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**Proposed Social Spending Innovation Research (SSIR) Program:
Harnessing American Entrepreneurial Talent to Solve Major U.S. Social Problems**

The SSIR proposal seeks to replicate, in social spending, the great success of the Small Business Innovation Research (SBIR) program in technology development.

- **The SBIR program funds technology development by entrepreneurial small companies.** Under SBIR, created by Congress in 1982, 11 federal agencies allocate a small percentage of their annual research and development (R&D) budgets, to make funding awards to small companies to develop and test innovative new technologies. The goal is to reach beyond the usual federal R&D grantees (e.g., universities, large defense contractors) to fund a new set of entrepreneurs. The program has spawned breakthrough technologies in diverse areas such as computer chip production, commercial satellite communications, and medical imaging; and has received consistently favorable reviews in assessments by the National Academy of Sciences¹ and Government Accountability Office.² Congress reauthorized and expanded SBIR with overwhelming bipartisan support in 1992, 2000, and 2011; it is now funded at over \$2 billion per year.

- **The new program, SSIR, would apply the successful SBIR approach in a different (non-technology) field – social spending – as discussed below.**

U.S. social spending critically needs an SBIR-like infusion of entrepreneurial new ideas and rigorous testing, because:

- **Many activities/strategies (“interventions”) funded by federal social programs are found to produce weak or no positive effects when rigorously evaluated.** Most large federal social programs that have been evaluated in well-conducted randomized controlled trials have been found to produce, on average, small or no sustained improvements in participants’ lives.³ Undoubtedly, some interventions and/or local grantees funded by these programs are effective, but their effect is diluted out by the many that are ineffective, yielding small or no *average* impacts.
- **Meanwhile, the U.S. has failed to make significant progress in key areas such as:**
 - **K-12 education:** Reading and math achievement of 17-year-olds – the end product of our K-12 education system – is virtually unchanged over the past 40 years, according to official measures,⁴ despite a 90% increase in public spending per student (adjusted for inflation).⁵
 - **Poverty:** The U.S. poverty rate now stands at 14.5%, and has shown little overall change (whether by official or alternative National Academy measures) since the late 1970s.⁶
 - **Well-being of low to moderate income Americans:** The average yearly income of the bottom 40% of U.S. households, now at \$21,100, has changed little since 1980.⁷
- **Yet, entrepreneurs in the research, nonprofit, and for-profit sectors have developed a few interventions found highly effective in rigorous testing, illustrating what is possible.** Illustrative examples, evaluated in well-conducted randomized trials, include:
 - **Nurse-Family Partnership** – a nurse visitation program for low-income, first-time mothers during pregnancy and children’s infancy (reduced child abuse/neglect and injuries by 20-50% over 2-15 years, compared to the control group).

- [Carrera Adolescent Pregnancy Prevention Program](#) – a youth development program for low-income teens (at age 17, reduced girls’ pregnancies by 40-50%, versus the control group).
 - [H&R Block College Financial Aid Application Assistance](#) – streamlined personal assistance for low and moderate income families with a dependent child near college age (over a 3½-4 year period, increased college enrollment and persistence by 29%, compared to the control group).
 - [Success for All in grades K-2](#) – a school-wide reform program, primarily for high-poverty schools (three years after program start, increased school-wide reading achievement in second grade by 25-30% of a grade level).
- **Such examples are rare because federal social spending has no systematic mechanism, analogous to SBIR, to incentivize, fund, and test innovative field-initiated ideas.** Federal agency evaluation funds generally go toward evaluating programs or interventions selected for testing by Congress or the agency, rather than initiated by innovative entrepreneurs in the field. Agency research funding – such as that of Institute of Education Sciences and National Institutes of Health – funds field-initiated ideas but is primarily geared to academic researchers and rarely funds entrepreneurial practitioners in nonprofit, for-profit, and state/local government organizations. Perhaps the closest analogs to SBIR in social spending are the Investing in Innovation Fund at the Department of Education and the Social Innovation Fund at the Corporation for National and Community Service. While valuable, these programs together comprise less than 1/10th of one percent of discretionary social spending, and do not cover many key policy areas – and so fall well short of the engine of innovation needed to move U.S. social spending toward greater effectiveness.

The proposed SSIR program would create a streamlined, three-phase process – modeled on SBIR – to fund the development and rigorous testing of innovative social interventions, as follows:

- **Each federal agency that funds more than \$1 billion in discretionary social spending would be required to allocate 0.5% of that spending, to fund that agency’s SSIR program.** This could be done through a single legislative initiative covering all agencies (as was done with SBIR), or alternatively through multiple legislative initiatives each covering a different agency. We suggest the allocation be phased in over a period of several years. We estimate that, when fully phased in, the allocation will yield approximately \$1.5 billion each year government-wide.
- **Each agency would issue an annual solicitation, inviting grant proposals through a streamlined, competitive application process coordinated by the Office of Management and Budget (OMB).** The solicitation would set out broad topic areas in which the agency seeks proposals (e.g., preventing school dropouts, increasing earnings of disadvantaged workers, preventing crime), but not specify the approaches that grantees might use. OMB would help ensure (i) that the application process is streamlined, reasonably uniform across the agencies, and user-friendly for applicants unfamiliar with federal procurement; and (ii) that agencies coordinate solicitation topics in important areas of overlapping responsibility (e.g., improving education and employment outcomes of disconnected youth).
- **Applicants – including nonprofit, for-profit, research, and state and local government organizations – would apply for grant funding through one of three phases:**
 - 1) **A phase I grant (generally \$50,000 - \$300,000 over one year⁸) would fund the development and feasibility testing of the intervention,** to establish whether it can be successfully implemented – i.e., can enroll and retain participants, and be delivered in adherence to a well-defined protocol, in settings where it would typically be implemented. To be funded, applicants would need to show (i) that prior evidence – even if preliminary in nature – suggests the intervention could produce meaningful positive effects at reasonable cost; and (ii) that the project

team includes at least one person in a key role who has previously fielded a social intervention on a sizable scale in a typical community setting, with successful adherence to defined protocol.

- 2) A phase II grant (generally \$0.5 - 3.0 million over 2-3 years⁸) would fund a rigorous – preferably randomized – evaluation of the intervention, at low cost if possible, by measuring key outcomes with existing administrative data rather than through original data collection. The goal would be to measure the intervention’s impact on the primary outcome(s) of interest, as well as obtain basic, low-cost programmatic data on the success of implementation. Phase II grants would range in size, as shown above, depending on such factors as the availability of low-cost administrative data to measure study outcomes, and the cost of the intervention itself.**

To be funded in phase II, applicants would need to (i) provide evidence that the intervention has been successfully implemented (e.g., under a phase I grant, or similar effort) in a typical community setting; (ii) present prior evidence (even if preliminary) suggesting the intervention could produce meaningful positive effects at reasonable cost; (iii) include a researcher on the project team, in a key role, who has previously carried out a well-conducted, rigorous impact evaluation, preferably a randomized trial; and (iv) propose a valid study design likely to generate credible evidence about the intervention’s impact.

- 3) A phase III grant (e.g., \$3 - 7 million over 3+ years⁸) would fund a randomized replication trial of an intervention found to produce important impacts in a prior rigorous trial (e.g., in phase II).** Phase III would provide larger grants than in phase II, to enable a more comprehensive and longer-term study, but the number of such grants would likely be small since (as in innovative *technology* development) relatively few social interventions will have been found successful enough in phase II to merit such an investment. The main goals in phase III would be to (i) determine whether the prior positive impacts can be reproduced in a new sample and setting, and whether they endure long enough to constitute substantive improvement in people’s lives (both of which are key final elements needed for strong confidence in the intervention’s effectiveness); and (ii) identify reasons why the intervention produced its effects, the conditions and subgroups in which it is most effective, and its impacts on a broader set of outcome measures.

To be funded in phase III, applicants would need to establish that the intervention has been found, in a prior rigorous impact evaluation, to produce sizable positive impacts on outcomes of recognized policy importance such as educational achievement, workforce earnings, criminal arrests, child maltreatment, hospitalizations, etc. – and to do so at reasonable cost. Applicants would also need to meet the other criteria described above for a phase II grant.

In phase III, agencies could require or incentivize applicants to provide at least a partial match of funds from other sources (e.g. non-SSIR government funds, philanthropic funds). The goal is to establish that there are alternative sources of sustainable funding to scale up the intervention should the phase III replication prove successful and, over the longer term, to increase the share of government and private funding focused on practices backed by credible evidence.

- **Applicants could proceed sequentially through the phases or, alternatively, could apply for a phase II or phase III grant if they have already have the evidence base required for such a grant (developed through non-SSIR funds).**

Conclusion: Modeled on the successful SBIR program, this new program – SSIR – would infuse U.S. social spending with a critically-needed supply of entrepreneurial new ideas, rigorously shown to produce important improvements in people’s lives.

References

¹ *An Assessment of the Small Business Innovation Research Program*, Charles W. Wessner, Editor, Committee on Capitalizing on Science, Technology, and Innovation, National Research Council, National Academies, 2008.

² The Government Accountability Office has conducted numerous review of SBIR since the program's establishment in 1982, the results of which are summarized in *Federal Research: Observations on the Small Business Innovation Research Program*, Government Accountability Office, GAO-05-861T, June 2005.

³ Illustrative examples include Head Start (HHS), Job Corps (DOL), and Upward Bound (DoED). Mike Puma, Stephen Bell, Ronna Cook, Camilla Heid, Pam Broene, Frank Jenkins, Andrew Mashburn, and Jason Downer, *Third Grade Follow-up to the Head Start Impact Study Final Report*, OPRE Report # 2012-45, Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, 2012. Peter Z. Schochet, John Burghardt, and Sheena McConnell, *National Job Corps Study and Longer-Term Follow-Up Study: Impact and Benefit-Cost Findings Using Survey and Summary Earnings Records Data: Final Report*, submitted by Mathematica Policy Research to the U.S. Department of Labor Employment and Training Administration, August 2006. Neil S. Seftor, Arif Mamun, and Allen Schirm, *The Impacts of Regular Upward Bound on Postsecondary Outcomes 7-9 Years After Scheduled High School Graduation: Final Report*, submitted by Mathematica Policy Research to the U.S. Department of Education, January 2009.

⁴ *The Nation's Report Card: Trends in Academic Progress 2012*, NCES 2013-456, National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, 2013.

⁵ Cornman, S.Q., and A.M. Noel, *Revenues and Expenditures for Public Elementary and Secondary School Districts: School Year 2008-09 (Fiscal Year 2009)* (NCES 2012-313). U.S. Department of Education. Washington, DC: National Center for Education Statistics, 2011. Richard H. Barr, *Revenues and Expenditures for Public Elementary and Secondary Education, 1973-74* (NCES-76-140). U.S. Department of Health, Education & Welfare, National Institute of Education. Washington, DC: National Center for Education Statistics, 1976.

⁶ DeNavas-Walt, Carmen and Bernadette D. Proctor, U.S. Census Bureau, Current Population Reports, P60-249, *Income and Poverty in the United States: 2013*, U.S. Government Printing Office, Washington, DC, 2014. U.S. Census Bureau, *Official and National Academy of Sciences (NAS) Based Poverty Rates: 1999 to 2011*, 2012. Kathleen Short, U.S. Census Bureau, HHES Division, *Estimating Resources for Poverty Measurement, 1993 – 2003*, 2005. Panel on Poverty and Family Assistance, National Academy of Sciences, *Measuring Poverty: A New Approach*, 1995, pp. 31-36. Christopher Wimer, Liana Fox, Irv Garfinkel, Neeraj Kaushal, and Jane Waldfogel, *Trends in Poverty with an Anchored Supplemental Poverty Measure*, December 2013.

⁷ U.S. Census Bureau, Current Population Reports, 2014, op. cit., no. 6. This refers to inflation-adjusted income. It includes income from the economy (such as earnings) but not government transfers (such as Food Stamps). However, the evidence suggests that the overall story of income stagnation for the bottom 40% of households changes little even when one adjusts income for government transfers and other items that affect household living standards. Specifically, Wimer et. al. (op. cit., no. 6) conduct an assessment of the U.S. poverty rate that makes adjustments for government transfers, as well as other appropriate factors such as state and local taxes, work expenses such as child care, out-of-pocket medical expenses, and geographic differences in housing costs, based on an approach developed by a National Academy of Sciences panel. These adjustments change the poverty rate in any given year, as well as the composition of those in poverty, but do not change the overall trend in the poverty rate since the late 1970s – i.e., little overall progress. Although this analysis only applies to a subset of the bottom 40% of U.S. households (i.e., those in poverty), its corroboration of no meaningful improvement for that key subset suggest that similar findings would be obtained for the larger group.

⁸ In appropriate cases, agencies could make larger or smaller grant awards than the ranges shown in the text, to account, for example, for the wide variation in cost of developing different types of interventions (e.g., schoolwide reform programs versus text-messaging reminders to students).