

## Idaho SBDC Office Carbon Footprint

A carbon footprint was prepared for the SBDC office:

- To learn more about our contribution of greenhouse gases,
- To better understand what would be involved in helping our small business clientele address issues related to climate change and energy use,
- To create a baseline for goal setting and future measurements, and
- To help the university reduce its carbon footprint, as part of President Kustra's signature to the Presidents' Climate Commitment, a national effort to curb greenhouse gas emissions at all colleges and universities.

### Our Footprint

The carbon inventory that was conducted for the SBDC office accounts for emissions from generation of purchased electricity, local business travel, employee commuting, and paper use. Other types of emissions were not accounted for in this exercise such as non-local employee work-related travel, and SBDC workshops and conferences. The measure for each of these activities (e.g. miles, kWh) was converted into the standard greenhouse gas emissions reporting metric which is carbon dioxide equivalents (CO<sub>2</sub>eq) using emissions factors\*. The results are reported in metric tons of CO<sub>2</sub>eq and summarized in the following table.

Results (Annual)	Measure	CO <sub>2</sub> eq (metric tons)	Percent
Vehicle Energy Use			
Automobile	26,110 miles	10.0	28.4%
Bus	1,540 miles	0.2	0.6%
Building (Electricity)	38,131 kWh	24.9	70.8%
Paper	125 lbs	0.07	0.2%
<b>Total</b>		<b>35.17</b>	

### By Comparison

The SBDC building annual emissions from energy use alone are 24.9 metric tons. This is high compared to 18 metric tons\*\* for a typical office building in the Pacific Northwest of comparable size (2000 ft<sup>2</sup>).

By comparison, our total CO<sub>2</sub> emissions are equivalent to any one of the following:

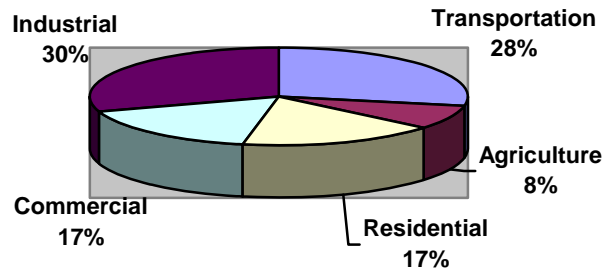
- 7.61 passenger cars driven for one year
- 4,006 gallons of gasoline
- 4.51 household electricity use for one year (number of households)
- The amount of carbon sequestered in 29 acres of pine or fir forests in one year
- 0.29 acres of forest preserved from deforestation

\*Provided by the Energy Information Administration of the U.S. Dept of Energy; the Greenhouse Gas Protocol, a corporate accounting and reporting standard developed by the World Resources Institute and the Seattle Climate Partnership.

\*\*Based on the Department of Energy, Energy Information Administration's 2003 Commercial Building Energy Consumption Survey

## Greenhouse Gas Contributions from the Commercial Sector

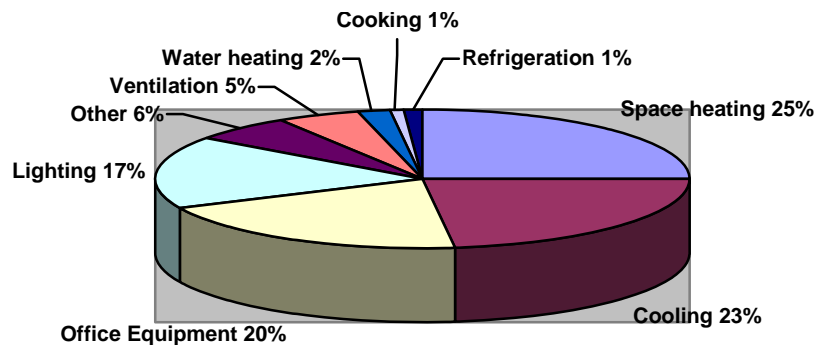
In the year 2004, the United State emitted over seven billion metric tons of greenhouse gases (CO<sub>2</sub>eq). Greenhouse gases are emitted by all sectors of the economy, with commercial sector accounting for (17%) of the total. The following figure shows the breakdown for all sectors of the economy, with transportation accounted for separately.



Source: US EPA Inventory of Greenhouse Gas Emissions and Sinks, 2006.

## Office building energy uses

While over 70% of office building energy consumption nationally is electricity, electricity accounts for 100% of the energy use in the SBDC building. The end uses of energy consumption for a typical office building are shown below. Lighting, heating, and cooling represent about 65 percent of total use, making those systems the best targets for energy savings.



## Actions we can take to reduce our energy use and our carbon footprint:

- Use energy-efficient and low standby power copiers, printers, fax machines, computers, lighting and refrigerators.
- Keep computer screens off when idle and use energy controls and timers to turn off all equipment at night.
- Maximize natural lighting and adjust shading, blinds and clothing level before you turn on the air or heat.
- Use programmable thermostat controls.
- Use energy efficient printers and set them to automatically print duplex (double-sided).
- Buy 100% post-consumer recycled paper and print thoughtfully.
- Reduce vehicle use by carpooling or using alternative forms of transportation.