

FISCAL YEAR 2020

GREENHOUSE GAS EMISSIONS

Statement and Methodology

FY2020 GREENHOUSE GAS EMISSIONS STATEMENT

Booz Allen’s FY2020 greenhouse gas (GHG) emissions totaled 96,370 MT CO₂ equivalent (CO₂e); a reduction of 19 percent compared to FY2019.

Scope 1: Fleet Vehicles and Generators

Scope 1 emissions increased 95 percent to 33.26 MTCO₂e from FY2019. Fleet vehicles remained relatively constant; however, this year’s calculations include the addition of stationary combustion generators, which accounts for the increase.

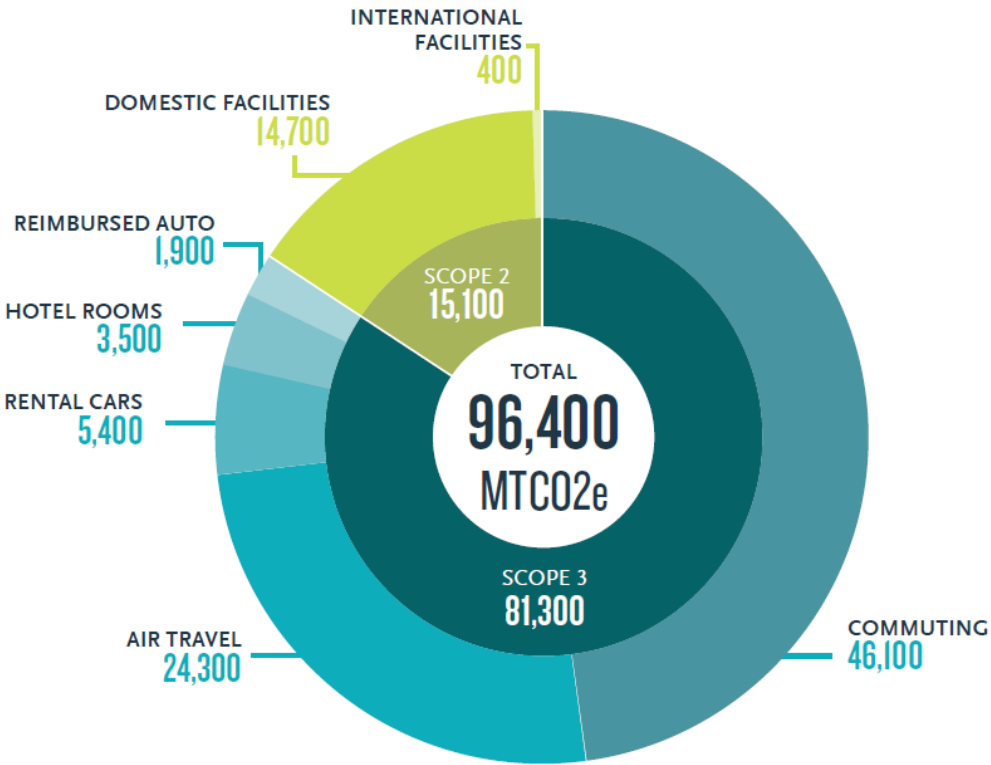
Scope 2: Facilities

Emissions from our facilities decreased by 12 percent to 15,108.24 MTCO₂e, with decreases likely associated with the decommissioning of older facilities that have since been replaced with updated, modernized ones.

Scope 3: Business Travel and Commuting

Overall, Scope 3 emissions decreased 21 percent to 81,259.27 MTCO₂e. Business travel emissions decreased by 9 percent to 35,158.50 MTCO₂e. Decreases in air travel, hotel stays, and reimbursed auto travel accounted for this decrease. Employee commuting emissions decreased by 29 percent to 46,100.77 MTCO₂e.

FIGURE 1. FY2020 GHG EMISSIONS



NOTE: Due to rounding, numbers presented in this graphic may not add up precisely to the totals provided. Scope 1 Emissions from Fleet Vehicles and Stationary Combustion are negligible and therefore not pictured.

METHODOLOGY

Scope 1: Fleet Vehicles and Generators

For Booz Allen vehicles, we used vehicle make, model, and mileage data provided by the local Booz Allen office associated with the vehicle to calculate emissions. We converted the reported data into CO₂e emissions using GHG Protocol's tool for calculating emissions from mobile sources.¹ Emissions in the calculation include CO₂, CH₄, and N₂O, and the emissions factors and global warming potential values used were from the 2014 IPCC Fifth Assessment Report.

Booz Allen directly purchases and consumes diesel fuel for use in emergency generators on a small number of our sites. We track quantity of fuel purchased and utilize the World Resource Institute GHG Protocol tool for stationary Combustion² to calculate total emissions. Emissions in the calculation include CO₂, CH₄, and N₂O, and the emissions factors and global warming potential values used are from the 2014 IPCC Fifth Assessment Report.

Our Scope 1 emissions methodology and calculations were verified Apex Companies, LLC.

Scope 2: Facilities

Booz Allen's U.S. and international real estate holdings comprise approximately 2.7 million square feet of leased space. Booz Allen neither owns nor manages the buildings we occupy. Consequently, all facilities emissions fall within Scope 2. We calculate these emissions by estimating electrical consumption based on the number of occupied square feet in our domestic and international portfolio.

For both U.S. and international facilities, we used data from the U.S. Energy Information Administration's 2012 Commercial Buildings Energy Consumption Survey to determine the average kilowatt hours (kWh) of electricity buildings comparable to those in our portfolio consume per square foot each year. We then estimated our own kWh consumption by multiplying these national averages by the number of square feet in each Booz Allen facility.

In FY2020, we were able to access utility bill data for 17 Booz Allen facilities, comprising nearly 40 percent of our total leased square footage. For these facilities, we were able to retrieve actual kWh consumption, as opposed to estimating using the aforementioned process.

After kWh consumption was determined, for U.S. facilities, we used the GHG emissions factors from the U.S. Environmental Protection Agency's (EPA) 2018 Emissions and Generation Resource Integrated Database to calculate each building's emissions (differentiated by region). The formula we used to calculate emissions is: GHG emissions = Electricity consumed (in MWh) x EPA regional GHG emissions factor.

We converted nitrogen dioxide and methane emissions to CO₂e using global warming potentials from the United Nations Intergovernmental Panel on Climate Change Fifth Assessment Report. Emissions in the calculation include CO₂, CH₄, and N₂O.

For international facilities, we substituted EPA regional emission factors with International Energy Agency (IEA) CO₂ emissions factors specific to each country. Emissions in the calculation include CO₂.

Our Scope 2 emissions methodology and calculations were verified by Apex Companies, LLC.

¹ EPA, 2018. *Emission Factors for Greenhouse Gas Inventories*. Available for download at: https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

² World Resources Institute, 2015. *GHG Protocol tool for stationary Combustion Version 4.1* from <http://www.ghgprotocol.org/calculation-tools/all-tools>

Scope 3: Business Travel and Commuting

Our calculations include estimated emissions from employee business travel, which we define as work-related air travel, car rentals, billable personal miles, and hotel stays. These estimates were provided by our travel providers, who work closely with us to track the environmental impact of each trip. We also estimate emissions associated with employees' commutes to and from work. All business travel and commuting emissions are Scope 3. Emissions in the calculations include CO₂, CH₄, and N₂O.

Our Scope 3 emissions methodology and calculations were verified by Apex Companies, LLC.

AIR TRAVEL

GHG Protocol emissions factors were used to estimate CO₂ emissions associated with all domestic and international flights recorded by our travel service provider. Flights were differentiated by length (long-, medium, and short-haul), mileage, seat class, and type of aircraft. Factors and calculations for conversion are for global data (<http://ghgprotocol.org/about-ghgp>).

A small minority of our employees were unable to make their travel plans using our travel service provider. Consequently, their data is not represented. In addition, the data does not reflect flights that were cancelled or rerouted, or changes in travel plans (e.g., some flights were not taken but remained in the system).

AUTOMOBILE

Our main rental car agencies (i.e., National, Enterprise, Avis, and Hertz) used EPA Climate Leaders emissions factors to estimate CO₂e emissions associated with domestic and international reserved car mileage. We receive this data in quarterly reports identifying miles traveled, vehicle class, type of fuel, duration of travel, and other key information. Due to the COVID-19 pandemic, we were unable to get 4th quarter data for one of our providers, so data was extrapolated based on previous data. Rental cars reserved by employees using other vendors or methods were not factored into the emissions estimate as this data was unavailable.

To determine emissions from employees on their personal vehicles, we retrieved mileage data from employee reimbursements allocated for personal vehicle travel for work engagements. We then converted the reported automobile mileage into CO₂e emissions using GHG Protocol's tool for calculating CO₂ emissions from mobile sources.³ The emissions factors and global warming potential values used are from the 2014 IPCC Fifth Assessment Report.

HOTELS

For hotel reservations made with our travel service provider, we receive an annual report with the number of rooms, room nights, and country of each hotel stay. We use United Kingdom Government GHG Conversion factors for Company Reporting to convert the number of room nights per country to estimated CO₂e emissions. A small minority (less than 5 percent) of hotel stays took place in countries for which there was no available emissions factor. These rooms were not included in the calculation.

³ EPA, 2018. *Emission Factors for Greenhouse Gas Inventories*. Available for download at: https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf

EMPLOYEE COMMUTING

We use data from our annual employee commuting survey (first launched in 2016) to estimate emissions from employees' commutes to and from Booz Allen offices and client sites at the start and end of each workday. The survey is voluntary and has traditionally experienced low participation rates, creating limitations in our ability to draw inferences from year-over-year trends, however participation rates are increasing, and the data appears to be stabilizing.

The survey captures a wide range of data on employees' daily commutes, including distance and mode of transportation. Using guidance provided by the EPA's Emission Factors for Greenhouse Gas Inventories,⁴ we converted the average daily commuting distance into annual estimates for each mode of transportation. We used the conversion factors to determine the CO₂e emissions produced for each mode, then combined them to determine an aggregate commuting footprint. The emissions factors and global warming potential values used are from the 2014 IPCC Fifth Assessment Report.

⁴ GHG Protocol, 2013. *Technical Guidance for Calculating Scope 3 Emissions. Category 7: Employee Commuting*. Available for download at: <http://www.ghgprotocol.org/feature/scope-3-calculation-guidance>

APPENDIX A: BOOZ ALLEN GREENHOUSE GAS EMISSIONS HISTORICAL STATEMENT

	CY14	FY16	FY17	FY18	FY19	FY20
SCOPE 1	-	-	-	-	1.76	33.26
Fleet	-	-	-	-	1.76	2.62
Stationary Combustion	-	-	-	-	-	30.65
SCOPE 2	21,088.69	18,382.82	16,748.85	15,555.97	16,981.03	15,108.24
Domestic U.S.	-	-	16,658.20	15,286.22	16,722.28	14,741.29
International	-	-	90.65	269.75	258.75	366.95
SCOPE 3	27,099.99	84,250.58	92,033.92	95,499.76	98,004.86	81,259.27
Business Travel	27,099.99	27,460.32	27,335.81	35,492.80	38,311.54	35,158.50
Employee Commuting	-	56,790.26	64,698.11	60,006.96	59,693.32	46,100.77
GRAND TOTAL	48,188.68	102,633.40	108,782.78	111,055.73	114,987.65	96,370.13

NOTE: Our 2014 emissions were calculated in alignment with the calendar year, January 1 through December 31, 2014. In 2016 we began aligning our calculations with our fiscal year performance and operations, which began April 1, 2015 and ended March 31, 2016. Due to overlap in the 2015 calendar year, a calculation for that year was not completed.

APPENDIX B: APEX EMISSIONS VERIFICATION STATEMENT



VERIFICATION OPINION DECLARATION GREENHOUSE GAS EMISSIONS

To: The Stakeholders of Booz Allen Hamilton Inc.

Apex Companies, LLC (Apex) was engaged to conduct an independent verification of the greenhouse gas (GHG) emissions reported by Booz Allen Hamilton Inc. (Booz Allen) for the period stated below. This verification opinion declaration applies to the related information included within the scope of work described below.

The determination of the GHG emissions is the sole responsibility of Booz Allen. Booz Allen is responsible for the preparation and fair presentation of the GHG statement in accordance with the criteria. Apex's sole responsibility was to provide independent verification on the accuracy of the GHG emissions reported, and on the underlying systems and processes used to collect, analyze and review the information. Apex is responsible for expressing an opinion on the GHG statement based on the verification. Verification activities applied in a limited level of assurance verification are less extensive in nature, timing and extent than in a reasonable level of assurance verification.

Boundaries of the reporting company GHG emissions covered by the verification:

- Operational Control
- Worldwide
- Exclusions: Natural gas combustion emissions at leased spaces and fugitive refrigerant emissions

Types of GHGs: CO₂, N₂O, CH₄

GHG Emissions Statement:

- **Scope 1:** 33 metric tons of CO₂ equivalent
- **Scope 2 (Location-Based):** 15,100 metric tons of CO₂ equivalent
- **Scope 3:**
 - Business Travel: 35,200 metric tons of CO₂ equivalent
 - Employee Commuting: 46,100 metric tons of CO₂ equivalent

Data and information supporting the GHG emissions statement were in some cases estimated rather than historical in nature.

Period covered by GHG emissions verification:

- April 1, 2019 to March 31, 2020

Criteria against which verification conducted:

- World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas (GHG) Protocol Corporate Accounting and Reporting Standard (Scope 1 and 2)
- WRI/WBCSD Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3)

Reference Standard:

- ISO 14064-3: Greenhouse gases -- Part 3: Specification with guidance for the validation and verification of greenhouse gas statements

Level of Assurance and Qualifications:

- Limited

This verification used a materiality threshold of $\pm 5\%$ for aggregate errors in sampled data for each of the above indicators



GHG Verification Methodology:

Evidence-gathering procedures included but were not limited to:

- Interviews with relevant personnel of Booz Allen;
- Review of documentary evidence produced by Booz Allen;
- Review of Booz Allen data and information systems and methodology for collection, aggregation, analysis and review of information used to determine GHG emissions; and
- Audit of sample of data used by Booz Allen to determine GHG emissions.

Verification Opinion:

Based on the process and procedures conducted, there is no evidence that the GHG emissions statement shown above:

- is not materially correct and is not a fair representation of the GHG emissions data and information; and
- has not been prepared in accordance with the WRI/WBCSD GHG Protocol Corporate Accounting and Reporting Standard (Scope 1 and 2), and WRI/WBCSD Greenhouse Gas Protocol Corporate Value Chain Accounting and Reporting Standard (Scope 3).

It is our opinion that Booz Allen has established appropriate systems for the collection, aggregation and analysis of quantitative data for determination of these GHG emissions for the stated period and boundaries.

Statement of independence, impartiality and competence

Apex is an independent professional services company that specializes in Health, Safety, Social and Environmental management services including assurance with over 30 years history in providing these services.

No member of the verification team has a business relationship with Booz Allen, its Directors or Managers beyond that required of this assignment. We conducted this verification independently and to our knowledge there has been no conflict of interest.

Apex has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities.

The verification team has extensive experience in conducting assurance over environmental, social, ethical and health and safety information, systems and processes, has over 20 years combined experience in this field and an excellent understanding of Apex's standard methodology for the verification of greenhouse gas emissions data.

Attestation:

Handwritten signature of John Rohde in blue ink.

John Rohde, Lead Verifier
National Practice Lead
Apex Companies, LLC
Lakewood, Colorado

Handwritten signature of David Reilly in blue ink.

David Reilly, Technical Reviewer
Principal Consultant
Apex Companies, LLC
Santa Ana, California

July 24, 2020

This verification statement, including the opinion expressed herein, is provided to Booz Allen Hamilton Inc. and is solely for the benefit of Booz Allen Hamilton Inc. in accordance with the terms of our agreement. We consent to the release of this statement by you to CDP in order to satisfy the terms of CDP disclosure requirements but without accepting or assuming any responsibility or liability on our part to CDP or to any other party who may have access to this statement.

About Booz Allen

For more than 100 years, business, government, and military leaders have turned to Booz Allen Hamilton to solve their most complex problems. As a consulting firm with experts in analytics, digital, engineering, and cyber, we help organizations transform. To learn more, visit [BoozAllen.com](https://www.BoozAllen.com).