



U.S. General Services Administration

Federal Acquisition Service

**GSA's Center for Travel Management
Travel Management Information Services**

June 2010



Challenge Identified

\$17.4B


▶ The federal government is the world's largest buyer of travel:

- There was a lack of transparency and visibility on spend & utilization
- Traveler compliance to the FTR was unknown
- Ability to supply mandated First Class Travel, TRIP, and CO2 Emissions reports was limited or not available
- Summary Data required for Strategic Sourcing was not available
- Responding to FOIAs, congressional, or administrative data calls required extensive resources and time (and was still, often an estimate)

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Why the Data Gap for Government Data?

- Reservations are made through numerous and multiple channels
- Data is difficult to aggregate
- Data is inconsistently defined and used
- Travel Management is not centralized

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Global warming, better referred to as “climate change”, has captured the world’s attention as a serious environmental issue. One of the many factors associated with climate change is the gas carbon dioxide (CO₂). CO₂ is released when aviation fuel is burned. According to the United Nations International Panel on Climate Change (IPCC) group:

- “Aviation fuel currently corresponds to 2-3% of the total fossil fuels used worldwide. Of this total, the majority (> 80%) is used by civil aviation. By comparison, the whole transportation sector currently accounts for 20-25% of all fossil fuel consumption. Thus, the aviation sector consumes 13% of the fossil fuel used in transportation; it is the second biggest sector after road transportation, which consumes 80%”.

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Video

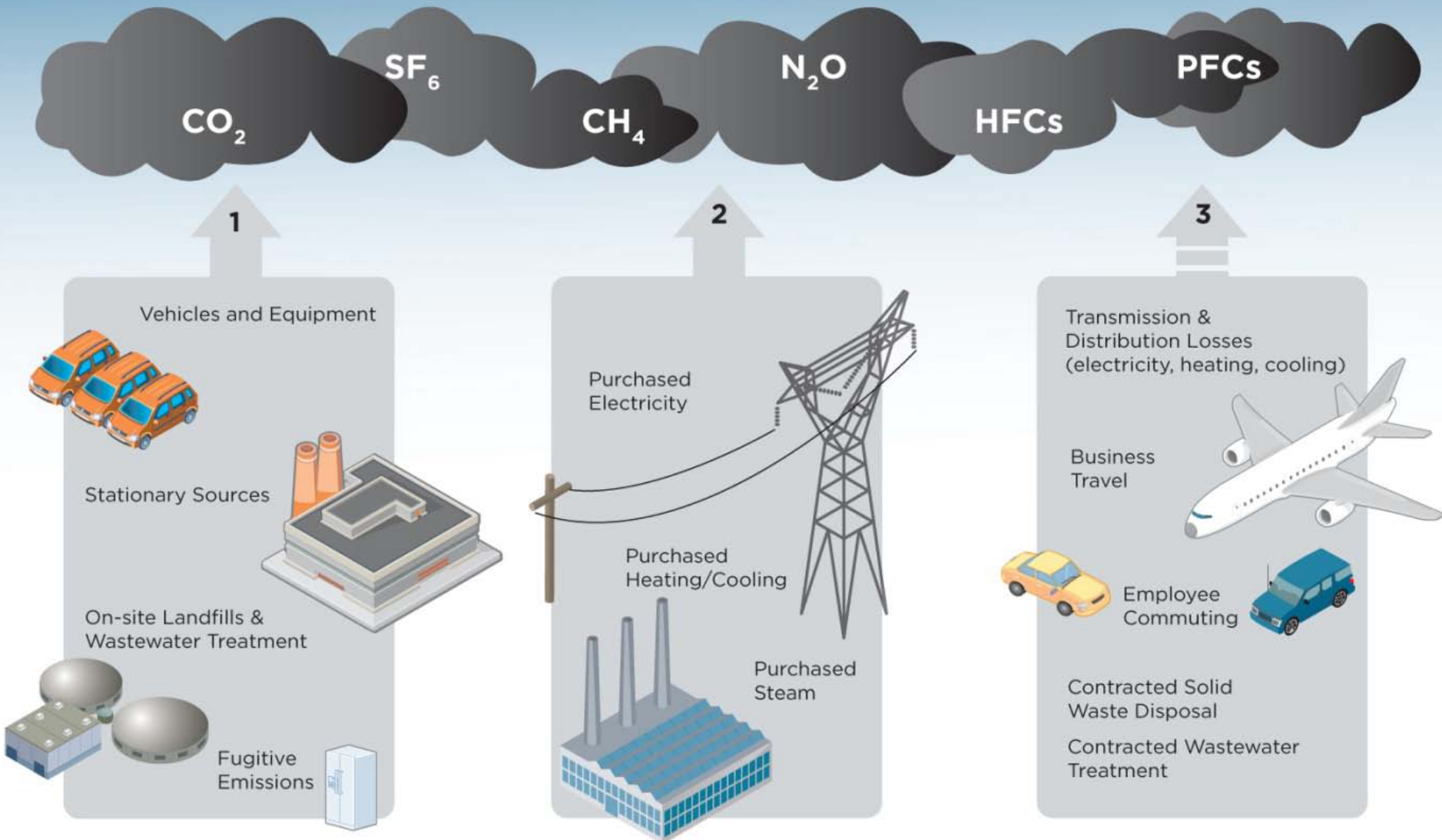
- [Time elapse of Co2 Emissions](#)

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Why Now?

- On October 5, 2009, President Obama signed Executive Order (EO) 13514 to establish an integrated strategy towards sustainability in the Federal government and to make reduction of greenhouse gas (GHG) emissions a priority for Federal agencies.

Common Sources of Federal Greenhouse Gas Emissions



SCOPE 1:

Greenhouse gas emissions from sources that are owned or controlled by a Federal agency.

SCOPE 2:

Greenhouse gas emissions resulting from the generation of electricity, heat, or steam purchased by a Federal agency.

SCOPE 3:

Greenhouse gas emissions from sources not owned or directly controlled by a Federal agency but related to agency activities.



EO 13514

- EO 13514 requires agencies to “measure, report, and reduce their greenhouse gas emissions from direct and indirect activities.”
- Federal agencies are now required to report and reduce their own greenhouse gas (GHG) emissions, as well as that of their transportation contractors (Scope 3 emissions)
- Milestones, which require immediate action:
 - January 2010 – Percentage reduction target for scope 1 and 2 GHG emissions for fiscal year 2020 relative to a FY 2008 baseline†
 - June 2010 – Reduction target for scope 3 GHG emissions for FY 2020 relative to a FY 2008 baseline
 - January 31, 2011 – FY 2008 Base Year and FY 2010 Comprehensive inventory of absolute GHG emissions, including scope 1, scope 2, and specified scope 3 emissions
 - FY 2011 onward – Annual Comprehensive inventory of absolute GHG emissions, including scope 1, scope 2, and specified scope 3 emissions



How to Comply?

- White House Council on Environmental Quality (CEQ), Office of the Federal Environmental Executive recognizes GSA Travel MIS as “THE” source for GHG calculations for federal business air travel
- Agency use of GSA Travel MIS enables agencies with the immediate ability to comply with the EO’s June 2010 reporting deadline
- CEQ has requested preliminary FY08 baseline GHG emission numbers for select agencies from GSA Travel MIS
- CEQ recommends that all agencies utilize the GSA Travel MIS tool to produce the correct calculation for their reporting package



GSA Travel MIS Tool Endorsed to Meet Regulatory Reporting Requirement

- Enables participating agencies to report Greenhouse Gas (GHG) emissions for air travel and business car rental to meet the EO 13514
- Section 9 of the EO directs the Department of Energy's Federal Energy Management Program to lead an interagency committee and issue guidance to federal agencies on how to carry out GHG accounting and reporting requirements
- DOE engaged GSA Travel MIS team to participate and lead in the development of guidance surrounding reporting of business air travel
- The Travel MIS GHG methodology / calculation tool garnered DOE and committee endorsement



GSA's Travel MIS Vision

The MIS solution will allow the government to understand how and where travel money was spent. It will provide total spend numbers that allow GSA to improve strategic sourcing from suppliers (lowering costs), it will identify how well travelers comply to the FTR (improving control), and will give agencies the ability to manage their spend (improving effectiveness).



Benefits of GSA Travel MIS

- For Customer Agencies
 - Cost savings – via increased utilization of existing travel programs
 - Improved agency policy formulation/oversight
 - Improved ability to detect program slippage
 - A means for cost containment
 - Time and resource savings associated with more efficient fulfillment of FOIAs and data requests
- For GSA's Summary Reporting for Strategic Sourcing
 - Identified trends in buying behavior
 - Improved negotiating strategies
 - Data now yielding active results in costs savings in our procurement of City Pair Program
 - Supports GSA's strategic goal to offer 'best value for customer agencies and taxpayer'

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Value of GSA's Travel MIS

- Meet regulatory requirements
- Manage Travel Spend
- Measure effectiveness of government travel programs
- Lower cost through improved strategic sourcing



CO2 Emissions Model for Air Travel

➤ Primary Steps

- Gather airline schedule data –city pair, number of miles, operating carrier, aircraft, number of seats
- Determine fuel burn rates for aircraft and distance
- Calculate total CO2 emissions for the flight
- Allocate emissions between cargo and passengers
- Allocate emissions per cabin
- Adjust for passenger load factors
- Adjust for RFI (Radiative Forcing Index)
- Calculate cost of CO2 emissions

CO2 Travel Report by Agency

General Services Administration

Current Period: 10/1/2008 TO 9/30/2009
Previous Period: 10/1/2007 TO 9/30/2008
Run Time: 3/30/10 11:24:44 AM

Agency	O&D Segment Count Curr Period	O&D Segment Count Prev Period	O&D Segment Count Variance	Total CO2 Emissions Curr Period (Pounds)	Total CO2 Emissions Prev Period (Pounds)	Total CO2 Emissions Variance (Pounds)	Average CO2 Emissions Per O&D Segment Curr Period (Pounds)	Average CO2 Emissions Per O&D Segment Prev Period (Pounds)
General Services Administration	61,038	58,328	2,710	20,926,089	19,376,595	1,549,495	343	332
Grand Total (pounds):	61,038	58,328	2,710	20,926,089	19,376,595	1,549,495	343	332
Grand Total (mtCO2e):				9,492	8,789			

The "Estimated 2008 emissions (mtCO2e)" must be reported in CEQ's Target Tool for Scope 3 GHG Emissions for business air travel.
 The mtCO2e must be for the FY2008, which requires the previous (or current) period to be set at: 10/1/2007 to 9/30/2008.



Projected Travel Savings from Video & Teleconferencing

Date Range: 10/1/2008 TO 9/30/2009

General Services Administration

Run Date: 1/20/2010

	Air Spend (\$)	Trips (Count)	CO2 Emissions (Pounds)	CO2 Emissions Saved (Pounds)	% Saved (Emissions)	Savings (\$)	% Saved (\$)
Total Travel:	10,300,902	54,193	17,229,267				
Adjusted Totals:	9,684,354	49,506	16,163,997	1,065,270	6.2%	616,548	6.0%

Top 20 City Pairs	Air Spend (\$)	Trips (Count)	CO2 (Pounds)	% Adjusted	Savings (\$)
Washington - Chicago	222,330	1,849	484,816	79 %	59,100
Washington - Kansas City	309,467	2,162	1,353,510	100 %	0
Atlanta - Washington	152,619	881	238,696	50 %	152,619
Washington - Dallas	389,140	1,334	570,182	90 %	43,238
San Diego - San Francisco	16,816	178	43,308	17 %	82,099
Boston - Washington	182,550	962	213,511	95 %	9,608
Detroit - Chicago	0	0	0	0 %	99,373
Washington - San Francisco	224,478	984	574,251	100 %	0
Washington - Seattle	221,830	790	390,080	87 %	33,147
Los Angeles - San Francisco	42,545	620	98,490	81 %	9,980
Washington - San Antonio	172,147	737	258,606	100 %	0
Cleveland - Chicago	83,438	735	147,073	100 %	0
Washington - Denver	120,398	699	301,085	100 %	0
Dallas - El Paso	58,724	343	90,073	57 %	44,301
Dallas - Houston	42,642	342	51,947	57 %	32,169
Washington - New York	24,819	301	44,057	52 %	22,910
Dallas - New Orleans	68,362	457	127,297	83 %	14,002
Oakland - San Diego	68,368	440	117,130	83 %	14,003
Dallas - San Antonio	60,700	503	75,870	100 %	0
Minneapolis/St Paul - Chicago	45,534	469	89,644	100 %	0
Others	7,177,446	34,722	10,894,371	100 %	0

Projected Travel & CO2 Emissions Savings from Video and Teleconferencing

Date Range: 4/1/2008 TO 12/31/2009

Demo Data

Run Date: 6/16/2010

	Air Spend (\$)	Trips (Count)	CO2 Emissions (Pounds)	CO2 Emissions Saved (Pounds)	% Saved (Emissions)	Savings (\$)	% Saved (\$)
Total Travel:	13,159,189	69,663	23,652,949				
Adjusted Totals:	13,159,189	69,663	23,652,949	0	0.0%	0	0.0%

Top 20 City Pairs	Air Spend (\$)	Trips (Count)	CO2 (Pounds)	% Adjusted	Savings (\$)
Washington - Kansas City	356,607	2,521	1,413,136	100 %	0
Washington - Chicago	259,112	2,375	633,139	100 %	0
Atlanta - Washington	365,242	2,169	624,987	100 %	0
Washington - Dallas	578,255	2,090	880,509	100 %	0
Detroit - Chicago	141,221	1,322	187,495	100 %	0
Washington - San Francisco	356,446	1,289	762,373	100 %	0
Boston - Washington	229,545	1,200	286,479	100 %	0
San Diego - San Francisco	117,824	1,137	285,855	100 %	0
Washington - Seattle	313,995	1,118	575,073	100 %	0
Cleveland - Chicago	109,813	951	188,918	100 %	0
Los Angeles - San Francisco	65,855	924	161,194	100 %	0
Washington - Denver	154,525	879	394,543	100 %	0
Minneapolis/St Paul - Chicago	82,549	832	167,123	100 %	0
Dallas - El Paso	128,767	814	214,389	100 %	0
Dallas - New Orleans	117,004	793	222,064	100 %	0
Washington - San Antonio	186,300	786	375,095	100 %	0
Washington - New York	60,675	747	115,716	100 %	0
Dallas - Houston	88,852	713	113,949	100 %	0
Oakland - San Diego	100,045	671	177,394	100 %	0
Philadelphia - Pittsburgh	57,744	600	97,925	100 %	0
Others	9,288,812	45,732	15,775,594	100 %	0



CO2 Emissions Dashboard

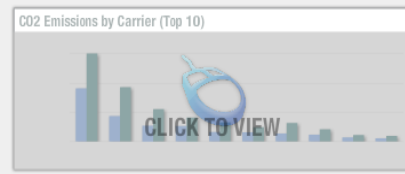
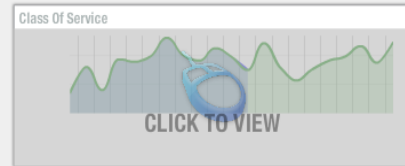
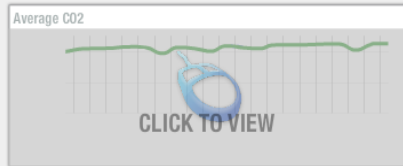
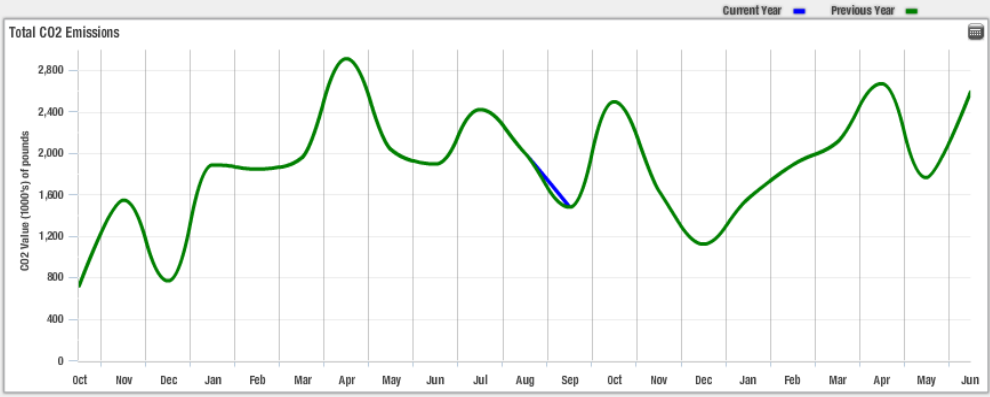
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 Report Date: Wed Jun 16 15:30:09 GMT-0400 2010

Current Year: 10/1/2007 to 9/30/2008
 Previous Year: 10/1/2007 to 9/30/2009
 Currency: USD

KPI Metrics

Pounds CO2 Produced (Millions) (21.5 / 39.3) ▼ Miles Flown (Millions) (51.7 / 92.6) ▼ Pounds CO2/Mile (0.41 / 0.42) ▼ % Direct Flights (87.31 / 86.27) ▼ % Coach COS (99.80 / 99.84) ▲

CO2 Performance Charts



Top 100 City Pairs

CITY NAMES	TOTAL CO2 (Pounds)	FLIGHT DISTANCE (Miles)	POUNDS CO2/MILE	TOTAL SPEND	FLIGHT CABIN (Segment Count)			
					COACH	BUSINESS	FIRST	
Washington-Dallas (DCA-DFW) Carriers (2)	863,787	2,463,172	0.35	569,324	1938	0	2	
Washington-Chicago (DCA-ORD) Carriers (3)	771,064	1,844,320	0.41	317,520	2792	0	3	
Washington-Kansas City (DCA-MCI) Carriers (2)	640,999	1,590,106	0.40	293,847	1587	0	0	
Atlanta-Washington (ATL-DCA) Carriers (3)	516,480	989,476	0.52	288,731	1669	1	0	
Washington-San Francisco (IAD-SFO) Carriers (2)	400,640	1,357,482	0.29	288,539	516	0	0	
Denver-Washington (DEN-IAD) Carriers (2)	266,377	754,389	0.35	179,810	474	0	0	
Anchorage-Seattle (ANC-SEA) Carriers (2)	174,819	612,258	0.28	167,276	405	0	0	
Washington-Denver (DCA-DEN) Carriers (2)	385,991	1,200,047	0.32	148,749	759	0	0	
Boston-Washington (BOS-DCA) Carriers (3)	167,839	282,846	0.59	144,234	671	0	0	
Minneapolis/St Paul-Chicago (MSP-ORD) Carriers (3)	204,591	355,807	0.57	137,327	997	0	0	
Chicago-San Francisco (ORD-SFO) Carriers (3)	330,766	1,089,512	0.30	121,592	565	0	0	
Washington-New Orleans (DCA-MSY) Carriers (3)	153,511	322,357	0.47	117,799	324	0	0	



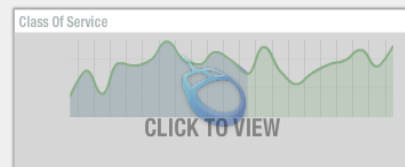
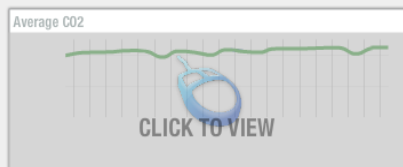
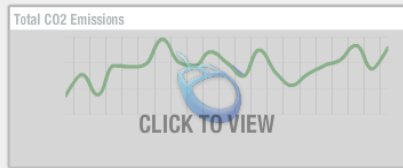
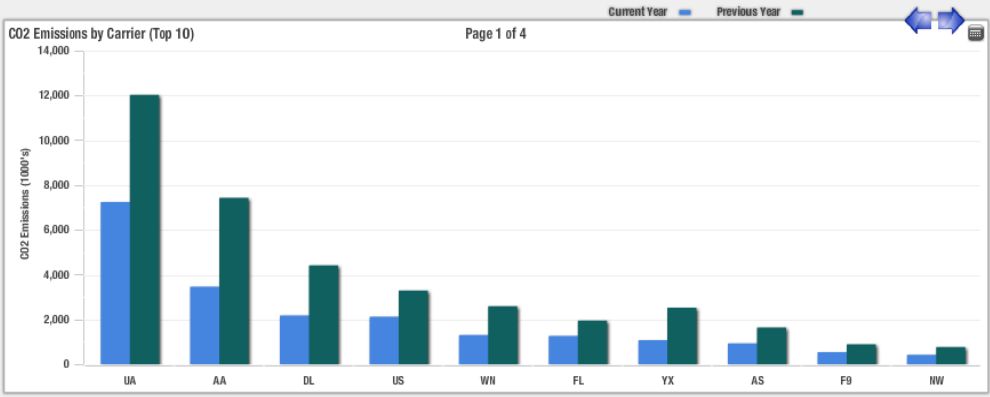
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GSA's Travel MIS today

- Independent 3rd Party Assessment Completed
- TMC current/historical data loaded (10/1/2007 to present)
- 85 Agencies and Independent Commissions
 - Aggregated from 22 travel agencies
- 200+ Users logged-in
- \$2.4B Business air travel
- 8.2M Transactions

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For More Information

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