

# Green Sanctuary Survey Results

## Harvard Unitarian Universalist Church (Part One)

Author:

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**Harvard Unitarian Universalist Church**  
**Harvard, Massachusetts**

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## Forward

There are seven principles which Unitarian Universalist congregations affirm and promote:

The inherent worth and dignity of every person;

Justice, equity and compassion in human relations;

Acceptance of one another and encouragement to spiritual growth in our congregations;

A free and responsible search for truth and meaning;

The right of conscience and the use of the democratic process within our congregations and in society at large;

The goal of world community with peace, liberty, and justice for all;

Respect for the interdependent web of all existence of which we are a part.

– UUA

First, the good news: all told, as a congregation we do pretty well in the Seventh Principle department. *Respect for the interdependent web of all existence of which we are a part.* The words are simple, but not always easy to live by. I think we ought to feel pretty good about how well we walk the walk.

Now, what's the bad news? There is no bad news! It's all good! Sure, there's room for improvement in a few categories, but again, that's perfectly fine. The Green Sanctuary certification process actually demands room for improvement. The whole purpose is, after all, to take a measurement of where we stand today with regard to these environmental stewardship issues, so that we can clearly demonstrate progress over the next couple of years.

To reiterate our goals for this survey:

- A. To meet a UUA requirement that a Green Sanctuary Committee conduct a survey or audit of the church and/or congregation.
- B. To determine our congregation's baseline lifestyle patterns at the start of our Green Sanctuary program, and to find out if that pattern changes in a year.
- C. To help you see opportunities to reduce your ecological footprint and achieve a more environmentally sustainable lifestyle.

With these goals in mind, let's take a look at our relationship to the world around us, as expressed in terms of our day-to-day routines.

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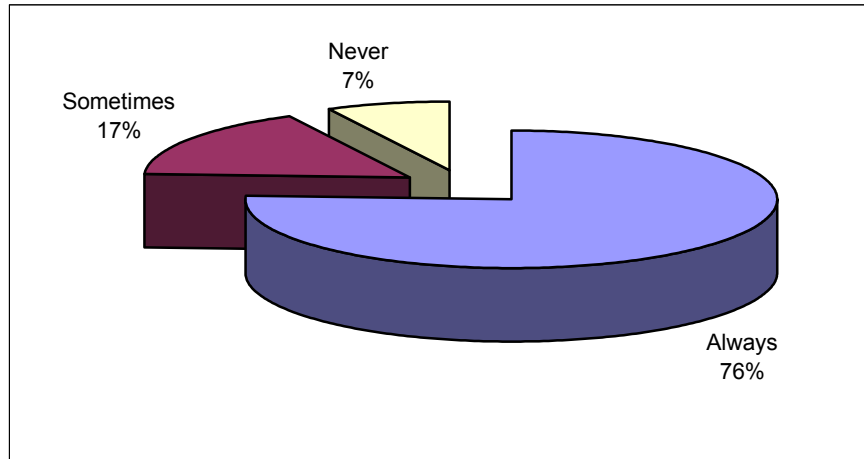
## Section 1: Solid Waste Reduction

I'm happy to report that, when it comes to the reduction of solid waste, our HUUC congregation shows solid leadership by example. We are a congregation of composters, recyclers, bulk-buyers and re-users. We eschew excess packaging, and find new homes for good clothes that we've outgrown or fallen out of love with.

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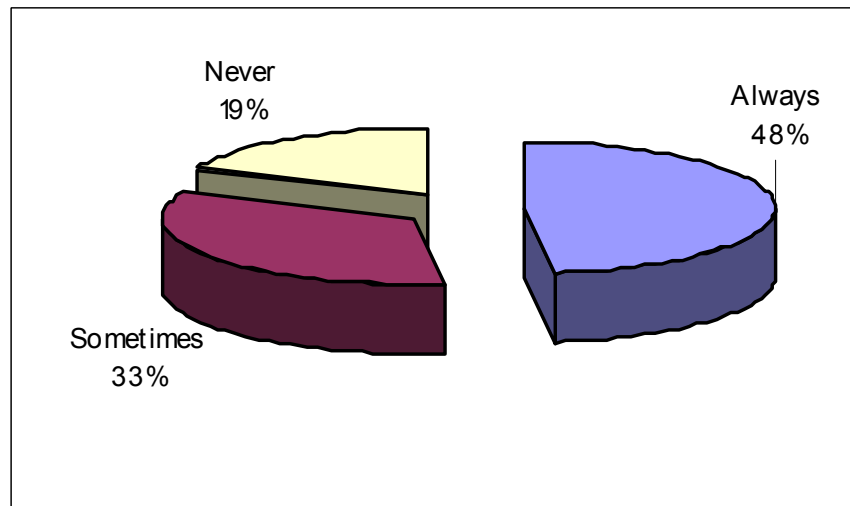
Q1: I compost yard waste



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=54)

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Q2: I compost kitchen scraps



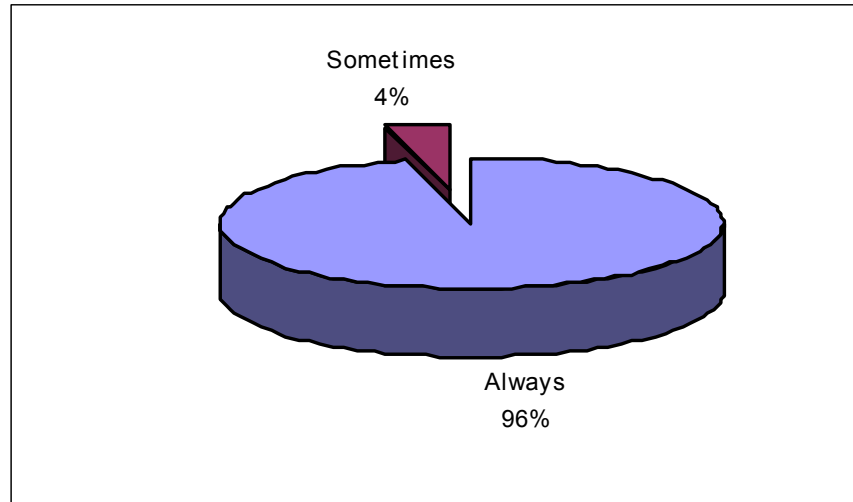
Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

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Recycling is great, and we're fortunate to have a transfer facility that makes it easy to do on a routine basis. Nevertheless, better options may exist. The mantra for Earth stewards is "Reduce-Reuse-Recycle," the way to remember that reducing one's waste provides the optimum in low carbon footprint, followed by reuse (a paper shopping bag, perhaps, or castoff denims) and recycle, the latter which does, after all, consume energy as it makes its way back into the consumer market.

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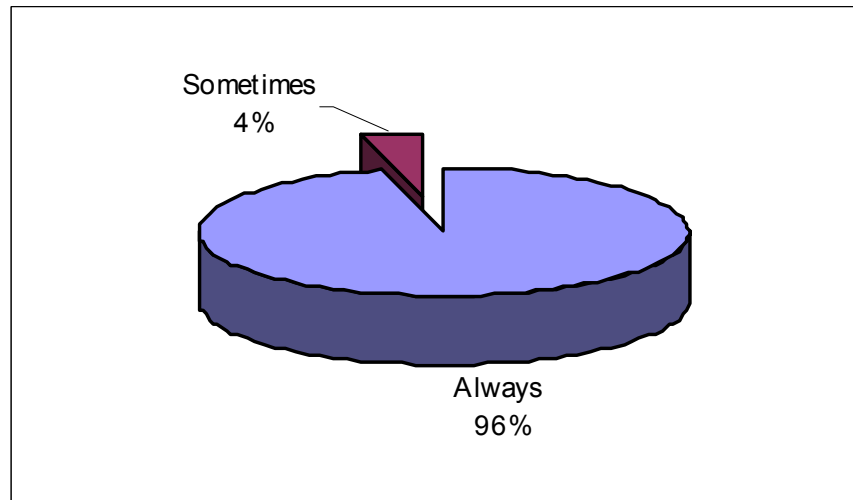
### Q3: I recycle metal



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

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### Q4: I recycle glass



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

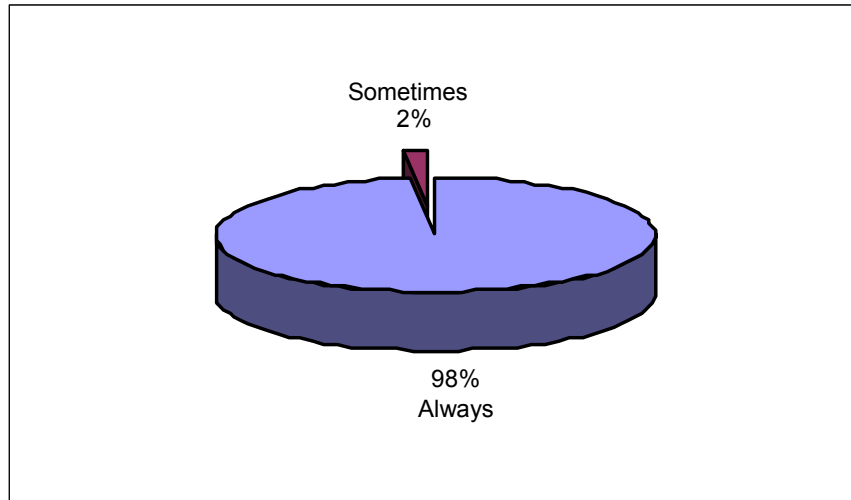
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It's tragic, but with the might of big soft drink manufacturers, the onus of tending to plastic's impact falls on us concerned communities and citizens. To take just one example, Coke has spent millions of dollars in their efforts to destroy the single most successful soft drink container recycling program in the nation, the bottle bill.

Coke opposes new bottle bills and expansion of existing bottle bills and works to repeal bottle bills in Iowa, Oregon, Connecticut and Massachusetts, New York, Michigan and Columbia, Missouri. [[www.container-recycling.org](http://www.container-recycling.org)]

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**Q5: I recycle plastics**

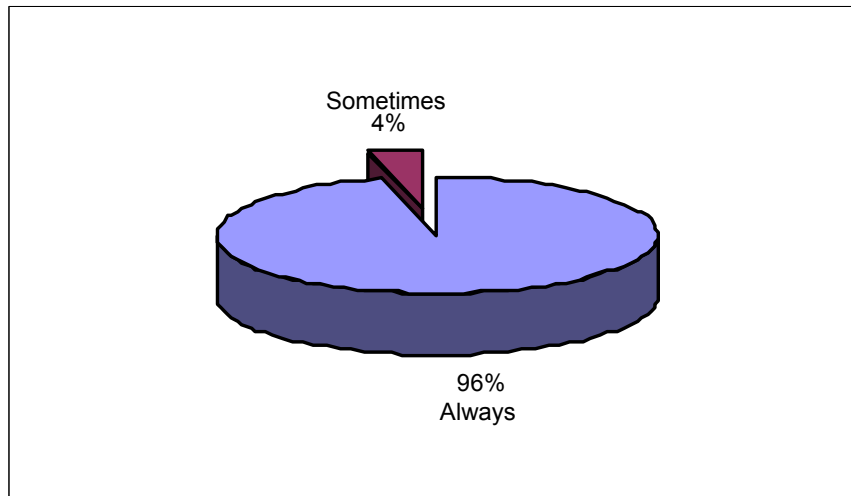


Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

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**Q6: I recycle newspapers**



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

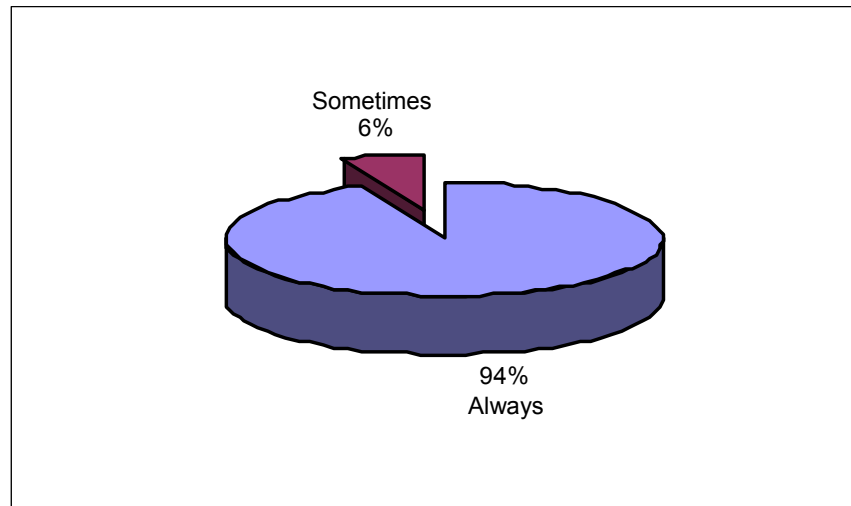
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When you recycle your paper and cardboard refuse, you do more than merely reduce solid waste.

Industrialized papermaking has an effect on the environment both upstream (where raw materials are acquired and processed) and downstream (waste-disposal impacts). Recycling paper reduces this impact. According to sources cited by Wikipedia, 90% of paper pulp is made of wood, and paper production accounts for about 43% of harvested wood. The United States Energy Information Administration (EIA) claims a 40% reduction in energy when paper is recycled versus paper made with unrecycled pulp, while the US EPA has found that recycling causes 35% less water pollution and 74% less air pollution than using wood pulp.

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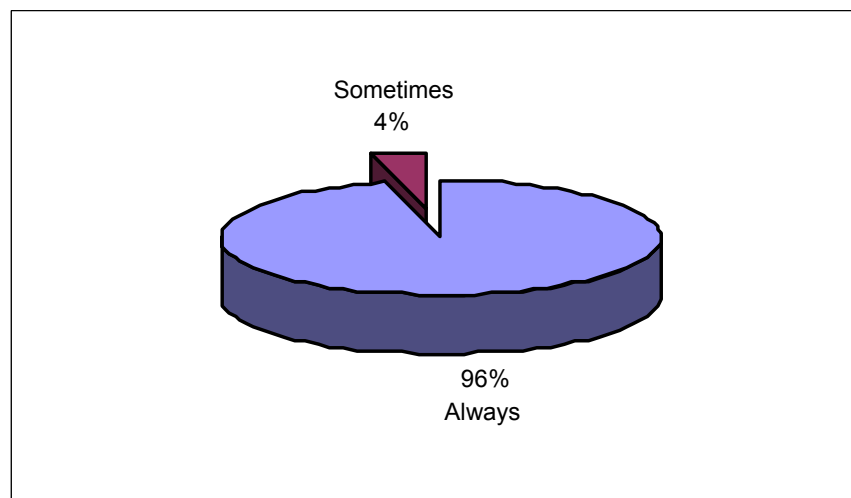
#### Q7: I recycle other paper



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

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#### Q8: I recycle cardboard



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

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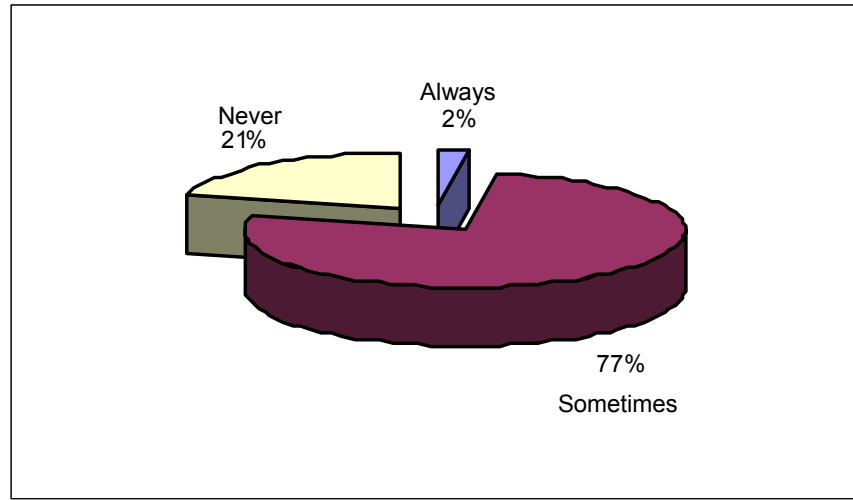
One out of every \$11 you spend at the store pays for packaging, according to Kenneth Berger, an assistant professor and Extension Agricultural Safety Specialist at the University of Florida, Gainesville. When all packaging is accounted for, it adds up to about one-third of all the trash that's thrown away in the United States.

Industry and business are responsible for most of this waste, but consumer product packaging accounts for about 15% of what's discarded. The price you pay for a frozen dinner includes not only the meal but the outer paperboard box, the plastic or foil tray that holds the meal, and the covering over the food.

You pay again for packaging, directly or indirectly, when your garbage is picked up and disposed of in a landfill or incinerator.

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**Q9: I buy in bulk**

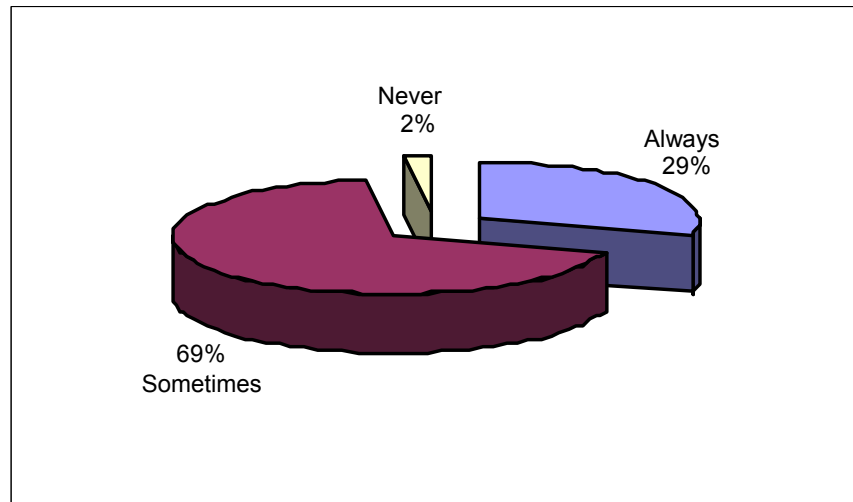


Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

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**Q10: I buy only as much product as I use**



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

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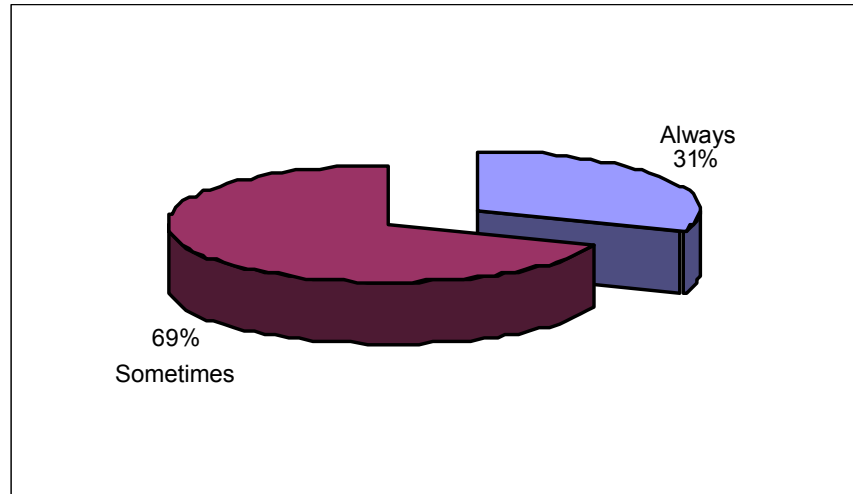
In the course of searching for useful background information for this report, I discovered a Wikipedia entry for Waste Hierarchy, which is defined as “the ‘3 Rs’ reduce, reuse and recycle, which classify waste management strategies according to their desirability. The 3 Rs are meant to be a hierarchy, in order of importance.”

The entry goes on to say, “aim of the waste hierarchy is to extract the maximum practical benefits from products and to generate the minimum amount of waste.”

Might the Waste Hierarchy provide a useful framework for developing our own Earth Stewardship Program, both within the church and beyond?

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**Q11: I buy reusable towels, rags, napkins**

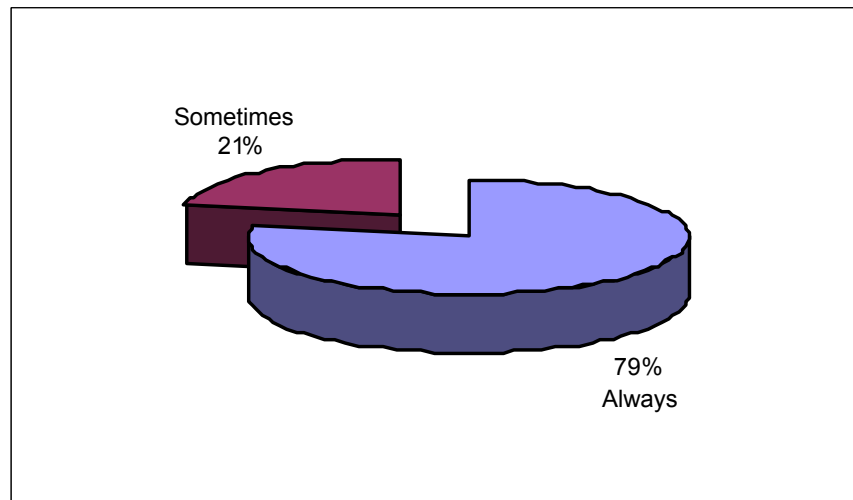


Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

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**Q12: I buy reusable plates, flatware & cups**



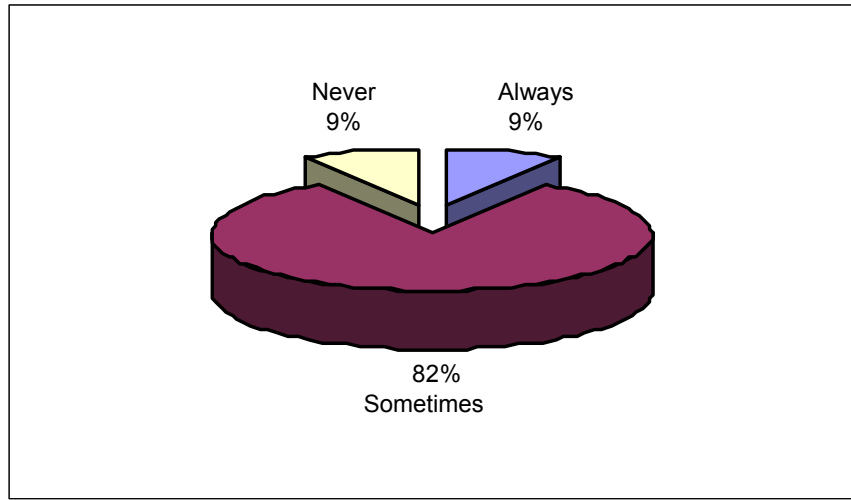
Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=47)

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In addition, are there opportunities for us to practice Earth Stewardship through social or political actions?

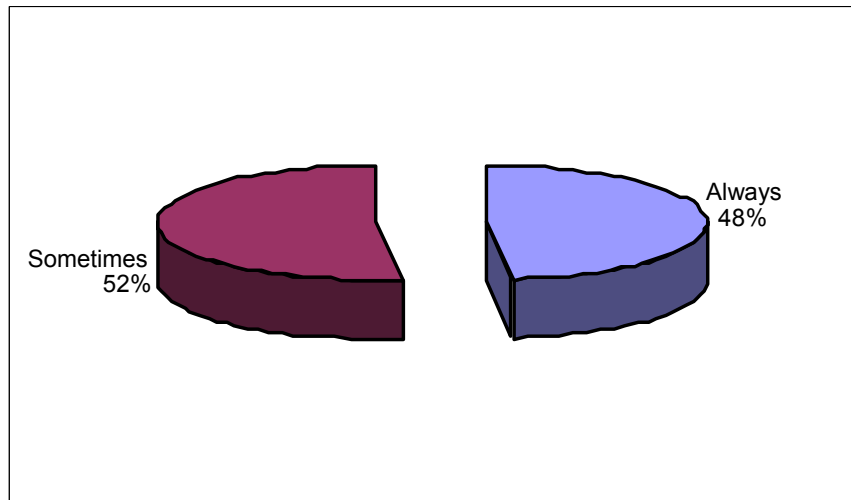
To quote again from Wikipedia's Waste Hierarchy entry, "Some waste management experts have recently incorporated a 'fourth R': "Re-think," with the implied meaning that the present system may have fundamental flaws, and that a thoroughly effective system of waste management may need an entirely new way of looking at waste."

**Q13: I buy recyclable paper products**



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=47)

**Q14: I limit use of highly packaged "convenience foods"**



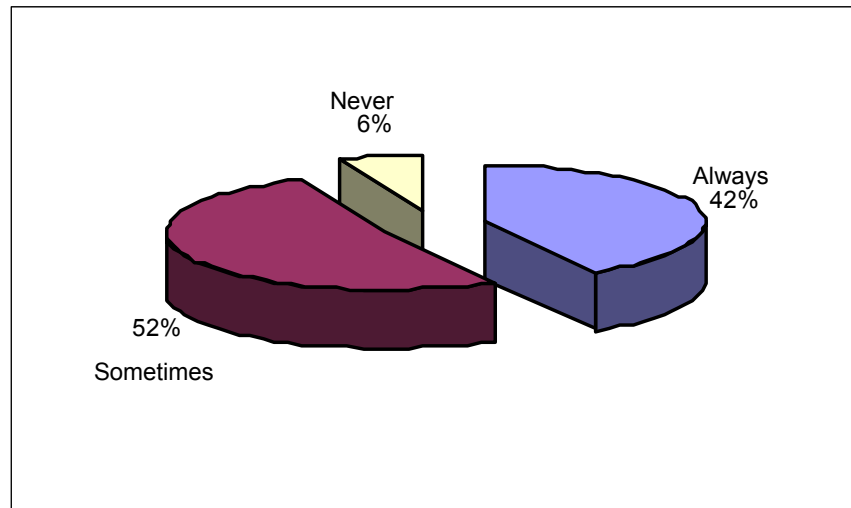
Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

The Pacific Institute estimates that producing the bottles for American consumption in 2006 required the equivalent of more than 17 million barrels of oil. The manufacture of every ton of PET produces around 3 tons of carbon dioxide (CO<sub>2</sub>). Bottling water thus created more than 2.5 million tons of CO<sub>2</sub> in 2006.

Once the bottle is created and filled with water, large amounts of fossil fuel are expended delivering the water from its source to end user by means of ground transportation. Some bottled water is transported long distances by ship in addition to the distances it travels by truck or rail.

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**Q15: I avoid buying bottled water**

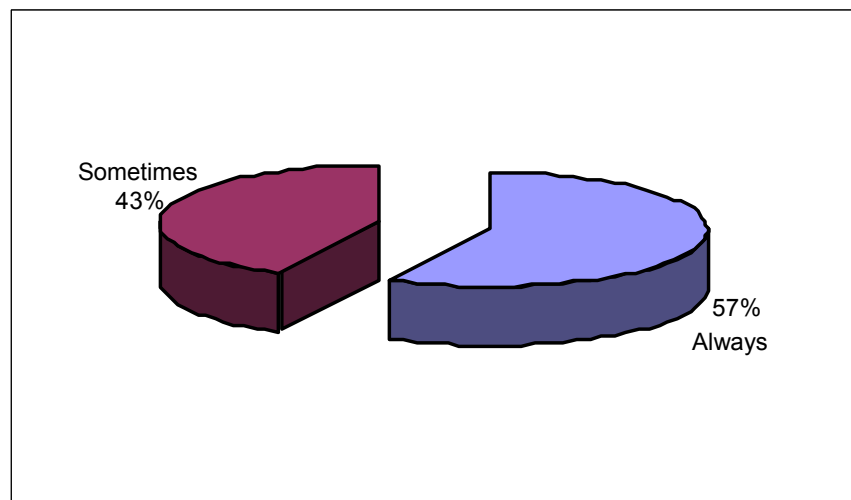


Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

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**Q16: I avoid use of styrofoam**

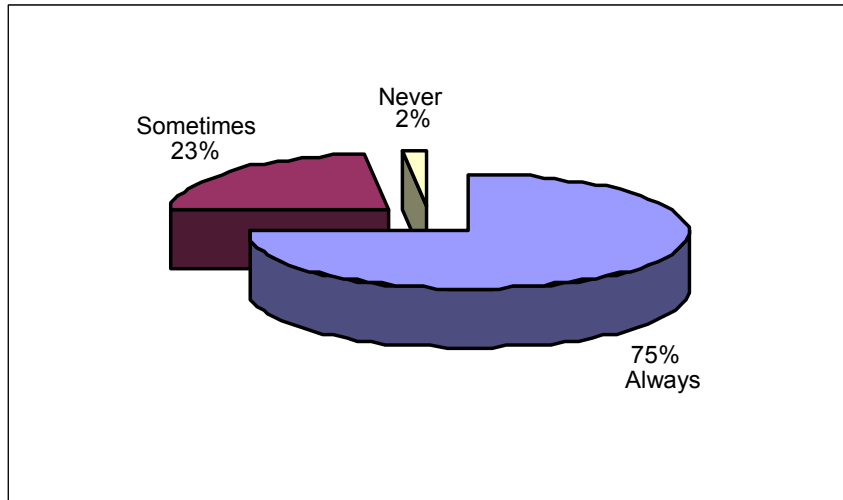


Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=47)

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One recent study found that discarded textiles accounts for close to 6% of total waste, and estimates that New York City alone puts 386 million pounds of these materials into the waste stream every year. Fortunately, a number of organizations distribute discarded clothing around the world to people who need it, enabling them to raise money for charitable organizations.

**Q17: I donate or sell clothes to charities or consignment stores**

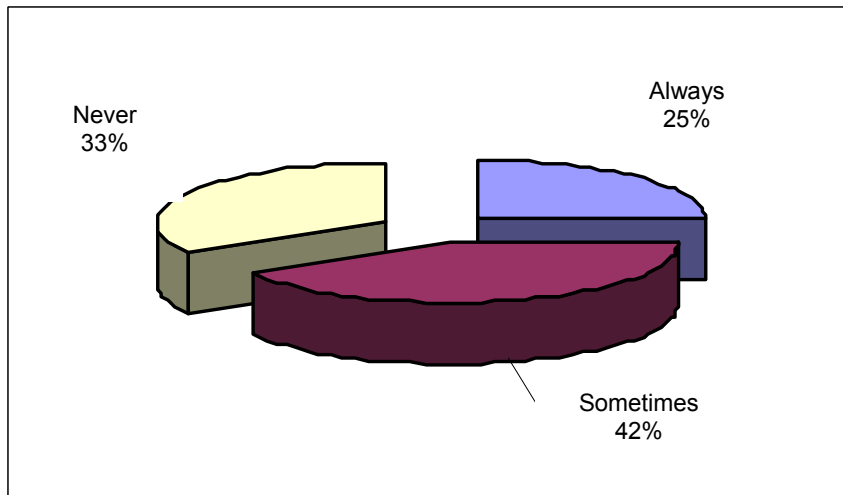


Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

## Section 2: Transportation Energy Waste Reduction

Carpooling reduces the costs involved in repetitive or long distance driving by sharing cars, sharing rental charges, or paying the main car owner. In reducing the number of cars on the road, carpooling decreases pollution and the need for parking space, and in a global perspective, reduces greenhouse gas emissions.

**Q18: I carpool whenever possible**



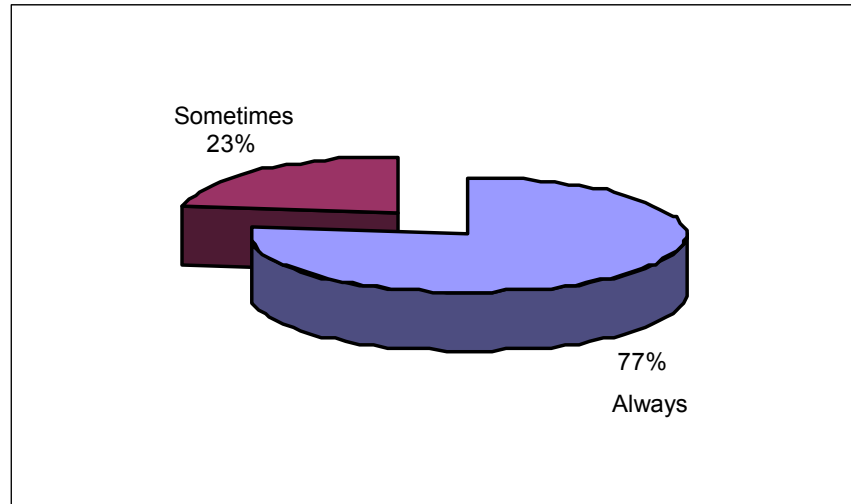
Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

The rule of thumb for idling is, if you know you'll be in a drive-thru or waiting for someone for 10 seconds or longer, turn off your engine. According to the Consumer Energy Center, every two minutes of idling time uses about the same amount of fuel it takes to go one mile. And you never need to let your car sit and idle for five minutes to "warm it up," even in winter; 30 seconds will do just fine.

Dr. Charlotte Gorman, author of *The Frugal Mind* and other titles, recommends the following tips for saving money and reducing your environmental impact: (1) Ask yourself, "is this trip really necessary?" (2) Drive at conservative speeds; (3) Decrease the number of short trips you make; and (4) Make a list of all errands in order of their location before you leave home. (For more tips, go to [thefrugallife.com](http://thefrugallife.com).)

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**Q19: I avoid excessive idling, e.g., "warming up the car"**

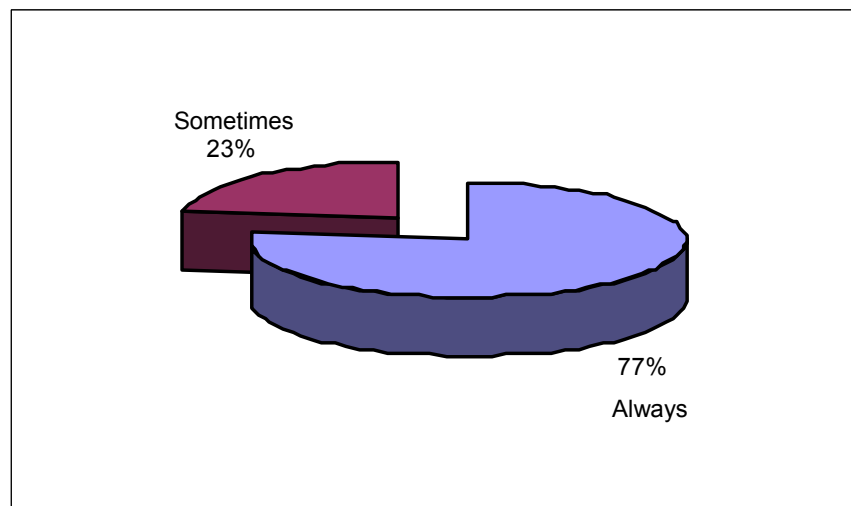


Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

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**Q20: I plan my shopping/errands to minimize the number of trips**



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

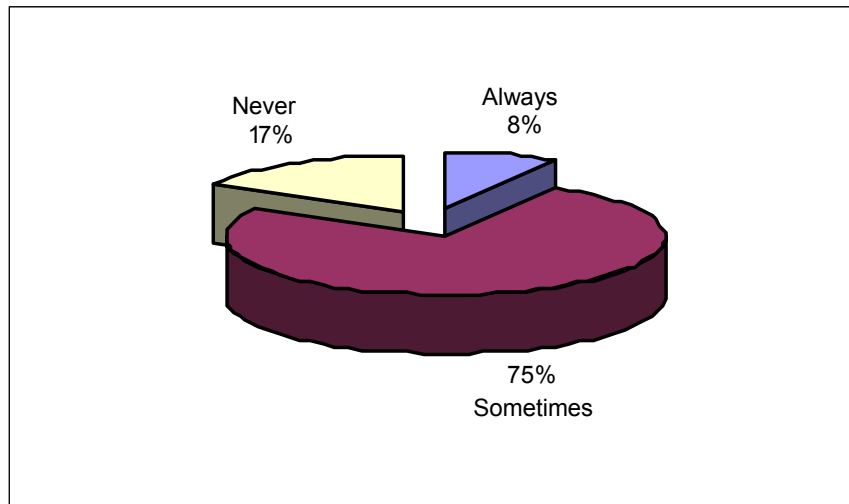
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Fewer people bike per capita in the U.S. than in many other parts of the world, and the U.S. is a leader in petroleum consumption. These factors have led to many negative effects on the environment, such as increased emissions of harmful gases including Carbon Dioxide, Carbon Monoxide, Methane, Nitrous Oxide, Volatile Organic Compounds, Hydrofluorocarbon, Perfluorocarbon, and Sulfur Hexafluoride.

To calculate how much impact your commute is having on the environment, check out the environmental impact calculator at [www.bike-metro.com/calculators/environment.asp](http://www.bike-metro.com/calculators/environment.asp).

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**Q21: I use public transportation where routes are available**

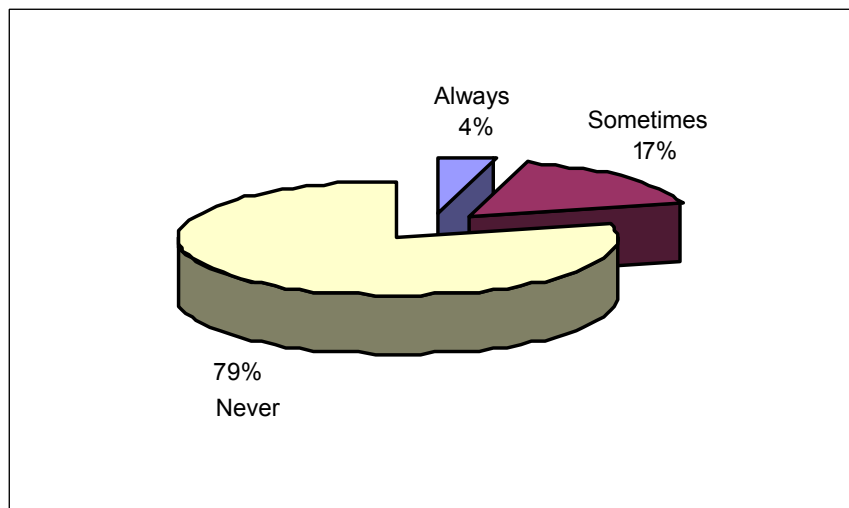


Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

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**Q22: I use my bike for short trips**



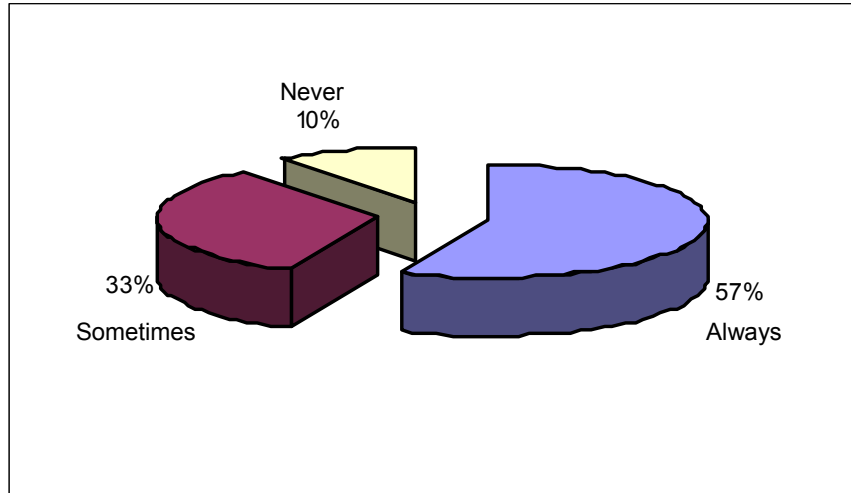
Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

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The fuel efficiency of a car is based on its total properties, including its engine properties, its body drag, weight, and rolling resistance (friction), and may vary substantially from the profile of the engine alone. While the thermal efficiency of petroleum engines has improved in recent decades, this does not necessarily translate into fuel economy of cars, as people in developed countries tend to buy bigger and heavier cars (e.g., SUVs will get less range per unit fuel than an economy car).

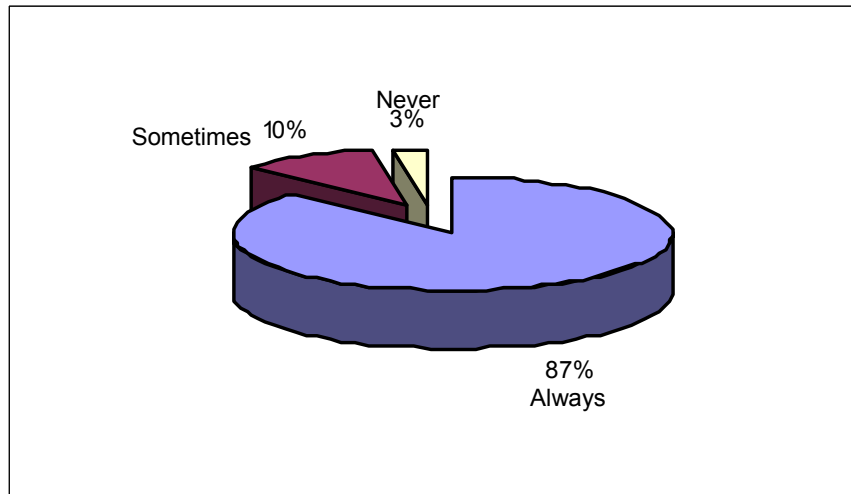
Hybrid vehicle designs use smaller combustion engines as electric generators to produce greater range per unit fuel than directly powering the wheels with an engine would, and proportionally less fuel emissions (CO2 grams) than a conventional vehicle.

**Q23: I walk for short trips and/or park in a central place and walk from store to store**



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

**Q24: I will replace my vehicle with a higher-MPG model when it's time to replace it**

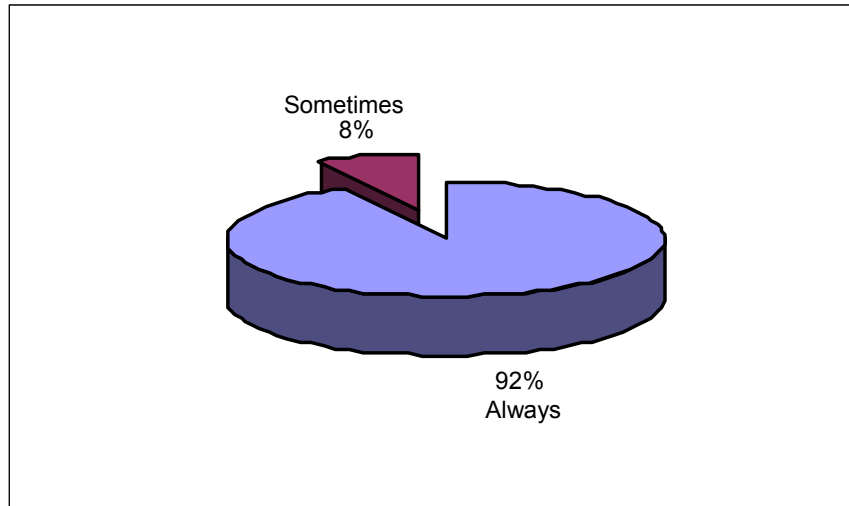


Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=40)

Personal finance guru Suze Orman states that for every degree you lower your thermostat in winter and raise it in summer, you save at least 1% or more on your bills. Install a program-mable thermostat to set specific temperatures for different times of the day. These devices can save you about \$150 a year according to the U.S. EPA. Also, set your water heater at the midrange of 120 degrees; anything hotter and you are wasting energy. ([www.suzeorman.com](http://www.suzeorman.com))

Home energy audits are provided free of charge by National Grid, which may also still be offering 0-3% financing up to \$15,000 for home energy improvement measures like insulating, installing ENERGY STAR replacement windows, and adding high-efficiency heating systems. ([www.cetonline.org](http://www.cetonline.org))

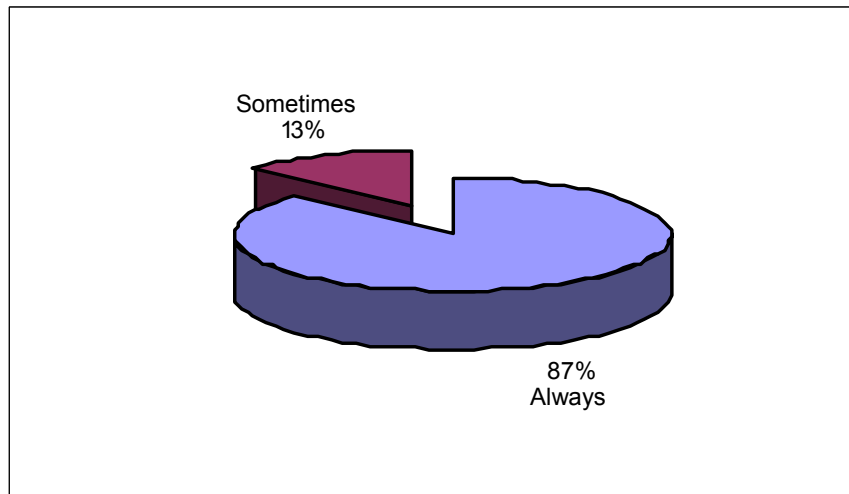
Q25: I will consider hybrid or bio-diesel when it's time to replace my vehicle



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=40)

### Section 3: Energy Waste Reduction

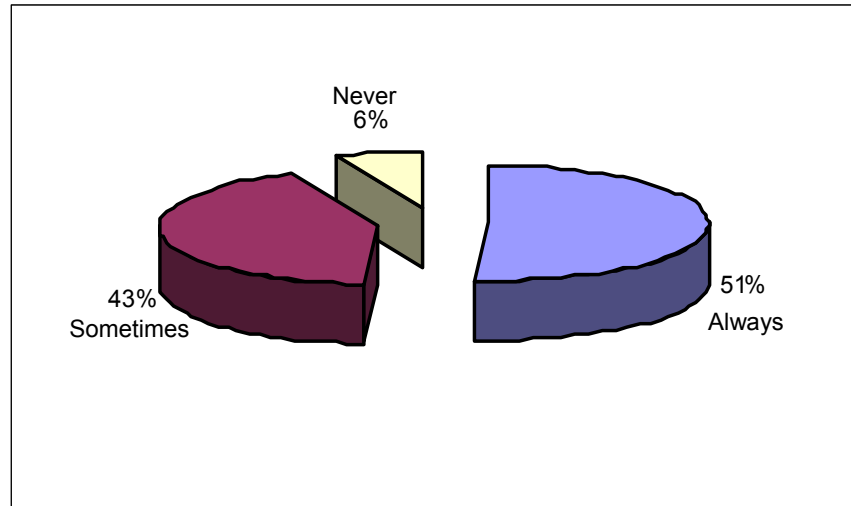
Q28: I set our household Winter thermostat low (65-68) and Summer thermostat high (73-75)



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=47)

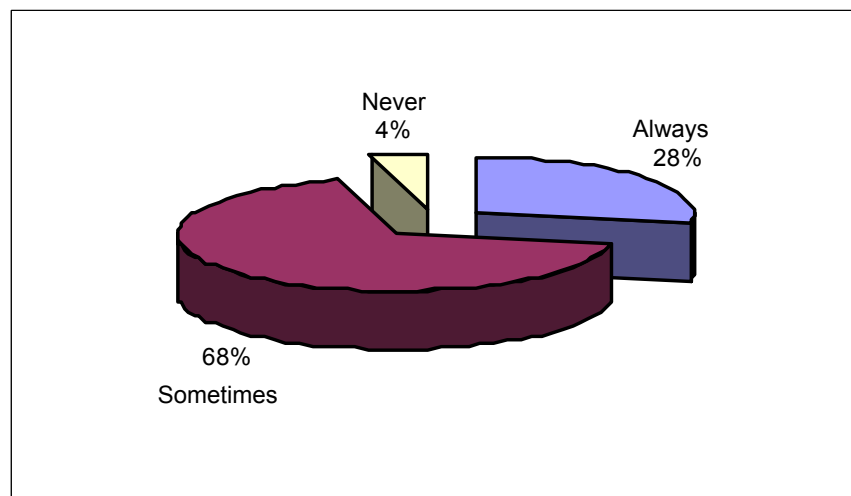
In the United States, a CFL can save over \$30 in electricity costs over the lamp's lifetime compared to an incandescent lamp and save 2000 times their own weight in greenhouse gases. The purchase price of a CFL is higher than that of an incandescent lamp of the same luminous output, but this cost is recovered in energy savings and replacement costs over the bulb's lifetime. [Wikipedia] Like all fluorescent lamps, CFLs contain mercury; please dispose of these bulbs properly.

Q29: I conducted a home energy audit and/or improved my home insulation



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=47)

Q30: I replaced all incandescent light bulbs with fluorescent (except for those on dimmers or motion sensors)



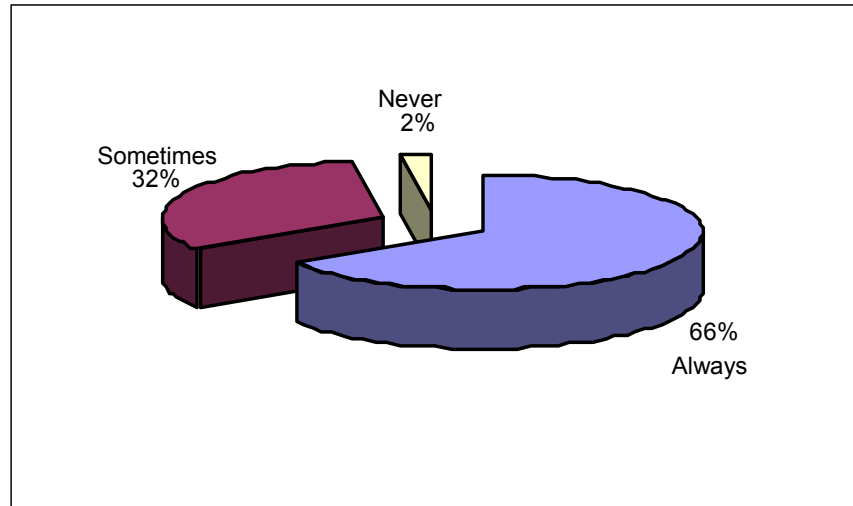
Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=47)

Automatic clothes dryers were once hailed as a miracle of modern house-keeping, according to e-zine The Daily-Green [www.thedailygreen.com] but that convenience came with a price: namely, 6% of total electricity consumed by American homes, according to the federal Energy Information Administration. You also have to pay for all that juice, whereas taking advantage of the sun and breeze is free for all!

Energy Star is a government program to promote energy efficient consumer products. Created in 1992 by the U.S. EPA in an attempt to reduce energy consumption and greenhouse gas emission by power plants, the program has helped spread the use of LED traffic lights, efficient fluorescent lighting, power management systems for office equipment, and low standby energy use.

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**Q31: I turn off lights when not in use**

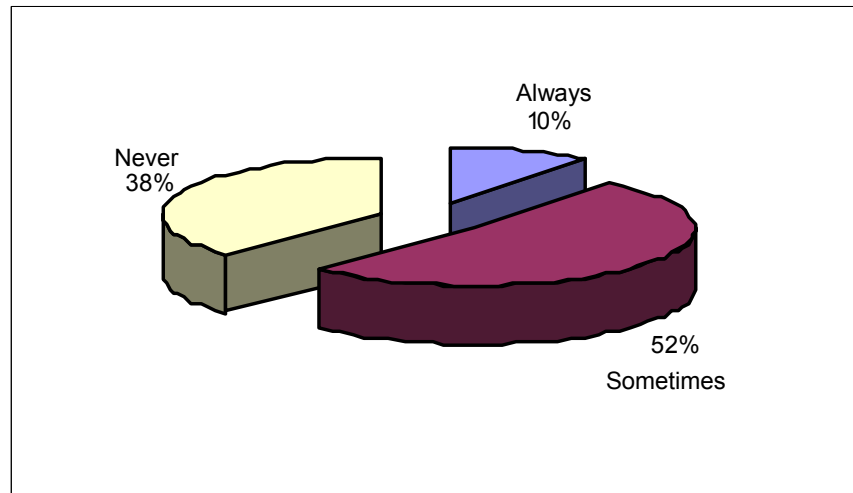


Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=47)

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**Q32: I dry clothes on clotheslines or racks**

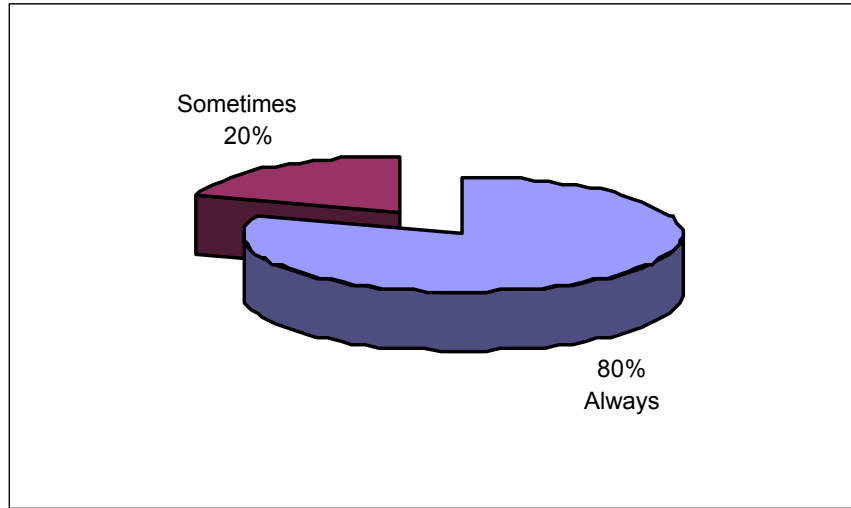


Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

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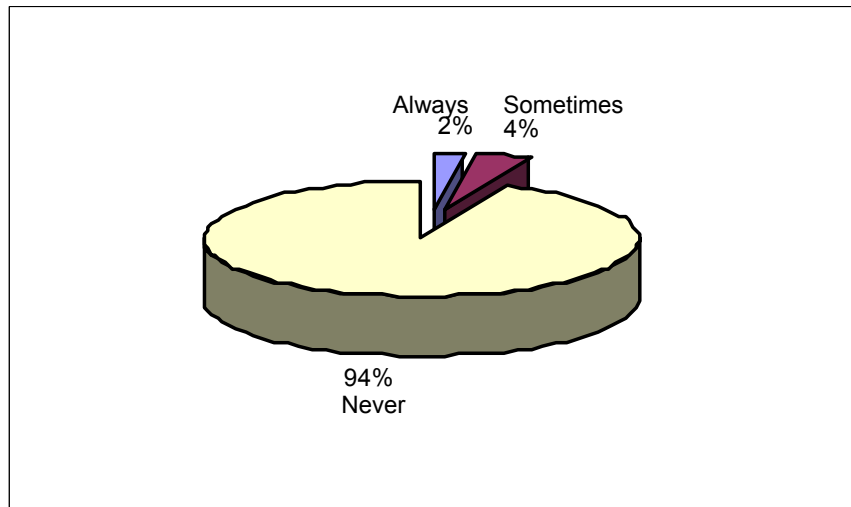
Renewable Energy Certificates (RECs), also known as Green tags, Renewable Energy Credits, or Tradable Renewable Certificates (TRCs), are tradable environmental commodities that represent proof that 1 megawatt-hour (MWh) of electricity was generated from an eligible renewable energy resource. These certificates can be sold and traded and the owner of the REC can claim to have purchased renewable energy. [wikipedia]

Q33: I replace appliances, furnace, water heater, etc. with EnergyStar products, at the end of their useful lives



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=41)

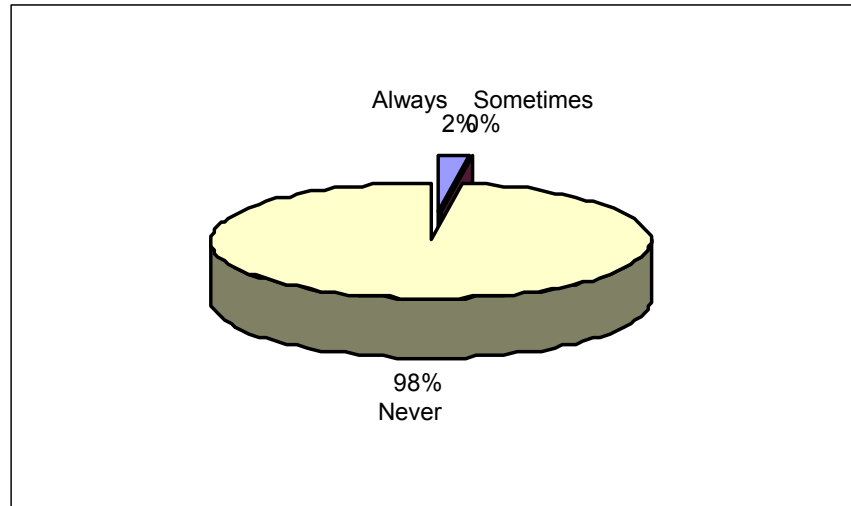
Q34: I buy prepaid energy credits from energy utilities that use wind, solar or other earth-friendly technologies



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

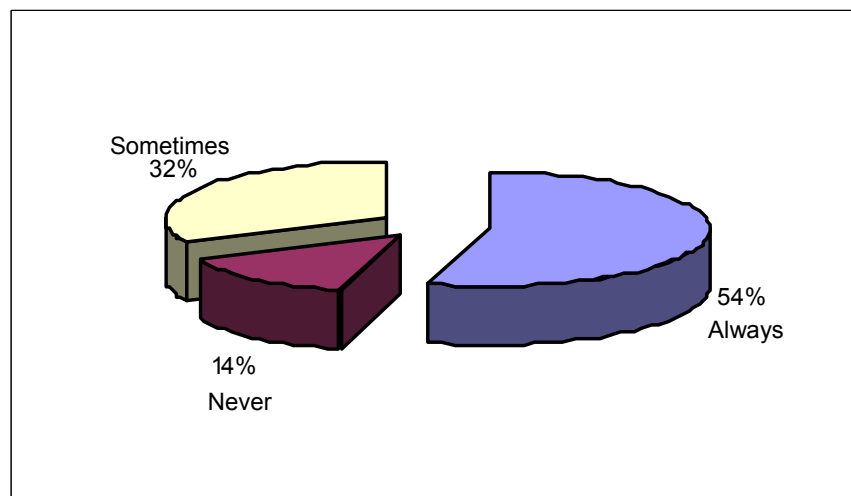
Mass Energy and the Massachusetts Technology Collaborative are two non-profit organizations that seek to make photovoltaics (and other renewable energy resources) affordable.

**Q35: I use solar energy for electric needs**



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=48)

**Q36: I turn off lights and heat in church when I am among the last ones there after a meeting or an event**

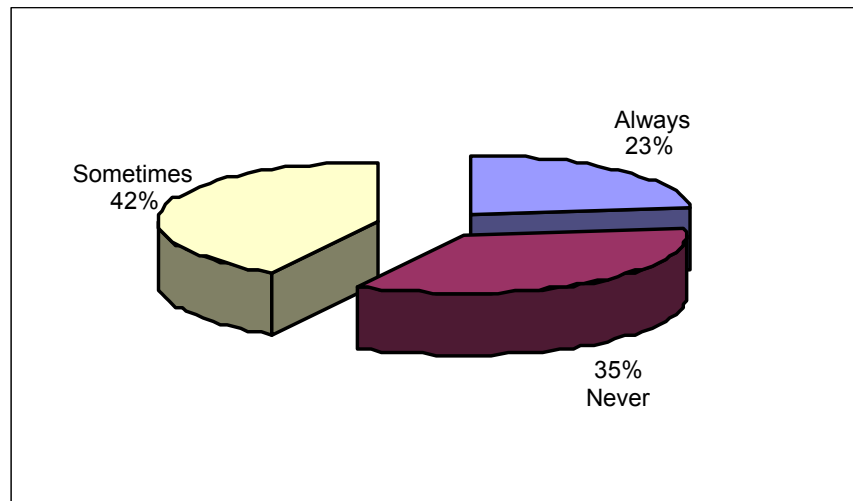


Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=44)

One excellent program for us to consider for mobilizing our efforts as a faith-based community is the Low-Carbon Diet Initiative, which a fun, illustrated CO2-reduction handbook that guides us through a series of 22 action steps to trim our carbon footprints and help others do the same. It's designed to be fun and accessible, with an easy-to-use guide that will show, step-by-step, how to dramatically reduce our CO2 output in just one month.

You can find more information on the Low-Carbon Diet Initiative on the HUUC Green Sanctuary Group Site, as well as postings on upcoming events, useful resources, and tips for greening your world.

Q37: I unplug or turn off the power strip on standby appliances (TV, computer, stereo, recharging units, etc.) when not in use



Source: HUUC Green Sanctuary Survey taken 03/06/08 (n=43)

We hope you find this report interesting and useful as a guideline for reviewing your own Earth-friendly ideas and practices. Please note that this survey is but a first step in the assessment process; we will spend some time in May thinking through Water Conservation, Common Toxins, Food Choices, and a sort of open-ended category called Earth Justice.

In the meantime, we invite you to become a member of the HUUC Green Sanctuary Committee, by visiting our Google Site: [www.groups.google.com/group/huuc-green-sanctuary](http://www.groups.google.com/group/huuc-green-sanctuary). (You can also link to the site from our church Web site, [www.uuharvard.org](http://www.uuharvard.org).)

On behalf of the Green Sanctuary Committee, thank you!

Didi Chadran  
7 April 2008