## Blueprint for Academic Excellence Arnold School of Public Health 2014-2015

### Section I. Executive Summary (1 page)

#### 1) Describe how your unit contributes to meeting the Academic Dashboard targets.

The Arnold School offers three undergraduate programs that are rapidly growing. Our students contribute to higher retention rates and to higher graduation rates for the University, (see Section II and Appendix E). While our entering freshmen inexplicably have lower SAT scores, a large proportion of our undergraduate student body is capable and indeed recognized each semester by inclusion on the Dean's Honor List and the President's Honor List for outstanding course performance and graduation with honors. In addition, the average SAT score of our entering freshmen has increased more than the campus average even with a doubling of the number of freshman entering public health. We strive to enhance academic advisement and other student services to further increase our retention and graduation rates as well as expand educational opportunities and capstone experiences.

We continue our role as one of the leading research units on campus on a per capita basis, most notably especially among the health sciences. For the fifth consecutive year, the Arnold School attracted over \$23.5 million in grants and contracts from external sponsors. Our faculty submitted proposals in FY2013 totaling over \$49.5 million in first-year requests, including over \$29.9 million to the NIH. We have hired aggressively and strategically for three years (28 tenure-track faculty and seven tenured professors) to maintain our student to faculty ratios. The Arnold School produces more doctoral graduates than three of USC's four peer and peer-aspirant universities with accredited schools of public health.

## Describe how your unit contributes to the Key Performance Parameters (teaching, research, service and sustainability)

The Arnold School strives to maintain its reputation for outstanding teaching at all levels. The majority of our programs are graduate level with smaller classes, so we contribute to lower student to faculty ratios. Specifically, our SFR for Fall 2013 based on student FTE and tenure-track faculty was 15.5, much lower than the University as a whole. We are committed to maintaining low SFR's, and in the larger undergraduate lecture classes, include small lab or discussion groups as much as possible to enhance instructor:student interaction.

Beyond the metric of research expenditures, our scholarship has a direct impact on the academic disciplines of public health, and as importantly on the health of SC citizens. Frequently our professional publications are promoted in the popular media because of "relevance" to societal needs. Our faculty and students regularly receive national and international recognition by professional and other academic organizations.

Community outreach and engagement define the role of public health. Many of our faculty and staff are active volunteers in the University and local community, and our students complete practical/clinical experiences in many community agencies. Community-based involvement remains integral to academic public health and USC's classification as a high service/community engagement institution.

## Section II. Meeting the University's Academic Dashboard Targets (2 pages)

- Total undergraduate enrollment
  - a. The Arnold School undergraduate enrollment has grown to 1529 students in Fall 2013, nearly triple the enrollment in Fall 2007 (531 students). Both exercise science and public health programs are popular options for pre-medical and other pre-health professions students, and we also receive a large number of transfer students who are not accepted into upper division for nursing or pharmacy (200 applications for changes of major in Spring 2014 alone).
  - b. Our advisors participate in all campus recruitment events (both recruiting events for prospective students and major fairs for current students).
  - c. We are involved in health science / health professions magnet programs at White Knoll and C.A. Johnson high schools to generate interest in USC and public health in particular.
- Average SAT score for entering freshmen
  - a. Average SAT scores have increased 20 points from 1158 in Fall 2009 to 1178 in Fall 2013, with approximately double the number of entering freshmen over this period.
- Freshman to sophomore retention rates
  - a. The freshman-to-sophomore retention rates for the Arnold School have exceeded University rates for several years, until a small decrease noted in the Fall 2012 cohort.
  - b. With the leadership of our renamed Office of Public Health Education (OPHE), we are developing school-wide policies and procedures to maximize student success and provide higher quality student support services; e.g., to identify and implement best advisement practices, enhance partnerships with campus support services, standardize and coordinate services across the school, engage in continuous assessment and databased process improvement.
  - c. The Arnold SPH has established an undergraduate student services center adjacent to our PHRC atrium lobby. In addition to the faculty advisor staff in Exercise Science, we have expanded to three faculty (2.75 FTE) in the OPHE to be available daily to all undergraduates for counseling, advising, and career advice, and we are recruiting one additional instructor/advisor. Two of these faculty have earned multiple awards, both for teaching and student support activities.
  - d. To promote academic collegiality and engagement, we engage our undergraduate students in seminar series, receptions, honors recognitions, school-wide picnic, etc.

#### Graduation rates

- a. Our undergraduate graduation rates are notably higher than those of the University as a whole, especially for those who stay within the Arnold School.
- b. The Arnold SPH has always been engaged in summer session undergraduate course offerings for high demand courses, with substantial expansion over the past four years in response to our growing enrollment. Our offerings are being expanded again in Summer 2014 in response to the President's "on your own time" initiative.
- c. We added one full time staff to assist with academic outcomes assessment and other evaluation activities to allow better tracking for our majors of existing and potential

bottlenecks to degree progression within Arnold and in other supporting units (e.g., CAS, Moore School).

#### **Academic Dashboard: Faculty Success Measures**

- Student-to-Faculty Ratios
  - a. Our student-to-faculty ratios are generally low across most Arnold SPH courses at the advanced undergraduate and graduate levels. Freshman and sophomore level classes in exercise science are in need of SFR reduction, and we have searched and hired two new TT faculty in EXSC this year. Undergraduate enrollment has grown much faster than our faculty complement, but we have been intentional about hiring both tenure-track and instructional faculty disproportionately into Exercise Science since 2009 to address this issue. Our broader faculty hiring initiative has supported smaller student-to-faculty ratios across all departments teaching in the inter-departmental public health program. For Fall 2013, the student FTE to TT faculty ratio was 15.5.
- Research expenditures
  - a. The Arnold SPH has one of the highest per TT faculty member research expenditure rate at USC. Our research expenditures have exceeded \$17 million in each of the last six fiscal years, with total expenditures exceeding \$24.3 million in 2013. Of significant importance relative to our School's mission "to create and disseminate new knowledge" is that the Arnold School's faculty, staff and students published 392 peer-reviewed journal articles reflecting an increase of 15% over 2012. Our faculty also are listed as coauthors on 573 publications in 2013; the difference in numbers of publications and author affiliations illustrates a thriving collaborative environment within the Arnold SPH.
- National honors and awards
  - a. Arnold SPH faculty are largely in the junior and mid-career ranks but are already competing for national grants at the highest levels. Scholarship worthy of national award recognition will most likely follow. Chairs and senior faculty make concerted efforts to nominate junior faculty for regional to national awards and posts where appropriate. Many senior faculty are heavily decorated in national awards because of the quality, impact and quantity of their scholarship. The discipline of public health does not often garner membership in NAS, IOM, NAE, etc. However, our individual subdisciplines do have various national awards for which we do compete. Our Office of Research tracks awards, and the Associate Dean for Research serves a lobbying role within the college to identify worthy faculty and then encourage chairs and others to write strong supporting letters of nomination.

#### Doctoral degrees

a. The Norman J. Arnold original gift to the ASPH (nominally \$10 million) is presently valued at ~\$7 million. For the past 5 years we have used 80% of the endowment proceeds, matched by department and grant funds, to exclusively recruit Arnold Doctoral Fellows to the School. This program supports annually about 30 PhD students up to three years, in addition to support from Presidential fellowships, other Graduate School fellowships, NIH-funded research assistantships and pre-doctoral fellowships,

- and other awards. The eight-year graduation rate for our PhD programs is consistently over 70%, with the DPT program often posting a 100% graduation rate.
- b. Four of the USC peer and peer-aspirant institutions have accredited schools of public health. The Arnold School produces more doctoral graduates both in absolute and relative numbers (67 or 28.9% in AY 2011-2012) than three of the four (only UNC-Chapel Hill was higher: 81 or 18.9%). Relative to ALL schools of public health, we have the third highest proportion of doctoral graduates in our graduate student population, and the fifth highest absolute number nationally. Our doctoral graduates are employed nationally/internationally in NGO's, federal/state agencies, health-care systems, corporations and in academia.

# Section III. Unit's Goals and their Contribution to the University's Key Performance Parameters (3 pages)

#### 2014-2015 Academic Year Goals

1. Through development of the community of scholars and effective mentoring, to develop and retain quality faculty to meet academic mission needs of the Arnold School, and to complete searches for three department chair vacancies.

## Progress made to date:

- 10 tenure-track/tenured faculty hires in AY 2014: seven assistant professors and three tenured professors (two SmartState chairs and USC Director of GHS Institute for Advancement of Healthcare)
- In negotiation with two chair candidates for two departments (EXSC, ENHS); third search for HPEB still active with no viable candidate yet identified.
- Two FRI searches and multiple replacement hire searches in AY 2014: COMD: one replacement, one chair-commitment hire; EPID/BIOS: biostatistics, epidemiology, FRI epigenetics; EXSC: FRI search delayed until new chair seated in AY 2015; HSPM: two replacement hires, FRI in health IT, one CRRS junior faculty search.
- Faculty candidates often note our collegiality and academic "quality of life" as an attractive characteristic of our school. Increasingly, prospective faculty can recognize that they would be joining a critical mass of researchers.

#### Plans for 2014-2015:

- Finalize remaining chair vacancy (HPEB)
- Complete open faculty searches (see list of ongoing searches above); continue current and open new searches to meet department and SS chair commitments
- To promote quality, impactful and ethical research by developing strategies to: increase
  extramural funding; increase publications, especially in top-tier journals; facilitate
  collaborations to obtain large, interdisciplinary grants; to mentor junior faculty; and
  increase student and community engagement in scholarly endeavors.

#### Progress made to date:

- The ASPH research environment was enhanced to support and retain productive faculty, including central pre- and post-award support for investigators
- Expanded new faculty research orientation and offering a systematic research mentoring program to enhance success of early grant submissions and competitiveness of revised applications by new and junior faculty.
- Junior faculty (prior to third year review) meetings monthly in an organized mentoring program run through Academic Affairs and using experienced/successful senior faculty.
- Faculty in the Arnold School have received 12 ASPIRE awards from the University Office of Research. Recipients include both tenure-track assistant professors and some of our most experienced senior faculty. The following units report results from ASPIRE awards received over the past 3 years: COMD 1 award from 2012, resulted in an NIH-R01 (Adlof); ENHS 3 awards; 1 has resulted in 1 publication, 2 in review (Decho). Also 4 proposals are pending, with 3-4 not funded to date; EPID/BIOS 4 awards; 1 has

resulted in 3 publications (Williams), 6 proposals pending, 3 not funded to date; EXSC – 4 awards; 1 with 3 publications plus an NIH-R01 (Carson); HSPM – 6 unfunded ASPIRE proposals to date.

 Notable increase in peer-reviewed publications and grant submissions; stable extramural awards

#### Plans for 2014-2015

- Promote publication in top-tier journals of high impact through mentorship, pre-review, and provision of technical writing advice
- Actively involve department chairs and senior faculty/mentors in facilitating contacts for faculty across departments and colleges
- Increase submission of large program-project type proposals. These multi-disciplinary
  grants require high national reputation and demonstrated competitiveness in an area of
  investigation, and the Arnold School is poised to obtain this type of funding in e.g.,
  physical activity and health, cancer prevention, and neuroimaging applications to
  chronic stroke.
- Launch a long-term effort to develop a dataset of variables linked to scholarly productivity and research funding/expenditures. Dataset will allow trend examination over multiple years and identify determinants of research success in the School.
- Encourage participation in interdisciplinary research groups (e.g., RCCF, Institute of Mind and Body co-founder)
- Provide active support for Biostatistics Collaborative Research Core
- Encourage faculty to pursue external funding from more diverse sources, especially those with full IDC rates (e.g., industry, NGO's and private foundations)
- Increase research competitiveness and expenditure rates by returning 10% of school IDC capture to PI as incentive
- Lead and support collaborative research and service projects with GHS, HSSC and IAHC
- Explore summer course offering in scientific/technical writing for PH students (e.g., "dissertation boot camp")
- 3. To promote and enhance doctoral education in the Arnold School by increasing the number of doctoral students; funding support for doctoral students; interdisciplinary experiences for doctoral students.

#### Progress made to date:

- Use of more than half of Arnold Endowment revenue to recruit/support doctoral students
- School-wide focus on providing adequate support for doctoral students through securing competitive stipends and tuition abatements from funding agencies
- Dean's office commits at least \$10,000 per year to support student presentations at professional meetings; these travel grants require departmental matches.
- Leveraging provost's doctoral incentive funds for student travel, publication, and other student needs.
- Awarded Presidential Fellowships for two incoming students in PhD in Epidemiology.

#### Plans for 2014-2015:

- Encourage professional development activities beyond research training for doctoral students including professional ethics, training as future faculty, research grantsmanship
- Continue to support doctoral students to attend national/international meetings to network and to present research findings; support student publication costs.
- 4. To promote curriculum development, innovative teaching methodologies and assessment: develop appropriate responses to revised CEPH accreditation requirements, implement effective processes for continuing program assessment; improve learning outcomes and linkages to curriculum as needed; actively engage in interprofessional education; address curriculum requirements associated with the Carolina Core; to enhance distributed education in the Arnold School; to enhance involvement with USC Connect and other opportunities for community engagement

## Progress made to date:

- Enhanced academic program assessment with support of internal evaluation/ assessment staff and personnel in OIRA; provided technical assistance to departments to review and revise learning outcomes and curriculum links to outcomes.
- Documentation for CEPH interim report completed and fully accepted as compliant
- Active involvement with USC Connect to promote community engagement and graduation with leadership distinction among our undergraduate students
- Active role in *Interprofessional Education for Health Sciences* initiative
- Development of course work for online program delivery of MPH in HPEB and MHIT in collaboration with Academic Partnerships

#### Plans for 2014-2015:

- Continued revisions to distributed education courses to "Quality Matters" standards and development of new course delivery via Academic Partnerships initiative
- All departments will explore ways to integrate content more effectively across courses and curricula, e.g., nutrition science, chronic disease prevention across a variety of disciplines
- All departments will consider development of course work to reflect expertise contributed by new faculty and school-identified areas of research emphasis.
- Health Services Policy and Management will continue re-development of the executive format MHA program and delivery of the PhD to Taiwan
- Strategically plan distributed education offerings to deliver MPH program(s) in Greenville (e.g., Greenville Hospital System or University Center) and/or in Charleston
- 5. To actively plan for provision of improved infrastructure for the school including personnel, systematic mentoring and professional development, and provision of adequate buildings and facilities for faculty, staff and students.

#### Progress made to date:

- Upfit space and move four academic departments and several administrative and research groups to Discovery I
- Added two doctoral-trained faculty to OPHE and searching for master's level instructor for this office

- Hired webmaster and director of evaluation and academic assessment for school Plans for 2014-2015:
- Planning move for COMD Speech and Hearing Research Center, including necessary clinical space for a new Literacy Center in Communication Sciences and Disorders
- Continue to develop and enhance student services to accommodate our rapid student enrollment growth at the undergraduate level and new distributed-delivery degree programs at the graduate level
- Monitor and address staffing needs for other support services (e.g., school-level business and personnel administration, facilities management)

#### **Five-Year Goals**

Goal 1: To provide educational programs of excellence for public health professionals and scholars to gain recognition as one of the top ten schools of public health in public institutions of higher education.

In response to a widely recognized shrinkage of the public health workforce (>200K workers by 2018), the Arnold School of Public Health is preparing the next generation of public health professionals and scholars through a diverse curriculum, ranging from traditional baccalaureate programs to both professional and academic doctoral programs. As we continue to grow, we continually review our programs to keep them current with the rapidly developing science and practice of public health and responsive to the workforce and community needs. In addition, with our recent growth in faculty, we intend to increase enrollments in selected programs through enhanced distributed education. We continuously strive to gain national recognition through the impactful roles and positions held by our faculty and alumni, and by helping each other achieve goals such as publication in the top journals, receipt of large, interdisciplinary grants, and recruitment of top doctoral students who will further spread our reputation.

Goal 2: To achieve and maintain research excellence as demonstrated by the creation of knowledge of high impact and importance to public health.

We continually strive for growth in research and scholarly activities in most areas of public health. This goal emphasizes the centrality of research to our mission. While great progress has been made in understanding causes and **treatment** of diseases that create pain and suffering in our communities, opportunities (and challenges) for understanding how to initiate, plan, and implement large-scale **disease prevention** through public health education and intervention remain strong and quite fundable. Without dynamic research and practice programs and their accompanying expansion and translation of public health knowledge, the teaching and service components of our mission would become ineffective. The development of an integrated and effective ecological model of health would be impossible. Research focusing and investment planning were successful outcomes of the Arnold School's research strategic planning. Significant and enviable strengths of faculty and infrastructure are now in place in physical activity/exercise and health, nutrition and health, cancer/cancer prevention, neuroimaging and literacy. Looking forward, the challenge now is to find new senior leadership that embraces our culture of interdisciplinary education and approaches to health promotion,

disease prevention and environmental protection in these and other key areas of the Arnold School. In addition, a faculty-led task force has been charged to address issues of School/campus research culture, research sustainability, and emerging opportunities/ challenges in public health research.

Goal 3: To utilize available knowledge to address health and environmental issues facing South Carolina, the nation and the world community.

Public health is inherently a service discipline by virtue of its mission to "fulfill society's interest in assuring conditions in which people can be healthy"; thus the lines are often blurred between traditional community service activities and our teaching and research missions. Because much of our research is community-based and translational, and we intentionally train our students to be effective in the community, we have built strong relationships with public/private health and environmental entities throughout the community for many specific purposes. However, all of these partnerships, whether established for our research objectives or for an agency's expressed needs, ultimately serve to address the health and environmental issues of our local, national or international communities. In addition, most of the existing public health workforce nationally has minimal formal training in public health; so our ongoing continuing education efforts do make a critical contribution to workforce development for individuals unwilling or unable to complete a public health degree program due to time, location and other resource constraints.

Goal 4: To provide the infrastructure and resources to meet the goals of education, research, and professional service.

Specific targets within this goal are the most diverse among our set of five-year goals.

- 1. Administrative leadership: assuming the two current negotiations are successful, we will soon have five of six department chairs within the first three years of their initial appointment. While school-level leadership has been stable, the infusion of new leadership and ideas and renewed enthusiasm at the department level has pushed the school to higher levels of creativity and productivity.
- 2. The PHRC now houses approximately half of the Arnold School faculty, staff and graduate students, with three academic departments in Discovery I. This leaves most of two large departments (COMD, EXSC) and administrative groups elsewhere, across campus and in leased space off-campus. Discussions must continue on best strategies to acquire a third comprehensive clinical/classroom/office building beside the PHRC for accommodation of these excluded units and the phenomenal growth trajectory of the Arnold School. In addition, available laboratory space is already limited for the current research agenda, so long-term planning for the acquisition of additional laboratory space is critical.
- 3. We must have qualified faculty and staff to support all of these activities, and budget growth is required to retain and recruit quality individuals. We are encouraged by the prospect of enhanced tuition-return revenues through expanded summer-semester offerings and expanded partnerships with AP. While the provost's various initiatives have expanded our faculty, we have not identified resources to expand the support staff accordingly. We are encouraged by the Provost's remarks at the Fall 2013 retreat regarding a possible "staff replenishment initiative" for the University.

## Appendix A. Resources Needed (1 page)

Goal No.: 4			
Type of Resource	Existing	Additional: state	Strategy
		source	
CLINICAL/TRANSLATIONAL	Middleburg Plaza	Vacant lot:	Philanthropy and
RESEARCH BUILDING	COMD clinic, Blatt	Pendleton &	Public:Private
	PE center	Assembly Sts.	partnership where USC provides land,
			corporate partner
			builds 120K sq. ft.
			facility with 20K
			reserved for retail,
			banking, service sector
			on ground level.
			Philanthropy at 10-
			15M; balance from
			private/other.
FISCAL AND PERSONNEL	Clinical/instructional	Funds to support	We have moved two
RESOURCES FOR	faculty in EXSC and	1-2 additional	departmental clinical
UNDERGRADUATE	PH with multiple	instructor/advisors	faculty positions to the
STUDENT SERVICES	responsibilities	and 1-2 staff to	central Office of Public
	beyond	fulfill	Health Education and
	advising/student	administrative	are transitioning to a
	services	/clerical	centralized structure
		responsibilities	for most
			undergraduate
			advisement and all
			student services.

## Appendix B. Benchmarking Information (1 page)

## Universities with top Schools of Public Health

		Doctoral	Gross G&C	Net* G&C
	Faculty	Graduates	Expenditures	Expenditures
Institution		2011-2012	FY2012 (000)	FY2012 (000)
Columbia University	178	30	89,149	60,610
Emory University	183	25	42,783	30,377
Harvard University	197	87	106,229	95,157
Johns Hopkins University	1120	123	200,485	185,627
UC – Berkeley	162	24	21,507	21,469
UC – Los Angeles	98	55	26,796	26,796
University of Michigan	117	54	61,774	46,266
UNC – Chapel Hill	221	81	73,890	57,987
University of Pittsburgh	176	48	44,811	23,719
University of Washington	254	39	30,633	17,820

<sup>\*</sup>Reflects resources after institutional taxes are paid

#### Universities with peer Schools of Public Health

		Doctoral	Gross G&C	Net* G&C
	Faculty	Graduates	Expenditures	Expenditures
Institution		2011-2012	FY2012 (000)	FY2012 (000)
U. of Alabama-Birmingham	92	17	14,285	13,840
University of Florida	159	135	25,666	18,267
University of Iowa	75	23	15,259	15,259
University of Minnesota	148	25	48,221	33,931
University of Texas	156	45	35,165	29,198
University of South Carolina	132	67	29,663	29,663

<sup>\*</sup>Reflects resources after institutional taxes are paid

Among the 51 accredited schools of public health, there is reasonably strong historical agreement on the top ten schools of public health. Similarly there is a group of schools in the lower third that we clearly surpass by a variety of metrics. However, the middle group of which we are a part with 5 shown above as the peer group of institutions, is much more difficult to differentiate. Among these schools, some are perceived as surpassing the Arnold School in scholarship, usually because of being part of a larger research university and/or a comprehensive academic medical center, while being weaker in size and strength of academic programs; yet others may be stronger in academic programs but weaker in research.

## Appendix C. Unit's top Strengths and Important Accomplishments (1 page)

#### Strengths of the Arnold School of Public Health

- Talented, diverse, collaborative, interdisciplinary and widely-recognized faculty dedicated to excellence in both scholarship and academic missions
- Consistent leadership and success in competitively funded collaborations within and beyond
  the School: faculty are catalysts for major and numerous research and academic
  interdisciplinary initiatives across campus, and are national leaders in physical
  activity/kinesiology, cancer prevention, nutrition, tobacco control, neuro-imaging related to
  speech, literacy disorders, and health disparities research.
- Dedication to doctoral program growth (in selected disciplines) and enhancement, and nurturing growth with quality of our undergraduate programs

## Accomplishments of the Arnold School in the past five years

- Successful recruitment of 22 faculty in all ranks and tracks over the past two years
- In FY 2013, the Arnold School achieved external funding totaling \$23,614,450 or about \$299,000 per tenure-track faculty member, among the highest per capita funding in the University. In addition, faculty published 392 articles in peer-reviewed journals in CY 2013, a 15% increase.
- Research funding per TT has become the highest in the health sciences.
- Comprehensive provision of infrastructure for research activities within the school
- High quality candidates recruited from top programs in faculty searches
- Diversified and creative research portfolio in terms of research topics, extramural funding sources, and interdisciplinary nature of multiple collaborations
- Ability of faculty to be nimble and entrepreneurial in response to various opportunities
- Involvement in multiple successful proposals and recruitments for Centers for Economic Excellence/SmartState endowed chairs program: Health Care Quality, Technologies to Enhance Healthful Lifestyles, Rehabilitation and Reconstructive Sciences, Nano-Environmental Research and Risk Assessment; all are currently in search processes for affiliated junior faculty hires
- Development, implementation and rapid growth of undergraduate programs in the Arnold School to 1529 students in Fall 2013-- nearly triple the enrollment in Fall 2007
- Leading provider of speech, language and hearing services in the metro Columbia area with over 5000 visits per year to the Speech and Hearing Center.
- Successful development of the Biostatistical Collaborative Research Core (formerly Health Sciences Research Core)
- Successful acquisition of EnGenCore LLC by SelahGenomics, Inc to become the USC's first CLIA-certified genomics services laboratory in partnership with GHS Institute for Translational Oncology Research
- Leading role in the University's first successful T32 grant, Biomedical-Behavioral Interface: Program; leadership in submission of another T32 in physical activity and health.

- Continued development of collaborations with Greenville Hospital System (GHS), Health Sciences South Carolina (HSSC), and GHS/USC Institute for Advancement of Healthcare in particular.
- Two faculty in the school are participating in the development of Carolina Nexus which is a President-sponsored leadership initiative for faculty and administrators.
- ASPH and DHEC partnered to establish the SC Environmental Justice Leadership Forum which welcomed its inaugural class of 20 community leader participants this fall.
- MOA signed for joint research with the NOAA National Centers for Coastal Ocean Science.
- Faculty awards earned during 2013:
  - Steven N. Blair, USC Educational Foundation Research Award for Health Sciences and Dr. Mickey Stunkard Lifetime Achievement Award from the Obesity Society
  - J. Mark Davis, American College of Sports Medicine Citation Award
  - James Carson STAR Reviewer Award for Excellence in Peer Review from the American Physiological Society

#### Appendix D. Unit's Weaknesses and Plans for Addressing the Weaknesses (1 page)

#### **Internal Weaknesses of the Arnold School**

- Retention of qualified faculty and staff at competitive salaries: While we have resources to
  be more competitive with salaries and start-up packages to recruit high quality junior and
  some senior (e.g., SS Chairs) faculty, we are exacerbating existing problems of salary
  compression for some very productive, dedicated and experienced faculty (some as
  productive as SS Chairs). We have been successful in countering offers from other
  institutions in most cases, but this is becoming increasingly difficult with available
  resources.
- Speech and hearing clinic is housed in abysmal conditions 4 miles from campus in a dangerous neighborhood. Student trainees work nights/weekends in unsafe environment. EXSC is top national program but >50% housed in Blatt basement with unstable facilities.
- Inadequate financial support from TA's, grants, etc. for competitive stipends, tuition
  waivers and adequate health insurance to recruit top doctoral students. Arnold
  endowment income is helpful but insufficient (\$192,000/year school-wide with 278 doctoral
  students). Doctoral student cost per year with tuition and health insurance is now same or
  more than a postdoctoral associate which presents a disincentive to doctoral training.

## **Additional Weakness impacting the Arnold School**

- Lack of sufficient facilities: With the move into Discovery, four of our six departments are
  now in high quality space. However, laboratory space is already fully committed, and the
  current allocations cannot meet growth expectations of research/teaching beyond 4 years.
  In addition, present space cannot meet existing needs of Communication Sciences and
  Disorders and Exercise Science (PT, and administration). Shortage of classroom space,
  especially large classrooms in Innovista area of campus
- Inadequate student pedestrian safety for transit to/from the PHRC and Discovery buildings
  at Assembly and College Streets intersection. Multiple pedestrian-auto collisions (> 6) have
  been reported in past 3 years. The beautification project on Assembly has helped some, but
  drivers consistently ignore pedestrians in crosswalks and restrictions on U-turns and right
  turns on red.
- Inadequate professional staff support at the institutional level for, e.g., contract and grant accounting, human resources and payroll, computer services, research computing, development of web presence and content, publications and presentations, and IT infrastructure development
- Distance (distributed) education technology, support, and instructor training is less than adequate at USC. There is a strong need for public health distributed education in South Carolina. We are hopeful that Academic Partnerships will remediate some needs.
- Lack of oversight for HIPAA security
- Financial support and policies to benefit graduate students (e.g., tuition waivers, provisions for grant-matching funds)
- Administrative challenges with Graduate School and with One Carolina implementation

## Appendix E. Unit Statistical Profile – Arnold School of Public Health

## **Student Enrollment and Credit Hours**

1. Number of entering freshmen for Fall 2010, Fall 2011, Fall 2012, and Fall 2013 classes and their average SAT and ACT scores.

	<u>Fall 2010</u>	<u>Fall 2011</u>	<u>Fall 2012</u>	<u>Fall 2013</u>
Test Scores (avg)				
# New Fresh/ ACT	174/26	243/26	225/26	260/26
# New Fresh/ SAT	174/1145	243/1161	225/1150	260/1178

2. Freshmen retention rate for classes entering Fall 2010, Fall 2011, and Fall 2012.

		2010 Cohort Returned '11	2011 Cohort Returned '12	2012 Cohort Returned '13
<b>Retention</b>				
<u>Rates</u>				
Public Health	Same school	71.8%	71.8%	69.6%
	Other school	18.2%	15.8%	16.5%
	Total	90.0%	87.6%	86.2%
USC Overall	Same school	71.9%	71.4%	73.1%
	Other school	14.9%	15.8%	15.1%
	Total	86.8%	87.2%	88.2%

3. Sophomore retention rates for classes entering Fall 2009, Fall 2010, and Fall 2011.

		2009 Cohort	2010 Cohort	2011 Cohort
		<u>Returned</u>	<u>Returned</u>	<u>Returned</u>
		<u>'11</u>	<u>'12</u>	<u>'13</u>
<b>Retention</b>				
<u>Rates</u>				
Public Health	Same school	83.9%	84.7%	82.5%
	Other school	9.7%	6.9%	10.3%
	Total	93.6%	91.6%	92.8%
USC Overall	Same school	78.2%	75.2%	77.5%
	Other school	12.9%	14.0%	13.1%
	Total	91.1%	89.2%	90.6%

4. Number of majors enrolled in Fall 2010, Fall 2011, Fall 2012, and Fall 2013 by level: undergraduate, certificate, first professional, masters, or doctoral (headcount).

	<u>Fall 2010</u>	<u>Fall 2011</u>	<u>Fall 2012</u>	<u>Fall 2013</u>
<b>Student Headcount</b>				
Undergraduate	943	1,170	1,393	1,529
Masters	396	401	402	413
Certificate	5	6	9	9
First Professional	0	0	0	0
Doctoral	277	291	281	278
Total	1,621	1,868	2,085	2,229

5. Number of entering first professional and graduate students: Fall 2010, Fall 2011, Fall 2012, and Fall 2013 and their average GRE, MCAT, LSAT scores, etc.

Graduate test scores were excluded from the OIRA Strategic Planning Statistics due to high percentage of missing test scores on USC database. Data below show the number of students for whom we have data from internal records, along with their average scores. The GRE test and its scoring changed beginning August 1, 2011.

	<u>Fall 2010</u>	<u>Fall 2011</u>	<u>Fall 2012</u>	<u>Fall 2013</u>
GRE scores (avg)				
Original Test/Scoring	N=134	N=128	N=114	N=45
<b>GRE Quantitative</b>	616	601	600	620
GRE Verbal	478	477	482	493
Revised Test/Scoring			N=88	N=193
<b>GRE Quantitative</b>			150	151
GRE Verbal			153	152

GMAT and MCAT are accepted as alternative tests for certain programs, but the numbers of applicants reporting these scores are too small for aggregate reporting.

6. Number of graduates in Fall 2012, Spring 2013, and Summer 2013 by level (undergraduate, certificate, first professional, masters, doctoral).

	Fall 2012	<u>Summer</u>				
Degrees Awarded	<u>Fall 2012</u>	<u>Spring 2013</u>	<u>2013</u>	<u>Total</u>		
Undergraduate	71	180	33	284		
Masters	25	54	79	158		
Certificate	1	0	0	1		
First Professional	0	0	0	0		
Doctoral	27	12	13	52		
Total	124	246	125	495		

7. Four-, five- and six-year graduation rates for the three most recent applicable classes (undergraduate only).

		2005 Cohort		2006 Cohort		<u>2007 Cohort</u>				
Graduat	ion Potos	4-Year	5-Year	6-Year	4-Year	5-Year	6-Year	4-Year	5-Year	6-Year
Graduat	ion Rates	<u>Grad</u>	<u>Grad</u>	<u>Grad</u>	<u>Grad</u>	<u>Grad</u>	<u>Grad</u>	<u>Grad</u>	<u>Grad</u>	<u>Grad</u>
Started	Ended									
Public	Same school	48.8%	57.0%	58.1%	49.4%	53.3%	53.3%	50.0%	55.2%	56.3%
Health	Other school	12.8%	18.6%	20.9%	13.0%	18.2%	18.2%	13.5%	18.8%	19.8%
	Total	61.6%	75.6%	79.0%	62.4%	71.4%	71.4%	63.5%	74.0%	76.1%
USC Overall Same school Other school		38.0%	47.0%	48.5%	42.0%	51.8%	53.0%	43.0%	52.1%	53.4%
		13.2%	20.2%	21.8%	11.2%	17.8%	19.3%	10.9%	17.6%	19.0%
	Total	51.2%	67.2%	70.3%	53.2%	69.6%	72.3%	53.9%	69.7%	72.4%

8. Total credit hours generated by the Arnold School of Public Health regardless of major for Fall 2012, Spring 2013, and Summer 2013.

				Total AY
	<u>Fall 2012</u>	<u>Spring 2013</u>	<u>Summer 2013</u>	<u>2012-2013</u>
Student Credit				
<u>Hours</u>				
Undergraduate	7,849	8,706	1,339	17,894
Masters	4,194	3,962	2,707	10,863
Doctoral	2,067	1,799	722	4,588
Total	14,110	14,467	4,768	33,345

9. Percent of credit hours by undergraduate major taught by faculty with a highest terminal degree.

As noted last year, the following table does not reflect Arnold School performance since a majority of the credit hours completed by our undergraduate students is taken outside of the Arnold School (e.g., Arts and Sciences).

<b>Program</b>	

Exercise Science, Health Fitness, B.S.
Exercise Science, Motor Development, B.S.
Exercise Science, Public Health, B.S.
Exercise Science, Scientific Foundations, B.S.
Public Health, B.A.
Public Health, B.S.
Total

73.40%	81.64%
64.50%	70.02%
68.69%	82.47%
80.81%	88.63%
51.49%	40.07%
68.03%	67.48%
71.16%	73.60%

<u>Fall 2013</u>

<u>Spring 2013</u>

10. Percent of credit hours by undergraduate major taught by full-time faculty. [See note above about interpretation of data.]

	<b>Spring 2013</b>	<u>Fall 2013</u>
<u>Program</u>		
Exercise Science, Health Fitness, B.S.	94.42%	93.41%
Exercise Science, Motor Development, B.S.	94.74%	82.88%
Exercise Science, Public Health, B.S.	100.00%	91.75%
Exercise Science, Scientific Foundations, B.S.	85.46%	92.07%
Public Health, B.A.	71.10%	46.79%
Public Health, B.S.	74.47%	70.79%
Total	84.61%	80.19%

## **Faculty counts**

11. Number of faculty by title (tenure-track by rank, non-tenure track (research or clinical) by rank) as of Fall 2011, Fall 2012, and Fall 2013 (by department where applicable).

	FALL 2011	FALL 2012	FALL 2013
Tenure Track Faculty			
Professor	21/22*	23	25
Associate Professor	11/14	18/19	23/25
Assistant Professor	30	36/39	31/32
Research Faculty			
Professor	1	1/2	1/2
Associate Professor	0	1	1
Assistant Professor	9/10	7/10	8
Clinical Faculty			
Professor	0	0	1
Associate Professor	6	5	5/6
Assistant Professor	12/16	14/17	14/16
Instructor	7	7	6/7
Other Non-tenure faculty			
Instructor	6	7	4/5
Adjunct Faculty	34	34	61

<sup>\*</sup>Includes Jay Moskowitz (HSSC)

The first faculty count in each cell above is as reported by Office of Institutional Research and Assessment, second number is based on internal records. Some discrepancies are due to temporary grant appointments; several may reflect fall hires or promotions. Adjunct faculty counts based on OIRA reports and are substantially lower than internal records.

Faculty by department, Fall 2013 (internal records, includes research grant employees with faculty title).

	<u>COMD</u>	<u>ENHS</u>	EPID/BIOS	<u>EXSC</u>	<u>HPEB</u>	<u>HSPM</u>	<u>Total</u>
Tenure Track Faculty							
Professor	2	4	2	8	3	6	25
Associate Professor		2	11	3	8	1	25
Assistant Professor	6	4	5	7	6	4	32
Research Faculty							
Research Professor	1			1			2
Research Associate							
Professor						1	1
Research Assistant							
Professor	1	2	1			4	8
Clinical Faculty							
Professor				1			1
Associate Professor			1	2	3		6
Assistant Professor	6		4	3	2	1	16
Senior Instructor	1						1
Instructor	6						6
Other Non-tenure faculty							
Instructor				3	2		5
Professor Emeritus	1						1
Total	24	12	24	28	24	17	129

12. Current number and change in the number of tenure-track and tenured faculty from underrepresented minority groups from FY 2012.

	Black or Two or More				
	<u>Asian</u> <u>African American</u> <u>Hispanic</u>			<u>Races</u>	
Faculty numbers					
FALL 2012	5	9	1	5	
FALL 2013	11	9	1	5	
Net change from Fall 2012	+6	No change	No change	No change	

# Appendix F. Unit Statistical Research Data Scholarship, Research, and Creative Accomplishments

[The data provided by the University Office of Research included all extramural funding rather than restricting to research funding as described in the guidance. In addition, some funding was not included because of administrative changes, cross-appointments etc. The reports below are therefore based on internal calculations from SAM and USCeRA data, which we have compared carefully to those provided by the university office. Several of our faculty members have joint appointments or formal collaborations with units outside the Arnold School. Grant submissions, awards and expenditure through these other units may not be reflected in the numbers below.]

1. The total number and amount of externally sponsored research proposal submissions by funding source for FY 2013

Total number of external research proposal submissions	202
Total dollar amount of external research proposal submissions - 1st year	\$44,862,03
request	5

By Funding Source			
AHRQ	3	327,932	Federal
CDC	7	1,592,086	Federal
DOD	1	34,978	Federal
EPA	1	1,205,312	Federal
HHS	4	1,683,121	Federal
HRSA	6	1,795,369	Federal
NASA	1	42,000	Federal
NIH	116	29,411,089	Federal
NOAA	6	758,280	Federal
NSF	5	734,232	Federal
PCORI	3	1,876,604	Federal
USDA	3	1,213,016	Federal
USDE	1	500,000	Federal
Total	157	41,174,019	Federal
Proaxis	1	67,600	Corporate
The Coca-Cola Company	2	1,232,484	Corporate
Total	3	1,300,084	Corporate
American Academy of Neurology	1	171,372	Non-Profit
American Cancer Society	2	191,039	Non-Profit
American College of Sports Medicine	1	5,000	Non-Profit
American Diabetes Association	2	117,997	Non-Profit

American Foundation for Suicida Provention	1	20.000	Non Drofit
American Foundation for Suicide Prevention	1	30,000	Non-Profit
American Heart Association	1	77,000	Non-Profit
Boston Rehabilitation Outcomes Center	1	32,400	Non-Profit
Brain & Behavior Research Foundation	1	47,766	Non-Profit
Central Carolina Community Foundation	1	150,000	Non-Profit
Harriet Hancock Center Foundation	3	27,850	Non-Profit
Health & Environmental Sciences Institute	1	57,094	Non-Profit
International Life Sciences Institute	1	24,300	Non-Profit
International Reading Association	1	8,000	Non-Profit
Lesbian Health Fund	1	9,930	Non-Profit
National Sleep Foundation	1	10,000	Non-Profit
Nickel Producers Environmental Research		25.000	
Association	1	35,000	Non-Profit
Palmetto Health Alliance	1	8,066	Non-Profit
PhRMA	2	49,987	Non-Profit
Piedmont Health Foundation	1	13,802	Non-Profit
Prevent Cancer Foundation	1	39,809	Non-Profit
Robert Wood Johnson Foundation	3	306,210	Non-Profit
Sackler Institute for Nutrition Science	1	23,800	Non-Profit
National Family Planning & Reproductive Health			
Foundation	1	4,982	Non-Profit
SC Research Foundation	1	60,000	Non-Profit
Sisters of Charity Foundation of SC	1	30,000	Non-Profit
The Chapman Foundation, Inc.	1	25,108	Non-Profit
The Duke Endowment	3	451,808	Non-Profit
The Society for the Psychological Study of Social			
Issues	1	2,470	Non-Profit
Total	37	\$2,010,790	Non-Profit
SC Department of Health and Environmental Control	1	9,360	State
SC Department of Health and Human Services	1	29,600	State
Total	2	38,960	State
1 Octai	_	36,300	State
Greenville Hospital System University Medical Center	1	30,000	Other
Kaiser Permanente Center for Health Research	1	74,258	Other
King Saud Bin Abdulaziz University for Health		•	
Sciences	1	233,924	Other
Total	3	338,182	Other
		•	

Note: Sponsor shown is the origin of the funds. Flow-through funds are attributed to the sponsor of origin.

Data Source: USCeRA.

## 2. Summary of externally sponsored research awards by funding source for FY 2013

Total dollar amount of research awards	\$18,729,942
Total number of research awards	112

By Agency:			
AHRQ	1	39,704	Federal
CDC	7	1,289,883	Federal
DOD	4	237,887	Federal
DOE	1	253,532	Federal
DOJ	1	36,200	Federal
HHS	5	2,141,107	Federal
HRSA	3	735,413	Federal
		10,557,73	
NIH	52	6	Federal
NOAA	3	668,649	Federal
NSF	2	294,161	Federal
USDA	3	589,864	Federal
USDE	1	516,290	Federal
Total	83	17,360,426	Federal
			_
Proaxis	1	56,425	Corporate
Total	1	56,425	Corporate
American Cancer Society	1	30,000	Non-Profit
American College of Sports Medicine	1	4,711	Non-Profit
American Diabetes Association	2	126,974	Non-Profit
Calibri	1	4,982	Non-Profit
Central Carolina Community Foundation	1	95,000	Non-Profit
DentaQuest Foundation	1	121,287	Non-Profit
Eat Smart Move More SC	2	88,070	Non-Profit
Harriet Hancock Center Foundation	1	28,560	Non-Profit
International Life Sciences Institute	1	24,300	Non-Profit
National Sleep Foundation	1	10,000	Non-Profit
Nickel Producers Environmental Research			
Assoc	1	35,000	Non-Profit
Palmetto Health	1	8,066	Non-Profit
Piedmont Health Foundation	1	13,802	Non-Profit
Prevent Cancer Foundation	1	80,000	Non-Profit
Robert Wood Johnson Foundation	3	193,868	Non-Profit
SC Research Foundation	2	134,130	Non-Profit
Sisters of Charity Foundation of SC	1	30,000	Non-Profit

The Duke Endowment	3	239,741	Non-Profit
The Chapman Foundation, Inc.	1	12,500	Non-Profit
Total	26	1,280,991	Non-Profit
SC Department of Health & Human Services	1	2,500	State
SC Department of Public Safety	1	29,600	State
Total	2	32,100	State

Data Source: USCeRA

Total extramural funding processed through Sponsored Awards Management (SAM) in FY2013 and federal extramural funding processed through SAM in FY2013

Total extramural funding	23,614,560
Total federal extramural funding	19,276,578

Amount of sponsored research funding per faculty member in FY2013 (by rank, type of funding, e.g., federal, state, etc., and by and by department, if applicable).\*

						Non-	
Faculty PI	Rank	Dept	Federal	State	Corp	Profit	Total
Adlof, Suzanne	Asst Prof	COMD	664,491	0	0	95,000	759,491
Aelion, Marjorie	Prof	ENHS	131,549	0	0	0	131,549
Annang, Lucy	Assoc Prof	HPEB	185,999	0	0	0	185,999
Beets, Michael	Asst Prof	EXSC	898,000	0	0	0	898,000
Bellinger, Jessica	Res Asst Prof	HSPM	0	0	0	8,066	8,066
Blair, Steven	Prof	EXSC	28,749	0	0	24,300	53,049
Blake, Christine	Asst Prof	HPEB	26,000	0	0	0	26,000
Burch, James	Assoc Prof	EPID/BIOS	72,956	0	0	0	72,956
Cai, Bo	Assoc Prof	EPID/BIOS	274,107	0	0	0	274,107
Chandler,							
Thomas	Prof	ENHS	0	0	0	35,000	35,000
Chatterjee,							
Saurabh	Asst Prof	ENHS	248,930	0	0	0	248,930
Davis, Rachel	Asst Prof	HPEB	521,713	0	0	0	521,713
Decho, Alan	Prof	ENHS	123,199	0	0	0	123,199
Fogerty, Daniel	Asst Prof	COMD	206,798	0	0	0	206,798
Forthofer,							
Melinda	Assoc Prof	EPID/BIOS	376,368	0	0	0	376,368
Fridriksson,							
Julius	Prof	COMD	1,080,906	0	0	0	1,080,906
Friedman,	Assoc Prof	HPEB	311,771	0	0	0	311,771

						Non-	
Faculty PI	Rank	Dept	Federal	State	Corp	Profit	Total
Daniela							
Fritz, Stacy	Assoc Prof	EXSC	66,999	0	56,425	-50,870	72,554
Frizzell, Norma	Res Asst Prof	EXSC	0	0	0	123,974	123,974
Frongillo,							
Edward	Prof	HPEB	94,747	32,100	0	0	126,847
Glover, Saundra	Prof	HSPM	990,409	0	0	0	990,409
Hale, Nathan	Res Asst Prof	HSPM	0	0	0	166,414	166,414
Hardin, James	Assoc Prof	EPID/BIOS	78,108	0	0	0	78,108
Hazlett, Linda	Clin Asst Prof	EPID/BIOS	17,136	0	0	0	17,136
Hébert, James	Prof	EPID/BIOS	1,049,362	0	0	0	1,049,362
Jones, Sonya	Assoc Prof	HPEB	422,578	0	0	0	422,578
Kaczynski,							
Andrew	Asst Prof	HPEB	0	0	0	60,406	60,406
Karmaus,							
Wilfried	Prof	EPID/BIOS	43,574	0	0	0	43,574
Liese, Angela	Prof	EPID/BIOS	153,589	0	0	0	153,589
Liu, Jihong	Assoc Prof	EPID/BIOS	43,876	0	0	0	43,876
	Res Assoc						
Martin, Amy	Prof	HSPM	31,537	0	0	0	31,537
McKeown,							
Robert	Prof	EPID/BIOS	15,107	0	0	0	15,107
Merchant,							
Anwar	Assoc Prof	EPID/BIOS	226,200	0	0	124,287	350,487
Moran, Robert	Clin Asst Prof	EPID/BIOS	181,701	0	0	0	181,701
Norman, Robert	Assoc Prof	ENHS	499,426	0	0	0	499,426
Pate, Russ	Prof	EXSC	1,345,835	0	0	228,245	1,574,080
Porter, Dwayne	Assoc Prof	ENHS	668,649	0	0	0	668,649
Probst, Janice	Prof	HSPM	660,000	0	0	0	660,000
Richardson,	_						
Jessica	Asst Prof	COMD	0	0	0	12,500	12,500
Rothenberg,	_						
Sarah	Asst Prof	ENHS	544,968	0	0	0	544,968
Sharpe, Patricia	Res Prof	EXSC	30,000	0	0	0	30,000
Spencer, Sharon	Asst Prof	HPEB	0	0	0	28,560	28,560
Steck, Susan	Assoc Prof	EPID/BIOS	0	0	0	80,000	80,000
Thrasher, James	Assoc Prof	HPEB	1,001,300	0	0	0	1,001,300
Walsemann,			_	_	_		
Katrina	Assoc Prof	HPEB	0	0	0	30,000	30,000
Wang, Xuewen	Asst Prof	EXSC	228,447	0	0	0	228,447
Wilcox, Sara	Prof	EXSC	273,111	0	0	0	273,111

						Non-	
Faculty PI	Rank	Dept	Federal	State	Corp	Profit	Total
Williams, Edith Youngstedt,	Res Asst Prof	EPID/BIOS	213,378	0	0	0	213,378
Shawn	Assoc Prof	EXSC	757,591	0	0	10,000	767,591
Zhang, Hongmei	Assoc Prof	EPID/BIOS	200,821	0	0	0	200,821
Zhang, Jiajia	Asst Prof	EPID/BIOS	13,926	0	0	0	13,926
Totals			15,003,911	32,100	56,425	975,882	16,068,318

<sup>\*</sup>Does not include \$2,661,624 research funding to non-faculty PIs. Does not include awards to ongoing research projects that received their funding the in the previous fiscal year and thus none in FY 2013.

Data Source: USCeRA

3. Total sponsored research awards per tenured/tenure-track faculty for FY 2013, by rank and by department, if applicable.\*

Associate Professor	5,436,591
Assistant Professor  Total	3,549,739 \$15,296,112

Communication Sciences	and Disorders				
Fridriksson, Julius	Professor	1,080,906			
Adlof, Suzanne	Assistant Professor	759,491			
Fogerty, Daniel	Assistant Professor	206,798			
Richardson, Jessica	Assistant Professor	12,500			
		2,059,695			
<b>Environmental Health Sci</b>	ences				
Aelion, Marjorie	Professor	131,549			
Chandler, Thomas	Professor	35,000			
Decho, Alan	Professor	123,199			
Norman, Robert	Associate Professor	499,426			
Porter, Dwayne	Associate Professor	668,649			
Chatterjee, Saurabh	Assistant Professor	248,930			
Rothenberg, Sarah	Assistant Professor	544,968			
		2,251,721			
Epidemiology and Biostatistics					
Hébert, James	Professor	1,049,362			
Karmaus, Wilfried	Professor	43,574			
Liese, Angela	Professor	153,589			

1		
McKeown, Robert	Professor	15,107
Burch, James	Associate Professor	72,956
Cai, Bo	Associate Professor	274,107
Forthofer, Melinda	Associate Professor	376,368
Hardin, James	Associate Professor	78,108
Liu, Jihong	Associate Professor	43,876
Merchant, Anwar	Associate Professor	350,487
Steck, Susan	Associate Professor	80,000
Zhang, Hongmei	Associate Professor	200,821
Zhang, Jiajia	Assistant Professor	13,926
		2,752,281
Exercise Science		
Blair, Steven	Professor	53,049
Pate, Russ	Professor	1,574,080
Wilcox, Sara	Professor	273,111
Fritz, Stacy	Associate Professor	72,554
Youngstedt, Shawn	Associate Professor	767,591
Beets, Michael	Assistant Professor	898,000
Wang, Xuewen	Assistant Professor	228,447
		3,866,832
Health Promotion, Educat	ion, and Behavior	
Frongillo, Edward	Professor	126,847
Annang, Lucy	Associate Professor	185,999
Friedman, Daniela	Associate Professor	311,771
Jones, Sonya	Associate Professor	422,578
Thrasher, James	Associate Professor	1,001,300
Walsemann, Katrina	Associate Professor	30,000
Blake, Christine	Assistant Professor	26,000
Davis, Rachel	Assistant Professor	521,713
Kaczynski, Andrew	Assistant Professor	60,406
Spencer, Sharon	Assistant Professor	28,560
		2,715,174
Health Services Policy and	l Management	
Glover, Saundra	Professor	990,409
Probst, Janice	Professor	660,000
		1,650,409

<sup>\*</sup>Does not include \$ 772,206 in research awards to non-tenure track faculty, \$2,661,624 to non-faculty, nor awards to ongoing research projects that received their funding the in the previous fiscal year and thus none in FY 2013.

Data Source: USCeRA

4. Number of patents, disclosures and licensing agreements in fiscal years 2011, 2012, and 2013 (provided by SAM)

	Invention Disclosures	Provisional patent applications	Non-Provisional patent applications	Invention Disclosures
FY 2013	1	1	0	1
FY2012	1	0	0	1
FY2011	2	2	0	0

Data Source: USC Sponsored Awards Management (Technology Commercialization – Patent Management)