Putting Social and Behavioral Science to Work for America

10 Recommendations to the Biden Administration

COSSA
CONSORTIUM *of* SOCIAL SCIENCE ASSOCIATIONS

www.COSSA.org • www.WhySocialScience.com

DECEMBER 2020

Putting Social and Behavioral Science to Work for America

From COVID-19 to racial inequity, climate change to a struggling economy, a disrupted educational system to record-breaking unemployment, the country finds itself in urgent need of immediate policy solutions—solutions that are based on unbiased, sound, and reliable science. Fortunately, there is virtually no aspect of human life that cannot be informed by research in the social and behavioral sciences.

The COVID-19 pandemic has shown that "business as usual" policies and practices, even when it comes to science, are not enough. The Biden-Harris Administration has before it an opportunity to strengthen the U.S. scientific enterprise by making it more sustainable, diverse, and responsive to emerging needs. By investing in and utilizing social and behavioral science insights, the incoming administration can put *people* back at the center of policymaking.

The **Consortium of Social Science Associations** (COSSA) is pleased to offer the following recommendations to the incoming Biden-Harris Administration of tangible steps the administration can take to achieve meaningful results using insights derived from the social and behavioral sciences. COSSA and the social and behavioral science research community stand ready to assist the incoming administration "Build Back Better," tackling the most critical near- and longer-term challenges with the help of science and evidence.

▶ Summary of Recommendations

I Restore Trust in Science and Government Data

From "alternative facts" to "Sharpie-gate," Americans have been bombarded by messages from the nation's highest office that truth and science are malleable. This dynamic has reached tragic extremes amidst a global pandemic that sees Americans dying of a disease many do not believe is real.

The Biden Administration can begin the process of undoing the damage caused by the last Administration by taking concrete action to strengthen the integrity and independence of the government's scientific and data enterprise. COSSA makes the following recommendations for ways the Biden Administration can act to restore trust in government by restoring trust in science and government data.

RECOMMENDATION 1 ► Reverse the damaging policies of the last administration and rebuild the scientific enterprise.

Restoring public trust in science and data must be central to the Biden Administration's efforts to effectively respond to COVID-19 and other national challenges. Policies and practices implemented by the Trump Administration have undermined scientific integrity and politicized scientific findings. The reliance on political appointees over scientific experts, issuance of uninformed executive orders, and similar actions taken over the last four years have all weakened the federal government's credibility for effectively using science to inform decision-making. Major attrition in the federal science workforce and reports of political appointees being empowered to revise reports and recommendations of independent advisory bodies are just two examples of the troubling state of today's federal science enterprise.

Appended to this report is a list of Executive Orders, regulations, and other actions taken by the Trump Administration that need to be addressed in the **first 100 days** of the Biden Administration to mitigate further damage to the federal scientific enterprise and allow for rebuilding (see Appendix A).

► ACTION   Rescind or reverse harmful Executive Orders, regulations, and policies implemented by the last Administration that are damaging to the scientific enterprise and its ability to reliably inform policy.   **FIRST 100 DAYS**

RECOMMENDATION 2 ► Recommit to the use of well-qualified, independent, unbiased scientific advice in effective policymaking.

The American public deserves a government that uses science as a tool for progress, rather than an instrument for advancing political agendas. The Biden Administration can lead in this respect **by operating under the principle to seek out and employ scientific advice that is independent, credible, and free from politics.**

As noted above, Trump Administration executive orders and other actions have hindered the ability of the federal government to receive unbiased, politically neutral scientific advice. Over the last four years, scientific advisory committees and task forces have been stacked with appointees having little to no relevant science background, while other advisory bodies have been effectively terminated altogether.

► ACTION   Reconstitute lapsed and eliminated advisory committees for science and statistical agencies.   **FIRST 30 DAYS**

The Advisory Committees in need of immediate attention include, but are not limited to:

- The **Office of Justice Programs (OJP) Science Advisory Board** (SAB), which offered external reviews of and recommendations for OJP research, statistics, and grant programs, including the Bureau of Justice Statistics (BJS) and the National Institute of Justice (NIJ), has not been renewed since its charter expired in 2018.
- The **Advisory Council on Transportation Statistics** (ACTS), which provided expert input and recommendations to the Bureau of Transportation Statistics (BTS), was terminated by the *FAA Reauthorization Act of 2018*.
- The **Environmental Protection Agency (EPA) Science Advisory Board** has been a particular target of scientific suppression under the Trump Administration. In addition to the dismissal of scientific experts from the Board and appointment of others with questionably relevant background, EPA has proposed several problematic rules that seek to restrict the use of scientific studies in EPA decision-making.
- The **National Board for Education Sciences** is the advisory body for the Institute of Education Sciences (IES) and had been without a quorum of members since 2016, making it unable to meet and advise IES on its activities and policies. The Trump Administration recently appointed individuals who do not meet the qualifications set out in the Board's authorizing legislation.[1]

Federal advisory bodies, including the President's Council of Advisors for Science and Technology (PCAST), federal agency committees, and specialized task forces like the COVID-19 task force, should be populated with experts selected for their independence and expertise in a given field. Experts chosen to advise the federal government should be assured that (1) their participation matters and their expertise is taken seriously, (2) their advice is reaching decision-makers who can use it, and (3) their advice will not be altered to fit a political agenda. In other words, policymakers may choose not to act on the advice of experts; however, never should they alter expert recommendations or advice in order to fit a narrative.

In addition to formal federal advisory activities, the Biden Administration should explore other ways to tap into the rich scientific expertise found in U.S. universities and research laboratories. For example, the Administration could consider establishing working groups or convening regular meetings—perhaps under the auspices of the White House Office of Science and Technology Policy—as additional venues for receiving scientific input, while at the same time providing opportunities for the Administration to share its activities and needs with the non-government science community.

▶ **ACTION** — Ensure federal agencies and officials have access to objective, unbiased external expertise by reinforcing the independence of federal advisory bodies and other scientific advisors to the federal government. **FIRST YEAR**

RECOMMENDATION 3 ▶ Protect the integrity, stature and independence of the federal statistical system to preserve trust in federal data.

One of the most important lessons of the past few years is that accurate, unbiased information is essential to a strong democracy—and a healthy economy. The federal statistical system serves this purpose by producing data on essentially every significant industry and sector in America—data that is credible, relevant,

---

[1] https://www.aera.net/Newsroom/AERA-Highlights-E-newsletter/AERA-Highlights-December-2020/Trump-Appointments-to-NBES-Raise-Serious-Concerns-on-Appropriate-Expertise-on-Education-Research

comprehensive, precise, accurate, representative, and timely. Official government statistics serve as a public good by providing information that everyone can trust and agree on, regardless of politics.

To restore the objectivity and reliability of government data, the Biden Administration must prioritize protecting the stature and autonomy of U.S. federal statistical agencies.

While generally housed within larger agencies and departments (such as the National Center for Health Statistics within CDC), the principal statistical agencies' longstanding role has been to serve as an independent, unbiased source for statistical information. The Office of Management and Budget (OMB) Statistical Policy Directive No. 1 states that federal statistical agencies, regardless of how deeply they are embedded within departments, "must be able to conduct statistical activities autonomously when determining what information to collect and process, the physical security and information systems security employed to protect confidential data, which methods to apply in their estimation procedures and data analysis, when and how to store and disseminate their statistical products, and which staff to select to join their agencies."[2]

However, some statistical agencies, including the Bureau of Transportation Statistics (BTS), National Center for Education Statistics (NCES), Bureau of Justice Statistics (BJS), and Census Bureau, have lost ground over the past several years, as **control over their budgets, publications, hiring, and IT infrastructure has been ceded to their parent agencies**. It is essential to restore the autonomous operation of these agencies, which are bound by a different set of responsibilities than their home agencies and departments.

▶ ACTION   To prevent the appearance of political interference, give statistical agencies the authority to operate independently within their respective departments and agencies.   **FIRST YEAR**

The Biden Administration has the opportunity to earn back the public's trust in government data and statistics by working to build firewalls between the statistical and political functions of federal agencies.

A number of high-profile actions taken by the previous administration have shaken the public's trust in the objectivity of government data. The Trump Administration's decision to abruptly relocate the headquarters of the **Department of Agriculture's Economic Research Service** (ERS), which gutted the agency, was viewed by many as an attempt to hobble the agency's ability to produce independent research that could be unflattering to the Administration's policies. Further, the Administration's repeated attempts to gather citizenship information on the **2020 Census** shook the trust of some of the most vulnerable communities in the confidentiality of data collections. Additionally, the President broke with decades of precedent by alluding to unemployment rates before the **Bureau of Labor Statistics'** scheduled release, raising concerns about the government's ability to keep sensitive economic indicators free from politics.

While the damage done to the reputation of the statistical system will take time to undo, one action the Biden Administration can take immediately is to eliminate the politically appointed roles at the Census Bureau created by the Trump Administration. These include positions of Deputy Director for Policy, Senior Advisor to the Deputy Director for Policy, Deputy Director for Data, and counselor to the Bureau's director.

---

[2] https://www.federalregister.gov/documents/2014/12/02/2014-28326/statistical-policy-directive-no-1-fundamental-responsibilities-of-federal-statistical-agencies-and

▶ ACTION   Eliminate the politically appointed advisory positions within the Census Bureau added by the previous Administration.

FIRST
100
DAYS

❚❚ Champion Diversity, Equity, and Inclusion in Science

RECOMMENDATION 4 ▶ Use social and behavioral science to **build a diverse and inclusive U.S. scientific enterprise** that reflects the diversity of the American population.

We know from social and behavioral science research that our country is governed by social systems that were designed to bestow advantages and disadvantages unequally. The social and behavioral sciences have helped to illuminate those structural inequities and the harms that they create; however, the scientific community has failed to effectively apply these insights to address the inequities within the scientific enterprise itself. **The strength of the social and behavioral sciences can and should be brought to bear on our collective efforts to identify the factors driving systemic racial, ethnic, gender, and other inequities, including within science.**

As reflected in the 2019 edition of the *Women, Minorities, and Persons with Disabilities in Science and Engineering* report[3] prepared by the National Science Foundation, **women, persons with disabilities, and underrepresented racial and ethnic groups remain vastly underrepresented in science and engineering (S&E).** While women have achieved parity with men in S&E bachelor's degree attainment (with variation by field of study), women remain disproportionately underrepresented in the scientific workforce. African Americans, Hispanics or Latinos, and American Indians or Alaska Natives, although gradually increasing their share of science degrees, remain underrepresented in both educational attainment and the scientific workforce.

Unfortunately, the challenges of inclusion go beyond the individual. **Minority-serving institutions often lack the resources needed to build competitive science programs and research labs.** Historically Black Colleges and Universities, Hispanic-Serving Institutions, and Tribal Colleges and Universities disproportionately graduate students from ethnic minority backgrounds; however, many of these institutions have never received a federal research grant, significantly limiting their ability to recruit top faculty, support graduate students, and attract much-needed additional funding.

Efforts aimed at fostering a more diverse and inclusive scientific workforce have, to date, been inadequate in tackling the systemic barriers that have historically prevented participation of underrepresented populations in science.

Programs and initiatives for "broadening participation" in science have existed throughout the federal government for decades; however, they often are uncoordinated and underfunded, resulting in change that is incremental at best and often unbalanced across fields of study. To help secure our nation's place as the global innovation leader, we must find ways to encourage underrepresented populations to pursue science careers, not further marginalize them. We must learn more about what barriers they face, why they exist, and, most importantly, what we can do to eliminate them. To this end, COSSA recommends the Biden Administration partner with the National Academies of Sciences, Engineering, and Medicine to conduct a consensus study on systemic barriers to participation in science.

---

[3] https://ncses.nsf.gov/pubs/nsf19304

The 2007 National Academies' report *Rising Above the Gathering Storm*[4] and its focus on bolstering U.S. science and economic competitiveness had a major impact on federal funding and policy in the years following its publication. Today, the U.S. needs a "Rising Above the Gathering Storm" for rebuilding the U.S. scientific workforce. The National Academies' study should include a detailed roadmap for coordinated federal government action to increase diversity, equity, and inclusion in science.

▶ ACTION   Call on the National Academies of Sciences, Engineering, and Medicine (NASEM) to embark on a consensus study that proposes a roadmap for addressing systemic racism and other barriers to participation in academia and the scientific workforce.   **FIRST 100 DAYS**

In addition, the Biden Administration should develop a formal process for gathering input from stakeholders and coordinating action across federal agencies. This could take the form of a task force, perhaps under the leadership of the National Science and Technology Council, charged with developing and implementing a multi-year action plan for addressing social, cultural, economic, and other systemic barriers to inclusion in science. Creating such an activity under the NSTC will ensure the participation of all relevant federal agencies and departments. In addition, the task force should include members of the public with expertise in diversity, equity, and inclusion.

▶ ACTION   Appoint a national task force under the auspices of the National Science and Technology Council charged with developing and implementing an action plan for increasing diversity, equity, and inclusion in science.   **FIRST 100 DAYS**

While the longer-term efforts outlined above play out, the Biden Administration can take shorter-term action to address long-standing equity issues within the federal research enterprise. The Administration should mandate that all federal agencies responsible for making extramural research grants establish written policies for addressing diversity, equity, and inclusion in the grant-making process. For example, policies could include information on how review committees will be selected to ensure diverse representation, including scholars from underrepresented groups, small and large research institutions, and those specializing in multi-methodological research approaches (e.g., quantitative and qualitative research). These agency policies should be made publicly available.

▶ ACTION   Direct all grant-making science agencies to develop policies addressing diversity, equity, and inclusion in the grant-making process, and make those policies public.   **FIRST YEAR**

Finally—but of utmost importance—the Biden Administration must lead in shining a light on and once and for all eradicating the scourge of sexual harassment in science. The ***Combatting Sexual Harassment in Science Act*** was introduced in the 116th Congress to implement recommendations made in the National Academies' report *Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine*.[5] The bill proposed to authorize funding for additional research and data collection and encourage uniform policy guidelines for federal agencies that award more than $100 million in research grants.

---

[4] https://www.nap.edu/catalog/11463/rising-above-the-gathering-storm-energizing-and-employing-america-for
[5] https://www.nap.edu/catalog/24994/sexual-harassment-of-women-climate-culture-and-consequences-in-academic

▶ **ACTION**   Work with Congress to enact legislation addressing sexual harassment in science and provide adequate funding for implementation, including scientific research and data collection.   **FIRST YEAR**

RECOMMENDATION 5 ▶ Facilitate the collection of **demographic data that reflects how Americans view themselves**.

One of the most significant challenges in creating a more inclusive and equitable scientific enterprise is understanding the full scope of the problem. This is because our measurements are often based on incomplete or inadequate data. The Biden Administration can take steps to standardize and mandate (when appropriate) the collection of demographic information, including about race, ethnicity, gender identity, sexual orientation, and intersex status. Questions should reflect the scientific consensus regarding how Americans see themselves within these categories, and demographic data collection standards should be routinely reviewed to ensure questions conform to evolving best practices.

While enhancing collection of demographic data is certainly essential to building a more equitable STEM enterprise, it more importantly will provide the necessary information to improve diversity, equity, and inclusion across the federal government.

The Obama Administration developed a set of recommended revisions to the Office of Management and Budget's (OMB) 1997 Standards for the Classification of Race and Ethnicity.[6] Despite the years of research underlying these recommendations, the Trump Administration opted not to implement them and continued to utilize the 1997 standards. The Biden Administration should resume progress in collecting better data on Americans' race and ethnicity by ordering a review of the Obama-era recommendations and identifying necessary changes to better reflect America in 2021. Among the changes considered should be revisions to questions about Hispanic/Latinx and Middle Eastern/North African ethnicity. Revised standards should be implemented across federal government data collections.

▶ **ACTION**   Resume work to revise OMB race/ethnicity classification standards sidelined by the Trump Administration.   **FIRST 100 DAYS**

Progress toward standardizing and expanding data collection related to sexual orientation and gender identity (SOGI) was halted during the Trump Administration. The Biden Administration can resume efforts in this area by building on the work of the Federal Interagency Working Group on Improving Measurement of Sexual Orientation and Gender Identity in Federal Surveys[7] (originally established under OMB and reestablished as a subcommittee of the Federal Committee on Statistical Methodology) to set government-wide standards for question terminology and structure. OMB should also develop guidance requiring the collection of SOGI information in all federal data collections (when appropriate), including population-based surveys, administrative records, clinical records, and forms used to collect demographic data.

---

[6] https://www.federalregister.gov/documents/2016/09/30/2016-23672/standards-for-maintaining-collecting-and-presenting-federal-data-on-race-and-ethnicity
[7] https://s3.amazonaws.com/sitesusa/wp-content/uploads/sites/242/2014/04/SOGI_Research_Agenda_Final_Report_20161020.pdf

▶ **ACTION** Direct OMB to develop uniform standards for collecting data on gender identity, sexual orientation, and intersex status as well as guidance for the appropriate inclusion of these questions on federal data collections. **FIRST YEAR**

An immediate action the Biden Administration can take is to add questions related to gender identity and sexual orientation to the Census Bureau's American Community Survey (ACS). Under the Trump Administration, the Census Bureau denied the request of four federal agencies (Justice Department, Department of Housing and Urban Development, Environmental Protection Agency, and Centers for Medicare and Medicaid Services) to add these questions. The Biden Administration should direct the Census Bureau to reconsider its justification for refusing these requests and initiate efforts to collect SOGI data on the ACS.

▶ **ACTION** Add questions on gender identity and sexual orientation to the American Community Survey. **FIRST YEAR**

If we are to understand where the federal science and technology enterprise is falling short of its equity goals, we must have detailed information on who is participating and who is left out. The Biden Administration should direct all extramural research agencies to collect data on the demographics of applicants, investigators, panelists, and reviewers. When possible, this data should be anonymized and released to the public.

In particular, the National Science Foundation (NSF) does not currently collect the demographic data it needs to evaluate its own operations and success in funding, supporting, and attracting proposals from a diverse pool of applicants, despite recommendations made by Committees of Visitors and other advisors. The agency is unable to require submission of demographic information for PIs, panelists, and reviewers. NSF leadership, in consultation with the Social, Behavioral, and Economic Sciences directorate (SBE), external stakeholders, and the National Science Board, should review its collection of demographic data, make public recommendations to improve the quality of data, and implement improved data collection practices for grant applicants, reviewers, panelists, and recipients (among others). Requiring collection is not a necessary condition for achieving high levels of participation, and many social scientists have the expertise to support organizational or administrative reforms in this area.

▶ **ACTION** Standardize the collection of detailed demographic information across federal science grant-making agencies. **FIRST YEAR**

III Expand the Use of Social and Behavioral Science and Data in Decision-Making

The stated near-term priorities of the incoming Biden Administration—COVID-19, economic recovery, racial equity, and climate change—are all topics falling squarely within the purview of the social and behavioral sciences. Tackling these challenges will require an understanding of why and how humans behave as they do as individuals, groups, and within institutions, organizations, and society. Solutions will require that physical and natural science work hand-in-hand with social and behavioral science to provide policymakers with a complete picture of the human dimensions of these challenges and science-based strategies to address them.

The U.S. scientific enterprise—that is researchers within colleges, universities, and other research institutions, both public and private—has long been the leader in global innovation, thanks in large part to the federal government's decades-long, sustained investment in fundamental, basic research. However, bridging the chasm between scientific discovery and effective policy has proven harder to achieve. A more holistic integration of social and behavioral science expertise within and across the federal government can help bridge the gap between scientific discovery and policy.

While efforts were made during the Obama Administration to more fully utilize insights gleaned from the social and behavioral sciences, nearly all of those efforts were ended by the Trump Administration. The following recommendations suggest near-term actions the Biden Administration can take to reestablish the routine use of social and behavioral science insights in governing.

> ### ▶ See Appendix B Building Back Better with Social and Behavioral Science
>
> **COVID-19**
> - ▶ Limiting the Spread of Disease in Schools
> - ▶ Combatting Vaccine Misinformation
>
> **ECONOMIC RECOVERY**
> - ▶ The Unequal Impact of Student Debt on Black Households
> - ▶ Understanding Wealth Inequality
>
> **RACIAL EQUITY**
> - ▶ Feelings of Safety Increase at Diverse Schools
> - ▶ Strategies for Combatting Hate
>
> **CLIMATE CHANGE**
> - ▶ Encouraging Environmentally-Conscious Behavior
> - ▶ Historical Lessons for Coping with Climate Change

RESPONDING TO COVID-19

RECOMMENDATION 6 ▶ Apply insights from the social and behavioral sciences to **combatting the COVID-19 pandemic**.

Medical responses to the COVID-19 pandemic must be accompanied by behavioral and institutional changes. As with most emerging infectious diseases and pandemics, rarely is there a medical cure or intervention that can be deployed quickly enough to immediately alter the course of the outbreak. Instead, as we saw with the Ebola crisis and now COVID-19, it is institutional, organizational, and individual **behavioral change** that can help us gain control in these challenging situations. Social and behavioral science is being deployed as we speak to help address the pandemic. From communication and psychological research behind the merits of mass, voluntary social distancing, to the economics underlying the supply chains delivering lifesaving medical equipment and PPE, to modeling how labor markets can recover from the shocks of the pandemic, to the science that helps target assistance to the most vulnerable populations, findings from all of the social and behavioral sciences have been and will continue to be invaluable in helping us weather this crisis and, hopefully, mitigate the impacts of future crises through improvements in preparedness, planning, response, and recovery. But much more still needs to be done.

As the COVID-19 pandemic continues to impact every aspect of our lives, the Biden Administration must utilize the knowledge derived from the social and behavioral sciences to fully understand, shape, and mitigate the impacts of societal changes unleashed by the pandemic.

COSSA applauds the incoming Administration for putting science at the center of its COVID-19 response planning. However, notably absent from the **Biden Transition COVID-19 Advisory Board** is expertise in the social, behavioral, educational, and cultural dimensions of the pandemic. The Biden Administration—and the nation—would be best served with a board of advisors whose expertise reflects the multifaceted and interconnected dimensions of the crisis.

▶ **ACTION**   Appoint social and behavioral scientists to the Administration's COVID-19 Advisory Board and other scientific bodies to advise on and help coordinate the Administration's COVID-19 response.

FIRST 30 DAYS

Social science is needed at every stage of a pandemic response—and after. At the outset, social science can help address why denial and minimization at the individual or institutional level can worsen the consequences of impending events. In the midst of the pandemic, before we achieve widespread public availability of vaccines, the only way to prevent infections and death is through human and institutional behavior change (e.g., mask wearing, social distancing, adequate PPE, and well-developed deployment plans). Once a vaccine is developed and deployed, assuring the population of its safety and efficacy is the only way to guarantee success. The development of a COVID-19 vaccine is important for the long-term control and eradication of the virus and speaks to the overall promise of scientific research; however, vaccination itself is useless without trust and buy-in from the public.

The Biden Administration should utilize the social and behavioral sciences to coordinate federal support for the populations hardest hit by the pandemic, such as children, the elderly, and persons with disabilities. For example, the Administration should consider establishing a Children's Cabinet to use social and behavioral science evidence to inform and guide efforts to support children's positive educational, social, and emotional development and health, and instituting annual meetings on the state of child wellbeing, drawing upon the Interagency Task Force on Child and Family Statistics to inform this effort.

▶ **ACTION**   Include social and behavioral scientists in other advisory capacities related to the COVID-19 response effort, especially as part of efforts to address longer-term post-COVID-19 societal challenges.

FIRST YEAR

Once the nation begins moving past the immediate challenge of slowing and ultimately reversing infection rates, there remain countless unresolved long-term, human-centered challenges stemming from the public health crisis. Packed into "Build Back Better" is some notion of what "better" means—how local needs and burdens are balanced fairly against national interests. Attention and resources must pivot to the long-term impacts of the pandemic, including psychological trauma and disparities in access to care; learning loss; safely and equitably reopening schools, especially in the most vulnerable communities; the recovery of national and local economies; changes in place-based work culture; and the long-term impacts on hospitals and healthcare workers, to name just a few.

In addition, new research investments are needed to better understand the magnitude of the many challenges elucidated by the pandemic, including the spread of conspiracy theories, ways to combat disinformation campaigns, and how to address mistrust of science. Further, additional study is needed on the

effect of the pandemic on children, including children's experiences of illness and loss of family members, food insecurity, and homelessness, and on the social and academic impacts of distance learning. Particular attention is needed for children in communities of color disproportionately affected by the pandemic and children with special needs.

▶ ACTION　Invest in continued research into the short- and long-term impacts of the COVID-19 pandemic across federal science agencies.　**FIRST YEAR**

BUILDING SCIENTIFIC CAPACITY IN THE EXECUTIVE BRANCH

RECOMMENDATION 7 ▶ Embed social and behavioral science expertise throughout the federal government to inform and strengthen policy decisions.

Among the President-elect's first tasks should be to establish his White House-based scientific infrastructure, including appointing a **Science Advisor** who can immediately get to work on identifying ways to bring science and technology to bear on our most pressing national challenges. Given the unquestionably human-centered nature of today's most pressing challenges, the incoming President would be well-served by a Science Advisor who—if not from the social and behavioral sciences themselves—at a minimum, is finely attuned to the many ways these sciences contribute to a better understanding of people, their behavior, and society. Further, the Science Advisor should understand the broad range of methods used and evidence produced by the social and behavioral sciences and the various ways in which that evidence can be used to inform policy.

Once in office, the Science Advisor should be formally nominated to be **Director of the Office of Science and Technology Policy** (OSTP). A single individual serving in both capacities (one requiring Senate confirmation, the other not) provides critical continuity to ensure that the Administration's science priorities are well-articulated and efficiently implemented.

▶ ACTION　Appoint a Presidential Science Advisor/OSTP Director who understands the role of social and behavioral science in addressing our nation's most pressing challenges.　**DAY 1**

To ensure there is no delay in implementing the President's scientifically based response to COVID-19 and other national priority areas, **the President's Science Advisor/OSTP Director should be elevated to a cabinet position** or, at a minimum, be included in all meetings with Cabinet officials and other Assistants to the President for which there may be scientific relevance.

▶ ACTION　Elevate the position of Presidential Science Advisor/OSTP Director to cabinet level to ensure scientific solutions are considered when addressing all issues of national significance.　**DAY 1**

In the event the individual chosen as the President's Science Advisor/OSTP Director is not a social or behavioral scientist, the President-elect must ensure his science team is staffed at the highest level with expertise in these domains. To this end, COSSA recommends the creation of a new position within the Office of the OSTP Director that would provide regular advice and counsel on social and behavioral science findings related to Administration priorities. Given the undeniable centrality of human behavior and social systems to the challenges before us, the OSTP Director—and the President—should have regular consultation with a senior advisor with experience in these areas.

▶ **ACTION**   Create a new Senior Advisor for Social and Behavioral Science position within OSTP.

FIRST 30 DAYS

Still, populating OSTP with the right expertise for addressing the Administration's priorities is not sufficient for ensuring the federal government is doing all it can to pool its expertise in service of these priorities. Social and behavioral science expertise resides in nearly all departments and agencies across the federal government, including traditional "science agencies" (e.g., National Science Foundation and National Institutes of Health) as well as "mission agencies" (e.g., Department of Defense, Environmental Protection Agency, and Department of Education). During the Obama Administration, the National Science and Technology Council's (NSTC) Committee on Science included a Subcommittee on Social and Behavioral Sciences, which provided a forum for information sharing, problem-solving, and collaboration among agencies and departments across the government. The Trump Administration allowed that subcommittee's charter to expire, effectively terminating its official coordination role (the only subcommittees remaining are related to open science, physical science, biological science, and quantum information science). This has resulted in a marked decline in coordination among agencies related to social and behavioral science and a deemphasis of these sciences within the many agencies (e.g., DOD).

▶ **ACTION**   Officially reinstate the Social and Behavioral Sciences Subcommittee of the National Science and Technology Council's (NSTC) Committee on Science.

FIRST 100 DAYS

Once in office, the President should move expeditiously to appoint members to the President's Council of Advisors for Science and Technology (PCAST). The membership of PCAST should represent the breadth of the science and technology enterprise, with balanced representation from the social and behavioral sciences.

▶ **ACTION**   Appoint leading scholars in the social and behavioral sciences to the President's Council of Advisors for Science and Technology (PCAST) and other task forces and advisory bodies.

FIRST 100 DAYS

Created in the latter years of the Obama Administration, the White House Social and Behavioral Sciences Team (SBST)[8] worked to improve federal government program and policy efficiency. Among its accomplishments include a number of rigorously tested trials that show promise for improving retirement security, college access and affordability, criminal justice reform, assisting job seekers, assisting families in obtaining health coverage, and improving overall government effectiveness and efficiency. Further, through the appointment of fellows, the SBST provided an effective model for embedding scholars from institutions across the country into federal government work. While the General Services Administration's Office of Evaluation Sciences has continued this work in part, it lacks the prestige and resources afforded to the White House SBST. The SBST should be reinstated and enhanced under the Biden Administration to continue efforts to measure and ultimately increase the effectiveness of government programs.

▶ **ACTION**   Reinstate the White House Social and Behavioral Sciences Team or similar function in the Executive Office of the President.

FIRST YEAR

---

[8] https://sbst.gov

As the Administration takes shape over the next several months, we urge President-elect Biden to consider leaders who have expertise in social and behavioral science for appointment to senior Administration positions across the government. Incoming department and agency heads must be respected experts in their respective fields and appreciate the contributions social and behavioral science research make to their respective agencies and missions.

▶ **ACTION** Consider experts in the social and behavioral sciences for key cabinet, senior executive service, and other positions.

FIRST 100 DAYS

RECOMMENDATION 8 ▶ Promote strong stewardship of the federal statistical system.

As discussed in **Recommendation 3**, the decentralized structure of the federal statistical system places the agencies within larger mission-focused departments and agencies. How deeply agencies are embedded within their home departments varies widely from agency to agency. For example, while the Administrator of the Energy Information Administration (EIA) reports directly to the Secretary of Energy, the Director of the National Center for Health Statistics (NCHS) reports to the Deputy Director for Public Health Scientific Services who reports to the Director of the Centers for Disease Control and Prevention (CDC) who reports to the Secretary for Health and Human Services.

These varied reporting structures can affect the overall stature and authority a statistical agency carries and compromise its ability to reach senior officials. For example, departmental policies may prohibit agency leaders from speaking directly with cabinet-level or Congressional policymakers without authorization.

One way to enhance the stature of statistical agencies in their home departments is by reassessing the process for appointing agency directors. Currently, the directors of the EIA, the Bureau of Labor Statistics (BLS), and the Census Bureau require Senate confirmation, while the heads of the National Center for Education Statistics (NCES) and the Bureau of Justice Statistics (BJS) are presidential appointments (these two roles formerly required Senate confirmation).

Proposals have been made to elevate the positions of some agencies to the Senate confirmation or presidential appointment levels. These political appointments could be set to fixed terms that do not correspond to the presidential cycle to avoid the politicization of these positions (this is currently the case for the Census Bureau Director, who serves five-year terms). Alternatively, others have suggested requiring all statistical agency directors to be senior career employees, rather than political appointees, to preserve high-level technical knowledge at the top of these agencies and remove even the appearance of political influence in the selection of leading officials.

The Biden Administration should consult with relevant stakeholders, including the Committee on National Statistics (CNSTAT), to evaluate these and other proposals, working to balance the goals of raising the stature of statistical agencies nationally, internationally, and within their respective departments, and preserving the independence of statistical agency leadership.

▶ **ACTION** Consider, with consultation from the external community, altering the appointment process for statistical agency directors.

FIRST YEAR

Ultimately, the choice of individuals to lead the statistical system—both as directors of individual agencies and as Chief Statistician—will have a major impact on how well the statistical system is able to meet the challenges it faces. The Biden Administration should recruit candidates with strong leadership, management, and scientific skills; experience with federal statistical agencies; visibility and stature in the statistical community; who have an ability to interact effectively with Congress, senior Administration officials, and public- and private-sector stakeholders; and possess a thorough understanding of the National Academies' *Principles and Practices for a Federal Statistical Agency*.

▶ ACTION   Appoint statistical agency leaders who have demonstrated a strong commitment to the integrity of the federal statistical enterprise.

FIRST 100 DAYS

ENHANCING THE SCIENTIFIC AND DATA ENTERPRISE

RECOMMENDATION 9 ▶ Champion robust, sustained funding for research agencies and social and behavioral science research programs.

The U.S. scientific enterprise requires stable and predictable funding. While much-needed resources have been appropriated to federal science agencies to support priority COVID-related research as part of the pandemic response, resources have yet to be invested in restoring the research projects disrupted by the pandemic or in stabilizing the wellbeing of the scientific enterprise, and in particular, the scientific workforce. This is particularly severe for women and scientists of color, raising issues of disparate impact and long-term effects on science and on higher education institutions with substantially less resources (in particular minority-serving institutions) that train and employ scientists. The long-term funding challenges plaguing federal science agencies and programs have been exacerbated by the crisis. Even before COVID-19, federal science agencies have struggled with unpredictable funding year-to-year, annual budget caps on domestic spending, government shutdowns, and hiring freezes, especially over the last four years.

The decades-long decline in federal R&D spending, as a share of GDP, has added to the strain on the scientific enterprise that works every day to push the frontiers of science despite declining financial backing. Worse still, U.S. scientists are losing their competitive edge on the global stage, with other nations doubling down on science investments as a means for continued progress.

COSSA recommends doubling federal R&D spending, relative to GDP, over the next five years, consistent with the request of others in the science and technology community and the Science and Technology Action Plan[9].

▶ ACTION   Work with Congress to double federal R&D and STEM education funding, from 0.7% of GDP to 1.4%, over the next five years.

FIRST TERM

Even among scientific fields, the social and behavioral sciences have had to contend with particularly thorny funding challenges. Research programs in these areas have suffered from stagnant—even declining—budgets for decades. Of the $42 billion the federal government spends on research and development each year, less than 5% ($1.9 billion) goes to social and behavioral science research.[10] At the National Science Foundation—the largest single funder of basic social and behavioral science research in the U.S.—social and

---

[9] https://www.researchamerica.org/sites/default/files/ScienceTechnologyActionPlanFinalDecember2020.2.pdf
[10] National Center for Science and Engineering Statistics, Higher Education Research and Development Survey, FY 2018

behavioral science research represents only about 5% of the entire NSF research budget, while supporting roughly two-thirds of all federal funding for academic *basic research* in the social and behavioral sciences.[11] Further, as NSF continues to focus its attention on the promise of emerging technologies and convergence research, fundamental research in the social and behavioral sciences—supported by the Social, Behavioral and Economic Sciences Directorate and the Education and Human Resources Directorate—risks being overlooked in favor of more applied areas.

Similar trends exist at the National Institutes of Health, where behavioral and social science research is funded at varying levels across the institutes. The NIH Office of Behavioral and Social Sciences Research plays an essential role of assisting the NIH in coordinating and supporting behavioral and social science research initiatives throughout the agency; however, the office has limited autonomy and a budget that has remained essentially unchanged for the past decade. Within the institutes and centers, NIH funding primarily supports applied behavioral science in research on outcomes such as chronic disease, cognition, addiction, stress and trauma, and mental health. Funding for *basic* behavioral science has not kept pace with increases in overall NIH funding. Funding for the sciences that address social, economic, and other contextual drivers of health and disease has fared even worse. These sciences are crucial to understanding and improving population health, reducing health disparities, and embracing the NIH mission to "seek fundamental knowledge about the nature and behavior of living systems." In the context of the COVID-19 pandemic, they are essential to understanding the disparate impact on different population groups and the long-term consequences for the health and well-being of the U.S. population. We ask the Biden Administration to encourage NIH to leverage contributions from the full range of behavioral and social sciences in advancing its mission.

Less evident—though no less important—is the extent to which other federal departments and agencies support or otherwise utilize social science research. Operational or "mission" agencies, such as the Department of Agriculture, Department of Education, or the Centers for Disease Control and Prevention, often use or support research in service of their agency's mission. As just one example, research on food insecurity, an area of focus at the Department of Agriculture, has become even more central to understanding the pandemic's effects on families and will continue to be important for monitoring the recovery. This science touches all sectors, from national defense to agriculture, health, education, and justice.

The Biden Administration should prioritize investments in the social and behavioral sciences—particularly basic research—in its planning for federal R&D across the government.

▶ ACTION   Direct federal agencies to increase funding for social and behavioral science research, beginning with the FY 2022 budget request to Congress.

RECOMMENDATION 10 ▶ Strengthen federal statistical and data infrastructure.

The federal statistical system faces a challenging landscape: rising survey costs, declining response rates, and competition from the private sector face off against increased demand for more detailed information across a growing breadth of topics and variables and a complex privacy and cybersecurity environment. Years of underinvestment in statistical infrastructure and bureaucratic hiring restrictions only compound these difficulties.

---

[11] Excluding psychology

The Biden Administration can help the statistical system confront these challenges by making robust investments in statistical innovation and modernization and lowering barriers to hiring and retaining highly trained staff.

Statistical agency budgets are rarely a target for aggressive investment in Presidential budget requests, with attention and funds being drawn to more high-profile programs and initiatives. Congress too has elected to keep statistical agency budgets more or less flat, with occasional increases or cuts (with the Census Bureau, on its decadal ramp-up/ramp-down cycle being a notable exception). Yet the accruing impact of years of benign neglect has meant that many statistical agencies have lost significant purchasing power compared to several years ago, even as costs rise. To cite just a few examples:

- The Bureau of Justice Statistics (BJS) has lost 30 percent of its purchasing power since FY 2009.
- The Bureau of Transportation Statistics (BTS) has lost 37 percent of its purchasing power since 2003 and faces a several-million-dollar budget shortfall in FY 2021.
- The "statistics" budget line of the National Center for Education Statistics (NCES) has depreciated in value more than 25 percent since 2010.
- The National Center for Health Statistics (NCHS) has lost 12 percent of its purchasing power since FY 2010.
- The Bureau of Labor Statistics (BLS) budget was essentially flat from FY 2010-FY 2020, leading to a 12 percent decrease in the agency's purchasing power. While the agency received a meaningful funding increase in FY 2020, it needs a predictable funding trajectory to effectively plan for future investment.

In addition, federal and departmental hiring freezes and restrictions have led to significant attrition at statistical agencies, as experienced staff leave without the ability (or funding) to hire or train replacements. For example:

- When the Trump Administration moved the headquarters of the Economic Research Service (ERS) out of the DC area, ERS experienced a 70 percent attrition of staff and managers whose positions were relocated, particularly among the most experienced, longest serving staff. Only three of the agency's 15 branch chiefs stayed on. All told, ERS lost more than 2,000 years of experience in FY 2020.
- BTS faces a cap on full-time equivalent staff (FTEs), resulting in a shortage of internal capacity and diminishing the agency's ability to keep pace with advancements in statistical science.
- NCHS needs the ability to bring on specialized IT staff to allow it to make informed decisions on technology upgrades and contracting necessary to integrate external data sources (like electronic health records) into its existing systems.
- A staffing shortage at NCES has left the agency with fewer than 95 FTEs to manage a $260 million budget, leading to an overreliance on contractors. NCES needs the flexibility and resources to hire and train in-house staff to retain critical expertise within the agency.

The Biden Administration should make investment in statistical agency budgets a priority in its annual budget requests to Congress and assist agencies in cutting through departmental red tape in order to attract and retain the best candidates and staff up to full capacity.

▶ **ACTION**   Ensure federal statistical agencies have sufficient resources to meet their mandates and thrive.   **FIRST TERM**

Providing adequate resources and staffing is just the first step in reinvigorating America's statistical infrastructure. The Biden Administration must also put those resources to use by **incentivizing innovation and modernization** within the principal statistical agencies. This includes encouraging statistical agencies to modernize their legacy sample surveys—while still keeping them in the field to maintain data series comparability—as well as **investing in the next generation of statistical products** that capitalize on the availability of new data sources, machine learning, and advances in statistical methodology. In addition, the Administration should encourage agencies to explore ways to release data more quickly, such as in the form of provisional data, and in formats that meet different user communities' needs. The Administration should also commission the National Academies of Sciences, Engineering and Medicine to assemble a panel on university-government partnerships that will accelerate the deployment of next-generation products and services.

As the COVID-19 pandemic has demonstrated, we will never be able to completely predict what all of our future data needs and priorities will be. Statistical agencies need to be ready to shift gears and collect critical data on emerging issues and unforeseen topics. In response to COVID-19, the Census Bureau launched its household and business "pulse" surveys to quickly gather information on the pandemic's local impacts, NCHS used its existing data systems to track excess deaths, and BLS created surveys to track the impact on businesses. The Biden Administration should build on this progress and encourage statistical agencies to **put in place policies and systems that will allow them to nimbly respond to unanticipated data needs** in the future.

The Biden Administration must also ensure that investments in innovation of statistical products are coupled with the **development of cutting-edge protections to prevent the disclosure of sensitive information**. This includes continued research into techniques like differential privacy and synthetic data, as well as implementing policies to correlate access restrictions to the sensitivity of information.

The Administration should also prioritize making it easier for external audiences to access statistical information. This includes investing in new tools that offer new and different ways to communicate information to the public, such as data visualizations, dashboards, maps, and new written products. The Administration should also explore ways to expand access for authorized external researchers to securely access sensitive statistical information.

▶ **ACTION**   Invest in efforts to innovate and modernize federal data collections to address declining response rates, meet the changing needs of data users, and protect respondents' privacy.   **FIRST YEAR**

The Biden Administration can help statistical agencies break down silos and remove barriers to utilizing data from other statistical and non-statistical federal agencies, state and local records, and the private sector.

The Administration should encourage statistical agencies to develop and expand data sharing agreements in order to link statistical records across topical areas and identify technical interoperability issues that create barriers to data sharing. One pressing need is to better coordinate the work of the three economic statistical agencies, the Census Bureau, the Bureau of Economic Analysis (BEA), and BLS, including granting access to IRS tax data to all three agencies, not only the Census Bureau. The Biden Administration should consider

existing proposals to move BLS to the Department of Commerce as well as potential legislation that would facilitate the sharing of tax data.

The Biden Administration should develop strategies—and potentially legislation—for statistical agencies to securely access state administrative records to better understand the utilization of government programs once funds leave the federal agencies. In addition, statistical agencies should be encouraged to develop working relationships with private sector organizations and consider ways to negotiate public-private data sharing agreements that adhere to the statistical principles and practices.

▶ ACTION Build a more interconnected statistical system by integrating data from statistical and non-statistical agencies, state and local governments, and the private sector.

FIRST YEAR

A rare area of bipartisan agreement over the past decade has been a commitment to basing more policymaking decisions on sound evidence. The bipartisan *Foundations for Evidence-Based Policymaking Act of 2018* ("Evidence Act") was the major political achievement stemming from the Commission on Evidence-Based Policymaking's unanimous and bipartisan report, released in 2017. The *Evidence Act* was intended to be a first step toward making sure that federal programs take a proactive approach to making decisions based on rigorously generated evidence. In addition, the Trump Administration launched the Federal Data Strategy in 2018, informed by the President's Management Agenda priority of "Leveraging Data as a Strategic Asset."

Responsibility for the implementation of these complementary initiatives largely fell to the Statistical and Science Policy Office (SSP) within the Office of Management and Budget's (OMB) Office of Information and Regulatory Affairs (OIRA), generally without additional financial assistance. Despite limited resources, SSP released several guidance documents, established the Advisory Committee on Data for Evidence Building, and expanded various data- and statistics-focused interagency working groups to include the full spectrum of federal agencies.

However, these activities only scratch the surface of what could be accomplished with additional attention and resources. **The Biden Administration has the opportunity to build on these efforts and transform policymaking to base decisions on sound science.**

The challenges SSP will face in the new administration include supporting the work of the Advisory Committee on Data for Evidence Building and any follow-on activities, including the potential creation of a National Data Service; issuing standards for tiered access to federal data (in which the most sensitive data entails the highest levels of restrictions); overseeing the implementation of Title II of the *Evidence Act*, which mandates that federal data be "open by default;" as well as leading Year 2 of the Federal Data Strategy and developing outstanding guidance required by the *Evidence Act*. SSP needs additional resources—both in terms of dedicated staff and funding—to capitalize on these opportunities, as well as respond to emerging developments in the statistical system.

▶ ACTION Enhance the capacity and stature of the OMB Statistical and Science Policy Office (the Office of the Chief Statistician) to strengthen coordination of data and evidence-building activities across the federal government.

FIRST YEAR

While OMB's leadership will set the tone for federal evidence-building and evaluation efforts, these measures will become yet another "box-checking" formality without buy-in from leaders and staff within federal agencies themselves. The Biden Administration can incentivize agencies to enthusiastically integrate evidence-building and use into their everyday operations by providing dedicated funding for generating data and evaluating programs. If these activities are forced to compete for resources against agencies' core mission-focused priorities, we are unlikely to realize the transformative potential of evidence-based policymaking. In addition, agencies must be encouraged to coordinate their evidence-building activities with one another on high-priority policy areas. The Biden Administration can seek to model future efforts on successful interagency collaborations like the Interagency Forum on Child and Family Statistics, which develops interagency agreement on new indicators of child development and well-being.

▶ ACTION   Establish dedicated funding mechanisms for evidence-building efforts at federal agencies.   FIRST YEAR

Harmful Trump Administration Executive Actions
(RECOMMENDATION 1)

EXECUTIVE ORDERS

- ▶ 11/2/2020   [Executive Order on Establishing the President's Advisory 1776 Commission](#) - 13958
- ▶ 10/21/2020   [Executive Order on Creating Schedule F in The Excepted Service](#) - 13957
- ▶ 9/22/2020   [Executive Order on Combating Race and Sex Stereotyping](#) - 13950
- ▶ 7/11/2019   [Executive Order on Collecting Information about Citizenship Status in Connection with the Decennial Census](#) - 13880
- ▶ 6/14/2019   [Executive Order on Evaluating and Improving the Utility of Federal Advisory Committees](#) - 13875
- ▶ 3/21/2019   [Improving Free Inquiry, Transparency, and Accountability at Colleges and Universities](#) - 13864
- ▶ 1/27/2017   [Protecting the Nation from Foreign Terrorist Entry into the United States](#) - 13769

PROCLAMATIONS

- ▶ 6/22/2020   [Proclamation Suspending Entry of Immigrants and Nonimmigrants Who Present a Risk to the U.S. Labor Market Following the Coronavirus Outbreak](#) - 10052
- ▶ 5/29/2020   [Proclamation on the Suspension of Entry as Nonimmigrants of Certain Students and Researchers from the People's Republic of China](#) – 10043
- ▶ 5/29/2020   [U.S. Withdrawal from the World Health Organization](#)
-      4/22/2020   [Suspension of Entry of Immigrants who Present a Risk to the United States Labor Market During the Economic Recovery Following the 2019 Novel Coronavirus Outbreak](#) – 10014

AGENCY ACTIONS

- ▶ 10/8/2020   [Strengthening the H-1B Nonimmigrant Visa Classification Program](#)
- ▶ 9/25/2020   [Establishing a Fixed Time Period of Admission and an Extension of Stay Procedure for Nonimmigrant Academic Students, Exchange Visitors, and Representatives of Foreign Information Media](#)
- ▶ 7/21/2020   [Memorandum on Excluding Illegal Aliens from the Apportionment Base Following the 2020 Census](#)
- ▶ 5/6/2020   [Department of Education Title IX Final Rule](#)
- ▶ 4/22/2019   [Memorandum on Combatting High Nonimmigrant Overstay Rates](#)

Note: This is not intended to be an exhaustive list.

Building Back Better with
SOCIAL AND BEHAVIORAL SCIENCE

▶ COVID-19

Limiting the Spread of Disease in Schools

Social scientists can investigate methods to prevent the spread of flu-like infectious disease in school settings. In one study, every student, teacher, and staff member in one high school was outfitted with a credit card-sized wireless sensor to monitor contact for one whole school day to model social networks. The resulting models simulated how influenza infection would spread through the community based on real-world contact. **The models also allowed researchers to explore strategies for efficient disease management such as vaccinations and school closings**. Most vaccination strategies were no more effective than random vaccinations in preventing the spread of disease. However, social distancing strategies in which schools were intermittently closed (e.g., two days open, two days closed) interrupted the contact network, and were nearly as effective as a complete three-week school shutdown. These findings provide useful insight for school administrators and public health officials into the development of effective prevention strategies.

Combatting Vaccine Misinformation

Computational social science research provides critical insights into combatting misinformation about vaccines, especially the COVID-19 vaccines and how to limit the spread of online misinformation about COVID-19. **One project analyzed how the most vulnerable populations such as people of color, the elderly, and others are influenced by inaccurate information about COVID-19 and whether that information gets spread across platforms and among groups.** Using models, the researchers collected data from several different online platforms to track the spread rate of misinformation and the rate of vulnerable groups being exposed to misinformation while providing insights into strategies to limit the spread of misinformation. While these strategies will absolutely be helpful during the current COVID-19 emergency, they will no doubt be equally useful in dispelling misinformation on other crucial public health and policy issues.

▶ ECONOMIC RECOVERY

The Unequal Impact of Student Debt on Black Households

There is an alarming shift in funding public higher education through student debt, a harmful phenomenon to the financial stability of multiple generations of Americans. Notably, this shift has hit Black households the hardest with research showing **student debt among Black households increasing by 400% in the last two decades**. Sociologists have created models to analyze this shift and potentially find options to mitigate disparities. The model shows a trend towards "predatory inclusion" practices, where financial and educational aid organizations offer much needed support to Black families, but with terms and conditions that exploit the families in the long-term. Furthermore, the model showed that a national debt cancellation policy of at least $50,000 for households making under $150,000 a year would increase average Black wealth significantly, along with forgiving debt completely for roughly three quarters of all American families.

Understanding Wealth Inequality

A study utilizing demography and economics found that over the past few decades, wealth is concentrating in households made up of senior citizen compared to households with children. **In addition, wealth inequality for families with children has grown, with the average wealth of the "parental 1 percent" increasing by $3 million, while two thirds of all families with children have a negative net worth due to debt.** The researchers identified several reasons for the trend, including the emphasis of federal assistance dollars towards senior citizens rather

than children, rising costs of education, stagnating wages, and the lasting effects of the housing crisis and Great Recession hitting parents harder than seniors, especially parents with low paying jobs.

▶ RACIAL EQUITY

Feelings of Safety Increase at Diverse Schools

Federally-funded education researchers have reported findings from a study on students' perceived safety and sense of belonging when attending more ethnically diverse schools. The study asked thousands of middle schoolers in California about their experiences in school related to feelings of safety, whether they felt bullied or lonely, whether they felt close to their peers, and whether they felt fairly treated by their teachers. The findings of the study suggest that the **schools with most diverse student bodies report a stronger sense of safety along with less reported loneliness or bullying** than schools with less diverse student bodies. This trend was especially strong among non-White students, although White students reported similarly. The research also supports previous findings that students who have more positive social experiences at school perform better academically.

Strategies for Combatting Hate

Recent years have seen a significant amount of recruitment into White supremacist extremist groups through gaming and other online communities, especially among young White males. Sociologists have found that once an individual is embedded within such groups, it is difficult to leave or shake off their hateful ideologies. **Social science has informed the development of effective models for deradicalization, which can be shared among schools, parents, counselors, and mental health professionals.** A model deradicalization policy can then shrink the scope of White supremacist groups and reduce hate-motivated violence against ethnic, religious, and gender minorities.

▶ CLIMATE CHANGE

Encouraging Environmentally-Conscious Behavior

As part of a study on the effectiveness of environmental messaging strategies, psychologists asked participants to imagine how they how they would feel when choosing between an eco-friendly action and a less "green" alternative—either pride in choosing the eco-friendly option or guilt for making an environmentally unfriendly choice. Participants were then prompted to make hypothetical choices, each with environmentally friendly and unfriendly options. The findings showed a clear pattern—participants anticipated feelings of pride chose made more eco-friendly choices than those expecting to feel guilty. These findings are consistent with previous behavioral research finding that **guilt-based messaging may risk backfiring by invoking defensiveness in the target audience** and may provide valuable insight for policymakers and environmental stakeholders to reframe public messaging surrounding climate change and other behavior-based environmental issues.

Historical Lessons for Coping with Climate Change

Archaeology and computational anthropology can be useful in understanding how ancient civilizations dealt with the challenges of climate change, potentially providing insight to modern-day societies on ways to prepare and adapt to our changing climate. One study looked at ancient pastoral societies in the Eurasian steppe (current day Mongolia, China, and Central Asia) who experienced climate change via a global cooling event between 3750-3000 BCE. The researchers found that these societies experienced hardships related to the declining agricultural growth and increasingly inhospitable climates at higher elevation. These hardships instigated significant innovations and technologic advancements in the fields of agriculture, infrastructure, and economics to better handle the effects of the colder climate. These advancements, however, were accompanied by difficult and painful social changes. The researchers also noted that our current wave of climate change is on track to be astronomically more severe than the one experienced five thousand years ago, meaning current-day societies may be forced to undergo more drastic and rapid change in order to adapt to the changing climate.