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# A Campus Waste Reduction Program

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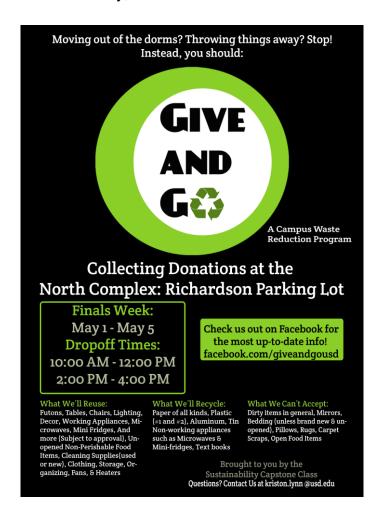
# **A Campus Waste Reduction Program**

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### Why We Need Waste Reduction

According to <u>ChasingGreen.org</u>, "the average college student produces 640 pounds of solid waste each year, most of which accumulates when that student prepares to move out of their dorm or house at the end of term." Furthermore, Tufts University, which is very similar in size to the <u>University of South Dakota</u>, claims there is a significant rise in solid waste generated on campus at the end of the year - nearly one third of the amount of waste left for the *entire year*.

The goal of the Give and Go program is to reduce this waste by creating an easy way for students to donate reusable items that they had planned on throwing away. The program will collect the items and redistribute to them to the community - to outlets like the Habitat for Humanity, Goodwill, the Vermillion Food Pantry, and so on.



### **Policies from Controversial to Necessary**

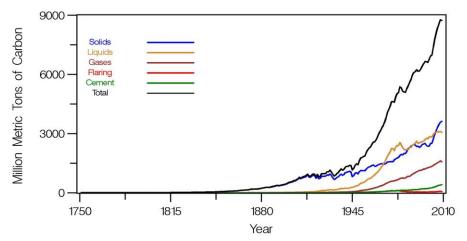
The first and second Industrial Revolution increased the rate of greenhouse emissions due to human activity, especially through manufacturing. It was not until 1945, after WWII ended, that there was a huge increase in the American economy. This led to people being able to afford goods and services, leading companies and manufacturers to increase the rate of packaged goods. These goods have been and still are packaged in plastic material. After purchasing the goods, people would throw the packaging into the trash, leading an eventual disposal in landfills. This is called municipal solid waste. This problem is unnoticeably increasing, and since municipal waste is producing at a constant rate, landfills are being overfilled, and waste is being littered in the open environment.

It was not until 1969 that the U.S. federal government took its first legal action that created the Environmental Protection Agency. This was brought about because of an incident on the Cuyahoga River, OH, where the water caught fire due to the amount of waste being thrown into the river. Not until 1970 was the EPA signed into executive order under President Nixon. The EPA's purpose was to create guidelines and goals to help protect and insure the safety of humans and the environment.

In 1976, the Recovery Act was created to regulate the disposal of solid and hazardous waste. It set the "cradle to grave" effect, where the beginning and end of the waste was monitored.

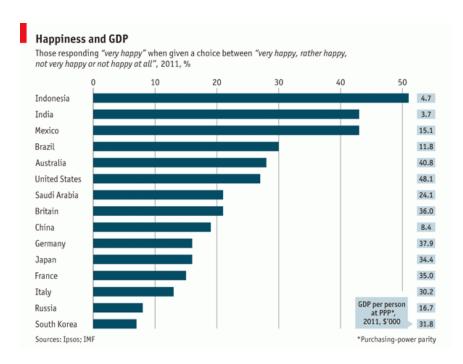
The EPA created policies and regulations to ensure the safety of humans and nature. Recently, they created the Cradle to Cradle program, to help reduce, reuse, and recycle material on the built environment as well as the furnishing category to reduce the rate of municipal solid waste.

#### **Greenhouse Gas Concentrations**



Source: Carbon Dioxide Information Analysis Center, US Department of Energy http://cdiac.ornl.gov/trends/emis/glo.html

## **Social Impacts of Waste**



Accumulation rationalization: "Things make us happy!"

Surveys throughout the world have shown varying correlation between personal wealth and happiness.

"Because we live on a finite planet, defining our success and happiness through how much we consume is not a viable option. Moreover, there is a growing body of evidence that high levels of consumption do not effectively increase human well-being. Materialistic values have been shown to lower satisfaction; the side effects of high-

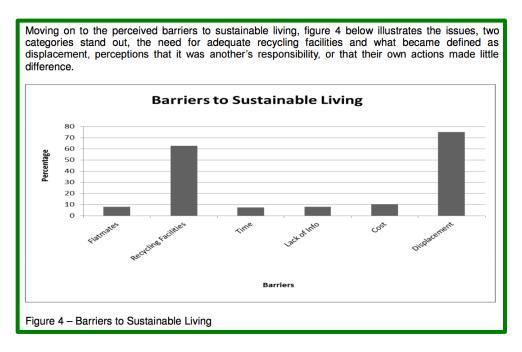


consumption lifestyles such as obesity increase illness; inequitable distribution of resources reduces societal health; and, after a point, wealth plays a shrinking role in contributing to subjective well-being."

- Dr. Eric Assadourian, Transforming Cultures: From Consumerism to Sustainability

### **Further Impacts**

Gareth Chaplin and Paul Wyton studied how a value-action gap works when university students in the UK think about living sustainably. After surveying 400 students, they found they had a desire for more supportive services at their universities, such as recycling facilities and energy networks, in addition to curriculum, that may encourage more sustainable behavior.



Source - Student engagement with sustainability: Understanding the value-action gap, 2014

"To combat 'displacement', it is suggested that educational programmes increase not only understanding of the subject area but also the potential impact an individual can have by adjusting their own behaviours."

- Chaplin and Wyton

Using this study, the University of South Dakota can implement actions that would work to combat displacement, as well as improve the accessibility to recycling and donation bins, which Give and Go has made possible.

### **Environmental Impacts of Waste**

When students move out of a college dorm in the spring, they usually end up with a lot of things that they no longer need or are not able to transport back home with them. As a result, a lot of things are thrown away in dumpsters and just left there by students. Students moving out accumulate a lot of materials from a



college dorm that includes things like futons, tables, chairs, microwaves, and mini fridges among many other things. Everything that these college students throw away during finals week will be sent to a local landfill where it will sit and can cause negative impacts to the environment. Some of the negative environmental impacts that are associated with waste being sent to landfills include air pollution as well as groundwater pollution. Over time, landfills produce air pollution in the form of methane gas. Methane gas is bad for the environment because it is a greenhouse gas and therefore contributes to global warming. Landfills also produce leachate which is liquid toxic waste that is produced from landfills and can leak out of them to contaminate any water sources around them. Every time students throw away all of these things during finals week it helps contribute to the negative environmental impacts that are associated with landfills.

The best case scenario for students at campuses all around the world is for students to embody a zero waste mindset and reuse and recycle everything they can. If the students here at the University of South Dakota start to embody a zero waste mindset and start to reuse and recycle everything they can then it is going to have some positive impacts to the environment. There is a strong need for this Give and Go program to happen at USD and going into the future it can expand into something even bigger and get more people involved. The more people that are involved in this program means that less stuff will be sent to landfills and as a result it will benefit the environment as well as future students.

# Logistics of Give and Go



From left to right: Dawn Abernathy, Josie Flatgard, Meghann Jarchow, Mashaya Thompson, Kriston Lynn, Andrew Phelps, Rebecca Torres. The group presented their research pertaining to the program at an oral session of IdeaFest on April 5.

#### Who

Dawn Abernathy (pictured above) came to USD with the idea to implement a move-out program like other campuses had done across the country. Half of the sustainability capstone class took on the project in the spring semester of 2017.

Volunteers for the program came from the SUST 203 class, as they helped through their community involvement project that required ten hours of service.

To accomplish our goal of reducing the amount of waste toward the landfill, we partnered with:

- Missouri Valley Recycling Center
- Vermillion Food Pantry
- Yankton Homeless Shelter
- Habitat for Humanity
- USD Housing

#### Where

North Complex on the USD campus, north parking lot

#### When

Wednesday, May 3 - Friday, May 5 (finals week)

Two drop-off times a day, 10 a.m. - noon and 2 p.m. - 4 p.m.

#### Being Led By Example: Where To Go From Here

The University of California, Santa Cruz is making strides to reach their zero waste campus goal set to be achieved by 2020. Amongst other efforts, they have introduced a moveout day program. They use labeled "Zero Waste Move Out Stations" in which the items collected are then donated to their partners: Goodwill, H.O.P.E. Services, Second Harvest Food Bank and Homeless Services.



http://www.housing.ucsc.edu/move-out/index.html



The city of Madison, Wisconsin hosts moving days for the entire city since most leases end in August. Downtown drop-off sites and apartment building drop-off sites are held, and a guideline list of items that can be accepted or resold is posted. They also partnered with the Office of Sustainability at the University of Wisconsin, which is something USD should consider doing in the future as the Give and Go program grows.

Source: Wear Red. Think Green. UCSC Blog