

The College of Health and Human Development

## STRATEGIC PLAN

2014-2019

R	Research
Ed	Education
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### INTRODUCTION

#### Mission:

The College of Health and Human Development is a collaborative community of faculty, staff, students, and alumni that seeks to improve human health, development, and the quality of life for all people through innovative education, interdisciplinary research, and effective outreach with a scope that encompasses "cells to society" and conception through the end of life.

#### Vision:

The College of Health and Human Development seeks to be a national and international leader in education, research, and outreach focused on improving human health, development, and quality of life across the life course, in Pennsylvania and around the world.

The college seeks to maximize human potential by facilitating human, family and community resilience in the face of challenge and risk. This approach lends itself to a focus on prevention and health promotion—to finding effective, sustainable ways to help all individuals flourish and to strengthen the key relationships and contexts that shape human health and well-being, including families, schools, workplaces, hospitality settings, parks and protected environments, communities, health care systems, and diverse cultures.

Our mission can be best addressed in an interdisciplinary environment that combines the life sciences, social and behavioral sciences, and organization and management sciences. We seek to develop innovative solutions to complex problems that can be tackled at different levels and from different disciplinary perspectives. Key substantive themes include a focus on the complex interplay among biological processes, behavior, cognition, emotion, and context; the unfolding health of the developing organism from conception through death; methodological innovation and rigor; and a commitment to inclusiveness and diversity that encourages attention to vulnerable populations, disparities, and disabilities.

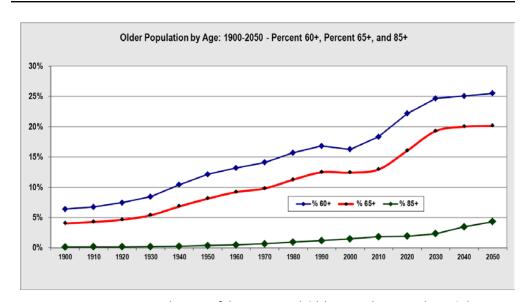
No college can accomplish such lofty goals alone; we are highly collaborative. Community or industry partnerships are woven into many of our research, teaching, and outreach activities, and we value and encourage mentoring in all forms: between industry and the academy, between seasoned alumni and students eager to learn about careers, and, at our core, between dedicated faculty members and engaged students.

## SETTING THE STAGE

In this section we briefly describe important societal trends that inform the mission and vision of the College of Health and Human Development. These trends include topics that have been fundamental to our college for a long time such as aging, health care, and health promotion, as well as topics we see as the next frontier for the college.

## Adult Development and Aging: Challenges and Opportunities

A recent Census report estimates that the population of Americans age 65 and older will nearly double by 2050. Pennsylvania, in fact, currently stands as the fourth-oldest state in terms of the proportion of people age 65 and older. As people live longer, the number of people considered to be the "oldest old" (typically defined as people age 85 and over) is increasing, too.



Distribution of the Projected Older Population in the U.S. by Age

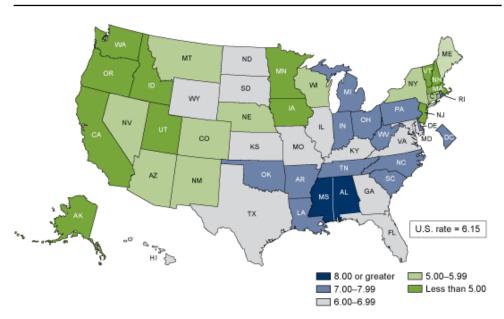
Prevention and management of chronic disease is a critical issue for older adults, most of whom have at least one chronic condition. Older adults with comorbidities are at particular risk for lower quality of life and greater consumption of healthcare resources. Older adults' increased consumption of health care will strain the human and financial resources of our health care system.

The aging population is also an under-recognized resource. Many older adults have a reservoir of accumulated wisdom, experience, and social connections that makes them sources of stability and strength in their families and communities. Employers are increasingly interested in finding ways to keep adults working longer. A key challenge facing the nation is finding ways to help older adults flourish in their families and contribute to their communities as long as possible.

Aging is not an issue of national concern alone. The United Nations estimates that the worldwide population of people ages 60 and over will grow from 810 million in 2012 to more than 2 billion by 2050. Much of this growth is taking place in developing nations that may lack social safety nets to help meet essential needs such as food and healthcare. Chronic diseases such as cardiovascular disease and diabetes, once seen as affecting mostly people in wealthy nations, are now common in developing nations and will disproportionately impact middle-aged and older adults.

#### **Health Disparities**

In the U.S., health disparities are often striking. Racial and ethnic differences, for example, persist across numerous measures of health. According to the Centers for Disease Control, non-Hispanic black adults are 50 percent more likely to die prematurely of a heart attack or a stroke than whites, and diabetes is more common among Hispanics and non-Hispanic blacks than among whites. Disparities are also seen as a function of education level, socioeconomic status, and geographic location: for example, infant mortality rates are higher in the south and Midwest than in other parts of the country.



Infant mortality rates, by state; United States, 2010

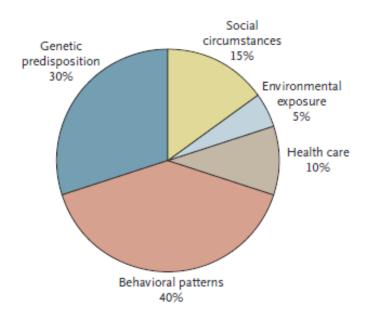
Troubling health disparities persist internationally as well. A recent report by the World Health Organization (WHO), for example, estimates that children in the WHO African Region have an 8 times higher risk of dying before their fifth birthday than a child in the WHO European Region. Access to health-care, the likelihood of death from childbirth, and the probability of living in hunger all vary widely among countries and regions of the world.

#### **Health Promotion**

What we eat, how much we exercise, where we live, and the quality of our social interactions can all influence our susceptibility to chronic diseases, such as diabetes, cardiovascular disease, and cancer. Health promotion efforts focus on ways that people can influence their own health, particularly among populations where health and health care disparities may give rise to adverse health outcomes. The higher prevalence of obesity among minority and low-income youth, for example, is often a target of behavioral interventions aimed at reducing sedentary behaviors and encouraging healthy eating and exercise.

The availability of fruits and vegetables in local stores, of healthy lunches in schools, and of healthier meals in restaurants are examples of environmental factors that are increasingly seen as critical to improving people's health. Efforts are being made to expand the availability of nutritious foods in areas identified as "food deserts" – low-income communities with no access to supermarkets or other stores offering healthy foods. And commercial food service organizations such as restaurant companies, which have often been criticized for plying consumers with high-fat foods, have become savvier about creating healthier recipes that are positively rated by consumers.

#### Proportional Contribution to Premature Death



Determinants of Health and Their Contribution to Premature Death. (source: McGinnis et al.  $^{10}$ )

#### **Stress**

The pressures and pace of modern life create challenges for individual and families. For example, the American Psychological Association's 2012 Workplace Survey found that 41 percent of employed adults report feeling stressed during the workday. Stress is associated with everything from sleep disturbances and upset stomach to cognitive impairment and chronic health problems such as cardiovascular disease. There are economic costs, too; stress costs U.S. businesses an estimated \$300 billion per year in absenteeism, reduced productivity, turnover, and health care costs.

For many Americans the balance between work and life off the job is another source of tension. And, reminiscent of the health disparities research alluded to earlier, the issues are quite different for the economic haves and the have nots. For middle income and professional employees, long work hours and the tendency for work demands to bleed into life off the job via email, cell phones, and pagers are sources of stress. For low income workers, the pressures often have more to do with working fewer hours than they would like and the unpredictability of work schedules that, in turn, wreak havoc with personal routines and finances.

How stress gets under the skin to influence health is an important theme in HHD's research portfolio, as is reducing stress through individual behavior (i.e., exercising, engaging in constructive leisure) and changes in workplace policies and practices.

#### **Disabilities**

A full understanding of health and human development is incomplete without attention to those contending with physical, intellectual, or developmental disabilities. For example, advances in technology are maximizing the opportunities of people with acquired communication difficulties caused by stroke or brain injury to live rich, full lives. New technologies are helping professionals to understand and in turn improve functional communication in children with developmental and/or intellectual disabilities such as Down syndrome, autism, or specific language impairments. These advances have enabled individuals with such disabilities to be more fully integrated into their schools and other environments.

Similarly, advances in the fields of motor control, biomechanics, and neuroscience are providing insights that underlie strategies for rehabilitation with stroke patients and those with Parkinson's disease. Headlines about the long-term sequelae of sport-related concussion have galvanized research aimed at developing evidence-based strategies for determining when athletes are ready to return to play. Veterans are often returning to their families and communities with injuries that would not have been survivable decades ago; the success of the Wounded Warrior Project, for example, points to a growing commitment to helping these individuals to live full, meaningful lives.

#### The Healthcare Context

The health care system in the United States is undergoing a fundamental transformation. Growing costs are placing enormous pressures on employers, government, and other payers, including individuals and families, crowding out spending on education, housing, and other critical areas of public and private life. In turn, these groups are insisting that insurers, health care organizations, and individual providers reduce costs, expand access, and improve quality simultaneously.

The Patient Protection and Affordable Care Act (PPACA) expands public and private insurance options, creating a new marketplace for consumers to compare and choose health plans. The rollout of PPACA has raised many questions about how people make decisions about insurance and health services, how to inform consumers of the costs and benefits of complex decisions, and how to structure public and private management and policy to support effective market competition, protect vulnerable populations, and enhance health system performance.

Market developments and PPACA are also driving organizational changes in health care. Health care organizations are integrating horizontally and vertically, creating larger organizations that can marshal the information technology, risk management, and personnel resources to respond to the challenges. Hospitals and health systems can no longer wait for people to become sick, but will increasingly need to reach out to communities, families, schools and workplaces to promote health and prevent disease. Research and education on how payment and quality linkages can enhance or harm health system outcomes, how integration improves or reduces quality of care, and how to develop management and leadership competencies for these larger, more complex organizations, is critical.

#### **New Frontiers**

#### Technology and Big Data

New technologies such as accelerometers and sensors are now allowing researchers to monitor people's health behaviors, social interactions, physiological states, and physical environment (e.g., air quality, noise), in real time. These technologies have the potential to broaden and deepen our understanding of the many contributors to specific health outcomes, help researchers and clinicians to personalize interventions, and enable individuals to take greater control of their own health.

The data sets generated from these types of technologies are large and complex. They represent the type of "Big Data" that we see as an important part of HHD's future research portfolio. Other examples of relevant Big Data include data from genetic sequencing, imaging, health records, and social networks. Sophisticated analysis of such data will enable us to tailor interventions to the individual and increase the likelihood of successful outcomes.

#### Sleep

Researchers are learning more and more about how sleep affects both health and development. Sleep disorders are associated with chronic health problems such as diabetes, heart disease, and high blood pressure. Conversely, health problems such as obesity may result in sleep disorders such as sleep apnea. Lifestyle factors such as longer work schedules and sedentary behavior can reduce sleep and sleep quality. Research on how sleep affects all aspects of health is more critical than ever.

#### Microbiome and Metabolome

We are just beginning to understand the role of the microbiome – the microbial cells that inhabit our bodies – in auto-immune diseases, obesity, and even mental illness. Similarly, research on the metabolome – the products of metabolism (i.e., metabolites) – has grown exponentially in recent years. Greater knowledge about the microbiome and the metabolome has tremendous potential in the area of personalized medicine and may allow doctors to find signs of illness well before a patient exhibits symptoms.

#### Links between Environment and Health

There is increasing interest in the connections between the environment and health and well-being. Parks and protected areas, in particular, offer not only venues for leisure and physical exercise but opportunities to refresh the spirit. Time spent in natural surroundings exposes people to a set of sensory experiences—sights, sounds, and even smells—that are important to better understand in terms of their health consequences. This is a particularly poignant moment in human history to try to better understand these connections because in many parts of the world parks and protected areas are threatened by a host of circumstances including encroaching human settlements, air and water pollution, and climate change. We need to understand those aspects of the changing natural environment that will impinge on human health, development, and quality of life and collaborate with researchers in other parts of the University on effective strategies to help individuals, families, and communities prevent and adapt to these changing circumstances.

## THE COLLEGE OF HEALTH AND HUMAN DEVELOPMENT TODAY

#### A Half Century of Leadership

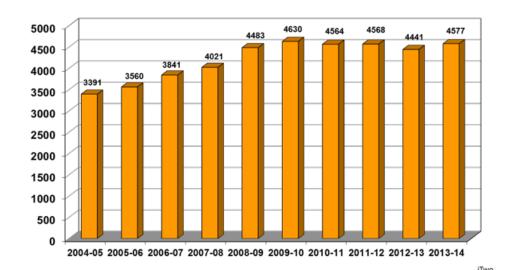
During the period of this strategic plan, the college will celebrate fifty years of leadership in education, research and outreach directed toward improving human health, development, and the quality of life for people and their communities. As was the case in 1967 when the College of Human Development was created, and again in 1987 when the College of Human Development and the College of Health, Physical Education, and Recreation merged to create the College of Health and Human Development, we are looking into a future in which the pace of change and the global, interconnected nature of change require a renewed commitment to understanding its impact on the human condition. Improving human health and the quality of life that people enjoy is a complex challenge that requires expertise from the wide range of disciplines that can be found in our college. Sweeping health care reform in the United States, the widening gap between the "haves" and "have nots" both in the U.S. and around the world, major advances in technology and data analysis that facilitate innovative research, and a growing recognition that interdisciplinary training is critical for tomorrow's leaders give our mission a special sense of urgency at this time. In the next few pages, we describe the college as it is today.

#### **Employment and Enrollment Demand**

The Bureau of Labor Statistics predicts that employment in health care and social assistance is projected to grow at a rate that is larger and faster than that of any other industry sector. This increase is a reflection of the demand resulting from such factors as an aging population and greater access to health care resulting from the Affordable Care Act. Other industry sectors directly related to majors in HHD, such as the leisure and hospitality services industry, are also set to experience significant growth. Although the worldwide recession of 2009 may have slowed employment demand, interest in the college's majors has remained strong. Current baccalaureate enrollments rank all of HHD's programs in the 28 most popular majors at University Park.

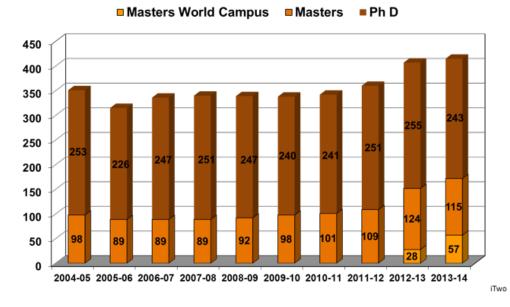
#### **College of Health and Human Development**

Ten Year History of Undergraduate Enrollment at University Park



#### **College of Health and Human Development**

Ten Year History of Graduate Enrollment at University Park



Enrollment demand extends to the college's minor offerings as well. In fall 2013, 953 students were enrolled in an HHD-sponsored minor with just over 700 of those students in majors outside of the college. The minor in Human Development and Family Studies is in such demand that there are more minors (455) than there are majors (300). This supports the fact that in today's global context, an understanding of human health and development is desirable in virtually every career field.

Despite the severe recession and the difficulties many students currently face affording the costs of a college education, the current HHD University Park resident instruction undergraduate and graduate enrollments have remained strong.

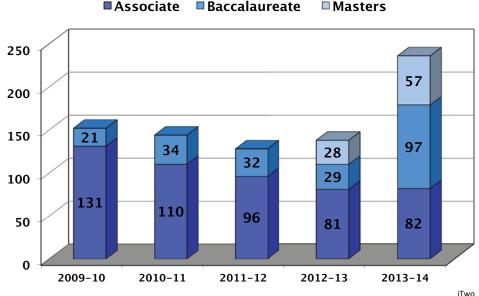
#### **World Campus Enrollment Demand**

In recent years, the college has expanded its course offerings and undergraduate and graduate degree programs on the World Campus. Introduction of the masters in Health Administration in 2012 and the bachelor's degree in Human Development and Family Studies in 2013 has resulted in a significant increase in degree seeking students and enabled us to better carry out our land grant mission.

In addition, enrollment demand for an expanding offering of General Education courses has increased dramatically over the past few years. These courses provide the knowledge base and skills necessary to support a diverse array of careers that require a greater understanding of current issues and trends in health and human development. The growth in World Campus course revenue is a direct reflection of our investment in online education and current enrollment demand.

#### **College of Health and Human Development**

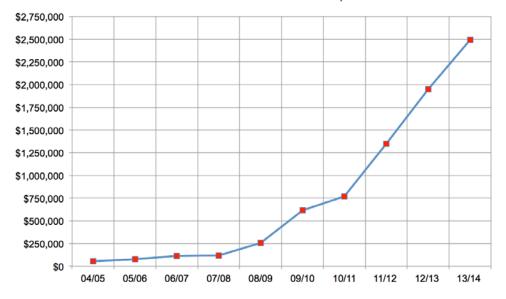
Five Year History of World Campus Degree Seeking Enrollment



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#### **College of Health and Human Development**

Total Revenue Received for World Campus Courses



## **Expanding Degree Programs Across the Commonwealth**

Enrollment demand for HHD majors has now extended across the state with proposals currently planned and in development to locate many of the college's four year undergraduate degree programs at several campus locations. As with previous efforts to expand the bachelor's degree in Human Development and Family Studies to nine other residential campuses, local demand is driving the need to develop the skilled workforce of the future.

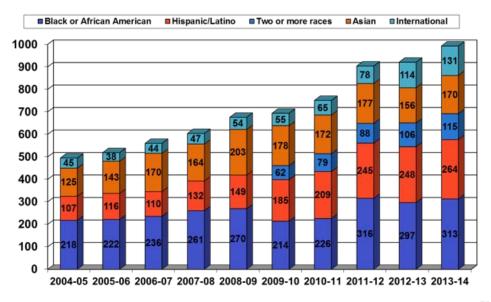
#### A Culture of Collaboration and Community

The college is well known for a long history of fostering a culture of family and community that embraces diversity, making it it a popular destination for underrepresented populations. Current enrollment trends continue to reflect this interest as well as the commitment of the college to these students and their families.

Whether it is race, cultural ethnicity, vulnerable populations, sexual orientation, or international perspectives, having a diverse faculty, staff, and student body is essential to promoting the understanding of diversity required in today's global community. Such diversity facilitates our understanding of the cultural implications of issues such as health disparities, poverty, income inequality, and disability that are critical to careers in health and human development.

#### **College of Health and Human Development**

Ten Year History of Ethnic Baccalaureate Enrollment at University Park

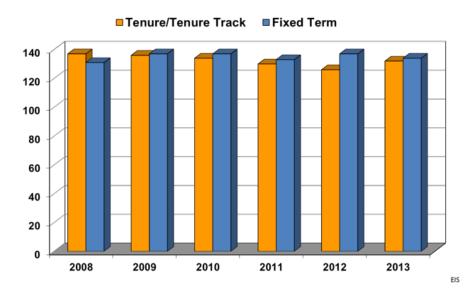


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Collaboration, diversity, a culture of community, a global perspective, a focus on innovation and change, and the strong desire to help people and their communities drive our faculty to perform at the highest levels in their teaching and research. The college's significant growth in enrollment demand over the past ten to fifteen years along with an equally demanding growth in research activity has stretched resources and stressed the faculty. Enrollment demands, coupled with internal "recycling," led to a decline in tenure-track faculty members and an increase in the number of fixed-term faculty members in the college. Despite this trend in faculty hiring, research awards have continued to grow and have weathered a difficult period of cuts in federal funding.

#### **College of Health and Human Development**

Official Annual Full-time Academic Counts at University Park

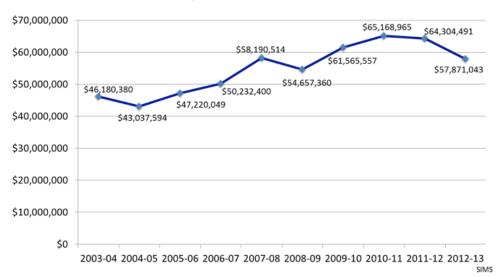


Faculty productivity has always been a strength of the college, not just in teaching, research, and outreach but also in providing service to the college and the University. In order to further strengthen productivity and strengthen our graduate programs, the college already has made strides toward increasing the number of tenured or tenure-track faculty, but more needs to be done.

The 2014-2019 Strategic Plan builds on a strong foundation of excellence in teaching, research, and service. The actions outlined below are designed to position us to do the best possible job in the next five years, positioning ourselves to attain even greater heights.

#### **College of Health and Human Development**

Ten Year History Total Credited Research Award Dollars



# ENHANCING OUR HEALTH AND WELL-BEING

Research

Education

Outreach

Operations O

Diversity

Ethics

Sustainability

Because the college's mission is to "improve human health, development, and the quality of life for all people," the topic of health is woven through every section of this plan. Here we highlight some of our major health-related initiatives, but in a sense our entire plan could fit under this heading. We will:

Create a new college-wide research center to catalyze innovative, interdisciplinary research on individualized, adaptive interventions to improve health. This center will combine many of the college's strengths to provide a holistic angle on personalized health as it plays out in everyday life and in real time. These strengths include preventive interventions; attention to biology, behavior, relationships, and subjective experience; real time assessment of health via intensive streams of data from sensors, accelerometers, mobile health monitoring devices, and other technology; and expertise in the analysis of complex, intensive data. A task force will be formed to plan the center. Consultants will be invited to campus to provide advice and suggest candidates for director. The center's specific focus will be determined in part by the interests and expertise of the director but priorities include behavioral drivers of health and fitness, such as physical activity, diet, sleep, compliance to medical regimens, and use of tobacco, alcohol, and other substances; biological mechanisms underlying health and disease; intensive data that capture unfolding behavior and biological processes in everyday life via smart technology; and attention to the physical (e.g., noise, air quality, toxic exposure) and psychosocial (e.g., quality of relationships and social interactions) quality of the contexts in which individuals spend their time.

Like our other research centers, the new center will be a site for interdisciplinary, post-doctoral and pre-doctoral training, undergraduate student engagement, and outreach. Its focus provides an opportunity to connect with the Social Science Research Institute (SSRI), Penn State Institutes for Energy and the Environment, the Materials Research Institute (MRI), the Huck Institutes for the Life Sciences, the Institute for CyberScience, the College of Information Sciences and Technology, the College of Nursing, and the College of Medicine.









- 2. Prioritze exciting opportunities to enhance health, development, and well-being at key junctures of the life course and in key populations when making tenure-track faculty hires over the next five years. We are particularly interested in building the substantive areas listed below. Although we list these areas as separate domains, we will in fact be seeking new faculty members who cut across two or more domains. For example, we might search for a health disparities researcher who focuses on aging. The priority areas include:
  - A. Aging, including faculty who bring expertise in the biological and life sciences (e.g., non-communicable diseases including diabetes, cardiovascular disease, and cancer), social and behavioral sciences (e.g., family caregiving, Medicare reform), and management science (e.g., especially in the growing economy of the services sector and the implications of population aging for hospitality, healthcare and tourism).
  - B. Health and health care disparities, including the development, implementation and evaluation of effective programs and policies designed to reduce health care disparities. The field of health disparities intersects with other priorities in this plan, including diversity and ethics. This set of hires would include scholars focused on identifying evidence-based strategies for reducing health disparities in the United States as well as researchers interested in global health. This area overlaps with SSRI's priorities and those of the College of Nursing.
  - C. Maternal and child health, including interventions that improve the health and well-being of both generations. New hires in this area will strengthen expertise in such areas as child maltreatment and childhood obesity and will intersect with the biological bases of health and development, as well as with global health.
  - D. Prevention science, including individualized, adaptive interventions; program evaluation; evidence-based approaches to increasing the scalability and dissemination of successful interventions; and economic approaches to evaluating the cost-effectiveness of interventions. This set of hires is consistent with the "Data to Knowledge to Impact" thrust articulated in the strategic plans for SSRI and PSIEE and with the Sustainability Institute's interest in acquiring greater expertise on economic approaches to program evaluation.
  - E. Effective rehabilitation strategies, including individualized interventions to improve the functioning and quality of life of individuals already experiencing health challenges or disabilities.
  - Innovative research methods particularly for the analysis of intensive, complex data such as longitudinal data, genetics data, imaging data, medical records, and large epidemiology data sets. This is an area where HHD connects with the Institute for CyberScience, SSRI, the Huck Institutes for the Life Sciences, and the College of the Liberal Arts. Innovative methods are a fundamental strategy to help us continue to conduct cutting-edge research and offer top-ranked graduate programs.













- 3. Create new mechanisms to pull dispersed faculty members together around two substantive domains that are important for the college's sustained excellence in research, teaching, and outreach: 1) biological bases of human health and development, and 2) global health. These mechanisms are designed to create interdisciplinary conversations and collaborations among HHD faculty members with common interests who do not ordinarily have many opportunities to interact; help the college identify areas for strategic investment; build ties to relevant centers and institutes; and increase the levels of external research funding and, in turn, visibility of these areas.
  - A. Biological Bases of Human Health and Development. We have biomedical and life scientists in four academic units (Biobehavioral Health, Kinesiology, Nutritional Sciences, and Human Development and Family Studies). Collectively, these faculty members have expertise in physiology, biochemistry, genetics, metabolomics, endocrinology, neuroscience, and biomechanics. We will bring this geographically dispersed and substantively diverse group together, identify their needs, and encourage ongoing interaction and collaboration. The first step is to create a Biological Bases Interest Group that will meet regularly to share research ideas, identify possible efficiencies (such as sharing of equipment and personnel), and exchange advice on proposals and papers. A Dean's Advisory Group will be formed to keep the college leadership informed about the needs of the group and emerging areas of opportunity and possible investment.
  - B. Global Health. Faculty members are conducting research in the area of global health, broadly defined, in many areas of the college. They focus on different substantive questions from different disciplinary perspectives and in different parts of the world and would benefit from opportunities to interact on a regular basis. We will create a Global Health Interest Group that will meet regularly to share research ideas and advice on research, teaching, and outreach; reach out to other units on campus interested in global health, including the Huck Institutes for the Life Sciences, the College of Information Science and Technology, the College of Agricultural Sciences, the Eberly College of Science, the College of Engineering, and the College of Medicine; dovetail with the Office of Global Programs to help fuel the progress of the emergent Global Engagement Network (GEN) in Global Health; and meet periodically with the dean to help chart the college's directions in this area.









4. Play a greater role in promoting Penn State student, staff, and faculty health by expanding on-campus health-related offerings that also provide exciting opportunities for student engagement. Activities include increasing the capacity and use of Kinesiology's Center for Fitness and Wellness so that it is equipped to provide a broad range of users with personalized data on their health and fitness; promoting the annual fall "Exercise is Medicine" week, Kinesiology's campus-wide public health initiative; and extending the public health campaign concept to other academic units in the college that have expertise to offer the Penn State community on healthy living, e.g., nutrition, stress management. Some of these activities will occur in conjunction with the College of Nursing's plans to create an on-campus wellness clinic for Penn State faculty and staff. Visions for such a clinic include the presence of CSD students who could conduct hearing screenings, the engagement of Nutritional Sciences students who could provide nutritional consultation, the involvement of BBH students who might provide services related to improving sleep and reducing stress, and perhaps HPA students who could be involved in the actual administration of the clinic.







## **EXPLORING AND** PROMOTING OUR **CULTURES**

Our society is characterized by striking inequalities in health, development, and well-being, a pattern that is also evident in many cultures around the world. These disparities are often apparent as a function of race, ethnicity, social class, gender, age, and geography. In addition, there are cultural differences in how populations define what is healthy and in the extent to which individuals, families, communities, and health care providers encourage behaviors that promote health. Finding effective ways to prevent problems and to promote healthy living in culturally sensitive ways is at the core of many of our research and educational activities. This focus on inequality and disparity also dovetails with ethics and social justice. We will:

Increase the College's substantive focus and expertise not only on understanding health disparities, but on the development, implementation and evaluation of effective programs and policies designed to reduce disparities by making a strategic faculty cluster hire in the area of health disparities in 2014-15 (see Theme 1: Promoting Our Health, Goal 2b).













Outreach



**Operations** 

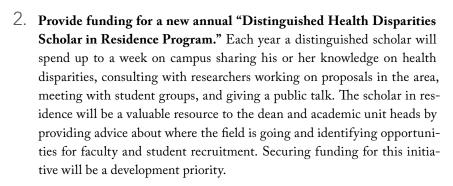


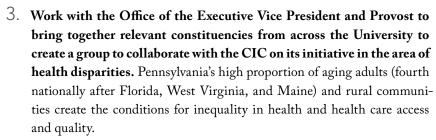
Diversity

**Ethics** 

Sustainability





















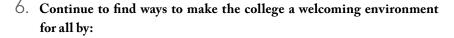


5. Work with all academic units in the college to strengthen their undergraduate curricula with regard to the inclusion of culture, ethics, and their intersection. In many of our fields, ethics and culture intersect. For example, some of the most egregious lapses in ethical conduct of health research have occurred in studies of vulnerable, underrepresented groups (e.g., the Tuskegee syphilis study). Depending on the substantive focus of the academic unit, cultural content might address poverty and income inequality, health disparities, disability, or organizational cultures (e.g., workplace discrimination, stress). Content related to ethics might focus on ethical conduct in the human service professions, biomedical ethics, environmental ethics, or corporate social responsibility. We will also look for opportunities for student engagement outside the classroom. For example, HPA 410 will pilot the "Supplemental Nutrition Assistance Program—SNAP—Challenge," an assignment designed to provide students with an opportunity to experience what it is like to live for a week on the \$29.40 allotted by food stamps.











- A. Updating and disseminating our shared, inclusive definition of diversity and enhancing our rich programming in diversity events, including creating an annual tradition in the college that involves recognizing and celebrating our cultures. This may take the form of a college-wide book assignment that gets threaded through different classes and coordinated with a visiting speaker.
- B. Examining recent data related to climate (e.g., the University's recent survey on values, recent HR surveys) to see whether there are specific diversity-related areas that need attention; giving consideration to repeating the College's Climate Survey, which was administered in 2008; and assessing opportunities for improving our climate through better diversity planning and a systematic process for communications and monitoring progress.
- C. Ensuring every HHD faculty or staff search applies best practices in diversity recruitment.

# TRANSFORMING EDUCATION AND ACCESS

Operations

Diversity

Ethics

Sustainability

Research

Education

Outreach

Providing an excellent experience for students, inside and outside the classroom, is a core mission of HHD. In line with the collaborative ethos underscored in our mission statement, our strategic initiatives that involve transforming education involve partnerships—with Outreach, the Schreyer Honors College, the campuses, and an array of organizations that are "living laboratories" for student engagement. We will:

1. Improve the quantity and quality of HHD's offerings on the World Campus by:



A. Adding one or two new degree programs per year over the next five years. Whereas online education was once met with skepticism on the part of some faculty, there has been a sea change in recent years as it has become clear that online programs can not only be excellent but can catalyze innovation that extends into resident instruction. The next three programs are likely to be bachelor's degrees in HPA and BBH and a master's degree in Nutritional Sciences.



B. Integrating more gaming media, simulations, social media/apps, and problem-based learning into our on-line courses; expanding the use of Google Analytics and other analytic strategies to improve quality of instruction, assessment, and course design; strengthening the HHD community of on-line faculty by offering learning opportunities and ways to connect with each other; and enhancing student engagement by offering extracurricular content on-line.

#### 2. Improve the quality of resident instruction by:

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- D
- A. Helping faculty borrow successful on-line teaching strategies to use in resident instruction. We will hire an additional instructional designer, part of whose assignment will be to work with faculty to help them make innovative changes in resident instruction, including but not limited to gaming media, simulations, social media/apps, and problem-based learning.
- B. Increasing resources for HHD student major and career exploration by developing collaborative programs with Penn State Career Services, the HHD Alumni Society Board's Careers Committee, the HHD Internships and Careers Committee, and the Center for Healthy Aging; creating a major/career exploration website; and, selecting an online system for matching alumni and organizations offering job shadowing and internships with interested students.
- C. Increasing the number of Schreyer Honors College students who enter HHD as first-year students by 100% in the next five years, including the number of HHD honors students from under-represented groups, and expanding the number of honors courses available in the college with the aim of having HHD honors students take at least 50% of their HHD honors credits in formal courses (not honors options). We will accomplish this primarily by asking academic units to collaborate on developing cross-listed honors courses on topics of overlapping interest to departments and of strategic interest to the college (e.g., Healthy Aging; Health Disparities) and providing funding for faculty to develop such courses. We will work with our development staff to generate new honors scholarships.

#### 3. Increase undergraduate student engagement by:

- A. Increasing the number of HHD undergraduate students who are participating in research laboratories and projects on an academic credit, paid, or volunteer basis. We will first survey faculty to get an accurate picture of current levels of undergraduate research involvement and then create an on-line process where students can apply for positions and faculty can advertise availability.
- B. Increasing incentives for faculty to integrate undergraduates into their research labs/projects, to mentor undergraduate thesis work, to provide engaged field-based learning opportunities (including international experiences), and to advise student clubs and organizations. Plans include revising the Insight annual activities tool and the faculty workload policy in order to count and reward such activities.
- C. Increasing opportunities within selected courses for undergraduates to participate in assignments that require genuine teamwork and help them negotiate roles within a team, including opportunities for teams that cut across disciplines. A model is the IST-BBH mHealth Challenge in which teams of IST and BBH undergraduates work together to create a mobile solution that addresses a societal health issue and then present their ideas to a panel of judges (mhealth.ist.psu.edu). This goal dovetails well with the College of Nursing's interest in building opportunities for inter-professional education.







- D. Adding capacity to the undergraduate Minor in Global Health. This university-wide minor is administered by BBH but is open to all undergraduates through a competitive application process. The size of the program is limited because all students participate in a six-week summer internship in the Limpopo region of South Africa or Tanzania. Providing the infrastructure and oversight for this exciting internship is resource intensive. In the summer of 2014 we are piloting the addition of a Senegal internship site. We hope to add a fourth site, perhaps in Cape Town, South Africa, during the time period covered by this strategic plan.
- 4. Enhance the diversity of the college, its faculty, staff, and students, and the content of its academic programs and create a stronger organization and process for diversity efforts by:
- A. Conducting an evaluation of the structure, functions, and resources of the Diversity Enhancement Office to assess the office's ability to meet college diversity goals and implement changes recommended.
- B. Developing programs and resources to focus on working with at-risk students in HHD, collaborating with Student Services, unit advisors, and University resources to improve retention, increase the percentage who are graduating in 4 years, and enhance student success.
- C. Improving the Diversity Enhancement Office communications by creating and maintaining an active web presence, developing improved print materials, and creating an overall communications plan for the office.
- D. Expanding efforts to celebrate culture, diversity, and heritage in HHD.
- E. Assisting academic units with infusing diversity topics in existing courses and developing new courses and co-curricular activities that foster U.S. and international cultural competencies, developing an integrated approach to undergraduate education in diversity, and assessing graduate curricula for diversity content.
- F. Expanding on the success of our annual "Healthy People Penn State" recruitment conference to enhance underrepresented graduate student recruitment and retention, and improve recruitment and retention of underrepresented undergraduate students, faculty, and staff.
- G. Assessing the growing diversity of our student population and the growing "diversity within our diversity" (e.g., increased Latino, international, LGBTQ, and persons with disability representation) and developing approaches to ensure a welcoming climate for these individuals.
- H. Outlining and implementing a leadership development program focused on ensuring that faculty and staff representing diverse perspectives have the foundational experiences needed to advance into department, center, college, and University leadership roles.





### 5. Enhance our graduate programs and the quality and competitiveness of our graduate students by:



- A. Working with the College of the Liberal Arts to create a dual degree doctoral program in Social and Behavioral Neuroscience, an endeavor that would involve BBH, CSD, HDFS, KINES, and NUTR. This idea has the support of Dean Welch and the head of the Department of Psychology, Mel Mark.
- B. Work with the Graduate School, the College of Agricultural Sciences, and other stakeholders to build and strengthen the dual-degree program in Human Dimensions of Natural Resources and the Environment. RPTM is interested in playing a greater role in helping this dual-degree program thrive.
- C. Exploring options for developing professional master's degrees in Athletic Training and Physical Therapy, the latter in coordination with the new Department of Physical Medicine and Rehabilitation in the College of Medicine.
- D. Coordinating efforts among our academic units to make sure that all doctoral students who have passed the ESL exam have the opportunity to serve as teaching assistants and/or instructors in resident instruction and/or through the World Campus and receive mentoring about teaching.
- E. Tasking the associate dean for research and graduate education with conducting a thorough examination of the competitiveness of our graduate assistantship stipend levels and an analysis of how academic units have been using their assistantships.

## MANAGING AND STEWARDING OUR RESOURCES

Research R
Education Ed
Outreach
Operations

Diversity D

Ethics

Sustainability

Faculty and staff are the central resource of the University. This part of our plan involves practicing what we preach—applying our knowledge of health and healthy work environments to the HHD community in order to sustain our most important resource—our people. Some of our goals involve efforts to improve health that will in turn help the University conserve financial resources, and other goals involve efforts to improve the climate of the college as experienced by faculty and staff. We will:

- 1. Help the University promote faculty and staff health in ways that prevent disease, promote health, and save money by:
  - A. Making available substantive expertise from HPA, the Center for Health Care and Policy Research, and other relevant parts of the college to leaders in HR, University Health Services, and Finance and Business charged with making health insurance decisions. Faculty members might participate, for example, in an ongoing advisory committee that would continue the work begun this year by the Health Care Task Force and the Task Force on Graduate Student Health Insurance. The college is willing to provide occasional course buy-outs to free faculty time up for this form of intensive university service.
  - B. Treating the June 2015 move into the new Health and Human Development Building as an opportunity to conduct a natural experiment. An interdisciplinary team of faculty members from the College is seeking federal funding to evaluate the short- and long-term health impacts of furnishing offices with adjustable-height desks. Primary endpoints of this natural experiment include both behavioral measures (e.g., at-desk standing time) and biomarkers of non-communicable disease risk (e.g., insulin concentrations). This project will inform institutional planning to improve employee health. Undergraduate and graduate students will be involved in the project which can be conceptualized as a health-focused living laboratory in health-related sustainability.







- C. Working with the College of Nursing's proposed Wellness Clinic and central HR to extend the breadth of Kinesiology's Center for Fitness and Wellness so that it is available to university employees interested—on a voluntary basis—in gaining a better understanding of their health and fitness status and receiving personalized advice on diet, exercise, and other elements of healthy living (see Promoting Our Health, Goal 5).
- 2. Address HHD faculty members' sense of stress and pressure at a time when external research dollars have become difficult to attain and undergraduate numbers have swelled by introducing a set of policies, resources, and internal mechanisms designed to free up time, reward engagement with students, and incentivize grant-getting. These include:
  - A. Revising Insight (the annual faculty activity report) to include an array of indicators of engagement outside the classroom with undergraduate students (e.g., including them in research teams, mentoring thesis research, advising clubs) and graduate students (e.g., chairing and serving on graduate student committees, directing and participating in training grants, teaching in an Inter-College Graduate Degree Program); devising a formula whereby such involvement can be "counted" as part of teaching; and revising the Faculty Workload Policy accordingly.
  - B. Creating a bank of teaching buy-outs to assist faculty members to find the time to write large, collaborative research or training grants and to get new externally funded research projects off the ground.
- 3. **Better involve our staff in the life of the college** in ways that address their health and well-being, create a welcoming environment, and make HHD a desirable workplace by:
  - A. Encouraging staff to participate in such health-related efforts as Exercise is Medicine, Nursing's Proposed Wellness Clinic and the Center for Fitness and Wellness, as well as colloquia and presentations taking place throughout the college and to put such activities into their annual professional development plans.
  - B. Creating an administrative task force of academic leaders and staff to identify and implement administrative efficiencies that may involve sharing staff across units for certain activities that require specialized expertise and developing college-specific professional development programs.
- 4. **Develop greater expertise on assessing the cost-effectiveness of interventions** by making at least one strategic faculty hire in the area of economic approaches to assessing intervention effects. The Sustainability Institute leadership has indicated that having such expertise in our college would also be useful to them as they think through how to evaluate the efficacy of various programs and interventions related to sustainability.



















- 5. Focus on the dissemination and scalability of research-initiated, evidence-based, preventive interventions so that programs continue to endure and thrive—long after the research funding for them has ended. This will help us extend the value and impact of scarce federal research dollars and increase the effect of interventions by impacting more people over time. We will make targeted faculty hires, bringing expertise on the science of enhancing intervention program scalability and effective dissemination. This concept is very similar to what SSRI and PSIEE are calling the "Data to Knowledge to Impact initiative" in their plans.
- 6. Encourage RPTM, working in partnership with other college and University units, to develop knowledge about the connections between the environment (including parks and other protected areas across the rural-urban continuum) and human health and well-being. As part of this goal, we will support RPTM's interest in growing a dynamic partnership with Shaver's Creek Environmental Center. We see Shaver's Creek as a resource that could be a centerpiece for student engagement in outdoor education and sustainability, a living laboratory for undergraduate and graduate education.

#### Help the University use its financial resources effectively by:

- A. Sharing HHD's degree programs with selected campuses to improve their sustainability and, in turn, help the University address its land grant mission. This action includes assisting with faculty searches, providing sample syllabi to new instructors, inviting eligible faculty to serve on the graduate faculty in our units, enhancing the effectiveness of academic advising for those campus students planning to transfer to HHD at University Park to ease their transition to their major, and working with our Alumni Society Board to create a campus transition program.
- B. Treating the shared administrative arrangement with the College of Nursing as an opportunity to develop a set of "best practices" to share with other colleges or campuses considering such collaborations. (We currently share staff in HR, Finance, Research, College Relations, Alumni Relations, Facilities, Diversity Enhancement, and IT.)
- C. Developing stronger ties with the Penn State Milton S. Hershey Medical Center and the College of Medicine (CoM), including its regional campus in State College. The relationship between HHD and the CoM has come a long way but over the next five years, we would like to see more HHD and CoM faculty members on joint research grants, more HHD faculty members invited to present their work at Grand Rounds, and more faculty members involved in both institutions via co-funded appointments. Such collaborations would strengthen both HHD and the CoM and, in so doing, increase success in attaining grants, attracting graduate students, and attracting and retaining faculty members.



















### LEVERAGING OUR DIGITAL ASSETS

Research

Education

Outreach

**Operations** 

Diversity

Sustainability



Like the world, the college is moving in a digital direction. Our teaching, research, and outreach goals require that we deepen our expertise in the collection and analysis of complex digital data, prepare students to work and live in a digital world, and interface more effectively with our many constituencies via the Web.

1. Increase expertise within the college in the gathering, managing, and analysis of complex, intensive data by adding faculty members with relevant methodological expertise (see Promoting our Health, Goal 2f) and creating a new research center that harnesses the power of intensive streams of real-time health data to develop and refine personalized, adaptive interventions—one of the next frontiers of prevention science (see Promoting our Health, Goal 1).

2. As part of the planned curricular reviews to be conducted in each ac-

tal communication and literacy skills.

ademic unit, ask units to look for curricular opportunities to enhance

undergraduate and graduate students' quantitative thinking and digi-

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- 3. Provide support (in the form of pilot funding, facilitating connections, etc.) for faculty interested in tech transfer. An example is "LiveIt," an innovative app developed by Prevention Research Center scientist Meg Small (see www.liveitu.com), that applies public health and prevention science insights to helping students successfully transition to college.
- **3 0 D**

4. Improve the college's understanding of students' career outcomes by coordinating an integrated effort between units, the college, and the University's Career Services Center to collect consistent and actionable data on job and graduate school placement and other relevant outcomes on for graduating seniors/recent alumni. Some of the units in our college are already doing an excellent job tracking post-graduation placements (e.g., School of Hospitality Management) but the overall efforts are uneven and require coordination.







#### 5. Work within the college to take better advantage of digital media by:

- A. Building a comprehensive and dynamic web and social media presence for the college in order to enhance collaboration with new campus-based RI programs, WC students, and faculty and to improve opportunities for academic units, research centers, and the college to connect with prospective students and their families, current students, alumni, donors, and other constituencies.
- B. Training staff, dean's office administrators, and academic unit and research center administrators in iTwo to enable more effective, data-driven college and unit decision making.

# WHERE WILL THE FINANCIAL RESOURCES COME FROM?

Some of the actions proposed in our plan will require financial resources. We see the revenue stream as follows:

- 1. Faculty and Staff Retirements: Over 30 percent of HHD's tenured or tenure track faculty (44 individuals) and over 13 percent of HHD's FT1 faculty members (18 individuals) are aged 60 or older, suggesting that there will likely be some retirements in the next five years. In the past some of these retiring faculty lines had to be collapsed and returned as part of recycling, but if we are able to retain these funds we will be able to replace retiring (predominantly senior) faculty with predominantly junior faculty.
- 2. World Campus Revenue: As the figure on page 16 indicates, our World Campus revenue stream has steadily increased with the introduction of new degree programs and with the expanded demand for our online General Education courses. We have a plan to significantly expand our World Campus foot print, and revenues should increase accordingly. These funds are in the temporary funds category but are an excellent source of funds for staff and FT1 faculty additions. We can also use them for start-up packages, equipment, and other needs, freeing up permanent funds for tenured and tenure-track faculty hires.
- 3. Summer Session Income: We have met or exceeded our summer session enrollment targets each year since the incentive program was rolled out. For Summer 2013, gross income from summer session exceeded \$1 million before instructional costs were deducted. These revenues go directly to the academic units that generated them; the college does not take a share. But to the extent that these revenues grow, the academic units will have more funds to help the college with some of the costs associated with supporting current faculty and staff and hiring new faculty.

- 4. Partnering with Institutes, Colleges, and Other Partners on New Hires: HHD has an excellent track record of partnering with the SSRI on faculty co-hires. We recently concluded two successful searches with the Institute for CyberScience, and we have two faculty searches planned for 2014-15 with the Rock Ethics Institute. We have several faculty members who are jointly funded by HHD and the College of Medicine, and the new director of the Cancer Center is interested in working with us on additional co-hires. We have partnered with the College of Nursing on two recent faculty hires, and both parties look forward to additional opportunities to work together. We have a rather small number of co-hires with the Huck Institutes for the Life Sciences but hope to strengthen that collaboration in the coming years. To date, we have no co-hires with PSIEE but both parties are interested in changing that in the near future. To the extent to which we can successfully partner with the Institutes and other partners, we can stretch our scarce dollars farther in service of the goals of this plan.
- 5. Working with the Provost and Other Leaders: The recent news that recycling was being phased out was very welcome. That decision will mean that we can re-invest monies from tenure track faculty and standing staff retirements into new tenure-track hires and reverse the decline in our tenure-track faculty numbers (see page 18). In addition the proposed budget model includes a negotiated piece of the budget. We will work collaboratively with the provost to identify initiatives that are consistent with the University's priorities and goals and seek additional funds to support those initiatives.
- Philanthropy: We will continue to work collaboratively with our development team to increase funds available for to support undergraduate, honors, and graduate students, faculty, and programs.

## METRICS: MEASURING SUCCESS

We see the plans and actions described above as working in concert to move the college forward. Five years from now, if the collective efforts represented by this strategic plan have been successful, we will have:

- 1. Increased the diversity of HHD's faculty and staff. Currently 8% of our academic employees and 9% of our staff are from underrepresented groups. The goal is to attain at least 12 % for both groups. (Valuing Cultures and Stewarding Resources dashboards)
- Grown the number of diversity-related courses in the college from 40 to 45 (approximately one new course per year). (Valuing Cultures and Transforming Education dashboards)
- 3. Increased the diversity of HHD's undergraduate enrollment from 13% underrepresented students (African American—7%; Hispanic—6%) to 18% and increases the proportion of international undergraduates in the college from 3% to 6%. (Valuing Cultures and Transforming Education dashboards)
- 4. Increased the number of undergraduate students who come into HHD as first year students by 25% (using the official fall census in Week 6 as our measurement point). In fall 2013, the college had 358 first-year students and in summer 2013, we had 157 first-year students. (Transforming Education dashboard)
- 5. Doubled the number of first-year Schreyer Honors students in HHD from the 2009-2013 average of 5, increased the overall number of Schreyer Honors students in HHD by 33%, and have every graduating Schreyer Honors student get at least 50% of their HHD honors courses in formal courses. (Transforming Education dashboard)
- 6. Maintained or modestly increased the overall size of the college's undergraduate student body (as measured by University Park majors) consistent with increased resources. (Transforming Education dashboar; Stewarding Resources dashboard)

- 7. Improved the 6-year graduation rate from 77.2% for all HHD students at UP to 82%, and from 71% to 79% for HHD's underrepresented students (African American, Hispanic or multiracial). (Valuing Culture and Transforming Education dashboards)
- 8. Grown from two full degree programs on the World Campus to at least 7 full degree programs online and doubled our gross revenue. (Transforming Education and Digital Future dashboard)
- 9. Maintained or increased the current number of doctoral students in the face of shrinking federal grant dollars. (Transforming Education dashboard)
- Increased the proportion of graduate students from underrepresented groups from 11.7% to 16% (this includes World Campus students). (Valuing Cultures dashboard)
- 11. Continued to increase the proportion of all full-time faculty members who are tenured/tenure-track faculty (see chart on page 18; our goal is to continue the reversal that has barely gotten traction). (Stewarding Resources dashboard)
- 12. Increased the dollar amount of research awards by at least 20% over the next five years (see chart on page 19). (Promoting Health dashboard)
- 13. Continued to prioritize development goals aimed at faculty recruitment and retention (i.e., faculty endowments), student recruitment and retention (e.g., scholarships, program endowments), and research productivity (e.g., research center program support, faculty endowments, strategic foundation grants).