UNIVERSITY OF CALIFORNIA HEALTH

Scope 3 Emissions Inventory Report

Executive Summary

February 2025

This report provides an inventory of scope 3 (corporate value chain) greenhouse gas (GHG) emissions for the University of California Health system (UC Health) in calendar year 2022 (CY 2022). Additionally, this report aims to serve as a comprehensive manual for ensuring that future progress, compared to the baseline year 2022, can be accurately tracked by the University of California Office of the President (UCOP) and UC Health. The UC Health system comprises six academic health centers; however, the scope of this report includes only the five which own and operate medical centers: UC Davis Health (UCDH), UCI Health (UCIH), UCLA Health (UCLAH), UC San Diego Health (UCSDH), and UCSF Health (UCSFH), across which seven scope 3 categories were calculated:

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 3: Fuel- and energy-related activities
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations
- Category 6: Business travel
- Category 7: Employee commuting

While there are 15 official categories of scope 3 emissions defined by the U.S. Environmental Protection Agency (EPA), only the first seven are considered in-scope for this report due to data availability and limited downstream supply chains for our academic health centers ("Scope 3 Inventory Guidance").

The calculation methodology employed was decided based on data availability, using tools and recommendations provided by Practice Greenhealth (PGH), a nonprofit organization that seeks to reduce the environmental footprint of the health care industry. Data sources also varied depending on the category in question. For example, categories 1 and 2 employ spend data from UC Health accounts payable (AP) records; category 3 sources data from utility bills; category 4 sources data from a mix of distributors and AP records; category 5 data is tracked in Key Green Solutions (KGS), a metrics-tracking software; category 6 data is tracked in Connexxus, the UC systemwide travel program; and category 7 data is sourced from annual commuter transportation surveys, cordon counts and parking permit registries.

EXECUTIVE SUMMARY RESULTS

Figure 1: Chart of total emissions (MT CO2e) rounded to the nearest whole number by category for each academic health center in CY 2022.

2022 UC Health Scope 3 Inventory (MT CO2e)								
UC Academic Health Center	Category 1 – Purchased Goods and Services	Category 2 – Capital Goods	Category 3 – Fuel- and Energy-Related Activities	Category 4 – Upstream Transportation and Distribution	Category 5 – Waste Generated in Operations	Category 6 – Business Travel	Category 7 – Employee Commuting	TOTAL
UC Davis	232,049	139,210	10,524	1,460	2,098	2,252	19,665	**407,259**
UC Irvine	160,359	43,377	2,777	1,576	680	1,008	7,572	**217,350**
UC Los Angeles	261,818	141,187	8,363	7,854	2,072	2,853	12,363	**436,511**
UC San Diego	322,559	36,922	8,398	3,895	2,008	1,609	7,842	**383,233**
UC San Francisco	379,833	121,732	6,605	3,204	2,280	2,429	14,060	**530,143**
TOTAL	**1,356,618**	**482,429**	**36,667**	**17,990**	**9,138**	**10,151**	**61,502**	**1,974,496**

Figure 2: Total scope 3 emissions (MT CO2e) by category and academic health center in CY 2022.

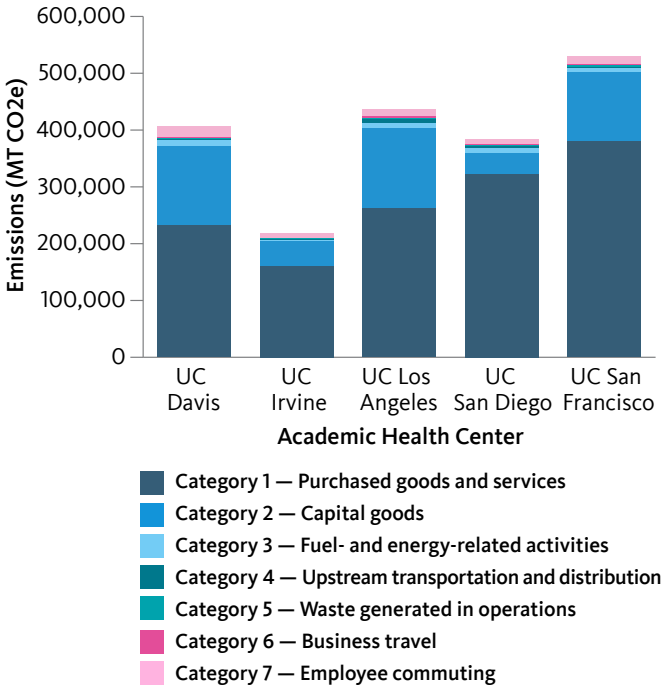
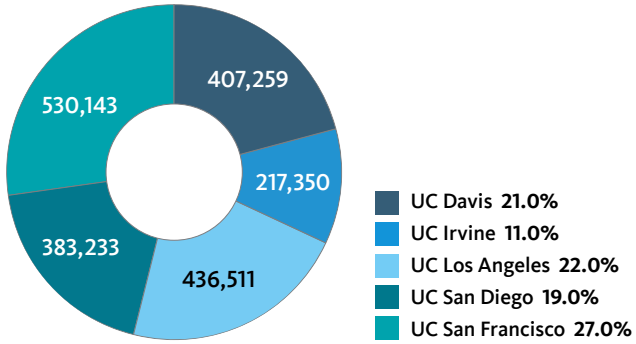


Figure 3: Total scope 3 emissions (MT CO2e) by academic health center in CY 2022.



In total, it is estimated that the scope 3 emissions for five of the UC's academic health centers in CY 2022 is **1,974,496 MT CO2e**.

Of the seven categories calculated, categories 1 and 2 encompass 94% of these emissions (69% and 25%, respectively). As a result, these two categories should be the priority for scope 3 emissions reductions efforts in order to achieve maximum impact. Worth noting also is that half of category 1 emissions, equivalent to 35% of total scope 3 emissions in CY 2022, comes solely from the purchase of pharmaceutical products such as pills, powders and solutions.

Figure 3 shows the contributions of categories 3–7 to the remaining 6% of scope 3 emissions. As shown in the figure, nearly half of the remaining 6% of emissions come from category 7 (employee commuting) (46%; 61,501 MT CO2e). Additionally, 27% of the remaining 6% of emissions come from category 3 (fuel- and energy-related activities) (36,667 MT CO2e). The remaining 27% of these emissions are from categories 4, 5 and 6.

With this information, UC Health will be able to develop emissions reductions efforts targeted towards emissions categories that have the greatest impact."

Figure 4: Emissions (MT CO2e) per APD for each category across all five academic health centers in CY 2022.

2022 UC Health Scope 3 Emissions per APD (MT CO2e)							
UC Academic Health Center	Category 1 – Purchased Goods and Services	Category 2 – Capital Goods	Category 3 – Fuel- and Energy-Related Activities	Category 4 – Upstream Transportation and Distribution	Category 5 – Waste Generated in Operations	Category 6 – Business Travel	Category 7 – Employee Commuting
UC Davis	0.614	0.369	0.028	0.004	0.006	0.006	0.052
UC Irvine	0.636	0.172	0.011	0.006	0.003	0.004	0.030
UC Los Angeles	0.585	0.317	0.019	0.018	0.005	0.006	0.028
UC San Diego	0.674	0.077	0.018	0.008	0.004	0.003	0.016
UC San Francisco	0.904	0.290	0.016	0.008	0.005	0.006	0.033

Figure 4 shows emissions per APD, thus allowing us to make a proportional comparison of the emissions from each academic health center giving respect to their different patient loads. This information will be helpful in teasing out practices across health systems that may contribute to reduced emissions per patient load, which will also support developing targeted emissions reductions efforts and goal setting.

OPPORTUNITIES FOR IMPROVED DATA COLLECTION

In the development of this scope 3 inventory for the UC Health system, several opportunities for improved data collection were identified. These recommendations can support a more streamlined data collection process and achieve a more accurate emissions calculation for future scope 3 inventories.

Category 1: Purchased Goods and Services

- Develop a waste data tracking checklist, including spend data, to ensure that the necessary information is properly monitored and tracked in Key Green Solutions (KGS), UC Health's metrics-tracking software.

Category 4: Upstream Transportation and Distribution

- Proactively meet with upstream distributors to communicate long-term sustainability needs and deadlines.

Category 6: Business Travel

- Separate academic campus and academic health center data in Connexxus to prevent the need to make assumptions about the contributions of the academic health centers to emissions from business travel.
- Develop a strategic plan to achieve 90% response rate of business travel in Connexxus to prevent the need to make generalizations about missing data.

Category 7: Employee Commuting

- Coordination between the academic health centers to develop a consistent survey that collects information necessary for scope 3 calculations. For example, the surveys should ask:
  - Which of the following are you affiliated with? (academic campus/academic health center)
  - For the days that you work in any given week, identify the primary commute mode used.
  - How many miles is your one-way commute from home to work in a single day?
  - How many weeks in a year is this your commute pattern?
  - If you drive alone or carpool, what fuel does the vehicle use?

In addition to including these questions in a standardized transportation survey to be deployed across five of the UC's academic health centers, it is recommended to set a minimum random sampling goal of 25% of the employee population in order to gather feedback that is representative of the commuting patterns of the whole.

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