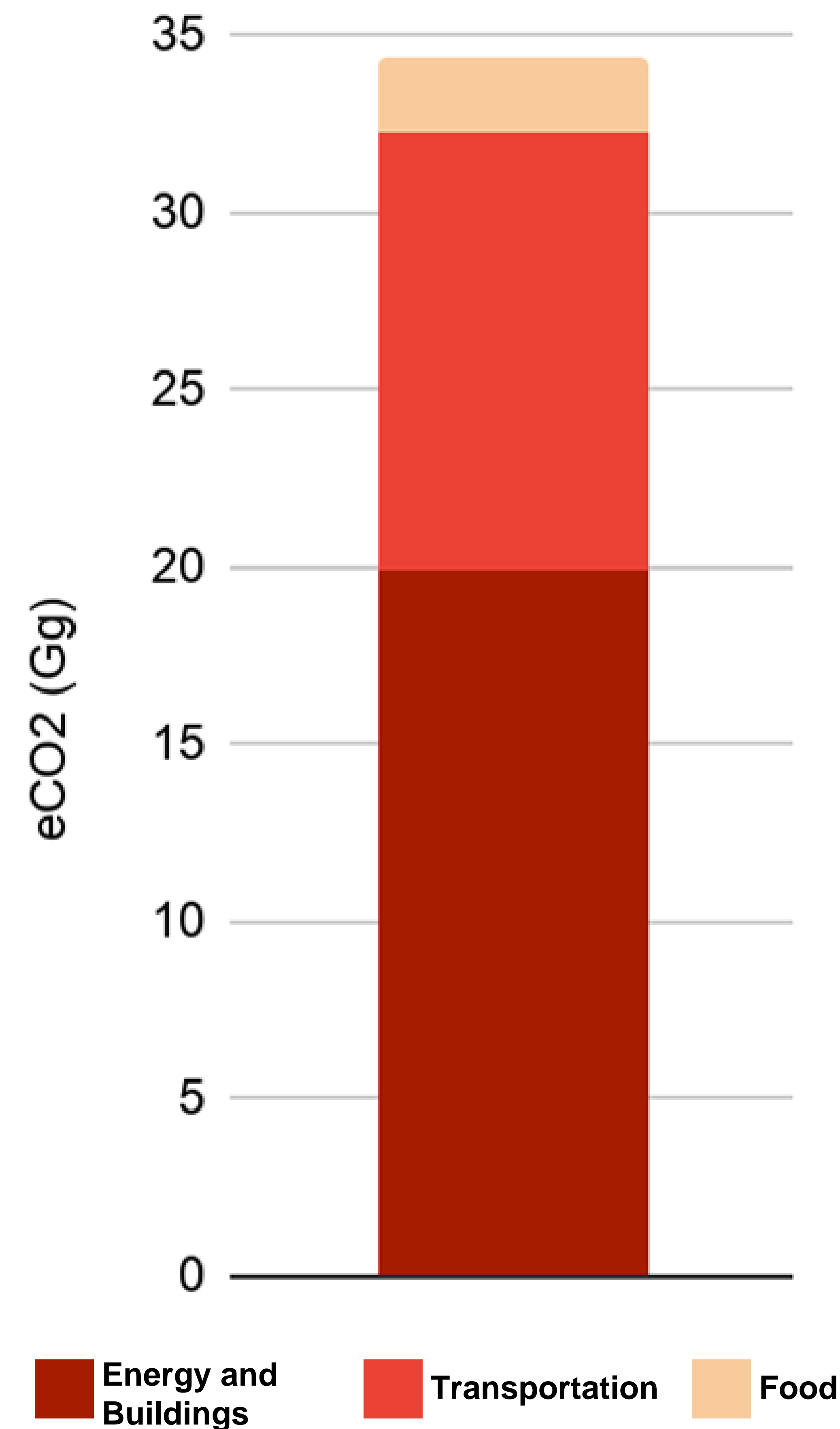


Establishing A Greenhouse Gas Emissions Baseline at Rutgers University–New Brunswick

Therese Apuzzo, Morgan Mark, and Mollie Passacantado

Fiscal Year 2019 CO₂ Emissions



What We Have

Food Systems

- Food: all edibles purchased by Dining Services Food Buyer
- 18 unique food categories
- Total carbon emissions required to produce, transport, prepare, consume, and compost food

Transportation

- Transportation emissions from:
 - Rutgers owned vehicles
 - Financed outsourced travel
 - Study abroad travel
 - Commuting

Energy and Buildings

- Aggregate emissions from all assets and buildings in three categories
 - Co-Gen Steam
 - Go-Gen Electricity
 - Other Off-Campus Stationary

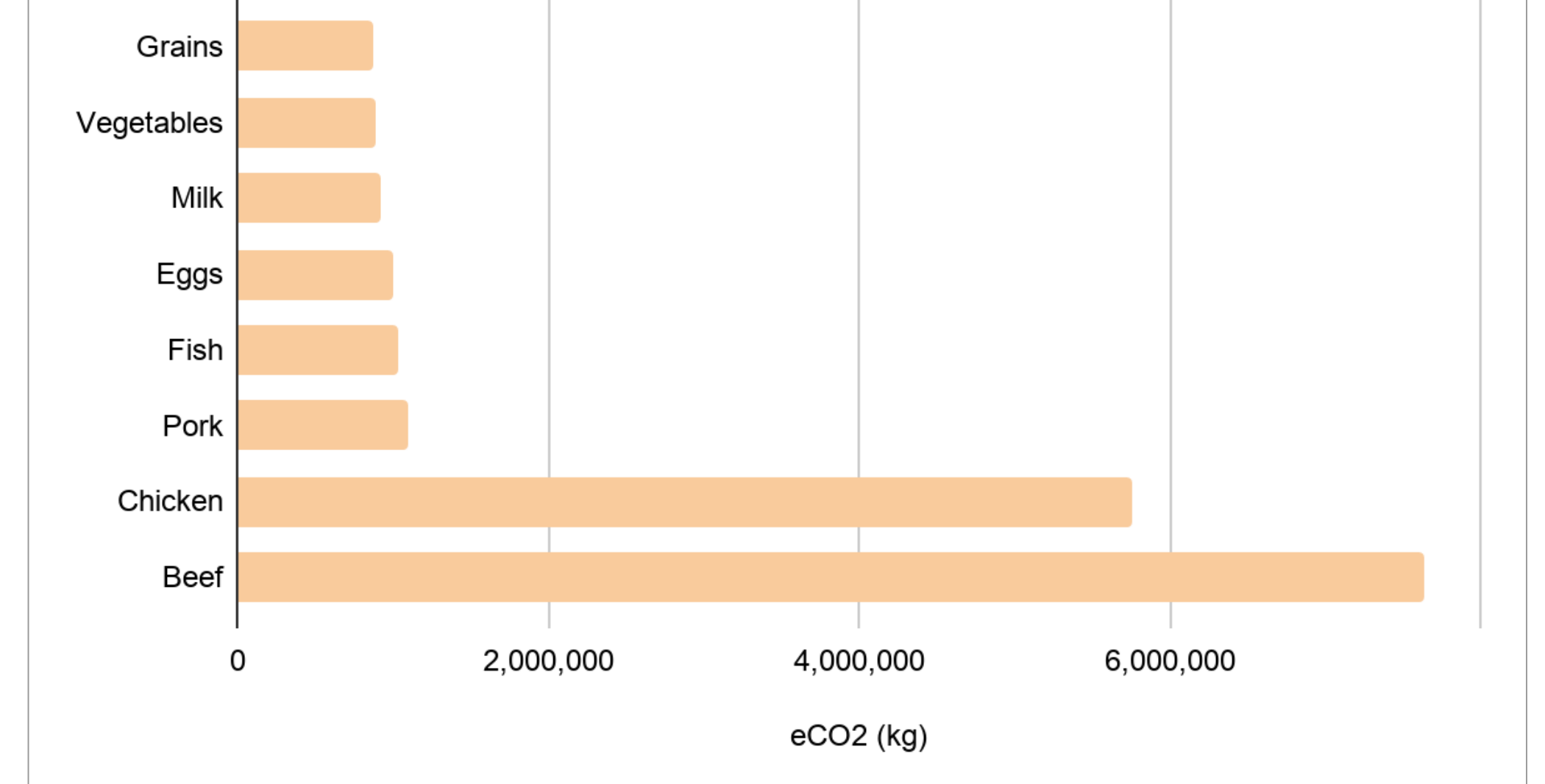
What We Need

- Incomplete data: local/organic
- No data: other campuses
- No data: some food categories
- No data: non-Rutgers affiliated catering
- No data: food waste
- Data inconsistencies (i.e. units of pounds vs. dollars)

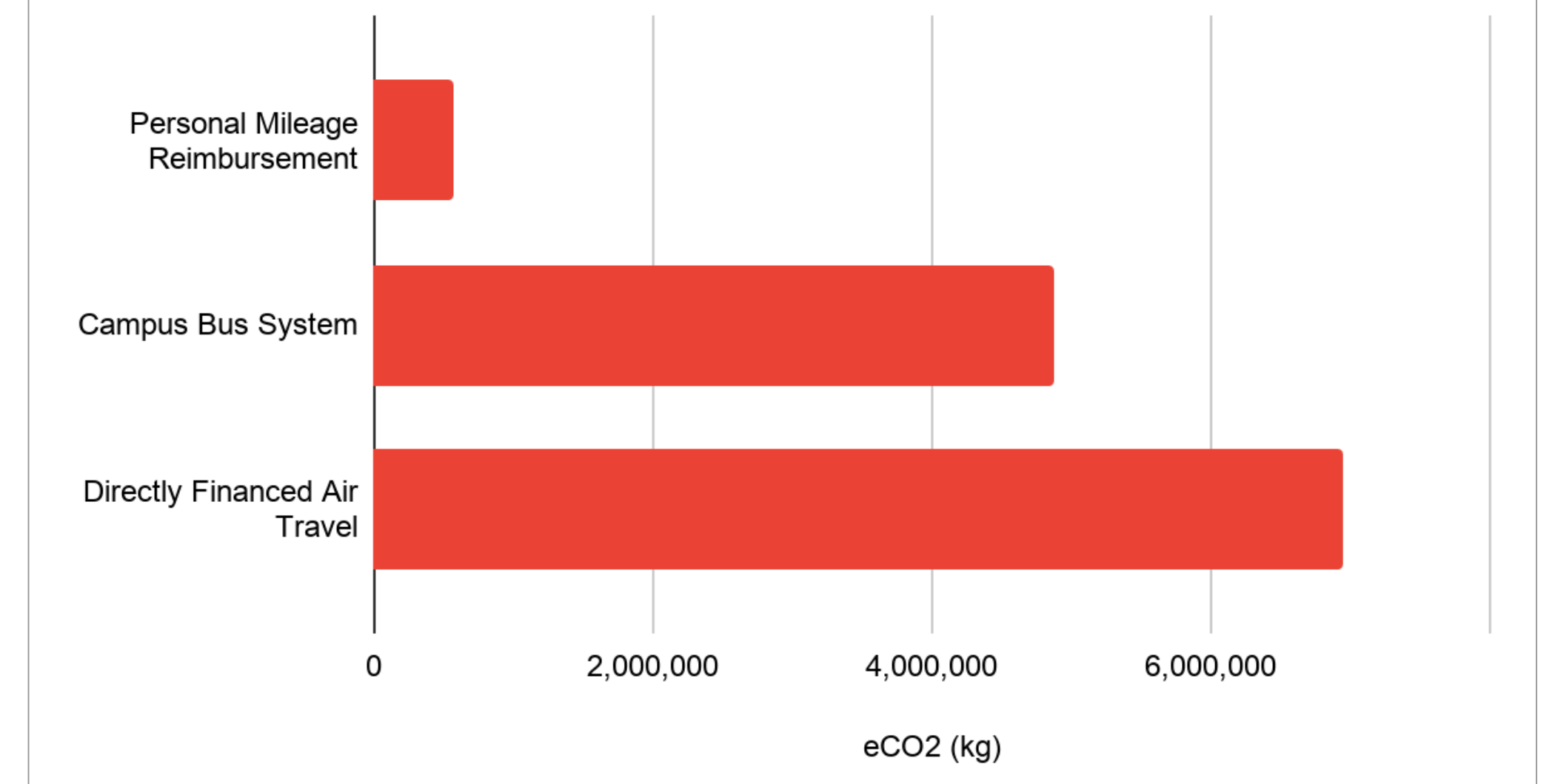
- Incomplete data: outsourced travel
- Incomplete data: Rutgers owned vehicles, only buses included
- No data: study abroad travel
- No data: commuting data

- Incomplete data: natural gas purchases
- No data: building-specific energy consumption and efficiency
- No data: chilled and heated water flow rates

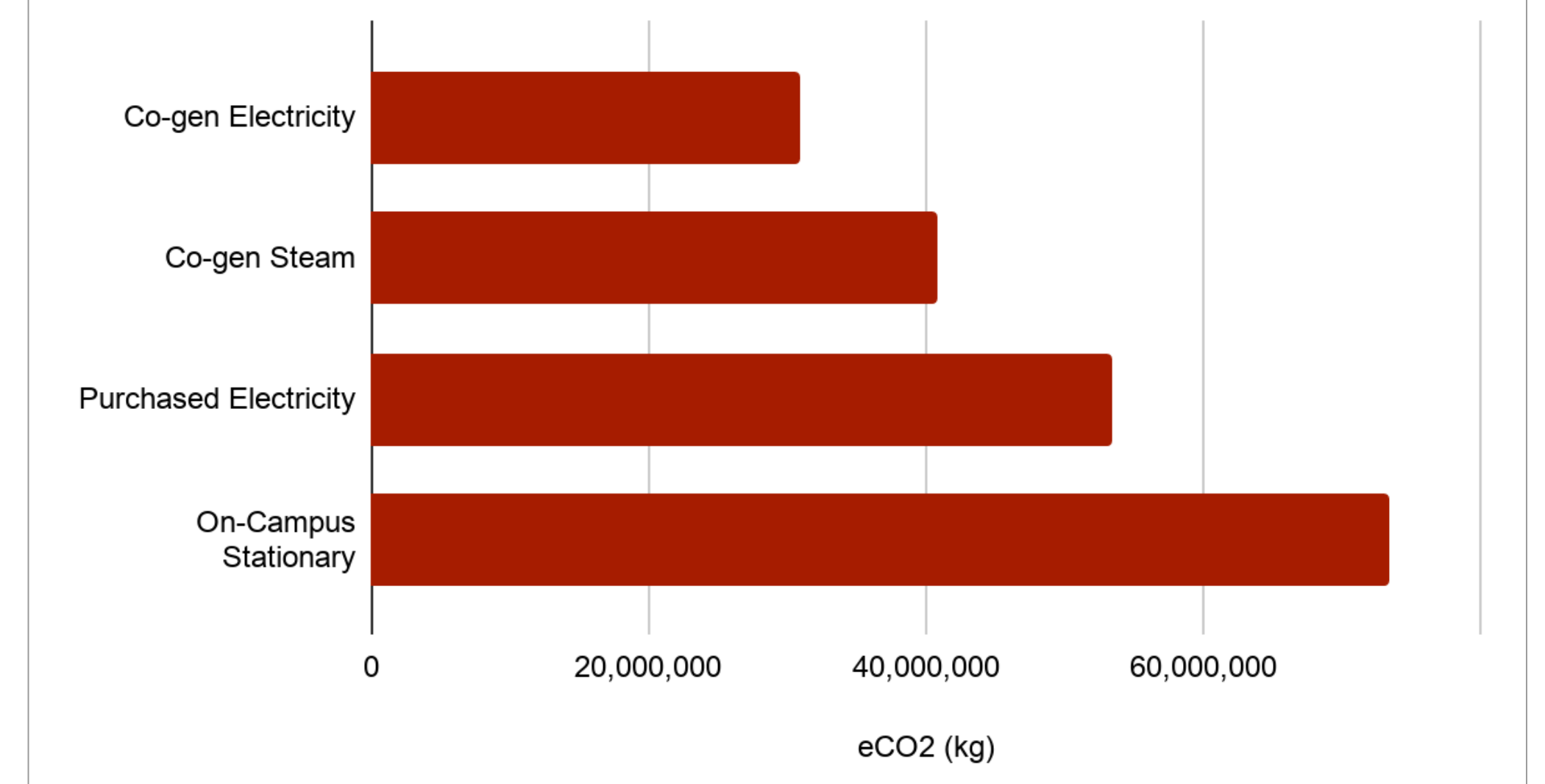
Food CO₂ Emissions: FY 2019 RU-NB



Transportation CO₂ Emissions: FY 2019 RU-NB



Energy and Buildings CO₂ Emissions: FY 2019 RU-NB



Current Data Collection

- Systematically change data collection methods
 - Defining or placing heavier emphasis on categories such as organic/local
- Collect data that is not already documented
 - Auditing for building-specific energy efficiency
 - Commuting information for faculty and students

Changes

- Prioritize building audits with cost/benefit analysis
- Prioritize buying from food vendors that document carbon emission-related data
- Collect data from faculty and students to ascertain transportation related emissions
- Prioritize educating students and faculty and involvement in the decision-making process

Outcomes

- Reduce overall carbon emissions
- Increase energy efficiency for buildings utilizing off-campus stationary
- Obtain data necessary to formulate effective emission reduction plans
- Foster a more climate-aware populace across all Rutgers campuses

Acknowledgements

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