Grand Challenges for Social Work

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This invited article introduces the concept of grand challenges—ambitious yet achievable goals for society that mobilize the profession, capture the public's imagination, and require innovation and breakthroughs in science and practice to achieve (Kalil, 2012). We call for broad and deep participation of social work scientists and practitioners in the Grand Challenges for Social Work initiative, which will be coordinated by the American Academy of Social Work and Social Welfare.

New Directions for Social Work in the 21st Century

For well over a century, social workers have played a powerful role in lifting the nation out of the distress that accompanied industrial and social transformation, rapid urbanization, and economic instability. For example, between 1910 and 1921, Julia Lathrop and other social workers in the newly formed Children's Bureau led a national research-based campaign that halved the U.S infant mortality rate (Almgren, Kemp, & Eisinger, 2000). During the Great Depression, social workers in the federal government designed powerful, innovative New Deal programs that put millions of out-of-work Americans back to work, saving millions of families from destitution; those same efforts currently provide monthly Social Security checks to nearly 44 million people (Downey, 2010). In response to the mid-20th century's "crisis of deinstitutionalization," social worker Lotz and her colleagues Stein, Test, Marx, Allness, and others created the ground-breaking Assertive Community Treatment (ACT) model (Stein & Test, 1980; Test, 1998, 2012). Since that time, ACT has been used around the world to assist tens of thousands of persons with serious and persistent mental illness in making a successful transition from the psychiatric hospital ward to the community (Test, 1979). Scores of inspiring examples could be added to this list.

In the 21st century, social work faces an altered landscape in which enduring societal problems find new expression and the potential for more powerful resolution. The scale, complexity, and interrelatedness of societal problems—from poverty and dramatic inequality to the sustainability of health and human service infrastructures across the globe-demand problem-solving skill and collaboration at levels perhaps unprecedented in our history. The social work profession itself has matured, with a deeper science and knowledge base. This new era is a moment when social work can and must play a more central, transformative, and collaborative role in society, if the future is to be a bright one for all.

Consider just two examples: If we are to dramatically improve high school and college graduation rates for our nation's most disadvantaged youth, then we must create strategies that effectively strengthen families and neighborhoods as well as promote healthy, prosocial bonds among youth, families, and schools. Community-based prevention strategies, developed principally by social work prevention scientists, offer some of our most promising vehicles for successfully meeting this national priority (Hawkins, Kosterman, Catalano, Hill, & Abbott, 2005). Likewise, creating an affordable, high-quality health care system accessible to all will require combating the "upstream" social determinants of health that produce inequity (Gehlert et al., 2008), instituting effective community-based health and behavioral health promotion strategies, and creating culturally and locally tailored care-coordination practices (Andrews, Darnell, McBride, & Gehlert, 2013)—all strong focal points of the profession. The sustainability of the nation's health care reform and the nation's health may rest as much on the shoulders of social workers as in the hands of primary care doctors. If we are to maximize social work's contribution to society, we must attract the world's most passionate and gifted individuals to the profession. We must bridge the gap between the science and the practice of social work, and between social work and other disciplines and fields. We must develop effective interventions and bring those programs to scale with sustainability. In addition, we must dramatically increase the public understanding of why the science and practice of social work is crucial not only to the quality of life but also to the sustainability of our lives. Can we develop strategies to strengthen and deepen the impact of social work practice and to more effectively focus and harness our science and collective know-how? Facing similar challenges and opportunities at pivotal times in their histories, some professions and disciplines have been aided by the Grand Challenge strategy.

The Grand Challenges Strategy

The concept of the grand challenge was first introduced at the turn of the last century by the German mathematician David Hilbert (Singer & Brook, 2011). In a 1900 address to an international society of mathematicians, Hilbert presented a list of 23 unsolved "mathematical puzzles" that galvanized and focused the efforts of mathematicians for the entire century and beyond (Singer & Brook, 2001). More than 100 years later, the National Academy of Engineering (NAE) has identified the "Grand Challenges for Engineering" for the 21st century. The NAE initiative was fueled in part by several societywide problems that became apparent in the 1990s, including the vulnerability of global computing infrastructures as reflected in the threat of worldwide Y2K computer failure. Some suggested even more important problems included the growing gulf between engineering practitioners and academics and the increasing difficulty in recruiting U.S. students, especially women, to the engineering field. The NAE convened a blue ribbon committee to draft a list of top challenges in engineering and to gather opinions from NAE members and engineers across the nation. The final list of 14 grand challenges ranged from "making solar energy economical" and "providing access to

clean water" to "reverse-engineering the brain" and "advancing personalized learning." Prominent NAE members described the 14 Grand Challenges for Engineering as, "... [having] the possibility of being solvable—they have the ring of things we [engineers] can and must do. But the precise path is unclear. That makes them challenging; and their deep importance makes them grand" (Vest, 2010).

According to several NAE members and deans of engineering schools involved in the effort, in the short time since the list's publication in 2008, the NAE Grand Challenges have transformed the field by (a) helping bridge the divide between engineering practice and research by focusing researchers' attention on problems of major, enduring societal significance; (b) promoting awareness and appreciation of engineering among the general public; (c) reinvigorating and redirecting engineering education and research toward practical problems that require innovative solutions; and (d) inspiring a new generation of engineering students and scholars, who now define their work in terms of one or more of these challenges (O'Donnell, 2012).

The appeal of grand challenges extends far beyond the field of engineering. In the past decade, the grand challenges approach has been adopted to powerful effect by a range of national academies, foundations, and public-private partnerships as a means to inspire, align, and focus a field's scientific and practical energy towards meeting society's greatest needs. For example, grand challenges initiatives now exist in economic and social development, global health, chemistry, environmental sciences, and genetics and genomics. Grand challenges initiatives have been sponsored by a variety of organizations, including the Canadian Government, the United Nations, the National Academy of Sciences, the National Institutes for Health, and the Bill and Melinda Gates Foundation.

Although the term has been conceptualized in distinct ways by different organizations, most definitions have characterized grand challenges as:

- a delimited set (typically between 12 and 17) of high-level goals or aspirations,
- reflecting broad, integrative problems, with deeply important societal implications,
- the solutions to which are "right over the horizon"—that is, the science, technology, and knowledge needed to address the challenges are imaginable—but the path to the solution is not yet clear.

The anticipated benefits to be gained from promoting grand challenges are substantial and potentially transformative. According to a recent report from Grand Challenges Canada (Singer & Brook, 2011), grand challenges initiatives offer the following benefits:

- Provide a compelling focus that attracts new generations of students and scholars, drawing together talented people around important, shared, and solutions-focused goals;
- Bring great minds to the table, building collaborations among with world-leading scientists, practitioners, philanthropists, and publicsector partners who might not otherwise be engaged in the work;
- Provide a platform for innovative, collaborative, interdisciplinary work;
- Capture the public's interest and imagination, especially if efforts by world-leading scientists to solve pressing challenges offer compelling storylines to the media;
- Attract new resources by coalescing interest and investment; and
- Create a platform for science diplomacy and team science by bridging the divides between disciplines, silos, and ideologies.

The report also identifies several risks associated with a grand challenges approach, two of which are particularly noteworthy. First, establishing and trying to meet grand challenges initiatives places substantial demands on the time, attention, and resources of the stakeholders and organizations. Second, as with all investments in research and development, no guarantee of success exists (Singer & Brook, 2011). Failed attempts might lead to loss of momentum and further fracturing of interests within a field.

Grand Challenges for Social Work: An Initiative of the American Academy of Social Work and Social Welfare

The development of a comprehensive Grand Challenges for Social Work initiative would be a highrisk path forward, but it would be a path with potential high payoff equal to the risk. Should social work adopt a grand challenges initiative? If so, how should such an initiative be organized? We respond to the first question with a resounding "yes." Social work has much to gain by adopting a grand challenges framework to focus and galvanize social workers'

collective contribution to the quality of life and promotion of an equitable society in the 21st century. The societal problems that command our attention, from poverty and inequality to the sustainability of health and human services infrastructure across the globe, are exceedingly complex and addressing these problems requires the scope and scale of problemsolving strategies that grand challenges stimulate and demand.

Following the leads of successful grand challenges efforts in engineering, environmental sciences, and other fields, we believe the American Academy of Social Work and Social Welfare (AASWSW) is best positioned to organize and coordinate such an effort in our field. AASWSW was established in 2009 through the collective efforts of major social work organizations, including the National Association of Social Workers, the Council on Social Work Education, the Society for Social Work and Research, the Group for the Advancement of Doctoral Education, the National Association of Social Work Dean's and Directors, and the St. Louis Group for Excellence in Social Work Research and Education. The AASWSW membership includes some of social work's most accomplished scholars, educators, and leaders. The organization was created in part to lift the profession's visibility and to lead national efforts to advance the public good and contribute to a sustainable, equitable, and just future a goal that aligns compellingly with the concept of grand challenges.

Conscious of its mission and mindful of the potential benefits and risks associated with the grand challenges strategy, the Academy has committed to leading a national Grand Challenges for Social Work initiative. As other national academies have done, the AASWSW's first step was to convene a volunteer committee to plan and lead the project. The Grand Challenge Committee includes scientists, educators, policy experts, and service program leaders from within and beyond the Academy.

The Committee's plan calls for wide input from across the profession as well as strategic partnerships with social work's national organizations, interest groups, and academic entities. Following the NAE's approach, the Committee's plan also includes the development and dissemination of material describing some of social work's greatest accomplishments from the preceding century.

GRAND CHALLENGES FOR SOCIAL WORK: PLAN OVERVIEW

Phase 1: Strategy Development

- Create national advisory board and partnerships with key social work organizations.
- Create definition of and criteria for defining social work grand challenges.
- Develop grand challenges strategies by eliciting input from individuals, groups, organizations, and campuses.
- Create strategy for systematic review of input.

Phase 2: Delineating Grand Challenges and Grand Accomplishments

- Develop and widely disseminate Grand Accomplishments of Social Work publications and videos.
- Encourage and elicit input on grand challenges from across the field
- Delineate grand challenges (approximately 12-14 challenges).

Phase 3: Dissemination, Diffusion, and Transformation

- Announce and widely disseminate Grand Challenges for Social Work initiative through academic and popular publications; press releases; and use of videos, social media, and other means.
- Partner with national social work organizations and groups to influence social work science, education, student recruitment, and professional identity.
- Increase public awareness and appreciation of social work and influence public funding for social work science.

In the coming months, the Committee will formally introduce its detailed plan, invite input and direction from the field, and initiate ongoing and frequent communications with social work constituencies. The Grand Challenges for Social Work initiative will be guided by a National Advisory Committee and supported by a variety of national and local social work organizations and programs. However, the success of the initiative will ultimately depend on active participation across the profession; the inclusion of diverse voices and communities; and the ability as social workers to think deeply, boldly, and creatively about the future of our society and social work's role in shaping that future.

If you have questions or ideas to share, or would like to learn more about the Grand Challenges for Social Work initiative, including how you can support or participate in the project, please contact the authors or go to grandchallengesw@aaswsw.org

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