



Greenhouse Gas Emissions Inventory Update

For the City and
Community of:
Lawrence, KS

2002-2012



City of Lawrence

Why measure GHG Emissions?

A greenhouse gas inventory is an accounting of greenhouse gases (GHGs) emitted to or removed from the atmosphere over a period of time. An inventory can help local governments:

1. Identify the sectors and activities within their jurisdiction that are responsible for greenhouse gas emissions.
2. Understand emissions trends.
3. Quantify the benefits of activities that reduce emissions.
4. Establish a basis for developing a local action plan.
5. Track progress in reducing emissions.
6. Set goals and targets for future reductions.

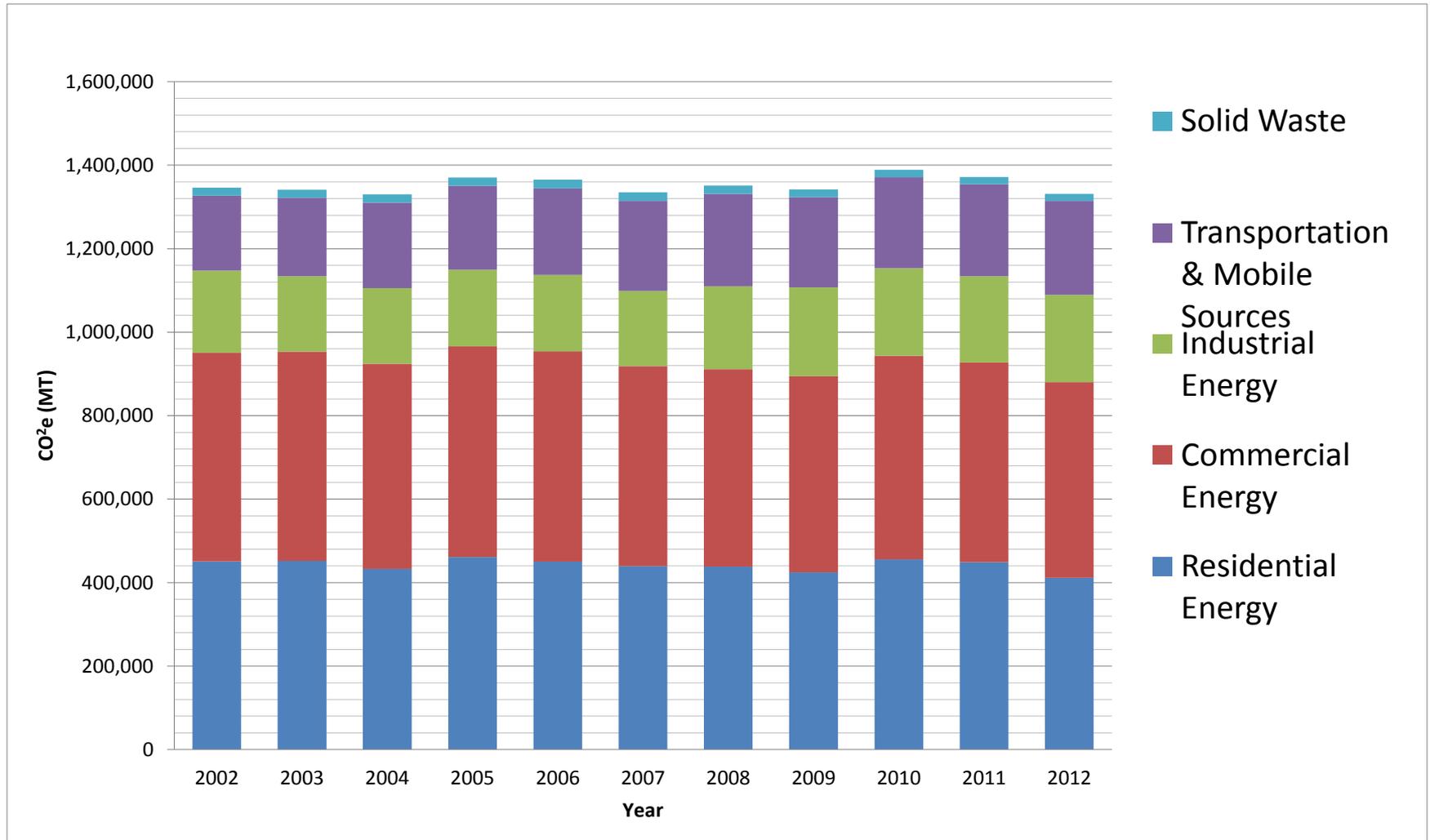


Timeline:

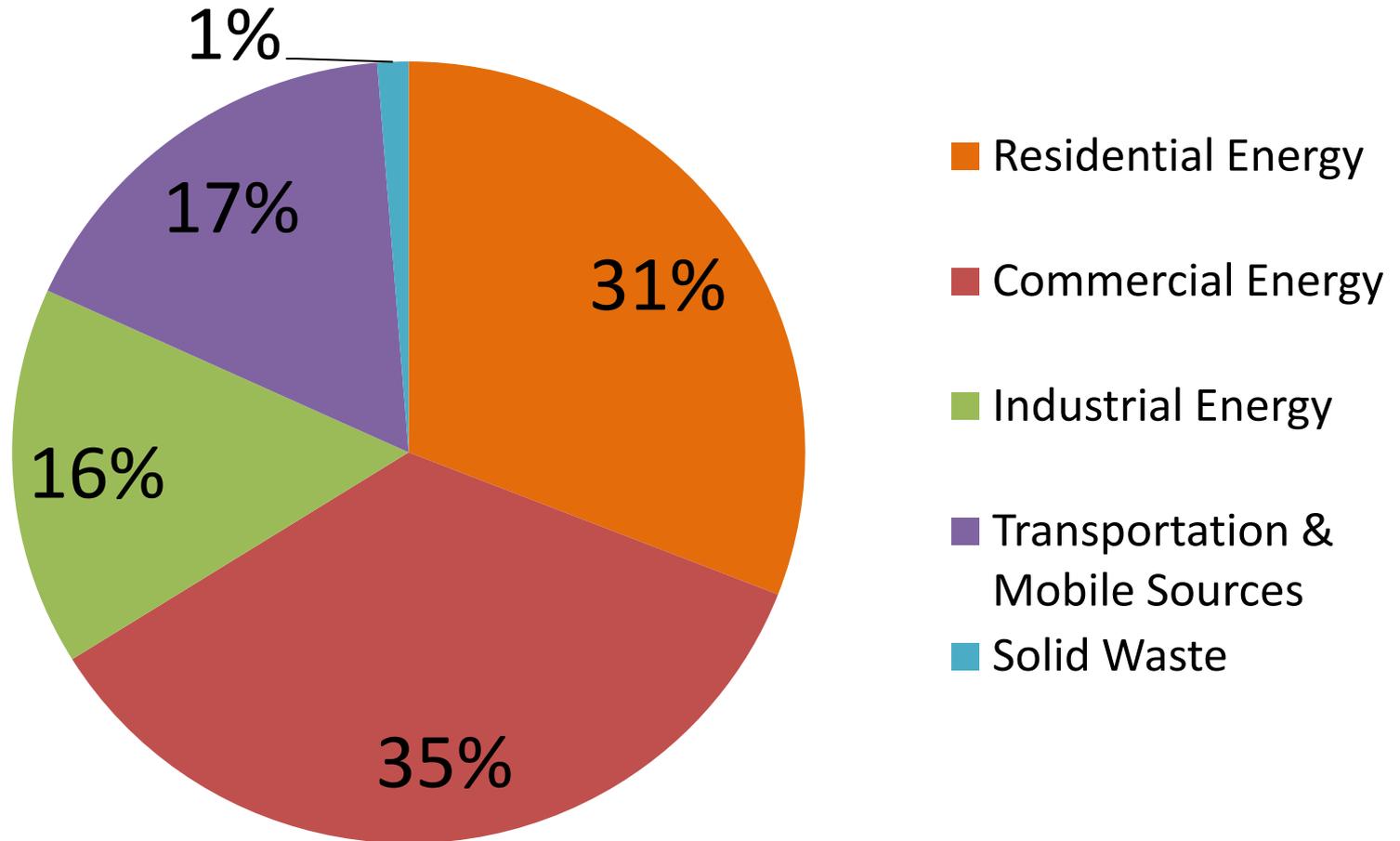
- ▶ 2006- Mayor Boog Highberger signs the Mayors Climate Protection Agreement
- ▶ 2008- Mayor Mike Dever convenes a Climate Protection Task Force
- ▶ 2008-2009 – Task Force conducts first GHG emissions inventory and creates Climate Protection Plan with:
 - ▶ 7 key recommendations to reduce community and government greenhouse gas emissions.
 - ▶ An overall goal of reducing Lawrence's GHG emissions by 80% by the year 2050.
- ▶ 2010 – City achieves first of seven goals, by creating Sustainability Coordinator position with Douglas County.
- ▶ Today – Update to GHG emissions inventory.



Community GHG Emissions by Sector (2002-2012) in tons of CO₂e.



Contributions to Community GHG Emissions by Sector (2012).

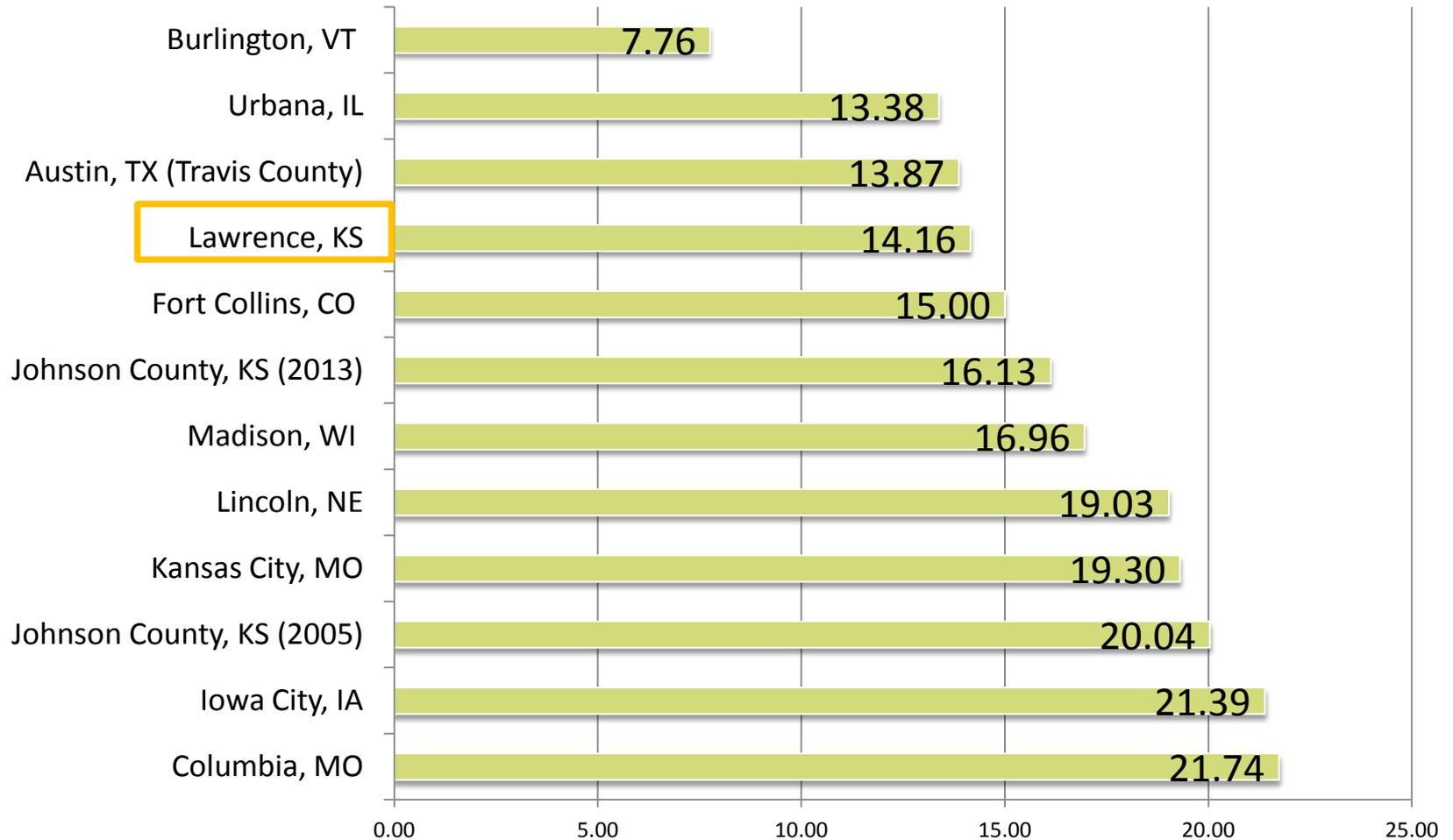


Per Capita GHG Emissions (2002-2012) in tons of CO₂e.

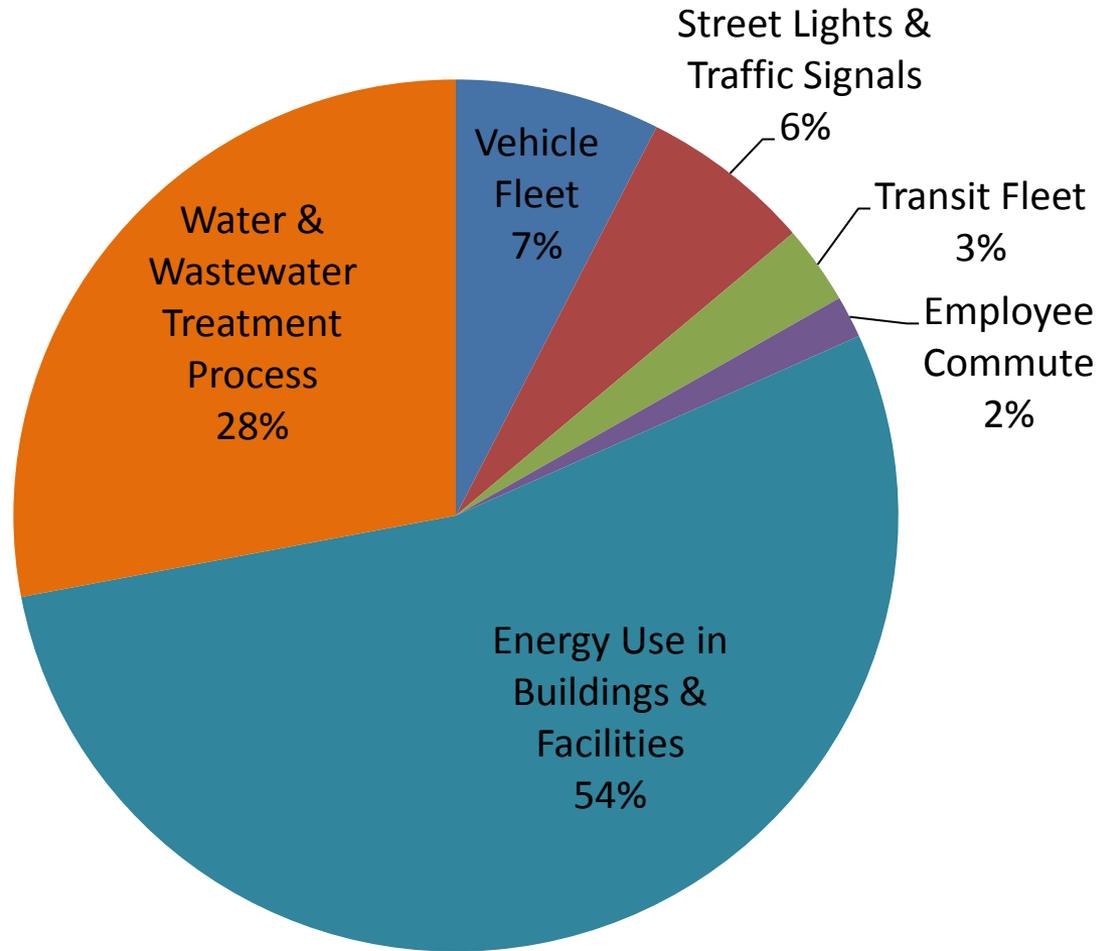
| Year: | Total Emissions: | Population: | Per capita emissions: |
|--------------|-------------------------|--------------------|------------------------------|
| 2002 | 1,344,959 | 83,310 | 16.14 |
| 2003 | 1,339,699 | 84,844 | 15.79 |
| 2004 | 1,325,914 | 86,448 | 15.34 |
| 2005 | 1,368,936 | 88,664 | 15.44 |
| 2006 | 1,363,978 | 89,110 | 15.31 |
| 2007 | 1,333,299 | 90,311 | 14.76 |
| 2008 | 1,349,654 | 90,866 | 14.85 |
| 2009 | 1,340,505 | 91,464 | 14.66 |
| 2010 | 1,387,402 | 92,727 | 14.96 |
| 2011 | 1,370,889 | 93,116 | 14.72 |
| 2012 | 1,329,804 | 93,944 | 14.16 |



Community GHG Emissions Compared to Peer Cities



Contributions to Government GHG Emissions by Sector (2012)



Key Points:

- ▶ Emissions are relatively flat, despite adding 10,000 people between 2002-2012.
 - ▶ Per capita emissions are on the decline.
 - ▶ Emissions are decreasing in areas we've focused on – energy and solid waste.
 - ▶ **But...**
 - ▶ Emissions are increasing in the transportation sector.
 - ▶ Water and wastewater treatment are significant contributors to government GHG emissions.
 - ▶ Coal-intensive fuel mix at Westar Energy is main driver of energy sector emissions.
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Re-prioritized Climate Protection Plan Recommendations:

1. Incorporate the goal of reducing greenhouse gas emissions into land use planning.
 2. Develop transportation policies and programs to consume less energy and reduce emissions.
 3. Strengthen energy conservation policies and building standards.
 4. Develop water conservation policies and programs to consume less water, reducing energy usage and infrastructure costs.
 5. Expand source reduction and waste reduction programs and initiatives.
 6. Exercise leadership by prioritizing efforts to reduce greenhouse gas emissions in municipal operations.
 7. Provide dedicated staffing and adequate funding to support climate protection and sustainability initiatives.
 8. Establish outreach and education programs on emission reduction issues.
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Top Priorities for Climate Protection:

1. Incorporate the goal of reducing greenhouse gas emissions into land use planning.
(complete streets, redevelopment and infill, bicycle and pedestrian network, transit-oriented development)
 2. Develop transportation policies and programs to consume less energy and reduce emissions.
(safe routes to schools, promote public transit, fuel efficiency)
 3. Strengthen energy conservation policies and building standards.
(energy efficiency rebates, enhance building codes)
 4. Develop water conservation policies and programs to consume less water, reducing energy usage and infrastructure costs.
(automated metering infrastructure, water conservation education, rebates and incentives for conservation)
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Confirming our commitment to reducing climate change risk:

- ▶ U.S. Conference of Mayors Climate Protection Agreement – revised in 2014 to focus on local actions that:
 - ▶ **Reduce GHG emissions** in our city operations and the wider community. (Mitigation)
 - ▶ **Prepare for climate change impacts** by supporting a resilient city – through protecting city water systems, planning appropriate disaster response, and protecting most vulnerable citizens. (Adaptation)

