

# SFGS 2020 Methods

## Sample Construction, Weighting, and Agency List

### Methodology

#### Sampling frame

The sample frame is drawn from Leadership Directories' Federal Government database.<sup>1</sup> This database contains contact information for department and agency heads in the executive branch, including up to 15 levels of management hierarchy within departments and agencies. The contact information includes names, titles, mailing addresses, telephone numbers, and email addresses. The database also identifies individuals in the following types of positions: Presidential Appointments with Senate Confirmation, Presidential Appointments without Senate Confirmation, Schedule C Appointments, Non-Career Senior Executive Service positions, Career Senior Executive Service positions, and Senior Foreign Service positions.

#### Sampling procedure

##### Census sample

The sample is a census of Presidential Appointees with Senate Confirmation, Presidential Appointees without Senate Confirmation, Schedule C Appointees, members of the Senior Executive Service (both career and non-career), and members of the Senior Foreign Service.

Senior federal employees who do not hold a position listed above were identified by title. Specifically, the sample includes a census of employees whose titles are variants of Administrator, Commissioner, Secretary (e.g., Under Secretary, Deputy Secretary, Assistant Secretary), Chief or General Counsel, Chief of Staff, Chief Officers (e.g. Chief Executive Officer, Chief Financial Officer), Controller, President,<sup>2</sup> Director (e.g., Deputy Director).

The agencies included in the sample comprise the 15 executive departments, 7 agencies in the Executive Office of the President, and 68 independent agencies. Table 1 lists the agencies.

##### Sample addition to produce reliable agency-level inferences

We also identified prominent subagencies in the executive departments about which we wanted to make agency-level inferences. These subagencies are listed in Table 2.<sup>3</sup>

Heterogeneity in title usage across agencies makes it difficult to identify a set of titles that reliably identifies senior employees at every agency. Moreover, variants of Chief, Manager, and Supervisor are common among senior employees in subagencies, meaning that the titles used to construct the census sample may not produce a large enough sample to yield a sufficient number of responses to make reliable subagency-level inferences. Therefore, for EOP agencies, subagencies, and independent agencies that had at least 100 employees in the sample frame (i.e., enough potential respondents to yield a reliable agency-level estimate give our expected response rate), we executed the following sampling procedure:

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<sup>1</sup>A list of employees in the agencies included in the sample (see Table 1 in the Appendix) was downloaded on March 25, 2020 with one exception- the list for the United States Agency for International Development was downloaded on March 28, 2020 due to an oversight in the initial download.

<sup>2</sup>Because we restrict the sample certain agencies as described in this document, searches derived from the root word "President" would not return the President of the United States for the Vice President of the United States.

<sup>3</sup>An employee did not have to work in a subagency to be included in the census above.

1. For each agency with at least 100 people in the sample frame and the titles Administrator, Director, Chief,<sup>4</sup> Manager, and Supervisor (in that order),
  - a. Calculate the number of additional respondents needed to reach a sample size of 100 for the agency
  - b. Select people in the sample frame not already selected by the census procedures
  - c. From step b, identify all individual whose title includes “Administrator”
  - d. If adding all individuals from step c would cause the sample size to exceed 100, take a simple random sample from the set of individuals such that the sample size for that agency will be 100 and proceed to the next agency
  - e. Otherwise, add all individuals from step c to the sample and repeat step c for the next title
  - f. If all titles have been searched and the sample size remains below 100, proceed to the next agency

In total, this procedure yielded a sample of 23,824 individuals of whom 2,984 were not part of the census sample. Names and addresses were submitted to a vendor for mail service processing. There were 22,819 records (out of 23,824) that had a mailing address or building location in the directory. About 96% of these addresses were found to be valid delivery points in the USPS delivery sequence file. Through additional editing and research, nearly all of the remaining 4% were validated. The file was also inspected for duplicate names and email addresses. Because the survey is administered online, we then eliminated individuals with no email address resulting in a final sample of 17,792 individuals.

Detailed information about the title searches used to construct the census sample is included in the appendix.

### Weighting procedure and weighted margin of error

The results reported are weighted to reduce non-response and noncoverage bias. We created post-stratification weights using iterative proportional fitting, more commonly called raking. The sample drawn from the Federal Government database was used to create population marginals because the sample is primarily a census sample, meaning the sample is our best estimate of the population.<sup>5</sup>

The characteristics used for weighting are:

1. Whether a respondent worked in the DC area (defined as the District of Columbia, Maryland, and Virginia).
2. Position type defined as political appointees (i.e, Presidential Appointments with Senate Confirmation, Presidential Appointments without Senate Confirmation, Schedule C Appointments, Non-Career Senior Executive Service positions), career member of the Senior Executive Service, member of the Senior Foreign Service, and career civil servant.
3. Workplace location in the executive branch defined as the Executive Office of the President, each executive department (separately), and independent agencies (as a whole).

The composite design effect for a sample of size  $n$  with each case having weight  $w_i$  is:

$$def = \frac{n \sum_{i=1}^n w_i^2}{(\sum_{i=1}^n w_i)^2}$$

We set  $\hat{p} = 0.5$  and calculated the weighted margin of error as:

$$\pm \left( \sqrt{def} \times 1.96 \sqrt{\frac{\hat{p}(1 - \hat{p})}{n}} \right)$$

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<sup>4</sup>We executed the process for titles that begin with "Chief" first, then searching for titles that contain "Chief" if the conditions for stopping the procedure were not met.

<sup>5</sup>The final survey weights will be adjusted to account for the oversampling of certain agencies in our effort to produce reliable agency-level inferences.

## Appendix

### Details of the sampling procedure

The table below gives the titles we used to construct the census sample.<sup>6</sup> The first column lists the character string, if any, that must begin the title. The second column lists the character string, if any, that the title must contain. Horizontal lines delineate individual queries.

<b>Begins with</b>	<b>Includes</b>
Administrator	
Deputy	Administrator
Associate	Administrator
Assistant	Administrator
Principal Deputy	Administrator
Principal Associate	Administrator
Principal Assistant	Administrator
Under	Secretary <sup>7</sup>
Associate	Secretary
Assistant	Secretary
Deputy	Secretary
Chief	Counsel
General	Counsel
Deputy Chief	Counsel
Deputy General	Counsel
Chief	Officer
	President <sub>□</sub> <sup>8</sup>
	Controller
	Commissioner <sup>9</sup>
	Managing Executive
	Executive Director
	Senior Director
Director <sup>10</sup>	
Deputy Director	
Principal Deputy Director	

### Agency lists

Table 2: Agency List

<b>Executive Office of the President</b>
Council of Economic Advisers
Council on Environmental Quality
National Security Staff
Office of Management and Budget
Office of National Drug Control Policy
Office of Science and Technology Policy

<sup>6</sup>Before beginning the search, we removed titles containing "to the" to prevent capturing assistants to senior employees (e.g., Assistant to the Under Secretary) and we removed titles containing "Administrative Assistant" also to prevent capturing assistants to senior employees.

<sup>7</sup>We removed titles containing "Executive Secretary" from these results because that position is a senior clerical position. We also removed titles containing "Press" from these results to target managerial and policymaking positions.

<sup>8</sup>As noted above, this search would not return the President of the United States or the Vice President of the United States because they do not work in an agency that we targeted.

<sup>9</sup>We removed Commissioners who serve on advisory commissions from these results.

<sup>10</sup>We excluded members of boards of directors from these search results.

**Executive Departments**

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United States Department of Agriculture  
United States Department of Commerce  
United States Department of Defense  
United States Department of Education  
United States Department of Energy  
United States Department of Health and Human Services  
United States Department of Homeland Security  
United States Department of Housing and Urban Development  
United States Department of the Interior  
United States Department of Justice  
United States Department of Labor  
United States Department of State  
United States Department of Transportation  
United States Department of the Treasury  
United States Department of Veterans Affairs

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**Independent Agencies**

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Administrative Conference of the United States  
Board of Governors of the Federal Reserve System  
Central Intelligence Agency  
Chemical Safety and Hazard Investigation Board  
Commodity Futures Trading Commission  
Consumer Financial Protection Bureau  
Consumer Product Safety Commission  
Corporation for National and Community Service  
Corporation for Public Broadcasting  
Defense Nuclear Facilities Safety Board  
Environmental Protection Agency  
Equal Employment Opportunity Commission  
Export-Import Bank of the U.S.  
Farm Credit Administration  
Federal Agricultural Mortgage Corporation  
Federal Communications Commission  
Federal Deposit Insurance Corporation  
Federal Election Commission  
Federal Energy Regulatory Commission  
Federal Housing Finance Agency  
Federal Labor Relations Authority  
Federal Maritime Commission  
Federal Mediation and Conciliation Service  
Federal Mine Safety and Health Review Commission  
Federal Retirement Thrift Investment Board  
Federal Trade Commission  
General Services Administration  
Institute of Museum and Library Services  
Inter-American Foundation  
Legal Services Corporation  
Merit Systems Protection Board  
Millennium Challenge Corporation  
National Aeronautics and Space Administration  
National Archives and Records Administration  
National Council on Disability  
National Credit Union Administration

National Endowment for the Arts  
 National Endowment for the Humanities  
 National Foundation on the Arts and the Humanities  
 National Labor Relations Board  
 National Mediation Board  
 National Railroad Passenger Corporation (AMTRAK)  
 National Science Foundation  
 National Transportation Safety Board  
 Nuclear Regulatory Commission  
 Occupational Safety and Health Review Commission  
 Office of Government Ethics  
 Office of Personnel Management  
 Office of Special Counsel  
 Office of the Director of National Intelligence  
 Peace Corps  
 Postal Regulatory Commission  
 Railroad Retirement Board  
 Securities and Exchange Commission  
 Selective Service System  
 Small Business Administration  
 Social Security Administration  
 Tennessee Valley Authority  
 United States African Development Foundation  
 United States Agency for Global Media  
 United States Agency for International Development  
 United States Election Assistance Commission  
 United States International Development Finance Corporation  
 United States International Trade Commission  
 United States Postal Service  
 United States Trade and Development Agency

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Table 3: Subagency List

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**Department of Agriculture**

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Office of the Secretary of Agriculture  
 Agricultural Marketing Service  
 Agricultural Research Service  
 Animal and Plant Health Inspection Service  
 Economic Research Service  
 Farm Service Agency  
 Food and Nutrition Service  
 Food Safety and Inspection Service  
 Foreign Agricultural Service  
 Forest Service  
 National Agricultural Statistics Service  
 National Institute of Food and Agriculture  
 Natural Resources Conservation Service  
 Risk Management Agency  
 Rural Development

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**Department of Commerce**

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Office of the Secretary of Commerce  
 Bureau of Economic Analysis  
 Bureau of Industry and Security

Economic Development Administration  
International Trade Administration  
Minority Business Development Agency  
National Institute of Standards and Technology  
National Oceanic and Atmospheric Administration  
National Technical Information Service  
National Telecommunications and Information Administration  
U.S. Census Bureau  
U.S. Patent and Trademark Office

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**Department of Defense**

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Office of the Secretary of Defense  
Air Force  
Army  
Defense Advanced Research Projects Agency  
Defense Commissary Agency  
Defense Contract Audit Agency  
Defense Contract Management Agency  
Defense Counterintelligence and Security Agency  
Defense Finance and Accounting Service  
Defense Health Agency  
Defense Information Systems Agency  
Defense Logistics Agency  
Defense Technical Information Center  
Defense Threat Reduction Agency  
Joint Chiefs of Staff  
Missile Defense Agency  
National Guard Bureau  
Navy

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**Department of Education**

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Office of the Secretary of Education  
Institute of Education Sciences  
Office for Civil Rights  
Office of Elementary and Secondary Education  
Office of Federal Student Aid  
Office of Postsecondary Education  
Office of Special Education and Rehabilitative Services

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**Department of Energy**

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Office of the Secretary of Energy  
Advanced Research Projects Agency-Energy  
Energy Information Administration  
National Nuclear Security Administration  
Office of Electricity  
Office of Energy Efficiency and Renewable Energy  
Office of Environmental Management  
Office of Fossil Energy  
Office of Nuclear Energy  
Office of Science

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**Department of Health and Human Services**

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Office of the Secretary of Health and Human Services  
Administration for Children and Families  
Administration for Community Living  
Agency for Healthcare Research and Quality  
Agency for Toxic Substances and Disease Registry  
Centers for Disease Control and Prevention

Centers for Medicare and Medicaid Services  
Food and Drug Administration  
Health Resources and Services Administration  
Indian Health Service  
National Institutes of Health  
Substance Abuse and Mental Health Services Administration

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**Department of Homeland Security**

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Office of the Secretary of Homeland Security  
Coast Guard  
Cybersecurity and Infrastructure Security Agency  
United States Citizenship and Immigration Services  
Federal Emergency Management Agency  
United States Customs and Border Protection  
United States Immigration and Customs Enforcement  
Secret Service  
Transportation Security Administration

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**Department of Housing and Urban Development**

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Office of the Secretary of Housing and Urban Development  
Federal Housing Administration/Office of Housing  
Government National Mortgage Association  
Office of Public and Indian Housing

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**Department of the Interior**

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Office of the Secretary of the Interior  
Bureau of Indian Affairs  
Bureau of Land Management  
Bureau of Ocean Energy Management  
Bureau of Reclamation  
Bureau of Safety and Environmental Enforcement  
National Indian Gaming Commission  
National Park Service  
Office of Surface Mining Reclamation and Enforcement  
U.S. Fish and Wildlife Service  
U.S. Geological Survey

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**Department of Justice**

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Office of the Attorney General  
Bureau of Alcohol, Tobacco, Firearms and Explosives  
Bureau of Prisons  
Community Relations Service  
Drug Enforcement Administration  
Executive Office for Immigration Review  
Executive Office for United States Attorneys  
Federal Bureau of Investigation  
Office of Justice Programs  
Office of Legal Counsel  
Office of the United States Attorney  
U.S. Marshals Service

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**Department of Labor**

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Office of the Secretary of Labor  
Bureau of International Labor Affairs  
Bureau of Labor Statistics  
Employee Benefits Security Administration  
Employment and Training Administration  
Mine Safety and Health Administration  
Occupational Safety and Health Administration

Office of Federal Contract Compliance Programs  
Office of Labor-Management Standards  
Office of Workers' Compensation Programs  
Veterans' Employment and Training Service  
Wage and Hour Division  
Women's Bureau

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**Department of State**

Office of the Secretary of State  
Bureau of Consular Affairs  
Bureau of Diplomatic Security  
Bureau of International Narcotics and Law Enforcement Affairs  
Offices and Bureaus within Arms Control and International Security Affairs  
Offices and Bureaus within Civilian Security, Democracy, and Human Rights  
Offices and Bureaus within Economic Growth, Energy, and the Environment  
Offices and Bureaus within Management  
Offices and Bureaus within Political Affairs  
Offices and Bureaus within Public Diplomacy and Public Affairs

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**Department of Transportation**

Office of the Secretary of Transportation  
Federal Aviation Administration  
Federal Highway Administration  
Federal Motor Carrier Safety Administration  
Federal Railroad Administration  
Federal Transit Administration  
Maritime Administration  
National Highway Traffic Safety Administration  
Office of the Assistant Secretary for Research and Technology  
Pipeline and Hazardous Materials Safety Administration  
Surface Transportation Board

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**Department of the Treasury**

Office of the Secretary of the Treasury  
Alcohol and Tobacco Tax and Trade Bureau  
Bureau of Engraving and Printing  
Bureau of the Fiscal Service  
Financial Crimes Enforcement Network  
Internal Revenue Service  
Office of the Comptroller of the Currency  
U.S. Mint

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**Department of Veterans Affairs**

Office of the Secretary of Veterans Affairs  
National Cemetery Administration  
Veterans Benefits Administration  
Veterans Health Administration

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