

A photograph of a statue of a woman with her arms outstretched, set against a background of trees. The image is overlaid with a semi-transparent orange and purple gradient.

THE NEXT  
**150**

STRATEGIC TASK FORCE AREA REPORT

**SOCIAL SCIENCES**

01 March 2018

**I**  
**ILLINOIS**

## SOCIAL SCIENCES STRATEGIC PLANNING TASK FORCE MEMBERS

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## I. TIMELINE, PROCESS, AND HISTORY

The Social Sciences Task Force was convened in late fall 2017 to address the call for strategic planning from the Chancellor and Provost. The social sciences were in a unique position to contribute to the current strategic planning process because of the efforts to address the Visioning Future Excellence strategic planning process initiated in 2013. Since the current strategic planning process and the resulting efforts rely on this prior work, we provide a brief history of what transpired over the last five years and how it informs the current strategic planning process.

In the 2013 strategic planning process, the administration asked the Social and Behavioral Science Interdisciplinary Working Group (SBSIWG; Brent Roberts, Chair) to consider the possibility of creating a social science institute at the University of Illinois. This group emerged out of an existing committee that had been examining the needs of social scientists at the University of Illinois on and off since 2010. The SBSIWG worked for 18-months during which time they met with center and institute directors, deans, and research associate deans, surveyed faculty, and examined similar institutes at comparable institutions. Based on that research, the SBSIWG suggested the creation of a stand-alone institute structured like the Institute for Genomic Biology or the Beckman Institute. Because of financial concerns at the time, the SBSIWG was asked to propose a less ambitious organization. Subsequently, the SBSIWG proposed the Social and Behavioral Sciences Research Incubator, which would be dedicated to fostering more and greater interdisciplinary social science from top to bottom across the many units housing social scientists at the University of Illinois. The proposal for the Incubator filed in 2015 can be found [here](#). However, the Incubator proposal was turned down at the time, also because of financial issues. The following year, the Office of the Vice Chancellor for Research (OVCR) provided limited funds to create the Social and Behavioral Science Research Initiative (SBSRI) to help lay the groundwork for the creation of a social science incubator or institute in the future. Subsequently, Brent Roberts was chosen to chair the effort, a research development specialist was hired, work was initiated to build the infrastructure necessary to support the social and behavioral sciences (see below for an overview of these activities), and an advisory committee was formed to help with the process.

Fortunately, we were able to use the SBSRI advisory committee for the current strategic planning process, and to apply the knowledge about the social and behavioral sciences accumulated by the prior years of work to inform the current Social Science Strategic Plan. The advisory committee has met multiple times since late fall 2017, corresponded actively, and worked carefully to create the report below.

## II. EXECUTIVE SUMMARY

The social and behavioral sciences are one of the largest, and one of the most dispersed, areas of strength at the University of Illinois. While impressive in their scholarship and scope, the social and behavioral sciences are not represented by any one unit and therefore tend to work

in independent, uncoordinated silos. This lack of coordination prevents the social and behavioral sciences from using their full potential to optimally address the most pressing interdisciplinary grand challenges facing modern society. Problems such as poverty, the social science of health, globalization, and the fast-paced technological innovations which are, at their core, social and behavioral issues. To begin to address these pressing interdisciplinary issues, the Social Sciences Strategic Planning Task Force proposes multiple efforts to leverage existing potential in the social sciences by:

1. Investing in specific social science grand challenge areas including:
  - a. Solving Poverty
  - b. Using the Social Sciences to Improve Health
  - c. Using Social Science to Understand Big Data and Technology
  - d. Understanding Culture, Language, and Diversity
  - e. Increasing Links Between Basic Social Scientists and Researchers in the Professional Schools
2. Transitioning the SBSRI from “Initiative” status to a full-fledged “Incubator” status by hiring additional staff and providing resources to better facilitate large-scale, interdisciplinary projects and centers that will result in increased federal funding.
3. Investing in two methodological cores—(1) Measurement and Assessment and (2) Statistical Modeling and Methods—which could serve all of the social and behavioral sciences, and
4. Planning for the building and creation of a social science institute in the coming decade.

In his February 2018 message to the University, the Provost stated that “We can model preventative paradigms for positive social change by harnessing the full power of our capacity as the resourceful and innovative university that we are.” What better way to harness the full power of the University of Illinois to effect social change than by investing in the social sciences?

### III. WHY THE SOCIAL SCIENCES?

The social and behavioral sciences are concerned with societies and communities, the relationships among societies and communities, and the patterns of behavior among individuals within those societies and communities. The social sciences at the University of Illinois include, but are not limited to, anthropology, applied health sciences, business, communication, economics, education, geography, human and family development, information sciences, jurisprudence, labor, linguistics, political science, psychology, social work, and sociology.

There are over 700 social scientists working at the University of Illinois spread across 35 units, and every major college, including engineering. The social and behavioral sciences constitute one of the largest, most pervasive research footprints at the University. Many of the social scientists working at the University of Illinois are nationally renowned leaders in their area of expertise. The size, strength, and importance of the social and behavioral sciences are represented by no single unit, school, or college.

The importance of the social sciences cannot be overestimated. We are living in the age of the social and behavioral sciences. Medical innovation has advanced to the point that we now

understand that many maladies and causes of early death are the result of people's behavior and broader community factors, rather than determined by physical or biological insults. Social media tools created by engineering technology have magnified social interaction, often to problematic levels, transforming their scope and leaving people confused about their meaning. Technology has in some ways shrunk the world, while at the same time it has overwhelmed society with information, making seemingly basic questions of social life, such as knowing who and what to trust, fundamental issues facing society. In addition, longstanding social issues facing modern society remain chronic, such as poverty, economic and health disparities, globalization, political divisions, the challenges of a multicultural society, and an aging population.

These complex challenges present problems that require broad interdisciplinary solutions, involving engagement across the social and behavioral sciences. The University of Illinois boasts many strong social science units. However, the infrastructure and research support that would enable the University to leverage this excellence to promote state-of-the-art interdisciplinary research in the social sciences does not currently exist here. The University of Illinois typically addresses these issues within the confines of existing units and departments. We believe that the University of Illinois could enhance, if not transform, its social and behavioral science research profile with strategic initiatives and investments to support and nurture new, ongoing, and especially large scale interdisciplinary and integrative research, pedagogical, and engagement opportunities.

#### IV. CHARGE QUESTIONS & GRAND CHALLENGES IN THE SOCIAL AND BEHAVIORAL SCIENCES

*a. In what areas do the social sciences at Illinois have the greatest opportunity to positively impact state, national and global social science through research, education, and engagement?*

After surveying the social and behavioral challenges that society faces in the 21<sup>st</sup> century and the social and behavioral science strengths at the University of Illinois, we identified five grand challenge areas to positively impact state, national, and global science. These five grand challenge areas are:

- Solving Poverty
- Using the Social Sciences to Improve Health
- Using Social Science to Understand Big Data and Technology
- Understanding Culture, Language, and Diversity
- Increasing Links Between Basic Social Scientists and Researchers in the Professional Schools

## i. Solving Poverty

Income poverty rates in the United States remain stubbornly high despite years of economic growth and multiple policy interventions. Outside of the U.S., the situation is even more dire insofar as over 3 billion people live on less than \$2 per day. The short- and long-term consequences of poverty for afflicted families—especially with respect to health—are enormous both for individual families and for society as a whole. Consequently, reducing poverty in the U.S. and globally has generated and continues to generate enormous interest among policymakers, program administrators, and the wider public.

Addressing poverty was identified as a priority on our campus in the Office of the Chancellor's External Review Report and Recommendations on Diversity and Inclusion from spring 2017. Two strategic priorities for the University of Illinois system emphasized the area of poverty: "(1) Enhance the university system by normalizing the representation of historically underrepresented people throughout the university system, and (2) Build strong connections between our universities and the increasingly diverse cities in which they are located."

Research on poverty can be broken into four main questions: Who is poor? What are the determinants of poverty? What are the consequences of poverty? What can be done, especially with respect to assistance programs, to alleviate poverty? Across campus, researchers are addressing each of these questions. This research is taking place on issues in the U.S. (e.g., on one of the leading consequences of poverty, food insecurity; evaluation of assistance programs) and in low-income countries (e.g., through the MAES project; via work in Burkina Faso).

Moreover, there is untapped potential across campus to expand our research to solve the problem of poverty. Virtually every research question being posed on campus has some implications for poverty, even if it isn't explicitly framed in that context, for example:

- How growing corn and soybeans will lead to lower food prices;
- How reducing climate change can lead to benefits for those living in low-income countries that are often disproportionately affected by climate change; and
- How structuring bankruptcy laws in the U.S. can lead to benefits for low-income households who can use bankruptcy as a safety net tool.

There are multiple untapped resources across campus that can be deployed to address critical open questions on poverty, for example:

- Economists can develop new models to address challenging selection issues in terms of program evaluation;
- Psychologists can provide key insights into the associations between stress and poverty;
- Communication researchers can test best practices in message reaction and dissemination;
- Education researchers can develop innovative teaching practices and family engagement strategies for students living in poverty;
- Anthropologists and sociologists can document the life worlds and practices of individuals, families and communities in poverty to inform more effective policy interventions; and
- Food scientists can deploy their research to develop more effective ways of delivering nutrients in emergency food assistance programs in low-income countries.

Along with this ongoing research and potential for collaborations, an enormous opportunity is presented via interactions with other Strategic Task Forces, such as the work of the Health Sciences Strategic Task Force (especially in the Health Disparities Thread) and the Food Security Task Force.

To leverage these opportunities, we propose three primary investment requests:

- **The Fighting Poverty Scholars Program.** This scholarship program would be awarded to 16 top undergraduate students from communities surrounding the university, and, in particular, scholars from low socioeconomic status backgrounds. These students would be required to take core coursework in topics related to poverty, participate in a faculty-led research study on poverty, and complete summer internships or research assistantships tackling issues related to poverty. This model of interdisciplinary learning focused on a societal challenge and real-world experience has been used successfully by the Cancer Scholars Program, which was launched in 2014, consisting of 12 undergraduate scholars per year. The Fighting Poverty Scholars program would motivate learning by demonstrating the relevance of education for addressing poverty, integrating research early in education to encourage critical thinking and build analytical skills, and providing hands-on real-world experience.
- **The Fighting Poverty Practitioners Program.** This funding would provide opportunities for a limited number of two-year postgraduate internships from our professional schools. The funding would support recent graduates while they apply their newly learned skills in the field and produce a research project. To be eligible, the graduates would need to find one sponsoring faculty member from their school as well as one sponsoring faculty member from a disciplinary field. The team would identify a field placement for the recent graduate and submit a research proposal to the advisory committee. The program would direct our graduates to poverty work and link our faculty to organizations in the field, creating possibilities for new funded research.
- **The Solving Poverty Seed Grant Program.** The third funding area would be for a seed grant program to develop proposals for poverty research collaborations. To be eligible for funding, research teams would have to include faculty from at least two colleges and be led by a junior faculty member as a primary investigator with a senior faculty mentor. Successful research teams would receive support in identifying and applying to external funding sources.

Through these three funding mechanisms and a broader campus commitment to poverty research, our long-term goals for Solving Poverty will be met. Namely, to enhance the visibility of the causes and consequences of poverty across campus; to encourage more research on topics pertaining to poverty, especially among faculty who historically have not worked in this area; and, within the broader community, to demonstrate that University of Illinois is deeply interested in alleviating poverty and its consequences in the U.S. and across the world.

## ii. Using Social Science to Improve Health

The social and behavioral sciences across campus have a critical mass of experts with the unique potential to research issues related to public health and health inequalities, health services, the health and illness experiences of individuals, communities and populations, as well as studies of medicine, medical technologies, and big data. Taken together, the social and behavioral sciences are instrumental in informing policy, shaping the delivery of health services, involving communities and patient groups in determining a public health agenda, understanding the biosocial implications of medical interventions, and contributing to theoretical and methodological debates.

The campus should aim to create a visible identity for social scientists working in health and medicine. Consistent with the cross-cutting themes identified in the Health Sciences Strategic Task Force report, creating an interdisciplinary group of social scientists focused on health will act as a forum for critical dialogue and discussion around research issues. It will contribute to the development of research proposals and sharing of innovative methodologies.

There are three areas of strength in the social science and health arena at the University of Illinois that could form the foundation of a center or research theme on using social science to improve health. These three thematic areas are:

- **Health measurement and application.** In order to improve health and health systems researchers need to be able to evaluate physical, mental, and social aspects of health across the lifespan. Health measurement is essential to the provision of patient-centered, responsive, evidence-based and cost-effective health/healthcare. Cutting edge measurement is also the basis for personalized medicine, a goal of many health systems.
- **Health promotion and disease management.** Despite major advances in prevention, early detection and treatment, it is vital to continue developing novel, evidence-based strategies to prevent and manage major health conditions. This could include innovative uses of technology to more effectively engage target populations and embrace cultural differences to improve quality of life and health outcomes in disparate populations. Social scientists at the University of Illinois conduct excellent research on interventions to improve health and disease management that could be greatly enhanced if coordinated and integrated across the units such as Communication, Educational Psychology, Food Science and Human Nutrition, Kinesiology, Social Work, Community Health, and Psychology.
- **Mechanisms of health and disease across the lifespan.** There is an increasing recognition of the potential impact of aging on disease onset and course, and the intersecting influences of the brain, physiology, and behavior on these patterns. For example, deteriorating cognitive functioning in midlife has much more serious implications than similar deterioration in old age. The social science community at the University has a long tradition of focusing on aging and development and its relation to morbidity and mortality. Integrating and supporting the wider range of social scientists that focus on aging and health would greatly increase the University's ability to acquire new funding and create new centers, such as a Roybal Center funded by the National Institute of Aging (NIA).

To leverage these opportunities, we propose two primary investment requests:

- Working in conjunction with the Interdisciplinary Health Sciences Institute (IHSI) and the SBSRI, we propose the creation of the **Social Science and Health Center**. This center will conduct organizational work and strategic planning to help leverage the existing expertise in the area of social science and health. It will also sponsor workshops, provide targeted seed funding, and foster interdisciplinary funding applications at the interface of the social sciences and health to the National Institutes of Health (NIH).
- In addition to these existing areas of strength, we believe that the University has a unique opportunity to create a focal group of **social scientists focusing on cancer**. The University is currently home to the Cancer Center at Illinois and the likely home of a full-fledged National Cancer Institute (NCI) Cancer Center. The social sciences can and should be a prime contributor to this effort because addressing many of the root causes of cancer and their treatment entail changing behaviors and attitudes. Simple, but profoundly difficult to change, cancer-related habits like exercise and eating behaviors, are not only the purview of social and behavioral scientists, but are also intrinsically bound up in social issues, like poverty, ethnicity, and the psychology of behavior change. In addition, the NCI has a robust behavioral science program and funds basic social and behavioral sciences at many institutions. However, the portfolio of social scientists at the University of Illinois receiving support from the NCI is smaller than it could and should be. To support these efforts at the interface of social science and cancer, we propose a seed fund program designed to incentivize existing social science researchers to submit grant proposals in the area of cancer to the NCI.

### iii. Using Social Science to Understand Big Data and Technology

With the rapid advancement of technology, there is a growing need for collaboration between social scientists (e.g., psychologists, economists, and political scientists) and faculty working on the development of technology (e.g., engineers and computer scientists). Such collaboration is likely to fuel major innovations in both fields. Given the areas of expertise at the University of Illinois at the intersection of the social sciences and engineering, we have identified four central directions that are likely to be fruitful in changing knowledge and application:

- **Technological tools for social science assessments.** Technological innovations allow social scientists to answer critical questions that have not been possible in the past due to methodological limitations (e.g., development of sensors to assess biological processes in daily interactions). Furthermore, the technological tools developed for research are ultimately likely to be adapted into products available to the general public for purposes like keeping track of stress or aiding in living independently in later life.
- **Platforms for big data accessibility and analysis.** Given its centrality in contemporary life, social media has the potential to provide critical insight into major social issues. However, analyzing this, as well as other sources of big data, is not possible without advances in computer science to ensure the accessibility and processing of such data. Applications of such advances will lead to platforms that can be used by not only social scientists, but also individuals in a variety of settings.
- **Making technology usable by people.** Engineers and computer scientists often develop products for people but have limited knowledge about how people use these

products in their day-to-day lives. The discrepancy between what engineers make and what people are open to and capable of using makes it a challenge to create usable products. Social scientists can bring fundamental expertise to ensuring and assessing usability.

- **Enhancing technological innovation with diversity.** Social scientists are fundamental to ensuring innovation in the rapidly developing field of technology in which women and minorities are more underrepresented than in most other fields. Social scientists can provide critical understanding into why women and minorities are underrepresented in technological fields and what can be done to boost their representation and ensure their diverse perspectives are heard in these fields.

To leverage these opportunities, we propose one primary investment request:

- In conjunction with the Data Science Institute, the College of Engineering, and the SBSRI, we propose the creation of the **Social Science, Big Data, and Technology Center**. More purposefully leveraging the expertise in these areas at the University of Illinois would make us a leader in innovations involving the integration of social sciences and technology, as well as strengthen the areas individually at the University of Illinois. Concretely, we believe a Center at the intersection of the social sciences, big data, and technology should conduct more, and more targeted workshops, and provide seed funds that would support these groups in their effort to write and acquire federal funding.

Collaborations between social scientists and faculty developing technology will fuel innovations that will be part of solving the world's grand challenges. Leveraging the expertise of engineers, computer scientists, and others to develop technological tools and platforms for the social sciences will advance knowledge in the field, bringing it to a new level. Engineers and computer scientists will also benefit from collaborations with social scientists (e.g., by ensuring that new technologies are optimally usable by the people for whom they are designed). In addition, social scientists are critical to identifying how to diversify technological fields. Increasingly, both the National Science Foundation (NSF) and National Institutes of Health (NIH) are issuing calls for grants that are at the cross-section of social science and technology in the four central directions we outlined above.

#### iv. Understanding Culture, Language, and Diversity

Social scientists work with empirical evidence of human behavior to help us understand the impact of social and cultural forces on the patterns of stability, change, conflict and cooperation that contribute to advances in health, education, prosperity and the welfare of humanity. One area of importance is the understanding of cultural and linguistic diversity at all levels—from cells to society, across time and space, in local and global contexts. At its most basic level, the social scientific study of human life engages the fact that humans developed complex systems of language and culture and organize themselves in groups—families, communities, ethnic groups, nations—and the complex composition of these groupings varies over time and space. Social scientists employ innovative and rigorous quantitative and qualitative research methods to discover fundamental principles, and the range of variation, of human cognition and social behavior.

Globalization, sometimes seen as a process leading to the reduction of such differences, has only intensified them. Globalization and the related phenomena of migration, technologies of communication and political and economic structures, produce new sorts of language contact and new social and cultural identities, increasing interactions among members of diverse cultural communities. International, cross-cultural, and global perspectives are therefore integral to many social science disciplines.

The University of Illinois boasts impressive strengths in the area of culture, language, and diversity. Like other areas of social science at the University of Illinois, the expertise and understanding of language, culture, groups, and diversity are distributed across units, including Anthropology, Communication, Linguistics, Language and Literature Departments, Psychology, Sociology, Information Sciences, Education and Social Work. Additionally, the University's strengths in international and global research and programming include a set of nationally and internationally prominent area studies centers, some of which have consistently been funded as National Resource Centers through the U.S. Department of Education (e.g., the Center for African Studies, the Center for East Asian and Pacific Studies, the Center for Global Studies, the Center for Latin American and Caribbean Studies, the European Union Center, and the Russian, East European, and Eurasian Center).

International expertise, particularly deep, country- or region-based knowledge not only informs research and engagement in other countries and regions, but also provides the needed cross-cultural and comparative perspectives to understand our own national challenges. For example, issues such as immigration, prejudice against some social and linguistic groups, health and economic disparities, food insecurity, and the technological evolution of healthcare and its delivery all compel an approach that looks beyond the U.S. to situate the challenges in wider economic, political, cultural, and technological contexts.

To leverage these opportunities, we propose two primary investments:

- The **Understanding Culture, Language, and Diversity Network** would foster and integrate expertise at the interface of culture, language and diversity, directly benefitting the other grand challenge areas of the strategic plan. Additionally, support for fuller integration of qualitative and quantitative research methods is essential to cultivate a more robust community of social scientists. Initially the role of this network will be to explore commonalities and ways in which experts in this area could inform research in health sciences and health disparities, technology and data sciences, and poverty and inequalities. Many social scientists working in different countries require expertise that could help them manifest their scientific efforts in different cultures with different norms. For example, seemingly simple issues such as how parenting interfaces with education vary dramatically across cultures as do norms for behaviors that impact health decisions, or communication with healthcare providers. Understanding factors such as local gender norms, or the local vocabulary or discursive style of a widely spoken language like Spanish, is crucial to basic research aimed at understanding social problems and to the success of policy proposals and practices aimed at their resolution.

While the network in the near term will facilitate the infusion of expertise in culture, language and diversity within the currently defined grand challenges, we envision the network serving as a focal group for identifying the next generation of challenges with roots in issues of cultural and linguistic diversity. Supporting working groups of faculty as well as visiting scholars, the network will be a hub of collaboration and

innovation leveraging social science expertise in cross cultural international issues to develop large scale externally funded projects that will help to define and contribute to emerging campus priorities.

- Not only is diversity an institutional value for the University of Illinois, but it is also a thriving area of research in social sciences. Diversity, like striving to correct unequal patterns of participation or access, is a cultural ideal based in social processes and interactions. Many social scientists study critical issues linked to diversity, such as the effects of diversity on team performance, the effects of discrimination on mental and physical well-being, and the nature and problems of stereotyping. We propose a new research initiative on diversity science, in which we develop an interdisciplinary and collaborative center that uses rigorous scientific methods to address diversity issues, such as those concerning race, gender, religion, and sexual orientation. This **Diversity Science Center**, which has also been proposed by the Diversity Strategic Planning Task Force would be a hub connecting social science research on diversity matters directly with strategic initiatives promoting diversity at the University. Cutting-edge research that is derived from the dissemination of ideas across disciplines and from collaborations bridging disciplines is sorely needed to effectively address issues related to diversity. This initiative will bring together scholars from across campus interested in Diversity Science-related issues that are the subjects of cutting-edge research, including topics such as implicit bias, stereotype threat, identity formation, social justice and law, diversity in science, intergroup relations, and health disparities. We hope that this initiative will cross-pollinate research methodologies and provide scholars with rich new approaches to studying diversity-related issues in their own fields.

## v. Increasing Links Between Basic Social Scientists and Researchers in the Professional Schools

Across the fields of professional training—such as social work, law, medicine, and library and information science—professions vary enormously in the degree to which they engage in evidence-based practice. Faculty in the professional schools have rapidly growing research agendas that focus on interventions, services, and implementation issues related to their particular professional practices. Increasingly, federal funding sources require the types of interventions and services research conducted by faculty at professional schools to target specific mechanisms of change (e.g., bias, communication, motivation) that are typically studied by social scientists. Despite this obvious connection, relationships are currently weak between faculty in the professional schools and social scientists at the University of Illinois.

This illustrates the potential for a mutually beneficial relationship between social scientists and faculty in professional schools. For basic social scientists, the professional schools provide access to naturally occurring community-based laboratories—e.g., organizations with professionally trained providers and the recipients of interventions and services, clients and patients. These natural labs allow for real world testing of theories developed in lab-based research. In turn, the professional schools can partner with the social scientists to create the next generation of evidence-based interventions, services, and practices that address the grand challenges of law, medicine, business, social work, library and information science, education,

and veterinary medicine. In general, we believe that the university can connect the social science research conducted on campus to professional education, improving the services and interventions that graduates of these programs provide for the local community, the state of Illinois, the United States, and the world.

To leverage these opportunities, we propose one primary investment request:

- The **Social Science Translational Research Network** will match researchers in professional schools with social scientists to develop research teams that focus on a variety of issues, such as improving mental health courts, housing first interventions, or developing human resource practices in small businesses. To begin, we will conduct a survey of professional school faculty research agendas to illuminate the types of interventions, services, and clinical and practice research currently produced and the mechanisms of change targeted by the research. We will use the results of the survey to create teams of social scientists and faculty in the professional schools. The teams will initially work on producing pilot projects that create proof of concept evidence and preliminary review papers, with the goal of applying for external funding to allow the teams to conduct preliminary efficacy testing. The long-term goal of the Social Science Translational Research Network is to evolve successful teams into interdisciplinary centers and institutes within professional schools that have a significant social science presence. These centers and institutes could also increase faculty joint appointments between professional schools and social science departments.

More purposefully leveraging the knowledge created in the world-class social sciences at the University of Illinois to develop the next generation of evidence-based interventions, services, and practices at professional schools could make us a leader at designing and implementing practical, widely used, cost-effective solutions that change the way the world's grand challenges are solved (e.g., LED lighting; Mosaic). There is evidence of these types of partnerships creating innovative and productive research agendas at highly ranked business and medical schools around the world.

*b. How can we better leverage our research strengths to enhance the university's educational mission in social science-related fields?*

**Service-learning courses.** The social and behavioral sciences have long been a key source of service learning courses where students get to work in the field on issues like poverty, health care, and technology. Students will be afforded multiple opportunities to work with researchers in applied settings that count for advanced coursework. With an investment in any one or more of the grand challenge areas listed above, we foresee many opportunities for newly formed groups to work with various units to create service learning courses.

**New concentrations, certificates, or minors.** Another way in which new social science centers or an institute could help with the educational mission is to inspire areas that could be offered as certificates or minors (of course, in coordination with colleges and units). For example, given the areas of strength described above, we could foresee certificates or minors in areas such as:

- Measurement and assessment across units (e.g., forensics)

- Cultural expertise
- Social science and health
- Community enhancement

With the creation of the Social Science Translational Research Network, we also foresee the possibility of faster and better integration of discoveries into professional school curricula in medicine, law, veterinary medicine, public health, social work, information sciences, and education due to faster and more seamless communication.

*c. How can we engage our local community best through social science?*

Due to the efforts of the SBSRI, the social science community at the University of Illinois is currently actively advising Carle in its implementation of the **Healthy Beginnings** project. This ambitious, 20-year project, aims to provide health care directly to underserved families in the Champaign-Urbana area. Carle's plan is not only to treat health issues, but also to intervene with families to interrupt the cycle of poverty that pervades our community and society in general. Carle hopes to expand the program from our local community to the surrounding region as they learn from the implementation of the program in Champaign and Urbana. Because the effort focuses on the total health of children and their families, the intervention sparks numerous social science questions, such as: How best to get families to participate? What is the best way to educate parents about their child's nutritional needs? How do we best communicate health issues to families? How do we intervene to help with continuing education and vocational training for parents? How do we ready children for entering formal education? How do we reduce conflict in families? How should changes in functioning be measured and tracked over time? How would one measure success of the program in 5, 10, and 20 years? All of these questions are intrinsically social science questions that require expertise from social science faculty across the University of Illinois. To help answer these questions, the SBSRI has established an advisory committee of six social scientists carefully selected to provide key information and access to other scholars who can help advise the project and ensure its success. Through this program, the social science community is engaged with a local project intended to improve our own community through the use of our knowledge and scientific expertise.

Additional public engagement could occur with the implementation of the service-learning courses described above. Social science-based field work would naturally necessitate working with local and regional organizations. Concretely, the Fighting Poverty Scholars Program and the Fighting Poverty Practitioners Program mentioned above will create new contacts within the local community and increase public engagement while simultaneously working to improve our community. These and other service-learning activities would foster partnerships with community programs and organizations.

Through the implementation of the SBSRI, we have discovered the accumulation of knowledge that comes with the creation of integrative social science communities. One of the most important ways in which an organized social science institution helps is by knowing the relevant scholars in different areas of expertise who could assist local and regional organizations. Creating a focal organization that is aware of the entire social science community can lead to a

powerful nucleus of social scientists who can collaborate and contribute significantly across campus.

*d. What specific short-, medium-, and long-term actions would be most effective in realizing our potential in social science education, research, and engagement?*

## i. Short Term

**Provide Support for the Five Grand Challenge Areas.** Each of the five grand challenge areas described above (i.e., Solving Poverty, Using the Social Sciences to Improve Health, Using Social Science, to Understand Big Data and Technology, Understanding Culture, Language, and Diversity, Increasing Links Between Basic Social Scientists and Researchers in the Professional Schools) necessitates specific and wide-ranging types of investment. Some demand staffing to coordinate activities, such as the Fighting Poverty Scholars Program and the Social Science Translational Research Network, while others call for seed funding to help foster interdisciplinary groups that would then create funding proposals to national funding agencies.

**Transition the Social and Behavioral Sciences Research Initiative (SBSRI) to the Social and Behavioral Sciences Research Incubator.** One of the best ways to support the five grand challenge areas is to move the SBSRI from Initiative to Incubator status. The SBSRI was started in 2016 by the OVCR to enhance collaboration, facilitate large-scale, interdisciplinary research projects, support mid- and early-career researchers in the social and behavioral sciences, and provide a focal point for showing the strength and reach of the social and behavioral sciences at the University of Illinois. Over the last two years, the SBSRI has worked to support the funding and creation of interdisciplinary research groups through the initiation of a successful small grant program, providing grant development support, creating a grant resource database for Illinois social and behavioral scientists, initiating a methodological workshop series, and expanding the SBSRI website.

With a staff of one, the SBSRI has achieved the following goals:

- a. **Conducted a survey to gauge the needs of the social science community.** We surveyed 259 social scientists in order to determine whether the goals of the SBSRI aligned with the desires of the faculty. We found strong consensus that the SBSRI should provide seed funding for pilot studies, cultivate interdisciplinary research teams, create a grant database for the social sciences, and help transition researchers from small to large grants.
- b. **Created the SBSRI Small Grant Program.** The goals of Small Grant Program were to: 1) support social and behavior science faculty research on campus through the identification of interdisciplinary research teams, and 2) assist these teams with applications to external funding agencies. The Small Grant Program resulted in the following:
  - i. 38 separate teams submitted proposals.
  - ii. 6 projects were selected for funding representing 15 units with 38 different faculty members.

- iii. Funded projects ranged from examinations of neighborhood food environments to using natural language processing to detect conflict to assessing childhood stress via newly developed wearable sensors. A description of these projects can be found [here](#).
- c. Provided grant development support**
  - iv. The SBSRI staff met with 15 interdisciplinary research teams to discuss grant ideas and how to translate them into proposals for external funding and identified dozens of grant opportunities for these teams.
  - v. The SBSRI staff developed a grant resource database containing boilerplate materials for sections of NIH and NSF grants.
- d. Initiated methodological workshop series.**
  - vi. Starting in fall 2017, the SBSRI initiated a series of workshops bringing national and international experts to campus to provide training for specialized techniques highly prized by social and behavioral scientists. Topics include meta-analysis, programming in R, reproducibility and replicability, and multi-level longitudinal modeling. The turnout and response to the first three workshops was enthusiastic with over 350 participants registering for these events.
- e. Sponsored an Engineering and Social Science Workshop.**
  - vii. On October 6, 2017 the SBSRI and the College of Engineering brought together over 50 social scientists and engineers representing 33 departments and units to discuss the next generation of research at the interface of social science and engineering and to facilitate new interdisciplinary groups and new grant proposals.
- f. Developed the social and behavioral science community database.**
  - viii. The SBSRI has created a database of grant-related information intended to help early-career researchers in their efforts to write and submit their first grant proposal. These include examples of all types of grants, important supporting documents (e.g., budget justification), and budget-related boilerplate.
  - ix. The SBSRI has worked with the OVCR communications team to expand the SBSRI website to include information about upcoming events, a feed for highlighting social and behavioral sciences publications, external grant opportunities, and an SBSRI twitter feed.

We propose the SBSRI be upgraded to an Incubator so that it can help to support the five grand challenge areas identified above and fulfill the full mission as outlined in the 2015 strategic planning report. In particular, the remaining goals of the Incubator proposal include:

- Providing infrastructure and mentoring to help new and existing faculty to apply for and successfully land external funding for their research.
- Seeding new large-scale interdisciplinary projects like those found in the grand challenges and/or center ideas that leverage new and existing areas of expertise in the social and behavioral sciences at the University of Illinois.
- Providing support for new and existing programs in the social and behavioral sciences by better communicating and disseminating existing strengths, ongoing

research accomplishments, and intellectual synergies across units at the University.

To achieve these goals would entail a modest investment on the part of the University. In particular, we propose that the SBSRI be fully staffed by hiring one additional research development professional, a support staff, and an assistant director. Further, we propose that the SBSRI be provided with seed funding to continue supporting small interdisciplinary projects and to strategically support focused large-scale interdisciplinary projects, like those described above, that could result in the establishment of federally-funded research centers.

## ii. Medium-Term

There are several cross-cutting core issues that serve as intellectual or methodological scaffolding for most, if not all, social sciences. For example, many social scientists rely on sophisticated survey methodology to attain representative samples. Likewise, many social scientists are passionate consumers of measurement and assessment tools and use these to track and assess the constructs they care about. Also, many social scientists need to employ sophisticated multivariate statistical modeling techniques including structural equation modeling, multi-level modeling, and longitudinal modeling. While the University of Illinois has some pockets of extraordinary strength in each of these areas, the faculty and staff possessing these skills are unevenly distributed across the university and therefore, have yet to realize their full potential for working together on both research and educational fronts.

We believe the two optimal social science cores that the university should invest in over the medium term would be (1) measurement and assessment, and (2) statistical modeling and methods. Measurement, analysis, and classification of behavior are fundamental to all social scientists including, but not limited to, basic and applied research in health and disease, medical diagnosis, preventive medicine, intervention research, education, and evaluation. Whether we are looking at the behavioral signs or symptoms of disease, the impact on behavioral repertoires of interventions, the lifestyle choices and behavioral patterns that affect health and well-being, the behavioral correlates of various aspects of brain structure and function, or the genetic, molecular, and cellular mechanisms of behavior, we rely critically on sensitive, reliable, and valid tools and techniques for behavioral assessment.

To create a focal group to provide synergies unavailable within the units that currently house measurement experts, we propose to create the **Illinois Neuro/Behavioral Assessment Laboratory (IN/BAL)** to support cutting-edge science of the assessment of behavior (this proposal overlaps with the proposal from the Health Sciences Strategic Task Force). Our goal is to establish the nation's leading resource for the measurement, analysis, and classification of human behavior, and to enhance the existing foundation for world-class research at Illinois in social and behavioral science, medicine, neuroscience, and genomics (as proposed in the Social Science of Health grand challenge area). The IN/BAL will facilitate cross-disciplinary, cutting-edge research on the deep phenotyping of neurobehavioral functioning. The IN/BAL will foster new, innovative research collaborations focused on identifying rich measures of brain structure and function, behavioral performance, cognitive and emotional processes, personality, and social behaviors that will inform research and clinical studies in precision medicine,

population health, and, more broadly, in big data approaches to the health sciences. The IN/BAL will also help to enhance the pedagogy and training needs for undergraduate, Master's, and Ph.D. students in the area of measurement and assessment. The training opportunities will benefit students from a wide variety of programs, including but not limited to Psychology, Education, Business, Advertising, Labor and Employment Relations, Information Sciences, Social Work, Communication, Community Health, and Human Development and Family Studies.

The second core would involve investment in statistical, quantitative, and qualitative methodological expertise. The SBSRI methodological workshop series serves as an indication of the need, if not the desire, for this type of information to be fostered and readily available to social and behavioral sciences researchers. The SBSRI has sponsored three methods workshops on meta-analysis, using R in the social sciences, and reproducibility and replicability issues in social science. The response to these workshops has been overwhelming. Each of the first two full-day workshops each filled within 2 hours of registration opening, and the third workshop brought together over 100 researchers from across the University. From our vantage point, the social science community very much wants more information on the methodological and statistical techniques that form the basis of their science. To that end, we propose the creation of the **Social Science Methods and Meta-Science Center**. The goal of this Center will be to bring together the expertise that already exists in the statistical and methodological areas of the social sciences on campus; attract off-campus scientists who can train our scientists on cutting-edge methods, statistics, and modeling to improve their science; and, to study the process of science itself (e.g., reproducibility and replicability). The Social Science Methods and Meta-Science Center will not only leverage and enhance our expertise, but also provide new pedagogical synergies. Currently, a small number of social science units (Statistics, Educational Psychology, Community/Public Health, Sociology, Anthropology, and Psychology) provide much of the methodological training for social scientists across campus. Creating a methods-focused center will allow better coordination of this most fundamental training and help to identify areas of need that arise as new methods and techniques are created.

To be clear, we see these two methodological cores as cross-cutting themes that support the social sciences. Over the next five years, we envision investments in the creation of the two centers as well as hiring initiatives to expand and support the development of expertise in these two new units.

### iii. Long Term

We believe the time is right for the University of Illinois to begin the process of forming a **Social Science Institute** on par with the likes of the Institute of Social Research (ISR) at the University of Michigan. The ISR houses five research centers, including the Research Center for Group Dynamics and the Survey Research Center, and supports huge interdisciplinary projects such as the Health and Retirement Study and numerous other federally-funded panel studies. The ISR also hosts and fosters expertise in survey design, measurement and assessment, and methods. By developing a structure like the ISR, our campus could attract significantly larger funding opportunities. The University of Illinois has the same, if not greater, expertise the social and behavioral sciences as universities with high functioning social science institutes. We match the breadth and scope of the ISR with just the five grand challenge areas described above.

There are several other areas of opportunity and strength in the social sciences that could maximize the SBSRI investment. For example, a Decision Science Center could potentially accrue dozens of faculty across campus, while a Population and Demography Center would link researchers focusing on broad societal issues with researchers examining individual functioning. The vast contribution of the five grand challenge areas described above, in combination with the two suggested methodological cores and the opportunities for public engagement and pedagogy, demonstrate the scope and significance of a social science institute at the University of Illinois. A social science institute would institutionalize clear, objective support for the social sciences, bring increased opportunities for federal funding, and result in greater resources to individual units through nimble and timely leveraging of funding opportunities. It could also serve as a resource for public engagement and curricular inspiration that would benefit all colleges and schools at the University of Illinois.

We have identified the creation of a Social Science Institute as a long-term rather than short-term goal for good reasons. First, while much progress has been made through the SBSRI, more groundwork is needed before implementing a full Institute structure. Second, we believe it would be best to build the Institute organically from the bottom up. Ideally, the University would invest in the Social and Behavioral Sciences Research Incubator first, as this structure would provide the necessary scaffolding to build integrative, interdisciplinary centers in the social sciences, as well as a full-fledged Institute. Hence, the Incubator could manage targeted investments in the five areas of initial focus while coordinating new and emerging collaborations and facilitate the creation of crosscutting cores in measurement and methods. This progressive move toward an Institute would be an optimal strategy that would result in concrete returns on investment in the short run and energize social and behavioral sciences in the long run.

## V. SUMMARY

Since 2010, the University has deliberated about how to better serve, enhance, and integrate the social science excellence existing at the University of Illinois. We have offered many opportunities that are not only exciting, but also provide a strong return on investment, in large part because social and behavioral sciences tend to be less costly up front and hold great potential for NSF and NIH funding. Many of our suggestions interface with the other task forces convened for this strategic plan, largely because the social and behavioral sciences can provide strong scientific value to many different challenges of the 21<sup>st</sup> Century. That said, the Social Sciences Strategic Planning Task Force would like to note that the social and behavioral sciences go well beyond the topics of focus in the remaining strategic planning task forces. Investing in the social and behavioral sciences at the University of Illinois will provide integrative opportunities to confront challenges such as poverty, economic and health disparities, globalization, political divisions, the challenges of a multicultural society, and an aging population that are uniquely social science issues. The over 700 social and behavioral scientists on campus represent not only a significant proportion of our faculty, but an untapped well of excellence that could be leveraged to burnish the already robust reputation of the University of Illinois.

## Envisioning a Social Science Institute at the University of Illinois at Urbana-Champaign

As an addendum to the Social Science Strategic Plan, we have been asked to articulate a more focused vision of how the University of Illinois establish a Social Sciences Institute in the coming years. With this in mind, we have provided a vision for an institute that 1) represents the unique strengths of the University of Illinois social science community, 2) builds on areas that are ready to be operationalized in the next three years, and 3) focuses on domains that have readily identifiable sources of external funding.

A Social Sciences Institute should be built around the unique strengths of the University of Illinois social science community, best reflected in these four pillars: the **Illinois Fighting Poverty Center**, the **Illinois Social Science and Health Center**, the **Illinois Social Science and Technology Center**, and the **Illinois Human Phenotyping Lab**. These four areas provide focal topics that reflect the unique strengths of the University. Each area has a large group of scholars, many of whom have federal funding, and presents new opportunities for integrated, cross-cutting ideas to further distinguish the University of Illinois as a leader in the social sciences.

### Illinois Fighting Poverty Center

Our focal projects for the **Illinois Fighting Poverty Center** will be the *Healthy Beginnings project*, which is run through the Carle Foundation and the *DREAM project*, run by Professors Ruby Mendenhall and Christy Lleras. The *Healthy Beginnings Project* is ambitious, 20-year project, that aims to interrupt the cycle of poverty by providing health care directly to underserved families in the Champaign-Urbana area. This project is already advised by a committee of social scientists from the U of I and because of its scope, naturally entails social science expertise in human development, family relations, vocational training, and economics. The DREAM project seeks to mitigate the effects of poverty by intervening with poor populations using a variety of social science approaches in the South Chicago suburbs. Both projects have high potential for external funding from the Robert Wood Johnson Foundation.

In addition to these two focal projects, the **Illinois Fighting Poverty Center** will support two additional programs to foster scholarship for undergraduates (*the Fighting Poverty Scholars Program*) and graduate students (*the Fighting Poverty Practitioners Program*) who will study issues related to poverty while working in the city of Chicago and Champaign County to help fight poverty.

### Illinois Social Science and Health Center

Many social scientists at the University of Illinois conduct research related to health promotion and disease management, mechanisms of health across the life course, and health measurement. The second pillar of the Social Science Institute will be a set of research themes in the domain of social science and health. The first theme, *psychosocial science and health*, focuses on behavioral, attitudinal, and affective factors that contribute to morbidity and mortality; this theme exists at the interface between the social sciences, the IHSI, and the new Illinois Medical School. The second theme will focus similar efforts on the development of the **Cancer Center at Illinois**. Social scientists can be prime contributors to this effort because addressing many of the root causes of cancer entails changing behaviors and attitudes. Both themes hold high potential for increased funding from NIH.

## Illinois Social Science and Technology Center

Due to the rapid advancement of technology, there are growing opportunities for collaboration between social scientists (e.g., psychologists, economists, and political scientists) and faculty working on the development of technology (e.g., engineers and computer scientists). Such collaboration is likely to fuel major innovations in both fields, and the **Illinois Social Science and Technology Center**, our third center, will bring associated researchers together; newly developed technologies can also be used to aid the **Illinois Fighting Poverty Center** and the **Illinois Social Science of Health Center**.

We envision three themes within the **Illinois Social Science and Technology Center**. The first will focus on *technological tools for social science assessments*, which will bring together social scientists and engineers to create the next generation of tools using cutting edge robotics and computer science to track psychosocial outcomes. The second focus will be on creating *platforms for big data accessibility and analysis*. Computer technology and large-scale crowdsourcing technologies have created opportunities to study social science phenomena at a scale which requires expertise in big data, technology, and social science. The third theme will focus on *enhancing technological innovation with diversity*. STEM fields need an infusion of new, more diverse talent, both culturally and intellectually. Social scientists already study these issues and will benefit from the opportunity to work with STEM researchers in a common theme.

## Illinois Human Phenotyping Laboratory (IHPL)

The final pillar of the new Institute will be the **Illinois Phenotyping Laboratory (IHPL)**. We aim to establish the nation's leading resource for the measurement, analysis, and classification of human behavior, and to enhance the existing foundation for world-class research at Illinois in social and behavioral science, medicine, neuroscience, and genomics. The IHPL will facilitate cross-disciplinary, cutting-edge research on the deep phenotyping of psychosocial functioning that will support efforts in the other three centers of the Social Science Institute. We envision three themes within the IHPL. The first theme will focus on *innovation in assessment of human functioning*, which will foster efforts to use new technologies to improve the assessment of social science constructs. The second theme, *the Rosetta Stone Assessment project*, will leverage new machine learning tools to create a unifying framework to translate the hundreds of social science measures into a common measurement vernacular. The third theme, *the Multicultural Assessment Project*, will tackle the increasing globalization of social science and the challenge of measuring constructs across distinct countries and cultures.

We believe the **Illinois Fighting Poverty Center**, the **Illinois Social Science and Health Center**, the **Social Science and Technology Center**, and the **Illinois Human Phenotyping Lab** represent the strengths of the University of Illinois social science community. All four areas leverage existing interdisciplinary strengths and demonstrate great potential for external funding and can serve as the foundation to the Social Science Institute. As detailed in the full Social Science Strategic Task Force report, the SBSRI has already created infrastructure and identified the people necessary to create these centers. With the proper support, these four Centers could be established within three years, with the goal of garnering substantial external support within five years. Additionally, establishing this Institute will bring numerous other benefits, including the ability to foster new Centers, the ability to proactively take advantage of new external funding opportunities, to serve the broader social and behavioral science community, and be a platform for showing the excellent social science research that exists at the University of Illinois.