by the same offices that serve all undergraduate students. Offices communicate and coordinate registration information before distribution to graduate students.

Promoting communication by bringing critical voices together creates the situation where problems are recognized, new possibilities emerge, efforts can be coordinated, and cooperation to promote quality graduate education can arise.

Lesson 4: Shifting Sands of Change

Multiple challenges arise in moving an institution’s infrastructure in terms of policies, procedures and practices from serving students in a traditional undergraduate residential college to serving graduate students in diverse graduate programs, especially if that happens on multiple campuses or across distances. Ironically, identifying and re-working policies to serve graduate students is very straightforward to accomplish, but is often unanticipated or surprising for all concerned until a problem occurs. Moreover, resistance to change comes in re-designing and implementing procedures and practices at each execution point or office for the change.

For instance, at Lewis and WV Wesleyan, when graduate programs were designed to be delivered in terms other than the traditional 15 week semester, multiple challenges arose from financial aid processing, registration, billing, timing of applying late fees, final dates for submitting grades, to students completing Incompletes. But just as important is gaining ownership for the graduate programs beyond the actual graduate unit so that faculty and staff work to positively support graduate students and not perceive them as an added job they did not want. At La Salle, some faculty, staff, or external community members had little awareness of the impact that growing graduate education would have on the previous undergraduate focus of the mission and image of the institution. This year a separate graduate commencement will be held, distinct from the undergraduate commencement. Additionally, food has been made available at remote campuses, and formerly on-campus only resources and services are now offered for online students.

Collaborative problem-solving meetings to discuss the issues and seek creative solutions with all affected parties, not just the heads of departments, facilitate the erosion of the resistance to changing the “way we have always done it.” The graduate dean’s role in leading the charge for recognizing the need and, then, facilitating the steps for policy and services changes for graduate students is central in morphing a previously undergraduate institution to implement and ultimately embrace a graduate culture as an important part of the institution’s image.

Lesson 5: Networking Outside the Institution

In each of the previous “Lessons Learned,” the focus has been on the individual institution. However, as CGS has documented in The Path Forward (2010) report, quality graduate education is a national and international issue of increasing importance. For these three institutions, membership in CGS and active participation in events and conferences has led to an increased awareness of the potential network of support and guidance available to promote quality graduate programming. As an example, both La Salle and Lewis have invited Dr. Sally Francis from CGS to participate in conversations about graduate education on their campuses. As
well, through the process of developing presentations for CGS conferences and writing of this article, ideas have been shared among the three institutions and relationships have been initiated which can be very beneficial in the future. Each of the three authors has had experiences where participation in a CGS session or event has opened doors or suggested solutions to the challenges faced in bringing alive a culture of graduate education in a traditionally undergraduate institution.

Conclusion
While the institutional stories and experiences may be unique to these three institutions, the Lessons Learned suggest possible strategies for building a culture supportive of graduate education in other private, master's-focused institutions, that may have similar histories of dominant undergraduate education. Clearly these lessons are only a beginning and are intended to stimulate many conversations, which these authors hope will be possible in future networking opportunities.

By Kathleen M. Long, Dean of Graduate Studies and Extended Learning, West Virginia Wesleyan College; Margaret M. McManus, Executive Director of Graduate Studies, La Salle University; and Nan Russell Yancey, Dean of the Office of Graduate Studies, Lewis University

References:


Data Sources: Graduate Student Loans and Debt

Student loan debt in the United States is at a record high. In February 2012, the Federal Reserve Bank of New York released data indicating that student loan debt reached $867 billion in the fourth quarter of 2011, exceeding the $704 billion Americans owed in credit card debt (Federal Reserve Bank of New York, 2012). The Consumer Financial Protection Bureau puts the student loan debt figure even higher, reporting in March 2012 that student loan debt is estimated to exceed $1 trillion (Consumer Financial Protection Bureau, 2012). While the exact amount owed in student loans may be in question, it is clear that Americans collectively owe a tremendous amount of money in student loans.

In academic year 2010-11 alone, students took out an estimated $112 billion in student loans, with graduate and professional students accounting for more than $35 billion of the total (The College Board, 2011). The majority of the student loans taken out by graduate and professional students in 2010-11 ($34 billion) came from the federal government, most commonly in the form of unsubsidized and subsidized Stafford loans, as shown in Figure 1.

Over time, graduate students have become increasingly reliant on student loans to finance their education. According to The College Board, graduate and professional students received an average of about $6,750 in non-loan financial support and about $16,400 in federal student loans per FTE student in academic year 2010-11. When comparing these figures to those from 2000-01, graduate and professional students received 19% more in non-loan financial support per FTE in 2010-11 than they did a decade earlier (after adjusting for inflation), but they borrowed 75% more per FTE in federal student loans.

About half of all doctorate recipients now graduate with debt. According to the National Science Foundation (NSF), individuals earning research doctorates in academic year 2009-10 did so owing over $20,400 on average in education-related debt, of which about $14,100 on average was graduate debt and about $6,400 on average was undergraduate debt (National Science Foundation, 2011). While 52% of all research doctorate recipients graduated with no debt, 16% did so owing more than $50,000 in combined undergraduate and graduate debt (Figure 2).

While NSF’s data indicate that only about 48% of doctorate recipients graduate with...
education-related debt, their data only include individuals earning research doctorates. Data from the U.S. Department of Education’s National Postsecondary Student Aid Study (NPSAS), which includes students earning research doctorates as well as those earning professional and practice-oriented doctorates (such as the Ed.D.), put the figure slightly higher. Among individuals earning doctorates in academic year 2007-08 (the latest year for which data are available from the NPSAS), 56% did so with undergraduate and/or graduate debt, and those with debt owed nearly $59,000 on average (National Center for Education Statistics, 2009). (Note that NSF’s $20,400 average debt burden is for all doctorate recipients while the $59,000 figure from the NPSAS is only for those doctorate recipients with debt, meaning that these are not direct comparisons.) Individuals earning master’s degrees in 2007-08 were even more likely to graduate with debt; 69% had undergraduate and/or graduate student loans, with those with loans owing more than $40,000 on average. Overall, 2% of master’s graduates and 13% of doctorate recipients in 2007-08 graduated with $80,000 or more in student loan debt.

When the NPSAS data are disaggregated by citizenship and race/ethnicity, it becomes clear that debt is not evenly distributed. Among doctorate recipients in 2007-08, 71% of U.S. citizens graduated with undergraduate and/or graduate debt, compared with just 25% of permanent residents, and 15% of non-U.S. citizens on temporary visas. Among master’s degree recipients in 2007-08, 74% of U.S. citizens graduated with debt, compared with 52% of permanent residents, and 31% of non-U.S. citizens on temporary visas.

Among U.S. citizens and permanent residents, African Americans are most likely to graduate with debt. At the doctoral level, 85% of African American graduates in 2007-08 had debt, compared with 72% of Whites, 47% of Hispanics, and 40% of Asians. At the master’s level, 87% of African American graduates in 2007-08 had debt, compared with 82% of Hispanics, 70% of Whites, and 61% of Asians. Not only are African Americans most likely to graduate with debt, but those with debt owe more on average than their peers of other races/ethnicities. African American doctorate recipients in 2007-08 with debt owed more than $68,000 on average upon graduation, compared with about $60,000 for both Hispanics and Whites. At the master’s level, African Americans with debt owed nearly $52,000 on average, compared with about $46,000 for Hispanics and $38,000 for Whites.

While many graduate students, particularly those in the sciences and engineering, complete graduate school with little or no debt, the data indicate that a growing number of graduate students are not that fortunate. The increased reliance on student loans to finance graduate education, combined with the elimination of subsidized Stafford loans for graduate students, increases in tuition and fees, and decreasing or stagnant support for higher education in many states suggest that debt levels will continue to rise. Many graduates are already entering the workforce saddled with debt that exceeds their annual salaries, and without changes to existing financial aid policies, more graduates will be in this position.

The federal government, state governments, universities, and businesses need to work together to help students earn advanced degrees without incurring massive debt. The recent CGS/ETS report, Pathways Through Graduate School and Into Careers, provides several recommendations to reduce the debt burden of graduate students. For example, the report recommends the implementation of tax policies that encourage employer-provided assistance for graduate study, a COMPETES doctoral traineeship program, and a new Integrative Graduate Humanities Education and Research Training (IGHERT) program, among other recommendations (Wendler et al., 2012). The global competitiveness of the United States and our capacity for innovation depend on individuals with graduate degrees. In order to ensure the future success of this nation, we must address the issue of student debt to guarantee that the workforce of the future includes adequate numbers of individuals with graduate degrees.

By Nathan E. Bell, Director, Research and Policy Analysis, Council of Graduate Schools

References:
Nominations for CGS Board of Directors Due July 1

Nominations are being accepted for election to the CGS Board of Directors. If you are interested in serving on the Board, or if you would like to nominate a colleague, please contact:

Patrick Osmer  
Chair of the CGS Nomination Committee  
c/o Cheryl Flagg at cflagg@cgs.nche.edu

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