

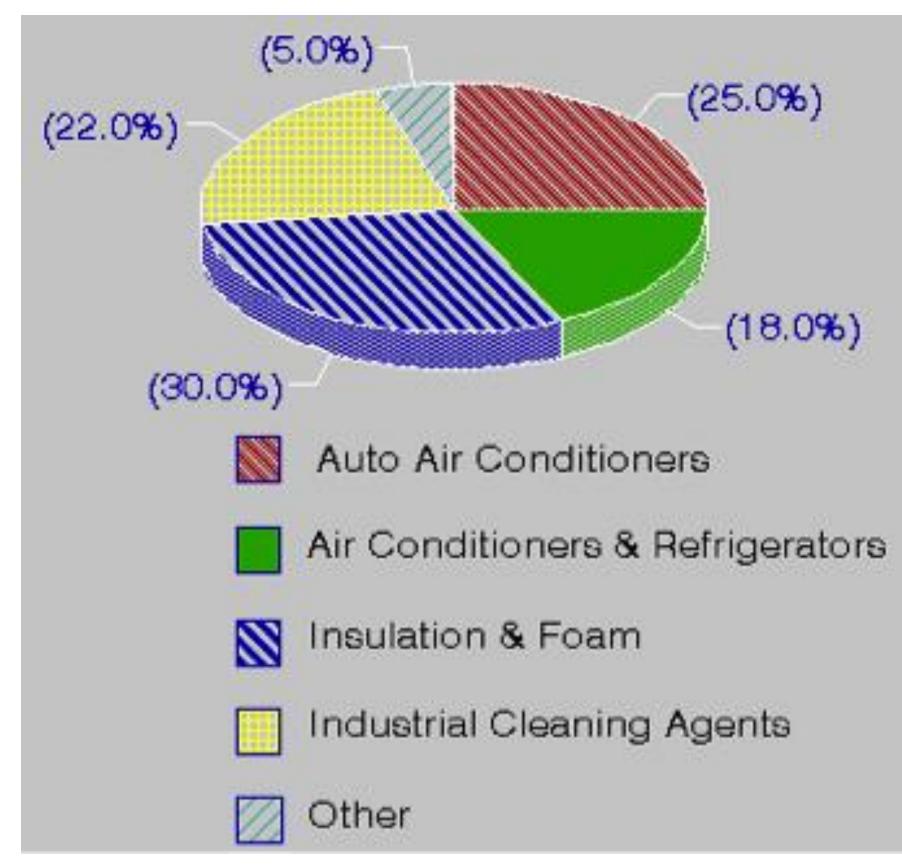
# Girls Gone Green: Reducing Sorority Styrofoam Usage Architectural Studies Student: Sara Turner

SUST 4103: Capstone Project for Sustainability Minor Faculty: Dr. S. Boss and Dr. T. Messadi



### THE PROBLEM

Did you know it takes 500 years for one Styrofoam cup to dissolve? In the 21 weeks of the 2011 fall semester Chi Omega Fraternity's Psi Chapter used approximately 40, 500 pieces of Styrofoam including cups, bowls and plates. That number meant that on average our chapter was using 276 pieces per day. I knew that something had to be done. Components of Styrofoam, such as Ethylene, Styrene, and Benzene, have a very harmful long-term effect on the Earth's environment. Drilling for these components can lead to land erosion, and burning Styrofoam in landfills contributes to our already deteriorating ozone layer.



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# THE PROJECT

- I had three key goals in mind when I set out to begin Styrofoam reduction at Chi Omega's Psi Chapter.
- 1, Inform the chapter as to the detriments of Styrofoam usage.
- 2.Cease the daily use of Styrofoam cups by making them unavailable to the chapter.
- 3. Find and implement an alternative to Styrofoam cups that is more environmentally friendly, but is still within the allotted budget.

The house mother provided me with the numbers that I needed to convince the President, Housing Corps, kitchen staff, and ultimately the entire chapter that something needed to be done. After making an announcement to the entire chapter the plan was created an implemented within four days. From that point on I worked with the kitchen staff weekly, monitoring the amount of Styrofoam that was put out weekly.

#### **GRAPHS**

date	product	company	cases orderd case	count	total pieces ordered p	rice					
MAY							NOVEN	1BER			
5/6/11	cups	Ben E. Keith Co	1 40/25		500	37.68	11/3/1		Со	2 40/25	
5/6/11	•	Ben E. Keith Co	1 4/125		500	35.98		1 bowls US Foods		1 4/125	
5/6/11	plates	Ben E. Keith Co	1 4/125		500	22.98	11/7/1	1 cup US Foods		2 20/25	
5/10/11	cups	Ben E. Keith Co	1 40/25		500	37.68	11/7/1	1 plates US Foods		1 4/125	
		_					11/10/1	•	_	3 20/25	
total	orders p	laced	pieces ordered cost					1 plates Ben E. Keith		1 4/125	
cups	:	2	1000	75.36				v cups Ben E. Keith v cups US Foods	CO	2 40/25 1 20/25	
olates		1	500	22.98				v cups US Foods		1 20/25	
oowls		L	500	35.98			11/29/1	•		2 20/25	
	_						total	orders placed	pieces ordered	cost	
AUGUS <sup>-</sup>							cups	7	•	500	273.37
8/25/11	•	Ben E. Keith Co	2 4/125			.80 @ 29.90	plates	2		000	84.22
8/25/11	cups	Ben E. Keith Co	2 40/25	ct	2000 75	.36 @ 37.68	bowls	1		500	29.82
total	orders p	laced	pieces ordered cost								
cups		1	2000	75.36			DECEM	BER			
olates		L	1000	59.8			12/1/1			1 20/25	
							12/5/1	•		2 20/25	
CEDTEN	DED						12/6/1	1 plates US Foods		1 4/125	
SEPTEM			4 20/25		500	42.20	12/8/1	•		2 20/25	
9/2/11		US Foods	1 20/25		500	12.29	12/12/1	-		2 20/25	
9/2/11	plates	US Foods US Foods	1 4/125 2 20/25		500 1000 24	54.32 .58 @ 12.29		1 bowls US Foods		1 4/125	
	plates	US Foods	1 4/125		500	54.32	12/14/1	1 cups US Foods		1 20/25	
9/9/11	•	US Foods	2 20/25			.58 @ 12.29	total	andone placed	niosos audauad	2024	
9/13/11	•	Ben E. Keith Co	1 40/25		1000	37.68	total	orders placed	pieces ordered	cost	00.22
12-Sep	cups	US Foods	1 20/25		500	12.29	cups	5 1		000 500	98.32 54.32
15-Sep	•	US Foods	1 20/25		500	12.29	plates bowls	1		500	29.82
16-Sep		US Foods	1 20/25		500	12.29	DOWIS	•	•	300	25.02
	plates	US Foods	1 4/125		500	54.32					
20-Sep		US Foods Ben E. Keith Co	1 20/25 1 40/25		500 1000	12.29 37.68					
21-Sep 25-Sep		Ben E. Keith Co	1 40/25		1000	37.68					
26-Sep		US Foods	1 20/25		500	12.29	SUMM	ARY			
9/28/11		Ben E. Keith Co	1 40/25		1000	37.68	total	orders placed	pieces ordered	cost	
9/29/11	cups	US Foods	1 20/25		500	12.29	totai	orders placed	pieces ordered	COSC	
total	orders p	laced	pieces ordered cost				cups	35	330		980.38
cups	13		9500	285.91			plates	10		500	524.26
olates		3	1500	162.96			bowls	3		000	89.46
								48	405	00	1594.1
ОСТОВЕ	R										
10/26/11	•	Ben E. Keith Co	2 40/25			.36 @ 37.68	Per Pers	on356 members	pieces orderd	cost	
10/3/11	•	US Foods	1 4/125		500	54.32	cups	on 330 members	92.69		2.75
10/3/11		US Foods	2 20/25			.58 @ 12.29	plates		15.44		1.47
10/5/11		US Foods	2 20/25			.58 @ 12.29	bowls			.62	0.25
10/10/11 10/13/11		US Foods US Foods	2 20/25 2 20/25			.58 @ 12.29 .58 @ 12.29			113.7	66	4.47
10/13/11		US Foods	1 20/25		500	12.29					
10/18/11		US Foods	1 4/125		500	54.32	Per We	ek Fall 201021 Weel	ks pieces used	cost	
10/20/11		US Foods	2 20/25			.58 @ 12.29	cups		1571		46.68
10/24/11	cups	US Foods	1 20/25		500	12.29	plates			51.9	24.96
10/27/11		US Foods	1 4/125		500	29.82	bowls		95.2		4.26
10/27/11 10/31/11	-	US Foods US Foods	1 4/125 2 20/25		500 1000 24	54.32 .58 @ 12.29			1928.5		75.9
_	·				1000 24		Per Nav	Fall 2010	pieces used	cost	
total	orders p	laced	pieces ordered cost				cups	2010	pieces useu 224		6.66857
cups	9	9	9000	247.42			plates			. <del></del> 7.4	3.5657
olates	:	3	1500	162.96			bowls			.3.6	0.60857
oowls		1	500	29.82					275.4	49	10.84

## THE OUTCOME

Getting rid of Styrofoam for a chapter of 352 girls took some adjusting. While the plan was adopted very quickly by the staff and executive boards of the house, it still took the girls a little convincing. Many times a day I heard girls complaining about not having a cup to get coffee, or not having a cup so that they could take their drink to class.

I made a point to contact Jere Clune, the Senior Vice President of Sales and Marketing for the company Ultra Green. The company specializes in biodegradable paper products that are not only recyclable, but can be used as compost as well. After several phone calls and emails I realized that it was not possible to switch to such a product without drastically increasing the budget allotted for kitchen supplies.

The first 2 weeks there was absolutely no Styrofoam put out at all. This was very good news for the environment, but not for the kitchen staff. No one was there to clean the dishes all weekend so several girls that lived in the house ended up having to clean it themselves, which is against Housing Corps policy due to the fact that using the kitchen equipment without proper training is an insurance liability. The house mother, kitchen staff, and President came to the consensus that Styrofoam would only be available on the weekends to ease the responsibility of the kitchen staff.

1000 24.58 @ 12.29

Although my plan to completely rid Chi Omega of Styrofoam was not possible, I know that a tremendous standard was set that will impact not only the current members, but future members as well.

## SUSTAINABILITY

This project obviously relates to sustainability on many levels. It is first and most importantly connected to the sustainability domain concerning Social Systems. I believe that using Styrofoam is a cultural issue. Americans are all about things being done quickly and easily, with as little effort as possible on their behalf. Styrofoam fuels that mentality because it's something we don't have to think about. We use it, and throw it away, never considering the long term impacts of our choices.

This type of project has the potential to spark campus-wide involvement. Imagine having all Greek Life at the University of Arkansas working toward a common goal of eliminating, or reducing Styrofoam usage. Imagining the difference that could be made just by our university is overwhelming. Reducing Styrofoam usage at the University of Arkansas has so many inherent benefits for students. Money saved by not purchasing Styrofoam could be put towards other campus projects and activities for students. Finances aren't the only thing that will be affected by the reduction of Styrofoam.

Evaluating the long term effects shows that we can reduce emissions that are eating away at our ozone layer. While we can't stop the damage that has already been done, we can certainly do our part to prevent more from happening. I strongly believe that if students are made aware of the actual numbers when it comes to Styrofoam usage they will make a conscious effort to do their part in taking care of our environment and planet, and will being making more environmentally sustainable choices.



Above: Chi Omega Fraternity, Psi Chapter Below: Psi Chapter President, Kelly Lamb

