MSDS 670

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Week 4 – Midterm Project

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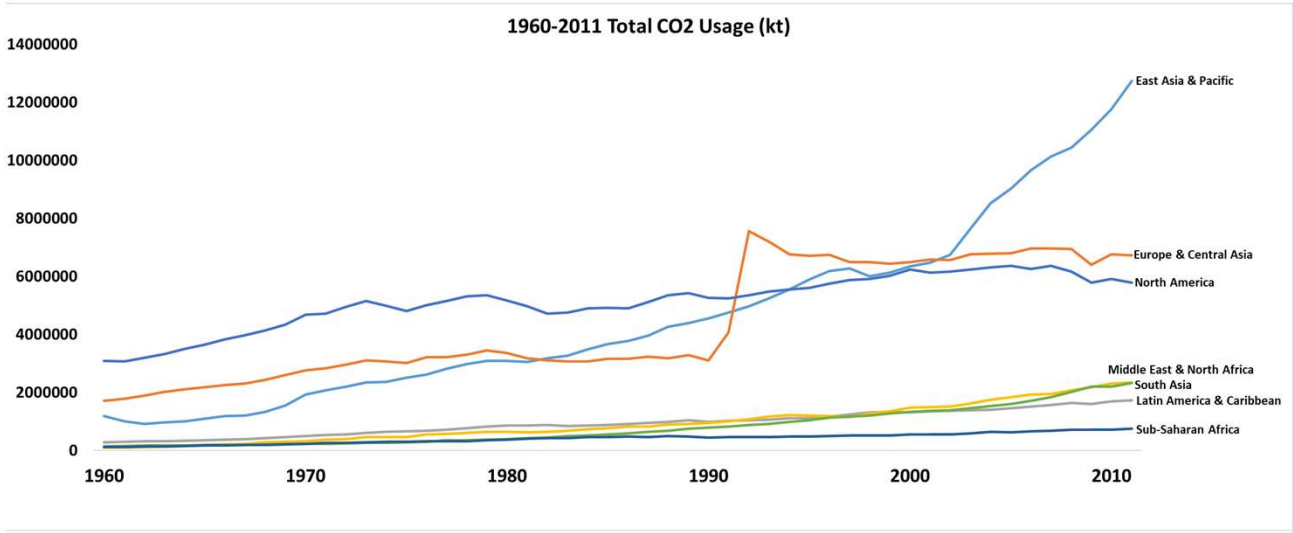
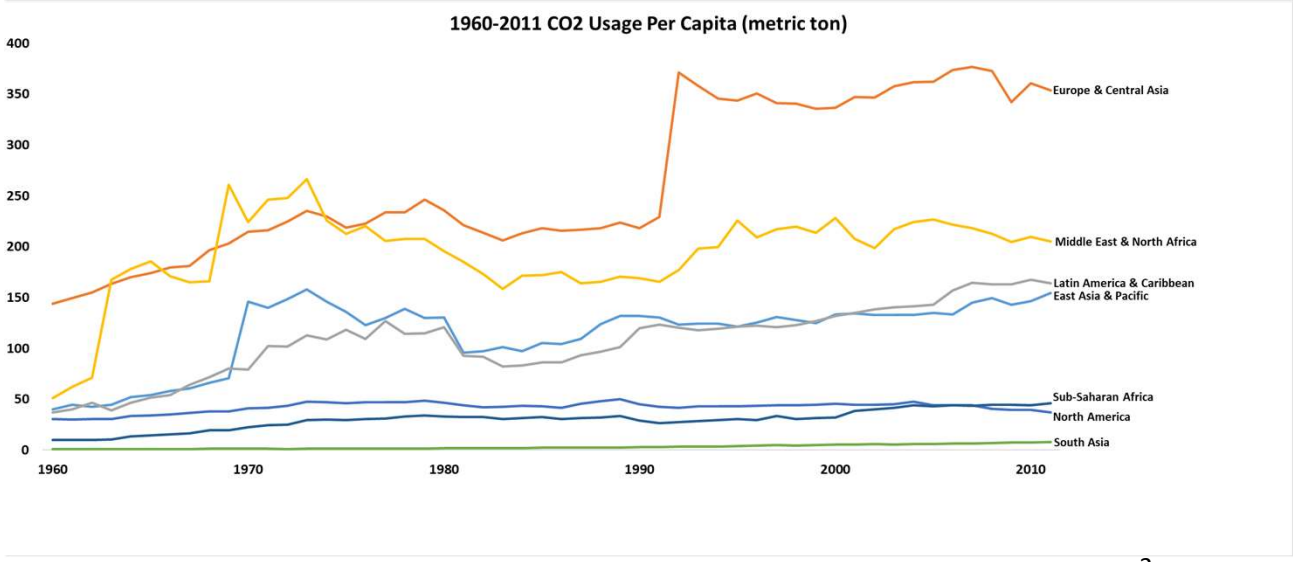
Visualization 1

- Provides multiple angles of comparison
  - Total Usage vs. Per Capita Usage
- Usage of color for contrast between groups
- Clean, no gridlines, simplified axes, no legend
- Takeaways:
  - Region choice/groupings of countries could be investigated further → Usage by Regions could be inherently misleading or biased
  - North America's low usage per capita surprised me…I thought that United States and Canada would have influenced those results more

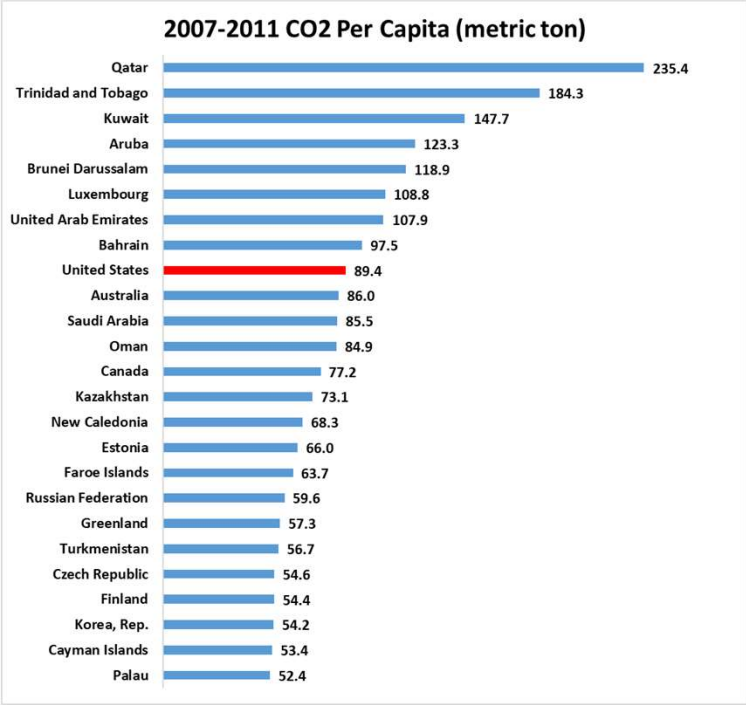


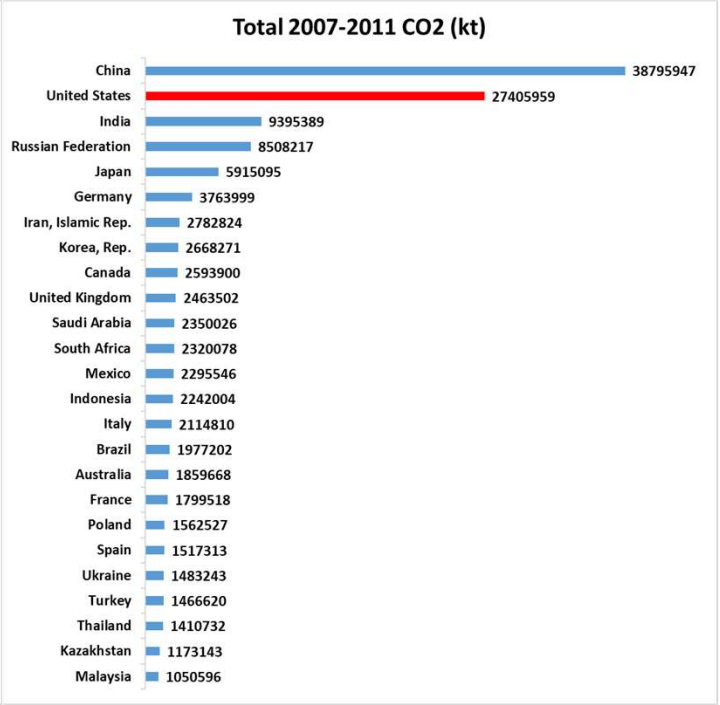


Source: World Bank CO2.xlsx

Visualization 2

- Clean, no gridlines, no legend, data labels rounded
- Usage of color to highlight interest group (USA)
- Units of measure included
- Only Top 25 included to maximize visibility
- Takeaways:
  - Highlight high usage of CO2 by USA
  - Questions of overall population vs. overall usage can be explored with these charts

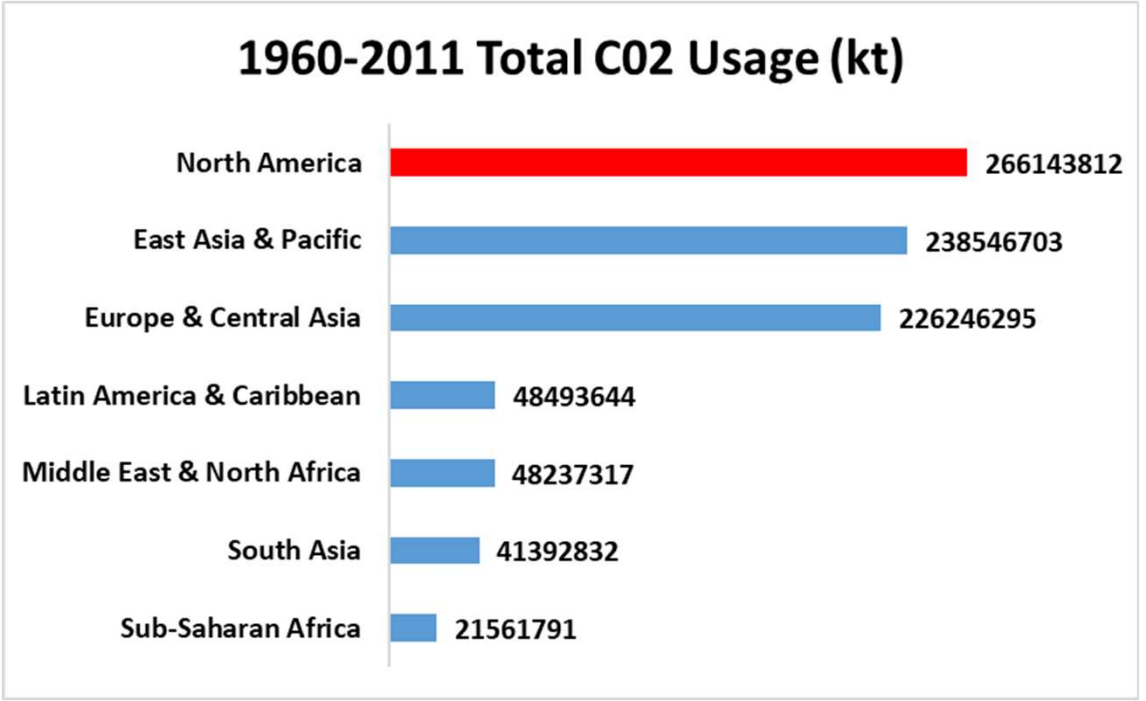




Source: World Bank CO2.xlsx

Visualization 3

- Simple, clean, no gridlines, no legend, datalabels rounded
- Color used to highlight interest group (North America/USA)
- Takeaways:
  - North America: obvious high usage of C02
  - Needs verification of the regions/borders, could have inherent bias/inaccuracy, rendering comparison useless
  - Low usage of C02 in Africa



Source: World Bank CO2.xlsx

Conclusion

- United States is a high producer of C02, both total and per capita
  - Higher ranking in ‘total usage’, compared to ‘per capita usage’
- Africa overall a very low producer of C02
- China, India, Russia, Japan, Germany also high producers of C02
- Further questions remain about how different regions were chosen, why so many regions within Asia
- Conclusion: How to reduce our production of C02 as a nation
  - Better public transportation options
  - Connected Vehicle Environments in order to manage traffic
  - More localized services