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| SSRI Strategic Plan |
| 2014-2019 |
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**EXECUTIVE SUMMARY**

**What we do . . .**

Research in the social and behavioral sciences ranges from studies of large scale social forces, including socio-economic, political, and socio-cultural processes and influences, to dynamics in smaller group settings such as families, school classrooms, and work organizations. It also encompasses research on behaviors, ranging from overt actions to underlying psychological processes such as cognitive, affective, and motivational functioning. And, there is special emphasis on interactions across multiple levels of analysis, from the macro- and micro-contextual, to the behavioral, and to the underlying physiological processes that together, shape human health and development (The National Institutes of Health Office of Behavioral and Social Science Research, ND). As such, social science research extends from the genome to the globe, and its impacts range from evidence-based social policies that target vulnerable populations, to education programs aimed at learning and skill building, to everyday behavioral practices that promote health and prevent disease.

**Where we have come from . . .**

Since its inception in 2001, Penn State’s Social Science Research Institute (SSRI) has promoted innovation and excellence in interdisciplinary research within the social and behavioral sciences. The Institute’s mission is to foster novel, interdisciplinary collaborations by investigators who aim to address critical human and social problems at the local, national, and international levels and to translate and disseminate this knowledge into measurable outcomes for human behavior, health, and development. The SSRI advances this mission by bringing together researchers from a range of disciplines around emerging areas of study and by providing consultation, financial support, and shared infrastructure development and services to social and behavioral scientists at Penn State.

The 2008-2013 accomplishments of the SSRI, including those of its constituent units and affiliated faculty members, are documented in this 2014-2019 Strategic Plan. During the prior planning period, the Institute’s resources were directed at promoting novel research primarily in the following areas:

* Biological bases of behavior, health, and development
* Social and demographic change
* Innovative methods
* Preventing problems and promoting positive development, behavior, and health in children, youth, and families

Integral to our faculty’s accomplishments during the past planning cycle were the SSRI units’ provision of a shared research infrastructure. The activities of the SSRI units range from research support (Children, Youth and Families Consortium, Survey Research Center, Geographic Information Analysis Unit, Penn State Census Bureau Research Data Center, and SSRI’s IT and Administrative Services Units), to SSRI units that conduct and provide support in a particular social/behavioral science domain (Population Research Institute; Social, Life and Engineering Sciences Imaging Center; Quantitative Developmental Systems Core), to research centers focused on particular problem areas (Clearinghouse on Military Family Readiness, the Network on Child Protection and Well-Being). Notably, four of SSRI’s ten units, along with a major new program in the SRC, the Dynamic, Real-time, Ecological, Ambulatory Measurement (DREAM) initiative, were launched during the 2008-2013 planning period. Also during the prior planning period, SSRI was involved in cluster hires of 15 new co-funded faculty members who will contribute to the research accomplishments in its areas of strategic focus, including in adolescent developmental neuroscience, innovative methods, and prevention and intervention for child maltreatment. This expansion of SSRI’s faculty resources and infrastructure reflects the breadth, depth, and significance of research in the social and behavioral sciences across Penn State.

**Where we are headed…**

Building on the foundation of the SSRI’s previous strategic initiatives, four new priorities are identified for the 2014-2019 planning period. These strategic priorities are set within the context of a rapidly changing world, key dimensions of which include population aging and diversification, social disparities in resource access, economic insecurity, globalization, and associated changes in the built and natural environments. At the center of SSRI’s strategic priorities is the *place of human behavior*—a unique focus of study within the social and behavioral sciences-- in adapting to change, in resilience in the face of challenges, and in enhancing the human condition, including the health and well-being of individuals, their social institutions, and their built and natural environments.

Over the next five years, SSRI’s activities and resources will be directed toward the following four strategic priorities. The 2014-2019 SSRI Strategic Plan document describes the scope and significance of each of these thematic areas.

* ***The Human System:*** How environments and experiences “get under the skin” to affect stress and immune functions, social, cognitive, and affective neural processes, and gene-related mechanisms—and the ways in which these bio-psycho-social processes both shape and are shaped by human behavior, health and development.
* ***Social Disparities:*** Discovery of causes and consequences and development of evidence-based policies and practices for remediating widening gaps in the health, education, and community resources of vulnerable populations, including children, youth, elders, and their families—toward sustaining a diverse and changing population in a global society.
* ***Smart and Connected Health:*** Health and mental health promotion and disease prevention and treatment using novel methodologies (electronic devices, social media, human-technology hybrids), big data analytics, and other innovations for enhancing health and health behavior and optimizing health care and health care delivery using evidence-based practices and policies toward a sustainable health system.
* ***Data→Knowledge→Impact:*** SSRI priorities also include two cross-cutting themes that enable discovery in these and other substantive areas: ***Innovative Methods***—novel approaches to research design, data collection, security, and archiving, and modeling and analysis pertaining and beyond—and ***Dissemination and Implementation Science***, scientific study of best methods for translating knowledge into policies, programs, practices, and products that achieve broad and sustained uptake toward enhancing the health and well-being of individuals, their communities, and the larger society.

**How we will get there…**

To facilitate significant advances in these strategic areas and social science, more generally, the SSRI will pursue a comprehensive implementation plan that includes three major elements.

* **Promoting and supporting innovative, interdisciplinary and translational research and scholarship** through our funding mechanisms, workshops, working groups and consultation.
* **Building and maintaining accessible, sustainable, and shared research infrastructure**,particularly for data collection, security, analysis and knowledge implementation and dissemination.
* **Stewarding our resources** through continued attention to accessibility, open processes, and accountability with respect to the SSRI’s funding mechanisms and supports.

**In sum,** during the 2014-2019 period, the SSRI will build on the achievements of Penn State’s nationally and internationally renowned social science faculty. The SSRI is committed to enhancing the University’s standing in this broad and significant arena through the promotion of interdisciplinary innovation and excellence in research and the translation of data into knowledge that is broadly disseminated and applied to address significant social and human problems.

**SSRI Leadership**

Director, SSRI and CYFC: Susan McHale, PhD, Professor of Human Development

Associate Director, SSRI and CYFC, Keith Aronson, PhD, Senior Research Associate, Department of Biobehavioral Health

Associate Director, SSRI and CYFC: Joshua Smyth, PhD, Professor of Biobehavioral Health and Medicine (SSRI appointment beginning July 2014)

Associate Director, SSRI and CYFC: Douglas Teti, PhD, Professor of Human Development, Psychology, and Pediatrics (SSRI appointment through June 2014)

Assistant Director, SSRI: Margaret Gray, MPA

**SSRI/CYFC UNIT LEADERSHIP**

**Administrative Services Unit**

Director: Sherry Yocum, CRA

**Clearinghouse for Military Family Readiness**

Director:Daniel Perkins, PhD, Professor of Family and Youth Resiliency and Policy

**Geographic Information Analysis Core**

Academic Director: Leif Jensen, PhD, Distinguished Professor of Rural Sociology and Demography

**Information Technology Unit**

Director:Joseph Broniszewski

**Network on Child Protection and Well-Being**

Co-Director for Policy and Administration: Margaret Gray, MPA

Co-Director for Research and Education: Jennie Noll, PhD, Professor of Human Development

**Population Research Institute**

Director, Jennifer Van Hook, PhD, Professor of Sociology and Demography

**Census Research Data Center**

Director:Mark Roberts, PhD, Professor of Economics

**Social, Life and Engineering Sciences Imaging Center**

Director:Rick Gilmore, PhD,AssociateProfessor of Psychology (SSRI appointment through June 2014)

Director: Michele Diaz, PhD, Associate Professor of Psychology (SSRI appointment beginning July 2014)

**Survey Research Center**

Director: Kurt Johnson, PhD, Research Associate, Social Science Research Institute and Sociology

Academic Director: Eric Plutzer, Professor of Political Science

**Quantitative Developmental Systems Core**

Director: Eric Loken, PhD, Research Associate Professor of Human Development

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**SOCIAL SCIENCE RESEARCH INSTITUTE**

**Strategic Plan 2014-2019**

# I. MISSION AND VALUES OF THE SSRI

## A. MISSION

The Social Science Research Institute (SSRI) fosters novel, interdisciplinary research in the social and behavioral sciences that addresses critical human and social problems at the local, national, and international levels. We do so by bringing together researchers from different disciplines around emerging areas of study and by providing consultation, financial support, and shared infrastructure development and services to social and behavioral scientists at Penn State.

The human and social problems that are the SSRI’s focus motivate broad engagement by researchers across the Penn State community. During the 2012-2013 academic year (our most recent complete year of data), for example, SSRI directors consulted on project and proposal development with 200 faculty members from 28 departments in the SSRI’s five constituent colleges (Agricultural Sciences, Education, Health and Human Development, The Liberal Arts, and Medicine) as well as an additional 52 faculty members from the Colleges of Arts and Architecture, Earth and Mineral Sciences, Engineering, Information Science and Technology, and the Eberly College of Science (*see* ***Appendix A*** *for 2012-2013 tracking data*).

The SSRI advances its mission by providing leadership and vision at the university level, and through the activities of its ten constituent units (Figure 1).



Figure 1. Social Science Research Institute’s constituent units.

The Children, Youth and Family Consortium (CYFC) aims to promote and support research, education, and engagement that address the complexities of human development, behavior, and health in diverse populations of youth and families. The CYFC supports projects ranging from the analyses of infant socio-emotional development and brain function in cognitive aging to studies of health, education, and resource disparities among children, youth and families in the U.S. and in developing countries around the world.

The Clearinghouse for Military Family Readiness (Clearinghouse), which opened in Spring, 2010, focuses on issues pertaining to children, youth and families, via interdisciplinary applied research as well as evaluation, implementation, and dissemination science that promote the health and well-being of Military service members and their families. The Clearinghouse analyzes the evidence base for prevention and intervention programs for military personnel and their families, and provides live technical assistance to professionals working with military families, and its website posts reports, training videos, research papers, and blogs that are timely and relevant to its professionals and families. A major focus for the Clearinghouse is on program evaluation and program enhancement to promote the well-being of service members and their families.

The Network on Child Protection and Well-Being, launched in Fall, 2012, also focuses on children and youth and their families in efforts aimed at building a sustainable network of researchers and practitioners who produce new knowledge, fostering the design and evaluation of novel approaches to the prevention, detection, and treatment of child abuse and neglect, creating interdisciplinary education opportunities and experiences for Penn State students, and putting the products of these efforts to work in communities throughout Pennsylvania and beyond. The Network also serves as the University’s coordinating entity for the dissemination of relevant communications, public awareness, student engagement, and services pertaining to child protection and well-being information and initiatives.

The Population Research Institute (PRI) aims to advance the scientific understanding of human population dynamics, through research supports to its 79 Faculty Affiliates and Associates. Priority areas include immigration, inequality and population health, communities and neighborhoods, and adolescence/young adulthood. The PRI houses Penn State’s dual-title degree in Demography, which has been supported by a training grant from the NICHD since 1999. The PRI is one of 24 federally funded population research institutes in the U.S., and has been supported by an infrastructure grant from NICHD since 1991.

The Survey Research Center (SRC) provides survey research services to faculty, graduate students, and institutional investigators, promotes and contributes to the science of survey research methodology, assists faculty and student investigators to prepare effective proposals for external funding, and educates members of the Penn State community on best practices and emerging developments in the survey research field, including through its graduate certificate program in survey research. Within the SRC, ***The Dynamic, Real-time, Ecological, Ambulatory Methodologies (DREAM)***initiative was launched in Fall, 2011, with the mission of supporting researchers in the use of innovative methods and emerging mobile technologies for intensive in-vivo data collection and mHealth interventions.

The Penn State Census Bureau Research Data Center (RDC) opened in Spring, 2014. Its mission is to promote faculty and graduate student research that uses confidential data, including data collected by the U.S. Census Bureau and the National Center for Health Statistics. Along with generous support from the Offices of the President and Vice President for Research, the SSRI and PRI, University Libraries, and the Colleges of Agricultural Sciences, Health and Human Development, The Liberal Arts, and Science, Penn State’s RDC is supported in part by a grant from the National Science Foundation (NSF; Jennifer Van Hook, PI) and is one of 16 such centers located around the U.S.

The Social, Life and Engineering Sciences Imaging Center (SLEIC)fostersresearch in the social, behavioral, biological, engineering, and materials sciences where imaging methodologies play a central role by providing instrumentation, technological and domain expertise, educational opportunities, and financial support for conducting magnetic resonance imaging (MRI) and electrophysiology (EEG, ERP) experiments. The SLEIC’s high-field state-of-the-art MRI scanner is a 3T whole body human scanner that can provide structural and functional information about any region of the body and thus facilitate both clinical and basic science research. The SLEIC’s 3-T scanner is identical to the scanner housed at the Penn State Hershey College of Medicine, allowing for cross campus collaboration and study of both clinical and non-clinical populations.

The Geographic Information Analysis Unit (GIA) promotes and enhances novel social science at Penn State by providing services to facilitate the use of geospatial data and the incorporation of spatial perspectives in research in the social and behavioral sciences. Its services feature traditional Geographic Information Systems (GIS) applications including geocoding, mapping/cartography, web-based mapping, and geospatial data acquisition, archiving and management.  The unit supports collection of intensive longitudinal geospatial data and building of contextual and ecological databases. The GIA unit also provides expertise in spatial statistics, advanced spatial analysis methods, exploratory spatial data analysis, and customized GIS/spatial analysis programming.

The Quantitative Developmental Systems Methodology Core (QuantDev)*,* which is jointly supported by the College of Health and Human Development and the SSRI,has the four-fold mission of: (1) developing new methods and improving on existing methods for the study of human behavior using innovative measurement, study design, and analysis techniques; (2) developing user-friendly algorithms and platforms for making these methods as widely available as possible; (3) providing leadership and support to move social scientists in the direction of new methods such as Ecological Momentary Assessment, Dynamical Systems Modeling, and other innovative person-specific approaches; and (4) as a shared research support, consulting and collaborating with a broad range of social scientists on research projects that span multiple levels and time-scales of behavior.

SSRI’s Information Technology Services Unit provides strategic IT vision, leadership, and solutions to the faculty, staff, and students within SSRI to enable them to meet their research goals, deliver results, and enhance SSRI’s position at Penn State and throughout the research community.

SSRI’s Administrative Services Unit, in addition to its budgetary and human resources responsibilities, is responsible for tracking and evaluation activities pertaining to the SSRI’s research supports, including Level 1 and Level 2 Seed Grants, Facilitated Research Projects, Faculty Fellows Program, SLEIC and GIA Pilot Hours, grant proposal consultation with SSRI Unit Directors and Co-Directors around SSRI and external funding, and the SSRI/CYFC co-funded faculty.

(*See* ***Appendix B*** *for details about the missions and plans of the SSRI units*.)

## B. VALUES

The social and behavioral science research fostered and supported by the SSRI reflects the values of the Institute and of Penn State University, more generally. The SSRI aims to *promote innovation and excellence* *in interdisciplinary social and behavioral science research, education, and engagement* and in *translation of data to knowledge and thence to measurable impacts* on human behavior, health and development. More specifically, the substance of the research conducted by Penn State social and behavioral scientists promotes the values of *sustainability, diversity and civility*.

B1. Sustainability. Although definitions of sustainability often focus on the physical environment, in the social and behavioral sciences, our concern is on the sustainability of institutions—such as families and community health centers—and effective policies and programs that promote and support the health and well-being of individuals and families from diverse socio-cultural backgrounds. Indeed, Penn State faculty members are leaders in the scientific study of how best to design and implement programs and policies that promote and sustain human health and well-being across time and place. As described below, a priority area for SSRI investments during this planning cycle is on novel translational methodologies for dissemination, adaptation and uptake of evidence-based practices, programs and policies. As such, investments in social science research ultimately promote healthful lifestyle practices of individuals as well as evidence-based programs and policies at the local, state and national levels that can be sustained across time to enhance the human condition.

B2. Diversity. A key focus of research in the social and behavioral sciences at Penn State is on the health and development of children, youth and families from diverse socio-cultural backgrounds. Our faculty includes many internationally renowned experts in this field, and several SSRI units, including the Population Research Institute, with its focus on immigrant families, the Clearinghouse for Military Family Readiness, and the Network on Child Protection and Well-Being are focused on translational research on vulnerable populations who come disproportionately from low socioeconomic and ethnic minority backgrounds. As we elaborate below, building on this foundation, a priority area for SSRI’s investments during the upcoming strategic planning cycle to is identify the causes and consequences of growing social disparities in health, education, and other kinds of resources within the U.S. and around the world as a step toward the development of programs and policies that remediate these inequalities. Thus, investments in social science translational research will ultimately promote the health and development of diverse populations of children, youth and families. Notably, by virtue of a focus on diverse populations, the social science units have a unique capacity to attract students and scholars who have specialized interests in these topics.

B3. Civility. Another focus of investigation in the social and behavioral sciences at Penn State is on positive socio-emotional development in children, youth, and families. This includes basic and applied research on issues such as self-control and emotion regulation, perspective taking and communication skills, and social problem solving and conflict resolution. These capacities have significant and long-standing implications for individuals and the social groups of which they are a part: a recent report documented, for example, that teachers’ ratings of children’s socio-emotional competencies in first grade predicted such outcomes as number of days in jail, reliance on public housing, years of education, and substance use at age 25—net of a wide range of controls including childhood poverty, IQ, and parenting factors. Findings such as these suggest that, through support of social science research, the knowledge advances by our Penn State faculty constitute a significant contribution to the University’s goal of enhancing civility.

# II. ACCOMPLISHMENTS 2008-2013

A. STRATEGIC PRIORITIES

During the 2008-2013 planning cycle, SSRI resources were directed at promoting novel research, primarily in four areas: biological bases of behavior, health and development; social and demographic change; innovative methods; and preventing problems and promoting positive development, behavior, and health in children, youth and families. Below, we describe our innovations and accomplishments in each area (*see* ***Appendix B*** *for details about SSRI units and* ***Appendix C*** *for descriptions of funding mechanisms*)**.**

A1. Biological Bases of Behavior, Health and Development

SSRI’s efforts to promote innovation and excellence in this broad area include developing the Social, Life, and Engineering Sciences Imaging Center, collaborating, primarily with the College of Medicine to develop the Clinical and Translational Sciences Institute, conducting a cluster hire of SSRI/CYFC co-funded faculty in adolescent developmental neuroscience, and providing support for faculty initiatives through our seed grant and faculty fellows programs.

#### A1.1 Infrastructure Development

***The Social, Life and Engineering Sciences Imaging Center******(SLEIC*)** was launched in 2009 with the arrival of the Siemens 3T scanner. An important component of the SLEIC’s development was to build expertise in the use of imaging tools within the PSU community. An SSRI cluster hire in developmental neuroscience brought four new social scientists with imaging expertise to Penn State, and we have built on their expertise to support the development of projects by social and behavioral scientists from around the university that use imaging methodologies. Since spring, 2009, over 30 faculty members as well as postdoctoral fellows and graduate students from five colleges have developed and conducted more than 50 projects using the 3T MRI and Human Electrophysiology Facility (HEF) units. SLEIC projects have generated more than $8 million in external funding from NSF, NIH, and foundation sources for research in neuroscience, nutritional science, biomechanics, and medicine, and our investigators have published their work in outlets including *Neuroimage*, *PLoSOne*, *Journal of Cognitive Neuroscience*, *Human Brain Mapping*, and *Vision Research*.

***The Clinical and Translational Science Institute*,** one of 62 NIH-funded centers in the U.S., received its first five-year award from the NIH in 2011. The CTSI has established itself as the home for translational biomedical research at the University Park and Hershey campuses, and it offers a variety of supports and programming for faculty and graduate students interested in speeding the translation of laboratory discoveries into treatment for patients. The CTSI sponsors a dual-title PhD program in Clinical and Translational Sciences, supports several graduate students each year through its TL1 training program, and also provides KL2 funding for junior faculty and researchers. The CTSI has disbursed more than $1 million in pilot funds to establish interdisciplinary research teams that focus on translational projects in the domains of behavior, exercise and nutrition, and more recently, in the broad realm of novel methodologies. The CTSI also provides Penn State faculty with free access to various software platforms that facilitate translational research, including REDCap (Research Electronic Data Capture), a secure, web-based application designed to support data capture for research studies; i2b2 (Informatics for Integrating Biology and the Bedside), an informatics framework that leverages existing data for cohort discovery for research; and Profiles, a research networking and expertise mining software tool.

A1.2 Co-funded faculty in Adolescent Developmental Neuroscience hired during the 2018-2013 planning cycle include:

Charles Geier, Assistant Professor of Human Development and Family Studies, College of Health and Human Development

Kathleen Keller, Assistant Professor of Nutrition Science and Food Science, Colleges of Health and Human Development and Agricultural Sciences

Koraly Perez-Edgar, Associate Professor of Psychology, College of the Liberal Arts

Suzy Scherf, Assistant Professor of Psychology, College of the Liberal Arts

A1.3 Education. SSRI provided support for the Center for Language Sciences’ efforts to secure an NSF PIRE training award focused on the bilingual brain (Judith Kroll, PI, Psych). This training grant includes funding for undergraduate and graduate students as well as post-doctoral scholars.

A1.4 Seed Funding. From 2008-2013 SSRI funded Level 1, Level 2, Facilitated, and Faculty Fellows proposals in this area totaling $747,595.

### **A2. Social and Demographic Change**

SSRI’s efforts in this area build largely on the work of the faculty in our Population Research Institute (PRI), which seeks to understand the causes and impacts of changes related to large-scale changes such as international immigration, population aging, changes in household/family structure, and the economic development of developing countries.

#### A2.1 Infrastructure Development

***PRI***’s major accomplishment during the 2008-2013 planning cycle was its successful competing continuation grant from NICHD/NIH ($3.6 million total costs over five years). When combined with the generous match provided by the University, this funding enabled PRI to support research in immigration and immigrant adaptation, neighborhoods and communities, health and well-being in adolescence and young adulthood, and health disparities, and to help investigators seek and obtain external funding. As of October 1, 2013, PRI’s active external grant portfolio included 46 projects that were awarded $86,576,550 in total costs from the National Institutes of Health (NIH), the National Science Foundation (NSF), other government agencies, and foundations. These include an NICHD-funded pre-doctoral and post-doctoral training grant in demography that was re-funded for an additional 5 years in 2012.

Another significant initiative was the establishment of the Penn State Census ***Research Data Center (RDC*).** Funded by the NSF (Jennifer Van Hook, PI) and with internal Penn State support, the RDC opened in Spring 2014 and will provide approved researchers access to economic, census, and health data that are currently restricted and difficult to obtain, thus greatly expanding opportunities for demographic, economic, and health research among all faculty at Penn State.

Finally, in 2010, with support from the College of Education, PRI and CYFC, the ***Educational Risk Initiative*** *(ERI)* was launched with the mission of promoting and supporting education-focused research at Penn State. In particular, the ERI advances research on children and youth at risk for lower educational attainment (e.g., those with disabilities, racial/ethnic minorities, English Language Learners, children from low-income households). Research by ERI faculty members helps build the educational field’s knowledge base by identifying factors contributing to increased educational risk and by evaluating programs or policies that can help decrease this risk.

A2.2 Co-funded faculty.One new SSRI co-funded member focused on social change was hired during the 2008-2013planning period:

Shannon Monnat, Assistant Professor of Rural Sociology and Demography, College of Agricultural Sciences.

A1.3 Education. SSRI provided support for the successful refunding of PRI’s training grant in demography, Valarie King, PI (Sociology). This training grant has been funded by NICHD since 1999 and includes support for graduate students and post-doctoral scholars.

A2.4 Seed Funding. From 2008-2013 SSRI funded Level 1, Level 2, Facilitated, and Faculty Fellows proposals in this area totaling $207,839.

A3. Innovative Methods

Interest in this area cuts across the SSRI and connects us to other units, including the Institute for CyberScience (ICS). Major activities during the 5 year planning cycle included developing new infrastructure and conducting a cluster hire of SSRI co-funded faculty.

#### A3.1 Infrastructure Development

***The Dynamic, Real-time, Ecological, Ambulatory Methodologies (DREAM*) *initiative*** was created within SSRI’s Survey Research Center in Fall, 2011, and has grown rapidly in the nearly three years since its inception. The primary mission of the DREAM initiative is to support researchers in the use of innovative methods and emerging mobile technologies for intensive in-vivo data collection and mHealth intervention.  DREAM allows the repeated assessment of ongoing behavior, experiences, physiology, and environmental factors in people’s natural settings and during daily life.  DREAM develops customized smart phone and tablet survey applications, maintains data websites and servers, and provides many additional support services related to project implementation and device management.  DREAM is helping to catalyze existing strengths in these and cognate areas to make Penn State a world leader in the scholarship of ambulatory data collection, intensive longitudinal data analysis, and remote and adaptive intervention.  In less than 3 years, DREAM has supported nearly 100 unique research requests across 15 departments or centers at Penn State; an additional 30 requests have been supported from outside Penn State (mostly other universities or academic medical centers). DREAM has supported 11 internally funded (pilot or developmental) and 14 externally funded (largely NIH) projects; 2 externally funded projects are pending. The total grant amount awarded via externally funded projects relying on DREAM services is approximately $5,000,000, with direct billing by DREAM totaling approximately $500,000. We expect many of the internally supported projects to lead to future grant submissions.

A3.2 SSRI cofunded faculty who were recruited as part of our cluster hire in innovative methods include:

Orfeu Buxton, Associate Professor, Biobehavioral Health, College of Health and Human Development

Soo-yung Byun, Assistant Professor of Education, College of Education

Sy-Miin Chow, Associate Professor of Human Development and Family Studies, College of Health and Human Development

Gregory Shearer, Associate Professor, Nutritional Sciences, College of Health and Human Development

Joshua Smyth, Professor, Biobehavioral Health and Medicine, College of Health and Human Development

A3.3 Seed Grants. From 2008-2013 SSRI funded Level 1, Level 2, Facilitated and Faculty Fellows proposals in this area totaling $1,352,254.

A3.4 Education. SSRI provided support for a successful NSF IGERT award focused on Big Data in the social and behavioral sciences (B. Monroe, PI, PolySci). We have also provided support for research scientists in the Prevention Research Center and the Methodology Center who are part of a NIDA-funded training grant in prevention research methods (E. Smith, PI, HDFS).

### **A4. Preventing Problems and Promoting Positive Development, Behavior, and Health in Children, Youth and Families**

Innovation and excellence in research, education and engagement in this area have been fostered largely within the CYFC.

#### A4.1 Infrastructure Development

***The Clearinghouse for Military Family Readiness (Clearinghouse)*** was launched in 2010 with the mission of conducting interdisciplinary applied research and evaluation, implementation and dissemination science that promote the health and well-being of Military service members and their families. Since its launch, the Clearinghouse has received funding to: (1) investigate policy relevant questions germane to military children, youth, and families; (2) evaluate programs and services targeted at military personnel and their families; (3) provide interactive online education, consultation, and support to providers to implement evidence-based programming; and (4) develop research-informed learning products (instructor-led training, computer-based training, webinars, discussion boards, mlearning, elearning, pod casting, and blended learning) for service members, family members, and clinicians through the use of new technologies. Already, research products from the Clearinghouse are impacting family and human service policy within the Department of Defense (DoD) and the Services. Clearinghouse staff now number more than 40 FTEs, about half of whom are PhD level research scientists, and are involved in the more than 15 applied research projects that have been funded to date by the DoD and the Services. Graduate and undergraduate students also are involved in these projects as interns and research assistants, and in this way, the Clearinghouse is helping to train the next generation of interdisciplinary, applied researchers to work with this important and distinctive population.

***The Network on Child Protection and Well-Being*** was launched in October 2012 to combat child maltreatment through interdisciplinary research, education, and engagement. The Network’s mission is to build a network of researchers and practitioners who produce new knowledge, design and evaluate novel approaches to the prevention, detection, and treatment of child abuse and neglect, create interdisciplinary education opportunities for Penn State students, and put the products of these efforts to work in communities throughout Pennsylvania and beyond. The Network’s research mission will be advanced through an ongoing cluster hire of at least twelve new faculty members. Already several of our new faculty members have been working to develop the Transforming the Lives of Children (TLC) Clinic, a site for evidence-based clinical practice and research, which is affiliated with the Penn State Hershey Children’s Hospital and will open in Fall, 2014. The Network also is committed to expanding educational opportunities, including via an inter-college undergraduate minor in child maltreatment, and will continue to sponsor an annual Penn State Conference on Child Protection, the third of which was in May, 2014. The Network’s mission and activities continue to become known across the University as it works to serve as the University’s coordinating entity for communications, public awareness activities, student engagement, and service pertaining to child protection and well-being information and initiatives. Increasingly, the Network is viewed as a resource not only by the University community, but externally, by local and national service providers, advocacy agencies, and State government.

A4.2 SSRI co-funded faculty who have been recruited to date as part of the cluster hire on child maltreatment, through Spring, 2014 include:

Brian Allen, Assistant Professor of Pediatrics, College of Medicine

Kent Hymel, Professor of Pediatrics, College of Medicine

Jennie Noll, Professor Human Development and Family Studies, College of Health and Human Development

Idan Shalev, Assistant Professor of Biobehavioral Health, College of Health and Human Development

Chad Shenk, Assistant Professor of Human Development and Family Studies, College of Health and Human Development

**A4.3 Seed Grants**. From 2008-2013 SSRI funded Level 1, Level 2, Facilitated, and Faculty Fellows proposals in this area totaling $2,793,232.

**A4.4 Education**. The CYFC has provided support for successful several successful training grants:

The Childhood Obesity Prevention Training Program, funded by the US Department of Agriculture (K. Keller (Nutrition Science and Food Science) and J. Savage-Williams (Kineseology, Co-PIs).

Training Interdisciplinary Educational Scientists Training Program (TIES), funded by the Institute of Education Sciences (K. Bierman, PI, Psych).

B. TRACKING AND EVALUATION

The SSRI closely tracks the outcomes of its research investments. This information is used to make adjustments to our mechanisms of support (which have changed over time) and to respond to the needs of researchers and changes in the external funding environment.

The SSRI continues to prepare an annual report of the outcomes of its funding mechanisms *(see* ***Appendix A*** *for additional tracking data examples and* ***Appendix C*** *for descriptions of SSRI funding mechanisms.)*

B1. Level 1 funding (up to $5,000)

Total number of L1 projects funded (2008-2013): 113

Total dollars invested in L1 projects (2008-2013): $507,127

Total external grant dollars stemming from L1 funding (2008-2013): $23,391,777

B2. Level 2 funding (up to $20,000)

Total number of L2 projects funded (2008-2013): 108

Total dollars invested in L2 projects (2008-2013): $2,085,802

Total external grant dollars stemming from L2 funding (2008-2013): $36,849,024

B3. Facilitated Projects (above $20,000)

Total number of Facilitated Projects funded (2008-2013): 17

Total dollars invested in Facilitated projects (2008-2013): $1,753,809

Total external grant dollars stemming from facilitated funding (2008-2013): $22,064,554

B4. Co-funded Faculty

Total number of co-funded faculty positions (Lifetime): 49

Current co-funded positions (Spring 2024): 33 (11 Full, 13 Associate, 9 Assistant Professors)

Total person years of funding (through Fall 2013): 235

Total faculty salary costs (through Fall 2013): $8.6 million

Total grant award dollars secured by co-funded faculty (through Fall, 2013): $124 million (direct return dollars: $106.5 million; indirect return dollars: $17.5 million)

B5. Faculty Fellows (replacement costs for two course releases)

Total number of Fellows (2008-2013): 21

Total Costs (2008-2013): $315,000

Total dollars in external funding (2008-2013): $1,461,357

# III. SSRI 2014-2019: VISION, STRATEGIC PRIORITIES, AND IMPLEMENTAION PLAN

## A. VISION

The SSRI’s constituents—faculty members in the social and behavioral sciences at Penn State—enjoy international reputations for accomplishments in their diverse disciplines. Recent data, for example, show that PSU social science was ranked 11th in the NSF’s report of science and engineering research expenditures, and eight of Penn State’s social science graduate programs were ranked in the top 20 by the *US News and World Report*. In addition, Penn State was ranked number 50 in the social sciences in 2014 by the Center for World University Rankings. During the 2014-2019 time frame, Penn State will advance in its standing as a world leader in the social and behavioral sciences disciplines. Beyond accomplishments in the disciplines, Penn State’s leadership and visibility will be evident in the ***interdisciplinary innovation and excellence*** in our faculty’s research and graduate education, the ***translational scope*** of its scholarship, and its success in advancing ***knowledge and its impact*** through the development and application of ***novel methods***in basic and applied research.

## B. STRATEGIC PRIORITIES

The SSRI Steering Committee, which is comprised of three representatives from each of the SSRI’s constituent colleges (the Colleges of Agricultural Sciences, Education, Health and Human Development, The Liberal Arts, and Medicine as well as Penn State Harrisburg) and SSRI’s Internal Advisory Committee, which is comprised of the Directors and Academic Directors of each of the 10 SSRI units) held several meetings devoted to identifying SSRI’s strategic priorities for 2014-2019 Plan. We also brought together seven visioning groups and held a meeting of the CYFC/SSRI co-funded faculty toward this end. Together, almost 100 faculty members as well as the SSRI Unit Directors provided input on our strategic priorities as well as on resource needs and barriers to productivity and progress going forward.

SSRI’s strategic priorities (Figure 2) are set within the context of a rapidly changing world. Key dimensions include population aging and diversification, social disparities in resource access, economic insecurity, globalization, and climate change. The translational scope of research in the social and behavioral sciences builds on recognition of the powerful role of human behavior in both producing and adapting to such social, political, economic and environmental change. ***The place of human agency*** in adapting to change, in resilience in the face of adversities, and in enhancing the human condition, including the health and well-being of individuals, their social institutions, and their built and natural environments, is at the center of SSRI’s strategic priorities.



Figure 2. SSRI’s strategic priorities, 2014-2019.

Over the next five years, SSRI’s activities will be directed toward the following priorities:

The Human Systemis comprised of reciprocally influential processes that operate at and across multiple levels. It is an open system, whose processes are impacted by the social, natural and built environments. Equally important, humans also act to shape their environments through their behavior. Indeed, it is in large part through their individual and collective behavior that humans adapt to change, overcome challenges, and manifest resilience. Understanding the human system is necessarily a multi- and interdisciplinary scholarly endeavor, requiring research that ranges from the study of genetic influences, to forces, from climate change to the economy, that operate at the level of the globe to impact human behavior, health and development. Of special concern within the social and behavioral science is the role of human agency, including cognition and decision-making, imagination and motivation, emotion, and social interaction, in orchestrating and responding to influences on the human system that emanate from within and without.

The Penn State faculty includes world leaders in topics pertaining to human systems dynamics. From the study of neural processes in areas such as substance use, language, and cognitive aging, to investigations of how environments and experiences “get under the skin” to affect stress and immune functions, to research on genetic factors in adjustment and health, social scientists at Penn State are exploring the ways in which environmental exposures, in conjunction with bio-psycho-social processes, *shape and are shaped by* human development and behavior. In its efforts to advance understanding of human systems dynamics, for example, SSRI will build on social, cognitive, and affective neuroscience (SCAN) research at Penn State that targets topics such as the role of developing reward centers in the brain in adolescent substance use and how the study of bilingual individuals and those who learn second languages at different ages informs understanding of brain development and the protective effects of bilingualism in cognitive aging. Another foundation for research on human systems includes studies of the role of “candidate genes,” for example, in children’s preferences for high fat foods and in adolescents’ susceptibility to the effects of interventions aimed at promoting socio-emotional competencies, as well as our longstanding expertise in quantitative behavior genetics. The SSRI faculty also has international expertise in stress processes in human health and development, which we have added to in recent years through building in the areas of early childhood trauma and military family readiness.

Over the next five years, the SSRI will make new investments in research and scholarship in this broad area, first, through its well-established seed grant funding programs. During the 2014-2019 timeframe, we also will further build the Social, Life and Engineering Sciences Imaging Center (SLEIC), including upgrades to the 3-T MRI and electrophysiology equipment, hiring a new director, and hiring additional technical staff. Next, as part of the cluster hire on Child Maltreatment, we will hire at least 6 new faculty members whose research expertise spans the levels of the human system, from the neuroscience of childhood trauma to study of risk factors in the family environment and beyond, to prevention and intervention research aimed at promoting youths’ capacities to overcome the effects of trauma and avoid re-victimization. A primary focus of research that will be supported by the PRI is on environmental exposures and their implications for human health, including exposure to stress and disadvantage. PRI also promotes and supports research on the behavioral and health impacts of emergent structures of the human system, namely, social networks. At the Survey Research Center, capacity building efforts aimed primarily at real time and biomarker data collection will also support innovations in study of the human system. In the context of the Quantitative Developmental Systems Core (QuantDev) and the Methodology Center in HHD, we will provide support for development of new modeling and analysis approaches that will enable integration of multi-modal data collected at differing time scales and differing levels of the human system toward addressing novel research questions. Collaborations with faculty in the Huck Life Sciences Institute and the Institute for CyberScience also will be influential in our success in this domain. A potential direction is to build capacity in the domain of human behavior vis-à-vis the built and natural environments in connection with PSIEE. Penn State has some capacity in this area, but real advances here will require new investments.

Social Disparities***,*** including in the domains of education, health, access to resources and exposures to adverse environments, are escalating rapidly, both in the US and around the world. Vulnerable populations include minorities, persons with mental and physical disabilities, and those living in poverty. SSRI’s support in this significant domain will build on research by PSU faculty members who are renowned for research aimed at both discovering the causes and consequences of social disparities and developing and implementing evidence-based practices and policies for remediating widening gaps between advantaged and disadvantaged groups. Ultimately, our faculty’s efforts are directed at promoting and sustaining the well-being and health of a diverse and changing population in a global society.

Social disparities have been a longstanding focus of research, particularly among the faculty in the PRI. Nearly all PRI faculty members conduct research that touches on this theme, ranging from research on education and schooling, to immigration and immigrant status, to income and poverty. The PRI will continue to promote and support research in the broad area of social disparities via working groups, seed funding, and mentorship. In addition, SSRI’s recently launched US Census Research Data Center (RDC) will provide opportunities to advance knowledge in this area via faculty and graduate student access to restricted health and economic data and the ability to build linkages across data sets, including through technical assistance provided by the SSRI/PRI Geographic Information Analysis Core. Of particular import here, the opening of the RDC will enable improvements in the measurement of key social stratifiers. Issues of social disparities also are at the heart of the missions of both SSRI’s Clearinghouse for Military Family Readiness (CMFR) and Network on Child Protection and Well-Being, as well as the Education Risk Initiative (ERI), which the SSRI cofunds with the College of Education, and the Clinical and Translational Science Institute (CTSI), a collaboration that has primarily involved College of Medicine and Health and Human Development faculty, and which is co-directed by the SSRI Director. Each of these units will continue to be a focus of SSRI’s support over the upcoming planning cycle. Given that sources of inequities in human circumstances operate at multiple levels, social science advances in this domain may be enhanced particularly through collaborations with faculty members in the Huck Life Sciences Institute and PSIEE.

Smart and Connected Health captures opportunities for mental and physical health promotion and disease prevention and treatment that build on novel methodologies for data collection and care/intervention delivery, such as through the use of electronic devices, human-technology hybrid programs, telemedicine, and social media. In addition, novel analytics, including “big data” approaches that allow for real time analysis of multi-modal, multi-time scale data, can enable the development and delivery of adaptive interventions that are tailored to the immediate needs and circumstances of the individual (“*personalized health*”), including because they can be delivered in real time.

Penn State faculty members in the social and behavioral sciences have been leaders in the development and evaluation of prevention and intervention programs for promoting mental health and health behaviors, particularly in the areas of diet, exercise, and sleep, substance use prevention, emotion regulation, and conflict resolution. They also have led the field of prevention science in establishing *evidence-based programs as the standard for professional practice*—that is, the use of systematically collected, reliable and valid data (as opposed, for example, to intuition, tradition and common sense) as the source of knowledge that impacts policy, programs and everyday health practices. As noted above, moving forward, the SSRI will invest in the SRC’s capacity for novel data collection (real time data, devices for multi-modal data capture) and behavioral intervention/ health care delivery. We also will invest in quantitative methods experts in QuantDev and the Methodology Centers wherein faculty members are working on developing novel experimental designs and analytics for testing and delivering personalized, real-time, care/intervention. Additionally, we will continue our partnership with Penn State’s CTSI, including involvement in the development of the competitive renewal application that will be submitted to NIH in Fall, 2015. Efforts in the Institute for CyberSciences to develop tailored research IT capacity will support SSRI faculty in this domain. We also hope to partner with faculty in the Materials Research Institute around development of devices for health/behavioral monitoring and care/intervention delivery.

Data🡪Knowledge🡪Impact: Novel Methodologies in the Social and Behavioral Sciences. Research in the three domains outlined above will both build on and motivate development of new methods—which will be a continued focus of SSRI’s investments during the 2014-2019 timeframe. First, investments in ***Data and Methods*** focus on novel approaches to research design, data collection, security and archiving, and modeling and analysis toward translating data into knowledge in areas pertaining to our strategic priorities and beyond. Penn State social science faculty members are internationally known for their expertise in quantitative methods, including in the population, developmental and prevention sciences. In addition to growing capacity in these domains, the SSRI will invest in building strength in analysis of functional magnetic resonance imaging data (f-MRI), analysis of social interactional dynamics in family research within the QuantDev unit, spatial analysis within the GIA core that can enable innovative data linking across restricted data files within the RDC, and real-time health and care/intervention delivery in conjunction with the CTSI. As suggested above, our efforts here will be enabled by the work of the ICS toward building the research infrastructure at Penn State.

A second broad area of SSRI’s novel methodologies investments will be in the domain of ***Dissemination and Implementation Science*.** A recently identified target for NIH funding, research in this area involvesscientific study of best methods for translating knowledge into policies, programs, practices, and products that achieve *broad and sustained* *uptake and measureable impacts*. This focus evolved from the recognition that, in the face of considerable investment and advances in our knowledge of human health, we know far less about how to translate knowledge into measureable impacts on the health and well-being of individuals, their communities, and the larger society. In this area as well, the Penn State faculty includes some of the world’s leading experts. Dissemination and Implementation Science is a focus on work within the Clearinghouse, the Network, and the CTSI, and SSRI will explore additional investment possibilities, including the development of a Translation Core that includes experts (from data visualization to instructional design and marketing/communications) and equipment (video systems, smart phones, as yet unknown devices) that our faculty can access in efforts to translate knowledge derived from systematically collected data into measureable impacts.

In sum, as illustrated in Figures 3 and 4, SSRI’s strategic priorities align well with those of the University, the other OVPR Institutes, and the SSRI Colleges. In particular, the action orientation of the University’s strategic priorities (“promoting,” “sustaining,” “transforming,” “building” and “valuing”) targets *the role of human behavior* in the University’s progresswhich, as noted, is an area of special expertise within the social and behavioral sciences.



Figure 3. SSRI’s strategic priorities and their alignment with OVPR institutes and SSRI constituent colleges.Figure 4. SSRI’s strategic priorities (far left column) and their intersection with university-wide strategic priorities (top row).

## C. IMPLEMENTATION PLAN

### 1. Promote and Support Innovative, Interdisciplinary and Translational Research and Scholarship

#### 1.1 Level 1, Level 2, Facilitated and Collaborative Seed Grants

We will continue to invest in faculty-initiated research programs though our seed grant programs**.** As elaborated below (C.3), a*ccessibility, open and transparent processes and accountability* are hallmarks of our funding programs.

#### 1.2 Faculty Fellows Program

We will continue to provide release time funding for faculty to move their research in new directions through training, mentoring, and new collaborations. In the past, the Fellows program has supported release time for individual faculty members, but based on faculty input, moving forward we will also consider proposals for release time support for members of new teams. As with our seed grant program, *accessibility, open processes and accountability*will remain hallmarks of the Fellows Program.

#### 1.3 Grant Writing Workshops

We will continue to hold three annual workshops: SSRI Supports for Proposal Development, NIH Proposal Development, and NSF Proposal Development, all of which have received very positive evaluations during the past (2008-2013) planning cycle. In addition, we will work to develop a workshop on proposal writing for the Institute of Education Sciences (IES).

#### 1.4 Working Groups

We will test the utility of establishing working groups of faculty aimed at developing proposals for research that is relevant to our strategic priorities.

#### 1.5 Co-Funded Faculty

We will complete our cluster hire on child maltreatment and as funds become available, conduct cluster hires focused on building additional capacity pertaining to our strategic priorities**.**

#### 1.6 External Funding Opportunities

We will continue to monitor the strategic plans of funding agencies, communicate these to faculty, and work to identify opportunities for Penn State researchers to contribute to the development of the strategic plans of funding agencies.

#### 1.7 Building Collaborative Teams

We will continue to assist researchers in making collaborative connections via consultation, workshops and working groups, and work with deans, associate deans for research, research center directors, department heads, and faculty members to identify topics for interdisciplinary networking and proposal development.

#### 1.8 Post-Doctoral Fellowship Program

We will evaluate the effectiveness of a post-doctoral fellowship competition wherein SSRI will partner with its constituent colleges to provide two years of funding to interdisciplinary faculty teams whose research productivity would be enhanced by and would enhance the work of a post-doctoral scholar. Measures of success would include new external funding and high impact publications and other products (e.g., curricula, software).

### 2. Build and Maintain Accessible, Sustainable, Shared Research Infrastructure

#### 2.1 Survey Research Capacity

We will invest in new data collection approaches within the SRC, particularly devices for real time data across multiple modes, including biomarker data and data on environmental exposures and in staff development to support use of these innovative methods.

#### 2.2 Neuro- and Structural Imaging Capacity

We will upgrade the 3T and electrophysiology equipment at the SLEIC and complete ongoing efforts to hire new technical experts.

#### 2.3 Data Access and Archives

We will promote access to national data through support of the PRI and the RDC, including funding and cofounding regular workshops to promote use of these available data sets. Through our partnership with the CTSI we also will promote use of the Hershey Medical Center’s electronic medical record, including co-sponsoring workshops pertaining to its access and use. We will continue to work with the Libraries around the special concerns of archiving human subjects data for wider use.

#### 2.4 Translational Technologies

Toward speeding the translation of research to policy, programs, practices and products, discussions with a range of PSU social science faculty groups suggested the need for a core of staff comprised of programmers for website development, instructional and graphic designers and videographers for development of intervention curricula and materials, science writers, and marketing and communications experts who can be called on for short term project involvement. NIH and other funding agencies are beginning to look for dissemination plans in research proposals—including budgeting for these-- and our faculty would be advantaged by having an expert staff to call upon. As with other SSRI research infrastructure, the goal would be that over time, the Translational Core would operate in a cost recovery mode.

### 3. Steward our Resources

***Accessibility, open processes and accountability*** are signature characteristics of the SSRI’s funding mechanisms and supports, and we will continue our efforts in these directions.

3.1 Accessibility. Our funds will continue to be available to inter-disciplinary teams led by PSU faculty with continuing appointments for research that advances knowledge in the social and behavioral sciences. *SSRI Announcements*, sent each week to the 700+ members of the SSRI listserv*,* notify faculty of upcoming SSRI-hosted events and funding opportunities. We also will continue to publicize our shared research supports, including at the RDC, SRC, GIA, SLEIC and QuantDev through our website, SSRI Announcements, and annual workshop on SSRI services and supports.

3.2 Open and transparent processes. We will continue to provide and update templates for proposals, examples of successful proposals, and criteria for funding on our website, provide consultation for proposal development, and employ uniform proposal review processes that are both developmental (how can this proposal be improved?) and evaluative (should this proposal be funded?).

3.3 Accountability. We will continue to track whether the projects we have funded have met their goals and to modify our processes and funding criteria as needed to promote our faculty’s success. With respect to our seed grant program, for example, its primary goal is to obtain external funding to pursue the identified research program. Data collected for over 10 years document that our faculty has a strong track record of turning SSRI seed funding into externally funded projects as exemplified in our most recent (2012-2013) Administrative Report *(see* ***Appendix A****)*.

# Appendix A: Tracking Data from 2012-2013 SSRI Administrative Report

**Figure 1: SSRI Pre-Award Consultation, 2012-2013**

**61 Department Units Represented; 252 Faculty Represented**

|  |  |
| --- | --- |
| **Table 1: SSRI Research Expenditures (All Open Projects--Lifetime)** |  |
|  |  |  |  |  |
|  |  |  |  |  |
| **Mechanism** | **Open $**  | **# Faculty Involved** | **# Dept. Represented** | **# of Projects** |
| **Level 1** |  $ 359,455  | 58 | 22 | 66 |
| **Level 2** |  $ 1,572,050  | 65 | 23 | 76 |
| **Facilitated** |  $ 1,464,756  | 12 | 7 | 14 |
| **Matching funds** |  $ 736,059  | 6 | 3 | 8 |
| **Faculty Fellows** |  $ 150,000  | 11 | 9 |   |
| **Co-Funded Faculty** |  $ 6,079,951  | 27 | 12 |   |
| **Other Faculty Support** |  $ 428,515  | 11 | 7 |   |
|  |   |  |  |  |
| **Total Active Dollars** |  **$ 10,790,786**  |  |  |  |
|  |  |  |  |  |
| **Note: Open Projects = Currently Active Projects, no final determination of outcome** |

Other

1%

$145,860

**Total Funds Spent on Closed Level 1 Projects = $1,169,569**

**Total Funds Spent on Closed Level 1 Projects that Submitted External Grant Proposals = $412,135**

 \*Total external grant proposals submitted include multiple submissions for some projects

**Total Funds Spent on Closed Level 2 Projects = $3,596,104**

|  |
| --- |
| **Total Funds Spent on Closed Level 2 Projects Submitting External Grant Proposals = $1,997,031** |
| \*Total external grant proposals submitted include multiple submissions for some projects |

**Total Funds Spent on Facilitated Projects = $2,660,117**

|  |
| --- |
| **Total Funds Spent on Closed Facilitated Projects Submitting External Grant Proposals = $1,661,049**\*Total external grant proposals submitted include multiple submissions for some projects |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 2: Research Services Purchased from the SSRI by College 07/01/12 - 06/30/13**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **SSRI Core** | **AG** | **ED** | **HHD** | **LA** | **MED** | **Other** | **Total** |
|   |   |   |   |   |   |   |   |
| SRC | $75,442 | $317,407 | $1,059,564 | $119,985 | $87,875 | $114,880 | $1,775,153 |
| Program-ming | $0 | $46,915 | $94,429 | $62,381 | $0 | $2,466 | $206,191 |
| GIA | $0 | $0 | $7,167 | $11,945 | $5,992 | $3,192 | $28,296 |
| 3T |   |   | $31,613 | $121,433 |   | $6,774 | $159,820 |
| HEF |   |   |   | $9,557 |   |   | $9,557 |
|   |   |   |   |   |   |   |   |
| Total Dollars | $75,442 | $364,322 | $1,192,773 | $325,301 | $93,867 | $127,312 | $2,179,017 |

 |

# Appendix B: Overview of SSRI Units’ Plans 2014-2019

Within the SSRI, ten units—four of which have been launched since our last strategic planning process in 2007/2008—support and advance social science at Penn State. These units, including their missions, planned initiatives for 2014-2019, and resource needs are outlined in the following pages.

**I. Children, Youth, and Family Consortium (CYFC)**

**A. Mission**: The CYFC’s mission is to promote and support basic, applied, and translational interdisciplinary research pertaining to the behavior, health and development of children and youth, their families and their communities.

**B. Initiatives:** Expand support for research on multi-level human systems processes (e.g., intersections among brain, behavior, and health), the impact of resource disparities on the integrity of these interlocking systems, and the role of new technologies and methodologies for discovery and for improving program and policy implementation and uptake toward enhancing impacts on the health and well-being of children, youth, and families. Populations of special interest within the larger framework of children, youth and families include military families and victims of child maltreatment.

**C. Resource Needs**. Time demands on our faculty limit opportunities to pursue novel interdisciplinary research along the translational spectrum. The CYFC requires funding to continue its highly effective seed grant and faculty fellows competitions and funding also is needed for the CYFC to develop additional competitive funding mechanisms, including for post-doctoral and faculty fellowships.

**II. The Clearinghouse for Military Family Readiness (Clearinghouse)**

**A. Mission:** Foster and support interdisciplinary applied research and evaluation, translational and implementation science, and outreach efforts that promote the health and well-being of Military service members and their families.

**B. Initiatives:** Increase involvement in research on military families by CYF faculty members at Penn State; develop innovative approaches for more efficient research-to-practice translation; continue to build collaborative relationships with DoD and the service branches; pursue development opportunities for core funding.

**C. Resource Needs**: Equipment and expertise for program/curriculum development, implementation, dissemination (e.g., funds to support faculty fellowships to be embedded into DoD policy offices; webcams for in vivo family consultations; funds for lecture series)

**III. Network on Child Protection and Well-Being**

**A. Mission:** To build a sustainable network of researchers and practitioners who produce new knowledge; to foster the design and evaluation of novel approaches to the prevention, detection, and treatment of child abuse and neglect; to create interdisciplinary education opportunities and experiences for Penn State students; and to put the products of these efforts to work in communities throughout Pennsylvania and beyond. The Network also will serve as the University’s coordinating entity for the dissemination of relevant communications, public awareness, student engagement, and services pertaining to child protection and well-being information and initiatives.

**B. Initiatives:** Build *research* capacity through a cluster hire of at least 12 new faculty members and through fostering their collaborations with current CYF faculty; build an *education* program that ranges from undergraduate (inter-disciplinary undergraduate minor on child maltreatment) and graduate (interdisciplinary graduate certificate) offerings, to speakers and an annual conference series; promote *engagement*, including through diverse communications approaches and university-community collaborations.

**C. Resource Needs**: Align Network cofund support to match with other ongoing cluster hire initiatives at the University; obtain funding for the Network’s research (seed grants; faculty fellowships) and education (annual conference; speakers) activities, funds that are currently limited to 3.5 years.

**IV. Population Research Institute (PRI)**

**A. Mission**: Support population science by PRI Faculty Affiliates and Associates toward advancing understanding of human population dynamics. Priority areas include immigration, inequality and population health, communities and neighborhoods, and adolescence/young adulthood.

**B. Initiatives**: Support faculty members’ research productivity by addressing challenges of the current context, including an increasingly competitive grant environment, reductions in access to public-use and restricted data, rising administrative requirements, changing technologies, and new and emerging research methods.

**C. Resource Needs**: Continued support for PRI for next funding period (2016-2021) in the form of matching funds from SSRI, OVPR, and relevant colleges.

**V. PSU-Census Bureau Research Data Center (RDC)**

**A. Mission**: Support faculty and graduate student research that uses the confidential data from the U.S. Census Bureau and National Center for Health Statistics. These data include demographic data from the population censuses and surveys, establishment data from the economic censuses and surveys, and health data from the NCHS surveys.

**B. Initiatives**: Build the necessary secure environment and computing infrastructure to access restricted data; provide expert advice and administrative support for faculty who are writing proposals to use the data; provide training for new users; promote collaboration and exchange by developing and maintaining a common resource and forum for scholarly interaction. To introduce the PSU faculty and grad students to the center, Mark Roberts, Professor of Economics and Director of the RDC, and Jennifer Van Hook, Professor of Sociology and Demography and Director of PRI, gave a workshop on January 31, 2014 titled, “A User’s Guide to the PSU-Census Bureau Research Data Center.” It was attended by 70 faculty and grad students. Plans are to continue holding one or two such workshops each year.

**C. Resource Needs**: Assuming broad usage, funds for a full time administrator of the RDC will be needed as will continuing funds for the RDC operations after the current five year period (beginning in 2014). If the RDC can develop a group of experienced faculty and grad students, their expertise will be a great resource within PSU. One way to help build this is to bring in experienced users from around the RDC network. In particular, it would be valuable to tap into the group of graduate students who are using RDC data for their thesis work at other universities. This can be done through junior hiring and/or supporting experienced post-docs. Another strategy would be to offer a graduate level course ranging from informal seminars with students and a faculty member reading and discussing papers that use the data sets in the RDC, to a more formal course that could be team taught and cross listed among several departments.

**VI. Survey Research Center (SRC)**

**A. Mission:** Provide high quality survey research services to faculty, graduate students, and institutional investigators; promote and contribute to the science of survey research methodology; assist faculty and student investigators to prepare effective proposals for external funding; and educate members of the Penn State community on best practices and emerging developments in the survey research field.

**B. Initiatives:** Maintain leadership in data collection on mobile platforms within the Dynamic Real-time Ambulatory Measurement (DREAM) initiative in the context of a changing social and digital landscape; stay abreast of novel survey methods, implement best practices and innovate when projects provide the basis of doing so; maintain return on investment; improve project management capacity to enhance quality control and cost-control on large, complex projects; explore taking on new, non-faculty initiated projects to help support core infrastructure, including bidding on government contracts or public affairs polls.

**C. Resource Needs**: Increase core support (for the first time since SRC’s inception in 2001) to stabilize the unit’s financial planning and allow better investment in the future; faculty hire in survey methods to enhance PSU’s leadership role in survey science.

**VII. Social, Life, & Engineering Sciences Imaging Center (SLEIC)**

**A. Mission:** Fosterresearch in the social, behavioral, biological, engineering, and materials sciences where imaging methodologies play a central role by providing instrumentation, technological and domain expertise, educational opportunities, and financial support for conducting magnetic resonance imaging (MRI) and electrophysiology (EEG, ERP) experiments.

**B. Initiatives:** Faculty and staff hires (ongoing) to increase technical support; promote new externally funded projects by providing technical support and pilot hours; foster novel research through identifying and supporting clusters of strength in areas such as lifespan development, addiction, affect, brain trauma, and/or cognition. Build connections beyond the social and behavioral sciences toward novel research directions.

**C. Resource Needs**. SLEIC's 3T scanner is now two generations behind and will fall out of its maintenance contract in five years. A systems upgrade at a cost of $1.5M will be needed before then. That upgrade would bring higher receiver channel count capability and other hardware and software upgrades that will keep SLEIC competitive with other human imaging centers.

**VIII. Geographic Information Analysis (GIA)**

**A. Mission**: Promote and enhance new social science at Penn State by providing services to facilitate the use of geospatial data and the incorporation of spatial perspectives in research designs.

**B. Initiatives:** Establish new and stronger links with social science research units, including the Research Data Center and the Survey Research Center’s DREAM initiative, in order to generate novel and scientifically impactful demand for GIA Core services; expand contributions to on-campus training in GIS and spatial analysis; evaluate current hardware and software capacity to ensure continued innovation.

**C. Resource Needs**: A Faculty Director who will advance PSU spatial analysis capability and visibility nationwide and contribute to the GIA Core by generating external funding and demand for the work of the Core (search is ongoing); funds for software purchases and updates.

**IX. Quantitative Developmental Systems Methodology Core (QuantDev)**

**Mission:** Develop new methods and improve on existing methods for the study of human behavior using innovative measurement, study design, and analysis techniques, and use these techniques to study a range of issues including those related to positive behavior and health outcomes, and the dynamics of individuals and groups. Develop user-friendly algorithms and platforms for making these methods as widely available as possible. Provide leadership and support to move social scientists in the direction of new approaches and methods related to such approaches as Ecological Momentary Assessment, Dynamical Systems Modeling, and other innovative person-specific approaches. Collaborate and consult with a broad range of social scientists on research projects that span multiple levels and time-scales of behavior (cells to society, milliseconds to millennia, cradle to grave).

**Initiatives:** Development of “portals” that allow access and use of new analytics (e.g., fMRI data, human social interaction data, intensive data appropriate for the study of dynamical systems) toward building a PSU “brand” in developmental methods; offer collaboration and provide methods consultation to faculty in the social and behavioral sciences.

**Resource Needs.** Research scientist/post doc position to assist in data analysis for PSU faculty projects. Support for programmers to create software for dissemination of new analytic methods. We will develop a charge out system for our consultation services to help support these initiatives.

**X. SSRI Information Technology Services Unit**

**Mission**: Provide strategic IT vision, leadership, and solutions to the faculty, staff, and students within SSRI to enable them to meet their research goals, deliver results, and enhance SSRI’s position at Penn State and throughout the research community.

**Initiatives:** Promote help desk staff as IT liaisons who bridge the gap between local needs and the diversity of services offered at SSRI, VPR, ITS, and the cloud; continue to document and standardize SSRI IT processes, procedures (including infrastructure), and policies; provide professional development and team building to best support SSRI in a changing landscape; support the data (including Big Data) storage, analysis, and presentation needs of our researchers including by partnering with other organizations as appropriate.

**Resource Needs:** Standardized IT server budget; access to a group of IT professionals with diversity of skills to access as needed.

# Appendix C: SSRI Funding Mechanisms

The SSRI offers interdisciplinary researchers internal funding mechanisms to support the development of new, cutting-edge research from its early conceptualization and team building stage through external grant proposal submissions. These are outlined below:

**Level 1 Funding** ($500-$5,000): Level 1 funds are typically used to form collaborative research teams to develop mutual interests, locate relevant experts across the university, and build consensus around new research ideas and projects. Monies are frequently used for meetings, graduate student wages, travel, and paying outside consultants to provide advice in their areas of expertise. Small feasibility and pilot studies are also funded.

**Level 2 Funding** ($5,001-$20,000): Level 2 funds primarily support feasibility and pilot studies designed to serve as the basis of competitive external grant proposals. Monies are typically used for graduate wages, hourly support of research activities, SSRI and other university services, and participant remuneration. Salary replacement costs (one course buyout or equivalent) during the semester in which a faculty member is writing an external proposal are also covered by Level 2s.

**Facilitated Funding** ($20,001 and above): Facilitated funding is designed to encourage grant experienced, senior researchers to lead new interdisciplinary teams on research projects with high transformational/translational potential. Monies are often used to hire project staff, post-docs, graduate students, and to conduct pilot studies.

**Faculty Fellowships** (up to $15,000): Faculty Fellowships support social science faculty members in the development of interdisciplinary collaborations by providing time for study and training in new research areas. Fellowships provide $15,000 for two course releases during one academic year, to facilitate the faculty member's training activities.

**Special Funding Opportunities**: The SSRI frequently offers special funding opportunities to catalyze new research activities. Examples include:

* Pilot MRI scanning hours
* Pilot GIA hours
* Collaborative seed funding, including with other OVPR Institutes and the CTSI
* Matching funds for externally funded, interdisciplinary proposals

**Co-Funding of New CYFC Faculty** (support varies): The SSRI pays for up to 50% of a new faculty member’s salary and start-up costs. Faculty members who receive co-funding must focus children, youth, and families, and be committed to interdisciplinary research and scholarship.

**Current SSRI/CYFC Co-funded faculty** (by year of appointment):

**2002**

Marianne Hillemeier, Professor of Health Policy and Administration, College of Health and Human Development

Karen Murphy, Professor of Educational Psychology, College of Education

Nicole Webster, Associate Professor of Agricultural and Extension Education, College of Agricultural Sciences

**2004**

Cynthia Huang-Pollack, Associate Professor of Psychology, College of the Liberal Arts

Kai Schafft, Associate Professor of Policy Studies, College of Education

Rob Turrisi, Professor of Biobehavioral Health, College of Health and Human Development

**2005**

Rhonda BeLue, Associate Professor of Health Policy Administration, College of Health and Human Development

Michelle Frisco, Associate Professor of Sociology and Demography, College of the Liberal Arts

**2006**

Kristin Buss, Professor of Psychology, College of the Liberal Arts

Derek Kreager, Associate Professor of Sociology and Criminology, College of the Liberal Arts

**2007**

H. Harrington (Bo) Cleveland, Associate Professor of Human Development and Family Studies, College of Health and Human Development

Lisa Kopp, Associate Professor of Human Development and Family Studies, College of Health and Human Development

Jenae Neiderhiser, Liberal Arts Research Professor of Psychology, College of the Liberal Arts

David Puts, Associate Professor of Anthropology, College of the Liberal Arts

Jennifer Van Hook, Professor of Sociology and Demography, College of the Liberal Arts

**2008**

Krista Wilkinson, Professor of Communication Sciences and Disorders, College of Health and Human Development

**2010**

Shedra Amy Snipes, Assistant Professor of Biobehavioral Health, College of Health and Human Development

Daniel Perkins, Professor of Family and Youth Resiliency and Policy, College of Agricultural Sciences

**2011**

Charles Geier, Assistant Professor of Human Development and Family Studies, College of Health and Human Development

Kathleen Keller, Assistant Professor of Nutritional Sciences, College of Health and Human Development

Koraly Perez-Edgar, Associate Professor of Psychology, College of the Liberal Arts

Suzanne Scherf, Assistant Professor of Psychology, College of the Liberal Arts

Josh Smyth, Professor of Biobehavioral Health and Medicine, College of Health and Human Development

**2012**

Soo-yong Byun, Assistant Professor of Educational Theory and Policy, College of Education

Sy-Miin Chow, Associate Professor of Human Development and Family Studies, College of Health and Human Development

**2013**

Orfeu Buxton, Associate Professor of Biobehavioral Health, College of Health and Human Development

Shannon Monnat, Assistant Professor of Rural Sociology, Demography and Sociology, College of Agricultural Sciences

Jennie Noll, Professor of Human Development and Family Studies, College of Health and Human Development

Greg Shearer, Associate Professor of Nutritional Sciences, College of Health and Human Developmen

Chad Shenk, Assistant Professor of Human Development and Family Studies, College of Health and Human Development

**2014**

Brian Allen, Assistant Professor of Pediatrics, College of Medicine

Kent Hymel, Professor of Pediatrics, College of Medicine

Idan Shalev, Assistant Professor of Biobehavioral Health, College of Health and Human Development