

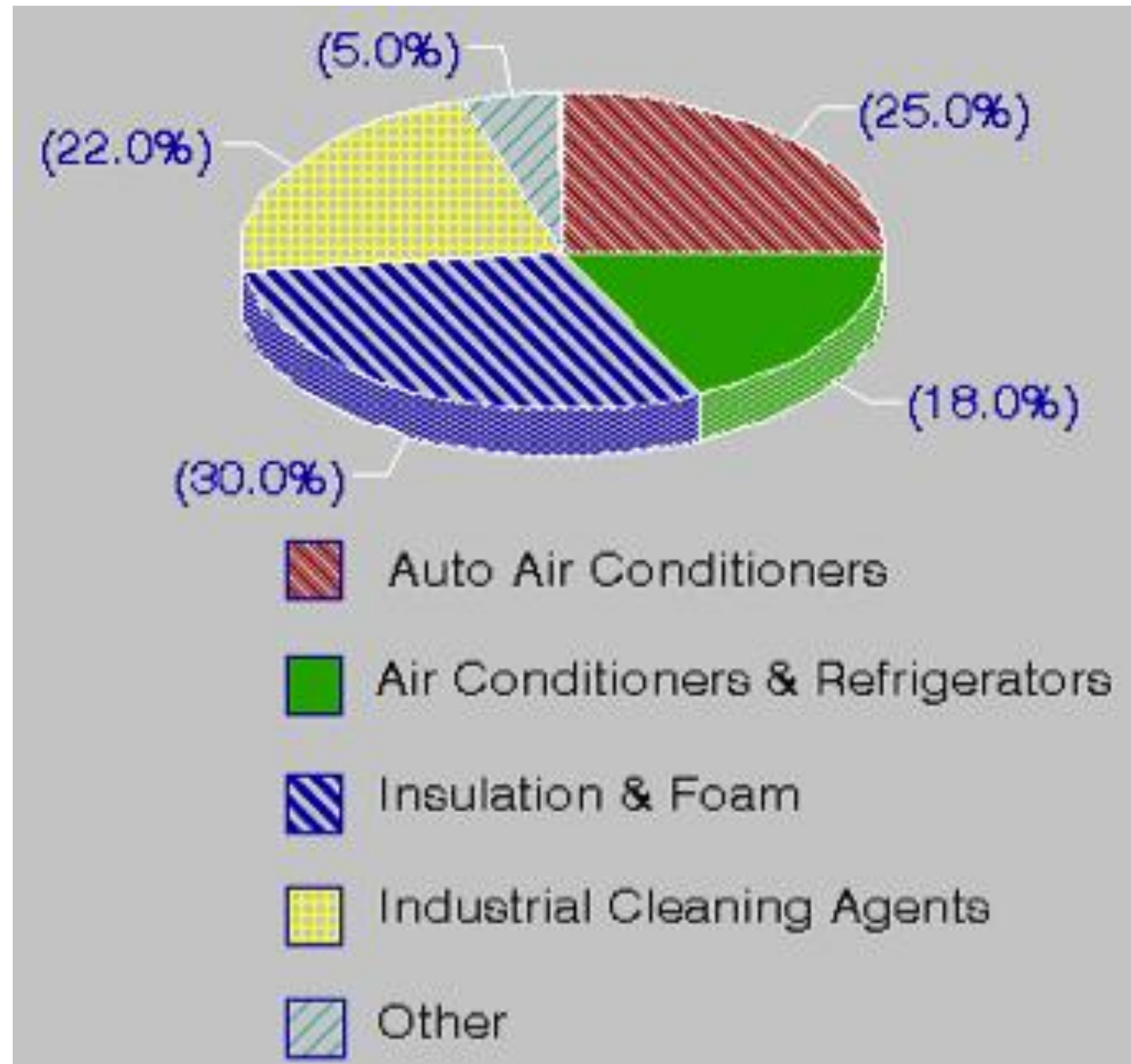
# Girls Gone Green: Reducing Sorority Styrofoam Usage

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SUST 4103: Capstone Project for Sustainability Minor  
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## 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 and 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	price
<b>MAY</b>						
5/6/11	cups	Ben E. Keith Co		1 40/25	500	37.68
5/6/11	bowls	Ben E. Keith Co		1 4/125	500	35.98
5/6/11	plates	Ben E. Keith Co		1 4/125	500	22.98
5/10/11	cups	Ben E. Keith Co		1 40/25	500	37.68

total	orders placed	pieces ordered	cost
cups	2	1000	75.36
plates	1	500	22.98
bowls	1	500	35.98

8/25/11	plates	Ben E. Keith Co	2 4/125 ct	1000	59.80 @ 29.90
8/25/11	cups	Ben E. Keith Co	2 40/25 ct	2000	75.36 @ 37.68

total	orders placed	pieces ordered	cost
cups	1	2000	75.36
plates	1	1000	59.8

<b>SEPTEMBER</b>						
9/2/11	cups	US Foods	1 20/25	500	12.29	
9/2/11	plates	US Foods	1 4/125	500	54.32	
9/6/11	cups	US Foods	2 20/25	1000	24.58 @ 12.29	
9/6/11	plates	US Foods	1 4/125	500	54.32	
9/9/11	cups	US Foods	2 20/25	1000	24.58 @ 12.29	
9/13/11	cups	Ben E. Keith Co	1 40/25	1000	37.68	
12-Sep	cups	US Foods	1 20/25	500	12.29	
15-Sep	cups	US Foods	1 20/25	500	12.29	
16-Sep	cups	US Foods	1 20/25	500	12.29	
16-Sep	plates	US Foods	1 4/125	500	54.32	
20-Sep	cups	US Foods	1 20/25	500	12.29	
21-Sep	cups	Ben E. Keith Co	1 40/25	1000	37.68	
25-Sep	cups	Ben E. Keith Co	1 40/25	1000	37.68	
26-Sep	cups	US Foods	1 20/25	500	12.29	
9/28/11	cups	Ben E. Keith Co	1 40/25	1000	37.68	
9/29/11	cups	US Foods	1 20/25	500	12.29	

total	orders placed	pieces ordered	cost
cups	13	9500	285.91
plates	3	1500	162.96

<b>OCTOBER</b>						
10/26/11	cups	Ben E. Keith Co	2 40/25	2000	75.36 @ 37.68	
10/3/11	plates	US Foods	1 4/125	500	54.32	
10/3/11	cups	US Foods	2 20/25	1000	24.58 @ 12.29	
10/5/11	cups	US Foods	2 20/25	1000	24.58 @ 12.29	
10/10/11	cups	US Foods	2 20/25	1000	24.58 @ 12.29	
10/13/11	cups	US Foods	2 20/25	1000	24.58 @ 12.29	
10/18/11	cups	US Foods	1 20/25	500	12.29	
10/18/11	plates	US Foods	1 4/125	500	54.32	
10/20/11	cups	US Foods	2 20/25	1000	24.58 @ 12.29	
10/24/11	cups	US Foods	1 20/25	500	12.29	
10/27/11	bowls	US Foods	1 4/125	500	29.82	
10/27/11	plates	US Foods	1 4/125	500	54.32	
10/31/11	cups	US Foods	2 20/25	1000	24.58 @ 12.29	

total	orders placed	pieces ordered	cost
cups	9	9000	247.42
plates	3	1500	162.96
bowls	1	500	29.82

<b>NOVEMBER</b>						
11/3/11	cups	Ben E. Keith Co	2 40/25	2000	81.38 @ 40.69	
11/7/11	bowls	US Foods	1 4/125	500	29.82 x	
11/7/11	cup	US Foods	2 20/25	1000	24.58 @ 12.29	x
11/7/11	plates	US Foods	1 4/125	500	54.32 x	
11/10/11	cups	US Foods	3 20/25	1500	36.87 @ 12.29	x
11/15/11	plates	Ben E. Keith Co	1 4/125	500	29.9 x	
15-Nov	cups	Ben E. Keith Co	2 40/25	2000	81.38 @ 40.69	x
17-Nov	cups	US Foods	1 20/25	500	12.29 x	
21-Nov	cups	US Foods	1 20/25	500	12.29 x	
11/29/11	cups	US Foods	2 20/25	1000	24.58 @ 12.29	x

total	orders placed	pieces ordered	cost
cups	7	8500	273.37
plates	2	1000	84.22
bowls	1	500	29.82

<b>DECEMBER</b>						
12/1/11	cups	US Foods	1 20/25	500	12.29	
12/5/11	cups	US Foods	2 20/25	1000	24.58 @ 12.29	x
12/6/11	plates	US Foods	1 4/125	500	54.32 x	
12/8/11	cups	US Foods	2 20/25	1000	24.58 @ 12.29	x
12/12/11	cups	US Foods	2 20/25	1000	24.58 @ 12.29	x
12/12/11	bowls	US Foods	1 4/125	500	29.82 x	
12/14/11	cups	US Foods	1 20/25	500	12.29 x	

total	orders placed	pieces ordered	cost
cups	5	4000	98.32
plates	1	500	54.32
bowls	1	500	29.82

<b>SUMMARY</b>						
total	orders placed	pieces ordered	cost			
cups	35	33000	980.38			
plates	10	5500	524.26			
bowls	3	2000	89.46			
	<b>48</b>	<b>40500</b>	<b>1594.1</b>			

Per Person--356 members	pieces orderd	cost
cups	92.6966	2.75
plates	15.4494	1.47
bowls	5.62	0.25
	<b>113.766</b>	<b>4.47</b>

Per Week Fall 2010--21 Weeks	pieces used	cost
cups	1571.43	46.68
plates	261.9	24.96
bowls	95.238	4.26
	<b>1928.568</b>	<b>75.9</b>

Per Day Fall 2010	pieces used	cost
cups	224.49	6.66857
plates	37.4	3.5657
bowls	13.6	0.60857
	<b>275.49</b>	<b>10.84</b>

## 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 be making more environmentally sustainable choices.



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

