

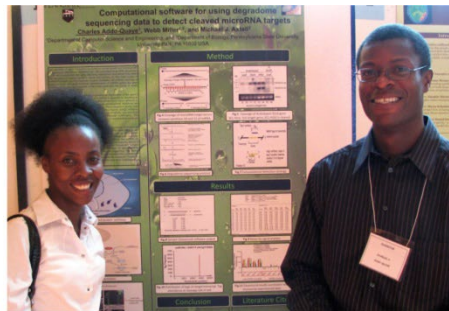
PENNSTATE



*The* GRADUATE SCHOOL

**STRATEGIC PLAN**

**2014–15 through 2018–19**



## Table of Contents

Vision.....	4
Mission .....	4
Values.....	4
Executive Summary .....	5
Introduction .....	11
Profile of Graduate Education .....	13
Priority Goals for the Graduate School.....	37
Diversity Planning .....	54
Follow-up to Core Council Recommendations .....	56
Efforts to Promote Integrity and Ethical Behavior in Graduate Education .....	57
Efforts to Contribute to Sustainability .....	60
Contributions to Supporting University’s Major Thematic Pillars.....	62
Appendix A.....	65
Appendix B.....	71
Budget Planning and Adjustments Related to Priority Goals .....	92

---

## Figures

1. Graduate Enrollment: Resident vs. World Campus .....	14
2. Graduate Enrollment: Campus Analysis .....	14
3. Resident Graduate Enrollment: Doctorate, Master’s, and Nondegree .....	14
4. World Campus Graduate Enrollment: Doctorate, Master’s, and Nondegree .....	14
5. Resident Graduate Enrollment: Full-Time/Part-Time and Nondegree.....	18
6. World Campus Graduate Enrollment: Full-Time/Part-Time and Nondegree .....	19
7. Resident Graduate Enrollment: PA/Non-PA Students .....	20
8. World Campus Graduate Enrollment: PA/Non-PA Students .....	20
9. Resident Graduate Enrollment: Citizenship Analysis.....	21
10. World Campus Graduate Enrollment: Citizenship Analysis.....	22
11. Resident Graduate Enrollment: Ethnic Analysis .....	23
12. World Campus Graduate Enrollment: Ethnic Analysis.....	24
13. Resident Graduate Enrollment: Underrepresented Student Analysis.....	25

14. World Campus Graduate Enrollment: Underrepresented Student Analysis .....	25
15. Resident Graduate Enrollment: Gender Analysis .....	26
16. World Campus Graduate Enrollment: Gender Analysis .....	27
17. Resident Graduate Enrollment: Age Analysis .....	28
18. World Campus Graduate Enrollment: Age Analysis .....	29
19. Graduate Applications .....	30
20. Graduate School Temporary Income Spending Analysis Assuming Level Fee Income .....	98
21. Graduate School Temporary Income Spending Analysis Assuming 10% Decrease from Current (FY 2013–14) Application Fee Income.....	99

---

**Tables**

1. New Graduate Enrollment by Degree .....	16
2. Degree Completion for the Master of Engineering (MEng) in Nuclear Engineering (NUC E)17	
3. International Students: Top 6 Countries, Resident Graduate Enrollment .....	22
4. Resident Doctoral Programs: Applications, Offers, New Students with Percentages of Selectivity and Yield by Degree Type and Degree, New to University .....	31
5. Resident Master’s Programs, Certifications, and Graduate Nondegree: Applications, Offers, New Students with Percentages of Selectivity and Yield by Degree Type and Degree, New to University .....	32
6. World Campus Graduate Programs, Certifications, and Graduate Nondegree: Applications, Offers, New Students with Percentages of Selectivity and Yield by Degree Type and Degree, New to University .....	33
7. Graduate Degrees Conferred by Campus .....	34
8. Graduate School Processes Affected by LionPATH Implementation .....	39
9. Graduate School Needed Workflows.....	40
10. Penn State Graduate School Temporary Income Analysis .....	97

## **Vision**

Penn State will be one of the nation's preeminent universities in graduate education and research, and a "first choice" university for graduate students.

## **Mission**

The mission of the Graduate School is to promote the highest quality graduate education that prepares interdisciplinary leaders who advance knowledge and understanding, drive innovation, and contribute to the resolution of complex national and global problems to meet societal needs.

## **Values**

- **PENN STATE COMMUNITY:** The Penn State graduate education community is one of scholars who are creative, generate new knowledge through rigorous inquiry and critical analysis of evidence, and are continually open to new information in advancing understanding within our disciplines and our local and global communities.
- **RESPECT:** We honor the dignity of each person and treat each individual accordingly, engage in civil discourse, and foster an inclusive community. As scholars, we seek the broadest diversity of thinking, exchange ideas informed by evidence, and avoid assumption, preconception, and subjectivity.
- **RESPONSIBILITY:** We meet our obligations and hold ourselves accountable for our decisions, our actions, and their consequences.
- **INTEGRITY:** As scholars, we are constantly open to changing or rejecting our hypotheses based upon new evidence, in the interest of advancing knowledge. Although our decisions are informed by evidence, they are guided by the highest ethical standards, assuring that our behavior reflects our values.
- **DISCOVERY:** We seek and create new knowledge and understanding, and foster creativity and innovation, for the benefit of our communities, society, and the environment.
- **EXCELLENCE:** We strive to give and do our best in all our endeavors.

## EXECUTIVE SUMMARY

This Executive Summary outlines the priority goals of the Graduate School; details regarding these goals and the strategies for achieving them, as well as the broader thematic goals of the University, may be found in the full report.

The Graduate School at Penn State is the enterprise-wide organization responsible for overseeing the admission, matriculation, and graduation of all graduate students, excluding professional students in the College of Medicine and The Dickinson School of Law, and is the home for several Intercollege Graduate Degree Programs (IGDPs). It provides administrative oversight and support to the University's Graduate Council, the faculty governing body for academic policies related to graduate education, and sets administrative policies and processes to support these.

In addition to its administrative functions, the Graduate School is the central unit that promotes best practices and provides professional development for graduate students to augment the efforts of graduate programs and colleges. The Graduate School also serves as the body that reviews the quality of graduate degree programs; raises awareness of and advances, through college<sup>1</sup> administrators for graduate education, national thinking on graduate education; and helps to align strategies of interest with individual colleges.

As of Spring 2014, Penn State has more than 163 graduate degree programs with 105 doctoral programs, 110 academic master's degree (Master of Arts [M.A.] and Master of Science [M.S.]) programs, and 81 professional master's degree programs.

This plan frames the status of graduate education at Penn State and lays out goals that are (1) required to support the infrastructure that allows the management of programs and student needs and (2) intended to drive the quality of graduate education throughout the institution.

### I. Status of Graduate Education

- A. Resident master's degree and nondegree graduate enrollments have declined steadily for almost a decade, primarily at non-University Park locations, and with all of the loss being PA students.
- B. World Campus graduate enrollment growth of primarily non-PA students has compensated for Resident declines, and constituted more than a third of total enrollments in 2013, but new growth has essentially plateaued since 2011.
- C. Penn State has lost PA market share and should market its online master's degree and postbaccalaureate/graduate credit certificate programs more heavily within PA.
- D. The percentage of international students has increased to almost a third of Resident enrollments, with the primary source countries remaining China, India, and Korea. Other global regions that have been less cultivated (e.g., South America) remain opportunities.

- E. International graduate enrollments in World Campus have remained negligible and present an opportunity for future marketing and enrollment growth.
- F. Ethnic/racial diversity of Resident enrollments has changed negligibly over almost a decade, with percentages of underrepresented minority (URM) students abysmally low, but an increasingly diverse population is enrolled online.
- G. A male majority enrolled online suggests that graduate programs to attract a greater female applicant pool (e.g., health care; education) may advance World Campus enrollment growth.
- H. Students are seeking master's degrees online soon after completing their baccalaureate, so that "direct" marketing to Penn State undergraduates may be an opportunity.
- I. Penn State's doctoral programs are more competitive, but fewer offers are being extended in a difficult funding environment, so that new doctoral accepts are declining and a cause for concern.
- J. Declining new doctoral admits predict a continuing trend of fewer doctoral degrees conferred that likely will continue in the absence of alternative funding, particularly in fields tied to extramural support (e.g., STEM fields).
- K. World Campus-delivered master's degree programs appear less selective than resident master's degree programs, although this may reflect prescreening that makes assessment based upon selectivity and yield problematic.
- L. World Campus-delivered professional master's degree programs continue to offer opportunities for growth, with degrees conferred increased almost 1,000-fold from one degree awarded in 2005, and predicted to continue with new accepts increased in 2012 and 2013.

## **II. Priority Goals for Graduate Education**

- A. Advancing Technologies for Support of Graduate Education
  - 1. Support of implementation of the new student information system (SIS), Project LionPATH

- a) Participate in the LionPATH project implementation team, steering committee, and executive committee;
  - b) Review and redesign business processes; create online workflow systems for high-volume processes and forms;
  - c) Test systems and provide extensive training for all staff; maintain parallel systems and processes through full implementation;
  - d) Reprogram graduate-specific bolt-on systems to interface with the new SIS; and
  - e) Train graduate program staff regarding new graduate-specific processes and functionalities in the new system.
2. Centralizing and digitizing transcripts
- a) Strategically reevaluate and redesign business process flow to reduce volume of hardcopy transcripts processed;
  - b) Redirect applicants to upload transcripts to their application portfolio for review by programs;
  - c) Require official transcripts to be sent to Graduate Enrollment Services (GES) only from applicants accepting offers of admission;
  - d) Eliminate processing of transcripts by graduate program staff; and
  - e) Automate processing of domestic transcripts available in digital format by GES coordinators.
3. Constituent Relationship Management (CRM) system
- a) Explore enterprise-level CRM system to improve efficiency and enhance constituent experience;
  - b) Establish working team to develop strategy around CRM;
  - c) Define system requirements;
  - d) Determine feasibility and funding model;
  - e) Coordinate vendor demonstrations; and
  - f) Implement across all Graduate School, academic administrative, and graduate program offices.
4. Redesign/reorganization of the Graduate School's website and the Graduate Application for accessibility and usability
- a) Assess Graduate Application design and usability using web analytics and user testing;
  - b) Redesign website and Application to enhance user experience;
  - c) Utilize search engine optimization (SEO) to increase traffic to the Application;
  - d) Improve visual design and usability of the Application to increase the number of completed applications; and
  - e) Improve branding of Graduate School web pages and the Graduate Application.

## B. Advancing Strategies in Support of Graduate Education Quality

### 1. Conduct regular graduate program reviews

- a) Provide graduate programs and colleges with program quality metrics on a continuous basis to enable assessment of trends and impact of strategies to improve;
  - i) Create program review Dashboards with metrics relevant to program quality over an annually refreshed 10-year window.
  - ii) Create Placement Portal with placement data collected initially for doctoral programs and eventually master's degree programs.
- b) Review program metrics with colleges on a three-year cycle; and
- c) Allocate Graduate School resources to colleges for graduate education tied to indicators of program quality.

### 2. Improve graduate student support

- a) Advance strategies for colleges to raise minimum stipend grades that fall below the University average and extend multi-year offers of support for the median time-to-degree (TTD) for each Ph.D. field; and
- b) Offer competitive stipends appropriate to the field and (preferentially) fellowship support to enable the most nationally competitive prospective students to be recruited and increase yields of such students.
  - i) College-Level Strategies
    - Downsize the number of GA slots and reallocate resources to raise stipend grades and provide multi-year packages of support for doctoral students.
    - Elevate graduate support as a development priority for the college.
    - Strategically expand professional master's degree programs and postbaccalaureate/graduate credit certificate programs for revenue generation.
  - ii) Graduate School Strategies
    - Expand and enhance the University Graduate Fellowships (UGF) program.
    - Continue and expand the Distinguished Graduate Fellowship (DGF) incentive program.
    - Expand and enhance college-specific National Science Foundation Graduate Research Fellowship Program (NSF-GRFP) Incentive Awards.
    - Sponsor Graduate School workshops for NSF-GRFP development.
    - Leverage resources to increase external support for graduate education through faculty incentive programs.
      - Grant-in-Aid Incentive Program.
      - Pre-Doctoral Training Grant Development Incentive Award.



- C. Promoting and Facilitating Interdisciplinary Graduate Education.
1. Encourage the development of dual-title graduate degree programs;
  2. Reduce the development of new, stand-alone intercollege graduate degree programs and consolidate overlapping, small programs wherever possible;
  3. Promote the conversion of existing intercollege, graduate degree programs (IGDPs) to dual-title graduate degree programs where appropriate;
  4. Earmark resources for recruitment and retention of excellent graduate students for intercollege, interdisciplinary programs that demonstrate desirable characteristics; and
  5. Assure that the new student information system (Project LionPATH) captures information related to each doctoral student's adviser, and that enrollment and degree conferred for each intercollege student are appropriately credited to the advisor's unit in official reporting.
- D. Increasing Diversity of the Resident Graduate Student Population
1. Support the expansion and coordination of the Fall STEM Open House, a new initiative for recruitment of URM students in STEM fields.
  2. Develop relationships with small liberal arts colleges throughout Pennsylvania, in order to seek out talented URM undergraduate students who are interested in enrolling in graduate school, with emphasis on STEM disciplines.
  3. Collaborate with the Director of the Millennium Scholars Program in the Eberly College of Science and the College of Engineering to provide opportunities for the Millennium Scholars to meet and be mentored by current URM STEM graduate students, in order to create a new pipeline of URM STEM undergraduates to enter our graduate programs.
  4. Explore possible strategies to recruit and retain competitive URM students currently enrolled in World Campus-delivered professional master's degree programs for doctoral study.
  5. Begin to collect additional data from the Graduate Application that provides information on applicants' geographic background and involvement in federally funded programs designed to increase the number of first-generation and low-income students within higher education, to enable the Graduate School to target recruitment efforts more effectively and determine gaps with respect to the recruitment of diverse populations of applicants.
  6. Increase use of social media to aid in the recruitment of a more diverse graduate student population and to assist with retention of current students by disseminating information regarding the Graduate School's professional development activities more effectively.
  7. Enhance the success of the Summer Research Opportunities Program (SROP) in recruiting students from underserved groups to graduate study at Penn State. Through prudent selection of SROP students, strive to entice 75% of these individuals to apply to Penn State for graduate school, with the goal of 50% of the SROP student pool eventually enrolling in graduate programs at Penn State.

8. More aggressively recruit students from McNair programs throughout the United States to apply for graduate study at Penn State, and track the application and enrollment of these students. The goal of this effort will be to enroll 20–25 McNair alums per year.

## INTRODUCTION

The Graduate School at Penn State is the enterprise-wide organization responsible for overseeing the admission, matriculation, and graduation of all graduate students, excluding professional students in the College of Medicine and The Dickinson School of Law, and is the home for several Intercollege Graduate Degree Programs (IGDPs). It provides administrative oversight and support to the University's Graduate Council, the faculty governing body for academic policies related to graduate education, including academic standards and curricular approval; assures compliance across all graduate programs with those policies; and sets administrative policies and processes to support all of the above.

In addition to its administrative functions, the Graduate School is the central unit that promotes best practices and provides professional development for graduate students to augment the efforts of graduate programs and colleges. The Graduate School also serves as the body that reviews the quality of graduate degree programs; raises awareness of and advances, through college administrators for graduate education, national thinking on graduate education; and helps to align strategies of interest with individual colleges.

As of Spring 2014, Penn State has more than 163 graduate degree programs with 105 doctoral programs, 110 academic master's (Master of Arts [M.A.] and Master of Science [M.S.]) degree programs, and 81 professional master's degree programs.

This plan is divided into the following sections, guided by the "Unit Strategic Planning Guidelines for 2014–15 through 2018–19" (memo dated June 14, 2013). The numbers in parentheses following each brief section description correspond to the requested elements as numbered in the memo.

- I. The profile of the graduate student body at Penn State over approximately the last decade (2005 through 2013), highlighting changes of significance.
- II. An outline of the highest-priority goals for the Graduate School and graduate education at Penn State over the next five-year period, and how these priorities are critically dependent upon partnerships with our colleges. Included in this section will be strategies for achieving the stated priorities and strategic performance indicators related to our goals. (1, 2, 4)
- III. The Graduate School's diversity planning, including progress made and issues that continue to be addressed (Appendix B). (5)
- IV. A summary of the Graduate School's follow-up to its recommendations from Core Council. (6)
- V. The Graduate School's efforts to promote integrity and ethical behavior in graduate education across all graduate programs at Penn State. (7)
- VI. The Graduate School's efforts to contribute to Penn State's goals for sustainability. (8)
- VII. The Graduate School's contributions to supporting the University's major thematic pillars.
- VIII. Budget planning and adjustments in relation to the priority goals for the Graduate School. (9)

Before embarking on the body of the plan, it is important to note out that some of the goals presented can be addressed by the staff within the Graduate School. Other goals can be addressed by the Graduate School in collaboration with the colleges. Some of the goals, however, can be addressed only by the colleges; the Graduate School can provide encouragement and support, but these goals clearly will require college-led activities.

## I. Graduate Student Profile

***The observations in this section of the Graduate School Strategic Plan reflect graduate student enrollment trends over the last nine complete calendar years (2005 through 2013), unless otherwise indicated. In most cases, the data are presented as unduplicated headcounts totaled within each calendar year, rather than a fall snapshot, in order to compare Resident and World Campus-delivered program enrollments on an equivalent basis, and to convey a more accurate profile of the scale of graduate student enrollments at the University<sup>1</sup>. Thus, numbers reported here may not align with official enrollment reports, which are based upon a fall snapshot for Resident enrollments. In most cases, the data are also presented in the aggregate, reflecting total enrollments throughout the Penn State system.***

Resident graduate enrollments declined steadily from 2005 through 2013 for a net decrease of 26% or 3,808 headcount (Figure 1), with most of the enrollment loss (77%) occurring at non-University Park locations, which lost 50% of their Resident graduate enrollments, versus 23% of the total decrease occurring at University Park, which lost 10% of its Resident graduate enrollments over this period (Figure 2). During this same period, World Campus graduate enrollments increased by 4,605, and in 2013 constituted 35.6% of total graduate enrollments (Figure 1). After a peak in 2011, however, total enrollments (Resident plus World Campus) per calendar year began to decline, reflecting both a continued decline in Resident, and a smaller rate of growth in World Campus so that in 2013, the net gain in total graduate enrollments from 2005 was 797 (Figure 1).

The decline in Resident enrollments primarily resulted from losses in master's degree (net loss of 1,901) and nondegree (net loss of 1,623) students, with little change in doctoral enrollments over the period from 2005 to 2013 (Figure 3). The declines in Resident master's and nondegree enrollments have been compensated by net increases of 3,527 enrollments in World Campus-delivered master's degree programs and 1,005 nondegree enrollments (Figure 4), the latter primarily in postbaccalaureate and graduate credit certificate programs.

Looking at trends in new enrollments, however, declines in new Resident master's degree and nondegree enrollments, though lessened since 2011, have continued (primarily in new nondegree enrollments), while World Campus new enrollments have essentially plateaued since 2011 (Table 1).

<sup>1</sup> Because World Campus data were not available in the official enrollment reports in the Data Warehouse until Fall 2012–13, in the interest of providing a multi-year retrospective in this section of the Graduate School Strategic Plan, data were derived from the Student\_sem\_allsems table from the Data Warehouse Student database, and filtered for all graduate students (GR) who were registered (REG\*) in any semester greater than 2000 (semester>2000\*). Within each calendar year (Spring/Summer/Fall semesters), the latest semester record for each student was used to prevent duplicating headcount.

Figure 1.

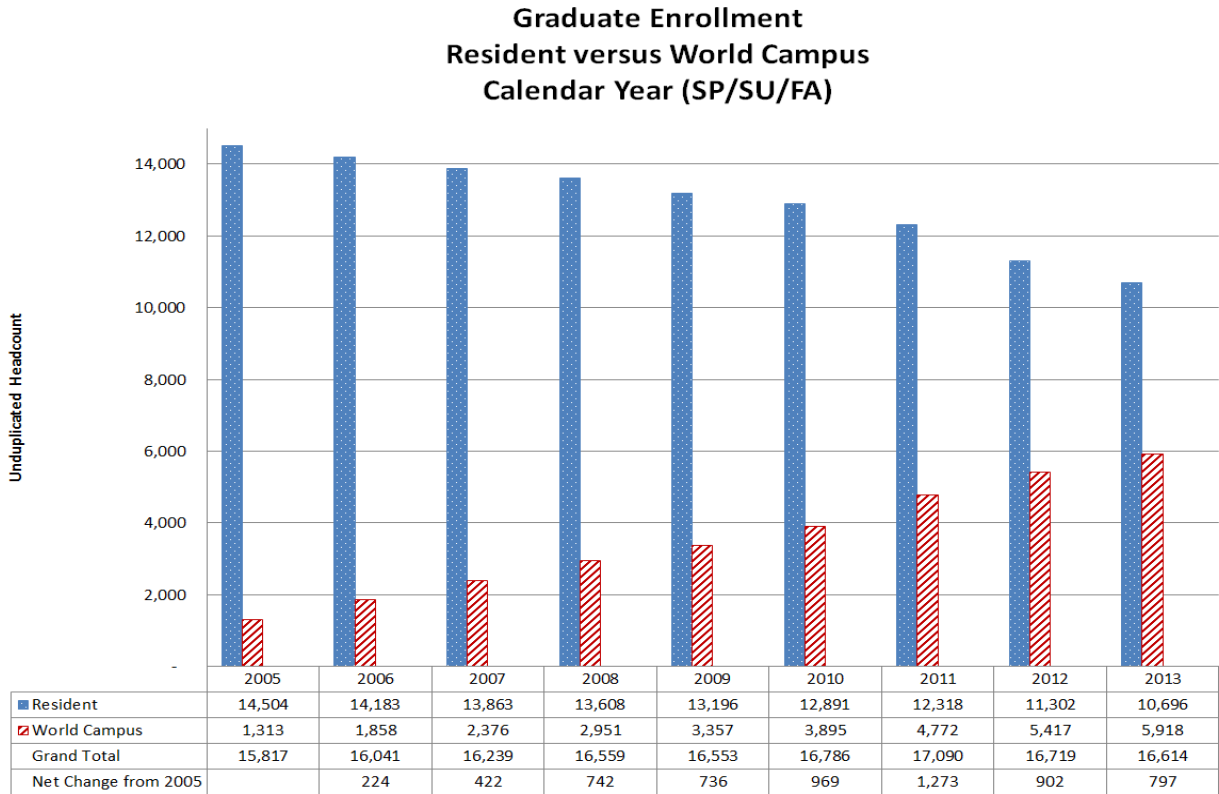


Figure 2.

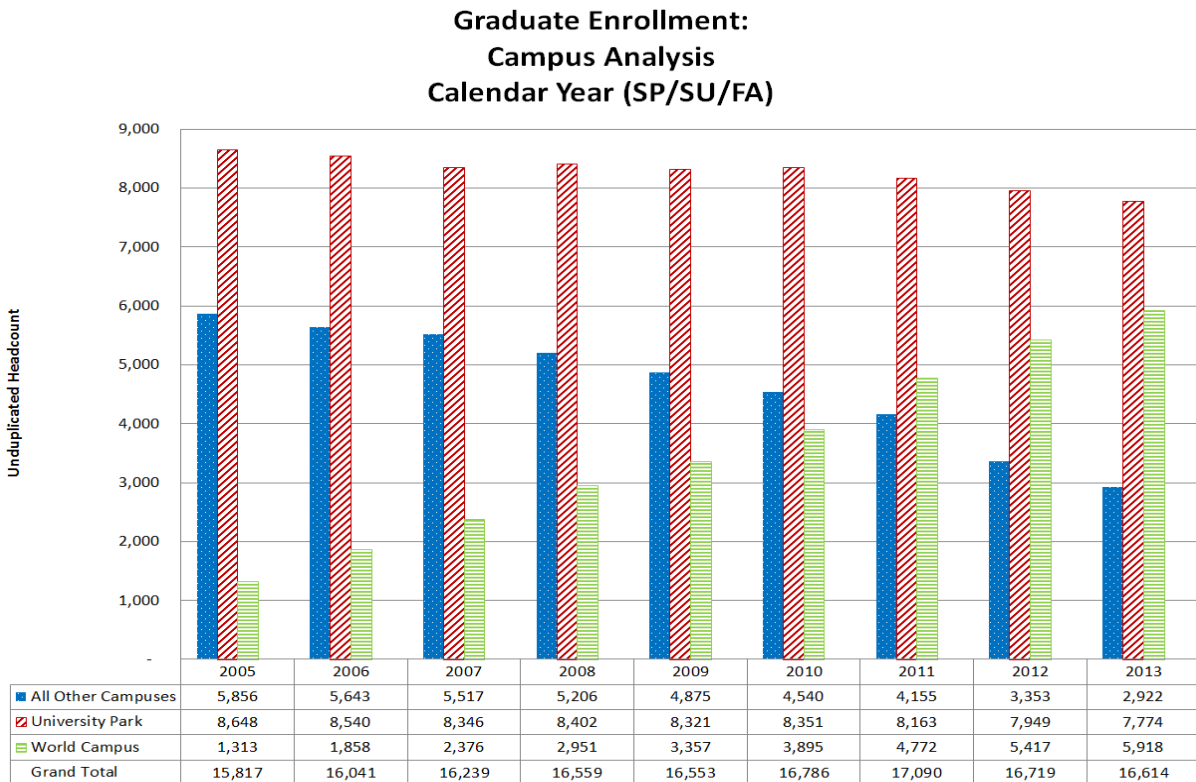


Figure 3

**Resident Graduate Enrollment:  
Doctorate, Master's, and Nondegree  
Calendar Year (SP/SU/FA)**

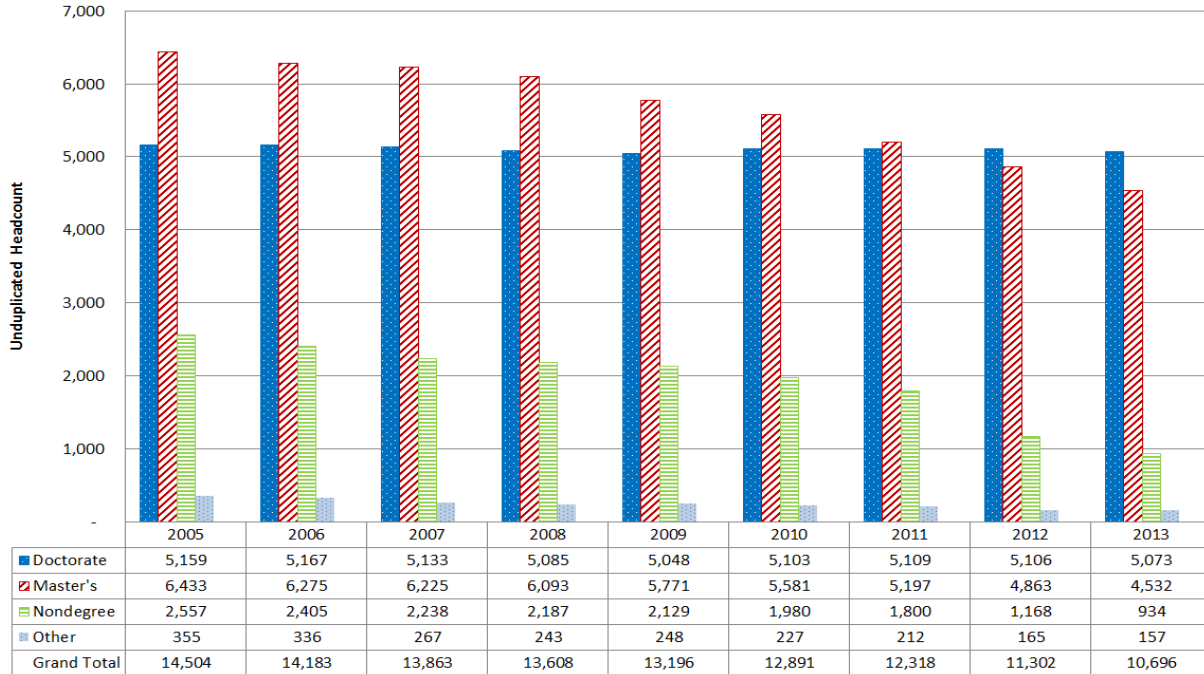


Figure 4.

**World Campus Graduate Enrollment:  
Doctorate, Master's, and Nondegree  
Calendar Year (SP/SU/FA)**



Table 1.

New Graduate Enrollment by Degree Calendar Year (SP/SU/FA)										
Count of Students										
Row Labels	2005	2006	2007	2008	2009	2010	2011	2012	2013	Grand Total
<b>Resident</b>	<b>3,730</b>	<b>3,586</b>	<b>3,456</b>	<b>3,421</b>	<b>3,205</b>	<b>3,240</b>	<b>2,886</b>	<b>2,602</b>	<b>2,456</b>	<b>28,582</b>
<b>Doctoral Degrees</b>	<b>723</b>	<b>748</b>	<b>744</b>	<b>759</b>	<b>732</b>	<b>789</b>	<b>759</b>	<b>765</b>	<b>739</b>	<b>6,758</b>
DED	10	9	15	11	8	17	13	6	6	95
DMA					3	3	1	4	2	13
PHD	713	739	729	748	721	769	745	755	731	6,650
<b>Master's Degrees</b>	<b>1,744</b>	<b>1,732</b>	<b>1,625</b>	<b>1,596</b>	<b>1,513</b>	<b>1,528</b>	<b>1,423</b>	<b>1,336</b>	<b>1,314</b>	<b>13,811</b>
Certifications	70	82	57	59	60	48	41	41	32	490
MA	164	139	145	156	149	132	141	135	117	1,278
MS	523	504	461	458	418	460	445	435	403	4,107
Professional Master's	987	1,007	962	923	886	888	796	725	762	7,936
<b>Nondegree</b>	<b>1,263</b>	<b>1,106</b>	<b>1,087</b>	<b>1,066</b>	<b>960</b>	<b>923</b>	<b>704</b>	<b>501</b>	<b>403</b>	<b>8,013</b>
Nondegree	1,263	1,106	1,087	1,066	960	923	704	501	403	8,013
<b>World Campus</b>	<b>864</b>	<b>1,053</b>	<b>1,277</b>	<b>1,582</b>	<b>1,672</b>	<b>1,923</b>	<b>2,375</b>	<b>2,380</b>	<b>2,368</b>	<b>15,494</b>
<b>Doctoral Degrees</b>							<b>1</b>			<b>1</b>
DED							1			1
<b>Master's Degrees</b>	<b>158</b>	<b>176</b>	<b>191</b>	<b>396</b>	<b>525</b>	<b>724</b>	<b>1,071</b>	<b>1,365</b>	<b>1,291</b>	<b>5,897</b>
Certifications			1	12	28	24	16	23	30	134
Professional Master's	158	176	190	384	497	700	1,055	1,342	1,260	5,763
<b>Nondegree</b>	<b>706</b>	<b>877</b>	<b>1,086</b>	<b>1,186</b>	<b>1,147</b>	<b>1,199</b>	<b>1,303</b>	<b>1,015</b>	<b>1,077</b>	<b>9,596</b>
Nondegree	706	877	1,086	1,186	1,147	1,199	1,303	1,015	1,077	9,596
<b>Grand Total</b>	<b>4,594</b>	<b>4,639</b>	<b>4,733</b>	<b>5,003</b>	<b>4,877</b>	<b>5,163</b>	<b>5,261</b>	<b>4,982</b>	<b>4,824</b>	<b>44,076</b>

Data on an individual program basis also suggest that in some cases, programs are shifting away from a Resident to a solely online model for the same degree program. For example, the Master of Engineering (M.Eng.) in Nuclear Engineering (NUC E) graduate program originated as a Resident program, but is currently offered only online. Degree completion shifted from the Resident program at UP to World Campus in 2010–11, with no further starting cohorts in the Resident (UP) program (other than one student in 2011–12) after that (Table 2).

The M.Ed. in Adult Education similarly began as a Resident program, and transitioned to be a solely online program years ago (not shown).



**Table 2.**

**Degree Completion for the Master of Engineering (MEng) in Nuclear Engineering (NUC E)**

***Degree Completion for University Park***

M ENG	#Started	1 year	2 years	3 years	4 years	5 years	6 years	Total Completed Within 10 Years	% Completed Within 10 Years
2007/08 Cohort	22	11	6	1	-	-		18	82%
2008/09 Cohort	14	6	5	-	-			11	79%
2009/10 Cohort	35	13	1	1				15	43%
2010/11 Cohort	36	2	-					2	6%
2011/12 Cohort	1	-						-	-
2012/13 Cohort	-								

***Degree Completion for World Campus***

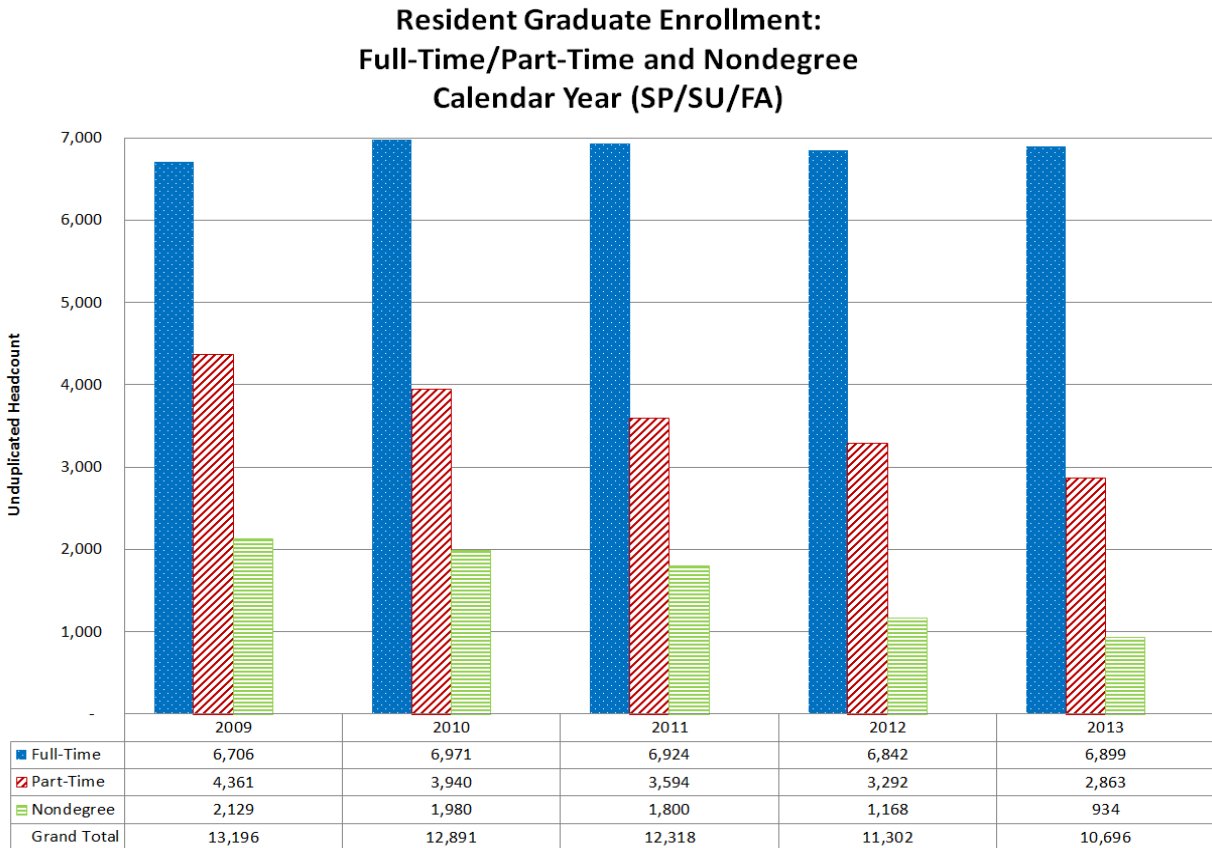
M ENG	#Started	1 year	2 years	3 years	4 years	5 years	6 years	Total Completed Within 10 Years	% Completed Within 10 Years
2007/08 Cohort	-	-	-	-	-	-		-	-
2008/09 Cohort	-	-	-	-	-			-	-
2009/10 Cohort	-	-	-	-				-	-
2010/11 Cohort	59	32	16					48	81%
2011/12 Cohort	35	12						12	34%
2012/13 Cohort	24								

***Total Degree Completion for Major and Degree, Across all Locations***

M ENG	#Started	1 year	2 years	3 years	4 years	5 years	6 years	Total Completed Within 10 Years	% Completed Within 10 Years
2007/08 Cohort	22	11	6	1	-	-		18	82%
2008/09 Cohort	14	6	6	1	-			13	93%
2009/10 Cohort	35	17	12	3				32	91%
2010/11 Cohort	52	19	16					35	67%
2011/12 Cohort	23	4						4	17%
2012/13 Cohort	24								

With significant losses of Part-time Resident degree enrollments through 2013, the percentage of Full-time students has increased from 51% to 65% of total Resident enrollments (Figure 5), whereas Part-time enrollments in World Campus-delivered master's degree programs have increased over the same period to constitute 64% of World Campus enrollments in 2013, with the majority of the remainder (32%) as non-degree students (Figure 6).

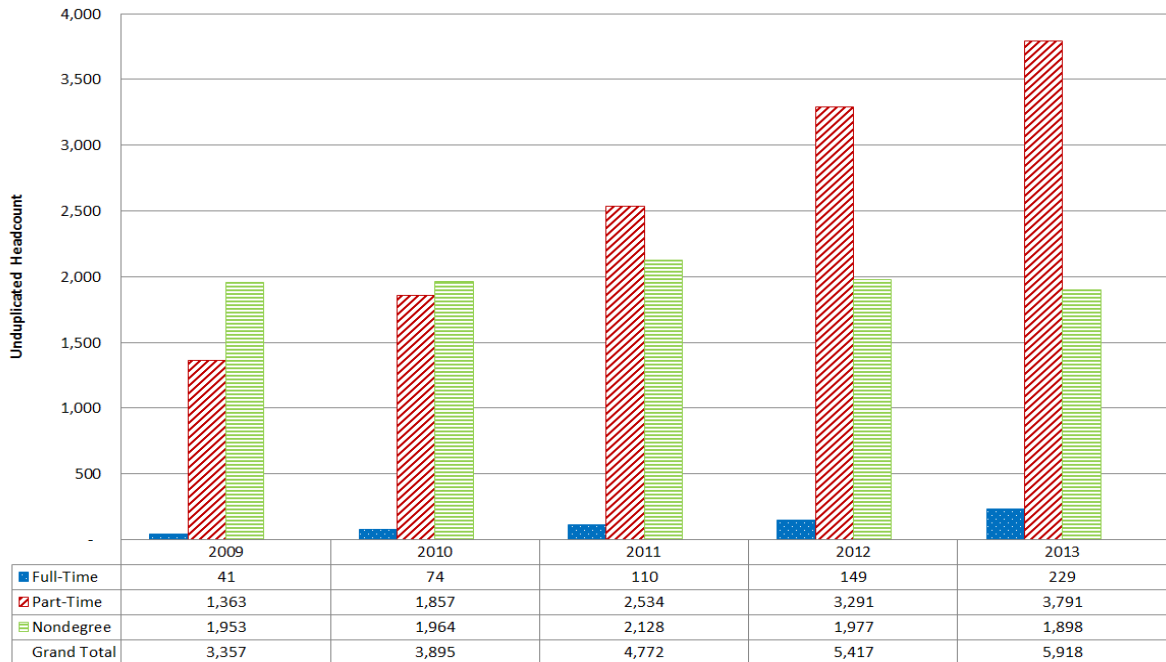
Figure 5.



*Note – A field for enrollment status (F = Fulltime, H = Halftime, L = Less than Halftime) was added to the Data Warehouse in April 2008; data sorted by enrollment status for preceding years are not available.*

Figure 6.

**World Campus Graduate Enrollment:  
Full-Time/Part-Time and Nondegree  
Calendar Year (SP/SU/FA)**



*Note – A field for enrollment status (F = Fulltime, H = Halftime, L = Less than Halftime) was added to the Data Warehouse in April 2008; data sorted by enrollment status for preceding years are not available.*

From 2005 through 2012, PA enrollments declined by 45% for a net loss of 4,004 PA graduate enrollments (Figure 7), which represents the entirety of the loss in Resident enrollments during this period, whereas non-PA enrollments increased slightly (3.5%) during the same period (Figure 7). Significantly, the decline in Resident PA enrollments was not offset by proportionate increases in World Campus PA enrollments, with Non-PA students constituting the majority of World Campus graduate enrollment growth (3,573 or 78% of net growth) (Figure 8). This may reflect the intentional avoidance of World Campus marketing within PA over this period, and that PA students seeking master's and nondegree graduate education preferentially chose online programming (which would have been marketed by other PA institutions), rather than enrolling in Residence at a Penn State graduate center. These trends suggest an opportunity loss, and that Penn State should begin to heavily market its online graduate degree and postbaccalaureate/graduate credit certificate programs within PA.

Figure 7.

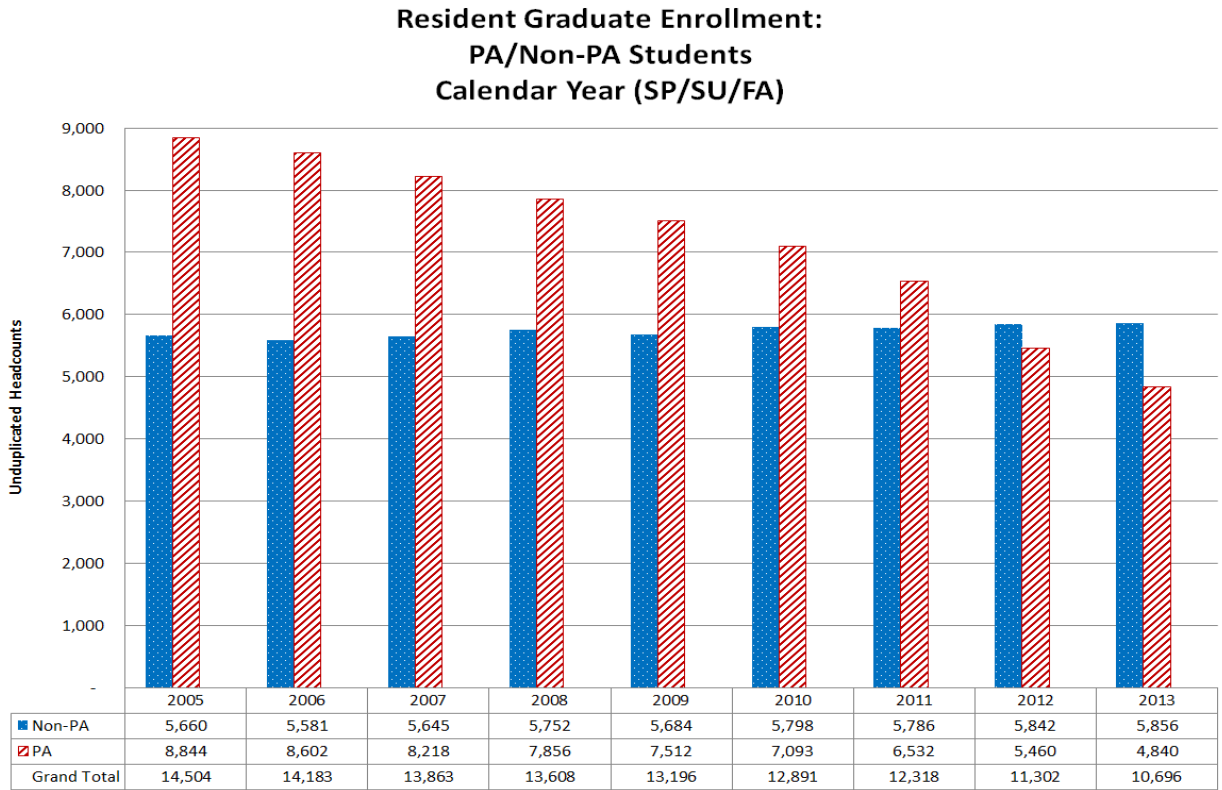
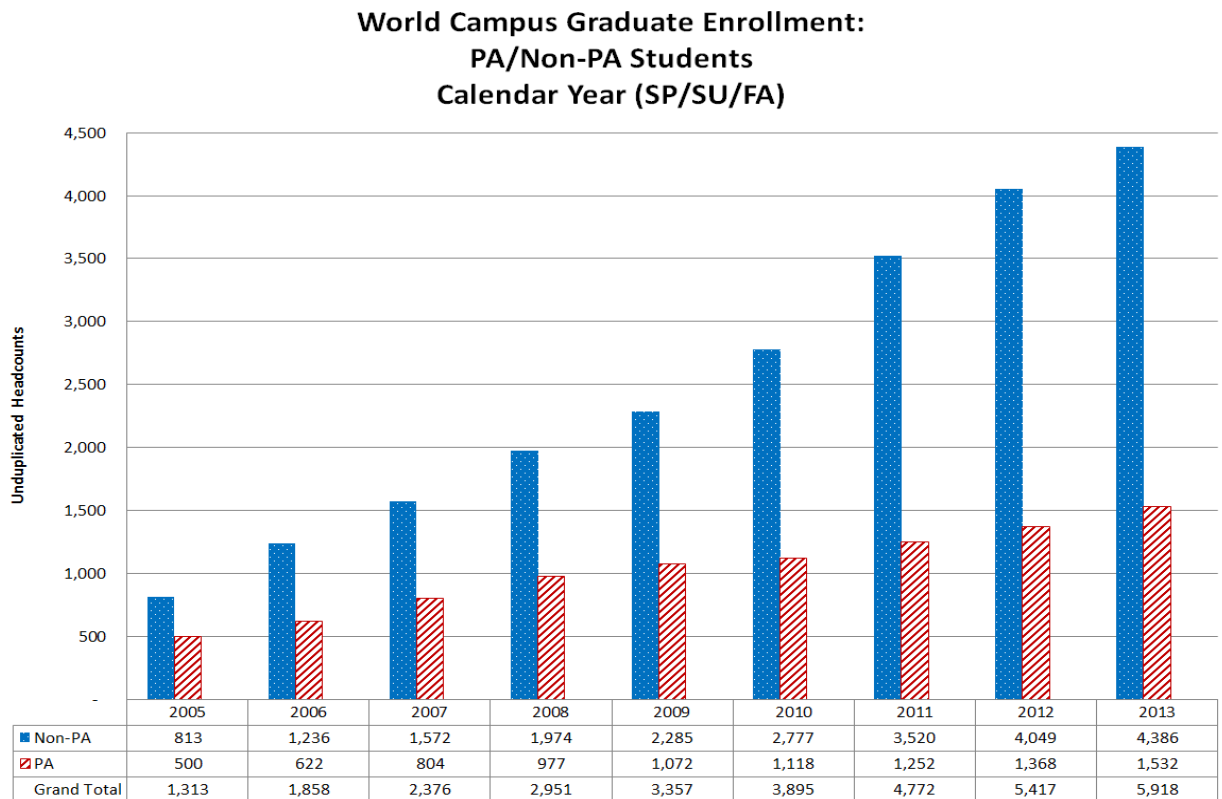


Figure 8.



With declining numbers of Resident PA students, and a 10% increase in the absolute number of International enrollments in Residence, the percentage of International graduate students has increased significantly from 19% in 2005 to 29% of total Resident graduate enrollments in 2013 (Figure 9), though the top countries from which Resident International students are drawn (China, India, and Korea) have remained consistent (Table 3). During the same period, International graduate enrollments in World Campus-delivered programs remained low at 4%, which likely reflects the lack of active marketing of World Campus programs internationally, though this may be an area for significant future investment and enrollment growth (Figure 10).

Figure 9.

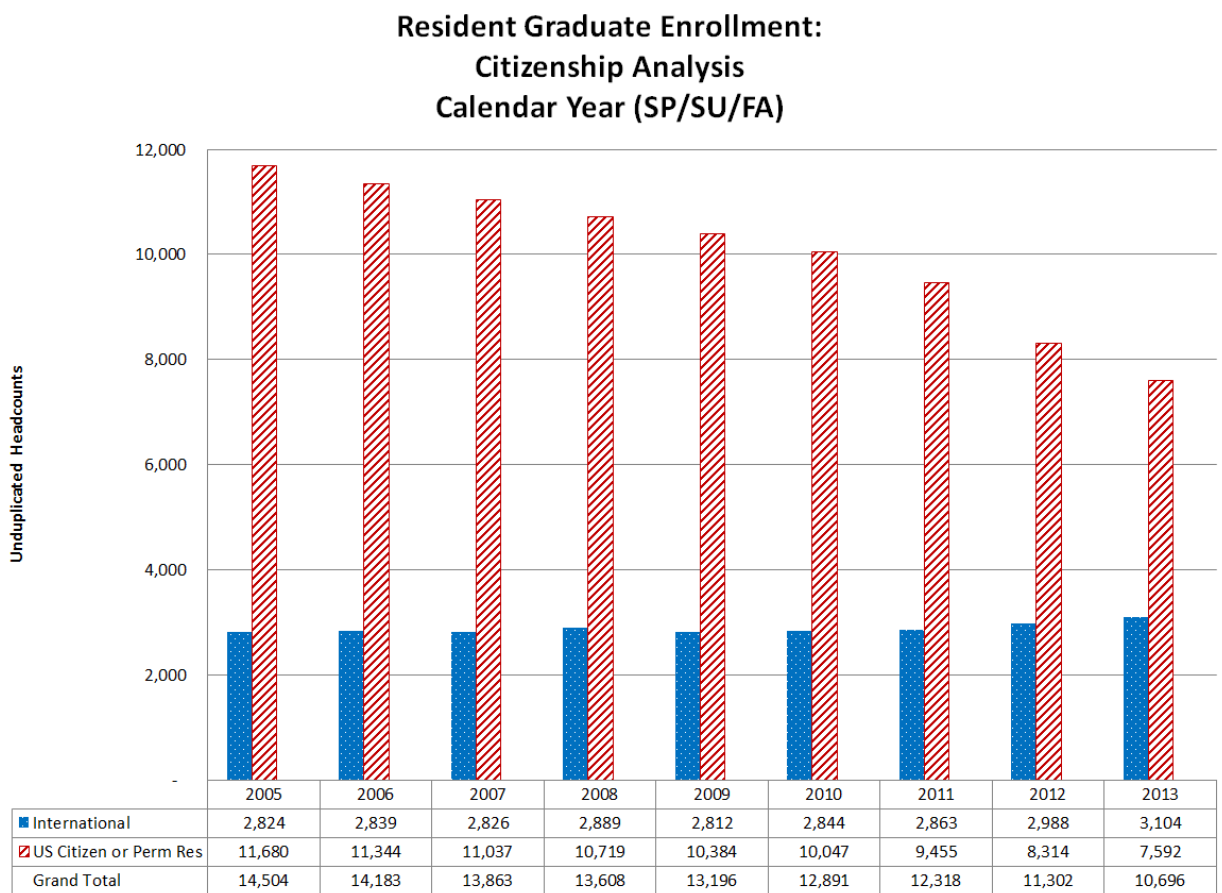
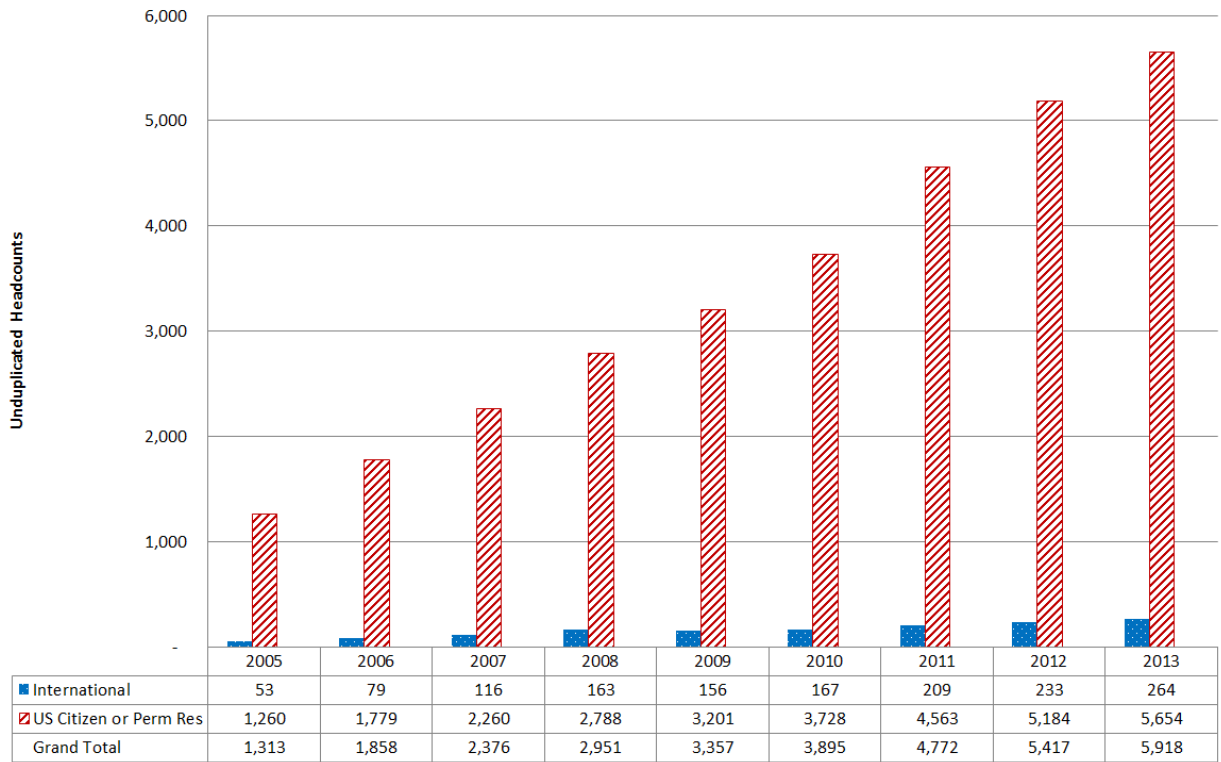


Table 3.

International Students: Top 6 Countries Resident Graduate Enrollment Calendar Year (SP/SU/FA)											
New Student Count	2005	2006	2007	2008	2009	2010	2011	2012	2013	2012 vs 2013	2012 vs 2013
										# change	% change
China	125	154	167	178	166	222	234	263	324	61	23%
India	119	172	161	159	125	139	125	142	139	-3	-2%
Korea	61	88	68	98	52	59	47	49	43	-6	-12%
Iran	3	11	7	17	26	15	18	30	34	4	13%
Taiwan	40	49	32	30	29	22	29	25	24	-1	-4%
Turkey	24	11	8	23	32	27	23	27	19	-8	-30%
Total Student Count	2005	2006	2007	2008	2009	2010	2011	2012	2013	2012 vs 2013	2012 vs 2013
										# change	% change
China	723	733	763	796	798	896	973	1,070	1,209	139	13%
India	596	633	662	685	642	629	590	583	567	-16	-3%
Korea	360	364	358	365	333	324	297	293	280	-13	-4%
Iran	21	30	33	45	65	72	81	96	119	23	24%
Taiwan	199	194	182	165	169	147	135	129	126	-3	-2%
Turkey	113	100	81	77	90	104	113	121	114	-7	-6%

Figure 10.

**World Campus Graduate Enrollment:  
Citizenship Analysis  
Calendar Year (SP/SU/FA)**



Percentage changes in ethnic/racial diversity of Resident enrollments have been negligible over almost a decade, with an increase in Hispanic/Latino graduate students from 2.0% in 2005 to 3.2% in 2013; virtually no change in the percentage of African American graduate students over the same period (3.4% vs. 3.5%); and a decline of 33 Native American students to constitute only 0.1% of total Resident enrollments in 2013 (Figure 11). In contrast, World Campus graduate enrollment growth reflects an increasing population of underrepresented minority (URM) students, with total World Campus enrollments in 2013 comprising 5.8% Hispanic/Latino, 5.6% African American, and .2% Native American students (Figure 12). It is noteworthy that the percentage of students who select “Unknown” for Ethnic/Racial identity has increased from 2005 to 2013, for both Resident (1.2% to 3%) and World Campus (0.2% to 3.9%) enrollment populations, which may confound interpretation of percentage trends over time.

In the aggregate, the percentage of Resident URM graduate students increased nominally from 2005 to 2013 (5.7% to 6.8% of total Resident enrollments; Figure 13), versus a significant increase from 1.5% to 11.6% of total World Campus enrollments over the same period (Figure 14). This larger percentage of URM for World Campus-delivered programs may reflect access by students in large urban areas with more diverse populations. Although across total graduate enrollments (Resident plus World Campus), the percentage of URM students has increased from 5.4% in 2005 to reach 8.5% in 2013, the lack of progress in increasing ethnic/racial diversity of our Resident graduate student population is a serious concern, and one of the highest-priority goals for the Graduate School that will be discussed later in this plan.

Figure 11.

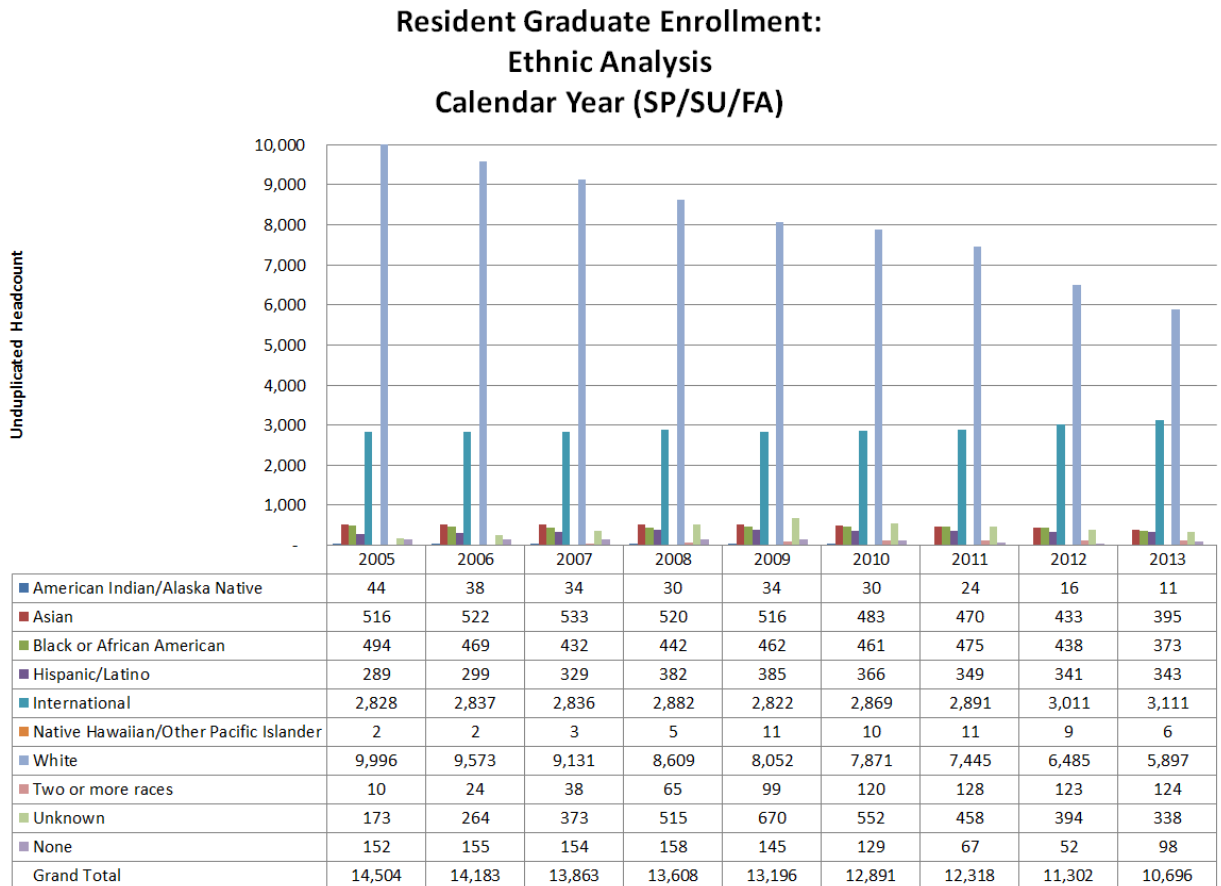


Figure 12.

**World Campus Graduate Enrollment:  
Ethnic Analysis  
Calendar Year (SP/SU/FA)**

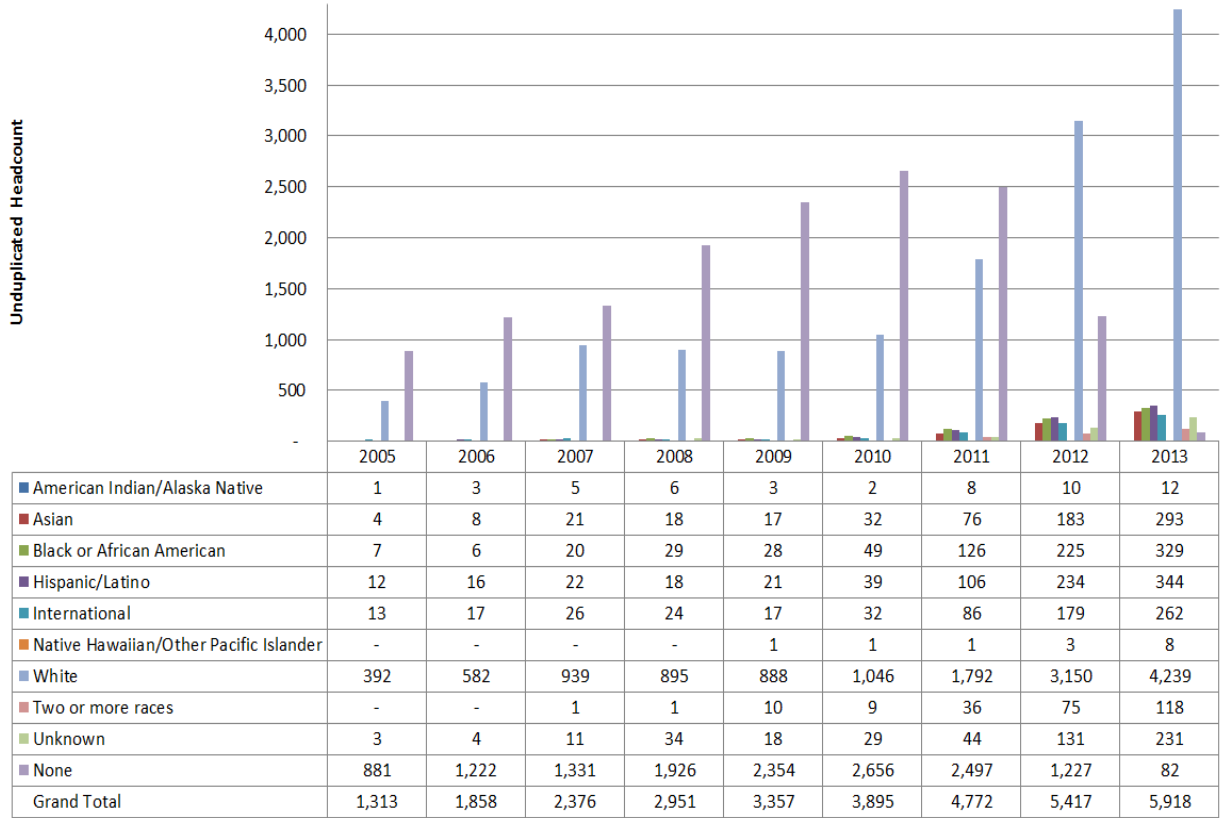




Figure 13.

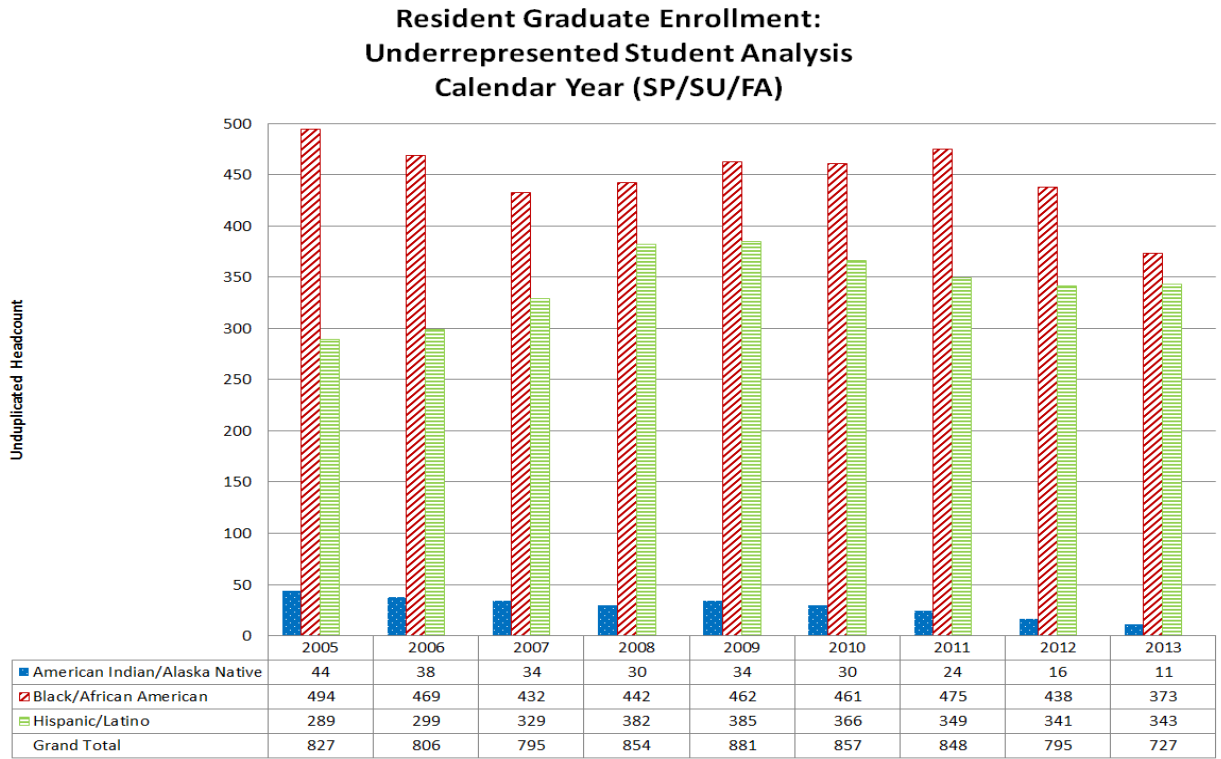
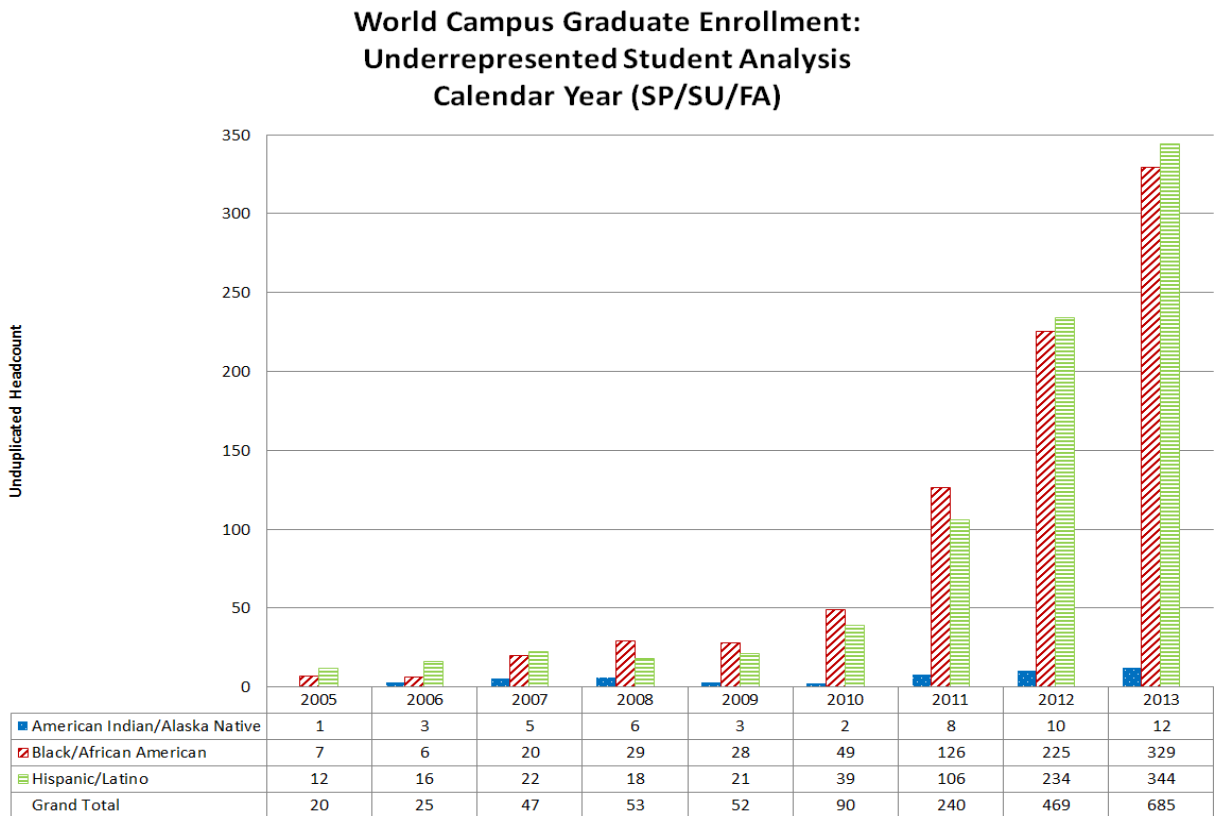


Figure 14.



During the period from 2005 to 2013 the percentage of female versus male Resident graduate enrollments has shifted, so that females now constitute 48% and males 52% of the Resident population (Figure 15). The same trend has occurred with World Campus graduate enrollments; however, the gender differences are more striking, with 45% female versus 55% male World Campus enrollments in 2013 (Figure 16). This larger gender difference may reflect the portfolio of World Campus programs that are more heavily in technical (e.g., engineering; information technology) and business fields that attract a larger male applicant pool. A strategic effort to create additional programs (or specializations in existing programs) that would attract a larger female pool (e.g., health care; education) may further advance enrollment growth.

Figure 15.

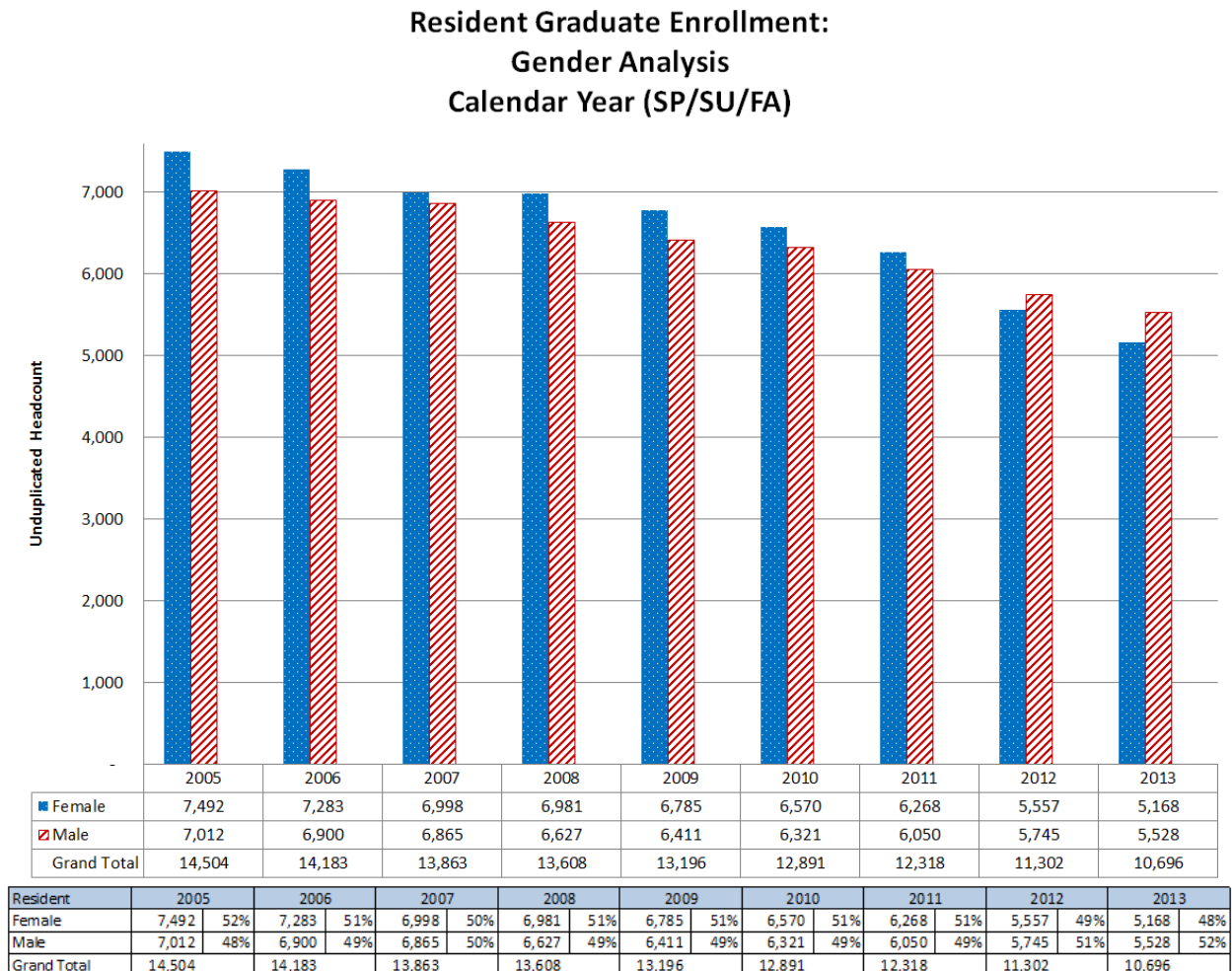
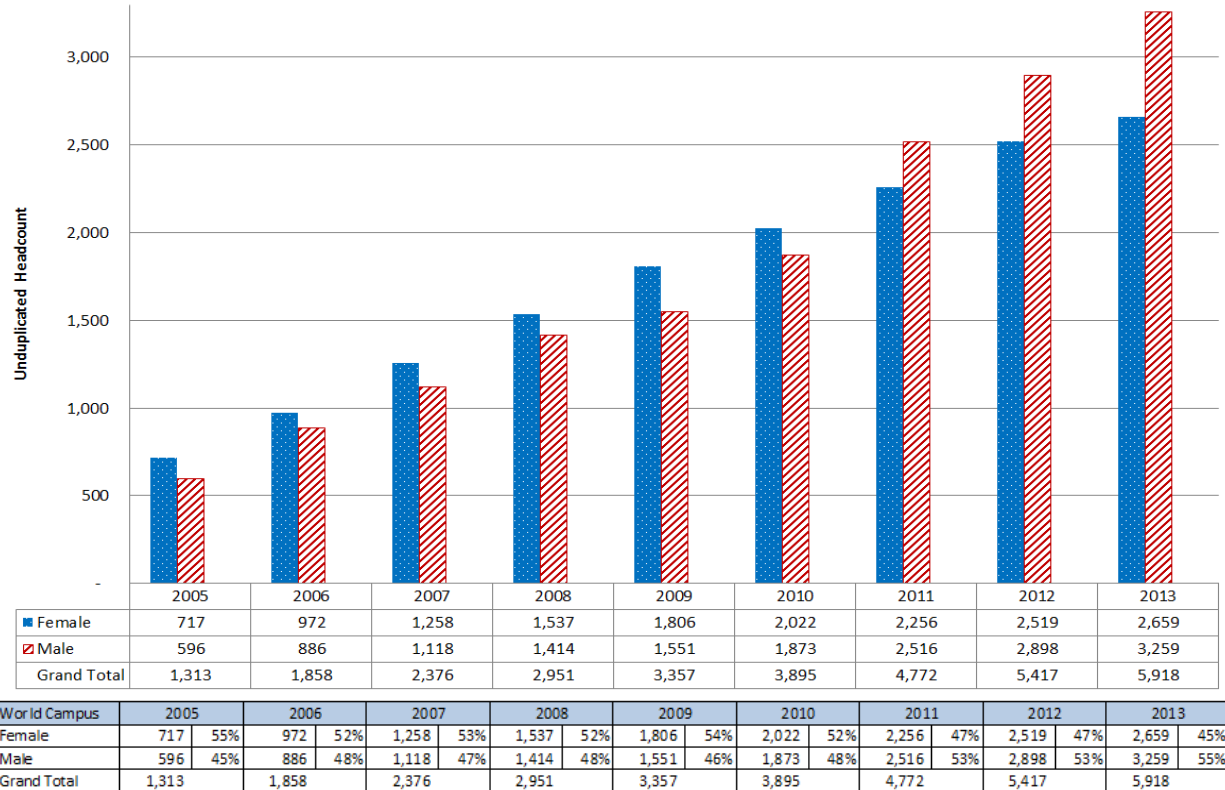


Figure 16.

**World Campus Graduate Enrollment:  
Gender Analysis  
Calendar Year (SP/SU/FA)**

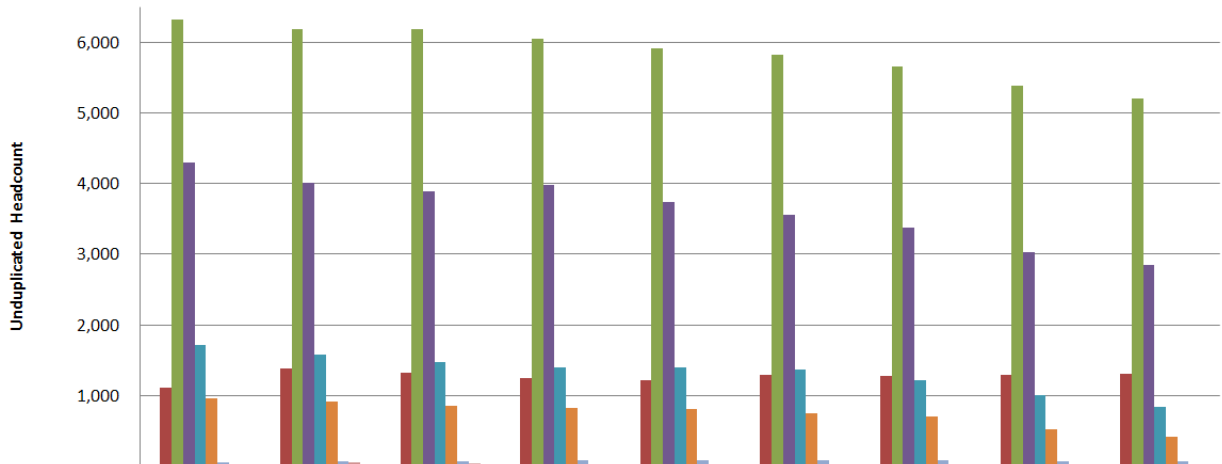


The decline in master’s degree and nondegree graduate Resident enrollments from 2005 through 2013 has been proportionately greater in older sectors of students, including ages 30–59, resulting in an increase in the percentage of more “traditional” graduate students in the 20–29 age range who come to graduate school directly from, or soon after completing, a baccalaureate degree program (Figure 17). By 2013, the traditionally largest sector of Resident graduate enrollments, ages 24–29, had increased from 44% in 2005 to 49% (Figure 17). Interestingly, although World Campus enrollment growth from 2005 to 2013 has included growth in absolute numbers of older sectors of students, including ages 40 through 60 and over, which by 2013 were similar to absolute numbers enrolled in residence, because of disproportionate growth in the “traditional” graduate student age sector (24–29), to constitute the second largest percentage of World Campus graduate enrollments (35%) by 2013, the percentage of enrollments in the older age categories has decreased (Figure 18). The largest age category by percentage of World Campus graduate enrollments, ages 30–39, has remained fairly constant from 2005 (36%) to 2013 (37%) (Figure 18). The disproportionate growth in World Campus enrollments of traditional-age (24–29) graduate students suggests a trend for such students to seek employment immediately after completing their bachelor’s degree, but also to pursue a master’s degree or certificate online over the immediate 5-year postbaccalaureate period. A cost-efficient opportunity may be to market World Campus-delivered master’s degree and

postbaccalaureate/graduate credit certificate programs to Penn State seniors completing their baccalaureate degrees during the semester in which they declare their intent to graduate.

Figure 17.

**Resident Graduate Enrollment:  
Age Analysis  
Calendar Year (SP/SU/FA)**

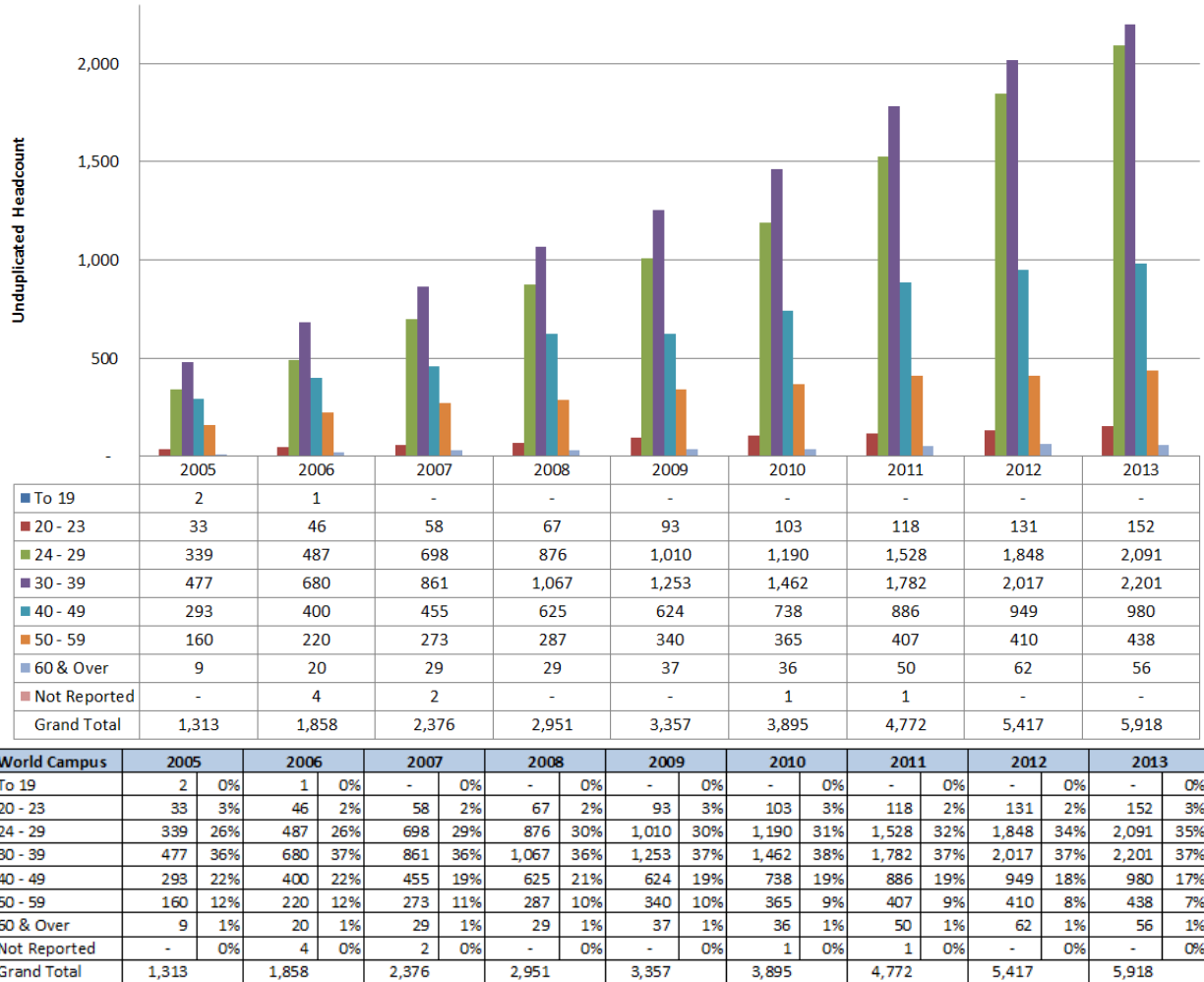


	2005	2006	2007	2008	2009	2010	2011	2012	2013
To 19	2	1	-	-	1	1	1	-	2
20 - 23	1,118	1,390	1,321	1,241	1,224	1,297	1,282	1,286	1,307
24 - 29	6,314	6,184	6,184	6,046	5,912	5,820	5,650	5,390	5,204
30 - 39	4,303	4,003	3,897	3,983	3,734	3,564	3,380	3,034	2,855
40 - 49	1,720	1,573	1,481	1,400	1,406	1,365	1,219	1,003	844
50 - 59	960	909	859	832	814	748	697	518	410
60 & Over	61	72	74	78	90	92	85	69	74
Not Reported	26	51	47	28	15	4	4	2	-
Grand Total	14,504	14,183	13,863	13,608	13,196	12,891	12,318	11,302	10,696

Resident	2005		2006		2007		2008		2009		2010		2011		2012		2013	
To 19	2	0%	1	0%	-	0%	-	0%	1	0%	1	0%	1	0%	-	0%	2	0%
20 - 23	1,118	8%	1,390	10%	1,321	10%	1,241	9%	1,224	9%	1,297	10%	1,282	10%	1,286	11%	1,307	12%
24 - 29	6,314	44%	6,184	44%	6,184	45%	6,046	44%	5,912	45%	5,820	45%	5,650	46%	5,390	48%	5,204	49%
30 - 39	4,303	30%	4,003	28%	3,897	28%	3,983	29%	3,734	28%	3,564	28%	3,380	27%	3,034	27%	2,855	27%
40 - 49	1,720	12%	1,573	11%	1,481	11%	1,400	10%	1,406	11%	1,365	11%	1,219	10%	1,003	9%	844	8%
50 - 59	960	7%	909	6%	859	6%	832	6%	814	6%	748	6%	697	6%	518	5%	410	4%
60 & Over	61	0%	72	1%	74	1%	78	1%	90	1%	92	1%	85	1%	69	1%	74	1%
Not Reported	26	0%	51	0%	47	0%	28	0%	15	0%	4	0%	4	0%	2	0%	-	0%
Grand Total	14,504		14,183		13,863		13,608		13,196		12,891		12,318		11,302		10,696	

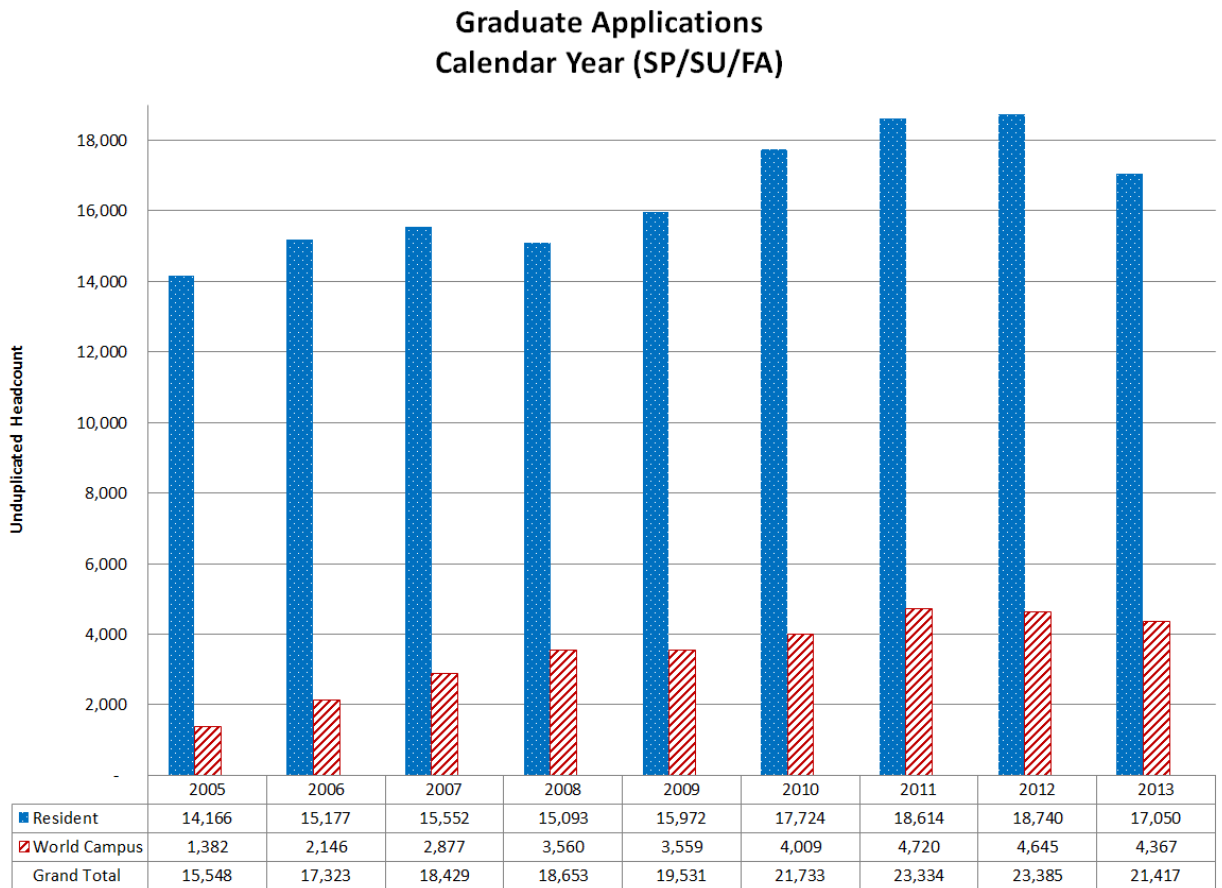
Figure 18.

**World Campus Graduate Enrollment:  
Age Analysis  
Calendar Year (SP/SU/FA)**



Total graduate application numbers increased from 2005 to reach a peak of approximately 23,400 (32% increase) in 2012, which reflected a greater net increase in numbers of applications to Resident (4,574) than World Campus-delivered (3,263) programs, but a much larger percentage growth in applications to World Campus (236.1%, versus 32.3% to Resident programs; Figure 19). The peak in 2012 was followed by a decline of 8.4% in total graduate applications in 2013, which still represents a substantial relative net increase (20%) from 2005 (Figure 19).

Figure 19.



When application numbers are examined by degree, applications to doctoral programs, of which the vast majority are Ph.D., began to increase dramatically in 2010, with a peak in 2012 (Table 4), which may reflect the strong range of rankings for many of Penn State's Ph.D. programs in the NRC Assessment of Research Doctorate Programs, the report of which was released in the fall of 2010. In addition to attracting a larger number of applications, doctoral programs have been much more selective in terms of the percentage of doctoral applicants offered admission (19% in 2013, versus 23% in 2005), while percentage yields have increased (from 53% in 2005 to 58% in 2013), suggesting that doctoral programs in general are more competitive. As a consequence of significantly fewer numbers of offers, which may reflect the increasingly constrained funding environment for grants and contracts on which many doctoral students are supported, the number of new doctoral accepts has declined almost 10% since 2010.

Table 4.

**Resident Doctoral Programs  
Applications, Offers, New Students  
With Percentages of Selectivity and Yield  
By Degree Type and Degree  
New to University  
Calendar Year (SP/SU/FA)**

		2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Resident</b>	<b>Applications</b>	14166	15177	15552	15093	15972	17724	18614	18740	17050
	<b>Offers</b>	5991	6051	5862	5677	5439	5523	5428	5069	4892
	<b>% Selectivity</b>	42%	40%	38%	38%	34%	31%	29%	27%	29%
	<b>Accepts</b>	4614	4523	4294	4255	3872	4024	3765	3367	3129
	<b>% Yield</b>	77%	75%	73%	75%	71%	73%	69%	66%	64%
<b>Doctoral Degrees</b>	<b>Applications</b>	6302	6839	7066	6734	7399	8556	8950	8592	7460
	<b>Offers</b>	1479	1630	1609	1586	1520	1571	1545	1481	1402
	<b>% Selectivity</b>	23%	24%	23%	24%	21%	18%	17%	17%	19%
	<b>Accepts</b>	786	845	856	874	825	903	852	839	816
	<b>% Yield</b>	53%	52%	53%	55%	54%	57%	55%	57%	58%
<b>D ED</b>	<b>Applications</b>	34	32	33	27	27	37	27	17	12
	<b>Offers</b>	18	18	21	15	16	23	19	10	8
	<b>% Selectivity</b>	53%	56%	64%	56%	59%	62%	70%	59%	67%
	<b>Accepts</b>	16	15	20	14	13	20	17	9	6
	<b>% Yield</b>	89%	83%	95%	93%	81%	87%	89%	90%	75%
<b>D MA</b>	<b>Applications</b>					13	24	16	20	16
	<b>Offers</b>					8	11	6	10	12
	<b>% Selectivity</b>					62%	46%	38%	50%	75%
	<b>Accepts</b>					3	3	2	4	3
	<b>% Yield</b>									
<b>PH D</b>	<b>Applications</b>	6268	6807	7033	6707	7359	8495	8907	8555	7432
	<b>Offers</b>	1461	1612	1588	1571	1496	1537	1520	1461	1382
	<b>% Selectivity</b>	23%	24%	23%	23%	20%	18%	17%	17%	19%
	<b>Accepts</b>	770	830	836	860	809	880	833	826	807
	<b>% Yield</b>	53%	51%	53%	55%	54%	57%	55%	57%	58%

Applications to Resident master's degree programs also grew significantly from 2005 through 2012, with the majority attributed to growth in applications to M.S. (net increase of 2,245; 81.3%) and professional master's (789; 32.7%) degree programs (Table 5). However, the number of offers made by programs remained fairly constant, resulting in greater selectivity over this period for both M.S. (36% vs. 21%) and professional master's degree programs (61% vs. 44%), though the percentage of applicants accepting offers also declined, resulting in lower net yields of both categories of Resident master's degree programs (Table 5). The absolute numbers of applications, offers, and accepts for Resident M.A. degree programs did not change appreciably over the same period.

Table 5.

**Resident Master's Programs, Certifications, and Graduate Nondegree  
Applications, Offers, New Students  
With Percentages of Selectivity and Yield  
By Degree Type and Degree  
New to University  
Calendar Year (SP/SU/FA)**

		2005	2006	2007	2008	2009	2010	2011	2012	2013
Certifications	Applications	126	139	102	97	79	74	62	71	48
	Offers	88	91	67	72	63	56	46	60	40
	% Selectivity	70%	65%	66%	74%	80%	76%	74%	85%	83%
	Accepts	85	87	64	71	63	54	46	58	40
	% Yield	97%	96%	96%	99%	100%	96%	100%	97%	100%
M A	Applications	856	955	955	850	871	945	912	1035	982
	Offers	291	288	292	300	276	275	311	313	340
	% Selectivity	34%	30%	31%	35%	32%	29%	34%	30%	35%
	Accepts	207	195	191	208	203	172	194	195	166
	% Yield	71%	68%	65%	69%	74%	63%	62%	62%	49%
M S	Applications	2761	3016	3226	3076	3383	3761	4464	5006	4987
	Offers	996	1043	1046	1045	946	994	1083	1030	1061
	% Selectivity	36%	35%	32%	34%	28%	26%	24%	21%	21%
	Accepts	662	599	592	609	539	575	540	572	529
	% Yield	66%	57%	57%	58%	57%	58%	50%	56%	50%
Nondegree	Applications	1709	1539	1462	1415	1293	1261	1085	835	637
	Offers	1669	1461	1387	1358	1201	1166	1020	762	593
	% Selectivity	98%	95%	95%	96%	93%	92%	94%	91%	93%
	Accepts	1660	1452	1379	1350	1182	1156	1015	752	589
	% Yield	99%	99%	99%	99%	98%	99%	100%	99%	99%
Professional Master's	Applications	2412	2689	2741	2921	2947	3127	3141	3201	2936
	Offers	1468	1538	1461	1316	1433	1461	1423	1423	1456
	% Selectivity	61%	57%	53%	45%	49%	47%	45%	44%	50%
	Accepts	1214	1345	1212	1143	1060	1164	1118	951	989
	% Yield	83%	87%	83%	87%	74%	80%	79%	67%	68%



Graduate applications to World Campus have increased since 2005, with nondegree applications (primarily certificate programs) exceeding applications to professional master's degree programs up to 2011, after which nondegree applications began to decline, followed by a decline in master's degree applications in 2013 (Table 6). New accepts to World Campus-delivered professional master's degree programs continue to increase, whereas nondegree accepts have declined since 2011, resulting in an approximate 7% decline in total new students.

In general, compared to Resident programs (Table 5), World Campus-delivered professional master's programs appear less selective, with the percentage of applicants offered admission increasing each year from 2005 (46%) through 2013 (73%; Table 6). It is not known whether the majority of World Campus programs prescreen prospects before directing those eligible for admission to complete the Graduate Application. The very high yields (98% since 2012) may also reflect such prescreening and/or that these program only enter offers into the central GRADS system (or directly into the Admissions Matrix) for applicants who have accepted, but not those who have declined offers, reflecting an artificially high yield.

Table 6.

**World Campus Graduate Programs, Certifications, and Graduate Nondegree  
Applications, Offers, New Students  
With Percentages of Selectivity and Yield  
By Degree Type and Degree  
New to University  
Calendar Year (SP/SU/FA)**

		2005	2006	2007	2008	2009	2010	2011	2012	2013
World Campus	Applications	1382	2146	2877	3560	3559	4009	4720	4645	4367
	Offers	1114	1813	2482	2989	2966	3322	3921	3782	3656
	% Selectivity	81%	84%	86%	84%	83%	83%	83%	81%	84%
	Accepts	1081	1792	2443	2930	2902	3240	3876	3741	3609
	% Yield	97%	99%	98%	98%	98%	98%	99%	99%	99%
Certifications	Applications			2	23	46	36	26	39	47
	Offers			2	17	37	33	23	32	41
	% Selectivity			100%	74%	80%	92%	88%	82%	87%
	Accepts			1	17	37	33	23	32	41
	% Yield			50%	100%	100%	100%	100%	100%	100%
Nondegree	Applications	936	1643	2308	2560	2348	2539	2686	2119	2047
	Offers	907	1566	2206	2450	2210	2381	2519	1987	1946
	% Selectivity	97%	95%	96%	96%	94%	94%	94%	94%	95%
	Accepts	907	1566	2206	2450	2208	2379	2516	1981	1940
	% Yield	100%	100%	100%	100%	100%	100%	100%	100%	100%
Professional Master's	Applications	446	503	567	977	1165	1434	2008	2487	2273
	Offers	207	247	274	522	719	908	1379	1763	1669
	% Selectivity	46%	49%	48%	53%	62%	63%	69%	71%	73%
	Accepts	174	226	236	463	657	828	1337	1728	1628
	% Yield	84%	91%	86%	89%	91%	91%	97%	98%	98%

Since 2005, the number of graduate degrees conferred has increased 38%, primarily resulting from growth of World Campus-delivered professional master's degree programs, which in 2013 accounted for 27% of graduate degrees conferred (Table 7). Alternatively, doctoral degrees conferred in 2013 were decreased 3% since a peak in 2010, a trend likely to continue with

declining numbers of new doctoral admissions likely reflecting a more challenging funding environment. In 2013, Penn State conferred 2,892 master's and 673 doctoral degrees (3,565 total), with most of these (44% of the master's and 95% of the doctoral degrees) at University Park (Table 7).

Table 7.

Graduate Degrees Conferred By Campus Calendar Year (SP/SU/FA)														
Degree Count														
Row Labels	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Grand Total
<b>Resident</b>														
<b>Doctorate</b>	523	547	581	609	658	659	673	677	689	694	691	688	673	8362
HARRISBURG	5	5	9	9	9	6	11	16	13	9	13	17	10	132
HERSHEY MED CTR	18	25	37	30	22	25	26	28	48	32	36	20	26	373
UNIVERSITY PARK	500	517	535	570	627	628	636	633	628	653	642	651	637	7857
<b>Master's</b>	2068	2095	2216	2129	2087	1960	1940	2075	1959	2025	1913	1916	1938	26321
ERIE	29	44	40	29	56	65	61	65	55	55	55	44	43	641
GREAT VALLEY	515	542	558	460	382	362	365	356	350	325	305	271	252	5043
HARRISBURG	355	406	424	460	460	491	446	515	467	404	357	353	332	5470
HERSHEY MED CTR	15	16	15	17	20	20	8	16	21	19	21	12	29	229
UNIVERSITY PARK	1132	1079	1162	1145	1142	1006	1041	1094	1049	1214	1170	1219	1278	14731
OTHER	22	8	17	18	27	16	19	29	17	8	5	17	4	207
<b>World Campus</b>														
<b>Master's</b>	1	10	28	51	81	89	160	225	270	409	505	671	954	3454
WORLD CAMPUS	1	10	28	51	81	89	160	225	270	409	505	671	954	3454
<b>Grand Total</b>	2,592	2,652	2,825	2,789	2,826	2,708	2,773	2,977	2,918	3,128	3,109	3,275	3,565	38,137

## Summary of Major Trends, Areas of Concern, and Opportunities:

1. Resident master's degree and nondegree graduate enrollments have declined steadily for almost a decade, primarily at non-University Park locations, and with all of the loss being PA students.
2. World Campus-delivered master's and nondegree graduate enrollment growth, comprising primarily non-PA students, has compensated for Resident enrollment declines, and constituted 35.6% of total graduate enrollments in 2013, but new World Campus graduate enrollment growth has essentially plateaued since 2011.
3. Penn State has lost PA market share and should market its online master's degree and postbaccalaureate/graduate credit certificate programs more heavily within PA.
4. The percentage of international students has increased to now constitute almost a third of Resident graduate enrollments, with the primary source countries remaining China, India, and Korea. As these countries continue to develop economically, it will be more challenging to compete with the home country for its best students, and other global regions that have been less cultivated (e.g., South America) remain opportunities.
5. International graduate enrollments in World Campus have remained very low, consistent with the lack of active marketing of World Campus programs internationally, though this may be an area for significant future investment and enrollment growth.
6. Ethnic/Racial diversity of Resident enrollments has changed negligibly over almost a decade, with percentages of URM students abysmally low, whereas World Campus programs have attracted an increasingly diverse enrollment population, with total URM students reaching 11.6% of total online graduate enrollments in 2013.
7. The gender distribution of Resident enrollments has shifted to a slight male majority, with the same trend, but far more prominent, in World Campus graduate enrollments. The latter may reflect the disciplinary emphases in Penn State's online portfolio of graduate programming, and a strategic effort to create additional graduate programs (or specializations in existing programs) that would attract a greater female pool (e.g., health care; education) may further advance World Campus enrollment growth.
8. More traditional-age students are seeking master's degrees at a distance soon after completing their baccalaureate degree, and internal "direct" marketing of World Campus graduate programming to Penn State undergraduates who have declared their intent to graduate within any semester may be an opportunity.
9. Applications to Penn State's doctoral programs began to increase markedly coincident with the release of the NRC Assessment of Research Doctorate Programs in 2010, in which Penn State had many highly ranked programs. In addition to attracting a larger number of applications, doctoral programs have been much more selective in terms of the percentage of applicants offered admission, while percentage yields have increased, suggesting doctoral programs in general are more competitive. Of concern is that as a consequence of significantly fewer numbers of

offers, which may reflect the increasingly constrained funding environment for grants and contracts, the number of new doctoral accepts has declined almost 10% since 2010.

10. Recognizing that degree conferral trends largely reflect admission of new students from preceding years (absent significant changes in completion rates), doctoral degrees conferred in 2013 have decreased 3% since a peak in 2010. With declining new doctoral admits, this trend is particularly concerning and likely to continue in the absence of increased funding, particularly in fields traditionally tied to extramural support for out years (e.g., STEM fields).
11. Application numbers to Resident M.S. degree programs, and to both Resident and World Campus-delivered Professional Master's degree programs also have increased; however, Resident programs have maintained a fairly constant level of offers, while acceptances have decreased, resulting in slightly lower yields. World Campus-delivered programs appear less selective, though this may reflect prescreening, whereas almost perfect yields may reflect prescreening and/or be an artifact of the practice by academic programs of entering only accepted offers into the central database, making assessment of these programs based upon selectivity and yield problematic.
12. World Campus-delivered professional master's degrees conferred have grown almost 1,000-fold, from one degree awarded in 2005 to 954 in 2013, the latter of which represented one third of all master's and 27% of all graduate degrees conferred that year. This trend almost certainly will continue, as new accepts to World Campus-delivered professional master's degree programs continued to increase in 2012 and 2013.

## II. Priority Goals for Graduate Education

### A. Advancing Technologies for Support of Graduate Education

#### 1. *Implementation of the new student information system (SIS), Project LionPATH*

The replacement of Penn State's legacy student information system is a critical priority and will require significant resources from the Graduate School over the next three years.

The software implementation process will include the review and potential redesign of all student-related business processes throughout the university. The Graduate School will have the opportunity to provide new services that could not be supported in the past, to automate processes that currently are manual, and to change inefficient or less efficient processes. The goal of the process review and redesign is to configure the software with little-to-no customization of the base PeopleSoft product (Campus Solutions). Because undergraduate and graduate student processes frequently differ, the Graduate School staff will be diligent in each review, mainstreaming when possible and making the best possible case when differentiation is required.

##### a) *Unit-Specific Impacts and Potential Workflow*

While every unit within the Graduate School will have to adapt to the new system, three areas will be impacted most significantly:

##### i) Graduate Enrollment Services

Graduate Enrollment Services (GES) is the largest administrative unit within the Graduate School and will be significantly impacted by the LionPATH project. During the three-year implementation period, the workload for GES will be increased and a considerable burden will be placed upon the staff to assure continuity of services, as well as maintenance of parallel systems before the eventual change-over. Table 8 lists GES processes that will be affected by the implementation of LionPATH.

A key opportunity presented by the acquisition of the new student system is converting many of the current GES manual business processes into automated workflow (Table 9). The goal of electronic approval routing will be to create paperless transactions, thus making processes more efficient and less costly. Workflow will also improve transparency, allowing for immediate tracking of the progress/status of a process. Some of the critical manual processes that GES will seek to implement via workflow in the new student system are:

- Doctoral committee appointments and the scheduling of doctoral benchmark examinations
- Resume study/change of graduate degrees or majors
- Transfer of credits (internal and external, nondegree to degree, etc.)
- Concurrent graduate degree programs
- Integrated undergraduate/graduate decision and semester reports
- Joint medical/graduate decision and semester

- Admission decisions

GES also will develop workflow for all currently available online forms, including:

- Program provisional form
- Request for letter of certification
- Request for an undergraduate student to take graduate courses
- Request to add graduate minor

## ii) Office of Graduate Fellowships and Awards Administration (OGFAA)

The Office of Graduate Fellowships and Awards Administration processes graduate awards that are posted to the current student system directly, as well as through eSteward. The office confirms student data relevant to students' eligibility for Graduate School awards; the student system is used extensively in work processes. Table 8 lists impacted OGFAA processes.

Potential workflow processes that could enhance operations within OGFAA are listed below (see also Table 9):

- Faculty review and recipient selection component of the graduate awards process.
- The Summer Tuition Assistance Program (STAP) funds students who have been on graduate assistantships, fellowships and traineeships during the previous fall and spring semesters for up to 9 credits of resident instruction tuition in the summer. Currently in place is an online application (<https://secure.gradsch.psu.edu/cosign/stap/>) that includes extensive programming to manage eligibility checks and an online administrative portal to manage workflow and the approval process. It is anticipated that the existing programming will "bolt on" to the new student system.

## iii) Network Operations

During the LionPATH interactive design and prototype (IDP) sessions, the decision will be made as to whether the custom Graduate Application and Graduate Admissions Decision System (GRADS) will remain outside of PeopleSoft, with interfaces built for data exchange, or whether the functionality will be available and utilized within Campus Solutions. This decision will determine the course for the majority of the work to be completed by the Network Operations team during the next three years. Other Graduate School systems that will be affected by this decision include the Graduate Program Management System (GPMS)/Graduate Control Panel, Automated Admission Letters, Graduate Processes Portal (GPP), Course and Program Proposal System (CAPPS), Behavioral Threat Management System, and University Graduate Fellowships (UGF) Letters.

The implementation of the new student system and potentially Data Warehouse will require regularly run reports to be rewritten for future reporting, including all

reports currently published in the Graduate School's Executive Suite. Another group of reports that will require consideration for update, replacement, or rewrite are Graduate Application Reports, which are used internally by the Graduate School staff for trouble-shooting/resolving problems, checking/reporting application numbers and fees, updating applicant data, verifying uploads, and various other functions.

Table 8. Graduate School Processes Affected by LionPATH Implementation

<b>Graduate Enrollment Services</b>
• Process application fees, waivers, refunds, insufficient funds, and credit card chargebacks
• Approve admission and generate all degree, nondegree/certificate, change of major/degree and resume study letters
• Determine academic eligibility and send ineligible letter
• Index and maintain all academic records for graduate applicants and students
• Disseminate information to all graduate programs
• Send exit surveys to graduating students
• Collect and approve theses/dissertations
• Facilitate graduate commencement
• Compile and submit information for commencement program
• Check in students at commencement ceremony
• Distribute doctoral diplomas at commencement ceremony
• Approve minors
• Approve concurrent contracts
• Identify and correct application discrepancies
• Process second doctorates
• Monitor provisional admissions
• Place academic registration holds
• Process, approve and monitor all integrated undergraduate/graduate and joint degree applications and records
• Process and approve change of degree applications
• Process and approve change of major applications
• Process and approve resume study applications
• Review and approve transfer credits
• Review and approve cancellations
• Review and approve late drops and adds
• Review and approve withdrawals
• Monitor research credits for Graduate Council graded limits
• Verify enrollment record and approve students for graduation
• Notify graduate programs of students who have dropped below a 3.00 GPA
• Process doctoral candidacies
• Monitor residency requirement
• Monitor for degree time limitations
• Review and process comprehensive examinations
• Review and process final examinations

• Review doctoral committee appointments for compliance with Graduate Council requirements
• Review and verify continuous registration requirement
• Review and monitor deferred and missing grades
• Update student transcripts for Graduate Council-approved options
• Review, approve, and assign all international CWIPSE educational codes into student system
• Grant approval to Penn State undergraduate students to take a graduate-level course
• Review requirements and process letters of certification
• Update official transcripts with notations and specific codes
• Review and approve the transfer of external credits
• Review and approve the transfer of Penn State undergraduate courses to graduate record
• Review and approve the transfer of Penn State law courses to graduate record
• Review and approve the transfer of Penn State medical courses to graduate record
• Review and approve graduate nondegree courses to apply toward graduate degree
• Approve individuals to serve as special members of doctoral committees
• Approve retroactive withdrawals
• Approve retroactive course drops
• Approve retroactive course adds
• Approve retroactive grade changes
• Approve time extensions
• Approve grade extensions
• Approve exception to English competency requirement
<b><i>Office of Graduate Fellowships and Awards Administration</i></b>
• Student award entry
• Award eligibility confirmation
• Monitoring student eligibility for fellowships and assistantships (eDDS reports)
• Summer Tuition Assistance Program oversight
Stand-alone application with data from the Warehouse
- Extensive workflow process
- Daily report to the Bursar's office reflecting STAP award amounts to be entered
• File extract for Alumni that documents graduates with prior fellowship awards (eDDS)
• File extract for annual NSF-NIH Survey (eDDS from student system and Warehouse)
• Congratulatory letter creation (Warehouse query)
• Creation of student event invitations and name tags (Warehouse queries)

Table 9. Graduate School Needed Workflows

<b><i>Graduate Enrollment Services</i></b>
• Doctoral committee appointments
• Resume study/change of graduate degrees or majors
• Doctoral benchmark examinations
• Transfer of credits (internal and external, non-degree to degree, etc.)



<ul style="list-style-type: none"> <li>• Concurrent graduate degree programs</li> </ul>
<ul style="list-style-type: none"> <li>• Integrated undergraduate/graduate decision and semester reports</li> </ul>
<ul style="list-style-type: none"> <li>• Joint medical/graduate decision and semester reports</li> </ul>
<ul style="list-style-type: none"> <li>• Admission decisions</li> </ul>
<ul style="list-style-type: none"> <li>• Program provisional form</li> </ul>
<ul style="list-style-type: none"> <li>• Request for letter of certification</li> </ul>
<ul style="list-style-type: none"> <li>• Request for an undergraduate student to take graduate-level courses</li> </ul>
<ul style="list-style-type: none"> <li>• Request to add graduate minor</li> </ul>
<b><i>Office of Graduate Fellowships and Awards Administration</i></b>
<ul style="list-style-type: none"> <li>• Graduate School Awards Selected through a Centralized Selection Process (This represents more than a dozen programs with varying approval paths/workflows.)</li> </ul>
<ul style="list-style-type: none"> <li>• Summer Tuition Assistance Program (STAP) (This would be necessary if the current programming could not be “bolted on” to the new system.)</li> </ul>
<b><i>Office of the Dean of the Graduate School</i></b>
<ul style="list-style-type: none"> <li>• Annual Graduate Student Academic Progress Assessment</li> </ul>

**Strategies:** Full participation in the LionPATH project implementation team, steering committee, and executive committee; backfill of positions of Graduate School staff assigned to the project; active review of business processes; testing of systems, extensive training for all staff; maintaining parallel systems and processes through full implementation; reprogramming of graduate specific bolt-on systems to interface to the new system; where needed, training of graduate program staff regarding new graduate-specific processes and functionalities in the new system.

**Performance Indicators:** Full utilization of applicable Campus Solutions functionality; abandonment of any duplicative systems; strict adherence to timeline; reduction in number of manual processes.

## ***2. Centralizing and digitizing transcripts***

In an effort to reduce workloads for graduate program offices, the Graduate School will work towards centralizing the processing of incoming transcripts and, where possible, manage them digitally. Before an applicant can be formally offered admission to a Penn State graduate program, he/she must submit official transcript(s) from institutions previously attended, and Graduate Enrollment Services (GES) Coordinators verify eligibility based upon the institution and credential, and the authenticity of the transcript. This is especially difficult given the number of transcripts coming from international institutions. Business process redesign will be implemented to receive and process transcripts in a more efficient manner, especially with respect to receipt of transcripts in digital format from institutions that utilize electronic transcript services.

**Strategies:** Strategic reevaluation and redesign of business process flow to reduce volume of hardcopy transcripts that are processed, while retaining academic integrity

and security of the process for admission decisions; elimination of processing transcripts by graduate program office staff; automated processing of domestic transcripts by GES coordinators.

**Performance Indicators:** Reduction in the number of staff hours across all graduate programs required to process transcripts for graduate admissions.

### **3. *Constituent Relationship Management (CRM) systems***

Graduate students and units that support them could benefit greatly by leveraging communication technology that is becoming commonplace in many other industry sectors. Constituent Relationship Management (CRM) systems help organizations provide excellent service by managing incoming and outgoing communications, as well as storing pre-defined data fields to better serve the interests of clientele, ultimately resulting in greater productivity for the organization due to increased efficiency and a higher capacity.

The graduate admissions process is not managed solely by the Graduate School. Graduate programs select applicants to whom they wish to offer admission, while GES coordinators verify eligibility for those prospects and confirm to the respective applicant his/her admission to the Graduate School. Today there is a custom-built system, the Graduate Admissions Decision System (GRADS) that aids in the sharing of application information between the Graduate School and graduate program offices. This system is limited in what can be entered, and does not, for example, capture and store communications with prospects. In addition, not all of the capabilities of the system have been adopted by every program office. Given the limitations, it is difficult for the Graduate School to enforce 100% utilization. With a robust CRM system, both graduate programs and GES would have real-time information about applicants. Consistent messaging could be developed and delivered to prospective students in a timely manner.

It will be necessary to integrate the CRM with the student information system (SIS) to maintain data integrity. The student information system will be the system of record for all current students, and there is no reason to duplicate effort by re-entering that same information into a CRM system. With appropriate integration, changes made to the SIS can be seen in both systems without additional effort.

**Strategies:** Pursue an enterprise-level CRM system; charge a working team to develop strategy around CRM; define system requirements; engage vendor demonstrations.

**Performance Indicators:** University-wide committee formed; RFP released; implementation plan formed; software selected and implemented.

### **4. *Redesign/reorganization of the Graduate School website and the Graduate Application for accessibility and usability***

In conjunction with experts in this area from the World Campus, the Graduate School has initiated assessment of the Graduate Application design and usability utilizing web analytics and user testing, and will be implementing a redesign to enhance the user experience. Over the upcoming five-year Strategic Planning period, the Graduate School staff will use search engine optimization (SEO) to increase traffic to the application; improve the visual design and usability of the application to increase the number of

completed applications; and improve the branding of the Graduate School web pages and Graduate Application.

**Strategies:** Web analytics; user testing.

**Performance Indicators:** Metrics on number of applications initiated that are completed; improvements in ratings related to design, usability, etc., through follow-up user testing.

## B. Advancing Strategies in Support of Graduate Education Quality

### 1. Graduate Program Quality and Student-Centered Metrics

*Is Penn State positioned to achieve/maintain excellence?*

The quality of doctoral programs represents the lifeblood of a research university. In 2000-01 and again in 2003-04, the Graduate School initiated internal review of all graduate programs in which we collected data that allow us to review the size of programs, time to degree, as well as indicators of student quality through measures including GPA and GRE scores at the time students are recruited. We have not conducted a review for a number of years because of the time and effort that was demanded in collecting and submitting data from 2006 through 2008 for the majority of our Ph.D. programs reviewed by the National Research Council (NRC) as part of their periodic survey that was released in Fall of 2010, and subsequently, the University-wide Core Council review of all academic and administrative programs in 2011. The Graduate School was represented on both the University Park Academic Review Coordinating Committee (UPARCC) and Core Council for this purpose.

What we have learned from prior reviews is that programs are often not aware of objective measures of program quality for their own units. The two largest problems we see are that many of our programs are rather small, and the level of diversity within resident programs is exceedingly low, with no improvement in almost a decade. The challenge to program faculty is determining how to deliver a quality program when the enrollment and level of diversity are relatively low. In the case of small programs, it often becomes difficult to offer all the courses students expect when they enroll, and student-student interactions are below a critical threshold and not informed by diversity of student experience and perspective. Several reasons exist why student numbers may be low: insufficient resources to support students; multiple graduate programs that overlap in content or context, thus creating internal competition for student numbers; a weaker overall program based upon faculty reputation. The latter problem is beyond the scope of the Graduate School, so we will focus on the first two areas for which we will suggest opportunities.

Recruitment of a more diverse graduate student body has been a chronic problem and one that requires investment and commitment by the entire faculty and leadership of programs and colleges, in partnership with the Graduate School. Later in this plan we will discuss in detail efforts made to date, and plans for further addressing this over the next five-year period. Importantly, in this section we will discuss efforts towards greater transparency in providing metrics that will allow programs to monitor progress towards program quality goals, including diversity, and plans to more directly tie financial resources allocated to colleges for graduate recruitment and program improvement to specific metrics that include increasing the number of URM Ph.D. enrollments.

- a) **Program Review Dashboards** – In an effort to assure that programs are able to monitor relevant indicators of performance on an ongoing basis, the Graduate School has constructed program review “Dashboards” that will be available online through the Graduate Executive Information Suite and updated annually to provide a 10-year window that will allow programs to monitor trends and readily assess the impact of efforts to improve. Data that will be available in the Program Review Dashboards include the following:

- i) “Proxy measures” of program quality that include the number of applications received; offers made and percentage selectivity; and numbers of acceptances and percentage yield. These are considered proxy measures given the general relationship between high-quality programs that attract larger numbers of applications, which enables a greater selectivity of offers, and a larger percentage of offers that are accepted within those programs.
- ii) Metrics for new enrollees including standardized test scores such as GREs, GMATs, etc.; GPA; and key demographics (race/ethnicity, gender, citizenship).
- iii) Total enrollments and demographics for total enrollees.
- iv) Number of degrees conferred.
- v) Median time-to-degree (TTD), both from first enrollment in the degree program in which the degree is conferred, and since first enrollment in the Graduate School.
- vi) Ten-year completion rates.

Initially, these Dashboards will be shared with college administrators for graduate education who will be asked for feedback on the metrics selected and methodology for deriving the data. Once these are refined, programs will be given access and asked for feedback on the accuracy of the data and any corrections needed, along with the basis for any corrections. Finally, we will engage college administrators in a review of their program metrics every three years, with financial resources allocated by the Graduate School to colleges for graduate education tied to program outcomes. Although no singular metric is reflective of the quality of any graduate program, the overall profile that emerges when considering a holistic picture of multiple factors over a multi-year period will be important to determining resources allocated and/or the directed distribution of resources in subsequent years. The factors that will be considered are student-centered and include the number of applications, selectivity and yield; GRE scores for new enrollees (verbal for humanities fields and quantitative for all other fields, and for both domestic and international applicants for Ph.D. programs); total enrollments; diversity of the program (depending upon the discipline, percentage female and/or percentage domestic students, and for all fields, the percentage of URM students); TTD; and Completion Rates, with key metrics including total enrollments, TTD, completion rates and percentage URM students. As we build a database of placements (see next section: **b) Placement Portal**), emphasis will be focused on placements both immediately following and in out-years post-degree conferral, in terms of relevance to program mission, correlation to degree, and stature of placement.

- b) **Placement Portal** – A second phase of our efforts to institute systematic program review and quality improvement of graduate programs will be the creation of a “Placement Portal” for the online collection of placement data to be submitted by graduate programs. The initial priority of the Placement Portal will be data for research doctorate programs to be entered by the programs immediately following degree conferral each semester, and then annually for up

to ten years for each alum. Later stages of expanding the Placement Portal will consider more limited placement data for master's degrees, including professional master's degrees in residence and delivered through the World Campus.

Whereas programs will be asked to define their mission and placement data will be evaluated in the context of that mission, the evolving landscape of graduate education is clearly defining a broadened scope of placement "success" for the Ph.D. beyond the academy. The value of extended placement data will be multi-faceted, including more comprehensive and accurate assessment of Ph.D. pathways, as data from a limited number of institutions and programs, including Ph.D. programs in the College of the Liberal Arts here at Penn State and the Rackham Graduate School at the University of Michigan, suggest tenure-line placements within the academy increase with extended time post-degree conferral (including in STEM fields and beyond the transition from post-doctoral placement to the subsequent appointment). In addition, placement data are invaluable for more effective recruitment of competitive students; provide opportunities for developing enrichment programs for current students such as alumni mentoring and networking; and provide more informed opportunities to reconnect with alumni for development efforts. Most importantly, such data provide programs and the Graduate School with one of the most meaningful indicators of the value of the degree and validates the expressed mission of the program.

- c) **Fellowships/Awards Portal** – In addition to a Placement Portal, a "Fellowships/Awards Portal" also will be created, allowing programs to submit data indicating competitive funding that has been awarded to students. Included are both internal (e.g., College/Department/Program; University and Distinguished Graduate Fellowships) and external (e.g., STAR; NIH; NSF; other) award sources.
- d) **Student Mentoring and Career Preparation** - In addition to examining metrics of program quality such as the number of applications received; admission offers made; and degrees completed, there are other areas which also reflect the quality of a graduate program. How effectively graduate students are mentored by program faculty and how well students are prepared for careers upon degree completion are two significant measures of program success. The Graduate Student and Faculty Issues (GSFI) subcommittee of Graduate Council is developing two new mentoring initiatives which will assist programs in their continuing efforts to provide quality mentoring to graduate students. These initiatives, which have student input, will seek to challenge programs to develop new strategies to train graduate faculty to be effective mentors and to develop innovative mentoring programs for their students. The Academic Standards subcommittee of Graduate Council is revising current guidelines related to the role of graduate students as teaching assistants to ensure that students are being utilized in this role appropriately and are sufficiently prepared for their careers upon graduation.
- e) **Advancing the Establishment and Assessment of Learning Outcomes** – in research degree programs (Ph.D., M.S. and M.A.) the very nature of research is investigating the unknown, and the ultimate validation and expression of learning outcomes in such programs is the dissertation/thesis and secondary products of those works such as peer-reviewed papers and scholarly books. In many professional master's programs that are subject to accreditation, establishing and

measuring learning outcomes are prescribed and monitored through accreditation review. For professional master's programs that are not subject to accreditation requirements for assessment of learning outcomes, advancing the need for goals and metrics for assessing learning outcomes to be articulating in proposals to establish such programs will be advanced within Graduate Council, the governing body for setting academic policies and standards for graduate education.

In summary, the priority goal of improving and maintaining graduate program quality will entail the following strategies and performance indicators:

**Strategies:** Program review Dashboards with metrics relevant to program quality over an annually refreshed 10-year window; Placement Portal with data collected initially for doctoral programs and eventually master's degree programs; Graduate School financial resources allocated to colleges for graduate education tied to indicators of program quality. Through Graduate Council initiatives, promulgate the establishment of mentoring programs within each graduate program, and advance via Graduate Council the requirement for academic units to articulate learning outcomes and their assessment when proposing professional master's programs not subject to accreditation requirements otherwise.

**Strategic Performance Indicators:** Program quality metrics including, but not limited to TTD and completion rates; percentage URM research doctorate enrollments; placements both immediately following and in out-years post-degree conferral in terms of relevance to program mission, correlation to degree and stature of placement. Additional quality metrics will include the number of graduate programs implementing mentoring activities from year to year, student feedback on the effectiveness of mentoring programs, faculty adherence to the revised guidelines for teaching assistants, and student feedback on their experience as teaching assistants. Because the requirement for establishing and assessing learning outcomes falls under academic governance, the establishment of new policy in this domain by Graduate Council within the Plan period will be an indicator. Once policies have been established, future program review metrics will include learning outcomes for such programs.

## **2. *Improve Graduate Student Support***

Financial support for doctoral education has never been a higher or more compelling priority advanced by the Graduate School for Penn State, based upon three fundamental principles:

- Research doctorate (Ph.D.) students are the pillars upon which the research enterprise at Penn State is supported. As such, their value to the University is intrinsic and self-evident.
- Training Ph.D. students is a core value of the University, both in fulfilling its educational mission and in defining the institution as a comprehensive

doctoral, very high research activity, Research University (CompDoc, RU/VH).<sup>2</sup>

- Penn State's commitment to quality must be a defining element of its graduate degree programs.

For many fields and high-value prospects (e.g., URMs in STEM disciplines), stipend levels are limiting to recruitment of the most competitive applicants. At an even more fundamental level, stipend grades in some colleges are so low as to not afford a living wage, calculated at \$18,469 in 2014 for Centre Co., PA (<http://livingwage.mit.edu/counties/42027>), the location of the University Park campus, which is where the majority of Ph.D. students are enrolled. This amount equates to approximately a grade 13, ½-time fall/spring assistantship stipend, or a lower fall/spring stipend plus summer support. Although a considerable range of stipend grades exists across a large range of values, resources often limit the ability to offer higher grades over multi-year packages, especially for assistantships supported by General Funds (e.g., TAs). Strategic decisions to limit the number of TAs in large programs in order to allow for higher grade stipends (in cases where instructional needs can be appropriately met through more cost-effective measures such as a select number of full-time instructors) may lead to recruitment of higher-quality applicants, and have been employed very successfully in colleges such as the College of the Liberal Arts. However, barriers to this approach may include resistance by faculty who benefit from the research support provided by larger numbers of Ph.D. students in search of dissertation projects, as well as the budgetary constraint of pre-paid tuition grants-in-aid representing dollars that cannot be repurposed otherwise by academic units. Its success is also predicated on the program attracting a pool of highly competitive applicants who would accept offers only if financial packages were higher in value (in particular, stipend levels). It will not impact programs that fail to attract competitive prospects to their final applicant pool, or lead to accepts by competitive applicants for whom Penn State is not a first choice, regardless of financial offers.

a) ***Priority Goal 1: Raise minimum stipend grades that fall below the University average and extend multi-year offers of support for the median TTD for each Ph.D. field.***

Across the University, 93% of graduate assistantships (GAs) in 2013–14 were ½-time, with a numerical average value of \$18,488 (approximately a grade 13), and with more than 83% at or above a grade 12.

- i) Colleges with ½-time fall/spring stipend grades below this level should work toward raising all stipends in the college to a minimum of grade 12, plus summer support (which is estimated to provide a “living stipend” as defined above), with the ultimate goal of a minimum grade 13 over the next five-year period.

<sup>2</sup> 2010 Carnegie Classifications, Institution Profile for Pennsylvania State University, Main Campus, University Park; [http://classifications.carnegiefoundation.org/lookup\\_listings/view\\_institution.php?unit\\_id=214777&start\\_page=institution.php&clq={%22first\\_letter%22%3A%22P%22}](http://classifications.carnegiefoundation.org/lookup_listings/view_institution.php?unit_id=214777&start_page=institution.php&clq={%22first_letter%22%3A%22P%22}).



- ii) Colleges in which doctoral students are offered support for less than the median TTD for the program should assure offers of multi-year support for the median TTD, assuming that good academic progress is being made each year and that assigned duties are performed at acceptable levels.
- b) **Priority Goal 2: Offer competitive stipends appropriate to the field and (preferentially) fellowship support to enable the most competitive prospective students by national standards to be recruited, and increase yields of such students.**
- i) **College-Level Strategies:** As internal resources for graduate support are primarily in the form of instructional budgets allocated to colleges, strategic decisions will need to be made within each college on how best to achieve these goals. These may include:
- **Downsizing the number of GA slots and reallocating resources to raise stipend grades and provide multi-year packages of support for doctoral students,** in balance with supporting a select number of full-time instructors to assure coverage of teaching needs. In 2013, Johns Hopkins' Krieger School of Arts and Sciences proposed increasing funding packages for doctoral students to \$30,000 a year for five years, including a summer stipend, in order to increase their competitiveness, with reduced time-to-degree and increased yields anticipated, and to be achieved by cutting enrollments across departments that participate by approximately 25 percent over a period of five years (see <http://www.insidehighered.com/news/2013/12/11/hopkins-plans-shifts-graduate-school-and-faculty-hiring#ixzz357zdopKw> ).
  - This approach has been used very successfully by Penn State's College of the Liberal Arts, and enabled the college to remain highly competitive nationally in disciplines with limited opportunities for extramural support, such as the Humanities. *Importantly, undergraduate teaching obligations should not drive the size of graduate programs.*
  - **Elevating graduate support as a development priority for the college.** It is recognized that colleges have many competing priorities for gifts and endowments and, ultimately, the interests of donors are paramount in determining the focus of major gifts. However, development efforts can offer compelling narratives for support of graduate education that refocus on the research assets that Penn State can bring to bear on an enormous range of societal problems, with recruitment of excellent graduate students key to supporting innovative research that advances societal needs; raising the quality of teaching in undergraduate classrooms by graduate teaching assistants; and increasing the quality of the University's graduate programs and thereby its stature as a research university, which adds value to the Penn State degrees of all alumni.

- A range of endowed gifts for graduate education has been recommended for the next Campaign, to afford colleges flexibility in accommodating donors, including:
  - Graduate Scholar Award - \$50,000
  - Graduate Scholarship - \$250,000
  - Distinguished Graduate Fellowship - \$400,000, matched with college and Graduate School (UGF) support.
- ***Strategically Expanding Professional Master's Degrees and Postbaccalaureate/Graduate Credit Certificate Programs*** - Whereas historically, professional master's degree programs were the priority focus of only select fields and colleges, strategic development of a broader portfolio of such degree programs for distance delivery offers a new mechanism for colleges to enhance support for Ph.D. training, through new net revenue generation. Colleges should prioritize strategic development of high-quality professional master's degree programs that have a significant market and will have a societal impact (e.g., workforce development/retraining; support of emerging technologies and new, interdisciplinary fields). Meaningful postbaccalaureate/graduate credit certificate programs that provide further professional development and training, certification, or other continuing education appropriate to the field are additional opportunities, particularly as they may lead highly qualified individuals to seek related degree programs in the college. Prioritization of some portion of net revenues from such programs to enhance support for doctoral education may be a viable and significant opportunity for colleges.

**College-Level Strategic Performance Indicators:** Elimination of ½-time GAs below grade 12 across all colleges, and commitments of multi-year support through the median TTD for all doctoral admits by 2018/19.

ii) ***Graduate School Strategies:***

- ***Expansion and Enhancement of University Graduate Fellowships Program*** University Graduate Fellowships are allocated by the Graduate School and offered to the highest caliber prospective students who apply across the University's 97 research doctorate programs, with Fall 2013 new enrollments of over 800 Ph.D. students. The UGFs provide first-year support, with limited fall/spring stipends of \$17,500 in AY 2013–14, and a commitment of a matching year from the respective graduate program. In recent years, the Graduate School has had only 80 University Graduate Fellowships (UGFs) to allocate across all colleges and graduate programs. Through reprioritization of funds within the Graduate School,

***an additional 5 UGFs have been created and stipends for all 85 UGF awards will be raised to \$25,000 beginning in AY 2014–15***, the first year of this five-year Strategic Plan. Through further planning and resource reallocation within the Graduate School, ***over the remainder of our five-year Strategic Plan the UGF stipends will be raised incrementally by \$1,250 each year until they reach \$30,000 in 2018/19***, the final year of the Plan, and maintained at that level, with reevaluation each year thereafter.

- Most significantly, ***President Eric J. Barron and Executive Vice President and Provost Nicholas P. Jones have approved the prioritization of central resources to fund within the Graduate School an additional 15 UGFs beginning in 2014–15, bringing the total to 100 awards***. In addition to a Fall/Spring stipend, each UGF includes graduate tuition, a University contribution to student health insurance for graduate fellows, and qualifies the fellow for Summer Tuition Assistance. This provision of greater first-year support will enhance the ability of graduate programs to offer multi-year packages with competitive stipends and better ensure that Ph.D. students can complete their programs within the typical time-to-degree for the discipline.
- ***Continuation and Expansion of the Distinguished Graduate Fellowship (DGF) Incentive Program***
- In addition to enabling a critical expansion of the current UGF program, the additional UGF resources will provide the opportunity for continuing the Distinguished Graduate Fellowship (DGF) program that provides a University match to donors' gifts that endow one semester of a graduate fellowship. The greatest success of this program was in the Eberly College of Science, which fully matched its full allocation of 12 University Graduate Fellowships with 24 Distinguished Graduate Fellowships and was subsequently awarded 2 additional UGF slots annually as the first college to achieve this laudable goal. The Graduate School will continue to champion this development initiative and encourage colleges to prioritize donor support for this purpose. Across the University, the DGF incentive program has resulted in the endowment of 38 DGFs since the first gift under the program in 2004. The provision of an additional 20 UGFs will allow colleges to continue to attract donors and expand their resources available for graduate education.

**Graduate School Strategic Performance Indicators:** Increases in program quality metrics (described above) for programs with enhanced UGF/DGF support; increased number of DGFs across the University.

- ***Expansion and Enhancement of College-Specific National Science Foundation Graduate Research Fellowship Program Incentive Awards*** – National Science Foundation Graduate Research Fellowships are highly competitive and prestigious awards that provide stipends of

\$32,000 per year for three years and \$12,000 towards the cost of education (COE; i.e., tuition and fees) to award recipients. In eligible fields, actively encouraging and mentoring competitive students in developing applications for NSF-GRFP awards is key to successful applications. An effort to promote this practice by providing incentive funds for colleges to develop customized programs for submission of applications was piloted in two colleges. Based upon the success of those colleges, the incentive program is being expanded and all colleges with NSF-supported disciplines have been invited to submit proposals for enhancing submission of highly competitive applications through mentoring and financial support. This offer of scholarship and mentoring support will be novel to some top prospects, and is expected to give Penn State's admission and financial offers a "bonus" factor. The Graduate School is affording student scholarships and program support to those colleges that submit successful proposals. Thus far, successful college proposals have included early (prior to fall semester start) mentoring; a proposal for an graduate-level course centered around preparing successful applications; scholarships for application submission, honorable mentions, and successful applicants; and program support for faculty mentors. This initiative, and others that may be developed following this model, are intended to attract the most nationally competitive students to Penn State's NSF-eligible programs, improve program quality, and expand support for research doctorate programs.

- ***Sponsorship of Graduate School Workshop for NSF-GRFP Development*** – The Graduate School Office of Graduate Fellowships and Awards Administration (OGFAA) will continue to organize, sponsor, and refine a highly valued workshop for graduate students preparing NSF-GRFP applications and their faculty mentors that include presentations by successful applicants, as well as Penn State faculty who have served on NSF-GRFP review panels to provide insights on effective proposal preparation. Some graduate programs, such as Psychology, have developed highly successful mentoring programs for assisting incoming students in preparing successful NSF-GRFP applications, and are to be commended for their efforts, with the OGFAA's workshop intended to complement and further support those efforts, as well as to propagate best practices to other units.

**Strategic Performance Indicators:** Further increases, beyond the growth demonstrated below, in the total number of NSF-GRFP awards by incoming and first-year graduate students as a result of these expanding strategies:

- 2014–15, 22 new fellows (new and incoming)
- 2013–14, 17 new fellows (new and incoming).
- 2012–13, 23 new fellows (new and incoming).
- 2011–12, 21 new fellows (new and incoming).
- 2010–11, 12 new fellows (new and incoming).
- 2009–10, 14 new fellows (new and incoming).

iii) **Leveraging of Resources to Increase External Support for Graduate Education through Faculty Incentive Programs** – The Graduate School will continue to prioritize support for two faculty incentive programs intended to leverage external awards that support graduate education:

- The Grant-in-Aid Incentive Program provides faculty with a mechanism by which to leverage extramural funds. As resources allow, the Graduate School considers requests for tuition grants-in-aid to match stipends derived from external grants and contracts that prohibit tuition as an allowable expense.
- The Pre-Doctoral Training Grant Development Incentive Award provides incentive funds for faculty to develop competitive pre-doctoral training grant applications that, if funded, will enhance the quality of graduate education at the University and expand support for graduate student research. Under this program, the Graduate School provides \$5,000 in extra compensation to selected faculty members who successfully complete and submit competitive, predoctoral training grant proposals for multi-student, multi-year funding opportunities to agencies or foundations that support such programs.
- An example of the value of these incentive programs was the recent notification (6/15/14) of the fourth straight renewal of an NIH training grant in Demography by the PI, Valarie King:
- “I am thrilled to let you know that our Family Demography Training Grant has been funded by NICHD for another 5 years. I wanted to thank you and the Graduate School for your support of this training program (and for the dual-degree in Demography more broadly), from the past funding you have provided to support this training program, to the support you have committed to helping us during the next funding cycle. **I also wanted to thank you for the support I received for writing the training grant renewal (i.e., the predoctoral training grant development incentive award).** As you can see from the attached review of our grant proposal, the generous support of our training program by the University was mentioned repeatedly by the reviewers, and is in no small way partly responsible for the success of our recent renewal during the current, very competitive grant funding environment....”

**Strategic Performance Indicators:** Continued growth of predoctoral training grants and grant proposals with graduate stipends budgeted to sponsors that do not allow graduate tuition, supported by Graduate School incentive awards.

### C. Promoting and Facilitating Interdisciplinary Graduate Education

The value of interdisciplinary approaches to solving complex, societal problems has long been recognized, and graduate education at research universities must continue to evolve towards increasingly interdisciplinary models to support such approaches. As stated in the (March 21, 2008) Report of the Task Force on Interdisciplinary Graduate Education (<http://forms.gradsch.psu.edu/memos/tfrptldGrEdForACGE.pdf>), “*Collaborative,*

*interdisciplinary graduate education must be an institutional priority in order to meet societal needs, prospective student interests, and demand, and to ensure that Penn State remains competitive in securing extramural research funding into the future.”* The Task Force identified desirable characteristics of interdisciplinary programs to include the following:

- *Address complex and novel/important problems*
- *Create faculty/department/college synergy and collaboration*
- *Build on institutional strengths*
- *Attract high-quality students*
- *Provide credit to faculty (including a formal mechanism for evaluative feedback during the P&T process)*
- *Engage in continuous self-study of sustainability and viability*
- *Provide students with an avenue to satisfy diversity of professional career interests*
- *Provide value-added scholarship for the student*
- *Allow for flexibility in terms of multiple sources of student entry and exit/placement*

The Task Force also looked at interdisciplinary models from a number of benchmark institutions and concluded that one model already employed by Penn State seemed to provide the greatest opportunity to enhance interdisciplinarity in graduate education, while being the least disruptive to the resource base of the institution. That model is the Dual-Title Degree. The following is a quote from the Task Force report that captures the value of this approach:

*“In contrast to the stand-alone graduate program (departmental or intercollege), the dual-title degree is a unique model that not only allows the student to receive value-added training in another field that is reflected in specialized coursework, but ensures the additional field is integrated into the research problem and thesis/dissertation to provide for truly interdisciplinary training. Because students must be enrolled in a primary program before admission into a dual-title field, they are anchored to an academic unit that generally provides physical and administrative assets (e.g., office space, computer access, staff assistance) and financial support, but ultimately pursue both degrees simultaneously and in a truly integrated fashion. The student receives a single diploma titled in both fields of study, and is acknowledged to have the degree in both areas. Importantly, unit leaders and primary program heads do not feel the dual-title program competes with departmental programs, and both are equally and fully credited for the training they provide to the student. For these reasons, the dual title degree is viewed as an excellent approach that is underutilized and not well recognized.”*

1. **Priority Goal:** Promote and facilitate interdisciplinary graduate education.

2. **Specific Strategies:**

- a) Encourage the development of dual-title graduate degree programs.
- b) Reduce the development of new, stand-alone intercollege graduate degree programs and consolidate overlapping, small programs wherever possible.

- c) Promote the conversion of existing intercollege, graduate degree programs (IGDPs) to dual-title graduate degree programs where appropriate.
- d) Earmark resources for recruitment and retention of excellent graduate students for intercollege, interdisciplinary programs that demonstrate the characteristics listed above.
- e) Assure that the new student information system (Project LionPATH) captures information related to each doctoral student's adviser, including adviser PSU ID and administrative home (department and college), and that the enrollment and degree conferred "credit" for each intercollege student is appropriately reported in official reporting of student metrics to the adviser's unit.

**Strategic Performance Indicators:** Reduction in number of small, duplicative IGDPs; increasing enrollments and strong program quality metrics for IGDPs supported by the Graduate School; increasing number of intercollege, interdisciplinary doctoral students supported by departments and colleges.

#### D. Increasing Diversity of the Resident Graduate Student Population

1. **Priority Goal:** One of the highest-priority goals for the Graduate School is to increase the diversity of the resident graduate student body, particularly with respect to URM students enrolled in doctoral programs. The section below outlines the Graduate School's strategies over the next five years in this respect.

In order to assure that all of the questions related to the seven Challenges presented in the *Framework to Foster Diversity at Penn State 2010–2015* have been addressed fully, these are detailed separately in **Appendix B: III. Diversity Planning**.

2. **Specific Strategies:**

- a) Support the expansion and coordination of the Fall STEM Open House, a new initiative for recruitment of URM students in STEM fields.
- b) Develop relationships with small liberal arts colleges throughout Pennsylvania, in order to seek out talented URM undergraduate students who are interested in enrolling in graduate school, with emphasis on STEM disciplines.
- c) Begin collaborating with the Director of the Millennium Scholars Program in the Eberly College of Science and the College of Engineering to provide opportunities for the Millennium Scholars to meet and be mentored by current URM STEM graduate students, in order to create a new pipeline of URM STEM undergraduates to enter our graduate programs.
- d) Collaborate with the new Director of Graduate Student Services in the Graduate School to explore possible strategies to recruit and retain for doctoral study URM students currently enrolled in World Campus-delivered professional master's programs.
- e) Begin to collect additional data from the Graduate Application that provides information on applicants' geographic background and involvement in federally funded programs designed to increase the number of first-generation and low-income students within higher education, to enable us to target our recruitment

efforts more effectively and determine gaps with respect to the recruitment of particular populations or communities.

- f) Increase use of social media to aid in the recruitment of a more diverse graduate student population and to assist with retention of current students by marketing our professional development activities to ensure that our services are transparent to a wider external and internal audience.
- g) Enhance the success of the Summer Research Opportunities Program (SROP) in recruiting students from underserved groups to graduate study at Penn State. Through prudent selection of SROP students, strive to entice 75% of these individuals to apply to Penn State for graduate school, with the goal of 50% of the SROP student pool eventually enrolling in graduate programs at Penn State.
- h) More aggressively recruit students from McNair programs throughout the United States to apply to graduate programs at Penn State, and track the application and enrollment of these students. The goal of this effort will be to enroll 20–25 McNair alums per year.

**Strategic Performance Indicators:** Increase in the number of URM doctoral enrollments over the average of the last five-year period; increase in the percentage of Resident URM graduate enrollments; increase the percentage of students who participate in SROP at Penn State who apply to Graduate School and enroll; increase the number of applications by McNair scholars to the Graduate School at Penn State and who enroll each year.



**IV. Core Council Follow-Up** (note: numbers below refer to recommendations for the Graduate School in the [Core Council letter to then Dean Hank Foley](#) that have been further acted upon).

4. **Graduate Policies and Procedures** – The Core Council recommended that the Graduate School continue with regular review of graduate programs. The creation of the online Program Review Dashboards with metrics related to program quality for all graduate majors and degrees (see **II.B.1. Graduate Program Quality and Student-Centered Metrics, a) Program Review Dashboards** above), and creation of an online Placement Portal for collection of placement data for doctoral degree recipients (see **II.B.1.b) Placement Portal** above) directly address this recommendation and should be complete and in use within the five-year period of this Strategic Plan.
  
5. **Curriculum** – The Core Council recommended that the Graduate School streamline the central curricular review process for graduate courses and programs, which is within the purview of Graduate Council, the faculty governing body for academic policies and standards related to graduate education, including curricular approval. Although the relevant committees of Graduate Council did not support the recommendation and voted to retain the multi-step existing process, over the course of the past two years, the (then) Senior Associate Dean, Jean Vasilatos-Younken, and the Executive Director of Graduate Education Administration, Elizabeth Price, continued to work with the curricular committees and successfully brought a highly streamlined process forward that retained the positive quality-control attributes of the multiple levels of review, but reduced the process to one joint curricular committee, with a curricular report presented to Graduate Council as an informational item, but without the additional step of Graduate Council review and approval. This streamlined process was approved in December 2013, and has been in use since then. In addition, a customized online system was developed for more transparent tracking of curricular proposals once they have been submitted for central review, and administrative steps were introduced to address issues related to cognate review of program proposals that often delayed the approval process.

For a detailed description of all of the changes in the graduate curricular process, see **Appendix A** at the end of this Strategic Plan.

6. **Interdisciplinary Programs** – The Core Council recommended that then Dean Hank Foley appoint a Task Force to examine the intercollege, interdisciplinary life science programs supported by the Huck Institutes of the Life Sciences, with a charge to better rationalize the program offerings, and eliminate or merge weak or duplicative programs. The Task Force was appointed and co-chaired by Drs. Doug Cavener, Head of the Department of Biology, and Neil Sharkey, then Associate Dean for Research and Graduate Education in the College of Health and Human Development, and issued its report on March 21, 2013. Immediately prior to Dean Foley's departure from Penn State at the end of July 2013, he referred the report to the Sr. Associate/Interim Dean, Jean Vasilatos-Younken, and the Director of the Huck Institutes, Peter Hudson, for implementation. The recommendations have been addressed as follows:

One of the major recommendations of the Task Force was to create a separate center with an administrator to oversee all of the life science Intercollege Graduate Degree Programs (IGDPs) supported by the Huck Institutes. This recommendation was viewed

as creating an additional, unnecessary layer of administration and bureaucracy; adding administrative costs that could be better used for student support; inappropriate, as a center within a research institute is not an academic unit appropriate for oversight of academic programs; did not address the fundamental concerns regarding, in some cases, small overlapping programs; and ultimately, did not have the support of the respective graduate programs, the Director of the Huck Institutes, or the Graduate School.

The most challenging recommendation was to merge three related IGDPs (Immunology and Infectious Disease, Molecular Medicine, and Molecular Toxicology). Over the course of Fall 2013 and Spring 2014, meetings of the IGDP chairs and faculty were held, a proposal and Bylaws for merger of these and additional IGDPs were drafted; Faculty Working Groups were appointed to refine and finalize the Bylaws of the merged program and the proposal to merge the programs; and the proposal was approved at the end of Spring 2014 through the Graduate Council curricular review process. Simultaneously, proposals to drop the independent IGDPs in Cell and Developmental Biology; Genetics; Immunology and Infectious Disease; Molecular Medicine; and Molecular Toxicology were approved. The new (merged) program, named Molecular, Cellular, and Integrative Biosciences (MCIBS), creates one degree-granting umbrella program with flexible emphasis areas related to the (previously) independent IGDPs. The program was created by changing the name and curricular requirements of the existing Integrative Biosciences (IBIOS) program, while retaining the option in Bioinformatics and Genomics in that program. The model created with this program affords the greatest efficiency and flexibility for future changes to emphasis areas and curricular requirements. The program will be academically housed in the Graduate School, and administrative support will be provided by the Huck Institutes. An inaugural chair for the new umbrella program in MCIBS has been appointed (Dr. Melissa Rolls), and the program will begin recruiting students in the fall (2014).

An additional major recommendation is dependent upon institutional resources (raising the stipends of assistantships), and is part of a larger focus in the Strategic plan for the Graduate School as described above in section **II.B.2. Improve Graduate Student Support**, which includes plans to: 1) more closely tie Graduate School resources to program review metrics; 2) in selective cases for some colleges recommend downsizing GA slots to increase the size of support packages (especially stipend amounts); and 3) with college and executive support, refocus college and University development priorities moving into the next Campaign to focus more on research and graduate education.

## **V. Practices that Promote Integrity and Ethical Behavior**

The Graduate School strives to maintain the highest levels of integrity and ethical behavior internally and promotes the adherence to such standards across all graduate programs. While the expectation of professional and ethical conduct has always been a core value, we have more fully incorporated these ideas into our current policies. During the 2012–13 academic year, [Appendix III of the Graduate Degree Programs Bulletin](#), which addresses the termination of students from their graduate programs, was revised to further clarify the expectations of all graduate students. Specifically, the policy indicates that all students are expected to exhibit and promote the highest ethical, moral, and professional standards as scholars, and as future faculty, professionals, and leaders in their respective fields. Meeting this expectation is a component of satisfactory scholarship for graduate students, in addition to meeting expectations

regarding academic progress. The revision also clarifies that academic programs must refer all behaviors which are thought to be violations of the Code of Conduct to the Office of Student Conduct (OSC) for further handling, rather than having such matters managed by the program. In an effort to ensure that all parties are adhering to the highest level of integrity in their handling of student concerns, it was necessary to clarify that the OSC was the appropriate office to manage conduct issues, in collaboration with the academic program and the Assistant Dean for Graduate Student Affairs, as appropriate.

To further demonstrate the Graduate School's commitment to the promotion of integrity and ethical behavior, one of the primary roles of the Assistant Dean for Graduate Student Affairs continues to be to oversee how academic programs manage student issues and concerns. With the increasing number of graduate students presenting mental health and disability issues, this oversight has become critical to ensuring that the University is adhering to ADA policies and practices, while simultaneously maintaining high expectations for student performance. The Assistant Dean regularly works with the Office of General Counsel, the Office for Disability Services, and the Office of Affirmative Action, among others, to ensure that we consistently provide both due process and various mechanisms of support to all graduate students in order to assure fairness, and to resolve issues by the most compassionate and appropriate means possible.

The Graduate School also recognizes the need to address these issues within the context of responsible conduct for research. The Scholarship and Research Integrity Program (SARI) at Penn State was initially developed in collaboration with the Graduate School and is currently a fully institutionalized program within the University. Although all current graduate programs adhere to the SARI requirements, which are monitored by the Office of Research Protections (ORP), in order to ensure that all newly proposed and accepted programs are complying with these requirements, the Graduate School will work with ORP during the 2014–15 academic year to fully integrate SARI oversight into the curricular review process. Specifically, the Executive Director of Graduate Education Administration will work with the Assistant Dean for Graduate Student Affairs and the ORP Compliance Manager, who oversees the SARI program, to develop the process by which academic programs will outline in each new program proposal how they will meet the SARI requirements and the process for sharing this information with ORP prior to program approval.

The Graduate School continues to further demonstrate the importance of promoting integrity and ethical behavior among graduate students by enhancing one of the most successful professional development activities we provide. The annual Doctoral Career Exploration workshop serves as a one-day workshop designed to provide opportunities for current graduate students to learn about careers outside of the academy from Graduate School alumni. During the past year, this workshop was expanded to examining issues of ethics and integrity within graduate education and beyond, and a second track has been added that will address these issues within academic careers as well to allow for greater student participation. During the 2013–14 academic year, the Graduate Council Committee on Graduate Student and Faculty Issues (GSFI), led by the Assistant Dean for Graduate Student Affairs, was tasked with creating this newly modified workshop to be conducted in the fall of 2014. In order to ensure that the workshop and all subsequent activities related to this aspect of graduate education accurately reflect and address the various ethical issues and questions that arise as students complete their graduate degrees and move into their professional roles, the Vice Provost for Academic Affairs and the Ethics Specialist for the Office of Ethics and Compliance were consulted. Both individuals provided helpful feedback on the issues and concerns that are presented to them by graduate students and faculty members, which will be utilized to develop the topic areas for the

new workshop. It should come as no surprise that the most commonly presented issue is how to effectively navigate the relationship between students and advisers, which will certainly be addressed within the sessions. To that end, the GSFI has also been tasked with developing a new mentoring initiative to be launched in 2014-15, that will focus on the possibility of using donor funds to provide small amounts of support to academic colleges proposing to develop new mentoring programs. Each of the programs would have to include a component that specifically addresses issues of ethics and integrity in relation to mentoring graduate students.

The Graduate School aims for the highest standards in regulating and monitoring funds entrusted for its management. In addition to the oversight of University General Funds to cover operating expenses, it also administers University student aid budgets, extramural federal and private awards, and an endowment portfolio. Understanding related policies, guidelines, laws, and regulations regarding appropriate utilization of monies and implementing systems for maintaining accountability are high-priority goals. The Office of Graduate Fellowships and Awards Administration works closely with the unit's Financial Officer and many other offices across the University to ensure appropriate disbursement of award funds.

Lastly, in an effort to ensure that we include students enrolled in distance-delivered graduate programming who are not able to participate in on-campus activities, as well as graduate students at non-UP campuses for workshops and other professional development activities hosted at UP, an important focus for the Graduate School's new Director of Graduate Student Services is to provide feedback on how to effectively meet the needs of our World Campus and non-UP graduate students across all Graduate School units. Increasing the focus on addressing the needs of these populations is another indicator of the Graduate School's commitment to integrity as we explore ways to provide resources and support for students who are not on the UP campus (e.g., podcasts of ethics and integrity workshops or asynchronous access to videotaped archives of such workshops), but who are very much part of the graduate education community.

In another dimension, the Office of Graduate Enrollment Services assures that best practices are adhered to by providing feedback and services to faculty, staff, and students so that they are aware of and comply with established Graduate Council policies and requirements. This ongoing guidance ensures that faculty, staff, and students have a clear understanding of expectations, thus safeguarding the academic record and upholding its integrity.

In addition to enforcing institutional, Graduate Council, and Graduate School policies and practices, the staff of Graduate Enrollment Services protects and maintains the confidentiality and security of graduate student records. In its effort to continue to promote integrity and ethical behavior, the office will regularly review its procedures and practices and implement new initiatives when necessary. Access to student information has been and will continue to be restricted via appropriate security means and measures. Release of information regarding a graduate student's educational record is not and will not be released without student consent unless the law allows disclosure without consent.

To increase our commitment to the highest standards of ethical workplace behavior for all Graduate School staff, the Graduate School will create a confidentiality agreement to be signed and adhered to by all current and incoming staff.

## VI. The Graduate School's Contributions Toward Penn State's Goals for Sustainability

- A. ***The Graduate School has partnered with the Sustainability Institute in order to promote and support graduate student research in sustainability that has potential to benefit Penn State and/or the surrounding community.*** The Graduate School entered into a partnership with the Sustainability Institute to provide matching funds for successful student proposals resulting from the 2013 Reinvention Fund Request for Proposals. The Sustainability Institute-sponsored competition was intended to encourage broad participation from within the Penn State community to address sustainability challenges at the University. For the Graduate School's part, it distributed the RFP to colleges in which there was potential for disciplinary focus in sustainability areas in order to advertise the RFP and offer of supplemental funding. Graduate School support was intended to finance approved awards for teams consisting of a minimum of 50% graduate students and cover items such as travel expenses related to the project or to professional meetings related to the project, project materials, or educational materials related to outreach activities. The offer of support included a 50% match for single-disciplinary teams and 100% matching funds for interdisciplinary teams. The goals envisioned for the initiative were to encourage those graduate students already focused on research with elements of sustainability with opportunities to broaden the scope and incorporate additional elements into proposed research plans, and to offer the necessary support for educational projects associated with community outreach. Unfortunately, none of the proposals in the 2013 competition met the Graduate School requirements for graduate student team participation, but efforts will continue to partner with the Sustainability Institute on this initiative moving forward.
- B. ***"No Can Do" Program.*** In July of 2013, Kern Graduate Building was incorporated into the University No Can Do program designed to increase the recycling and composting efforts at Penn State. As part of the program, individual room trash cans were removed and centralized waste centers were put in place to allow building occupants to sort their waste into various recyclable, compostable or disposable bins. During a waste audit prior to the No Can Do rollout, Kern Building was recycling or composting 57% of its total waste. While the overall goal of the No Can Do program is zero waste, the average increase to building compost and recycling efforts is 20%. Using 20% as a guide, Kern Building recycling and composting efforts should increase to approximately 70% of total building waste, saving landfill waste collection expense for the University, in addition to making a positive impact on the environment.
- C. ***Renovations.*** In FY 2013–14 the Graduate School completed renovations of more than 80% of its office space. As part of the renovation, current light fixtures were either modified or replaced with energy efficient lighting, reducing the energy usage by approximately 78% in renovated areas. In addition to the environmental impact, this represents an approximate cost savings of \$13,000 over a five-year period. Much of the building materials used in the renovation, such as flooring, paint, and ceiling tiles, came from OPP pre-approved vendors with strong commitments to recycling and sustainability practices. In FY 2014–15, the Graduate School will renovate the remaining 20% of its office space with a similar approach to upgrade lighting fixtures and use building materials from vendors committed to sustainability.

- D. ***Furniture Re-use Program.*** The Graduate School has been a consistent user of the Penn State Furniture Re-Use Program. The Furniture Re-use Program collects and redistributes furniture among Penn State offices. University employees have the opportunity to donate unused furniture and also find free office furniture at a minimal delivery cost. Over the past year, the Graduate School has utilized this program to upgrade several offices, as well as donate unused furniture items, saving several thousand dollars in furniture costs, as well as providing an alternative to sending furniture to a landfill.
- E. ***Graduate School Green Team.*** To further increase our efforts toward sustainability, the Graduate School has also created its own Green Team. As the Graduate School strives to align itself with the University's mission to increase sustainability and reduce our impact on the environment, the Green Team will continuously reevaluate and improve sustainability practices by serving as a liaison between faculty, staff, and students and campus sustainability organizations to set challenging but impactful goals for our organization. While in its infancy, this team is working to utilize existing University resources, such as the Green Paws initiative, as a guide to raise overall awareness for sustainability efforts in our work environment, marketing and outreach, and special events, and to set a benchmark for continuous improvement in sustainable operations. Early improvements being explored are sustainable substitutions for disposable beverage service during meetings hosted by the Graduate School, including the Advisory Committee for Graduate Education and Graduate Council; the addition of "Hydration Stations" in Kern Graduate Building to reduce the use of plastic water bottles and to advocate for increased water consumption for a healthier population; and the conversion of Graduate School-sponsored events, including the new graduate student orientation and Graduate Exhibition, to "Zero Waste." As the Green Team gains experience and undergoes additional training, more in-depth improvements and initiatives will be evaluated.

## VII. The Graduate School's Contributions to Supporting the University's Major Thematic Pillars

As a central administrative and academic unit, the Graduate School does not hold faculty lines, nor is it budgeted resources for direct support of the research enterprise. However, given its mission and goals as described earlier in this Plan, it contributes to supporting the major thematic pillars of research and education throughout the University in many ways. These include, but are not limited to, the following:

- Supporting and promoting excellence in research doctorate programs by allocating financial resources for the recruitment and retention of the most nationally competitive students (e.g., University Graduate fellowships; Funds for Excellence in Graduate Education; Graham Fellowships);
- Collecting and making available to graduate programs metrics related to program quality, and conducting periodic review and assessment that tie resources to quality improvement;
- Promoting policies and processes that facilitate recruitment and support of competitive students:
  - As a result of the efforts of the Graduate Fellowships Working Group, appointed jointly by the Dean of the Graduate School and the Office of the Corporate Controller in AY 2012–13 to identify issues and challenges specifically related to graduate-level fellowships and make recommendations for process and policy improvements, units are now permitted to utilize Grant-in-Aid and possibly other General Funds (with approval) to support student fellowships. This is a shift in University policy, and it will afford graduate programs with better options to create funding packages for those students who are nationally competitive in garnering extramural funding that, in some cases, requires additional institutional support to achieve full funding packages similar to those of University-funded fellowships. This will allow for the alignment and leveraging of University resources for support of top students, thus improving program quality.
  - The Graduate School adjusted guidelines for its funding allocations to allow “stacking” of Graduate School awards that provide greater flexibility for programs and colleges to build competitive offer packages. In the past, Graduate School funds could not be used to top-up other Graduate School funds. Colleges have been invited to submit proposals outlining how they would do so to most effectively recruit high-caliber prospective students. This approach will be monitored in terms of raising the standing of matriculating students, which may subsequently decrease overall numbers of incoming students. Future allocations of Graduate School funding will be tied to overall program quality and successes in recruiting top students nationally. Resources will be aligned to support those colleges and programs with demonstrated success in raising program quality, improving diversity, and attracting top recruits.

- Promoting policies and processes that facilitate the creation of new, high-quality, high-value/impact graduate programs:
  - As described in detail above in section **IV. Core Council Follow-Up, 5. Curriculum**, the Graduate School successfully engineered and guided through the Graduate Council approval process a highly streamlined curricular review process that retained the positive quality-control attributes of the multiple levels of review that previously existed, but reduced the process to one joint curricular committee, with a curricular report presented to Graduate Council as an informational item, but without the additional step of Graduate Council review and approval. This streamlined process was approved in December 2013, and was implemented immediately following in Spring 2014. In addition, a customized online system was developed for more transparent tracking of curricular proposals once they have been submitted for central review, and administrative steps have been introduced to address issues related to cognate review of program proposals that often delayed the approval process. Moving forward, the central review and approval of graduate curriculum will benefit from maximum efficiencies possible in the faculty review process, but still require significant advancement in the online system supporting the process, as well as the online Graduate Bulletin. Although the current online system is outside the singular control of the Graduate School, our unit will continue efforts to explore enterprise-level, vended systems to better support these processes.
  
- Transforming education and promoting our health:
  - In graduate education, and in particular the research doctorate, nothing has been as transformative as the progression from “pure” disciplines to greater inter-/multi-/trans-disciplinary approaches to research problems and related emerging fields of graduate study. The Graduate School has been a primary institutional entity for promoting, facilitating, and supporting interdisciplinary, intercollege models of graduate education, including the intercollege graduate degree programs (IGDPs) and dual-title degree models. There is broad recognition that solutions to major research problems require the collaborative efforts and expertise of multiple disciplines, and students gravitate toward graduate degree programs that are interdisciplinary in nature. The seminal features of strong interdisciplinary programs include the ability to address complex and novel/important problems; create faculty/department/college synergies and collaborations; build on institutional strengths; attract strong students; provide students with an avenue to satisfy a diversity of professional career interests; provide value-added scholarship for the students; and allow for flexibility in terms of multiple sources of student entry and exit/placement. Recently, as described above in section **IV. Core Council Follow-Up, 6. Interdisciplinary Programs**, the Graduate School led the consolidation of six separate life science graduate programs and one option to create a highly flexible umbrella program in Molecular, Cellular, and Integrative Biosciences that will be academically housed in the Graduate School and administratively supported by the Huck Institutes. This program has faculty subscription from all colleges with life science interests, and is anticipated to become a signature program at Penn State in attracting highly competitive Ph.D. students, and providing great flexibility and interdisciplinarity of curricular offerings and faculty expertise. The consolidation of multiple programs in molecular, cellular, and integrative biosciences should



ultimately strengthen Penn State's status in this field and the University's ability to do research that will promote public health.

- The Graduate School will provide ongoing support, as funds remain available, for several special initiatives that contribute to transforming education:
  - Annual funding is provided for two graduate assistantships in support of the Pennypacker Experience, a diverse undergraduate living/learning residence hall community intended to address the needs of first-year students, including promotion of diversity in gender, race, and ethnic backgrounds. In addition, this helps to provide a pipeline of students for graduate education, and at a global level, supports greater diversity in higher education that can be transformative.
  - Tuition monies are afforded to Penn State's Career Services Center annually for support of a graduate assistant position that contributes to student activities related to career planning and decision-making. Specific events are planned that include focused programming for graduate students as well as undergraduate students.
  - The Graduate School annually affords four semesters of tuition support to the University Office of Global Programs. The funds are intended to assist with matriculating Fulbright scholars from underrepresented regions of the world.

## Appendix A

### Changes to Graduate Curricular Review Processes

In recent years, the Graduate School has invested considerable time and resources to make the curricular review process more transparent, in the interest of mitigating incorrect perceptions about the process. An online proposal status check system, the [Graduate Council Curricular Review Process STatus Tracking System \(STATS\)](#) now enables proposers and colleges/schools to identify quickly the status of a proposal in the review process. In addition, the Office of the Dean consolidated positions and reassigned duties in the Graduate School in order to direct resources to create an Executive Director of Graduate Education Administration position in Fall 2010, which has a major role in assisting programs in developing proposals that conform to curricular guidelines, and academic policies and standards, and that, consequently, would require minimal time through the formal curricular review process. Feedback received by the Office of the Dean from units whose faculty have consulted with the Executive Director has been very positive regarding the value of the assistance provided, and the resulting minimal time for the formal curricular review process when this consultation was utilized.

Because for many graduate program proposals, a significant portion of the time spent in curricular review results from delays in colleges' or individual programs' responding to requests for cognate review after a program proposal has been submitted to the Graduate Council review process, or because of conflicts that arise as a result of that cognate review (e.g., concerns regarding duplication with an existing program; potential impact of a program to be delivered online on existing resident programs in the same field; etc.), but that cannot be resolved by the curricular committees, in September 2013 the Advisory Committee for Graduate Education (ACGE), which comprises the administrator for graduate education for each college or school with graduate programs, initiated a new process, similar to the process used by ACUE for undergraduate program proposals. Prior to an individual's developing a graduate program proposal, he/she must submit to the administrator for graduate education in his/her college or school a one-page prospective program proposal summary describing the potential new program or existing program planned to be delivered online. The summary is shared by the college/school administrator with the ACGE membership, and the other college/school administrators comprising ACGE are responsible for seeking feedback from their unit's programs and for resolving conflicts with the respective fellow member of ACGE where any concern might be identified, before the proposal is developed and submitted for academic review through Graduate Council.

Although the Graduate Council Committee on Programs and Courses and the Subcommittee on New and Revised Programs and Courses did not support the Core Council recommendations regarding the Graduate Council curricular review process in 2011 the Sr. Associate/Interim Dean of the Graduate School and the Executive Director of Graduate Education Administration have continually explored potential enhancements that still would allow graduate curricular reviewers to maintain quality control and integrity of the academic review process.

The two committees considered it critical that central review continue to include a representative of every college/school with graduate programming, assuring that all graduate populations, programmatic areas, and disciplinary cultures inform the review process. These representatives have responsibility for serving as consultants to their unit's programs in the development of graduate curricular proposals and with regard to

understanding the review process. They sign off on graduate curricular proposals for their respective college/school, and are asked to ensure that proposals comply with academic policies and standards before approving. Thus, these representatives can clarify questions that may arise during review of their respective unit's proposals and facilitate the review process as well.

Because the members of the Committee on Programs and Courses set curricular policy, the two committees felt that their active participation in the review process would assure that they continue to have an informed understanding of graduate program models, degree requirements, disciplinary cultures, program trends, and other relevant aspects of graduate programming. Each curricular reviewer has strategic, unique responsibilities, but important complementary and synergistic roles. The committees felt that elimination of either committee in the review process would compromise program proposal quality standards, as each committee often raises different but relevant and important questions regarding a given proposal (e.g., the broader representation of the Subcommittee ensures a more balanced disciplinary review process, whereas the Committee on Programs and Courses more often identifies issues of compliance with academic policies in program proposals and feeds back to help refine those policies).

Finally, in Fall 2013, Graduate Council and the Graduate School implemented the significant changes outlined below to the Graduate Council curricular review process in order to streamline the review process without compromising the integrity of graduate faculty review with respect to quality control and authority for academic approval of graduate curriculum at Penn State. The changes summarized below accomplish this by 1) eliminating serial approval steps that added significant chronological time to the approval process, without sacrificing the significant intellectual capacity provided by the totality of reviewers in those steps for most types of proposals; 2) decreasing curricular review committee members' overall workloads in terms of total proposals reviewed per member, in an effort to continue attracting the best-qualified faculty to perform the critical work of curricular review; 3) (by reducing the total number of proposals per reviewer) potentially allowing for greater reviewer time and attention per proposal; 4) adopting a triage process for proposals, based upon the nature and complexity of the proposal type, that created greater efficiencies for committee meeting times; and 5) illuminating that this vital work by curricular review committee members is sufficiently robust and comprehensive to constitute the final step of curricular approval.

**Elimination of the curricular review and approval step of Graduate Council, decreasing time between approval and activation:**

Effective December 2013, voting on graduate curricular proposals by Graduate Council members is not required; once a graduate program proposal is approved by the Graduate Council Curricular Review Committee\*, it is listed on the [Graduate Council Curriculum Report](#) (GCCR), which is published 12 times each calendar year (i.e., monthly). Thirty days after the publication date of the GCCR, the approved proposal will have had time to be reviewed by the entire University community, and at that time, updates will be made to the Graduate Bulletin, as appropriate, for proposals that do not require presentation to the Board of Trustees (BOT). Proposals that do need to be presented to the BOT are forwarded to the Office of the Executive Vice President and Provost and to the BOT office to be included as informational agenda items for the next BOT meeting.

- Graduate Council Curricular Review Committee = action item
- Graduate Council via GCCR = informational item
- Provost/Board of Trustees = informational item (if necessary)

Graduate course proposals, graduate program change proposals that involve integrated undergraduate-graduate (IUG) degree programs, and graduate program change proposals that involve joint medical or law/graduate degree programs continue to be published on the Senate Curriculum Report as well.

**Reduction in the number of serial steps in the Graduate Council curricular review process without compromising quality of reviews:**

The two curricular review committees, the Graduate Council Subcommittee on New and Revised Programs and Courses (17 members, one each appointed to serve on the Subcommittee by his/her college/school administrator) and the Graduate Council Committee on Programs and Courses (constituted by Graduate Council Standing Rules to comprise 9 members elected by Graduate Council to serve on the Committee), meet jointly once each month throughout the academic year. Previously, each of the committees met separately each month, and most graduate program proposals required approval by the Subcommittee before they could be reviewed by the Committee.

Effective January 2014, for some graduate program proposal review\*\* and review of all new graduate course proposals, the total Graduate Council Curricular Review Committee membership (exclusive of the chair and co-chair) is divided into four groups of equal numbers each, to the extent possible; all group members enter feedback regarding their assigned proposals into discussion forums in the ANGEL group (no review group contains multiple members from the same unit, and no member is assigned proposals from his/her unit). All of these proposals are available to all Committee members to review if they are interested (all Graduate Council members are able to read all proposals being considered by the Committee as well), and the entire Committee votes on all proposals at the single monthly meeting following discussion, as necessary.

In addition, administrative procedural changes implemented between Fall 2011 and Spring 2014 have resulted in a substantial decrease in the number of hardcopies required for submission of curricular proposals to the Graduate Council curricular review process: from 25 hardcopies to 0 hardcopies for each graduate course proposal, and from 25 hardcopies to 2 hardcopies for each graduate program proposal. Additional enhancements to and streamlining of workflow, as well as additional contributions to sustainability, are anticipated during the next several years with the reimagining of the online course proposal submission system and the addition of an online program proposal submission system.

**\*Graduate Council Curricular Review Committee structure:**

26 members of the Graduate Council Curricular Review Committee: 17 appointed as below (first bullet point) and 9 elected as below (second bullet point) but all members of one committee; one of the 9 serves as chair and one of the 17 serves as co-chair; the

Committee meets jointly once each month throughout the academic year; all graduate course and program proposals are reviewed by this Committee or its delegate, as described below, and approval by this Committee/its delegate is final.

- 17 members of the Graduate Council Subcommittee on New and Revised Programs and Courses, each appointed by his/her college/school administrator
- 9 members of the Graduate Council Committee on Programs and Courses, each a member of Graduate Council elected by Council members to serve on this Committee

For some graduate program proposal review\*\* and review of all new graduate course proposals, the total Graduate Council Curricular Review Committee membership (exclusive of the chair and co-chair) is divided into four groups of equal numbers each, to the extent possible; all group members enter feedback regarding their assigned proposals into the discussion forums in the ANGEL group (no review group contains multiple members from the same unit, and no member is assigned proposals from his/her unit, if at all possible). All of these proposals are available to all Committee members to review if they are interested (all Graduate Council members are able to read all proposals being considered by the Committee), and the entire Committee votes on all of these proposals at the single monthly meeting following any discussion after the chair and co-chair summarize at the meeting their findings regarding each proposal as described in the following paragraph.

The chair and co-chair are responsible for triaging feedback in advance of the meeting and strategizing about how to manage discussion of the proposals during the meeting. The chair and co-chair also meet with the Dean of the Graduate School and the Executive Director of Graduate Education Administration early in the week of the monthly meeting for guidance regarding Graduate Council policy, as necessary, in advance of the meeting.

Proposals that should require no discussion at the meeting can simply be approved by the Committee en masse at the meeting, but Committee members will be asked if they wish to pull any of these proposals from the slate for discussion; all other proposals are discussed individually prior to the Committee's vote.

**\*\*Detailed explanation of division of review of the various types of graduate curricular proposals:**

### **Courses**

**New Course Proposals**—divided evenly among four groups of members of the Graduate Council Curricular Review Committee for review in advance of the single monthly Curricular Review Committee meetings (the chair and co-chair are not assigned to any of the groups but triage all members' feedback on all proposals); the full Committee votes following discussion, if any, at the meeting

**Course Change Proposals**—assigned to subgroups of three members of the Graduate Council Curricular Review Committee for review on an as-needed basis; the consensus approval of the subgroup on behalf of the Curricular Review Committee is final

**Course Drop Proposals**—reviewed and approved on behalf of the Curricular Review Committee through the Office of the Dean of the Graduate School (executive director of

graduate education administration) on an as-needed basis, in consultation with the chair and co-chair of the curricular Committee if necessary

### **Programs**

**All of the following proposal types are reviewed by all Graduate Council Curricular Review Committee members in advance of the single monthly Curricular Review Committee meetings; the full Committee votes following discussion, if any, at the meeting:**

#### **New Program Proposals**

- Graduate Degree Program
- Dual-title Graduate Degree Program
- Stand-alone Graduate Minor

#### **Program Change Proposals**

- Addition of new degree to existing graduate degree program or dual-title graduate degree program
- Creation of new option
- Creation of integrated undergraduate-graduate (IUG) degree (existing graduate degree program with existing undergraduate degree program)
- Creation of joint degree program (existing graduate degree program with MD or JD)

**All of the following proposal types are divided evenly among four groups of members of the Graduate Council Curricular Review Committee (the chair and co-chair are not assigned to any of the groups but triage all members' feedback on all proposals) for review in advance of the single monthly Curricular Review Committee meetings; the full Committee votes following discussion, if any, at the meeting:**

#### **Program Change Proposals**

- Change in degree requirements for existing graduate degree program or dual-title graduate degree program
- Change in admission requirements for existing graduate degree program or dual-title graduate degree program
- Change in name of existing graduate degree program or dual-title graduate degree program
- Adoption of an existing dual-title degree program by an existing graduate degree program
- Change in existing option (including name change)
- Change in existing IUG degree
- Change in existing joint degree program
- Begin extension of existing graduate degree program to another graduate center
- Begin off-campus (and/or online) delivery of existing graduate degree program

**All of the following proposal types are reviewed and approved on behalf of the Graduate Council Curricular Review Committee through the Office of the Dean of the Graduate School (Executive Director of Graduate Education Administration) as needed, in consultation with the chair and co-chair of the Committee if necessary:**

**Program Change Proposals**

- Drop of existing degree (but not entire graduate degree program or dual-title graduate degree program)
- Drop of existing option
- Drop of existing IUG degree
- Drop of existing joint degree program
- Discontinue extension of graduate degree program to another graduate center
- Discontinue off-campus (and/or online) delivery of existing graduate degree program

**Program Drop Proposals**

- Graduate Degree Program (all degrees)
- Dual-title Graduate Degree Program (all degrees)
- Stand-alone Graduate Minor

## Appendix B

### III. Diversity Planning: Graduate School Framework Response

#### Key Contributing Units:

The Office of the Dean (DO)

The Office of Graduate Enrollment Services (GES)

The Office of Graduate Fellowships and Awards Administration (OFGAA)

The Office of Graduate Educational Equity Programs (OGEEP)

The Office of Alumni and Public Relations (APR)

The Office of Network Operations and Data Systems (NODS)

The Office of Postdoctoral Affairs (OPA)

The Ronald E. McNair Scholar's Program (McNair)

#### Challenge 1: Developing a Shared and Inclusive Understanding of Diversity

*1. Taking into account the unit's and University's history with this Challenge, the targeted areas for improvement as they apply to your unit, and your unit's diversity strategic plan and general strategic plan, what progress have you made toward this Challenge during this reporting period? What diversity efforts and initiatives are planned for the 2014/15 through 2018/19 planning cycle?*

#### Progress

The Graduate School continues to promote diversity throughout all of its units, utilizing the ideas outlined in our definition of diversity, which was developed jointly with the Office of Vice President for Research:

*“Diversity is an open, safe, and welcoming climate at Penn State and in the surrounding community, which encourages the presence of an increased number of faculty, staff, and students from underrepresented groups. The underrepresented groups we recognize include those from various racial/ethnic backgrounds, ages, ancestries, veteran statuses, colors, countries and cultures, gender identities, disabilities, religions, and sexual orientations. Diversity also includes interacting with companies, their owners, and clients of various origins, and promoting heterogeneity in research programs.”*

While the Graduate School places a great deal of emphasis on addressing the needs of students, faculty and staff from underrepresented groups such as women and racial/ethnic minorities, we also continue to recognize the need to think more broadly about diversity in all that we do. Each of our unit directors regularly promotes such expanded ideas of diversity and inclusion by ensuring that all staff members acknowledge dimensions of diversity beyond the more traditional notions of race/ethnicity and gender. Every new Graduate School employee continues to attend the University's New Employee Orientation, which includes a component related to



recognizing and valuing all aspects of diversity within the workplace, and staff efforts to further develop skills in this area are highlighted in the annual SRDPs within each unit.

All members of the graduate school staff continue to receive administrative support in this area by having the ability to seek out professional development opportunities, both internally and outside of the University, that are designed to enhance their knowledge and skills around understanding and valuing all dimensions of diversity. These opportunities also continue to be recognized by the leadership of the Graduate School within annual staff performance evaluations.

Additionally, throughout the extensive renovations within the unit during the past two years, the Graduate School has continued to ensure that all offices and facilities have the proper accommodations for individuals with disabilities.

### **New Initiatives for 2014/15 through 2018/19**

Although the Graduate School consistently promotes a shared and inclusive understanding of diversity within the unit, we recognize that there is more that can be done in this area. One new initiative that the Graduate School plans to implement will be to have each of our units connect with their counterpart(s) in undergraduate education around the University to explore the areas of diversity they address within their work, in an effort to determine whether we are indeed in alignment regarding our perspectives on diversity. Developing a shared and inclusive understanding of diversity throughout the University necessarily means that communication between the two areas regarding how we all promote diversity must consistently occur.

Secondly, we will utilize the monthly Graduate School directors' meetings, as well as all unit level staff meetings to more proactively disseminate data regarding diversity resources and opportunities within and outside of the University. Staff will be expected to utilize the information presented and track such use to enhance efforts to promote diversity throughout the Graduate School and throughout interactions with those from other areas of the University. We will also develop and maintain a database of all professional development activities attended by Graduate School staff to determine which areas may need additional focus.

An additional approach is to invite a representative from Affirmative Action to visit the Graduate School to present a workshop intended to enhance staff knowledge and skills around understanding and valuing all dimensions of diversity, and in particular approaches to attract a more diverse applicant pool for any positions that may become available in the Graduate School. This will help to ensure that each department is best positioned with the necessary awareness and strategies to increase the diversity of our unit.

*2. What measures of success or strategic indicators gauge your progress toward this Challenge? What specific data in relation to these measures and indicators demonstrate your progress?*

a) Consistent attendance of staff at workshops and other professional development activities which address diversity issues. Unit level monitoring of staff participation in these activities, particularly as indicated in annual performance evaluations.

b) A shared understanding across all units within the Graduate School regarding the characterization of diverse populations and the ability to be aware of the particular needs and concerns among various communities. As a means to accomplish this goal, the Graduate School will host a series of diversity, equity, inclusion, campus climate, and civility training workshops to determine what our challenges and successes are within the unit. We have identified staff within the Affirmative Action office and the Paul Robeson Cultural Center as possible facilitators for the initiative. This establishment of the aforementioned dialogue will create opportunities to explore how we view culture and broadly identify diversity within the unit.

*3. Among the strategies you have employed to make progress with this Challenge, which specific approaches are considered your “signature” initiatives and which could be considered “best practices”? (Best practices are processes, programs, and procedures that most successfully lead to the unit’s ability to reach the University’s diversity goals and can be validated through measurable outcomes.) Describe these signature and/or best practice initiatives, the metrics by which their success is gauged, and the measurable outcomes.*

The level of support for developing a shared and inclusive understanding of diversity and for promoting diversity in every aspect of Graduate School processes that is provided to the staff by the Dean is considered a best practice within the unit. From the moment a graduate application is submitted, to the awarding of a student’s degree, Graduate School staff are encouraged to consider how to effectively understand the needs of every student and address those needs accordingly. Additionally, Graduate School staff members are encouraged to consider the impact of having increased levels of staff diversity within each unit on the effectiveness of meeting the needs of a diverse faculty and student population across the institution. Discussions are regularly held with the Dean to determine how best to ensure that diverse student populations are considered within the various initiatives and activities we implement throughout the year. This has been a particularly significant focus for instance as several units were tasked by the Dean with examining the recruitment and retention practices for diverse graduate students and will be highlighted more specifically in Challenge 3 of this document.

## **Challenge 2: Creating a Welcoming Campus Climate**

*1. Taking into account the unit's and University's history with this Challenge, the targeted areas for improvement as they apply to your unit, and your unit's diversity strategic plan and general strategic plan, what progress have you made toward this Challenge during this reporting period? What diversity efforts and initiatives are planned for the 2014/15 through 2018/19 planning cycle?*

### **Progress**

The Office of Graduate Enrollment Services (GES) continues to be sensitive to individual/group differences, values, and perceptions throughout their daily interactions with graduate students from across the United States, across the globe, and across academic disciplines. As the staff in this unit meet the needs of an incredibly diverse group of students from the time they complete their graduate application to the moment they receive their graduate degree, they consistently demonstrate their ability to navigate across various populations and perspectives.

The offices of Alumni and Public Relations (APR) and Network Operations and Data Systems (NODS) have spent considerable time meeting with members of the University's Accessibility team and others from Information Technology Services to gain further understanding of the standards, problems, and expectations related to making all Graduate School communications available to those with disabilities. Several staff members from these units have also attended training on the use of software tools related to accessibility standards and subsequently disseminated this information to our Directors to ensure that every unit within the Graduate School understands how to use the tools we have at our disposal.

The Offices of Graduate Educational Equity Programs (OGEEP) and APR continue to provide opportunities for increasing diversity knowledge for our graduate students by advertising our educational programs and workshops on the Graduate School website and through email distributions to the University's graduate programs. These offices have also continued to create an inclusive climate within graduate education by increasing the number of speakers from diverse populations, academic disciplines, and career trajectories for our workshops and programs in order for participants to recognize the value in consistently having a broad range of voices and perspectives at the table. In recent years, the Office of Postdoctoral Affairs has been more proactive in attempts to reach out to minority postdocs across the University to ensure that they receive information regarding professional development opportunities offered by the office. Given the significant number of International postdocs, which is larger than the percentage of domestic postdocs, OPA has not had difficulty reaching scholars from other countries as they tend to seek out OPA resources on a regular basis.

Additionally, OGEEP continues to explore how we might address issues related to groups other than racial and ethnic minorities. Addressing issues related to lower income and first generation students, for instance, has become a larger focus of the unit, particularly since the McNair Scholars program is housed within the office. Given McNair's focus on these two populations, in addition to their focus on underrepresented racial and ethnic minority students, there has been an increase in collaborative activities

developed by OGEEP and McNair that target all of these populations. Lastly, OGEEP continues to discuss ways to include LGBT students and those with disabilities within its services, in an effort to promote a more welcoming and inclusive environment.

### **New Initiatives for 2014/15 through 2018/19**

One of the primary new initiatives we will be undertaking during this next strategic planning cycle is to open the dialogue with other units across the University regarding how to meet the needs of communities of graduate students that OGEEP has not traditionally served, such as LGBT students and those with disabilities. Specifically, the new OGEEP Senior Director will work with the Assistant Dean for Graduate Student Affairs to identify offices across the University that provide support to these populations, in order to begin developing collaborative working relationships with them so that we can better meet the needs of these communities. A preliminary discussion will be held with the Vice Provost of Educational Equity and the Vice President of Student Affairs to discuss such possible collaboration prior to any discussions taking place with the various individual offices within their units which serve these populations. Program attendance, program evaluations, and requests for service and support from various diverse student populations will be tracked, to determine the effectiveness of any new collaborative efforts.

A second initiative to be implemented during the new strategic planning cycle is the development of specific links to resources for diverse graduate student populations to be included on the website of each Graduate School office that provides direct services to students. These links will be for both internal and external services and resources that are related to the mission of that particular office. Providing such links will further enhance our efforts to provide a climate that is welcoming and inclusive to prospective and current students, as well as to faculty and staff. Providing links to resources that address areas of diversity beyond race and gender will assist with the University's focus on broadening our notions of diversity to create a welcoming and supportive climate for all. We will also increase the level of promotion of Graduate School programs and events within communications disseminated by other units across the University that address the needs of diverse communities (e.g., Presidential Commissions, Forum on Black Affairs, Diversity Newswire, Office of Disability Services, Office of Veterans Programs, Lesbian, Gay, Bisexual, Transgender, and Ally (LGBTA) Student Resource Center, Center for Women Students). The Graduate School Exit Survey, which asks about the level of support students received from offices within the Graduate School during their enrollment, will also be revised to include a question designed to assess the effectiveness of Graduate School staff in addressing the needs of a diverse student population.

The units responsible for delivering programs and activities for graduate students (APR, OGEEP, OGFAA) will develop and maintain a database of invited presenters/speakers for our various programs, and track the dimensions of diversity to determine whether we have continued to increase the level of diversity of invited presenters and which areas of

diversity may need additional focus (e.g., academic discipline, race/ethnicity, gender, age, career sector).

Lastly, we will track and evaluate revisions and improvements to all Graduate School communications annually (e.g., brochures, websites, fliers) in an effort to ensure that they are 100% compliant with the University's accessibility standards and that they are providing information that is relevant for a diverse population.

*2. What measures of success or strategic indicators gauge your progress toward this Challenge? What specific data in relation to these measures and indicators demonstrate your progress?*

a) Effective management of student and postdoctoral needs across populations (e.g., race, gender, age, disability, sexual orientation, religion, academic discipline, etc.) within GES, OGEEP, OFGAA, and OPA specifically.

b) Identifying the necessary skills required for addressing the needs of diverse populations during the interview process for new GES positions and during the early weeks of orienting new employees within that unit when new staff are required to shadow GES employees who fully demonstrate this knowledge and skill.

c) Observations of positive staff behavior and performance by unit directors and the absence of a need to address issues of poor performance and ineffectiveness within staff performance evaluations as it relates to creating a welcoming climate within the Graduate School.

d) Increased amount of collaboration between OGEEP and McNair within their specific activities. Currently, for example, approximately 80% of the activities conducted by the unit during the summer programs include participants from both SROP and McNair programs to ensure that a welcoming climate is created for students, regardless of with which program they are specifically associated.

e) An increased focus from APR on consulting with the Graduate School Alumni Society Board, OGEEP, and the Advisory Committee for Graduate Education, among other groups, to ensure that diverse presenters for Graduate School programs are engaged. As a result of such consultation in the past two years, 20% of the speakers invited to the Career Exploration Workshop were from diverse populations, which was an increase in diverse speakers from prior years.

f) Increasing the number of partnership relationships with other units across the University, to ensure that diverse graduate students are aware of all of resources available to them, to assist with their academic success.

*3. Among the strategies you have employed to make progress with this Challenge, which specific approaches are considered your “signature” initiatives and which could be considered “best practices”? (Best practices are processes, programs, and procedures that most successfully lead to the unit’s ability to reach the University’s diversity goals and can be validated through measurable outcomes.) Describe these signature and/or best practice initiatives, the metrics by which their success is gauged, and the measurable outcomes.*

The ability of Graduate School staff to consistently recognize the various dimensions of diversity that guide the University’s principles is demonstrated in our daily activities and is considered to be a best practice within our unit. Each of our units regularly considers these dimensions of diversity as they serve the populations they interact with and readily consults with other units within the Graduate School to ensure that we are meeting the needs of those we serve effectively. The OFGAA, for instance, regularly consults with the OGEEP as they design funding programs to meet the needs of underrepresented graduate students. GES and the NODS communicate almost daily to ensure that the graduate application meets the needs of the vastly diverse population of applicants who are interested in our graduate degree programs. APR regularly communicates with OGEEP to discuss ways to increase the participation of diverse students at events throughout the year. Success is measured by the frequency with which these units collaborate with one another and by their effectiveness in addressing student issues when they arise.

The Doctoral Career Exploration Workshop, which serves to raise awareness of the many career opportunities beyond academia, offers graduate students and postdoctoral scholars the opportunity to network with highly successful graduate alumni who have forged their career paths outside the academy, and is one of our most successful initiatives. Metrics used to determine the success of this event are the number of participants registered to attend (including those on the waitlist) and the evaluations that participants complete after the event. Since the event began, the number of registered participants has risen and the evaluations continue to be overwhelmingly positive, citing the need to have such workshops to provide opportunities for students and postdocs to learn more about diverse careers beyond those in higher education.

The McNair Scholars /OGEEP focus on addressing the needs of URM, low income and first generation students across the University serves as a model of how to expand notions of diversity beyond race/ethnicity and gender, and create a welcoming climate within the Graduate School. Additionally, providing support for LGBT students and/or for students who conduct research on this population through OGEEP travel grants that allow students to present their research at national disciplinary conferences further serves to promote an inclusive climate within the unit. Metrics used to determine success in this area are the increasing number of activities that have been implemented jointly with both McNair Scholars and graduate students participating, and the number of requests granted to LGBT students for services, which though small in number, was not evident several years ago.

### **Challenge 3: Recruiting and Retaining a Diverse Student Body**

*1. Taking into account the unit's and University's history with this Challenge, the targeted areas for improvement as they apply to your unit, and your unit's diversity strategic plan and general strategic plan, what progress have you made toward this Challenge during this reporting period? What diversity efforts and initiatives are planned for the 2014-15 through 2018-19 planning cycle?*

The Graduate School continues to explore ways to increase the effectiveness of current student recruitment and retention strategies and to specifically develop new recruitment mechanisms when prior strategies are deemed ineffective. Application and enrollment data indicate that while there have been some small gains in the enrollment of URM graduate students overall, the gains tend to be a result of the increased enrollment of Hispanic students, and an increase in URM students entering our World Campus graduate programs. Unfortunately, we have not seen similar increases in African American and Native American enrollment, which for resident instruction have remained relatively static in the case of African American students, and has decreased in the case of Native American students. This trend has continued for the past decade and demonstrates a very clear need for substantive change in recruitment practices within the Graduate School and within the academic Colleges. While the percentage of international students has increased to constitute almost a third of Resident graduate enrollments, there are certainly challenges associated with an increase in this population. It will be important for the Graduate School to continue to develop mechanisms of support for International students to ensure that retention of this population remains high as well. Furthermore, an increase in International students in residence necessarily requires that graduate programs pay close attention to the acclimation of these students within their units and to developing ways to include issues or concerns related to this community within their current diversity initiatives and frameworks.

#### **Progress**

##### *Recruitment:*

GES worked with the Graduate Council Committee on Academic Standards to create guidelines for establishing collaborations with institutions outside the U.S., and, as a result, academic units now have two options in developing collaborative graduate programs between Penn State and institutions abroad. The two collaborative graduate models developed are Collaborative International - Concurrent Graduate Degree programs (CI-CGDP) and Collaborative International - Integrated Undergraduate-Graduate Degree Programs (CI-IUGDP). The CI-CGDP model allows for students to be concurrently enrolled in a master's degree program at Penn State and a master's degree program at the collaborating institution; or in a Penn State doctoral program and collaborating master's degree program; or in a Penn State master's program and collaborating doctoral degree program. The CI-IUGDP model allows for students to be enrolled in a baccalaureate degree program at the collaborating institution and a

master's program at Penn State. These guidelines were established based upon a foundation of mutual interest and benefit; strategic importance; and ability to offer a high quality, sustainable program of reasonable magnitude. Additional opportunities for diversifying graduate education include the ability for students enrolled in a Penn State graduate degree program to register for SUBJ 603 for variable credits (up to 12) to temporarily engage in foreign study and/or research approved by the graduate program, while enrolled in a university outside the U.S., constituting progress towards the degree. Each of these initiatives serves as an opportunity to recruit diverse students who might be interested in these less traditional programs of graduate study.

In an effort to more effectively capture essential demographic data of graduate applicants to aid in our recruitment efforts, GES, OGEEP, OFGAA, and NODS worked together to develop and add several new questions to the graduate application. These new questions are primarily designed to gather information on the applicant's geographical background and involvement in federally funded programs that are designed to increase the number of first generation and low-income students within higher education, as well as to collect data on their involvement in professional organizations and research opportunities. Adding such questions also allows us to verify that the application and related systems are being effectively utilized by a wide variety of diverse populations. The data collected from these questions will assist the Graduate School in accurately determining the populations that are most attracted to our graduate education programs, to help us target our recruitment efforts more strategically and determine any obvious gaps with respect to the recruitment of particular populations or communities.

There have been modest increases to the number of external awards posted on our public database that target diverse students. Going into the next assessment period, OGFAA will continue to identify and publish extramural funding opportunities with eligibility criteria or identified preferences for underrepresented graduate students and post-doctoral scholars.

Under the direction of the Dean, OGFAA and OGEEP developed several internal temporary funding initiatives such as STEM Scholars Fellowships and Bunton-Waller Graduate Fellowships that were offered in 2011/12, 2013/14, and 2014/15. The Bunton-Waller Graduate Fellowships program afforded 2 years of fellowship support for 13 underrepresented students. Nominations were sought from colleges and the most meritorious prospective students were selected for the 2-year Graduate School support packages, with colleges providing support for additional years. The STEM Scholars Fellowship program afforded our highest achieving underrepresented graduate students with Graduate School support packages that provided full fellowship support in year 1 of enrollment and then supplemental support for 4 additional years that would maintain the equivalent value of first-year support (up to \$30,000, at the program's discretion). The STEM Scholars Fellowships supported 7, first-year underrepresented students in 2013/14, and we anticipate the capacity to recruit an additional 7-10 students who will be enrolled for 2014/15. Additionally, OGFAA and OGEEP continued to provide oversight and support for external student funding from the Sloan, Ford, and GEM



programs, including through the initial student selection process, program management, and oversight of institutional matching funds. Our Bunton-Waller Graduate Assistantship program also continues to serve as a primary recruitment tool for diverse graduate students, as evidenced by the 266 assistantships awarded to incoming students between 2009 and 2013.

The OGEEP and McNair Scholars units lead the Graduate School's efforts to recruit and retain a diverse student population, which continues to be a significant challenge. The McNair program annually recruits a new cohort of diverse students into the program, which is designed to prepare them for doctoral study. The current federal reporting structure for the McNair Scholars' program requires that students are tracked based upon their enrollment in graduate and terminal degree granting programs upon completion of their bachelors' degree, so the Director continues to monitor the progress of McNair alums and maintains a comprehensive database of their graduate education activity. The McNair Director also distributes an annual listing of new and returning scholars, as well as the McNair alumni directory to academic programs and each college's Multicultural Leader to assist the colleges with their graduate education recruiting efforts. The directory includes contact information for McNair alums from every institution with a McNair Scholars' program.

OGEEP continues to assess its current recruitment strategies, making changes where needed. Since the 2009-2010 academic year, the graduate program application has included questions that allow applicants to indicate whether they have participated in a McNair program, the CIC's Summer Research Opportunities Program (SROP), or in a recruitment event either on or off campus. Being able to collect these data has provided OGEEP with the ability to assess the effectiveness of specific recruitment mechanisms to determine whether they should continue to be utilized. For instance, the data collected between 2010 and 2013 indicated that there were certain national recruitment events that did not yield applications from diverse student populations, and therefore participation at these events were discontinued. The McNair and SROP programs continue to be valuable resources for the recruitment of diverse students, but the McNair program appears to be the more effective program at doing so, according to the data collected from the applications. Based upon a review of the data, it is clear that in order to increase the percentage of SROP participants who enroll in Penn State graduate programs, both OGEEP and the colleges need to follow up and more closely track those students after the SROP program, in order to continue to highlight the benefits of choosing Penn State for graduate study, and to assist them with completing our graduate application process.

The STEM Fall Open House was a new initiative implemented in the fall of 2013 in collaboration with the Colleges of Science, Engineering, and Earth and Mineral Sciences. We invited underrepresented undergraduate students from across the country who were interested in doctoral study in the STEM disciplines, were highly competitive applicants, and who had a prior history of research activity, to attend a two-day open house where they visited with graduate faculty members within their areas of interest, learned about funding opportunities for graduate education, met with multicultural

leaders and current graduate students, and toured Penn State's UP campus and facilities. All attendees were granted application fee waivers and were required to start their Penn State graduate application during their visit. This event successfully hosted thirty-two students in the inaugural year, and has been expanded to include the Colleges of Agricultural Sciences and Information Sciences and Technology beginning in AY 2014/15. We have already received a number of graduate applications from participants in the inaugural Open House, and anticipate additional applications during the fall 2014 application cycle as well.

*Retention:*

The annual New Student Orientation for underrepresented minority students (URM), formerly the Retention and Professional Development conference, continues to be well received. In the past, the program hosted new and returning students, however, as the numbers of returning students decreased and the information shared became somewhat redundant for that population, the focus has changed to introducing incoming URM students to select student leaders in the various multicultural organizations across the University, and providing opportunities for them to network with OGEEP staff, and faculty and staff in other areas who work most closely with those groups.

The Graduate Forums also continue to be considered a valuable retention tool for diverse graduate students, because they focus on topics that are not traditionally covered within academic units. Topics centered on publishing, navigating graduate programs, identifying mentors, locating resources available to graduate students, and professional networking allow diverse students the opportunity to explore such issues as they specifically relate to their cultures and communities. OGEEP's travel awards program is also a valuable program, as it provides the opportunity for diverse graduate students to travel to present their research at disciplinary conferences. Many of the students would not be able to participate in these very critical professional opportunities without this financial assistance from OGEEP.

The ongoing commitment of the Alfred P. Sloan Foundation (Sloan) and the National Science Foundation (NSF) to the academic and professional success of URM graduate students, in order to increase the representation of these populations within the academy, has been a critical and highly valuable component of our current retention efforts. Both programs are administered by OGEEP and have positively impacted a significant number of our URM students within the STEM and the Social and Behavioral Sciences (SBE) disciplines. In the spring of 2013, OGEEP, in collaboration with the STEM colleges, successfully submitted a new proposal to the Sloan Foundation and was awarded one of only three highly prestigious grants to establish Penn State as a Minority Ph.D. University Center for Exemplary Mentoring (UCEM). This grant, which totaled \$850,000, primarily provides scholarships to high achieving Penn State URM doctoral candidates within the STEM disciplines, which allows them to have additional resources to support their degree progress. Students utilize these funds to help purchase research equipment and supplies, travel to present their research at national conferences, and assist with data collection, among other things.

In the thirteen years since the Sloan program's inception at Penn State, 118 URM STEM students have received scholarships of up to \$40,000. Of these, 65 participants have received their Ph.D. and moved on to careers in research and teaching. Receiving this new UCEM award allows Penn State to continue the program through 2017, and provides an opportunity to collaborate with Cornell and Georgia Tech, the other two institutions who received Sloan UCEM awards. It is important to note that historically, the Graduate School and STEM colleges also provide funds to supplement the program. During the new grant period, however, the Graduate School has committed an unprecedented \$600,000 for non-Sloan URM scholarship recipients, in order to match the amount of funding the Sloan recipients receive. This will enable the matching students to participate in the full range of Sloan activities. The Sloan Foundation requirement was for each institution to provide only \$10,000 for each matching student, so it is especially significant to note that the Graduate School has increased that amount for each student so that all of the students (Sloan and match) will receive the same level of funding throughout the three-year award period.

Through the NSF's Alliances for Graduate Education and the Professoriate (AGEP) programs, the Graduate School has been able to provide support to a significant number of our URM graduate students as well. Unlike the Sloan program, the AGEP programs do not provide direct support to students in the form of scholarships; rather the support is primarily in the form of providing OGEEP with funds to conduct a broad range of professional development opportunities, and to assist URM graduate students with travel to national meetings to present their research. The program supports URM undergraduate students by providing funds to recruit and host SROP participants, in an effort to increase their interest in and preparation for graduate studies at Penn State. OGEEP has managed two AGEP programs over the past decade, both of which adhered to NSF's goal to broaden participation of URM groups within academic institutions. Because the support is not given in the form of scholarships, it is difficult to quantify the impact that the program has had on both recruitment and retention efforts across the University, however, hundreds of URM students have participated in and benefited from the activities sponsored under the AGEP programs. Unfortunately, both of the current AGEP grants ended during the 2013-14 academic year. The OGEEP Senior Director will continue to seek out new external funding opportunities to maintain some of these activities.

Although the previous OGEEP Senior Director also served in the role of Assistant Dean, and as Director of Postdoctoral Affairs from October 2009 through August 2013, which limited the amount of work that could be dedicated solely to OGEEP, mentoring and support provided to current students remained an important mechanism for the retention of URM students. The new Senior Director, who was hired in August 2013, has made this activity a priority. This position regularly consults with students, staff and faculty regarding academic, social or personal concerns or issues raised by, or related to diverse graduate students, and has been instrumental in resolving many of the issues that were presented. Because this is a centralized position within the Graduate School, the Director has the ability to reach across all graduate programs to aid with student

issues that regularly are in need of attention. Although there was admittedly less time for such work given the multiple roles of the prior Director, this type of support was able to be provided nonetheless, and proved to be an invaluable component of our retention efforts.

### **New Initiatives for 2014/15 through 2018/19**

The commitment of the Graduate School Dean to hire a new OGEEP Senior Director is one of the most significant new initiatives for this current strategic plan. As noted, the prior Director held three different roles, making it a challenge to focus solely on the recruitment and retention of our diverse graduate student population. Making the decision to hire a new Director whose only role is to oversee OGEEP is an important step toward rethinking our recruitment and retention strategies for the next five years, in an effort to increase our application and enrollment yields and to develop innovative mechanisms for the retention and degree completion of our students. In just the first year with the new Director on board, the office has become more active and visible throughout the University. The new Director is in the process of evaluating OGEEP's programs and services in an effort to assess which activities should continue and which should either be modified or discontinued, as she and her staff develop new initiatives during this next strategic planning period.

The creation of the Fall STEM Open House, described in the section above, is another new initiative in which there is a great deal of optimism as we further develop the program over the next several years. This program has the potential to become nationally recognized within the Committee on Institutional Cooperation (CIC), as we seek to develop strategies that will yield maximum recruitment results. As noted above, we have already witnessed some measure of success with the number of applications received from participants in the first year of the program.

The OGEEP Director will introduce several new recruitment and retention initiatives in the 2014/15 academic year. The first new activity will center on developing relationships with small liberal arts colleges throughout Pennsylvania, in order to seek out talented URM undergraduate students who are interested in enrolling in graduate school. Although recruitment will take place for all disciplines, there will be a particular focus on URM students within the STEM disciplines throughout these schools, given that minority students continue to be significantly underrepresented in STEM graduate programs. Secondly, the OGEEP Director will begin collaborating with the Director of the Millennium Scholars Program within the Eberly College of Science, and the College of Engineering to develop joint programs that build off of the work of both units. These activities will be designed to provide opportunities for the Millennium Scholars, who are current undergraduate students at the University, to meet and be mentored by current URM STEM graduate students, in order to create a new pipeline for these students to enter our graduate programs upon completion of their undergraduate degrees. Lastly, the OGEEP Director will collaborate with the new Director of Graduate Student Services in the Graduate School, in order to explore possible strategies to recruit for doctoral

study and retain URM students currently enrolled within World Campus-delivered professional master's programs. The use of technology to meet with current URM World Campus students once or twice per year to get feedback about their experiences and concerns will likely be the primary activity implemented within the next year.

As noted in a previous section, the Graduate School will begin to collect additional data from the graduate application that provides information on applicants' geographical background and involvement in federally funded programs designed to increase the number of first generation and low-income students within higher education, as well as to collect data on their involvement in professional organizations and research opportunities. The data collected will assist the Graduate School with accurately determining the populations who are most attracted to our graduate education programs, as a way to target our recruitment efforts more effectively and determine any obvious gaps with respect to the recruitment of particular populations or communities. Lastly, the Graduate School has recently created a Facebook page to more effectively advertise our graduate programs. This use of social media will aid in the recruitment of a more diverse graduate student population and assist with retention of current students by advertising all of our professional development activities to ensure that our services are transparent to a wider external and internal audience.

*2. What measures of success or strategic indicators gauge your progress toward this Challenge? What specific data in relation to these measures and indicators demonstrate your progress?*

*Recruitment:*

a) Data collected from SROP participant exit surveys between 2009 through 2012 indicate that each year, the percentage of participants who say that they plan to enroll in Ph.D. programs increased by the end of the 8-week program.

b) Data collected from graduate applications between 2010 through 2014 indicate that over the four-year period, there has been a slight increase in graduate applications and enrollment into graduate programs by SROP participants across the CIC, and a more significant increase of applications and enrollment by participants who were in Penn State's SROP, specifically. Data on applicants who indicate they have participated in SROP will continue to be tracked to assess the effectiveness of the program as a recruitment mechanism.

c) Data collected from graduate applications between 2010 and 2014 indicates that there has been a slight increase in graduate applications (with the exception of 2013/14) and enrollment into graduate programs by McNair participants across the country, and a more significant increase of applications and enrollment from Penn State's McNair Scholars in particular. Data on applicants who indicate they have participated in McNair

will continue to be tracked to assess the effectiveness of the program as a recruitment mechanism.

d) Data collected from graduate applications between 2010 through 2014 indicates that over the four-year period, there has been a slight increase in graduate applications from students who attended recruitment events and met with Penn State recruiters.

e) Data collected from graduate applications for the 2014/15 academic year indicates that the inaugural STEM Fall Open House yielded 8 applications, which is evidence that the open house serves as an effective new recruitment mechanism. It is too early to know how many of the 8 applications will result in actual enrollment, but we will continue to track these data.

f) Track future application, enrollment and completion data across all programs to determine patterns/trends in each area. Track newly added demographic data gathered from graduate applications to determine whether there are recruitment patterns or trends that need to be addressed.

g) Data collected from the STEM Scholars Fellowships and Bunton-Waller Graduate Fellowships, along with the Bunton-Waller assistantship program to determine the effectiveness of recruiting new students through these three initiatives.

h) Tracking the use of the new Graduate School Facebook page to determine how effectively we are advertising our graduate programs, aiding in the recruitment of a more diverse graduate student population, and assisting with the retention of new students by advertising our professional development activities.

#### *Retention:*

i) Data collected from evaluations of the graduate forums and other retention activities indicates that current students find these activities especially valuable and beneficial to their academic and professional success. Evaluations of OGEEP and other Graduate School sponsored professional development activities will continue to be tracked to determine their effectiveness as retention efforts for diverse graduate students.

- i) Although both of our NSF AGEP grants ended during the 2013-14 academic year, our ability to effectively collaborate with partner institutions involved in these alliances resulted in the submission of two new AGEP proposals. The first proposal was to continue efforts to recruit and retain social and behavioral sciences students, while the second was designed to increase the number of URM postdocs within the STEM disciplines, in an effort to recruit them into faculty positions within the CIC institutions. Although only the postdoc AGEP was awarded, the SBE alliance is planning to submit another proposal in the coming year, with all of the partners fully involved.

- j) K. The GSFI subcommittee will discuss the development of new mechanisms to implement across the University to assess the climate for International students to determine whether graduate programs are meeting their needs and providing sufficient resources to promote academic success. Such discussion will include new ways to promote increased collaboration between the Graduate School and the Office of Global Programs given their role in ensuring that the needs of International students are met.
- k) OGEEP will develop an assessment tool to measure how effectively the New URM Student Orientation aids students with their acclimation into graduate school and with degree completion to ensure that the initiative is indeed productive. While the most logical mechanism of assessment is to conduct a survey during URM students' first or second year in their programs, and again upon the completion of their intended degree, the idea of conducting one or more focus groups with this population to gather qualitative data may be a useful idea as well.

*3. Among the strategies you have employed to make progress with this Challenge, which specific approaches are considered your “signature” initiatives and which could be considered “best practices”? (Best practices are processes, programs, and procedures that most successfully lead to the unit’s ability to reach the University’s diversity goals and can be validated through measurable outcomes.) Describe these signature and/or best practice initiatives, the metrics by which their success is gauged, and the measurable outcomes.*

Although this is a new program, the creation of the Fall STEM Open House is considered a best practice. Previous experience demonstrates that URM students who have made prior connections with the graduate programs and faculty they seek to join are very successful within those programs. Having the ability to provide such connections to prospective students is important in a number of ways, particularly given the location of the University Park campus, since many diverse students prefer to be near larger cities. As noted earlier, this program has the potential to become nationally recognized within the Committee on Institutional Cooperation (CIC), as we seek to conduct the program in ways that yield maximum recruitment results. Success of the program will be measured by tracking the number of Open House participants who apply to and enroll in Penn State’s graduate programs. Success will be defined as an increase in both categories from one year to the next.

Adding specific questions to the Graduate School application as a mechanism for more effectively tracking of our recruitment efforts is also considered a best practice. As noted above, having these data for the past four years has allowed us to make decisions regarding the use of limited resources, and to more accurately track application and enrollment trends.

Our graduate forums and travel awards program continue to be considered two of the most important services provided by OGEEP for current students, who consistently point to these opportunities as critical to their academic and career success.

#### **Challenge 4: Recruiting and Retaining a Diverse Workforce**

*1. Taking into account the unit's and University's history with this Challenge, the targeted areas for improvement as they apply to your unit, and your unit's diversity strategic plan and general strategic plan, what progress have you made toward this Challenge during this reporting period? What diversity efforts and initiatives are planned for the 2014/15 through 2018/19 planning cycle?*

#### **Progress**

The Graduate School has not historically been involved in the recruitment or retention of faculty, but certainly continues to explore ways to diversify the staff within the unit. OGEEP leads the way in this effort, as it continues to be the most racially/ethnically diverse unit given its mission, however, other units are working to address this challenge as well. NODS has significantly increased its staff diversity within the past year with the recent hiring of new staff members from various ethnic backgrounds. NODS has simultaneously increased the number of female staff members as well. GES, our largest unit, has begun to make a more concerted effort to examine where they place job postings, in an effort to recruit staff from a larger pool of applicants who are based outside of central Pennsylvania.

#### **New Initiatives for 2014-15 through 2018-19**

As noted previously, the OPA was instrumental in helping the CIC Graduate School Deans submit the Postdoc AGEF proposal to the NSF, which was successfully funded this academic year. The program's goals of mentoring URM postdocs in order to prepare them for tenure-track faculty positions within the CIC, and of training faculty search committees to improve the likelihood that they will more proactively recruit these postdocs into faculty positions is critical. Across the country, federal funding agencies and institutions of higher education have increased their focus on postdoc scholars in general, and the emphasis on providing opportunities to increase the pool of URM applicants for faculty positions in the STEM disciplines is quickly becoming a priority. Although Penn State has a very small number of URM postdocs, we are optimistic that participating in this grant might help increase that number, and therefore positively impact the number of URM faculty hired into STEM positions at Penn State.

As noted above, GES will begin to post openings for current positions in a wider variety of venues in an effort to increase the diversity of its staff.



*2. What measures of success or strategic indicators gauge your progress toward this Challenge? What specific data in relation to these measures and indicators demonstrate your progress?*

a) The hiring of several new staff members in NODS, which has significantly added to the diversity within the unit.

b) The awarding of the NSF AGEF Postdoc grant to increase the number of URM postdocs who are recruited into faculty positions at Penn State and throughout the CIC.

c) Tracking future hires across all Graduate School units, in order to assess whether efforts to diversify the staff have been successful.

*3. Among the strategies you have employed to make progress with this Challenge, which specific approaches are considered your “signature” initiatives and which could be considered “best practices”? (Best practices are processes, programs, and procedures that most successfully lead to the unit’s ability to reach the University’s diversity goals and can be validated through measurable outcomes.) Describe these signature and/or best practice initiatives, the metrics by which their success is gauged, and the measurable outcomes.*

The new CIC AGEF for URM postdocs is considered a best practice, given that there are very few initiatives across the country that focus solely on the retention of URM postdocs, in an effort to recruit them as faculty members within a group of institutions. This program centers on providing mentoring opportunities for URM postdocs in their home institutions, and from faculty members in a related field at other CIC institutions, as well as training faculty search committees to enhance their ability and desire to recruit URM postdocs as tenure-track faculty members. The three-year grant also includes a research component, that will allow us to gather data and track progress, to determine whether the stated goals are being met.

### **Challenge 5: Developing a Curriculum That Fosters United States and International Cultural Competencies**

N/A

### **Challenge 6: Diversifying University Leadership and Management**

*1. Taking into account the unit’s and University’s history with this Challenge, the targeted areas for improvement as they apply to your unit, and your unit’s diversity strategic plan and general strategic plan, what progress have you made toward this Challenge during this reporting period? What diversity efforts and initiatives are planned for the 2014-15 through 2018-19 planning cycle?*

## **Progress**

The Graduate School has consistently focused on diversifying its leadership, which is evidenced by the fact that with the exception of one position, the entire leadership team (91%) is made up of women, which is a significantly higher percentage of female administrators and executives than reported for the University Park campus (27.4%). Two (18%) of these positions are also held by women of color, namely the Assistant Dean and the Senior Director of OGEEP. This is also higher than the percentage of minority executives and administrators reported at University Park (11.9%).

Members of the leadership team also vary by age and background, which allows for all of these dimensions of diversity to positively impact discussions and decisions regarding goal setting, work strategy, unit structure, policy, and practice. Additionally, the Dean regularly encourages administrative team members to attend meetings and participate in professional development opportunities that contribute to the further development of leadership skills and knowledge acquisition, in order to position themselves as leaders throughout the University and within their particular fields. Administrators are also encouraged to join various University-wide committees to increase their visibility across the institution, and to allow team members to participate in activities related to their personal and professional interests.

## **New Initiatives for 2014/15 through 2018/19**

Although there is a consistent practice of ensuring the support and promotion of women into senior leadership roles within the Graduate School, we will continue to work toward increasing the diversity within the senior leadership team as positions become available. With the upcoming retirement of the Director of Alumni and Public Relations, we will use this opportunity to proactively search for a replacement who adds to the diversity of the team in significant ways.

While there has been a great deal of encouragement for members of the leadership team to participate in opportunities that contribute to their career advancement, we have never formally tracked these activities. During this strategic planning period, we will address this gap by having each team member's professional development activities documented within a professional development database, to allow for a more organized mechanism to track activities and determine areas that may need to be addressed based upon job responsibilities or requests from team members who wish to expand their knowledge/skill level in related areas.

*2. What measures of success or strategic indicators gauge your progress toward this Challenge? What specific data in relation to these measures and indicators demonstrate your progress?*

a) Demographic data based on current leadership positions within the Graduate School and within the University.

b) Professional development activities documented within the SRDPs of the current leadership team.

c)

*3. Among the strategies you have employed to make progress with this Challenge, which specific approaches are considered your “signature” initiatives and which could be considered “best practices”? (Best practices are processes, programs, and procedures that most successfully lead to the unit’s ability to reach the University’s diversity goals and can be validated through measurable outcomes.) Describe these signature and/or best practice initiatives, the metrics by which their success is gauged, and the measurable outcomes.*

The ability to attract, nurture, and maintain a higher percentage of female and minority administrators within the unit than the percentage of either population among administrators at the University Park campus is a significant accomplishment and considered to be a best practice within the Graduate School.

### **Challenge 7: Coordinating Organizational Change to Support Our Diversity Goals**

*1. Taking into account the unit’s and University’s history with this Challenge, the targeted areas for improvement as they apply to your unit, and your unit’s diversity strategic plan and general strategic plan, what progress have you made toward this Challenge during this reporting period? What diversity efforts and initiatives are planned for the 2014-15 through 2018-19 planning cycle?*

#### **Progress**

The Graduate School continues to maintain alignment of individual unit diversity goals with the University’s goals by working collaboratively with a variety of units across the institution to support organizational change. For instance, OGEEP works closely with the Office of the Vice Provost for Educational Equity (OVPEE) and each of the college Multicultural leaders to continue to improve efforts to recruit and retain diverse students. As noted under Challenge three, such efforts require consistent collaboration, assessment, and refinement in order to be effective, and to result in organizational change. The APR and NODS offices work with the Office of Strategic Communications and with Information Technology Services to ensure that all Graduate School communications adhere to accessibility standards, which fully support the University’s efforts to provide access to services for all interested populations.

#### **New Initiatives for 2014/15 through 2018/19**

As previously indicated, during this next strategic planning period each unit within the Graduate School will communicate annually with their counterpart(s) on the undergraduate side of the University to explore the areas of diversity they address within their work. We believe that such communication across the University is important, as we ensure that the Graduate School continues to be in alignment with other areas of the institution regarding our perspectives on diversity, which would further support organizational growth.

*2. What measures of success or strategic indicators gauge your progress toward this Challenge? What specific data in relation to these measures and indicators demonstrate your progress?*

a) Incorporate annual feedback into Directors' meetings to assess the collaboration between the Graduate School and relevant units across the University regarding alignment and growth in this area.

*3. Among the strategies you have employed to make progress with this Challenge, which specific approaches are considered your "signature" initiatives and which could be considered "best practices"? (Best practices are processes, programs, and procedures that most successfully lead to the unit's ability to reach the University's diversity goals and can be validated through measurable outcomes.) Describe these signature and/or best practice initiatives, the metrics by which their success is gauged, and the measurable outcomes.*

The collaborative relationship among OGEEP, the OVPEE, and College Multicultural Leaders is considered a best practice, because it ensures that the Graduate School's efforts to promote diversity are fully aligned with the goals of those who lead such efforts within each college and across the institution as a whole.

\*\*\*\*\*

## Cover Photos

Top left: Sara Getz, a doctoral student in anthropology at Penn State, explains biological archaeology during Bring Your Daughters and Sons to Work Day. Credit: Penn State

Top right: Graduate student Charles Addo-Quaye and guest stand alongside Charles' research poster at the Graduate School's annual Graduate Exhibition. Credit: The Graduate School

Middle left: Graduate students Lillian Klotz and Rachel Reimer perform at the Graduate School's annual Graduate Exhibition. Credit: The Graduate School

Middle right: Graduate student Elizabeth Herndon (Geosciences) collects a soil pore fluid sample from the Shale Hills Critical Zone Observatory while graduate student Danielle Andrews (Soil Science) prepares to measure the pH of the water. Credit: Penn State

Bottom left: Angela Larson, a doctoral student in Geosciences at Penn State, installs a seismic station in Cameroon with support from many local residents. Credit: Penn State

Bottom right: Doctoral student Lin Fang (Agricultural and Biological Engineering) observes an active growing culture sample at the biofuels laboratory on Penn State's University Park campus. Credit: Patrick Mansell

### **This publication is available in alternative media on request.**

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The Pennsylvania State University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, genetic information, national origin, race, religious creed, sex, sexual orientation, gender identity, or veteran status and retaliation due to the reporting of discrimination or harassment. Discrimination, harassment, or retaliation against faculty, staff, or students will not be tolerated at The Pennsylvania State University. Direct all inquiries regarding the nondiscrimination policy to the Affirmative Action Director, The Pennsylvania State University, 328 Boucke Building, University Park, PA 16802-5901; Tel (814) 863-0471 V/TTY. U.Ed. Pending.