September 14, 2018

Margaret Weichert
Deputy Director for Management
Office of Management and Budget
725 17th Street, NW
Washington, DC 20503

RE: OMB Notice of Request for Information: Establishing a Government Effectiveness Advanced Research (GEAR) Center (83 FR 38183)

Dear Deputy Director Weichert:

On behalf of the American Psychological Association (APA) and its 115,700 members and affiliates, we would like to thank the Office of Management and Budget (OMB) for the opportunity to provide input on the design and implementation of the Government Effectiveness Advanced Research (GEAR) Center. The GEAR Center's mission to apply research to improve mission delivery, citizen services, and stewardship of public resources is essential for guaranteeing the federal government's ability to address the pressing societal issues of today and the opportunities of tomorrow.

The American Psychological Association is the largest scientific and professional organization representing psychology in the United States, with a mission to advance the creation, communication, and application of psychological knowledge to benefit society and improve people's lives. In that spirit, we submit the following recommendations and eagerly await additional detail on the GEAR Center. We look forward to maintaining a dialogue with OMB and the Center with the goal of increasing the efficiency and performance of the federal government through the application of psychological science.

Beginning on the following page, we are pleased to offer comments on the questions posed in the Request for Information.

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Informing the GEAR Center

1) **Given the mission of the GEAR Center, what should be:**

   - **Specific areas of innovation and practice to prioritize? For example, we anticipate an early focus on reskilling the Federal workforce and growing the economy through appropriate commercialization of Federal data.**
     - As recommended in the final report of the Commission on Evidence-Based Policymaking, the GEAR Center should work with federal agencies to develop multi-year learning agendas that support the generation and use of evidence. More effective evidence development at the federal agencies will aid the GEAR Center in its ongoing evaluation of policy and processes.
     - The GEAR Center should promote the integration of "organic" and administrative data with survey data. The integration of survey and non-survey data was specified by the National Academies as increasingly necessary, but also carrying risks as detailed in the report, Innovations in Federal Statistics. For example, the Census Bureau currently uses administrative and organic non-survey data collected via passive and active methods to fill in missing data, add content and context, create and extend panels, and improve traditional surveys. Adapting traditional survey data collected by the federal government to include such organic and administrative data will provide more accurate information to the mission-driven federal agencies and allow for increased efficiency in the delivery of the services they administer. Further, having the GEAR Center focus on the integration of organic and administrative data with traditional survey data will also aid in addressing the pressing ethical issues of such data linkages, particularly relating to consent, identifiability, and privacy.

2) **How should a GEAR Center be operationalized, including its structure, such as a physical center, a network, a consortium of institutions, or other approaches?**
     - The GEAR Center should adopt recommendations from the Commission on Evidence-Based Policymaking's final report, including establishment of a Chief Evaluation Officer tasked with coordinating evaluation and policy research.
     - The GEAR Center should adopt best practices and evidence from industrial and organizational (I-O) psychology. For example, a recent meta-analysis examining roughly 14,000 teams found that hierarchy was generally associated with negative effects on team performance. A meta-analysis of more than 300,000 organizations demonstrated a modest, but reliable negative relationship between turnover and organizational performance, suggesting the structure of the GEAR Center should also prioritize continuity among staff in its structure.

3) What models of public-private partnership should inform the GEAR Center:

- **What sectors, stakeholders, types of expertise, and networks or programs should be involved?**
  - The GEAR Center should leverage the expertise of the academic, private, public, industry, and non-profit sectors to ensure that a wide range of diverse perspectives and backgrounds are referenced in the design and implementation of the Center. Scientific societies, such as APA and the American Association for the Advancement of Science (AAAS), commonly gather experts to tackle pressing issues while generally also having greater familiarity with federal government agencies and functions than academic scientists. OMB should maintain a dialogue with scientific societies to ensure receipt of the best evidence and access to leading experts.
  - Importantly, psychological science will play an essential role in the success of the Center. For example, Division 14 of APA (Society for Industrial and Organizational Psychology; SIOP) advocates the scientist-practitioner model in the application of psychology to organizational and workplace settings, such as manufacturing, commercial enterprises, labor unions, and public agencies. SIOP members, and I-O psychologists generally, work across a variety of domains relevant to the work of the GEAR Center, including testing and assessment, training, leadership development, staffing, management, teams, compensation, workplace safety, diversity, and work-life balance. Applied psychologists, from SIOP and other sectors, represent an essential voice in both the thoughtful design and implementation of the Center as well as its continued functioning following the implementation phase.
  - Educational psychologists will also be necessary for achieving the GEAR Center's goals, particularly those relating to workforce training. Educational psychologists are experts on how people learn and retain knowledge. Division 15 of APA (Educational Psychology) focuses on education research and its application, including training and retraining of workers.
  - Finally, applied experimental and engineering psychologists also have an important role to play in the design and implementation of the GEAR Center. Division 21 of APA (Applied Experimental and Engineering Psychology) examines the application of psychological research to improve the ability of humans to operate more effectively in a technological society. Applied experimental and engineering psychologists study human performance across a range of areas, including communications, decision making, and computer information systems; workplaces; medical and health care settings; and consumer product design.

4) **What examples already exist that serve a purpose similar to the GEAR Center, whether for governments or other institutions:**
    - From the Obama Administration, the Social and Behavioral Sciences Team (SBST), a subcommittee of the National Science and Technology Council (NSTC), convened members from the Departments of Agriculture; Education; Energy; Health and Human Services; House and Urban Development; Justice; Labor; Treasury; and Veterans Affairs. The SBST was tasked with applying behavioral and social science research to advance policy across the Federal government. To accomplish its stated purpose, the SBST's priorities were to identify opportunities for Federal agencies to leverage behavioral and social science, demonstrate the impact of these applications on program outcomes, report to oversight bodies on the results and implications of the applications, and coordinate with experts in the Office of Science and Technology Policy (OSTP) and NSTC committees. The SBST completed projects aimed at strengthening retirement security, improving college access and affordability, advancing economic opportunity, and ensuring the cost-effectiveness of government operations. Summaries of the SBST's work are available for 2015 and 2016.
    - The Lab @ DC is a team of behavioral and social science research scientists in the Office of the City Administrator in the Executive Office of the Mayor in Washington, DC tasked with using scientific insight and methodology to pilot and evaluate policies aimed at increasing government efficiency. The Lab @ DC is funded through a grant from the Laura and John Arnold Foundation, a private philanthropic organization. The Lab @ DC collaborates with both public and private entities, including agencies, universities, industry groups, non-profits organizations, and local community groups.

    - **How might such examples be replicated, scaled, connected, or more systematically leveraged?**
        - Although the SBST was implemented under the NSTC, OSTP primarily provided oversight of the SBST's work. Accordingly, OSTP should play a central role in the design and implementation of the GEAR Center in order to leverage the experience and knowledge gained through the SBST's work under OSTP during the Obama Administration.
        - The National Center for Advancing Translational Sciences (NCATS), within the National Institutes of Health (NIH), works to translate evidence from the lab into practice. NCATS' work can inform the design and implementation of the GEAR Center given its unique role and experience in scaling up interventions for use in the larger health care system. NCATS' Clinical and Translational Science Awards are an example of mechanisms for encouraging efforts to scale up interventions.

- **Opportunities for the Government to learn more about these examples, such as through a demonstration, virtual interaction, or other method?**
  - OMB should contact and integrate previous members of the SBST into the design and implementation of the GEAR Center to leverage the members' experience and expertise in promoting evidence-based policy through the federal government. Given the strong overlap in mission, the SBST members represent an invaluable resource for OMB in designing and implementing the GEAR Center.
  - Publicly-available data from The Lab @DC is accessible via the Open Science Framework. The Open Science Framework (OSF) is a free, open source service of the Center for Open Science aimed at aligning scientific practices with the scientific values of openness, integrity and reproducibility of research. The available files cover a broad range of programs and initiatives that could inform the design of the GEAR Center.

Establishing the GEAR Center

5) What model should be used to establish a GEAR Center, including:

- **If the Government were to pursue a challenge or other open competition, the key considerations in establishing a panel of judges?**
  - The panel of judges should represent the perspectives of all potential stakeholders for the Center. For example, the Patient-Centered Outcomes Research Institute's (PCORI) 21-person Board of Governors includes: three representing patients and health care consumers; seven representing physicians and providers, including four representing physicians (at least one of whom is a surgeon), one nurse, one state-licensed integrative healthcare practitioner, and one representative of a hospital; three representing private payers, of whom at least one member shall represent health insurance issuers and at least one member shall represent employers who self-insure employee benefits; three representing pharmaceutical, device, and diagnostic manufacturers or developers; one representing quality improvement or independent health service researchers; and two representing the federal government or the states, including at least one member representing a federal health program or agency. If OMB chooses to pursue a competition model, for example, the GEAR Center's panel of judges should include members with psychological training, with at least one I-O psychologist member.

Anticipated Early Focus Areas

6) What models, approaches, and opportunities should inform an anticipated early focus on reskilling and upskilling Federal employees? For each question, please cite any available data or research to support your answer.

- **What are leading practices for effective reskilling, upskilling, and training adult workers, including opportunities for new applications of existing models?**
  - Truxillo, Cadiz, & Hammer (2015) examined the literature on workplace interventions appropriate for aging populations, including "physical, cognitive, personality, and motivational changes; life-span development theories; age stereotyping; age diversity; and work–life balance." However, the authors cautioned that development of best practices for supporting the aging workforce is still a work in progress.

- **What approaches could be piloted for possible application and scalability across the Federal sector in various learning domains (e.g., cognitive, affective, behavioral) – such as gamification, use of massively open on-line courses (MOOCs), apprenticeship models, and other new approaches?**
  - Surface (2012) discusses training needs assessment (TNA) with steps critical for determining the potential for effective training. The steps include identifying the issue necessitating the training, determining whether a particular strategy is appropriate for the training goal, defining the parameters of the training objective, and evaluating the prospective training.
  - Although "gamification" has become a popular term, Deterding et al. (2011) narrowly defined gamification as "the use of game design elements in non-game contexts."
  - Using that definition, Armstrong and Landers (2018) examined gamification of employee training and development. Their review of the existing research demonstrated that, when used correctly, gamification components, including "points, badges, leaderboards, challenge, narrative, and immersion" generally produced positive training effects. Landers (2014) provides guidance for selecting appropriate gamification components following a TNA.
  - Importantly, Armstrong and Landers note that "gamification will be most effective when it is used in conjunction with instructional design principles; simply adding game elements to training without carefully reasoning through the psychological impacts is unlikely to lead to desirable change and may even harm outcomes." Crucially, as Armstrong and Landers warned, it is also imperative to identify evidence-based gamification mechanisms used in training versus commercialized, superficial gamification methods.

7) **For an anticipated early focus on how Federally owned data could help transform society and grow the economy:**

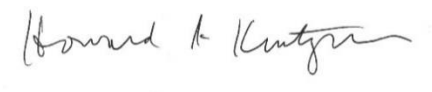
- **Are there opportunities for the Federal government to partner with the private sector to improve data architecture/taxonomy, and data quality/hygiene?**
  - The Social and Decision Analytics Laboratory (SDAL), housed within the Biocomplexity Institute of Virginia Tech, combines statistical expertise alongside behavioral and social science research to promote evidence-based policy across a variety of topics, including health and industrial innovation. SDAL partners with public and private organizations, including Arlington County (Virginia), Procter & Gamble, the Robert Wood Johnson Foundation, the U.S. Census Bureau, and the Department of Housing and Urban Development. Collaboration between SDAL and the Census Bureau resulted in a report Leveraging External Data Sources to Enhance Official Statistics and Products.

- **Are there specific data sets that could be further leveraged by the Federal government, start-ups, and the public – that, once scaled, have a significant potential to contribute to the greater good (bolster the economy, improve population health, provide services to the general public, etc.)?**
  - The American Community Survey (ACS) is updated annually with information on social, housing, economic, and demographic information on the American population. Each year, ACS data are used to determine the dissemination of more than $675 billion in federal and state funds.
  - The National Institutes of Health-funded Neighborhood Atlas, housed at the University of Wisconsin, is currently used by the U.S. Centers for Medicare and Medicaid Services to inform local operations and targeting strategies for the Everyone with Diabetes Counts program and to predict the increased likelihood of a discharged patient from a disadvantaged neighborhood to need re-hospitalization. The Neighborhood Atlas is built on data from the American Community Survey.
  - The General Social Survey (GSS) is a regular, ongoing interview survey of U.S households conducted by the National Opinion Research Center (NORC). The GSS contains a Quality of Worklife module conducted in collaboration with the National Institute for Occupational Safety and Health (NIOSH) and the National Science Foundation (NSF) that includes items on work hours, workload, worker autonomy, layoffs and job security, job satisfaction, job stress, and worker well-being. Importantly, the module also includes items on the use of technology at work. These items could help the GEAR Center examine the shifting roles of technology in the workplace, particularly relating to identifying workplace needs

and the psychological and economic responses of workers to changes arising from the rapid development of automation and artificial intelligence.

We hope this information is helpful. If there are additional areas in which APA can assist or provide support in the ongoing design and implementation of the GEAR Center, please contact Dr. Steve Newell, Senior Legislative and Federal Affairs Officer, APA Science Directorate, at Snewell@apa.org or (202) 507-7175.

Sincerely,



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