

**Food System and Food Management at  
The University of Cincinnati  
White Paper I  
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"The goal of education is to make people wiser, more knowledgeable, better informed, ethical, responsible, critical, and capable of continuing to learn" UNESCO.

**Abstract**

This paper is part of the "Cincinnati Food Congress" Project of the University of Cincinnati Community Design Center started in 2004. The research activity described in this paper was the outgrowth of the academic studio research and design work of the University of Cincinnati Niehoff Urban Studio of 2002-04 and the subsequent first stage of a greater Cincinnati food system assessment by the University of Cincinnati Community Design Center in 2005-06. This previous work of the Cincinnati Food Congress aimed to explore and comprehend the food system of the University of Cincinnati. This paper outlines the findings of the second stage of research work concerning the place of the University of Cincinnati, as an institution within the Cincinnati food system. The University of Cincinnati, as a major institution, and the region's largest employer, is an important part of the local food system in terms of the amount of food purchased as well as the waste produced, this paper seeks to examine food management practices within the university and all the elements related to its internal food system.

This research looks at the functioning of UC's dining services and the conservation programs provided to diminish its environmental footprint. Also, the research analyzes the University of Cincinnati in terms of food management performance, compares UC's dining services to some other universities' dining programs, and explores some strategies for improvement of the food system in higher education institutions.

Some of the preliminary conclusions of this research include: (1) the end of the contract period with ARAMARK in 2010 could be an opportunity for dining services at the University of

Cincinnati to improve the food system as a whole by demanding more environmentally oriented programs and making food management more efficient in terms of reducing the environmental footprint; (2) some studies and universities across the country have shown that self-management dining services are more effective than contracted ones; this could be considered a long-term goal for the University of Cincinnati administration; (3) due to the organization of colleges into disciplines, it is difficult to incorporate all of the students into environmental courses and research projects. As such, an important environmental stewardship for the University of Cincinnati would be to create a Sustainable Environmental Department or authority that could coordinate all the efforts and initiatives that would allow dining services and other departments to enhance their actions and strengthen their environmental responsibility; (4) the University of Cincinnati, in comparison with other universities in terms of dining and food waste management, seems to be a low-performer in diminishing the footprint and the environmental impact of its food system; (5) education is a key factor for the improvement of the University's food system and more education program related to food should be provided in order to achieve a favorable positive change in the system.

Last but not least, this research has shown that the institutional food system is a subject that needs to be addressed and studied more deeply. There are multiple opportunities for future improvement in this area.

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## 1. Appendixes

### Appendix 1

Quarter	Week Ending	Breakfast	Lunch	Dinner	Miscellaneous	Total
Summer						
07	22-Jun-07	857	1,022	1,564	930	4,373
	29-Jun-07	1,176	2,832	3,793	845	8,646
	6-Jul-07	1,330	2,354	1,919	593	6,196
	13-Jul-07	1,040	2,483	3,171	580	7,274
	20-Jul-07	1,391	2,376	2,847	656	7,270
	27-Jul-07	669	2,022	2,101	558	5,350
	3-Aug-07	475	1,435	1,830	599	4,339
	10-Aug-07	448	1,544	1,575	584	4,151
	17-Aug-07	305	1,179	1,011	662	3,157
	24-Aug-07	460	882	528	527	2,397
	31-Aug-07	371	1,231	1,110	545	3,257
	7-Sep-07	94	693	293	500	1,580
Total		8,616	20,053	21,742	7,579	57,990

Fall 07	14-Sep-07	252	18	299	575	1,144	
	21-Sep-07	3,546	7,577	6,628	1,105	18,856	
	28-Sep-07	4,317	12,210	10,519	868	27,914	
	5-Oct-07	4,422	11,461	10,706	869	27,458	
	12-Oct-07	4,534	11,430	11,226	571	27,761	
	19-Oct-07	4,255	11,885	11,104	1,000	28,244	
	26-Oct-07	4,529	11,325	11,363	830	28,047	
	2-Nov-07	4,393	11,169	11,559	799	27,920	
	9-Nov-07	4,529	12,061	12,619	827	30,036	
	16-Nov-07	3,603	10,793	11,150	876	26,422	
	23-Nov-07	3,511	10,454	10,208	761	24,934	
	30-Nov-07	2,820	7,011	9,863	656	20,350	
	7-Dec-07	4,462	12,874	16,159	719	34,214	
	14-Dec-07	1,168	2,877	1,988	477	6,510	
Total		50,341	133,145	135,391	10,933	329,810	
Winter 08	11-Jan-08	2,960	6,322	6,551	32	15,865	
	18-Jan-08	4,589	11,189	13,013	329	29,120	
	25-Jan-08	3,732	9,147	10,826	257	23,962	
	1-Feb-08	4,658	10,795	13,520	792	29,765	
	8-Feb-08	4,539	10,640	13,309	679	29,167	
	15-Feb-08	4,574	10,713	13,554	699	29,540	
	22-Feb-08	4,358	10,516	12,836	989	28,699	
	29-Feb-08	4,530	10,420	13,255	487	28,692	
	7-Mar-08	4,741	11,219	13,977	930	30,867	
	14-Mar-08	4,464	10,714	14,133	829	30,140	
	21-Mar-08	4,065	10,734	14,108	756	29,663	
	28-Mar-08	788	1,667	1,165	360	3,980	
	Total		47,998	114,076	140,247	7,139	309,460
Spring 08	4-Apr-08	2,800	5,895	6,781	487	15,963	
	11-Apr-08	4,640	10,730	12,558	795	28,723	
	18-Apr-08	4,480	10,577	12,885	714	28,656	
	25-Apr-08	4,635	10,573	13,391	619	29,218	
	2-May-08	4,615	10,811	13,561	505	29,492	
	9-May-08	4,580	10,570	13,129	623	28,902	
	16-May-08	4,335	9,915	12,408	502	27,160	
	Total		30,085	69,071	84,713	4,245	188,114

## Appendix 2

### Appendix 3

To see policies and details look at [http://www.ehs.uc.edu/Advisories/Advisory\\_7\\_2.PDF](http://www.ehs.uc.edu/Advisories/Advisory_7_2.PDF)

ADVISORY NO. 7.2: WASTE REDUCTION

**HAZARDOUS WASTE DISPOSAL CAN BE MINIMIZED BY THE FOLLOWING:**

**Planning experiments** - the planning of every experiment should include consideration of the disposal of leftover starting chemicals and of the products and byproducts that will be generated. Elements to consider are:

- Recovery and reuse of material.
- Acquisition of chemicals only in quantities needed.
- Replacing a hazardous reagent with one that is less hazardous (see Appendix 7.2A).

**Reduction of the scale of experiments** - the use of microtechnology in the study of chemical reactions can lead to significant savings in cost of chemicals, energy, apparatus and space. Such technology makes it possible to optimize on a small scale the conditions for a reaction that is to be carried out on a preparatory scale so that the latter gives a high yield with minimal byproducts. It is now technically feasible to run many reactions with much smaller quantities of chemicals than were needed 25 years ago. Some of the technical advances that have made this possible are:

- Fast microprocessor-based, top loading balances that are sensitive to 0.1 mg.
  - Chromatographic techniques that can clean, separate, and purify milligram quantities of substances.
  - Sensitive spectrometers that can analyze milligram and microgram quantities of substances.
  - Micro-scale glassware for handling reagents and reaction products.
  - Flow and transfer systems based on small internal diameter metal and plastic tubing that make it possible to study flow-type reactions, catalysts and multi-step reactions on a very small scale, even under pressure.
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## Appendix 4

See Environmental Policy <http://www.eh.uc.edu/epc/#Home>

## Appendix 5

## Appendix 6

The questions asked to some of the people interviewed in this research were:

1. Which proportion of the Dining Services budget is invested on food?

2. How many meals are being served during the year? How many tons?
3. How many tons of food is bought, cooked, consumed and waste? Per month/year
4. Is there any statistical information or historical data regarding consumption and disposal of food and packaging? Do you have any data about the energy we are consuming bringing food to campus and taking the waste away? How much it costs?
5. What types of food are we eating and proportions: processed vs. organic, meat vs. vegetables?
6. How is food waste disposed? Tons per month/year?
7. What are the wastes generated by a process, experiment or treatment
8. Is there a food security management process? Explain
9. Do we donate or sell food waste? If so, to whom?
10. Are there any food scrap management alternatives being explored?
11. Is there any effort to divert food packaging for recycling purposes?
12. Do we have any procedure to separate food waste in dining courts? Meat scraps from other types of food waste?
13. Are we composting right now? If is not, why?

#### *Management*

14. Explain the benefits in terms of food pre-consumer and waste reduction with the implementation of the dining court (different menus stations and all you can eat concept) compare to the one line (tons reduced).
15. Explain management and functions of Dinning Services and Aramark.
16. Where is the food we receive at the University of Cincinnati distributed from (city, state)?
17. Where are the producers located? Major producers.
18. What are the food processors (any and all intermediate steps between production and distribution)?
19. What is the mode of transportation for the products between each of these locations?
20. Do the producers you buy from change with the seasons?
21. Does any of your produce come from local farms (in the OKI region or Midwest)?
22. Have you considered farm to college or composting initiatives?
23. What kinds of packaging do you use to distribute goods?
24. Talk about student organizations and Food Focus Committee.