University of North Carolina Greensboro
Greenhouse Gas Inventory Report
2009–2021

UNC GREENSBORO

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INTRODUCTION

This report tracks the anthropogenic greenhouse gas emissions, or carbon footprint, for the University of North Carolina Greensboro (UNCG) campus for the fiscal years (FY - July 1 to June 30) from 2009 to 2021. It provides details concerning the trends of UNCG's greenhouse gas emissions dating back to 2009, the year UNCG first conducted an inventory and the year the University considers to be its baseline by which the University measures its progress in becoming climate neutral by 2050 – a goal stated in the University of North Carolina System's Sustainability Policy[1] and in UNCG's Climate Action Plan.[2]

To measure our greenhouse gas inventory, UNCG uses the Sustainability Indicator Management and Analysis Platform (SIMAP),[3] which was developed and is managed by the Sustainability Institute at the University of New Hampshire. For the purposes of this report, UNCG used the Market Based calculation method which allows for the input of renewable energy generated on-site and for any renewable energy credits purchased by electricity users. The Market Based method also allows for the input of supplier-specific emissions factors (UNCG's utility provider is Duke Energy), whereas the Location Based method uses factors from the Emissions & Generation Resource Integrated Database (eGRID), which are based on a mix of utility providers from a broader region that expands outside of North Carolina.

To learn more about the differences in calculation methods and the intricacies of SIMAP's methodologies please read our Greenhouse Gas Inventory Report from 2018[4] or visit the SIMAP website.

As stated in the SIMAP User Guide, "…the carbon footprint is a measure of the greenhouse gases emitted from a campus' activities. It includes all six greenhouse gases specified by the Kyoto Protocol: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFC), and perfluorocarbons (PFC), and sulfur hexafluoride (SF6)." These gases are produced via different means of energy generation or chemical reactions in the environment and fall into the following categories: purchased electricity, on-campus stationary sources (propane, natural gas, and distillate oil), air and ground transportation, commuting, refrigerants and chemicals, fertilizers, solid waste, paper purchasing, T&D losses (inefficiencies in the power grid), and wastewater.

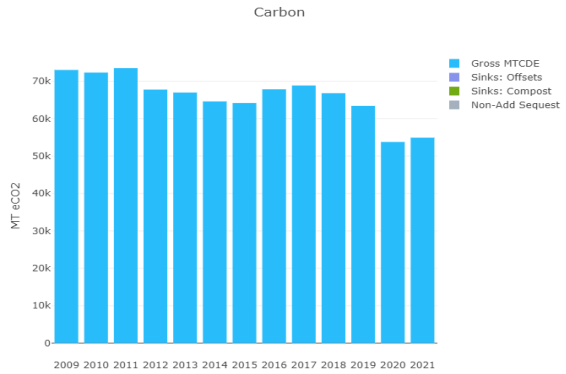
We report our carbon footprint in metric tons of carbon dioxide equivalent or MTeCO2. CO2 equivalents are a metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential relevant to one ton of carbon. To learn more, visit the Environmental Protection Agency's website on greenhouse gas emissions.[5]

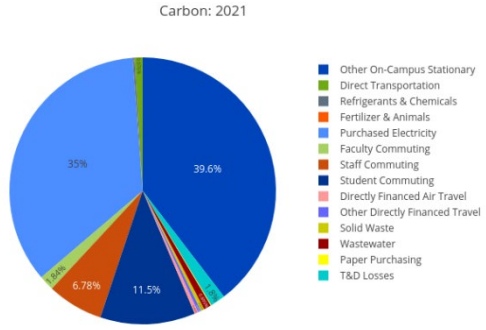
As you read through this report and compare the results to those of our previous reports, keep in mind SIMAP updates its methodology every year to reflect the most up-to-date scientific understandings, which is why the totals of MTeCO2 for previous fiscal years will not always be an exact match in our reports from year-to-year.

[1] https://www.northcarolina.edu/apps/policy/doc.php?id=776
[2] https://sustainability.uncg.edu/wp-content/uploads/2016/06/UNCG-Climate-Action-Plan.pdf
[3] https://sustainableunh.unh.edu/calculator
[4] https://sustainability.uncg.edu/wp-content/uploads/2019/11/UNCG-Greenhouse-Gas-Inventory-FY09-18-Final-Report.pdf
[5] https://www.epa.gov/ghgemissions/understanding-global-warming-potentials

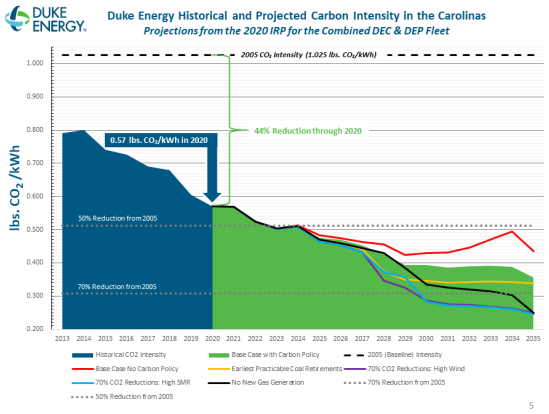
RESULTS

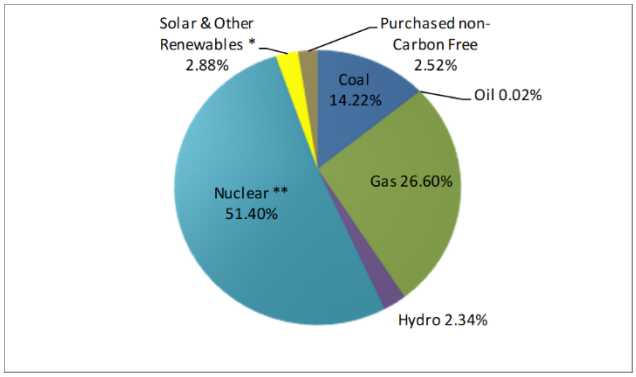
For FY21, UNCG's carbon footprint was **54,946 MTeCO2** which is a 25% reduction from our baseline FY09 footprint of 73,052 MTeCO2. Particularly, the 15% reduction that occurred from FY19 to FY20 can be attributed to several factors related to the COVID-19 pandemic which began in March of 2020 when UNCG's students and employees left campus to study and work from home for the rest of the spring semester and the summer of 2020. Overall, the largest declines in our carbon footprint can be attributed to reductions in emissions by our utility provider, Duke Energy; the reduced occupancy of campus and the related declines in business travel and student commuting due to the COVID-19 pandemic; and campus energy efficiency initiatives.





Duke Energy has decreased the carbon intensity of its energy generation sources by 44% since 2005 (see below). With the passing of North Carolina House Bill 951[6], which requires the retirement of several coal fired power plants in the state and calls for the development of more renewable energy, this is a trend we can expect to continue. It is important to know the sources of Duke Energy's electricity generation, 43% of which is from fossil fuels (see pie chart below), because the greenhouse gases associated with UNCG's purchased electricity accounts for 35% of the University's carbon footprint (see pie chart above). While a 3% total of renewable energy production from Duke is not particularly significant, it is worth noting North Carolina has historically been in the top 3 states nationwide for solar generation.[7]



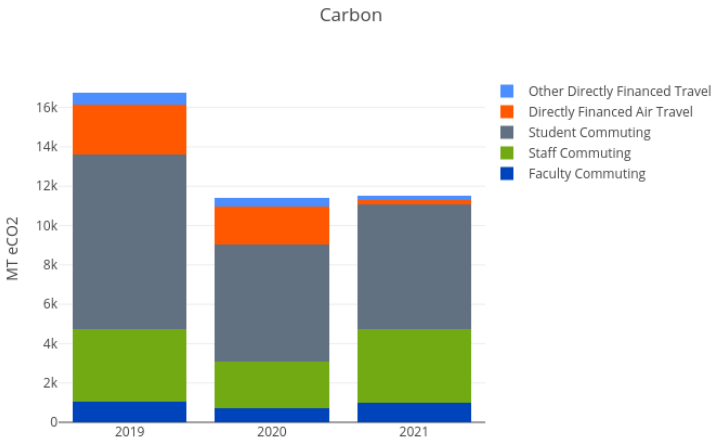


[6] https://www.ncleg.gov/Sessions/2021/Bills/House/PDF/H951v6.pdf
[7] https://www.ecowatch.com/top-states-for-solar-energy-2653783171.html#toggle-gdpr

UNCG's enrollment for FY21 decreased by 2% and the number of residential students declined by 29% compared to FY19 and FY20. Likewise, the number of students only taking classes remotely doubled to more than 6,400 in FY21.

Those student enrollment factors contributed to a 29% reduction in Scope 3 emissions attributed to student commuters from FY19 to FY21. During the same 3-year period, commuting emissions from faculty only declined by 3% and emissions from staff increased by 1%, having rebounded from a decline of 30% and 36% respectively in FY20, whereupon returning to campus for FY21, emissions increased by 37% (faculty), 59% (staff), and 7% (students). More details related to commuting are addressed in the Next Steps section of this report.

Additionally, the State of North Carolina implemented out-of-state travel restrictions that lasted until the summer of 2021 which resulted in a 90% reduction in emissions related to air travel and a 66% reduction from ground travel. That is equivalent to a reduction of 5.2 million air miles and 1.1 million ground miles traveled in FY21 compared to FY19, which also resulted in a savings of more than $2 million for the university.

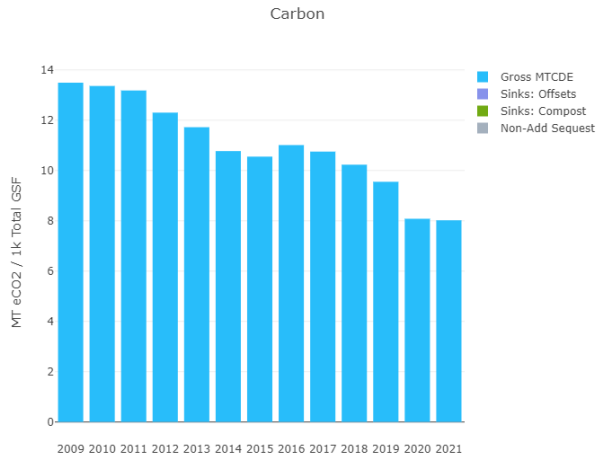


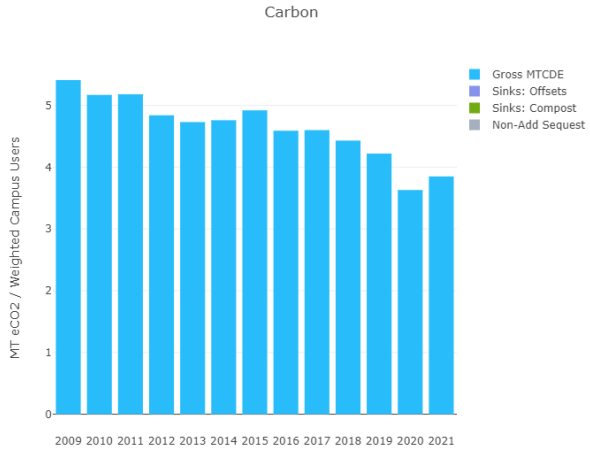
Historically, air and ground business travel contribute to approximately 5% of UNCG's annual total carbon footprint and student commuting approximately 14%. The declines in business travel and student commuting combined for a total reduction of 5,232 MTeCO2 or 53% of UNCG's total reduction in emissions from 2019-2021.

The next largest contributing factor in the reduction of UNCG's carbon footprint from FY19 to FY21 came from the decline in the amount of electricity the university purchased from Duke Energy, which amounted to a 17% decrease in related emissions or 4,034 MTeCO2, equivalent to 41% of UNCG's total reduction during that three-year period. While the decline in student enrollment and residential students likely played a part, energy efficiency projects on campus had achieved a 20% reduction in related emissions from purchased electricity by 2019, before the pandemic began.

Between 2009 and 2021, UNCG has added over approximately 1.3 million gross square feet in building space and has enrolled approximately 2,700 more students. That's approximately a 24% increase in gross square feet and an 18% increase in the student population over the past 13 fiscal years.

Despite those trends which have contributed to a 9% overall increase of total kWh of electricity used on campus since 2009, UNCG's commitments to improving its energy data analysis capabilities, to designing new buildings to United States Green Building Council's LEED Silver standards, and to continued participation in the HB 1292 utility savings carry forward initiative, have helped the university achieve a 41% MTeCO2 reduction per 1000 gross square feet and a 29% MTeCO2 reduction per weighted campus in FY21, or 29% and 22% respectively by FY19, pre-pandemic. The positive impact of those commitments is reflected in a 21% reduction of energy consumption per square foot and the associated $59.2 million dollars of avoided costs in energy and water bills since 2003 – about which more detail can be read in UNCG's annual Strategic Energy Plan reports.[8]



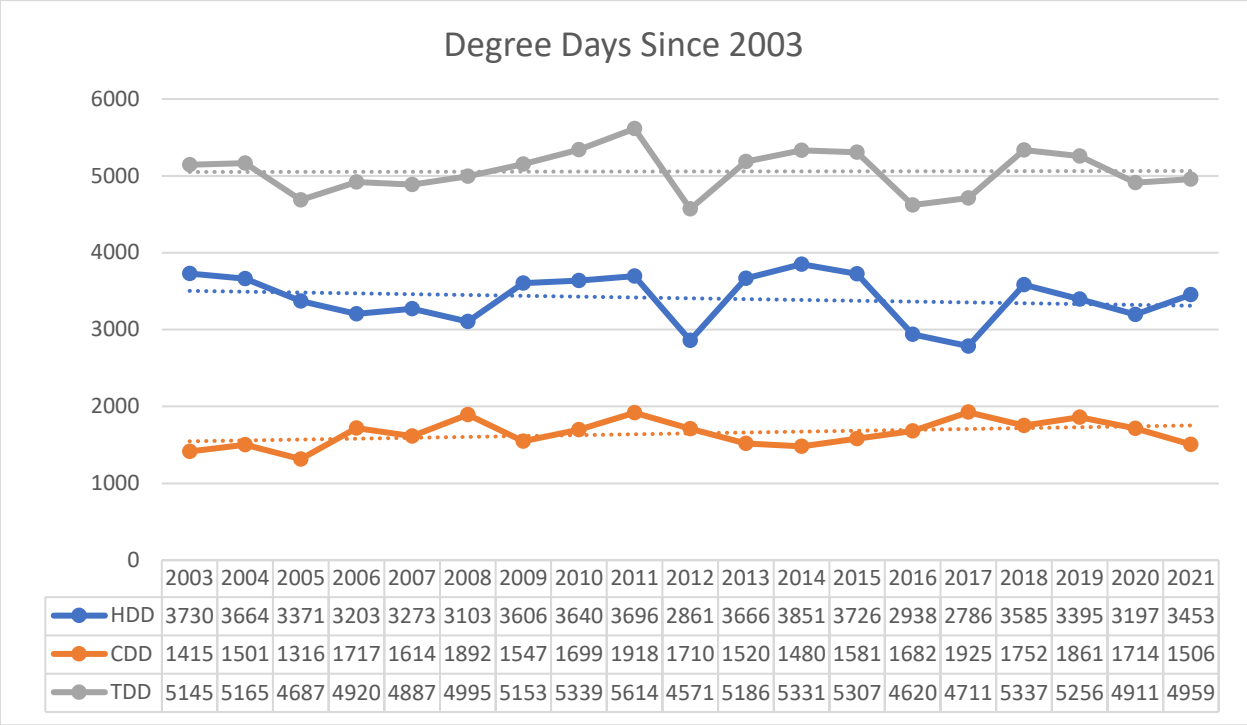


NEXT STEPS

Although global greenhouse gas emissions dipped 5.8 percent in 2020, emissions have since rebounded and the amount of carbon dioxide in the Earth's atmosphere recently reached a record high of 419 parts per million in November of 2021.[9] According to the National Oceanic and Atmospheric Administration, 2020 was the 2nd hottest year in recorded history and the 10 warmest years on record have all occurred since 2005, putting the average global temperature on course for an increase of 5 degrees Fahrenheit in average temperature by 2050.[10]

The frequency and intensity to which average daily temperatures rise above and dip below 65 degrees Fahrenheit will continue to pose a challenge, as higher highs and lower lows increase the need to use HVAC systems on campus. While the past three years recorded only slightly above average temperatures in the winter and moderate summers, overall, there has been a 6% increase in cooling degree days (CCD) and a 7% decline in heating degree days (HDD), which have also become more erratic, in the Triad region since 2003 (see next page).[11]

[8] https://sustainability.uncg.edu/action-areas/energy/
[9] https://www.nytimes.com/2021/06/07/climate/climate-change-emissions.html
[10] https://www.climate.gov/news-features/understanding-climate/climate-change-global-temperature
[11] A degree day being equal to one degree above or below 65 degrees Fahrenheit based on the average temperature for the day. For example, an average temperature of 75 for a day is equal to 10 cooling degree days.



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
HDD	3730	3664	3371	3203	3273	3103	3606	3640	3696	2861	3666	3851	3726	2938	2786	3585	3395	3197	3453
CDD	1415	1501	1316	1717	1614	1892	1547	1699	1918	1710	1520	1480	1581	1682	1925	1752	1861	1714	1506
TDD	5145	5165	4687	4920	4887	4995	5153	5339	5614	4571	5186	5331	5307	4620	4711	5337	5256	4911	4959

Somewhat mirroring the global trend, UNCG's carbon footprint declined by 15% between FY19 and FY20, but also experienced a 2% increase from FY20 to FY21 as people returned to campus. Although the university's overall carbon footprint has declined by 25% since 2009, Scope 1 emissions related to on-campus stationary fuels have increased by 22% during that time; in 2021 they surpassed emissions from purchased electricity for the first time to become the largest contributor to our carbon footprint. In particular, natural gas consumption has increased by 21% since 2009 and reached record high usage in 2021, accounting for 60% of UNCG's total energy usage.

The increase is due, in part, to a couple of reasons. UNCG is an R2 research institution and has experienced a 129% increase in gross square footage of laboratory space since 2009, which is more energy intensive compared to general classroom and office space. The record usage in natural gas in FY21 can also be partly attributed to damage caused to UNCG's steam condensate lines (Facilities Operations identified and repaired 5 leaks) due to a 5.0 magnitude earthquake that occurred 100 miles away in Sparta, NC, in August of 2020,[12] which put additional temporary stress on the campus's steam production system.

Furthermore, while the smaller campus population contributed to reduced Scope 3 emissions from commuters, commuting is still the 3rd largest contributor to UNCG's carbon footprint. While the desire and ability for employees and students to work and study from home are increasing, there are some caveats to consider. Studies show that emissions are being transferred between sources, e.g., electricity usage at our places of work may be less, but it's increasing in our homes.[13]

[12] https://www.newsobserver.com/news/state/north-carolina/article256090842.html
[13] https://www.bloomberg.com/news/articles/2021-03-29/is-telecommuting-really-greener-it-depends

Similarly, public transit systems are struggling because of a lack of ridership due to continuing fears related to the pandemic, which may not be an issue for individuals and families who can afford a personal vehicle, but certainly has ramifications for people in low-income communities who may not be able to work from home and are dependent on public transportation, which is inherently less expensive and less carbon intensive than car ownership.[14]

Among respondents to the FY21 UNCG Commuter & Transportation Survey, 64% of faculty, 83% of staff, and 49% of students indicated they travel to campus via a personal automobile. 43% of all respondents indicated they would possibly be willing to participate in a carpool with colleagues via ShareTheRideNC[15] if there was an improvement in pandemic conditions, which would help reduce commuter emissions.

Start	End	Campus	Tags	Category	Automobile %	Bike %	Carpool %	Commuter Rail %	Light Rail %	Public Bus %	Walk %
2020-07-01	2021-06-30	Main		Faculty Commuting	64	7	17	0	0	0	12
2020-07-01	2021-06-30	Main		Staff Commuting	83	2	9	0	0	1	5
2020-07-01	2021-06-30	Main		Student Commuting	49	9	36	0	0	2	4

When asked about their reasons for not walking or biking to campus, 72% of automobile drivers indicated they live too far from campus, with the average distance from campus for employees and students being approximately 14 miles. The need to drop-off and pick-up children at school or a simple preference for driving were also indicators of personal automobile use.

Additionally, 33% of respondents indicated roads in Greensboro are generally unsafe for biking and walking, often due to a lack of bicycle lanes and pedestrian safety measures, poor lighting, and feeling unsafe from automobile drivers, all concerns reflective of traditional designs of transportation infrastructure which favor the use of personal automobiles.

However, UNCG's commuter data should be taken with a grain of salt as there was not enough participation in the most recent survey to provide a significant amount of data to be able to calculate a statistically accurate percent of usage between modes of travel and the average distance traveled to campus by employees and students. Less than 50 non-resident students and 50 faculty participated, while about 140 staff completed the survey – only 1% of UNCG's total population.

If we are to fully understand the extent to which commuting contributes to our carbon emissions and learn more about the transportation needs and desires of members in our local and regional communities, more participation in the survey is required. It is available in the sustainability tile on the UNCG Mobile app.

[14] https://www.nytimes.com/2021/03/25/climate/buses-trains-ridership-climate-change.html
[15] https://www.sharetheridenc.org/Public/Home.aspx

As the university continues to return to pre-pandemic levels of operations, it is likely the upward trend in emissions we experienced between FY20 and FY21 will continue somewhat, but if we consider FY19 as the last business-as-usual year, UNCG achieved a 13% reduction in its carbon footprint since 2009 and achieved a 5% reduction from FY18 to FY19 - the second largest one-year reduction since UNCG started tracking its carbon footprint (not taking into account the 15% decline from FY19 to FY21 due to the pandemic). A 13% reduction over 11 years, puts UNCG on track to achieve an overall 48% reduction by 2050, less than half of its stated goal.

As UNCG pursues its commitments to achieving climate neutrality by 2050 and to meeting the goals of North Carolina Governor Roy Cooper's Executive Order 80, which put the State on a path to reduce statewide greenhouse gas emissions to 40% below 2005 levels, the university will continue to analyze its carbon footprint and identify and improve best practices to reduce greenhouse gas emissions, particularly regarding pollutants that contribute a significant percentage of its emissions, e.g., purchased electricity, use of stationary fuel sources, and student and employee commuting.

More key statistics, data, and infographics are provided in the appendices. More information regarding recent resource conservation projects on campus can be found in the 2021 Energy and Water Plan Annual Report.[16] More information regarding the future integration of sustainability initiatives on campus can be found in the 2020 Campus Plan.[17]

[16] https://sustainability.uncg.edu/wp-content/uploads/2021/09/UNCG-Energy-Water-Plan-Annual-Report-2021.pdf
[17] https://facdc.uncg.edu/wp-content/uploads/2020/12/20201030_UNCG-The-2020-Campus-Plan_External-Report_Spreads.pdf

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APPENDICES

SIMAP SCOPE DEFINITIONS

Scope 1 – Direct emissions from sources that are owned and/or controlled by your institution. This includes combustion of fossil fuels in college-owned facilities or vehicles, fugitive emissions from refrigeration, and emissions from on-campus agriculture or livestock husbandry. Your institution has complete control over these emissions, and they are no-one else's responsibility. Examples of these generally include the following:

• On-Campus Stationary Sources
Emissions from all on-campus fuel combustion, excluding vehicle fuels

• Direct Transportation Sources
Emissions from all fuel used in the institution's fleet (the vehicles it owns)

• Agriculture
N2O emissions from fertilizer use and CH4 emissions from animals (cattle, horses, etc.)

• Refrigeration and other Chemicals
Fugitive emissions from refrigerants and other sources

Scope 2 – Indirect emissions from sources that are neither owned nor operated by your institution but whose products are directly linked to on campus energy consumption. This includes purchased energy: electricity, steam, and chilled water. Although your institution is not directly responsible for these emissions, it is strongly implicated. These emissions come from converting energy sources that release greenhouse gas emissions when used (fossil fuels) to energy sources that do not (electricity, steam, or chilled water). Although your institution did not burn the coal to make the electricity you use, someone had to, and although the electricity producer emitted the gasses, they did not use any of the energy produced.

• Purchased Electricity
Emissions from the production of any electricity the institution purchases off-campus

• Purchased Steam
Emissions from the production of steam purchased from off-campus

• Purchased Chilled Water
Emissions from the production of chilled water purchased from off-campus

• Renewable Energy Certificates

Scope 3 – Other emissions attributed to your institution, deemed "optional" emissions by corporate inventories. This includes emissions from sources that are neither owned nor operated by your institution but are either directly financed (i.e., commercial air travel paid for by the institution) or are otherwise linked to the campus via influence or encouragement (i.e. air travel for study abroad programs, regular faculty, staff, and student commuting). Many Scope 3 emissions are considered "upstream" like the emissions associated with making and transporting plastic silverware. To prevent institutions from accounting for too many upstream emissions, most campuses define distinct financial or control boundaries to distinguish which Scope 3 emissions they are indeed responsible for.

• Commuting
Emissions from regular commuting by faculty, staff, or students (does NOT include student travel to and from home over breaks) (note – student commuting is generally considered to be under more institutional control than staff/faculty commuting)

• Directly Financed Outsourced Transportation
Emissions from travel that is paid for by the institution, but does not occur in fleet vehicles (business trips in commercial aircraft, staff travel in personal vehicles where mileage is reimbursed, etc.)

• Study Abroad Air Travel
Emissions from students flying to their study abroad location

• Transportation and Distribution Losses from Purchased Energy
Energy lost while transporting purchased electricity, steam, or chilled water to campus

• Food
Emissions from producing, transporting, preparing, consuming, and composting food

• Upstream Emissions from Directly Financed Purchases
Emissions associated with paper production, food production, fuel extraction, etc.

• Solid Waste and Wastewater
Emissions from managing the institution's waste (incineration, landfilling, etc.)

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KEY STATISTICS

FY09 to FY19

Total Emissions:	**-9,606 MTeCO2**	**-13%**
Scope 1:	**+2,688 MTeCO2**	**+14%**
Scope 2:	**-5,829 MTeCO2**	**-20%**
Scope 3:	**-6,465 MTeCO2**	**-26%**
MTeCO2 per Weighted Campus User:		**-22%**
MTeCO2 per 1000GSF:		**-29%**

FY19 to FY20

Total Emissions:	**-9,651 MTeCO2**	**-15%**
Scope 1:	**+1,240 MTeCO2**	**-6%**
Scope 2:	**-2,924 MTeCO2**	**-34%**
Scope 3:	**-5,487 MTeCO2**	**-47%**
MTeCO2 per Weighted Campus User:		**-14%**
MTeCO2 per 1000GSF:		**-15%**

FY20 to FY21

Total Emissions:	**+1,150 MTeCO2**	**+2%**
Scope 1:	**+2,318 MTeCO2**	**+12%**
Scope 2:	**-1,110 MTeCO2**	**-5%**
Scope 3:	**-56 MTeCO2**	**0%**
MTeCO2 per Weighted Campus User:		**+6%**
MTeCO2 per 1000GSF:		**-1%**

FY09 to FY21

Total Emissions:	**-18,106 MTeCO2**	**-25%**
Scope 1:	**+3,765 MTeCO2**	**+20%**
Scope 2:	**-9,863 MTeCO2**	**-34%**
Scope 3:	**-12,009 MTeCO2**	**-47%**
MTeCO2 per Weighted Campus User:		**-29%**
MTeCO2 per 1000GSF:		**-41%**

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FY21 MTeCO2 Categories & Scopes

Categories

Carbon

Fiscal Year	Scope	Source	CO2 (kg)	CO2 (MTCDE)	CH4 (kg)	CH4 (MTCDE)	N2O (kg)	N2O (MTCDE)	GHG MTCDE
2021	1	Other On-Campus Stationary	21,666,895	21,666.89	2,172	60.82	45	11.98	21,739.69
2021	1	Direct Transportation	532,027	532.03	20	0.56	13	3.50	536.09
2021	1	Refrigerants & Chemicals	0	0.00	0	0.00	0	0.00	129.54
2021	1	Fertilizer & Animals	0	0.00	0	0.00	9	2.28	2.28
2021	2	Purchased Electricity	19,092,820	19,092.82	2,364	66.18	318	84.14	19,243.14
2021	3	Faculty Commuting	998,241	998.24	54	1.51	34	8.91	1,008.65
2021	3	Staff Commuting	3,688,495	3,688.50	197	5.52	123	32.68	3,726.70
2021	3	Student Commuting	6,275,308	6,275.31	320	8.97	201	53.16	6,337.44
2021	3	Directly Financed Air Travel	244,374	244.37	3	0.08	3	0.74	245.19
2021	3	Other Directly Financed Travel	205,918	205.92	11	0.31	8	1.99	208.22
2021	3	Solid Waste	0	0.00	8,350	233.79	0	0.00	233.79
2021	3	Wastewater	0	0.00	16,818	470.89	79	20.95	491.84
2021	3	Paper Purchasing	0	0.00	0	0.00	0	0.00	55.33
2021	3	T&D Losses	979,947	979.95	121	3.40	16	4.32	987.66

Scopes

Carbon

Fiscal Year	Scope	CO2 (kg)	CH4 (kg)	N2O (kg)	GHG MTCDE
2021	1	22,198,922	2,192	67	22,407.59
2021	2	19,092,820	2,364	318	19,243.14
2021	3	12,392,284	25,874	463	13,294.82

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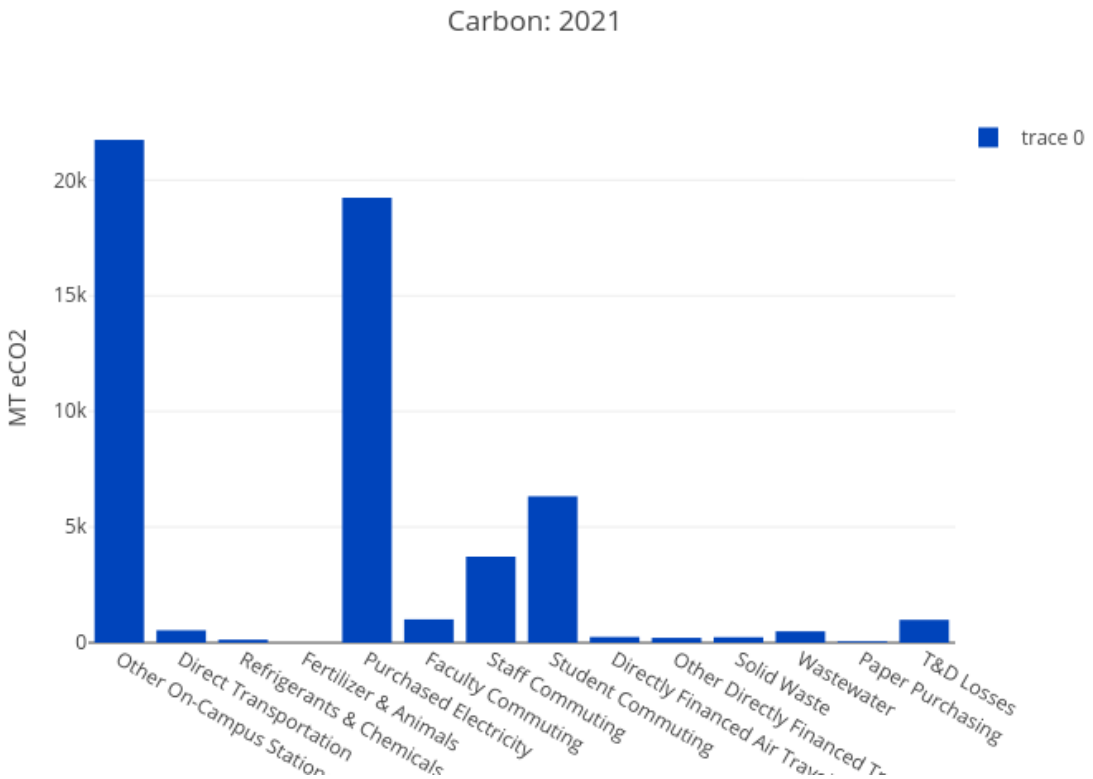
FY21 MTeCO2 Per Category



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FY09-21 MTeCO2 Totals

Carbon

Fiscal Year	CO2 (kg)	CH4 (kg)	N2O (kg)	Gross MTCDE	Offsets (MTCDE)	Compost (MTCDE)	Non-Additional Sequestration (MTCDE)	Biogenic (MT CO2)	Net MTCDE
2009	71,270,471	37,810	1,960	73,052.14	0.00	0.00	-79.31	39.98	73,052.14
2010	70,704,613	31,645	1,757	72,353.40	0.00	0.00	-80.85	47.22	72,353.40
2011	71,896,208	21,932	1,606	73,542.14	0.00	0.00	-80.85	47.57	73,542.14
2012	66,310,740	27,166	1,280	67,803.51	0.00	-5.04	-81.62	46.21	67,798.47
2013	65,232,739	28,763	1,279	67,006.18	0.00	0.00	-82.39	44.33	67,006.18
2014	62,477,775	30,469	1,142	64,639.54	0.00	0.00	-83.16	48.47	64,639.54
2015	62,088,051	32,419	1,055	64,210.11	0.00	0.00	-85.47	34.79	64,210.11
2016	66,170,222	32,225	1,034	67,883.64	0.00	0.00	-85.47	20.49	67,883.64
2017	67,314,623	33,013	1,075	68,892.34	0.00	0.00	-85.47	23.39	68,892.34
2018	65,521,364	30,255	919	66,840.23	0.00	0.00	-85.47	14.66	66,840.23
2019	62,090,541	33,142	1,007	63,446.11	0.00	0.00	-85.47	12.74	63,446.11
2020	52,483,242	31,835	810	53,794.82	0.00	0.00	-85.47	10.06	53,794.82
2021	53,684,025	30,429	848	54,945.55	0.00	0.00	-85.47	8.37	54,945.55

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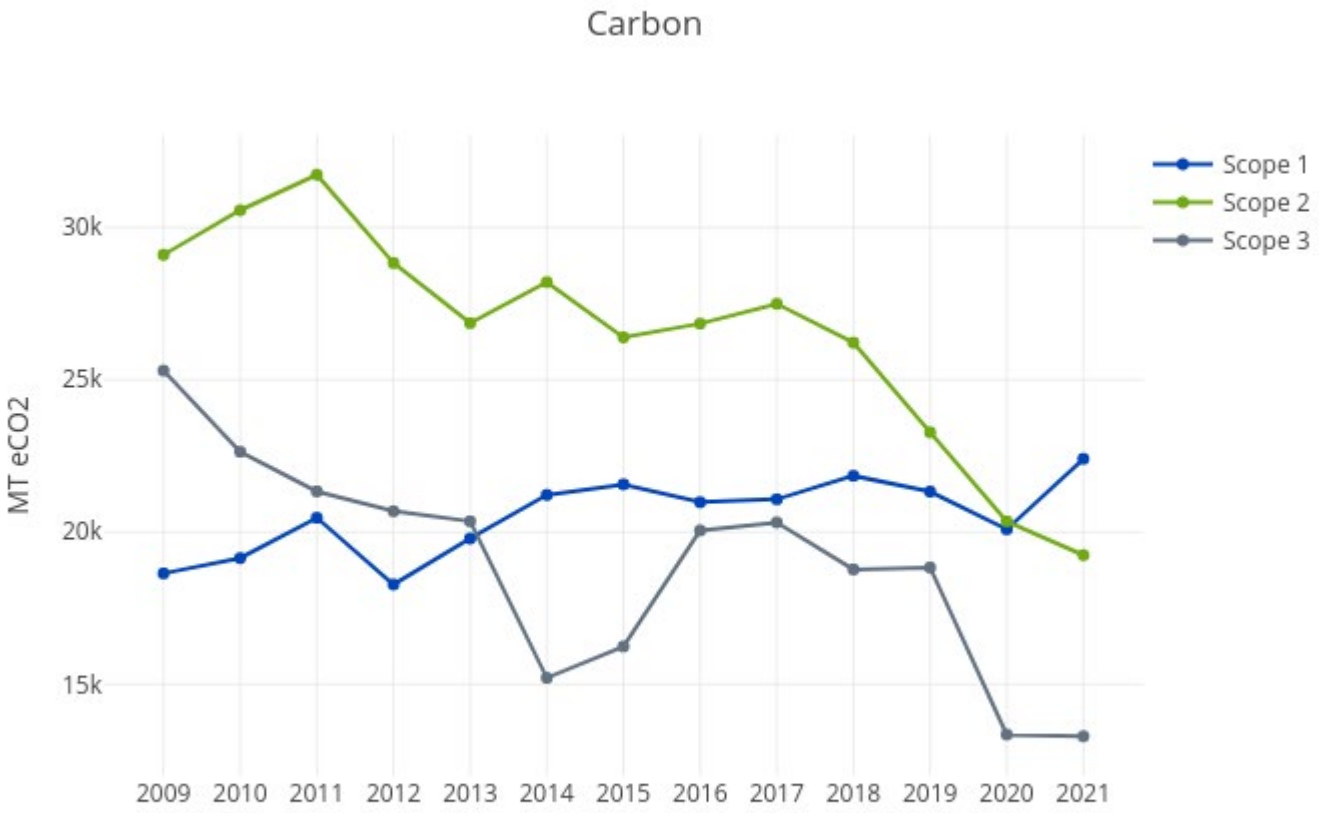
FY09-21 MTeCO2 Per Scope



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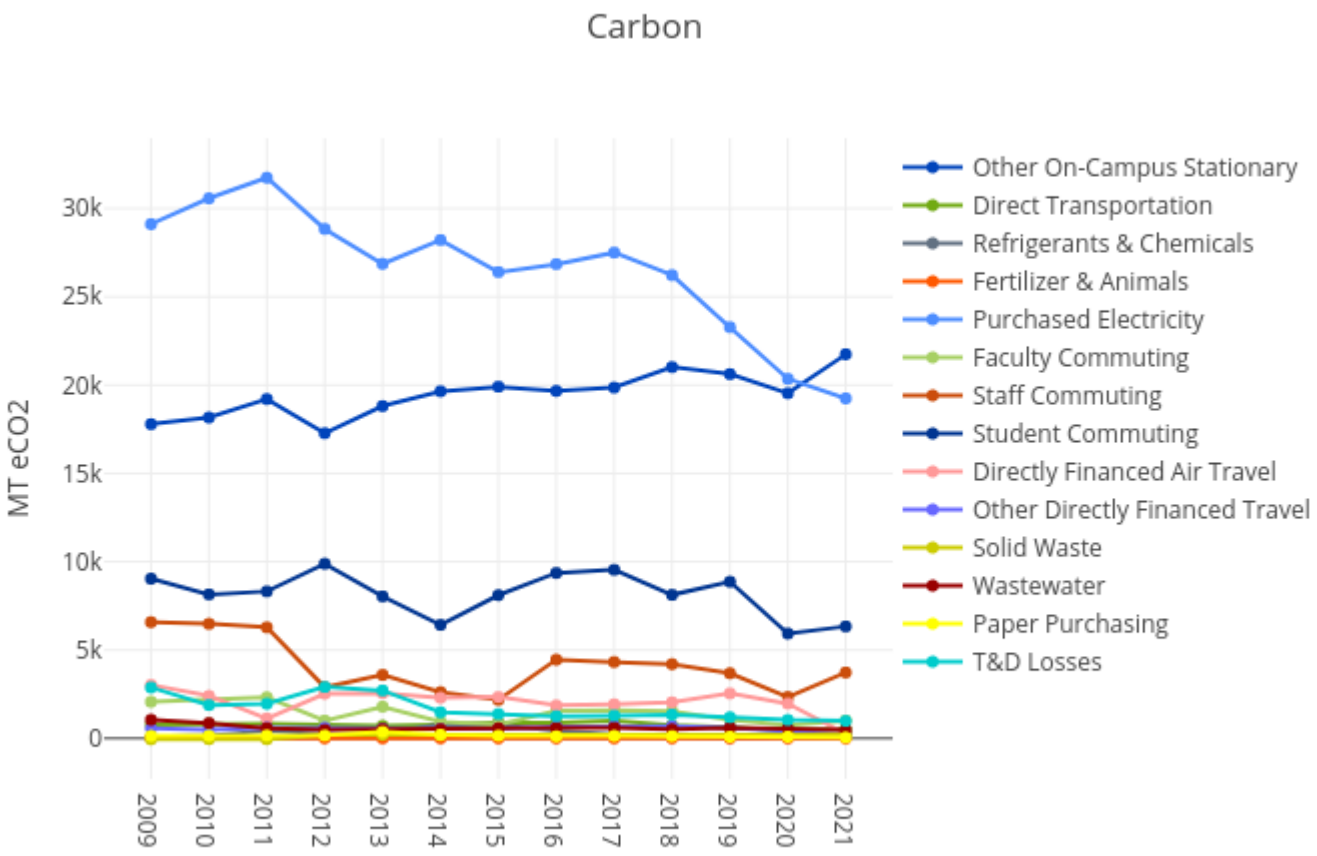
FY09-21 MTeCO2 Per Category



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FY09-18 MTeCO2 Per 1000GSF

Carbon

Fiscal Year	CO2 (kg)	CH4 (kg)	N2O (kg)	Gross MTCDE	Offsets (MTCDE)	Compost (MTCDE)	Non-Additional Sequestration (MTCDE)	Biogenic (MT CO2)	Net MTCDE
2009	13,160	7	0	13.49	0.00	0.00	-0.01	0.01	13.49
2010	13,056	6	0	13.36	0.00	0.00	-0.01	0.01	13.36
2011	12,881	4	0	13.18	0.00	0.00	-0.01	0.01	13.18
2012	12,033	5	0	12.30	0.00	0.00	-0.01	0.01	12.30
2013	11,411	5	0	11.72	0.00	0.00	-0.01	0.01	11.72
2014	10,414	5	0	10.77	0.00	0.00	-0.01	0.01	10.77
2015	10,202	5	0	10.55	0.00	0.00	-0.01	0.01	10.55
2016	10,735	5	0	11.01	0.00	0.00	-0.01	0.00	11.01
2017	10,504	5	0	10.75	0.00	0.00	-0.01	0.00	10.75
2018	10,032	5	0	10.23	0.00	0.00	-0.01	0.00	10.23
2019	9,346	5	0	9.55	0.00	0.00	-0.01	0.00	9.55
2020	7,882	5	0	8.08	0.00	0.00	-0.01	0.00	8.08
2021	7,831	4	0	8.02	0.00	0.00	-0.01	0.00	8.02

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FY09-18 MTeCO2 Per Weighted Campus User

Carbon

Fiscal Year	CO2 (kg)	CH4 (kg)	N2O (kg)	Gross MTCDE	Offsets (MTCDE)	Compost (MTCDE)	Non-Additional Sequestration (MTCDE)	Biogenic (MT CO2)	Net MTCDE
2009	5,279	3	0	5.41	0.00	0.00	-0.01	0.00	5.41
2010	5,057	2	0	5.17	0.00	0.00	-0.01	0.00	5.17
2011	5,060	2	0	5.18	0.00	0.00	-0.01	0.00	5.18
2012	4,729	2	0	4.84	0.00	0.00	-0.01	0.00	4.84
2013	4,600	2	0	4.73	0.00	0.00	-0.01	0.00	4.73
2014	4,603	2	0	4.76	0.00	0.00	-0.01	0.00	4.76
2015	4,761	2	0	4.92	0.00	0.00	-0.01	0.00	4.92
2016	4,470	2	0	4.59	0.00	0.00	-0.01	0.00	4.59
2017	4,497	2	0	4.60	0.00	0.00	-0.01	0.00	4.60
2018	4,341	2	0	4.43	0.00	0.00	-0.01	0.00	4.43
2019	4,128	2	0	4.22	0.00	0.00	-0.01	0.00	4.22
2020	3,545	2	0	3.63	0.00	0.00	-0.01	0.00	3.63
2021	3,760	2	0	3.85	0.00	0.00	-0.01	0.00	3.85